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# THE CONTRIBUTIONS OF FORESTRY SUB SECTOR TO ECONOMIC DEVELOPMENT IN NIGERIA: A CASE STUDY OF EKITI STATE



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## ABSTRACTS

One of the major problems facing forestry development in Nigeria is the under-valuation of forestry contribution to national economic development. This study therefore examines forestry contribution to the economic development of Ekiti state from 1997-2006. Primary data were collected with the use of well structured questionnaires and interviews with top management staff and divisional forest officers of the State, while secondary data were gathered from classified documents of the State Forestry Department (SFD). The study observes that sawmills and timber contracting are the only forest based enterprises that are registered with the SFD. The 153 sawmills in the state employ about 2,085 people while there are 179 timber contractors. The results reveal that forestry contributed a total sum of N333, 950,675 to the state's Internally Generated Revenue (IGR), while the state spent only N21.7 million for forestry development over the ten year period of study. The percentage contribution of forestry revenue to the state's total IGR ranges between 4 and 26% in 1997 and 2006 respectively. The programmes used for the development of forest resources in the state include: Timber Development Law, Taungya System, Forestry Trust Fund, Ecological Project and Woodlot Development Project. Forestry has great potential to contribute to economic development of Ekiti State; however, inadequate forestry expenditure is a major constraint to the realisation of this potential. Forest managers will therefore have to evolve strategies to elicit greater commitment from the state government to fund forestry projects.

**Key words:** *Forestry development, Economic development, Ekiti state*

## INTRODUCTION

The forest is a repository of diverse resources of goods and services which are crucial to meet all manners of human wants. Forest goods which can be broadly classified as woody and non-woody consist of timber, fuelwood, poles, medicinal plants, edible fruits, spices, hunted games and extractives such as resins, gum and tannins. Forest services on the other hand include: amelioration of micro-climate, protection of fragile ecosystem, gene pool for genetic biodiversity conservation and provision of recreation (Ajewole, 2000).

The good and services provided by the forest are depended on by the human populace for environmental stability, social functions and

economic activities. The contribution of the forest to the general socio-economic well being of the populace cannot be over emphasized. For instance, Toft (1994) reported that forestry in Nigeria provides employment to about 1.5 to 2 million people. This is due to the fact that forest exploitation, establishment and production activities in forest based enterprises are labour intensive. These create employment and increase earning which are essential for national economic development. The overhead social capital of forest owners and state government has also increased through fees, royalties and export duties earned from loggers; while roads



used for logging which later became major roads have contributed to road network in the country as they are later transformed into major roads. This road networking has tremendous impact on accessibility of agricultural settlements of the remote rural areas. Despite the crucial contribution of the forest to the overall socio-economic wellbeing of man, timber has been the only forest product accorded statistical recognition in the National accounts (Ajakaiye, 2001). Thus the forestry sectoral output has always been under-estimated. This age long practice of under-valuation of forest resources has made their market prices not to reflect the full economic costs with attendant price distortion and inefficient resource allocation. Most of the profits are earned by the contractors and middle-men while the growers gain very little or nothing since the stumpage prices are often fixed arbitrarily. Thus there are no incentives for the growers to replenish the stock. Under-valuation of forest resources which reduces revenue generation also discourage government from improving on its annual budgetary allocations to forestry development. Consequently forest development suffers from inadequate allocation of fund from both the Federal and State governments. The results are poorly staffed forest services in many states (Akindele; 2001, Osemeobo; 2001), with virtually no forest regeneration programmes, except over-exploitation of available resources for revenue generation. One can therefore conclude that lack of analysis of the holistic contribution of forestry to the various sectors of the economy has led to under estimation of the forestry contributions to economic development by policy makers with concomitant disregard to forestry development.

The objective of the study is therefore to examine the diverse contributions of forestry to the economic development of Ekiti State from its creation in the year 1996 to year 2006. Specifically, the study identifies forest based

enterprises and examines the size and structure of employment in forestry and forest based enterprises. It also looks at the trend and amount of forest revenue accruable to the state government, programme employed in forestry development and problems militating against sustainable forestry development within the period of study in the state.

