

Effective Administrative Measures to Sustainable Forestry Development In South-West Nigeria

ABSTRACT

Forest administration is on ways of achieving effectiveness and efficiency in forestry development. The objective of this paper is to examine the administrative measures and their impacts on forestry development in the South-West Nigeria. Primary data needed for this study were collected from all the forest officers in charge of the 31 forestry administrative zones in the six states namely: Ekiti (four); Lagos (five); Ogun (four); Ondo (eight); Osun (six) and Oyo (four) and one forest officer from each of the six state's headquarters. They were interviewed using structured questionnaires to obtain data on forest administration. Thirty-seven forest officers were interviewed in all. Descriptive statistics and Kolmogorov-Smirnov test (D) were used to analyze the data obtained. Result revealed that these administrative measures investigated in the South-West Nigeria are low: provision of up-to-date map of the study areas (48.6%), provision of equipment to run the forest affairs (40.5%), while the following are high: supervision of forest programmes (94.6%) and regular annual report (86.5%). Administrative measures investigated have significant relationship ($P < 0.01$) with forestry development. A newly reconstructed and restructured forest sector, built on the pillars of adequate provision of equipment and effective supervision, would play a major role in sustainable forestry development.

Key Words: Administrative measures, sustainable development, policy implementation, forestry

INTRODUCTION

Administration is a large and complex field whose major emphasis is on ways of achieving effectiveness and efficiency in conducting organized human activities. It obviously is a great importance to forest policy implementation. According to Owino and Ndinga (2004), Forest Administrations in most Sub-Saharan Africa countries were patterned according to relevant institutional arrangements of the former colonising countries. Thus, from the early 1900s, the Forest Administration in most of the countries was crafted primarily to serve as replicas of "home country" forest civil services. Up to the end of the second world war, Forest Administrations concentrated on implementing policies around delineation, gazettelement and

34 management of state forest and wildlife reserves, with emphasis on regulation of forest
35 extraction, hunting and, in East Africa at least, on water catchment protection. Accordingly,
36 the then forest policies and laws of the colonial administration focused on protection of state
37 forest reserves. Immediately following the end of WW II, with increased presence of
38 European “settlers” in some countries, Forest Administrations suddenly became more
39 complex and more proactive in their range of activities. New and more comprehensive forest
40 policies were introduced to cater for more diversified activities, in particular the introduction
41 of forest plantation programmes to meet domestic and industrial wood demands. Forest
42 Administrations also initiated training and research programmes. Upon attaining their
43 independence, most countries attempted reviews of their forest policies in line with the then
44 significantly changed development realities. Thus, from early to late 1960s, many countries
45 launched “home grown” policies and programmes. However, it turned out that the rather
46 hastily promulgated revised policies were no more than poor replicas of the colonial forms,
47 thinly coated with politically correct proclamations.

48 According to Shittu (2006), the administration of forest reserves in Nigeria leaves much to be
49 desired especially when one considers governments’ decisions and policies on utilization of
50 forest resources in meeting the needs and aspirations of citizens. For the past forty years, the
51 administration of forestry had been monopolized by the state government within the federal
52 structure in Nigeria. The exclusion of the stakeholders such as (local community dwellers,
53 hunters, farmers, timber contractors and other non-timber resources users) in the
54 administration of forests directly or indirectly has led to poor forest governance and the
55 consequent crises in forest reserves in Nigeria.

56 Yet, development challenges for Forest Administrations have radically changed since
57 independence. In many countries, forest ownership and settlement have become politically
58 explosive, forcing many governments to introduce radical changes in the way forest resources
59 are controlled and managed and, thus, prescribing new roles for Forest Administrations. But
60 many Forest Administrations have yet to fully adjust to such changes and remain sub-
61 optimal in their functions (Owino and Ndinga, 2004). It is widely recognised that forestry
62 institutions in these countries have weak capacities to fulfill their functions (*AFWC, 1995*).

