

COMMUNITY FORESTRY AND STAKEHOLDERS' PARTICIPATION IN SUSTAINABLE DEVELOPMENT

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FOREST CONSERVATION SUPPORT COMMUNICATION (FCSC) FOR COMMUNITY FORESTRY DEVELOPMENT IN SOUTH WESTERN NIGERIA

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Abstract

The paper reports the prospect of both the institutional structure and personnel capabilities of government agencies responsible for rural development at impacting Forest Conservation Support Communication (FCSC) on the inhabitants of three conservation areas – Old Oyo National Park and Oluwa and Shasha forest reserves in southwestern Nigeria. The study was carried out with the aid of structured questionnaires administered on the agricultural extension and forestry personnel of the states under which the conservation areas fall. The study reveals that 51.9% of the extension personnel in southwestern Nigeria are holders of university degrees/higher diplomas and 32.6% of them had put in more than 15 years of cognate service. However, only 2.8% of them claim to be forest extension workers. Apart from Oyo State where each personnel was in contact with more than 100 Farmers/month, others make contact with between 20 and 100/month. The study also reveals that although the communication capabilities of change agents were not in doubt, their knowledge of forestry as well as their agencies' capabilities were near-nil. It is therefore recommended that a separate unit for forestry extension need be created in each of the states under study.

Introduction

Before now, development was characterized by farmers and communities in rural Africa being told what to do, often by institutions that were not privy to their real needs. Wang and Disanayake (1984) also saw the development paradigm before the late 1980s as authoritarian. This resulted in development drive then being poor because rural people did not feel easy imbibing imposed ideas. However, development efforts are now directed at encouraging rural communities to be the prime movers in efforts to improve their economic and social well being.

The consequences of wanton deforestation have earlier been noticed by the rural poor in Africa and were mitigated by traditional conservation practices, which is

rooted in their culture. The traditional approaches are however not able to reconcile competing environmental issues with the needs of rural populace (Wells *et al.*, 1991). It is noteworthy that preservation of indigenous management system (IMS) must have top priority in rural development initiatives in Africa (Matowanyika, 1991). However, reconciling the competing environmental issues with the needs of rural populace is equally imperative. A holistic approach to forest conservation is therefore desirable.

Forestry extension – a systematic process of the exchange of ideas, knowledge and technologies leading to mutual changes in attitudes, practices, knowledge, values and behaviour, which aim at improving forest and tree management (Anderson and Farrington, 1996) will likely bridge the gap between the physical and biological sciences contributions, as well as the social and economic aspects of forest and tree management.

In Nigeria, extension was initially directed at generating new knowledge but aimed at making existing knowledge accessible to others (Dada, 1999). Every ministry responsible for agriculture in Nigeria has had extension units as far back as 1954 when the Forestry Research Institute of Nigeria (FRIN) was established as the Federal Department of Forest Research (Okoro *et al.* 1989). These units were responsible for dissemination of information on crops, livestock, fisheries, produce and forestry. But they were a failure as far as the dissemination of forestry information was concerned because personnel trained in crops agriculture manned them.

Forestry extension in southwestern Nigeria also has had little or no impact in all departments except awareness creation (FORMECU, 1998). Each state has its tree planting program at the state and local government levels but the effect of this effort hardly reaches the rural population, while the technical assistance provided are to the local influentials present at the ceremonies (FORMECU, 1998). But, development communication is concerned with awareness creation, education and positive attitudinal change. The emphasis on only one of the cardinals of development communication is mere propaganda and will not impart the lessons of environmental amelioration on the target group.

This study examines forestry extension along the line of development support communication (DSC). Development support communication is focused on co-equal, little media-centered government-with-people communication (Ascroft and

Masilela, 1989). The development communicator is expected to mediate between the technical personnel, development administrators and other development workers as equal partners (Melkote, 1991). While forestry extension may undergo dramatic mutations – being totally privatized in some cases and being carried out almost exclusively via electronic networks in other – the need for systematic exchanges of knowledge, advice and skills in forestry is a continuous one (Anderson and Farrington, 1996). There remains a need to offer farmers particular technical knowledge and training, which lie outside the purview of their own indigenous knowledge (Farrington, 1994). The prospect of both the institutional structure and personnel capability of government agencies responsible for the management of the three protected areas in southwestern Nigeria are examined.