## **METHODOLOGY**

### **Background Information on the Study Area**

The study was carried out in Ekiti State, Nigeria. The state came into existence in October 1996 when it was carved out of the North Western Part of the former Ondo State. Ekiti state is made up of sixteen local government areas (LGAs), with a population of 2,340,000 (NPC 2006). The State is a mono-ethnic community which covers a land mass area of approximately 7,500km<sup>2</sup>. It is situated in the rain forest zone of the south western part of the country, between longitudes 4° 5' and 5° 45' East of the Greenwich Meridian and latitudes 7° 15' and 8° 5' north of the equator. It shares boundaries with kwara state in the northern part, Osun state in the western part, Kogi State in the eastern part and Ondo State in the south-eastern part. Its mean annual temperature ranges from 22.5°C to 28°C while mean annual rainfall ranges between 1,500mm to 2,000mm. The state's vegetation consists of tropical forest in the south, while guinea savannah predominates in the northern peripheries (Uni-que Solutions 2006). There are ten forest reserves covering about 297.20km<sup>2</sup> of land in the state, representing 4% of the total land area. Although the predominant occupation of the indigene is farming, activities of forest exploitation in the state is as old as the history of forestry in Nigeria. Agriculture and forest based activities have been the major contributors to the economic development of the state.



### **Data Collection and Analysis**

The data for this study were obtained through the administration of questionnaires on the State Forest Officers in charge of the sixteen divisional offices of the state. The questionnaires were used to collect information on the structure of forestry administration, forest development, size and structure of employment in forestry sub-sector, forest expenditure and revenue in the state. The State Director and the Assistant State Director of forestry were also interviewed to supplement information collected through the questionnaires. Other sources of data include reports of the State Forestry Department and the State Board of Internal Revenue. Data collected were subjected to descriptive statistics.

## **RESULTS AND DISCUSSIONS**

### **Forestry Administration in Ekiti State**

Statutory responsibility for the management and control of forest resources in the state is vested on the Department of Forestry, Afforestation and Conservation of the Ministry of Environment. In an effort to efficiently discharge this responsibility, the state was divided into four zones, each zone comprising four LGAs. The zonal headquarters are: Ikere-Ekiti, Ado-Ekiti, Ikole-Ekiti and Omuo-Ekiti. Ado zone consists of Ado-Ekiti, Igede, Aramoko, and Efon LGAs; Ikere zone consists of Ikere, Ise, Emure, and Ilawe LGAs; Ido zone consists of Ido-Osi, Ijero, Otun and Iye LGAs while Ikole zone is made up of Ikole, Oye, Ode and Omuo.

The Chief Executive Officer of forestry affairs in the state as appointed by the State's Executive Governor is the Commissioner for Environment. Next to the commissioner for environment is the permanent secretary while the director who is next to the permanent secretary and assisted by his deputy co-ordinates and oversees the day to day activities of the department. Next to the assistant director

in the rank is the zonal officer who is the head of a zone and two forest officers in each zone. These sets of people are the professionals with degree in forestry or forestry related disciplines. Next to the forest officers are the technicians who are responsible for fieldwork operations and supervisions. The Technical cadre cuts across the Chief Forest Superintendent to the Assistant Forest Superintendent. The last group on the organogram comprises the uniformed staff which is made up of trained forest guards and nursery rangers who have the responsibility of intercepting forest offenders. The labourers are serving in different forestry activities such as silvicultural and nursery operations.

### **Size and Structure of Employment of the State Forestry Department**

The structure of the organization as observed during the course of this study is based on the objective of providing adequate and effective coverage of the state with the required technical and uniformed staff on the field in the different zones (Table 1). However, this objective has not been achieved. According to the State Forestry Department, the total staff strength as at 2006 was 131. This is only 48% of the 272 estimated staff strength required by the sector. Thus there are 141 vacancies yet to be filled. A break down of the staff structure as shown in Table 1 revealed that 89% of the professional staff required is employed, while only 30% of technical staff and 47% of the uniformed staff required are employed. From the foregoing, it is apparent that the state's forestry department is grossly under-staffed. This is possibly one of the reasons why forestry development projects are abandoned midway. There is usually inadequate number of staff to cope with all the projects at the same time.



