Full Length Research Paper

Evaluation of forest policy in Nigeria: A case study of Edo state

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The research was undertaken from 1997-2000 to investigate how forest policy has faired in meeting the set objectives in forestry contexts and development in study area. The result showed that deforestation and consolidation of forest reserves accounted for 73.64 and 3.10%, respectively. The result also revealed that there was significant difference in the participation of professional foresters and taskforce as well as regeneration and exploitation of forest resources ($P<0.05$). It also revealed that there were significant differences among the threats to forest protection ($P<0.05$) and further analysis with LSD identified trespass as the most dominant threats. The result also showed that the increase in employment, creation of man made forest and encouragement of private forestry accounted for 41.65, 19.85 and 10.19% respectively. It was observed that there was no significant difference among the various rates of decline of the forest estates under review.

Key words: Policy evaluation, environmental protection, consolidation, exploitation, pervasive issues.

INTRODUCTION

Formal forest policy formulation only started in Nigeria in 1890 when George Denton, in his capacity as acting Governor of the colony of Lagos, established a forest administration and set aside some forest estates as government protected areas (Egbo, 1985). According to Harcharik (1996) and De-Montalembart (1996) forest contributes significantly to satisfying peoples' needs for fuel, food, medicine, fodder (animal feeds), spiritual fulfillment, shelter and income (especially in rural areas).

The United Nations Environmental Programme/Centre for international forestry research outlined forest policy objectives as follows:

1. Consolidation and expansion of the forest estate (plantation).
2. Protection of environment.
3. Regeneration at a rate higher than exploitation.
4. Transportation, processing and marketing.

5. Forest protection from all agencies that poses threat such as fires, poachers, trespassers and unauthorized grazers.
6. Encouragement of private forestry and creation of man made forest.
7. Development of non-wood products.
8. Development of parks and game reserves and increase opportunities in employment.
9. Encouragement of agro-forestry (growing of agricultural crops and tree crops together) (Dykstria et al., 1996).

Thus forest policy issues concern forest reservation, wood production, government involvement and control of forest industries as well as the management of savannah areas for multipurpose uses and the protection of river courses.

Nigeria has since independence in 1960, shifted from the long-term pursuit of forest policy objectives to inconsistent forest management. Indeed, the country has launched a number of periodic plans, which have usually more or less, drawn upon the normal guidelines (such as those prescribed by the United Nations Environmental Programme/Centre for International Forestry Research)

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Table 1. Status of forest estate in Edo State (%).

Communities	Consolidation	Deforestation	Dereservation
Afuze	-	4.65	-
Ehor	-	9.30	2.33
Ekehuan	-	5.43	1.55
Ologbo	-	6.20	3.10
Odighi	3.10	0.78	1.55
Ogba	-	11.63	9.30
Sobe	-	8.54	-
Ubiaja	-	6.20	2.33
Ugbogui	-	10.08	-
Ugo	-	10.85	3.10
Total	**3.10**	**73.64**	**23.26**

on sound forestry policy and management.

The task of this study is therefore to investigate and analyse the effectiveness of forestry policy in Nigeria, taking Edo State as a case study. This is to assess the extent of realization of some laid down forest policy objectives in the day to day practice of forestry in the state. It also borders on the assessment of the impacts of particular policy (Bozaman, 1979). Though most policies in Nigeria have been finely drawn, the usual problems always lie with the implementation phase of the policy process. Thus, it is imperative for an analysis of forestry policy to be carried out through policy evaluation study which is the main focus of the attention. Some of the specific considerations are to assess the participation of trained foresters in the execution of forestry business, to determine development of forest estates, evaluate threats to forests, issues of forest development and decline of forest estates over the years.

MATERIALS AND METHODS

Methodology

The study was carried out in Edo State, South-Western Nigeria with particular reference to 10 communities, viz: Afuze, Ehor, Ekehaun, Ologbo, Odighi, Ogba, Sobe, Ubiaja, Ugbogui, and Ugo. The locations represented five local Government Areas in the state which were randomly selected for the evaluation of forestry policy in the state. The State is dominated by the moist tropical forest with low land rain forest accounting for 76.5% of the total land area (Formecu, 1999). Approximately, the area is located between longitude 44° and 45°E and between latitudes 17°15" and 8°5" N.