Methodology

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 and the Yorubas mainly inhabit it. 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.

Population and Sampling

The target population for the study is the management staff of the forest reserve/ National Park and the extension staff of Ondo, Osun and Oyo States Ministries of Agriculture and Natural Resources. 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 commercial indigenous species from the natural forest over a period exceeding 100 years, is almost ten fold (Ogunlade and Odunlami, 1989). Apart from this, the importance of Oluwa forest reserve to the economy of Ondo State cannot be overemphasized.

Sixty questionnaires were randomly administered to forest management staff of

the three study sites and the extension staff of the three states MANR. Also, local opinions were sought through Focus Group Discussions (FGDs) involving opinion leaders and local inhabitants. Data generated were analysed using frequency distribution, analyses of variance, Pearson's Likelihood ratio and linear by linear chi-square statistics.

Results

Demographic Background of Respondents

Sex Distribution of Respondents

As shown in the Figure 1, majority (84.46% on the average) of the extension personnel were male.

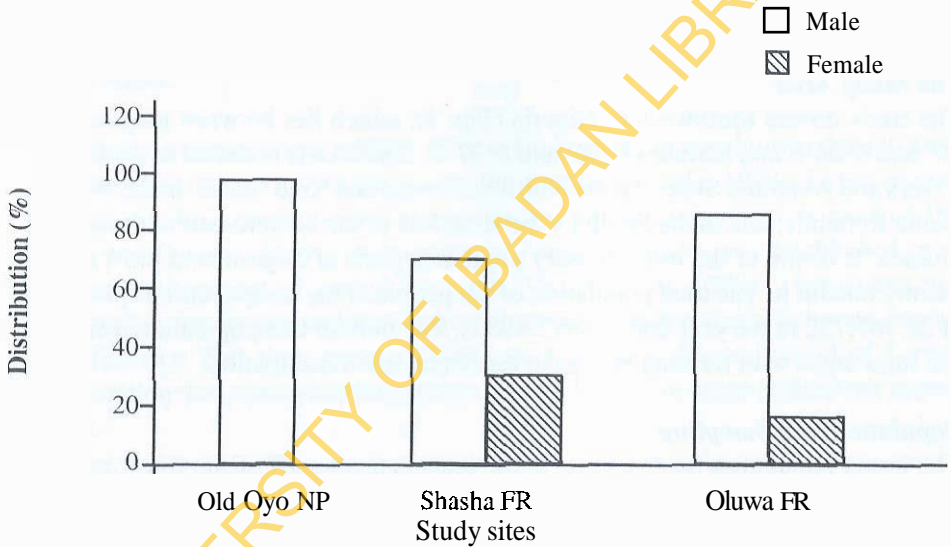


Fig. 1: Sex Distribution among Extension Personnel in the Study Area

Marital Status of Respondents

From Figure 2, it can be seen that an average of 80.2% of the inhabitants interviewed were married. However, married cases were highest (92.5%) among the inhabitants of Oluwa Forest Reserves enclaves. Similarly, only 25.8% of the extension personnel on the average were yet to be married, with the highest (40.91%) cases being among the Ondo state personnel.



Fig. 2: Marital Status of Extension Personnel in the Study Area

Educational status of Extension Personnel

From Table 1 it can be seen that, majority of the extension personnel interviewed were degree holders. An average of 62.16% of the extension personnel had degrees with the number of degree holders highest among respondents from Osun State. In Oyo State 4.38% of the respondents were holders of National Diplomas and National Certificate of Education or their equivalents. In Ondo State more than half of the respondent had degrees/higher diplomas and 25.93% of them were holders of the secondary school leaving certificate or it's equivalent.

Table 1: Educational Status of Extension Personnel in the study area.

