



EVALUATION OF EKITI STATE FORESTRY COMMISSION CONTRIBUTIONS TO THE DEVELOPMENT OF FORESTRY SUB-SECTOR IN EKITI-STATE, NIGERIA

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ABSTRACT

*This study assessed the roles of Ekiti State Forestry Commission on the establishment of forest plantation since creation. Comparative analysis of the occurrence of forest offences for two years before and after the creation of Ekiti State Forestry Commission was done and the roles of stakeholders and the problems faced by the Commission were examined. The study was limited to the three Senatorial district in Ekiti-State (North, South and Central Senatorial district). Two Local Government were purposively selected in which six towns were randomly selected and interviewed through semi-structure questionnaire. Also, focus group discussion was used to obtain additional information while secondary data was obtained from the Forestry Commission. The results showed the growing participation of private tree growers in forest plantation development in Ekiti State. The total areas of forest plantation established since inception of the commission in the free areas is approximately one thousand, one hundred and ninety-seven hectares (1,196.5ha) while in the government forest reserve is one hundred and fifty-five hectares (155ha). The dominant tree species established were *Gmelina arborea* and *Tectona grandis*, and other species planted were *Terminalia superba*, *Terminalia invorenses*, *Mansonia ultissima*. The established plantation in the urban area of the three senatorial districts were less than that of rural area due to abundance of land in the rural area though Chi-square test ($p>0.05$) showed no significant difference in the number of hectares established. The study revealed that Ekiti-State forestry commission is faced with the challenges of shortage of staff, insecurity, poor funding, political instability and inadequate patrol. It was revealed that the stakeholders are faced with the problem of finance, power supply, and marshy terrain, extinction of parent trees, long gestation period and unavailability of land across all the senatorial districts. The study recommended that government should increase the allocation given to the commission and also that the timber development levy (₦200) paid on each timber felled for regeneration should be released to the commission for massive afforestation/regeneration.*

Keywords: Forestry Commission; Rural livelihood; Socioeconomic; Climate change; Forest plantation

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INTRODUCTION

Forests with their complex ecology including its renewability are essential to sustainable development, economy and maintenance of all form of life; providing food, medicine, wood and rich biodiversity (Hartshorn, 1995). Forests and trees cover thirty percent of the planet earth accounting for the subsistence, livelihoods, employment and income for twenty-five percent of global population (Fameso, 2017). Despite the critical contributions of forest to Ekiti State economy, the forest in Ekiti- State like its counterpart in other part of Nigeria have no defined management principles (Isikhuemen, 2014). There exist no clear management plans based on known scientific evidence (Pulhin *et al.*, 2007). The forest corridor is rarely patrolled and when it happens, the operation is performed by ill-equipped guard, this impact has manifested in over-population, deforestation, forest degradation and in most cases brings about the destruction of the natural renewable resource (Gonedelé *et al.*, 2019).

Forestry in Ekiti state is one of the most important forestry in Nigeria, in term of employment and livelihood support (Arowosoge, 2006), the sector provided about 10,000 - 12,000 direct and indirect jobs and over 500,000 livelihoods to forest dependent communities (Molnar *et al.*, 2007). Ekiti State government forest reserves have been depleted as a result of long years of exploitation without sustainable regeneration and afforestation programme (Obayelu, 2014). Much emphasis had been on exploitation for revenue generation to the neglect of other possible payments for environmental services derivable from

conservation of unique forests. The government forest reserves now only exist on paper (Ekiti State Forestry Sector Review and Strategic Analysis, 2012). The reserves have no work plan, the boundary of each reserve are not cleaned, coppices of felled exotic species are not pruned, no silvicultural practice adopted (Owens, 2012), and sometimes when plantations are raised, they are not maintained. Several indigenous species of hardwood in Ekiti State government forest reserves are already on the danger species list because nearly all the parent trees have been felled (Owens, 2012). The effect of collapse of forest sector would be the same as a giant industry going bankrupt (Forestry Commission Records, 2021 and Ross, 2001). The first decade (1996-2006) of the creation of Ekiti State had in record two hundred and sixty eight sawmills value chain operations, which gradually decline with one hundred and fifteen sawmills not operational for reasons of scarcity of timber resources, cost and irregular supply of electricity and obsolete equipment (Pinkerton and Benner, 2013). The forestry sub-sectors like sawmillers, timber contractors, and timber traders association have clamored that without prompt action at the current rate of over exploitation, the forest based industries will find it difficult to see raw materials for their business Peck *et al.*, (2000). The question now is that, what will be the fate of large population of forestry subsectors/wood based industries in the state and are there private individuals, groups or corporate organizations interested in investing in the forest sector in Ekiti State.

