

Status of Forest Policy Implementation in Kaduna State, Nigeria

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Abstract: The paper examines the status of forest policy implementation in Kaduna State, Nigeria. Secondary data were collected from forestry administrative zones, State Ministry of Finance (Department of Revenue Generation), and Ministry of Environment and Natural Resources all in Kaduna State, Nigeria. Result showed that private forestry practice covered a total land area of 3210.2 hectares. Forest reserve and Forest plantation covered a total land mass of 4,090,959.10 hectares and 60476.32 hectares respectively. The total money budgeted from 2004 to 2008 by the State Government was N317,490,793.71 while the amount received by the Forestry Department was N241, 244,273.48 (75.98%). Out of a total revenue of N15,320,228.04 that was generated between 2004 and 2008, only N7,169,234.32 was ploughed back for forest regeneration which represents 46.79%. A total of two hundred and ninety three staff was expected to handle the activities of the project but only one hundred and ninety-three staff (65.87%) was available. Adequate funding and necessary manpower should be provided to further boost forestry development in Kaduna State.

Key words: Private forestry, plantation, revenue generation, forest reserve.

INTRODUCTION

Around the world, especially in Nigeria, the degradation, fragmentation and simplification or conversion of forest ecosystems is progressing rapidly (Abramovitz, 1998). Out of all the forests and forest reserves in Nigeria that remained relatively undisturbed until the 1980s, significant portions of these remaining forest and forest reserve ecosystems have been lost in the last two decades. As these natural forest ecosystems disappear, so do many of the goods and services, like timber, fuel wood, watershed, charcoal, pharmaceuticals, erosion control and prevention, soil stabilization, food, fruits/nuts, etc, which they provide. Ensuring that these goods and services are maintained requires both intra- and inter-generational sustainability. In other words, a sustainable and productive forest-reserve resource base can ensure enduring food and environmental security. But even though forest resources are renewable (i.e. regenerative), forest reserve degradation and deforestation pose the most formidable threats to forest-reserve resource base (WCED, 1987). According to FAO (1997), Nigeria's total forest area in 1990 stood at 14,387,000 hectares. But in 1995, it stood at 13,780,000 hectares with a total change, 1990 – 1995, of –607,000 hectares at an annual change of –121,000 hectares (i.e. –0.9%). Adedoyin 1995 and Faleyimu, *et al*, 2009b) describes the current situation as deplorable. After independence, the Nigerian government placed emphasis on the exploitation of forest resources for industrial development and increased foreign exchange earnings. The need to meet with these demands accentuated the unregulated exploitation of forest and forest-reserve resources. In Nigeria, the management of forest reserves is the responsibility of the state governments. How well or how far these state governments (with special focus on Enugu State) ensure the sustainability of these forest reserves, in the light of the threats enunciated above, is not known.

There is no precise definition of forest policy because of the nature of the subject. It is a political issue. Essentially, it deals with the decision arrived at either in the national, international or regional interest. Forestry policy is a written statement or guidelines for the operation of forestry in a state. Without a specific principle of operation, forestry exploitation will have no limit by people (Arifalo, 2005). A forestry policy guides the director of forestry (chief conservator of forest) on how to implement the objectives contained in the policy for forestry management and administration. The forest is an important component of mans environment, if properly managed, can provide myriad of benefits like sources of foreign exchange earnings, employments, housing materials and construction materials e.g. electrification, telegraphic etc. It can also provide ecological

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benefits such as erosion control, stream flow regulation and provision of a whole safe environment (Arifalo, 1990). Forest have multiple uses and increasing number of landowners use their forestland for residential purpose, aesthetic enjoyment, hunting and estate investment in addition to timber production (Hugosson and Ingermarson, 2004). Butler and Leatherberry (2004) reported that timber production is not a primary objective for most forestry owners. This explanation is plausible, but is economically rational to owning forest land for the goods and services a forest can provide rather than obtaining the same goods and services from other means.