Sampling method

A reconnaissance survey was carried out in the towns or villages that comprised the study area. The two groups of the respondents were identified which numbered 40 and 330 for forestry staff and timber contractors, respectively. Their distributions in each

town/village were identified before random sampling was used to select 90% and 30% of the total number of the forestry staff and contractors in each area, respectively. These respondents within each community were randomly sampled and questionnaires were administered accordingly. The total data collection was actually through simple administration of questionnaire, direct observations by the researchers as well as secondary data from forest area offices and the headquarter.

Statistical analysis

The data generated from the study on the participants in forest and environmental protection activities and development of forest estate were analyzed with "t" test according to Alika (1997). ANOVA was used to analyze data on threats to forest protection and the decline of forest areas while simple percentages were used for data on status of forest estate and issues of forest development.

RESULTS AND DISCUSSION

The results of these studies indicated high incidence of deforestation in the reserve, irrespective of natural forest and plantation due to high occurrence of dereservation and least occurrence of consolidation of the estates. The phenomena, deforestation, dereservation and consolidation of forest reserves accounted for 73.64, 23.26 and 3.10%, respectively (Table 1). The revelation is that the target set by forest policy objectives especially expansion of the estate appeared not to be met. However, it will be uneconomical to leave many over-matured trees unexploited for another 25-75 years to rot on the face of the pressing need for funds for economic development (Obaseki, 1973). Contrarily, Evans (1999) has noted that since 1980 afforestation has increased in most countries in the tropics because of large scale afforestation programmes. Edo State as well as many other states in Nigeria commenced plantation earlier than 1980s but the trend was not sustained, rather the forest estate appears to decline from 30% to 23% of the total

land area of the state over the years (Azeke, 2002). The reason is because forest estate has been ceded through dereservation as well as encroachment of housing estates and arable crop production.

Table 2. Participants in forest and environmental protection activities.

Communities	Professionals	Taskforce
Afuze	8	3
Ehor	11	2
Ekehaun	6	4
Ologbo	10	2
Odigin	10	1
Ogba	8	3
Ubiaja	6	4
Ugbogui	10	1
Ugo	9	1
Sobe	8	2
Total	**86**	**23**

Table 3. Development of forest estate.

Communities	Regeneration	Exploitation
Afuze	3	10
Ehor	6	22
Ekehaun	2	9
Odighi	7	16
Ogba	4	6
Ologbo	1	10
Ubiaja	3	6
Sobe	7	17
Ugbogui	2	15
Ugo	1	7
Total	**36**	**118**

Participation of professional foresters

The involvement of professional foresters and task force in forest protection explains to a large extent how some forest policy objective are pursued in view of realizing the set goals. The results showed significant difference between the means of the number of professionals and taskforce involved in forest protection (Table 2). The indication was the degree of participation shown by the two categories of workers in the protection activities. The results revealed that the number of forest professionals including officers, technical and uniform staff members exceeded the members of taskforce involved in the exercise. However, the results did not tell the whole truth

because the existence of taskforce indicated a grave danger indeed, in that they would greatly jeopardize the realization of forest policy objectives.

The fact remains that the common vision of how to achieve participation of professional foresters in all aspects of the practice forest management becomes a difficult task. Essentially, the professionals strive to improve economic viability of natural forest by paying more attention to sustainable forest management as well as conservation of non-timber forest products.

Development of the forest estates

The observation was based on the evaluation of regeneration and exploitation of the forest resources over the years. The data showed that there was significant difference between the means of regeneration and exploitation in the study under review (Table 3). In fact, it was indicated that exploitation far exceeded regeneration because of the wide variations in the means of the variable considered. This is due to the fact that great emphasis is laid on economic benefits associated with exploitation of forest resources at the expense of socio-economic considerations. The observation was that most forest management efforts in the state do not give policy issues the required prominence due to pervasive issues of accelerated and uncontrolled exploitation of forest resources.

Threats to forest protection

Some threats to forest protection identified are fires, poaching, trespass, illegal logging and uncontrolled grazing which are summarized (Table 4). Of a particular interest in this analysis is that trespass dominated all other variables considered in the study. This is in contrast with the view expressed by Tivy (1996) that identified fire as the principal threats to forest because it destroys forest canopy and opens up way for other diverse forms of vegetation especially grasses.

Issues of forest development

Much of the interest in forest development is based on the notion that private forestry and agro-forestry can be encouraged, man-made forest can be created, non-wood forest products can be developed and employment potential can be increased through efficient adminis-tration and governance of central government to local communities. The results of the study showed that increase in employment potential dominated all other issues considered since it accented for 41.56% of the respondents while the least value of 10.19% was recorded for encouragement of private forestry (Table 5).