MATERIALS AND METHODS

The Study Area

This study was conducted in Ekiti State which lies between latitude 7.7190 ° N and longitude 5.3110 ° E, Nigeria. The State was

created on October 1, 1996 during the regime of late General Sanni Abacha. Ekiti State was carved out of old Ondo State. It took off with 16 Local Government Areas (LGAs) shown in figure 1, 12 of which already existed in the Ekiti Zone of the old Ondo State. Ekiti State is bounded in the north by Kwara and Kogi States. In the East it is

bounded by Ondo State and in the west by Osun State. Two local government were purposively selected in each of the senatorial district while six towns (three urban and three rural) were selected based on the abundance of the stakeholders as shown in table 1.

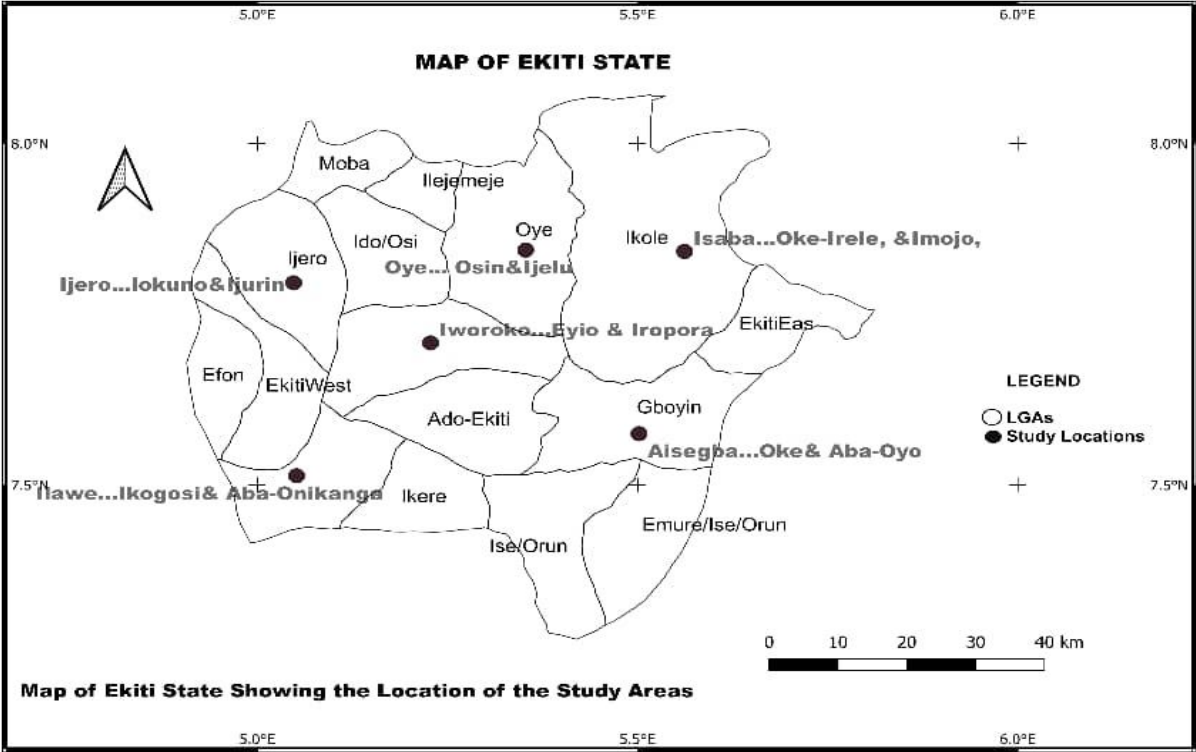


Figure 1: Map of Ekiti State Showing the Location of the Study Area
Table 1: The Location of the Study Area

S/N	Senatori al Districts	Local Governmen t Randomly Selected	Latitude	Longitude	Towns Randomly Selected	Number of questionnair e administere d
1	North	Oye	7° 47'60.00"N	5°.19'60.00" E	Oye, Ayegbaju, Ayede, Imojo, Osin nd and Ijelu	120
		Ikole	7° 47'29.00"N	5°.30'31.00" E	Isaba, Ikole, Itapaji, Oke- Ako, Oke-Irele, and Imojo,	120