Forest policy helps to protect, restore naturally functioning ecosystem and provides a frame-work for future development of the forest for ecological, social and economic function (Arifola 2005). In Kaduna State, rules and regulation for proper management of forestry are made by the Government while the State House of Assembly do form laws as part of the policy toward achieving sustainability in forestry (Kaduna State Forestry Operation Manual, 2003). Despite the fact that people violate these rules and regulations, certain achievements are recorded annually as it has helped to prevent desertification and ensure normal functioning of the ecosystem to some extent (Kaduna State Forestry Operation Manual Kaduna State Forestry Operation Manual, 1999). Forest policy of the Kaduna State Government covers the protection and reservation of certain areas of land for forestry outlay in the entire state (Kaduna State Gazette, 2006). The objectives of the policy are to: conserve the forest and protect the environment; regenerate forest at greater height than exploitation; make adequate provision of fund for the realization of the policy objective; ensure optimal utilization of forest and forest products; protect forest estate from fire, poachers, trespassers and unauthorized grazing; encourage private forest owners in the state; create man-made forest for specific uses; develop a national park and forest reserve; cooperate with other nations in forestry development; increase employment opportunities and develop a more efficient use of wood energy and encourage the use of alternative fuel energy for fuelwood utilization (Kaduna State House of Assembly, 2003).

The natural forest is gradually getting extinct because of pressures occasioned by agricultural and infrastructural development. Thus the Kaduna state government encourages community participation in forestry development by allowing local government to operate forestry on their own. According to FAO (1997), community forestry has been defined "as any situation which intimately involves local people in a forestry activity. It embraces situations ranging from wood lots to artisan or small scale industry level to generate income to the activities of forest-dependent communities but excludes large scale industrial forestry". Forestry today transcends the traditional definition as the act of planning, tending and managing forest. It involves in addition to the above, the planting of trees, processing and utilization of majority of forest products such as wood for pulp and paper and sawn logs for industrial and economic purposes. A close observation of trends in forestry development in Nigeria indicates little involvement of private individuals who derive enormous benefits from the forest (Popoola, 1992). Presently in Kaduna State getting involved in private forestry is aimed at poverty alleviation, while communal forest is known to have sprung up in the different ecological zones for various purposes. Some of these communal forests have sprung up as a result of wood scarcity (wood lots), other have been established to check desertification. Others have also been organized to increase earnings from the forest resources. A typical example of community forestry is that of Kasaya district in Chikun Local Government of the state with a total area of about 128ha. Private forestry participation in Kaduna state is recent and is gaining acceptance because of its numerous benefits such as the provision of wood and fuel fibres, fertilization of soil for farming and fodder for animals. In private forestry, fast growing species are mostly planted to replace the declining natural forest. Achieving sustainable forest management will only be possible when sensible rules and regulations are enforced and adhered to (ITTO, 2005, Faleyimu *et al.*, 2009). This paper examines the state of forest policy implementation towards achieving forest sustainability in Kaduna State.

Methodology:

Study Area:

The study was conducted in Kaduna state. Kaduna state lies within latitude $8^{\circ} 45'$ and $11^{\circ} 30'N$ and longitude $6^{\circ} 10'$ and 9° . The state is estimated to cover a land mass area of about 48,473.2 square kilometers with a population of about 6,066, 652. The climate varies from north to south of the state. Kaduna belongs to the guinea savanna vegetation belt with rainfall starting in April and ending in October in the southern part of the state. The annual rain fall shows marked decreases from 1,524mm in the south to 635mm in the north while the mean annual temperature ranges between $19^{\circ}C$ – $32^{\circ}C$.

Method of Data Collection:

Secondary data were collected from forestry administrative zones, State Ministry of Finance (Department of Revenue Generation), and Ministry of Environment and Natural Resources all in Kaduna State, Nigeria

RESULTS AND DISCUSSION**Table 1:** Plantations established by private forest owners in Kaduna State.