63 According to Adeyoju (2005), administration is the vital key to development. There is hardly
64 any form of human endeavor that has no need of administration. Indeed it is the role of
65 administration to formulate what needs be done, the skills required and in what quantities, the
66 terms of personnel engagement, and disengagement (Adeyoju, 2005). Furthermore, it is the

67 goal of administration to ensure high productivity through delineation of activities, roles,
68 responsibilities and their sequence as well as coordination and harmonious relations within
69 and without the organization. To that extent, administration would always be a catalyst for
70 development including sustainable forest management. Only a few countries have been
71 proactive in policy analysis and changes (Dykstra et al., 1997). Sustainable development
72 however requires good governance, goodwill and good planning and quite often requires
73 substantial financial investment (ITTO, 2005).

74 The objective of this paper however, is to examine the administrative measures and their
75 impacts on forestry development in the South-West Nigeria.

76 **METHODOLOGY**

77 **Study Area**

78 South West Nigeria which consists of Lagos, Ogun, Oyo, Osun, Ondo and Ekiti states lies
79 between longitude $2^{\circ} 31'$ and $6^{\circ} 00'$ East and Latitude $6^{\circ} 21'$ and $8^{\circ} 37'N$ (Faleyimu *et al*
80 2010) with a total land area of 77,818 km². It has a projected population of 17.6 Million
81 people as at 1998 and a population density of 226.168 people per km² FDF (1998). The study
82 area is bounded by the Republic of Benin in the west, Kwara and Kogi states in the north,
83 Edo and Delta states in the east and Bight of Benin in the south. According to Faleyimu *et al*
84 (2010), the study area has 85 constituted Forest reserves with a forest area cover of 842,499
85 hectare while the Free area cover is 1,005,871 hectares (FORMECU, 1998).

86 Figure 1 shows the positions of the study area in the map of Nigeria.

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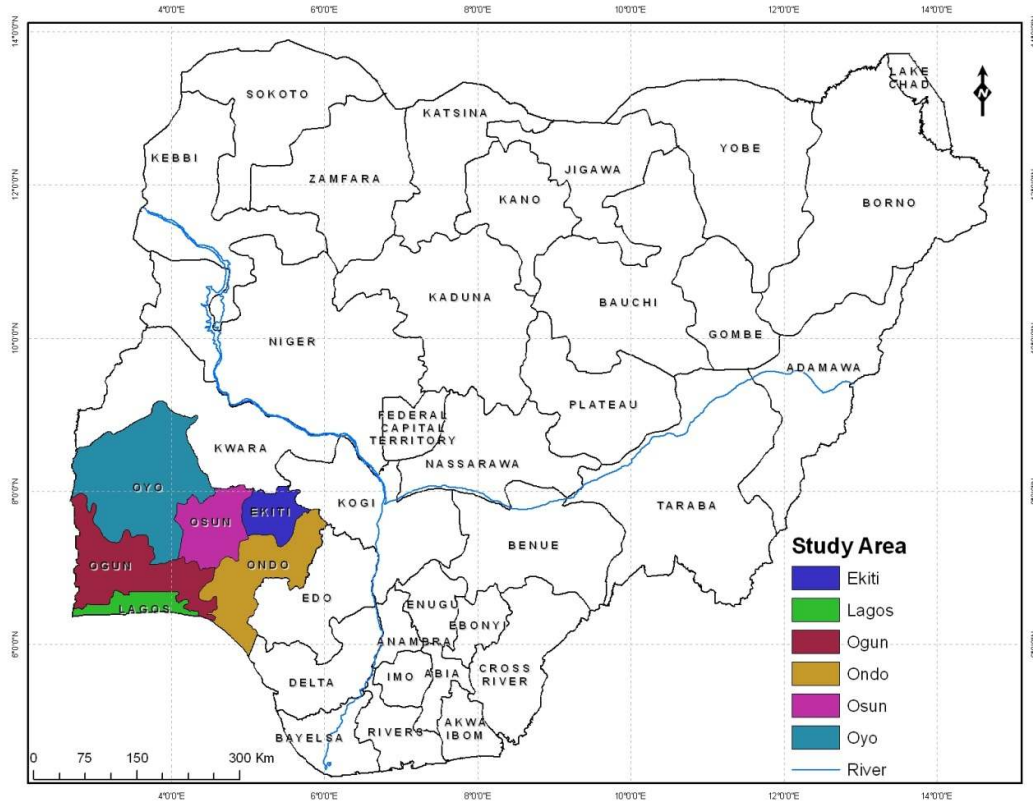