Educational Attainment	Old Oyo NP		Shahsa FR		Oluwa FR		Average %
	Frequency	%	Frequency	%	Frequency	%	
Secondary School Certificate	03	10.35	-	-	07	25.93	12.09
OND/NCE or equivalent	12	41.38	03	13.64	06	22.22	25.75
First Degree/HND or Equivalent	14	48.27	19	86.36	14	51.85	62.16
Others	-	-	-	-	-	-	-
Total	29	100.00	22	100.00	27	100.00	100.00

Source. Field Survey, 2001.

On the Job Experience

As shown in Table 2, Osun State had the highest percentage of experienced personnel (40.91%) and the highest of the uniformed men (54.55%). Ondo state extension and forestry service employed more personnel within the last 5 years (40.74%) than it employed in the previous years. However, the highest percentage of personnel was employed in the last 10 years in Oyo State (41.38%).

Job Description

Table 3 shows that no forestry extension staff was interviewed in Oyo State: 10.34% of those interviewed were field staff of the Old Oyo National Park. The Majority response (62.07%) was from the village extension workers (VEWs) under the ADP in Oyo State. Majority of those interviewed (37.82%) in Osun State were administrative staff: both in the state's Ministry of Agriculture and Natural Resources, and the Agricultural Development Programme. In Ondo State 66.67% of those interviewed were forestry staff while 22.22% were administrative officers.

Table 2: Experience of Change Personnel in their Ministry/Programme in the Study Area

Year of Experience	Oyo State		Osun State		Ondo		Mean %
	Frequency	%	Frequency	%	Frequency	%	
2 - 5 Years	02	06.90	12	54.55	11	40.74	34.06
> 5 - 10 Years	12	41.38	01	04.55	07	25.93	23.95
> 10 - 15 Years	06	20.69	-	-	02	07.41	09.37
> 15 Years	09	31.03	09	40.91	07	25.93	32.62
Total	29	100.00	22	100.00	27	100.00	100.00

Source: Field Survey, 2001.

Table 3: Job Description of Respondents' in Extension and Forestry Services

Job Description	Oyo State		Osun State		Ondo		Mean (%)
	Frequency	%	Frequency	%	Frequency	%	
Forestry extension worker			01	04.55	01	03.70	02.75
Village extension worker	18	62.07	06	27.27	01	03.70	31.01
Block extension supervisor	01	03.45	-	-	01	03.70	02.38
Admin. Officer	01	03.45	07	31.82	06	22.22	19.16
Forestry staff	06	20.69	06	27.27	18	66.67	38.21
Others	03					-	03.45
No response			02	09.09	-	-	03.03
Total	29	100.00	22	100.00	27	100.00	

Source: Field Survey, 2001.

Change Agents' Number of Contact with Farmers / Week

Table 4 reveals that 68.18% of the respondents in Osun State had no response to the question on whether they have contact with farmers or not, while none of those that responded (31.82%) contacted more than 100 farmers monthly. This is the same trend in Ondo State where more than 80% did not respond to the question. However, in Oyo State, only 20.09% did not respond.

Table 4: Frequency of Change Agents contact **with the Farmer per Monthly**

Number of Farmers	Ovo State		Osun State		Ondo		Mean (%)
	Frequency	%	Frequency	%	Frequency	%	
A <20	02	6.90	04	18.18	02	07.41	10.83
B 20 – 100	06	20.69	03	13.64	03	11.11	15.15
C >100–500	05	17.24	-	-	-	-	05.75
D >500 – 1000	05	17.24	-	-	-	-	05.75
E >1000	05	17.24	-	-	-	-	05.75
No response	06	20.69	15	68.18	22	81.48	56.75
Total	28	100.00	22	100.00	27	100.00	

Source: Field Survey, 2001.

Change Agents' view on identified Methods of Forests Conservation

An average of 63.57% of the respondents favoured agroforestry as a solution to deforestation in the study area with the highest subscription (80.65%) from Ondo State. Interestingly, agrisilviculture was more favoured (24%) compared to the traditional farming systems (Crop rotation and shifting cultivation) among the change agents' of Shasha forest reserve enclave. Thus although agroforestry was least favoured as a sustainable land use practice in Shasha forest reserve enclave compared to the other two sites, change agents' confidence in agrisilviculture nevertheless emphasize the need to incorporate tree and arable crops farming (Table 5).

