

FORESTRY IN THE CONTEXT OF THE MILLENNIUM DEVELOPMENT GOALS

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STATUS OF FOREST RESERVES AND FOREST MANAGEMENT CAPABILITIES IN SOUTHWESTERN NIGERIA

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Abstract

The need for sustainable forest management cannot be overemphasized if the economic benefits of forests were to be met without ecological consequences. This paper reports the prospect of sustainable forest management in the context of managerial capability in southwestern Nigeria, which is housing most of the forest resources relics in the country. The study was carried out in the South West geopolitical zone of Nigeria comprising Lagos, Ogun, Oyo, Osun, Ondo, and Ekiti States using multi-stage random sampling. The target population for the study comprised the local inhabitants, forest management personnel and timber contractors/saw millers in each state. Information was sourced from each group using three sets of structured questionnaire and Focus Group Discussions (FGDs) involving group of people of the same sex and age groups from each target population. Secondary data were also obtained from State Forestry Departments and archives. Information garnered was analysed using descriptive statistics. Findings revealed that all forest reserves in Osun, Ondo, Ogun and Lagos States have been intensively encroached upon; however the extent of the encroachment has not been fully established due to lack of adequate data in all the states. Most (98.6%) of the local inhabitants opined that the state government is solely responsible for the management of the forest reserves in the study area. The timber contractors /saw millers perceived law enforcement on forestry activities as low in Osun state (32.4%) and Lagos states (29.4%), but moderate in Ondo (42.3%) and Ogun states (26.5%). More importantly was the observation that government is more interested in revenue generation from the forests rather than their sustainable management, which 33.0% of the timber contractors/saw millers inferred as responsible for the low regeneration drive from the sector. An average of 47.1% and 42.3% of the forest officials were also of the opinion that forest management in all the four states sampled was bad and very bad respectively. FGDs among them revealed that state governments have not gotten the capabilities of managing the forest estates effectively and efficiently. Their suggestions for mitigating the present management constraints centered on commensurable increase in the staff strength in Nigeria's Forestry Departments to meet forest extent and forest activities. Inappropriate policy framework was identified by all respondents as the underlying causes of much forest loss. The forestry official proffered preparation of management plan for each forest reserve (56.3%), education of stakeholders on sustainable management (17.6%), massive afforestation programme (36.6%) as well as private and community participation (31.7%) as sustainable forest management strategies.

Keywords: Forest policy, Staff strength, forest officials, Southwestern Nigeria

Introduction

As documented by Areola (1991) the management of forests in Nigeria, which could be traced to the colonial administration, started in the 19th Century. In 1901 the first Forestry Ordinance was promulgated to regulate the size of timber concession and in 1919, Sir Fredrick Lugard, the first Governor General of Nigeria, spelt out Nigeria policy on forestry that marked the beginning of the Reservation Phase in Nigeria forest management (Enabor, 1981a). In 1897

two third of Nigeria land area (about 600,000 Km²) was believed to be covered with natural vegetation but by 1951 it was estimated that only 360,000 Km² remained. FAO further reported that there were only 140,750 Km² of which less than half (59,590 Km²) was closed forests (FAO, 1995a). The Colonial policy encouraged the creation of a Forest Estate by reserving parcels of forests mainly for timber production but also in many cases for the protection of watershed and buffers between hostile neighboring communities or tribes (Kio and Abu, 1993).

Forest management practices in Nigeria were identified by Enabor (1981a) to be in three phases, which include:

- The Reservation Phase, which was mostly between 1919 and 1930 in the high forest areas. However, new forest areas came under reservation in the 1960s and 1970s in the River States and much more reservation took place around 1940s and 1960s in the Savanna areas of the North (Orhiere and CESE, 2002).
- Planned Exploitation Phase (1930 – 1960) witnessed the period when Nigerian wood was exported to overseas market; the rate of exploitation then was greater than regeneration and it was an era of uncontrolled exploitation.
- The third phase, which was the development phase came up in 1960. This phase aimed at replenishing the overexploited timber resources and included wild life management, minor forest products (Non Timber Forest Produce) and environmental protection (Enabor, 1981a).