Figure 1: Map of Nigeria showing the position of the study areas

Climate and Vegetation of Southwest Nigeria

The Southwest Nigeria's climate is tropical in nature and this leads to two major seasons (wet and dry seasons). The temperature ranges between 21°C and 34°C while the annual rainfall ranges between 1500mm and 3000mm. The wet season is associated with the Southwest monsoon wind from the Atlantic Ocean while the dry season is associated with the northeast trade wind from the Sahara desert. The vegetation cover in the Southwest Nigeria is forest, which is characterized by a large number of woody plants including trees, shrubs, herbs or climbers with a few grasses.

Data Collection

Primary data were collected from the forest officers. All the forest officers in charge of the 31 forestry administrative zones in the six states of Nigeria namely: Ekiti (four); Lagos (five); Ogun (four); Ondo (eight); Osun (six) and Oyo (four) and one forest officer from each of the six state's headquarters were interviewed using structured questionnaires to obtain data on

108 forest administration (staff, finance, log control, planning and logistics). Thirty-seven forest
 109 officers were interviewed in all (table 2 and 3).

110 **Table 1: Zonal Offices**

States	Zones
Ekiti	4 Zones (Ado, Ikere, Ikole Ido and Ekiti)
Lagos	5 Zones (Badagry, Epe, Ikeja, Lagos and Ikorodu)
Ogun	4 Zones (Egba, Yewa, Remo and Ijebu)
Ondo	8 Zones (Akure South, Akure North, Idanre, Ore, Owo, Ikare, Ifon, and Ondo)
Osun	6 Zones (Ife, Ilesa, Ikirun, Osogbo, Iwo and Ede)
Oyo	4 Zones (Ibadan, Oyo, Saki and Ogbomosho)

111 **Field Survey: 2005**

112 **Sampling of Forest Officers:**

113 One Officer in charge of each administrative zone was selected and one from each of the state
 114 headquarters.

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116 **Table 2: Number of Zonal forest officers**

States	Number of Officers
Ekiti	5
Lagos	6
Ogun	5
Ondo	9
Osun	7
Oyo	5
Total	37

117 **Field Survey: 2005**

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Data Analysis:

Simple statistical tools such as frequency distribution, tables and percentages were used for the analysis and Kolmogorov- Smirnov two sample tests.

Kolmogorov- Smirnov two sample test

According to Faleyimu *et al* (2010), a nonparametric test (Kolmogorov- Smirnov two sample test) is that tests which show difference between two distributions. Its null hypothesis is identity in distribution for the two samples and thus the test is sensitive to differences in location, dispersion, skewness and so forth. This test is quite simple to carry out. It is based on the unsigned differences between the relative frequency distributions of the two samples. Expected critical values can be looked up in a table or evaluated approximately. Comparison between observed and expected values leads to decisions whether the maximum difference between the two cumulative frequency distributions is significant. It has greater power than the chi-square test for goodness of fit (Sokal and Rohlf, 1981).

An approximate two-tailed critical value for the test statistic D can be computed as:

$$D_{\alpha} = K_{\alpha} \sqrt{\frac{n_1 + n_2}{n_1 n_2}} \quad \text{Equation 1}$$

Where $K_{\alpha} = \sqrt{1/2 - \ln(\alpha/2)}$ Equation 2

D = test statistic

n_1, n_2 = Sample sizes

n_1 and n_2 represent Yes and No response respectively.

RESULTS:

Provision of Up-to-Date Maps of the Forest Areas as a measure to forestry development.

Maps are thoroughly and thoughtfully put in place for execution in order to give the forest services a focus that will enable them to fulfill their forest development objectives. Table 4 showed that 20%, 33.3%, 80%, 77.8%, 42.9%, 20% of the zonal forest officers in Ekiti, Lagos, Ogun, Ondo, Osun, and Oyo States respectively agreed that there is provision of up

to date maps of their forest areas while 80%, 66.7%,20%,22.2%,57.1%, 80% in that order disagreed. The pooled result showed 48.6% do not agreed. Kolmogorov-smirnov analysis (D) revealed that forestry development in the South-West Nigeria have significant relationship with the provision of up to date map of the forest areas (D=2.52, $p<0.01$).