Table 5: Change Agents' views on Methods of Sustainable Exploitation of Forests in the Study Area

Land Use Options	Ovo State		Osun State		Ondo		Mean (%)
	Frequency	%	Frequency	%	Frequency	%	
A. Agroforestry	18	62.07	12	48.00	25	80.65	63.57
B. Agrisilviculture	04	13.79	06	24.00	01	03.23	13.67
C. Crop rotation	01	03.45	03	12.00	02	06.45	07.30
D. Shifting cultivation	04	13.79	04	16.00	03	09.68	13.16
No response	02	06.90	-	-	-	-	02.30
Total	29	100.00	25	100.00	31	100.00	

Source: Field Survey, 2001.

Mass Media used for Extension Activities

Majority of the change agents' interviewed (63.32%), reached out to their clientele through community leaders (Table 6). The use of radio was also favoured by an average of 10.28% of the change agents with the highest (12.50%) subscription from Oyo State and the lowest (8%) from Osun State.

Table 6: Mass media employed by change agents' in reaching clientele in the study area

Media Employed	Oyo State		Osun State		Ondo	
	Frequency	%	Frequency	%	Frequency	%
A. Community leaders	23	71.88	14	56.00	18	62.07
B. Radio	04	12.50	02	08.00	03	10.34
C. Television			03	12.00		
D. Newspaper / magazine	-					
E. Bill boards			01	04.00		
F. Pamphlets	01	03.12	02	08.00	01	03.45
No response	04	12.50	03	12.00	07	24.14
Total	32	100.00	21	100.00	29	100.00

Source: Field Survey, 2001

Limitations to the Efficiency of Change Agents in the Study Area

Communication Capability of Change Agents

As shown in Table 7, five statements were used to test the level of professionalism of the change agents as communicators. While almost all the agents (98.95%) agreed to providing simplified background information on forest conservation and explaining the concept of conservation in clear terms to clientele (96.97), their understanding of achieving statement I however, belong to the school of persuasive communication (80.23% - statement 3). Similarly, statement 4 received mild reactions: while 6.9% of the change agents in Oyo State disagree with the statement, 22.73% of those in Osun could not be affirmative or otherwise to the statement while 22.22% also disagree with the statement in Ondo State.

Table 7: Capability of Change Agents in Diffusing Sustainable Land Use Technologies

Communication Skill Testing Statement	Old Oyo N.P					Shasha F.R					Ofuwa F.R				
	SA	A	UN	SD	D	SA	A	UN	SD	D	SA	A	UN	SD	D
1. Interpretation boosts adoption	69	27.6	3.4	-	-	81.8	04	-	-	-	40.7	59.3	-	-	-
2. Explanation helps beneficiaries grasp contents	51.7	48.3	-	-	-	86.4	4.6	-	-	9.1	44.4	55.6	-	-	-
3. Persuasion spurs confidence among rural people	31	48.3	6.9	13.8	-	54.6	36.4	4.6	-	4.6	3.7	66.7	22.2	7.4	
4. Self expression is most important to a communicator	65.5	34.5	-	-	-	40.9	40.9	18.2	-	-	51.9	40.8	3.7	3.7	-
5. Failure to enlighten forest users endangers the forest.	37.9	44.8	10.4	6.9	-	27.3	36.4	22.7	-	13.6	18.5	48.2	11.1	22.2	

*SA= strongly agree; A= agree; UN= undecided; SD= strongly disagree & D= disagree

Source: Field Survey, 2001.

Discussion

The study revealed that 51.9% of the extension personnel in southwestern Nigeria were holders of university degrees/higher diplomas and 32.6% of them had put in more than 15 years of cognate service. However, only 2.8% were assumed forestry extension workers. The self acclaimed forestry extension workers only ensure compliance with government rules and regulations on the use of the protected sites under them. According to Farrington (1994), farmers need some technical knowledge, which lie outside the purview of their indigenous knowledge. The available forest extension workers do not have such knowledge.