2	South	Ekiti South West	7°51'33.00" N	5°05'18.00" E	Ilawe, Ogotun, Igbara-Odo, Erijiyan, Ikogosi and Aba-Onikanga	120
		Gbonyin	7°36'24.00" N	5°49'89.00" E	Aisegba, Ilumoba, Agbado, Bolorunduro, Iro-Oke and Aba-Oyo	120
3	Central	Ijero	7°40'44.00" N	5°17'28.00" E	Ijero, Ipoti, Odo-Owa, Iloro, Ilokuno and Ijurin	120
		Irepodun/Ifelodun	7°51'33.00" N	7°51'33.00" E	Iworoko, Are, Afao, Igede, Eyio and Iropora	120

Methodology of Data Collection and Data Analysis

Semi structure questionnaire was used to obtain primary data for the study. The questionnaires were administered on the stakeholders (sawmillers, tree growers and the plank sellers) across the three senatorial districts in Ekiti State. Secondary data were collected from all the charge offices of the Commission on the occurrence of forest offences so as to be able to carry out comparative analysis of the fine paid for forest offences between 1997-1999 and 1999-2021 before and after the creation of Ekiti State Forestry Commission. The data for this study were subjected to the descriptive statistics in form of frequency and percentage distribution, tables and bar graphs. The analysis was carried out with the use of statistical package for social scientists spread sheet (SPSS), and all the tests were carried out at 95% confidence limit.

The hypothesis tested for are:

1. Ho- there is no significant association in the area of forest plantation established in Ekiti State before and after the establishment of Forestry Commission in the Study area.
2. Occurrence of forest offences fine in Ekiti State is independent of the creation of Forestry Commission.
3. Ho- there is no significant association on the impact of the Ekiti State Forestry Commission on the tree planting in rural and urban areas of the state.

Chi-square was used to test for the hypothesis on occurrence of forest offences penalties in the study area if independent of the creation of Forestry Commission in Ekiti State.

RESULTS AND DISCUSSION

The results of the study showed that creation of Forestry Commission brings a significant development and improvement to Ekiti State forest plantation establishment both in free areas and government forest reserves.

The Roles of Ekiti State Forestry Commission on Plantation Establishment since the Creation of the Commission

Table 2 shows that since the creation of Ekiti State Forestry Commission three hundred and eighty-five hectares (385 ha) of forest plantation were established in Ekiti North Senatorial district by private sector. In Ekiti South Senatorial district approximately five hundred and fifty-four hectares (533.5ha) of forest plantation were established by the private sector at the free areas while approximately two hundred and seventy-

nine hectares (278.5ha) of forest plantation were established in Ekiti Central Senatorial district since the creation of Ekiti State Forestry Commission. Making a total of one thousand, one hundred and ninety-seven hectares of private forest plantation established. The continuous production of timber on sustained yield basis from both natural and plantation forests is based on correct and timely application of appropriate silvicultural treatments and practices (Kerr, 2011).

Table 2: Forest Plantation Established by the Private Sector at the Free Areas since the Creation of Ekiti State Forestry Commission

S/NO	SENATORIAL DISTRICT	NO OF HECTARES ESTABLISHED
1	North Senatorial	385
2	South Senatorial	533.5
3	Central Senatorial	278.5
	Total	1,197

Source: Field Survey, 2023

Table 3: revealed the roles played by the commission in plantation establishment. The breakdown shows that in Ekiti North Senatorial district, twenty-five hectares (25ha) were established, followed by Ekiti South Senatorial district, ninety hectares (90ha) of forest plantation were established while forty hectares (40ha) were also

established in Ekiti Central Senatorial district. More so, Forestry Commission played a significant role in sawmilling operation by reducing their sawmill renewal fee, provision of tree seedlings, giving technical advice on tree growing and provision of incentives like boots, helmet, rain coat and so on.

Table 3: Forest Plantation Established in Government Forest Reserves since the Creation of Ekiti State Forestry Commission.

S/N	SENATORIAL DISTRICT	PAST STATUS	PRESENT STATUS	NO OF HECTARE ESTABLISHED
1	Ekiti North Senatorial district	Depleted	Regenerated	25 ha
2	Ekiti South Senatorial district	Depleted	Regenerated	90 ha

3	Ekiti Central senatorial district	Depleted	Regenerated	40 ha
	Total			155 ha

Source: Ekiti State Forestry Commission, 2023

The Impact of Ekiti State Forestry Commission on the Tree Planting in Rural and Urban Areas of the State

The commission has created more awareness and involvement of private plantation participation in plantation development within the state, through tree planting campaign programme and distribution of different seedling of economic tree species which has promoted sustainable forestry and significantly reduced pressure on the already degraded forests and allow restoration.