Table 3: Zonal Forestry Officers' Response to Provision of up-to-date Maps of the Forest areas as a Measure to Forestry Development

Zonal Officers' Response

States	Yes		No		Kolmogorov-smirnov analysis (D)	Significance level
	Frequency	Percentage	80	Percentage		
Ekiti	1	20	66.7	80		
Lagos	2	33.3	20	66.7		
Ogun	4	80	22.2	20		
Ondo	7	77.8	57.1	22.2		
Osun	3	42.9	80	57.1		
Oyo	1	20	51.4	80		
South-West	18	48.6	19	51.4	2.52	0.00*

***Significant at 0.01 ($p<0.01$)**

Provision of Adequate Equipment to Run the Forest Affairs as to measure to forestry development

Without field equipment the staff will remain non-functional. Table 5 showed that provision of equipment and tools to run forest affairs in the South-West are inadequate. This has been one of the major problems of forest development in the area. Only 20%, 33.3%, 40%, 44.4%, 28.6%, 40% of the zonal forest officer in Ekiti, ,Lagos, Ogun, Ondo, Osun, and Oyo States

respectively agreed that there is adequate equipment and tool to run the forest affairs while the 80%,66.7%, 60%,55.6%,71.4%, 60% in that order disagreed (plate 6). In South-West Nigeria, 40.5% of the officers agreed that the State forestry departments have adequate equipment and tools while 59.5% of the officer totally disagreed. Kolmogorov-smirnov analysis (D) of this results revealed that provision of adequate equipment and tool to run the forest affairs have significant relationship with forestry development (D = 2.26, $p < 0.01$).

Table 4: Zonal Officers' Response to Provision of Adequate Equipment to Run the Forest Affairs as a Measure to Forestry Development.

Zonal Officers' Response

States	Yes		No		Kolmogorov-smirnov analysis (D)	Significance level
	Frequency	Percentage	Frequency	Percentage		
Ekiti	1	20	4	80		
Lagos	2	33.3	4	66.7		
Ogun	2	40	3	60		
Ondo	4	44.4	5	55.6		
Osun	2	28.6	5	71.4		
Oyo	2	40	3	60		
South-West	15	40.5	22	59.5	2.26	0.00*

*Significant at 0.01 ($p < 0.01$)

Supervision as a Measure to Forestry Development

Supervision is effort to make specific forestry programs effective and to achieve common policy objectives. If an effort is to be made to carry out a coordinated programme or even a programme involving many staff there should be some means of controlling the individual

actions which makeup the programme. Table 6 showed that all the zonal forest officers carry out supervision. The pooled data revealed that 94.5% of the officers agreed while only 5.4% disagreed that they carried out supervision except in Lagos where 66.7% of the officers agreed and 33.3% disagreed. Kolmogorov-smirnov analysis of this result showed that forestry development have significant relationship with effective supervision of forest programme ($D=3.20$, $p<0.01$).

Table 5: Zonal Forestry Officers Response to Supervision and Co-Ordination as a Measure to Forestry Development

Zonal Officers' Response

States	Yes		No		Kolmogorov-smirnov analysis (D)	Significance level
	Frequency	Percentage	Frequency	Percentage		
Ekiti	5	100	0	0		
Lagos	4	66.7	2	33.3		
Ogun	5	100	0	0		
Ondo	9	100	0	0		
Osun	7	100	0	0		
Oyo	5	100	0	0		
South-West	35	94.6	2	5.4	3.20	0.00*

***Significant at 0.01 ($p<0.01$)**

Regular Annual Report in Forestry Activities as a Measure to Forestry Development

Annual reports are the results of activities carried out in a year. Table 7 revealed a general trend where 80%, 100% 100%, 66.7% 85.7% and 100% corresponding to Ekiti, Lagos, Ogun, Ondo Osun and Oyo State respectively agreed that they prepare regular annual reports. The pooled data from the South-West indicated that 86.5% agreed that they prepare regular annual report of forestry activities while 13.5% disagreed. Further analysis with Komogorov-

smirnov test revealed that regular annual report of forestry activities have significant relationship with forestry development ($D=3.14$, $p<0.01$).