FAO (1991) estimated forest deficits in Nigeria to be 3.48% from 1981 to 1985 and 3.57% from 1986 to 1990 which predicted that unless significant measures were undertaken, the forest would disappear completely within 3 decades. As submitted by FORMECU (1996) Nigeria have a total of 1,160 constituted forest reserves in 362 local government areas with an area of 10.75 million hectares representing 10% of the total land area of the country. However international policy states that area under reservation should be 25% of the total land area, although in Nigeria the target set for reservation varies from 10% to 25% of the total land area.

Forest management practice in Nigeria before independence saw forests as the sole responsibility of the colonial government, which was handed over to their successors, the Federal and State governments under the auspices of the forestry officials that implement. This scenario has been under serious criticism thus the need for new approaches to forest management. Although, Nigerian Tropical Shelter-wood System (TSS), a natural regeneration system, was introduced to cope with the rate of exploitation (Lowe, 1995) and research into artificial regeneration of some indigenous species started at this period, these efforts recorded little or no success (Oyebo, 2002). Private forest plantation development as complement to government sole effort started in Nigeria as early as 1908 when it was mandatory for timber exploiters to plant a seedling at the stump of trees felled. This practice was not enforced and was abandoned in recent times with the wave of illegal felling increasing at an alarming rate (Fayenuwo, 2000).

Government and International agreements may impose limits within which forest management should take place, but decision on product optimization and the degree to which forest system can be modified from their natural state will have to be taken by the local stakeholders. What is defined, as sustainable forest will vary over space and time, as society needs and perceptions evolve. Thus, sustainability has been taken to mean, maintaining or enhancing the contribution of forests to human well-being, both of present and future generation without compromising their ecosystem integrity i.e. resilience, function and biological diversity (CIFOR, 1997). This paper examines the prospect of sustainable forest management in the context of managerial capability in southwestern Nigeria, which is housing most of the forest resources relics in the country.

Sayer *et al.* (1997) clarified the above issues and establish the Criteria and Indicators (C and I) of sustainability as a small but important step towards sustainable forestry. C and I came from eco-certification lobby that has been widely accepted for forest sustainability. Several other international initiatives and methods, which are useful to define and assess sustainable forest management (SFM) include Life Cycle Assessment, Cost Benefit Analysis, Knowledge Based System and Environmental Impact Assessment (Baelmann and Mays, 1998 in Holvet and Mays, 2004). The development of C and I for the evaluation of SFM has been the most popular method.

The need for the continuous supply of forest products and services has brought about the various issues and new approaches to forest management in the Tropics. Policies of conservation and sustainable use of the forest demand an alliance between foresters, agriculturists, conservationist economists, legislators, administrators and many other sectors of the society. Sustainability, a modern environmental terminology is one of the buzzwords of our time. WCED (1987) and IUCN (1993) defined the sustainable use of a particular category of biological resources as that component of biological diversity, which is actually or potentially useful to human communities. Sustainability involves satisfying present needs without comprising future options. In forest management, it involves more fundamental questions about functions and services provided by forests and about stakeholders' equity and expectations.

The campaign to save the forest has been the concern of forest scientists. It is not yet possible to find a natural tropical forest that has been successfully managed for the sustainable production of timber, because no management system has yet been maintained through multiple rotations (Poore *et al.*, 1990). The wholesale overuse of forest produce and destruction of the forest cover in the tropics and boreal forest alarmed forest scientist in the early 20th Century and since 1970 non-governmental action groups became aware and repeated the alarm. The clear distinction between reckless selection logging and sustainable selection management became blurred in order to discredit tropical forestry. The 'glorious history' of forestry (Wardsworth, 1997) in the tropics and the great wealth of scientific knowledge and practical experience became negated. The production forestry became ecologically distorted and potentially, socially damaging.

The study was carried out in the South West geopolitical zone of Nigeria comprising Lagos, Ogun, Oyo, Osun, Ondo, and Ekiti (Fig. 1). The area lies between Latitude 6° 20' North to 8° 37' North and Longitude 2° 30' to 6° 00' East (Agboola, 1997) with a total land area of 77,818 km², projected population of 17.6 Million people as at 1998 and population density of 226.168 people per Km² (FDF, 1997). The study area is bounded by the Republic of Benin in the West, Kwara and Kogi states in the north, Edo and Delta states in the east and the Bight of Benin (Gulf of Guinea) in the south. The Southwestern Nigeria has 80 constituted Forest Reserves with a total forest area cover of 793,266 ha while the Free Area cover is 1,005,871 hectares (FDF, 1997).