S/N	Names of Owners	Location Local Government/Village	Year of Establishment	Species. Composition	Hectare
1	Alhaji Suleman Kagarko	Kagarko L.G.	2000/2001	Teak	96
2	Plantation Project	Dogondaji Village 1&2			
3	Alhaji Suleman Kagarko	Ganga village L.G.A	2000		3
3	Plantation Project	Kuse Village K.L.G 2,2&3	2001/2005/2006	Teak	
4	Alhaji Suleman Kagarko	T/Wada village K.L.G	2001	Teak	284
4	Plantation Project				
5	Ere Koro	Mabaka Village K.L.G	1995/2009	Teak	23
6	Ere Koro	Maraba Village K.L.G	1995/2009	Teak	35
7	Ere Koro	Maraba Village K.L.G	1995/2009	Teak	22
8	Sarkin Jere	Jere K.L.G	2006/2007	Teak	30
9	Hon. Amaks	Kagarko L.G	1986	Teak	21
10	Hon. Sale Moh'd Jere	Jeer Village K.L.G	2008	Teak	30
11	Moh'd Korau	Kagarko Village K.L.G	2005	Teak	11
12	Idris Suleman	Kagarko Village K.L.G	2006/2007	Teak	10
13	Safiyanu Suleman	Kagarko Village K.L.G	2006	Teak	10
14	Zubairu U Jere	Jere Village K.L.G	2002	Teak	6
15	Ibrahim Sambo	Jere Village K.L.G	2002	Teak	6
16	Alh. Adamu (D) Kagarko	Kagarko K.L.G	1999/2009	Teak	3
17	Alh. Adamu (D) Kagarko	Kagarko K.L.G	1995	Orange	65
18	Alh. Adamu (D) Kagarko	Kagarko K.L.G	1995	Mango	5
19	Alh. Adamu (D) Kagarko	Kagarko K.L.G	1995	Gwada	5
20	Alh. Adamu (D) Kagarko	Kagarko K.L.G	1995	Oil farm tree	5
21	Alh. Adamu (D) Kagarko	Kagarko K.L.G	1995	Oil farm tree	5
22	Livi Oil Farm Project	Kagarko L.G	2009	Oil farm tree	85
23	Hon. Moh'd Baba Zaria	Igabi L.G	2006/2007	Orchard=Mango, Gwava, Orange and Cashew	62
24	Alh. Abu Safiyanu	Igabi L.G	2008/2009	Orchard = Mango, Gwava Orange, Cashew	60
25	Alh. Lawal S. Fada	Kagarko L.G	2006	Orchard, Mango, Orange coil farm tree	5
26	Kasan Dutse	Kagarko L.G	1964	Oil farm tree	2
27	Hon. Magaji Moh'd	Buruku Village	1991	Mango, Orange, Cashew, Gwava	42
28	Justice Mamman Nasir	Buruku Village	1975	Mango, Gwava, Lemon, Eucalyptus, Cashew	40
29	Gen. Magoro	Pande Village CH.L.G	1993	Mango/Gwava	29
30	Dr. Rhailama Plantation	Godogodo Jenfa'a L.G	1998	Tectona grandis	16.5
31	Dr. Rhailama Plantation	Ung. Yaute Wasa J.L.G	1999	Tectona grandis	10.2
32	Ado Plantation	Gidan Waya vikat. J.L.G	2002	Tectona grandis	11
33	Dr. Rilama plantation	Wasa Jema'a L.G	1982	Gmelina, Teak	20.5
34	Hon. Bello	Wasa J.L.G	1999	Teak, Gmelina	18.5
35	District Head Aboro	Aboro J.L.G	1989	Teak	5.5
36	Alh. Shaaibu Idris Mikati	B/Gwari	1999	Mango, Orange & Cashew	40
37	Barrister Jacob	Burukun CH.L.G	2003	Eucalyptus/Teak	25
38	Alh. Ahmed Moh'd Makarfi	Igabi L.G	2003	Mango, Gwava, Cashew, Orange	45
Total					3210.20

Source: Field Survey, 2010

Table 1 revealed the name of the individual owners, the location of the forest area, the year of establishment and the species of trees and also the size of the land. The plantation consists of fruits such mango, guava, cashew, oranges and economic trees such as Teak, Eucalyptus and Gmelina. The Private forestry practice covered a total area of 3210.2 hectares. However, this is in sharp contrast with the findings of Faleyimu *et al.*, (2009a) that the total land covered by private forestry in South-west Nigeria in 2005 is 1619.19 hectare. Faleyimu *et al.*, (2010) reported that incentive such as tax incentives, seedlings, and technical

assistance has impacted the participation of private forestry in the South-west Nigeria. There is therefore the need to introduce appropriate incentives (such as land, grants, loan, technical assistance and seedlings) to further boost private participation on forestry development in Kaduna State.