**Table 1: Staff Strength of Forestry Department in Ekiti State in 2006**

Post	No required	No of post filled	No of vacant post	% of post filled	Remarks
Professional staff	18	16	2	89	B.Sc. or HND holders of forestry or forestry related discipline.
Technical staff	30	9	21	30	Staff with NCE or OND certificate.
Uniformed staff	224	106	118	47	Trained forest guards with primary or secondary school certificate.
<b>Total</b>	<b>272</b>	<b>131</b>	<b>141</b>	<b>48</b>	

Source: Forestry Department, Ekiti State (2006)

### Size and Structure of Employment of Forest Based Enterprises

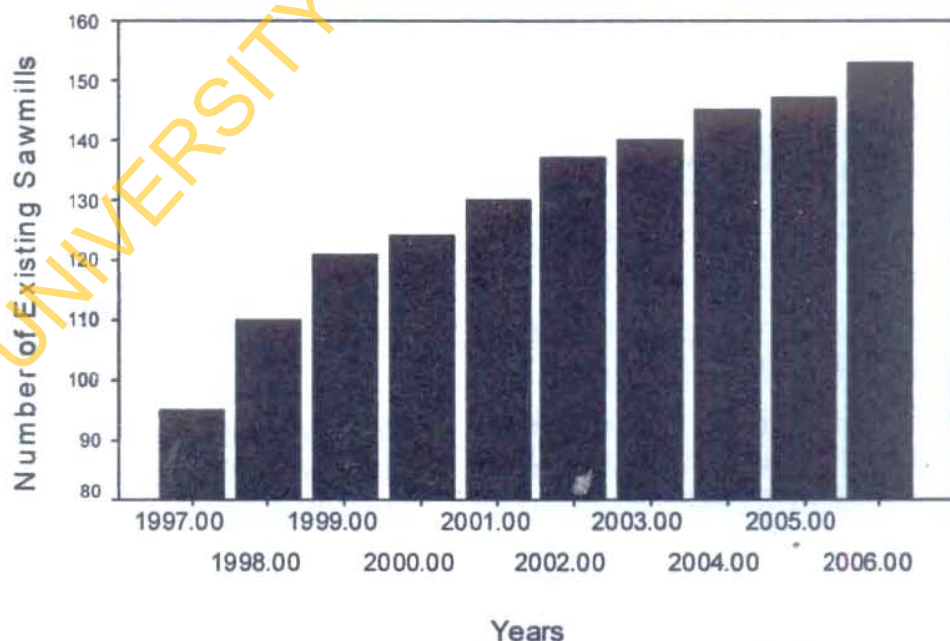
Investigations reveal that sawmills and timber contracting are the only forest based enterprises that are registered with the state’s department of forestry. It can be observed from Table 2 and Figure 1 that there are 179 timber contractors, 198 units of band saw, and 153 sawmills in the state. Despite the consistent downward trend in the Nigerian economy, leading to industries producing below plant capacity and consequently downsizing their labour force, the number of sawmills in the state has been increasing since its inception in 1997. This is a pointer to the salient contribution of forestry to economic development in the state. The sawmills have six major types of band saw, namely; Mighty mite, CD4, CD5, CD6, CD10 and Forestor. As can be observed in Table 4, Mighty mite, CD4, and CD5 require an average of eight people for operation while CD6, CD10 and Forestor require an average of 11 operators. Using the average number of operators for the band saw, the number of employees in the sawmills was estimated to be 2,085 (Table 4) adding up to 2,264 employees in the sawmilling sub sector alone. This has gone a long way to contribute to the livelihood status of people in the state.

Other forest based enterprises that were found to exist in the state include: furniture making, plank trading, artisanal/chain saw milling and non-timber forest products (NTFPs) based industries such as mat weaving, beekeeping, production of chewing stick, drum, mortar and pestle. Most of these industries are small scale enterprises that could only employ between 1 and 12 people. Unfortunately, data on the number of those employed in these wood based industries are not available at the state’s forestry department and the State Ministry of Commerce and Industries. Results shown in Table 2 further reveal that there are sawmilling enterprises in all the local government areas of the state with the exception of Efon local government area. This shows that the impact of forestry on the well-being and livelihood of the people cuts across the length and breadth of the state.

**Table2: Number of Timber Contractors and Band Saws in Each Local Government of Ekiti State.**

Local Government	Timber contractors	Band saw units
Ado	13	23
Ekiti East	13	19
Ekiti West	6	2
Ekiti South West	12	15
Efon	3	-
Emure	10	5
Gbonyin	23	40
Ijero	16	5
Ikole	23	15
Ikere	9	19
Ido-osi	14	13
Ilejemeje	5	1
Irepodun Ifelodun	5	5
Ise Orun	12	22
Moba	6	1
Oye	9	13
Total	179	198

Source: Forestry Department, Ekiti State (2006)