However, experience from the field revealed that the reports are hardly made available for public consumption.

Table 6: Zonal Forestry Officers Response to preparation of Regular Annual Reports on Forestry Activities as a Measure to Forestry Development.

Zonal Officers' Response						
States	Yes		No		Kolmogorov-smirnov analysis (D)	Significance level
	Frequency	Percentage	Frequency	Percentage		
Ekiti	4	80	1	20		
Lagos	6	100	2	33.3		
Ogun	5	100	0	0		
Ondo	6	66.7	3	33.3		
Osun	6	85.7	1	14.3		
Oyo	5	100	0	0		
South-West	32	86.5	5	13.5	3.14	0.00*

***Significant at 0.01 ($p<0.01$)**

Discussion

Provision of up-to-date maps of the forest areas

The result revealed that it is only Ogun and Ondo States have up to date maps of the forest areas in the South-Western Nigeria. According to Akindele (2001), most of the available forest reserves maps are old and out dated in actual fact, many of the people in charge of forest administration in the South-West Nigeria are not sure of the exact extent of their forest

reserves. The boundaries are not maintained and most boundary pillars cannot be easily located. There have been series of encroachment into the reserves, including carving out of areas an enclaves for forest communities. These are scarcely reflected on the existing forest reserve maps. Obviously, this lack of up-to-date maps constitutes a serious problem to sustainable forest management. Akindele (2001) asserts that it is pertinent to carry out fresh ground survey of the forest reserve boundaries with a view to producing new maps. This will quite be an expensive project, but the end result and usefulness of the new maps will justify such investment. The assistance of donor agencies could be sought in this regard to offset some of the cost. Each state should set up a survey and mapping unit with modern tools and equipment within its forestry department, which would be trained to participate in the survey, and mapping processes. This unit should then be funded to provide updates of the maps from time to time as may be required.

Provision of Adequate Equipment to run the Forest Affairs

The research revealed that all the forest service in the southwest lack adequate tools and equipment to work with. According to Adeyoju (2005), there is no forest service that is more than 5 percent sufficient in terms of tools and equipment needed to prosecute its mandate. Practically, the vital field gear, nursery equipment, office accommodation and field vehicles exist in bold obsolete contents. Technology and skills keep changing and when they are wholly unavailable as is now the case with the forest services, then, the capability of data gathering, analysis, management, prediction and modeling is at best, a dream line. There is therefore the need to procure the right tools, equipment and logistics in all the state forest services in the South-West Nigeria.

Supervision of Forest Programmes

This result also revealed that 100% of all the zonal forestry officers except in Lagos agreed that there is good supervision of forestry programmes. It is disheartening to hear of the gross illegal operations been perpetrated in the south-west Nigeria despite this Zonal Officers response. However, information gathered from the fieldwork revealed that those always caught in the act of illegal operations are those that want to 'escape' without 'settlement'. Supervision, coordination and general control, because of the nature of forestry and forest resources, most forest service set up to execute forest policies are large and have activities which are geographically widespread. The zonal forest officer in charge of the zonal forest cannot personally supervise all of the people or individual activities for which he is

responsible. In most cases, he cannot even be technically competent to personally supervise programmes involving such diverse skills and knowledge as most forestry programmes do. He therefore has to depend on other people who can be present on the scene of activity or who have the necessary technical knowledge to act for him which are not adequately available. Hence, there is the extensive delegation of responsibility on and authority in the administration of forestry programmes (Worrel, 1970).

It is obvious that the only forest policies that can be executed by single individuals are rather trivial ones. Individuals certainly do play significant roles in executing important forest policies, but many other staff must also be involved if the execution is to be really effective. The problem of coordination shows up in two main forms. Coordination of efforts to make specific forestry programs effective and coordination of efforts to achieve common policy objectives. It is not a very long step from coordination to control. If an effort is to be made to carry out a coordinated programme or even a programme involving many staff, which are not adequately available in quality and quantity, there must be some means of controlling the individual actions which makeup the programme. Control thus consists of clearly establishing what each part of the organization is to do and then making sure that it does it.