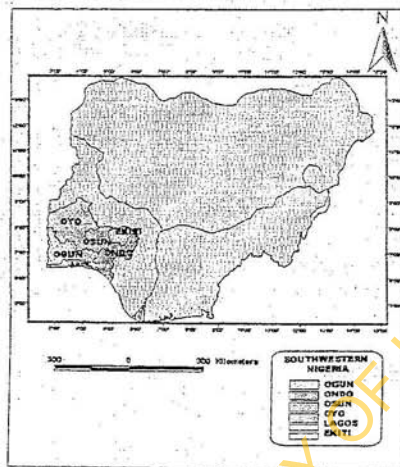


Fig. 1: Southwestern Nigeria showing the States within.

Table 1: Some Basic Information about the Six States of Southwestern Nigeria

State	Total Land Area (Km ²)	Population 000,000	Population Density (N/Km ²)	No. of Forest Reserve	Area of Forest Reserve (Ha)	No. of LGAs
Osun	9,491	3.45	232	11	92,242	30
Ondo/				16	307,616	18
Ekiti	20,454	3.44	191	18	24,296	16
Ogun	16,086	2.3	145	15	195,790	20
Oyo	27,848	5.59	124	18	169,173	33
Lagos	3,939	5.7	1444	02	6873	20
Total	77,818	19.48	250.33/Km ²	80	793,266	121

Source: FDF, 1997.

Survey Procedure (Study Site)

The study sites were selected using a combination of purposive and random sampling techniques from the six states making up the Southwestern Nigeria, Lagos State, being a rallying point for others was purposively selected because of its megalopolitan nature. All the remaining five states were assigned numbers and based on random sampling technique; three (3) of them were selected. The selected states were Osun, Ondo, Ogun and Lagos.

The Local Government Areas (LGAs) of the selected states were identified. Twenty percent (20%) of the Local Government Areas were randomly selected for the study. In all, Six (6) South, Ejiḡbo, Ila, Atakunmosa, Orade, Ayedade/ Irewole (LGAs in Osun and four each (Ondo west, Ose, Owo, Akure North), (Ijebu East, Ijebu North, Odeda and Yewa), (Badagry, Ikorodu, Ikeja and Epe) in Ondo, Ogun and Lagos states respectively were sampled. The target population for the study comprised the local inhabitants and other categories of people such as artisans, civil servant, teachers and traders living in enclaves and settlements around the forest reserves in the study area. Other target population group included forest management personnel and timber contractor/saw millers in each state. Information was sourced from each group using three sets of structured questionnaire.

Other information sources include Focus Group Discussions (FGDs) involving group of people of the same sex and age groups from each target population. Secondary data were also obtained from State Forestry Departments and archives on available maps, gazettes, staff strength, revenue generation, afforestation programme, budgetary allocation and releases where available and other available reports. Information gathered were analysed using descriptive statistics.

Results and Discussion

Status of Forest Reserves in the Sampled States

Table 2: Osun State Forest Reserves

S/N	Name of Forest Reserve	Local Government Area	Original Size (Ha)	Present Size (Ha)
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1	Shasha	Ife South	31,232	23,064
2	Ife F3	Ife South	8,383	7168
3	Ayo-Owu	Ayedade	31,744	19,847
4	Oba Hills	Ejiḡbo	6,773	4,225
5	Ikeji-Iremu	Orade	4,849	2,849
6	Oni	Atakunmosa	5,632	Nil
7	Ila	Ila	256	230
8	Ede	Ede	1,344	1,044
9	Ejiḡbo	Ejiḡbo	314	214
10	Iwo	Iwo	147	Nil
11	Osoḡbo	Osoḡbo	594	Nil
	Total		91,121	58,641