**Figure 1: Number of Existing Sawmills in Ekiti State between 1997 and 2006**

Source: Forestry Department, Ekiti State (2006)



**Table 3 : Minimum Number of Personnel Required in the Operation of Different Band Saw**

Machine	Operator	Sawn Doctor	Jack men	Off-loader	Circular operator	Assistant operator	Security	Total
Mighty mite	1	1	2	2	1	-	1	8
CD4	1	1	2	2	1	-	1	8
CD5	1	1	2	2	1	-	1	8
CD6	2	1	2	2	2	1	1	11
CD10	2	1	2	2	2	1	1	11
Forestor	2	1	2	2	2	1	1	11

Source: Field Survey (2006)

**Table 4: Number of Band Saw and Employees in the Sawmills in Ekiti State.**

Machine	No of Band saws	Average work force required	Total no of Employees
Mighty mite	3	8	24
CD4	8	8	64
CD5	20	8	160
CD6	155	11	1,705
CD10	7	11	77
Forestor	5	11	55
Total	198		2,085

Source: Field Survey (2006)

**Trend in Government Expenditure and Revenue from Ekiti State Forestry Sector**

The results presented in Table 5 show that the forestry sector has generated a total sum of N333, 950,675.4, and an average sum of N33, 395,067.54 per annum between 1997 and 2006. The minimum forest revenue (N18.2 million) contributed to the state's IGR was recorded in the year 1998, while the maximum (N43.5 million) was recorded in the year 2004.

The percentage contribution of forestry to the total IGR of the state ranged from 4% in 1997 to 26% in 2006. The forest revenue decreased sharply from N25, 356,931 in 1997 to N18, 148,677 in 1998 because the forest was closed for exploitation for a period of time in 1998 to prevent some irregularities. It is also apparent from this table that the revenue generated reached a peak of N43, 584,080 in 2004 before decreasing in 2005. This increment was

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attributed to the state government renewed drive for IGR. The increment resulted to over-exploitation of forest resources between 2002 and 2004 which inadvertently depleted the forest resources with subsequent decline in forest revenue in year 2005 and 2006.

The sources of forestry revenue include: (i) registration fees for sawmilling at N60,000 for mighty mite, CD4 and CD5; N100,000 for CD6 and N150,000 for CD10 and Forestor machines respectively; (ii) renewal fees for sawmilling at N20,000/annum for mighty mite, CD4, CD5 and N30,000/

annum for CD6, CD10 and Forestor machines respectively; (iii) property hammer registration and renewal fees at N20,000 and N10,000/annum respectively; (iv) company hammer registration and renewal fees at N40,000 and N15,000/annum respectively; (v) concessional fee for exploiting 25 hectares at N292,500/annum; (vi) toll fee at N5,000/trip for a lorry truck and (vii) fines and levies. However it can be observed from the Table that Ekiti State Government expenditure on forestry is negligible and inconsistent.

**Table 5: Forest Expenditure and Revenue in Ekiti State between 1997- 2006**

Years	Forestry State Expenditure	Forestry Fed. Govt. Expenditure	Forestry revenue (₦)	Total IGR of the state (₦)	% contribution of Forestry to IGR
1997	NA	NA	25,356,931.0	97,403,341.4	26
1998	NA	NA	18,148,677.7	86,201,278.6	21
1999	NA	NA	24,300,486.8	100,056,714.6	24
2000	NA	NA	29,436,385.5	146,328,816.0	20
2001	NA	1,500,000	30,878,148.9	258,058,913.7	12
2002	5,000,000	2,000,000	41,687,885.4	570,468,827.4	7
2003	4,200,000	NA	41,834,075.1	688,967,628.6	6
2004	3,500,000	NA	43,584,080.0	909,192,774.4	5
2005	NA	NA	39,863,500.0	1,025,771,373.5	4
2006	5,000,000	500,000	38,860,505.0	1,085,554,458.5	4
Total	17,700,000	4,000,000	333,950,675.4	4,968,004,126.2	7

Source: Ekiti State Board of Internally Generated Revenue, 2007

**Existing Management Programmes Used in the Development of Forestry in Ekiti State.**

Five management programmes were identified for forest plantation establishment and maintenance in the state. These programmes are:

**Taungya System**

This study reveals that taungya system is being practiced and could be a major means of establishing forest plantations in the state if well encouraged. Under this system, the state forestry department usually prepares the land, peg the lines and plant the tree seedlings after

which local farmers are allowed to plant their arable crops. As local farmers tend their planted crops, the tree crops are also taken care of. The farmers are allowed to keep the site for 3 years and by this time the tree saplings are well established. After the creation of the state in 1996, Ekiti State Forestry Department decided to be establishing 10 hectares of plantation every year in each local government area through Taungya system. This was to meet the high demand for poles and timber in the state. The total plantation to be established



was 160 hectares per annum for the sixteen local governments. However, investigations revealed that the programme lasted for only five years (from 1999 to 2003) due to lack of fund and manpower. The programme however achieved 77% of the total target set between 1999 and 2003. Taungya system gives opportunities to farmers to make use of the relative fertile soils of the forest for farming, thereby boosting their yield and inadvertently contributing positively to economic development.

### **Woodlot Development Project**

The project is an initiative of the State Government to develop forest resources in the area for timber and poles in the state and it is the only viable programme currently used in the development of forest resources. The programme started in 2004 with a take off grant of N3.5 million. A target of 25 hectares of teak plantation per annum was set for each local government in the state, thus making a total of 400 hectares. However, the project did not commence until 2005 due to late release of money in 2004. In 2005, fifteen out of sixteen local governments benefited from the project. The only L.G (Efon Alaye) that did not benefit could not make land available. The 25 hectares set as target were not met in all the 15 LGAs due to scarcity on land. A sum of N5 million was released towards the end of 2006 by the state government specifically to

raise 650,000 seedlings for Ogbese forest reserve which has been poorly deforested. The performance assessment of this programme could not be carried out during the course of this study since the programme is just two years old.

### **Forest Trust Fund (FTF).**

Forest Trust Fund is a special account opened by the government where 25% of the revenue generated from forestry is deposited for development of forest resources in the state. It was set up in 1984 before the creation of Ekiti state by the former Ondo State Government to address the issue of lack of fund in carrying out forestry activities most especially the reforestation programmes. This fund was used to establish 605 hectares of plantation between 1997 and 2003 which was to increase the supply of utility timber and poles and promote wildlife conservation in the state. According to the state forestry department, a total of 850 hectares was set as target for four of the forest reserves in the state. However, only 605 hectares (71%) were achieved, while no target was set for the remaining six forest reserves in the state due to inadequate fund. This programme has however been stopped in 2003 by the state government in order to increase the total IGR of forestry to the state and thus aggravating the problem of inadequate fund for forest resources development.



### **Timber Development Law (TDL)**

Timber Development Law is used in the state to develop forest resources. The law provides that when a tree is cut from the forest by the log fellers, the felled tree should be replaced by two. However due to implementation constraints, this laudable idea was replaced by payment of N200 regeneration levy for every tree cut, into the state's government account. The N200 paid into government account is supposed to be given back to forestry department for forest regeneration. Information gathered however reveals that the government has not been doing this, and this has grossly reduced forest regeneration efforts.

### **CONCLUSIONS**

This study has shown that forestry sector in Ekiti state is contributing to economic development of the State. It has contributed a total sum of N333, 950,675 over the ten year period of study, making an average of N33, 395,068 per annum to the IGR of the state. The percentage contribution of the forest resources to the total IGR of the state ranges between 4 –26% from 1997 to 2006. Other contributions of forestry to the economic development of the State include provision of job for people through forest development and management activities and operation of forest based enterprises. This cuts across the length and breadth of the state with concomitant beneficial multiplier effects which include ameni-

ties such as: borehole, schools, health centres and roads. The study also reveals that forestry expenditure (N21.7 million) in the state has been abysmally low and forms only 6.5% of the total revenue generated from forestry within the period of study in the state. It is therefore no gainsaying that inadequate funding is a major constraint to forestry contribution to economic development in the state. Increased forestry expenditure will no doubt bring about availability of more funds for forestry development activities, provision of equipment and vehicles for effective monitoring and evaluation and promotion of forest based enterprises which will in turn lead to creation of more jobs for the people and increased forest revenue to the government. Forest managers in the state will therefore have to evolve strategies to elicit greater commitment for forest funding from the state government. Such strategies might involve forest managers identifying and liaising with key individuals who have access to and ear of policy/decision makers, to bring forestry issues in the state into the attention and commitment of the policy and decision makers. The strategies can also include networking with local and international forest/environmental related non-governmental organisations to assist both in soliciting for funds for forestry development and also in putting pressure on state government to pay greater attention to forestry development.

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