Also, forest extension agents should be concerned with capacity building of farmers and their organization. They should also facilitate access to and interpretation of market information among other things (Ayonge, 2002). But apart from Oyo State, majority of the extension personnel in the study area were not even in contact with the farmers. Only 31.8% and 18.5% of the extension personnel interviewed in Osun and Ondo States respectively made contact with 20–100 farmers/month. Most of the personnel in Oyo State contacted more than 100 farmers/month (Table 4).

Apart from personnel limitations, institutional capacity also limits forestry extension in the study area. The basic institutional limitation is fund unavailability (80.8%), which culminates in not recruiting adequate personnel (87.1%); neither training (85.7%) nor properly remunerating the existing personnel (64.7%); and using obsolete innovation diffusion technology (54.4%) in the study area's government extension agencies. Thus effectiveness of extension agents cannot be guaranteed under this type of condition. According to Ghimire (1991), expecting underpaid and understaffed forestry department to supervise sustainable utilization of forest resources is indirectly encouraging corruption.

Another important point to note is that even though majority of the respondents (63.6%) perceived Agroforestry as the most feasible sustainable land use option in the study area, 62.1% of them reach the farmers through their community leaders. Although their supporting Agroforestry as panacea to land use problem in the study area might be good, giving the population per land mass in the study area and the need to meet the need of the population while not hurting the ecology of south western Nigeria, however, channeling such information through community leaders might not yield the desired result. Domination of village elites over marginalized sections of the community had been reported to be limiting access to information (Franzel, 1999; Fujisaka, 1993; David, 1995). Ashby (1990) and Veldhuizen (1997) also emphasize the need for direct consultation with farmers with farmers not only on their problems, but also on the manner and ways of resolving them. Extension is expected to facilitate the opening up of communication channels within communities and enhance the flow of information, not close it.

To this end, since the extension personnel in the study area highly favour the use of community leaders (63.32%) and radio (10.28%), the need to build the capacity of these media is highly imperative. Their incapability is consequence of inadequacy in staff strength and their training, poor remuneration of staff, outdated operational technology and limiting funding of agencies as reiterated by an average of 53.3%

of the personnel interviewed

Conclusion and Recommendations

The study has revealed that forestry extension in the study area is near nil. Extension works are basically directed towards agricultural practices except for where farmers deal with fruit tree crops. Although highly experience and averagely educated, none of the extension personnel in southwestern Nigeria has forestry extension background. Although some of the extension personnel are good communicators, the uniqueness of forestry profession and practice goes beyond general communications. It is therefore concluded that extension personnel is available in the study area although they are not capable of effecting FCSC.

In view of these findings, it is therefore recommended that:

- (a) A separate unit for forestry extension should be established in each of the states in the study area. Otherwise the various state ADPs must be injected with well-trained forestry extension personnel (technical and administrative).
- (b) All field staff of the forestry department in the study area need to imbibe the modern concept of forest conservation— "managing trees with, rather than for the people, wherever they grow". Therefore, they should be exposed to on-the-job training programmes in community and social forestry.
- (c) Most importantly, participatory rather than persuasive approach should be adopted in FCSC if it must succeed:
- (d) The education curricula of the academic institutions in the entire study area need be reviewed along natural environmental amelioration line;
- (e) NGOs should equally be encouraged and empowered on forestry extension and environment friendly land use propagation, because government agencies can not go it alone; and
- (f) Community/religious leaders are veritable tool for effective forestry extension; hence they should be identified with and empowered with the theoretical background of their indigenous knowledge system. This is expected to go a long way improving the relationship between their subject and change agents.