Source: Osun State Forestry Department Survey

Table 3: Osun State Forest Reserves and level of encroachment

Original Size of

Reserve	Location	reserve (ha)	Present Size	Remarks
Olokemeji	Odeda Local Government Area	5,888	No Record due to lack of survey	Reserve have been encroached upon by cocoa farmers. Originally a high forest but already over exploited of indigenous tree species and Teak
Omo	Ijebu Area (Ijebu East and Ijebu North) LGAs	136,806	Present size not known.	A large area had been encroached upon by farmers This consist of areas J ₁ , J ₃ , J ₄ , J ₆ and Akilla plantation. This reserve is over exploited for revenue generation and seriously encroached upon by cocoa farmers.
Ilaro/Ipake	Yewa South	4608	Not Known	Encroachment by farmers occurs
Arakanga	Odeda Local Government	239	Not Known	Planted up with Teak
Edun stream	Yewa North	79	Not Known	Located within Ilaro township and has been encroached upon for urban development.(houses and motor park)
Aworo	Yewa North	212 99	Not Known	Part of this reserve has been allocated to private farmers by the government. Few economic trees are still available
Eggua	Yewa North	4147	No record	Encroachment for farming has taken place
Irneko game reserve	Yewa North	954 88	Not known	Proposed game reserve though not developed.
Ohunbe	Yewa North	4608	Not known	Proposed game reserve though not developed.
Total		273,162		

Source: State Department of Forestry, Abeokuta, Ogun State,

Table 4: Status of Forest Reserve in Ondo State

S/N	Forest Reserve	Location	Original Size (Ha)	Present Size (Ha)	Area / % of Encroachment
1	Akure (Aponmu)	Akure South	6993	4478	2515- 35.96%
2	Akure (Ofosun)	Akure North	40145	28497	11648-29.48
3	Akure Ofosun Ext	Akure North	2089	Nil	2089-100.00%
4	Ala	Akure North	19943	8250	11693-58.63
5	Eba-Island	Ese-odo	1813	903	910-50.19
6	Eti-Oni	Ileluji-Okegbo	-	-	Disputed
7	Idanre	Idanre	54053	34110	19890-36.80
8	Ifon game Reserve	Ose	28231	17451	10780-38.18
9	Ipele/Idoani	Ose	4144	2184	1960-47.30
10	Irele	Irele	3600	250	3350/93.06
11	Ojigbobini	Eseodo	2809	1809	1050 /36.73
12	Okeiuse	Ose	11137	7797	3340 /28.99
13	Oluwa Series	OndoWest/Odigbo	87816	50616	37200 /42.36
14	Onisere	Ondo East	9842	4307	5035 /51.16
15	Otu	Odigbo	8490	1410	7080 /83.39
16	Owo	Owo	24216	23684	532 / 2.20
17	Oyinmo	Akoko S/West	2245	1705	540 / 24.05
Total			307606	188103	119513/ 38.85

Source: State Department of Forestry, Akure, Ondo State.

Table 5: Original size of Forest Reserves in Lagos State and Present Size Indicating Encroachment

No	Forest Reserve	Location	Original Size(Ha)	Present Size(Ha)
1	Ogun River	Ikorodu	5220	2000
2	Ishashi	Ojo	500	-
3	Ologe Lagoon	Badagry	4784	2000
4	Langbasa	Eti-Osa	520	-
5	Yelwa Creek	Badagry	500	-

Source: Lagos State Department of Forestry

Status of Forest Reserves in the Four study States

The status of all forest reserves in the study area (Tables 2 to 5) shows that all forest reserves in Osun, Ondo, Ogun and Lagos States have been intensively encroached upon; however the extent of the encroachment has not been fully established due to lack of adequate data in all the states. Ondo state has some information about the area of encroachment and the corresponding percentage of encroachment but Osun and Lagos states have little information along this line while Ogun state has no record of the extent of encroachment. However, FGDs revealed that

all the forest reserves in the state have been encroached upon for illegal farming activities (Table 3). The illegal farmers in Etemi side of Omo Forest Reserve have destroyed *Gmelina arborea* and *Nauclea diderrichi* plantations to establish cocoa farms.