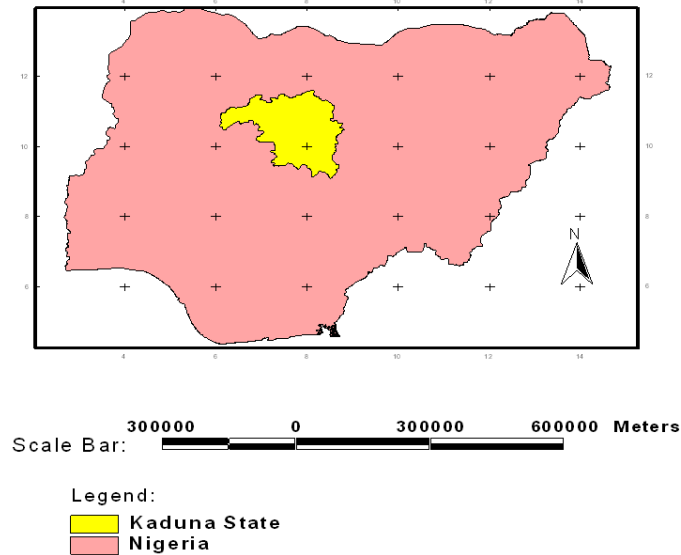


Fig. 1: Map of Nigeria showing the study area.

Table 2: Areas of Forest Reserves in Kaduna State.

S/N	FOREST RESERVES	LOCATION	YEAR OF ESTABLISHMENT	ORIGINAL SIZE (ha)	PRESENT SIZE
1	Mairabo, Kabama	Zaria/Soba L.G	1939-1967	2229.5	“
2	Kona	Soba L.G	1941	22821.84	“
3	Rikau maje Idasu, Fatika, Labar	Giwa L.G	1950-1957	186155.39	“
4	Anara, Ribako Kakangi, Rigachikun	Igabi L.G	1946-1955	56073.46	“
5	M/South & North, Katarma Kakau, Tukuru, Afake	Chikun L.G	1946-1961	666219.57	“
6	B.Gwari, D/Dawa, K/Game	B.Gwari L.G	1936-1939	1,498,206.1	“
7	Amere, Kafanchan, Anji Nimbia, Sanga, ninden e.t.c Kogon, Jaja, Chame e.t.c	Jama’a L.G	1934-1959	699713.54	“
8	Doka hills, K/Biri, Giwa, A/East & A/West mai Ido e.t.c	Kachia L.G	1944-1956	927,660.3	“
9	Kagarko, K/Kubo, K/Badiye, K/Kabara and k/ karami e.t.c	Kagarko L.G	1924-1968	31,879.4	“
Total				Total = 4,090,959.1	

Sources: Ministry of Environment and Natural Resources, Forestry Department, 2010.

Table 2 showed forest reserve areas in the selected local government areas of the state.

Table 3: Areas of forest Plantations in Kaduna State.

S/N	LOCATION	SPECIES	YEAR OF ESTABLISHMENT	HECTARE
1	Anara IGB.LG	Eucalyptus Spp	2004	30
2	Ribako (IG.LG	Eucalyptus/pinus	1976	20,487.86
3	Kabama (S/Zaria L.G)	Eucalyptus &Teak		804.05
4	Afa/Chike L.G	Eucalyptus, Teak, Pinus Mango, Orange, Cashew, neem (Orchard)	1972-2007	10,933.77
5	Guga G.L.G	Eucalyptus Spp	1971	2,074.74
6	Nimbia (Jema’a)	Teak/Gmelina, pinus	1959	22,105.00
7	Kafanchan Jema’a L.G	Pinus, Eucalyptus	1962	2,615.90
8	Mai,rabo PC Zaria L.G	Eucalyptus Spp		1,425.00
Total				60,476.32

Source: Ministry of Environment and Natural Resources, Forestry Department, 2010.

Table 3 showed the plantation zones in the state with their specific locations and the years of establishing the plantation with total number of hectares per each zone. Ribako in Igabi was established in 1976 with a total hectares of 20,487.86 as the highest and Anara, established in the 2004, was the lowest with 30 hectares only. Most of the species in the zone's plantations are eucalyptuses.

Table 4: Budget Allocation to Forestry 2004-2008.

YEAR	EXPECTED AMOUNT	AMOUNT RECEIVED	PERCENTAGE (%)
2004	54,259,031.94	52,259,038.74	96.3%
2005	57,834,092.53	51,259,031.94	88.6%
2006	71,642,545.11	62,952,688.93	87.8%
2007	66,532,305.06	43,876,800.00	65.9%
2008	67,222,819.07	30,896,713.87	45.9%
Total	317,490,793.71	241,244,273.48	75.98%

Source: State Ministry of Finance, Department of Revenue Generation 2010.