Regular annual reports

Although the study clearly revealed that most of the zonal officers in the south west always prepare regular annual reports on forestry activities, this report is seldom made available to the public on request, hence the lack of transparency and accountability. The annual report ought to be published to make it possible for all kinds of readers to judge what they have been doing.

Conclusion:

The forestry sub sector should not be expected to perform major economic roles unless the administrative sector is developed, a newly reconstructed and restructured forest sector, built on the pillars of accountability and transparency, would play a major role in sustainable forestry development.

Forest protection is universally recognized as an indispensable task for achievement of environmental health and sustainable development. However, recent experiences across the

globe are pointing to the fact that forest protection programme devoid of people's participation amounts to waste of resources on the part of government, forest depletion and deprivation of the grassroots of the resources within their environment.

It is however, recommended that:

- The government should provide forestry officials with the necessary financial support, equipment, communication and transportation to enable them carry out their work promptly and effectively.
- State forestry departments should formulate policies consistent with the development of their endowed forest resources, cultural and the socio-economic setting rather than adopting over ambitious, ambiguous and inconsistent policies.
- There is obviously a need for a regular evaluation of reports and reporting system in the forest services in the South-West Nigeria.

It is believed that if these suggestions are taken into consideration, a responsive policy on forest governance would emerge and a shared community of understanding among the stakeholders necessary for good governance and administration would lay the foundation for sustainable forest management in Nigeria.

REFERENCE:

Adeyoju, S.K. 2005. Institutional arrangements in support of sustainable forest management in Nigeria. *In sustainable Forest Management in Nigeria: Lesson and prospects. Proceeding, of the 30th Annual conference of the Forestry Association of Nigeria held in Kaduna, Kaduna, State, Nigeria 07-11 Nov, 2005.* pp 590-598.

African Forestry and Wildlife Commission, 1995. Report of the 10th Session the African Forestry and Wildlife Commission (AFWC). Sanbonane, South Africa.

Akindele, S.O 2001. Review of urgent management requirements for Nigerian forestry. *In the proceedings of the 27th Annual in the proceedings of the conference of Forestry Association of Nigeria ueled in Abuja, FCT, 17-21st Sept., 2001.* pp75-84

Agboola S.A. 1979. An Agricultural Atlas of Nigeria, Oxford University Press, Nigeria 248.pp.

314

315 Dykstra, D.P., G.S. Kowero, A. Ofosu-Asiedu and P. Kio, 1997. Promoting Stewardship of
 316 Forests in the Humid Forest Zone in Anglophone West and Central Africa. Final Report
 317 Chapter 7. UNEP/CIFOR.

318 Faleyimu O. I. Akinyemi¹, O and Agbeja, B. O. 2010. Incentives for Forestry Development in
 319 the South-West Nigeria. African Journal of General Agriculture. 6 (2): 67-76.

320

321 FOMECU 1998. Forest Resource Survey, Geomatics, Nigeria Ltd, Abuja.

322

323 NPC 1991. National Population Commission, Abuja.

324

325 ITTO 2005. Tropical forest update Liberia's Great thirst vol 15. Number 3. Pp 31.

326 Owino F. and Ndinga A. (2004): A report prepared for the project *Lessons Learnt on*
 327 *Sustainable Forest Management in Africa*. Study on forest administration and related
 328 institutional arrangements. Sponsored by Royal Swedish Academy of Agriculture and
 329 Forestry (KSLA), African Forest Research Network (AFORNET) at the African Academy of
 330 Sciences (AAS), Food and Agriculture Organisation of the United Nations (FAO). Pp44

331

332 Sokal R.R and Rohlf F.J. 1981. Biometry. The Principles and Practices of Statistics in Biological
 333 Research. Published by W.H. Freeman and company San Francisco pp 859.

334

335 Shittu Akinola . 2006. Good Governance, Land Administration and Land Administration
 336 Program (LAP) in Ghana. TS1.4 Land Use Decree, Forest Administration and Governance
 337 Crises in Nigeria. Promoting Land Administration and Good Governance 5th FIG Regional
 338 Conference Accra, Ghana, March 8-11, 2006.

339

340 Worrel, A.C. 1970. Principles of forest policy. Published by McGraw-Hill Book Company,
 341 New York. Pp 243.