Table 6: Factors responsible for the current status of forest reserve

Factors	Freq	% of Total (476)	%
Land for farming	351	73.74	19.82
Urbanisation	136	28.57	7.68
Uncontrolled logging	354	74.37	19.99
Collection of NTFP by local people	73	15.34	4.12
Poor Management by government	347	72.89	19.59
Ignorance of stakeholders	291	61.13	16.43
Free access	136	28.57	7.68
Unemployment /Poverty	29	6.09	1.64
No response	54	11.34	3.05
Total	1771		100.00

Source: Field Survey

Factors Responsible for the current status of Forest Reserves

Of the 476 respondents, 73.7% observed farming activities as a contributing factor to the present condition of forests in the study area while 6.1% were of the opinion that unemployment/poverty were also contributing to the present degradable condition of the forest reserves in Southwestern Nigeria. It should however be observed that uncontrolled logging (74.4%), land for farming (73.7%) and poor management by government (72.9%) were the most popular factors among the respondents as being responsible for the present condition of forest reserves in the study area (Table 6). Secondary data from all the states sampled indicated that all the forest reserves have been encroached upon (Tables 2, 3, 4 & 5).

Identified Forest Managers

Table 7: Identified Managers of Forest Reserves

	Osun		Ondo		Ogun		Lagos		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
State Govt.	73	98.6	52	100.0	48	98.0	33	97.1	206	98.6
Local Govt.	-	-	-	-	-	-	-	-	-	-
Community	-	-	-	-	-	-	-	-	-	-
No response	1	1.4	-	-	1	2.0	1	2.9	3	1.4
Total	74	100.0	52	100.0	49	100.0	34	100.0	209	100.0

Source: Field Survey

From Table 7, 98.6% of the respondents interviewed indicated that the state government is solely responsible for the management of the forest reserves in the study states. This scenario is contrary to Principle 2(d) of the United Nations General Assembly which stated that governments should promote and provide opportunities for the participation of interested parties, including local communities and indigenous people, industries, labour, non-governmental organizations and individuals, forest dwellers and women, in the development, implementation and planning of national forest policies (UN, 1999).

Perception on level of Law Enforcement
 The timber contractors/saw millers perceived law enforcement on forestry activities as low in Osun state (32.4%) and Lagos states (29.4%), but moderate in Ondo (42.3%) and Ogun states (26.5%). On the average, 23.0% of them perceived that law enforcement in the four states is low while 28.2% viewed law enforcement to be moderate. This situation has a significant impact on the unsustainable management of the forest estates in the study area. Law enforcement is generally low in Southwestern Nigeria except in Ondo State where it is recently being beefed up.

Table 8: Timber Contractors and Saw millers Perception of Government Posture on Forest Exploitation and Regeneration

Options	Osun(74)		Ondo(52)		Ogun(49)		Lagos(34)		Total(209)	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
E>R	45	60.8	44	84.6	39	79.6	30	88.2	158	75.6
Low R	35	47.3	30	57.7	20	40.8	16	47.1	101	48.3
R=E	5	6.8	4	7.7	3	6.1	-	-	12	5.7
No R	7	9.5	5	9.6	5	10.2	2	5.9	19	9.1
Govt. lack of interest.	9	12.2	30	57.7	19	38.8	2	5.9	69	33.0
No response	7	9.5	1	1.9	2	4.1	1	2.9	11	5.3

*Note: E = Exploitation; R = Regeneration
 Source: Field Survey 2005

Perception on Exploitation and Regeneration

Various perceptions of timber contractors/sawmillers on exploitation/regeneration nexus are identified (Table 28). The timber contractors were generally of the opinion that forest regeneration is low in the study area (48.3%). This partly explains why exploitation is greater than regeneration (75.6%). Importantly is that government is more interested in revenue generation from the forests rather than sustainable management of the forests (33.0%) that is responsible for the low regeneration drive.