The table above showed the annual budget and amount received from 2004 to 2008. In the year 2004, 96.3% was received as seen above. Each year the money that are planned to be spent for forestry project are cut down due to political reason. Also 2007 and 2008 the amount received dropped from 65.9% and 45.9% respectively.

Table 5: Revenue Generation (2004-2008).

YEAR	REVENUE GENERATED	AMOUNT PLOUGHED BACK FOR REGENERATION	PERCENTAGE (%)
2004	2,992,600.25	1,346,670.11	45
2005	2,809,113.92	1,264,101.26	45
2006	2,984,000.00	1,342,800.1	45
2007	3,944,800.00	1,972,400.00	50
2008	2,589,713.87	1,243,262.85	48
Total	15,320,228.04	7,169,234.32	46.79

Sources: State Ministry of Finance, Department of Revenue Generation (2010).

The table above showed the revenue generated and the amount ploughed back for regeneration. Forestry department generated revenue internally through sales, tax, royalty and hiring out of equipment (machines). Between 2004 and 2005, 45% of the revenue generated was recycled back for the future year activity to enable the organization continues their activities before budget approval and other logistics. In 2007, 50% was ploughed back for regeneration exercise and finally, in 2008 it increased to 55% to enable the organization do better.

Table 6: Staff Strength in Forestry Department.

S/N	Staff	Streight (Number)	Expected Streight (Number)	Percentage % Available
1	Professional (Degree holders)	12	21	57
2	Technical (OND & HND holders)	13	25	52
3	Vocational (Forest guards cadre)	52	68	76
4	Vocational (Silvicultural overseers)	21	33	64
5	Vocational (power saw operations/craftsmen)	9	12	75
6	Labour (Unskilled & semi-skilled)	65	97	67
7	Auxiliary (personnel/Secretarial/Accounts/Typists, Messengers, Drivers)	21	27	78
	Total	193	293	65.87%

Source: Forestry Department Ministry of Environment and Natural Resources (2010).

Table 6 showed the staff strength of the forestry department. The professional staff is only 12 while the standard strength expected are 21. The technical unlike the Degree Professionals, are the staff with OND and HND with population of 13 only, while the expected is 25 staff to execute all duties within their responsibilities. The vocational staff consists of forest guard, fire fighters which consists of only 52 staff and 68 are expected mostly with senior school certificate and above. The vocational staff are 21 staff who undergone a training sponsored by the project to enable them efficient in performing their responsibilities but 33 staff are expected to be enough to discharge the work effectively because their work is brushing, nursery operation, thinning, weeding and others considering the large size of the area (area). The vocational or power saw operators consist of only 9 staff while the strength of staff expected is 12 as required in the schedule of duty, each power saw to be handle by one operators and three assistants. The unskilled and semi skilled totaled 65, while 97 are required, these categories of staff are responsible for clearing, security and nursery labour.

A total of 21 auxiliary staff exists in the organization while 37 staff is expected to serve in the organization. These categories of staff include staff in the registry, store, typist, accountants, apprentice, and driver (tractor and caterpillars operators). Finally, looking at the current staff of the organization the project has a total of only one hundred and ninety three staff and for sufficient work and proper execution of schedule of work, a total of two hundred and ninety three staff are expected to handle the activities of the project. The report confirmed that of Adeyaju (2005) and Faleyimu *et al.*, (2009c) that the work force in the forestry sector is inadequate in size, and that weak Institutional capacity is a limitation to the effective implementation of forest policy.

Conclusion and Recommendation:

The work force in the forestry sector is inadequate in size, Standard of performance and quality of training at professional, technical and sub-technical levels. Human resources constitute the vital vein of any organization. Formal organization has great concern for the development, use and interaction of resources, which are necessary to achieve the organization goals (NTI, 2004). Analysis of policy alternatives needs to be done as objectively as possible to provide information to policymakers. When evaluating the effectiveness of a proposed or existing programme, many decision criteria can and should be used. Many factors do influence the success or failure of a programme. Specific goals, quantitative standards and on going programme monitoring will help lead to success. It is recommended that:

1. There should be collaboration support between the federal authorities, state, local government and NGOs to develop realistic investment profile for private forestry.
2. Government should ensure provision of adequate and qualified staff in the forestry department.
3. There must be sufficient fund to this sector for the implementation of forestry policy.

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