References

- Ascroft, J. and S. Masilela (1989): From Top-Down to Co-equal Communication – Popular participation in development decision-making. Paper presented at the seminar on "Participation – a key concept in communication and change". University of Poona, Pune, India (Unpaged).
- Anderson, J. and J. Farrington (1996): Forestry Extension – Facing the challenge of today and tomorrow. *Unasylva* 184, Vol. 47 (1), Publication of the Food and Agricultural Organisation (FAO) of the United Nations, Rome, pp. 3 – 12.
- Arokoyo, T. and J. O. Adegbehin (): Research, Extension and Linkage with Particular Reference to Forestry in Nigeria in Proceedings of the FAN conference, Ibadan, 264 – 271pp.
- Ashby, J. A. (1990): Evaluating Technology with Farmers A Handbook, CIAT Publications, No. 187, CIAT Apartado Aereo 6713, Cali, Columbia, 95 pp.
- Ayonge, C. H. (2002): Forest Extension – Equitable Partnerships for Sustainable Multi-functional Forestry, Paper prepared for IUFRO Division 6 meeting, Valdivia, Chile, 11–17 November, 34 pp.
- Azeez, I. O., L. Popoola, and L. A. Adehisi (2000): Impact Assessment of Unified Agricultural Extension System on Agroforestry Development in Oyo State, Nigeria. Bada, S. O. (ed.), *Journal of Tropical Forest Resources* (vol. 16 (1)). Published by the Department of Forest Resources Management, University of Ibadan, Nigeria, pp. 91 – 106.
- Dada, G. O. B. (1999): The Evolving Strategies for the Dissemination of Forestry Research Findings In Nigeria. A seminar paper presented at the conference hall, Forestry Research Institute of Nigeria (FRIN), 27th October 1999, pp. 17.
- David, S. (1995): What do Farmers Think! - Farmer's Evaluations of Hedgerow Intercropping under Arid Conditions. *Agroforestry Systems*, Vol. 32, pp. 15 – 28.
- FORMECU (Forest Monitoring, Evaluation and Co-ordinating Unit-1998): Forestry Extension Services (pp. 41 – 45) in Private Sector and Socio-Economic Assessment Report - Forest resources study (1998), FORMECU, Nigeria, pp. 41 – 45
- Farrington, J. (1994): Public Sector Agricultural Extension – Is there life after structural adjustment? London, IIED (Unpaged).
- Franzel, S. (1999): Socio-economic Factors Affecting the Adoption Potential of Improved Tree Fallows in Africa. *Agroforestry Systems*, Vol. 47, pp 305 – 321
- Fujisaka, S. (1993): A case of Farmers Adaptation and Adoption of Contour Hedgerows for Soil Conservation. *Experimental Agriculture*, Vol. 29, pp. 97 – 105.
- Ghimire, K. (1991): Understanding People's Views on Deforestation Issues - A village perspective in Nepal, Central Taran's South Asia Research, vol. 11 No. 1 [May 1991].
- Matowanyika, J. Z. Z. (1991): In Pursuit of Proper Content for Sustainability in Rural Africa, in *The Environmentalist*, vol. 11 (No. 2).
- Melkote, S. R. (1991): Communication for Development in the third World. Sage Publications, London, pp. 292.

- Ogunlade, A. B. and F. K. Odunlami (1989): monitoring systems for forestry plantation projects in Nigeria – A practical approach. Published by Ondo State Afforestation project. Nigeria with the support of the World Bank, Washington, D. C., pp. x + 55.
- Okoro, O.O.G.O.B. Dada & F.A. Akinsanmi (1989): 100 years of Forestry Development in Nigeria. Published by Forestry Association of Nigeria, November 1989, 114 pp.
- van Valdhuizen, L., A. Waters-Bayer and H. de Zeeuw (1997): Developing Technologies with farmers – A trainer's guide for participatory learning. London Zed Books, 230 pp.
- Wang, G. and W. Dissanayake (1984): Culture, Development and Change - Some Explorative Observations, in G. Wang & W. Dissanayake (eds.), *Continuity & Change in Communication Systems*, Ablix publication. New Jersey, pp. 3-20.
- Wells. M., K. Brandon, and L. Hannah (1991): *People and Parks: Linking protected area management with local communities*, The World Bank, Washington.

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