The result reflects a typical feature of forest

Table 4. Threats to forest protection in the study area (arcisine transformed, %).

Communities	Fires	Poaching	Trespass	Illegal logging	Uncontrolled grazing
Afuze	15.34	12.92	18.44	12.92	21.97
Ehor	5.74	9.98	21.13	20.27	9.98
Ekehaun	9.98	17.56	17.56	20.27	8.13
Odighi	11.54	16.43	14.18	17.56	14.18
Ogba	9.98	11.54	15.34	9.98	11.54
Ologbo	11.54	18.44	19.39	18.44	11.54
Ubiaja	11.54	12.92	16.43	12.92	12.92
Ugbogui	19.39	21.97	24.35	22.79	18.44
Sobe	18.44	25.10	25.84	25.84	20.27
Ugo	11.54	15.34	15.34	11.54	5.74
Total	125.03	162.20	188	172.53	134.71
Means	12.50^c	16.2^{abc}	18.8^a	17.25^{ab}	13.47^{bc}

Table 5. Issues of forest development (%).

Communities	EPF	CMF	DNWP	IEP	EAF
Afuze	-	-	-	-	0.93
Ehor	-	-	0.95	5.55	-
Ekehaun	-	-	1.85	3.70	0.93
Odighi	0.93	4.63	3.70	11.11	1.85
Ogba	-	-	-	1.85	0.37
Ologbo	4.63	1.34	-	6.48	2.78
Ubiaja	-	1.85	3.70	1.85	2.23
Sobe	-	5.55	1.30	1.85	3.70
Ugo	4.63	0.93	4.63	-	
Ugbogui	-	6.48	4.26	4.63	1.85
Total	**10.19**	**19.85**	**13.67**	**41.65**	**14.64**

EPF = Encouragement of private forestry; CMF = creation of man-made forest; DNWFP = development of non-wood forest products; IEP = increase in employment potentials; and EAP = encouragement of agro-forestry.

Table 6. The decline of forest areas (arcsine transformed, %).

Communities	1-30	31-60	61-90	>91
Afuze	8.13	8.13	14.18	-
Ehor	16.43	22.99	12.92	-
Ekehaun	9.98	15.34	5.74	-
Odighi	14.18	12.27	14.18	-
Ologbo	5.74	5.74	9.98	14.18
Ubiaja	5.74	8.13	12.92	-
Ogba	-	5.74	5.74	16.43
Ugbogui	11.54	16.43	9.98	-
Sobe	14.18	18.44	-	-
Ugo	-	5.74	14.18	5.74
Total	**85.92**	**118.95**	**99.82**	**36.35**
Means	**10.74**	**11.90**	**11.09**	**12.12**

development in Nigeria since the observation pinpoints that socio-economic benefits of forestry appear to be the only issues considered in forest management. The findings corroborated that of Azeke (2002) stating that 217 units of Bandmills and a plymills in the state create various job openings in the forestry sub-sector indicating success in forest management due to 14% of job created in the state. Superficially, it appears that there is forest development which has positive short term effects on the income generation as well as economic development of the state.

The decline of forest areas

This is an opposite of expansion of forest estate which is one of the basic priorities of forest policy. Table 6 indicates that the forest areas have been steadily on decline irrespective of the size considered. This trend has always been observed since the inception of forest reservation policies by colonial governments. The findings are corroborated by Miller and Tangley (1991) who reported that 28.5 m acres of tropical forest are cleared and logged yearly. Griity and Lai (2000) also added that government policies in some countries actively encourage agriculture in forest plantation and forest estates. Consequently, permanent agricultural crops as well as arable crops have encroached forest estates. Thus, this truncates the original policy objectives of forest plantation establishment and threatens the overwhelming availability of forest resources.

CONCLUSION

Forest policy in Edo State has progressed well in areas of employment generation; creation of man made forest, encouragement of agro-forestry via taungya farms and development of private forests. However, it has not fared very well in the other stipulated objectives. Some threats to forest protection considered in the study were forest fire, poaching, trespass, illegal logging, and grazing which negatively affect sustainable management of forest estates. Thus, there is an urgent need for proper implementation of forest policy as a strong safeguard for providing best option for halting forest decline as well making the required contribution to the well being of the society.

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