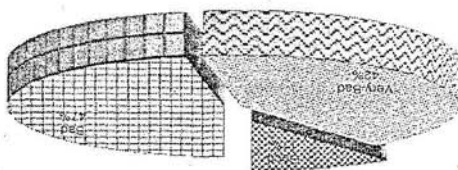


Fig. 2: Perceptions of Forestry Personnel on Management of Forest Reserves

Perceived Problems of Forest Management

Table 9: Problems associated with Forest Management and Suggested Solutions

Identified Problems	Freq.	% of 142	%
Funding	58	40.8	
Encroachment for illegal farming	40	28.2	
Flichting(in-situ conversion)	48	33.8	
Shortage of staff	37	26.1	
Lack of facilities	39	27.5	
Inconsistent policies	9	6.3	
Poor law enforcement	42	29.6	
Lack of awareness	7	4.9	
Lack of institutional framework	4	2.8	
Competition for land resources	7	4.9	
No response	11	7.7	
Suggested Solutions			
Adequate funding	57	40.1	
Review of all laws /Enforcement of law	30	21.1	
Improved management capabilities/training	66	46.5	
Establishment of institutional framework	10	7.04	
Provision of logistics	58	40.8	
Employment of more staff	48	33.8	
Community participation	28	19.7	
Creation of awareness	18	12.7	
Closure of reserves	2	1.4	
No response	12	8.5	

Source: Field Survey.

Perception of Forestry Personnel on Management of forest Reserve

An average of 47.1% and 42.3% of the forest officials asserted that the management of the forest reserves in all the four states sampled is bad and very bad respectively. None of the forest reserves has management plan, there is inadequate personnel and obsolete forest laws which is a pointer to the fact that the state government in recent times have not got the capabilities of managing the forest estates effectively and efficiently (Figure 2).

Perceived Problems and suggested Solutions of Forest Management

Results from the study reveal that forest reserves are badly managed by the corresponding state government. Table 9 contains management personnel's perceived problems of forest management to include poor funding (40.8%), encroachment for agriculture (28.2%); in-situ conversion (33.8%); shortage of staff (26.1%), lack of facilities (27.5%); inconsistent policy (6.3%); poor law enforcement (29.6%); lack of awareness (4.9%) lack of institutional framework (2.8%) and competition for land resources(4.9%).

Table 9 also contains the forestry personnel's suggestions for mitigating the present management constraints in the forest reserves. These include adequate funding (40.1%), enforcement of forestry laws and regulations (21.1%), improved management capabilities and training (46.5%), establishment of institutional framework (7.04%), adequate and timely

provision of logistics (40.8%), community participation (19.7%), creation of awareness (12.7%) and closure of forest reserves (1.4%).

Table 10: Staff Strength and Perception of Forestry Personnel on Staff Adequacy

Cadres	Osun	Ondo	Ogun	Lagos	Total
Professional	13	48	22	7	95
Technical	13	34	19	5	71
Uniformed	64	295	149	7	515
Boundary Guard	5	1	41	-	47
Attendants	65	-	37	5	107
Total	165	378	268	24	835

Staff adequacy	Osun		Ondo		Ogun		Lagos		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
No	38	76.0	27	64.3	22	59.5	13	100.0	100	70.4
Yes	12	24.0	13	31.0	12	32.4	-	-	37	26.1
No response	-	-	2	4.8	3	8.1	-	-	5	3.5
Total	50	100.0	42	100.0	37	100.0	13	100.0	142	100.0

Source: Field Survey

Table 11: Identified Government Policies on Exploitation by Forestry Personnel

Identified Policies	Freq	%
Rational and controlled harvesting on sustainable basis	30	56.3
Compoundment of offence detected on exploitation	16	11.3
Payment on permit basis for every stump felled in free area	27	19.0
OTV, concession or area basis for exploitation in forest reserve	29	20.4
Exploitation based on allocation	43	30.3
Revenue generation through exploitation	38	26.8
Selective exploitation	27	19.0
Regeneration at par with exploitation	39	27.5
No response	34	23.9

Source: Field Survey

Table 12: Suggested Management strategies by Forestry Personnel

Identified management strategies	Freq	%
Preparation of management plans for each Forest Reserve	30	56.3
Education of stakeholders	25	17.6
Massive afforestation	52	36.6
Thinning of exploited plantations	14	9.9
Discourage illegal farming	9	6.3
Encourage private and community participation	45	31.7
Artificial and natural regeneration	23	16.2
Sustainable exploitation	26	18.3
Taungya system	34	23.9
Expansion of forest estate	5	3.5

Source: Field Survey

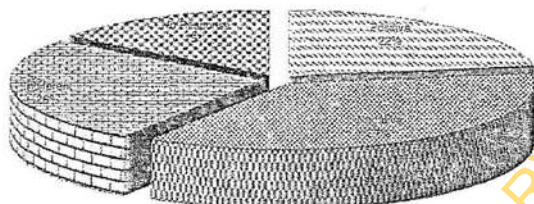


Figure 3: Perceptions of Respondent's Reaction of Legislators to Forestry Matters

Table 13: Views of Forestry Personnel on Government Implementation of Policy

	Osun		Ondo		Ogun		Lagos		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
No	22	44.0	18	42.9	17	45.9	10	76.9	67	47.2
Yes	26	52.0	19	45.2	16	43.2	-	-	61	42.9
No response	2	4.0	5	11.9	4	10.8	3	23.1	14	9.9
Total	50	100.0	42	100	37	100.0	13	100.0	142	100.0

Source: Field Survey

Staff Strength and adequacy

Discussion with forestry officials (Table 10) revealed staff inadequacy in the study area by 70.4% of them while 26.1% was of the forestry officials were of the opinion that staff strength was adequate in the study area. This had earlier been observed by Enabor (1981b) who submitted that the staff strength in Nigeria's Forestry Departments were grossly inadequate in relation to the forest extent and forest activities. This was also reposed by Akindele (2000) who observed that many forestry services are handicapped by shortage of trained personnel both in quantity and quality.

Government Policies on Exploitation

The components of government policies on forest exploitation as identified by forestry officials were presented in Table 11. Forestry personnel affirmed through FGDs that all the policy statements on exploitation of forest resources were merely paper work, which were not adhered to in all the states under study, hence the unsustainable management of the forest resources.

Management Strategies

Consequent upon the high rate of exploitation and the poor management structure of the forest estates in study area, the forestry official proffered some management strategies as single and multiple solutions to the degraded state of all the forest reserves. These include preparation of management plan for each forest reserve (56.3%), education of stakeholders on sustainable management (17.6%), massive afforestation programme (36.6%), private and community participation (31.7%) as well as sustainable forest exploitation (18.3%) among others (Table 9)

Legislation and Forestry Matters

The legislative and executive arms of the government influence forestry practices through the approval and release of its budgetary allocation or otherwise. However, 36.6% of the forestry officials sampled perceived the reaction of the legislative and the executive arms of government as negative to forestry matters (Figure 13). Although, 22.5% of them did not perceive their reaction as negative, 26.1% are undecided on the issue.

Forest Policy

Forty seven percent of the forestry personnel sampled were of the opinion that forest policies though in existence were neither in use nor adhered to while 42.9% held contrary opinion. Inappropriate policies have been the underlying causes of much forest loss in southwestern Nigeria.

Summary, Conclusion and Recommendation

Forest management practice in Nigeria before independence saw forests as the sole responsibility of the colonial government, which was handed over to their successors, the Federal and State governments under the auspices of the forestry officials. Although, the campaign to save the forest has been the concern of forest scientists, the wholesale overuse of forest produce and destruction of the forest cover in the tropics and boreal forest was alarming from the early 20th to date. Thus, forest management presently involves more fundamental questions about functions and services provided by forests and about stakeholders' equity and expectations.

In southwestern Nigeria, all the forest reserves have been encroached upon and the state governments are solely responsible for the management of the forest reserves. However, government is more interested in revenue generation from the forests rather than their sustainable management, which is responsible for the low regeneration drive from the sub-sector. Also, law enforcement on forestry activities was perceived to be low by the timber contractors/saw millers in Osun and Lagos states, but moderate in Ondo and Ogun states.

Forest officials were of the opinion that the management of the forest reserves in all the four states sampled was bad. Also, none of the forest reserves has management plan apart from their being plagued by inadequate personnel and obsolete forest laws, which are pointer to the incapability of the southwestern state governments to managing the forest estates effectively and efficiently. Inappropriate policies were also identified as underlying causes of much forest loss in southwestern Nigeria as policy statements on exploitation of forest resources were merely paper work. Proffered management strategies by the forestry official included

preparation of management plan for each forest reserve, education of stakeholders on sustainable management, massive afforestation programme, private and community participation as well as sustainable forest exploitation.

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