Based on the result from this study, the rate at which plantation is being established in urban area across the three senatorial districts was very low compared to that of

rural area because there is abundance of land in the rural area more than urban areas of the state. The Commission also embarked on massive regeneration/afforestation programme through enrichment planting of one hundred and fifty-five hectares in all the forest reserves both rural and urban areas in Ekiti-State. Although, there is an improvement in forest plantation development in Ekiti-State but statistically from this study there was no significant difference in total number of hectares established in the rural and urban areas in some part of the studied areas in the state as shown in table 4.

Table 4: Chi-square Test of the Impact of Ekiti State Forestry Commission on the Tree Planting Among the People in the Study Area

Senatorial Districts 2017-2018 - 2020-2021		Pearson Chi-Square	Significant
Urban	NSD18 - NSD21	0.563	NS
	SSD18- - SSD21	0.335	NS
	CSD18 – CSD21	0.121	NS
Rural	NSD18 - NSD21	0.143	NS
	SSD18- - SSD21	0.553	NS
	CSD18 – CSD21	0.716	NS

P<0.05 is significantly different

NSD 18 –NSD 21: North Senatorial district (2018-2021)

SSD 18 – SSD 21: South Senatorial district (2018-2021)

CSD 18 – CSD 21: Central Senatorial district (2018-2021)

Types of Tree Species Planted and Seedlings Acquisition by the Respondent (Stakeholders)

Table 5 showed that 50%, 53%, and 48% of the tree seedlings were distributed respectively across the three senatorial district (north, south and central) by the Ekiti State Forestry Commission. The percentage of respondents across the three senatorial districts that bought seedlings from the nursery were 26%, 31%, 41% while the respondents percentage that sourced their seed through self-raised, commission and purchase accounted for 15%, 5% and 7% respectively. The percentage of respondents that raised the tree seedlings by themselves were 9%, 11% and 4% across the three senatorial district respectively.

Table 5 showed that majority of the respondents were planting more exotic tree species than indigenous tree species. This result is collaborated by the findings of (Kayode, 2005). Almost 83%, 73% and 59% of the respondents across the three senatorial districts respectively planted exotic tree species. The respondents' percentage that planted both exotic and indigenous tree species accounted for 16%, 14% and 25% while those that planted indigenous tree species were 1%, 13% and 16% across the three senatorial districts.

It was also observed from this work that *Gmelina arborea* planted across the three senatorial districts accounted for 42%, 53%, and 48% respectively. *Tectona grandis* planted across the three senatorial districts accounted for 20%, 25% and 26% respectively and *Tectona grandis* and *Gmelina arborea* accounted for 26%, 5% and 5% across the three senatorial districts

respectively. Meanwhile, *Tectona grandis*, *Gmelina arborea* and *Terminalia superba* planted across the three senatorial districts as indicated by the respondents accounted for 12%, 17% and 21% respectively.

The roles of Forestry Commission in forest plantation establishment in Ekiti State cannot be underestimated. These involve free distribution of different economic tree seedlings and provision of technical assistant, conduct of training through the forestry commission officials and tree campaign programmes on various forest operation such as sustainability, management and silvicultural practices in forest plantation which include land clearing, seed procurement, nursery operations, planting, time of weeding, thinning, pruning, beating up, fertilizing and fire tracing and selective harvesting at maturity stage.

The result from this work showed that, there is an increasing participation of the private sector in forestry programme most especially in forest plantation establishment in Ekiti State. Consequently, there is an active interest and great awareness in tree planting in Ekiti State by private investors, farmers, community and civil society organization. The investment made by the timber growers were in planting of indigenous and exotic tree species, with *Tectona grandis* and *Gmelina arborea* dominate.

The tree growers preferred to plant *Gmelina arborea* and *Tectona grandis* because of its high economic value, moderate fast growth rate and high demand in the market. The respondents (stakeholders) claimed to have encountered a lots of difficulties in attempting to raise indigenous species such as *Melicia excelsa*, *Nauclea diderrichii*,

Triplochiton scleroxylon, *Celtis species* and so on. More so, it is not easy to get the seed of the indigenous tree species because most

of the parent tree have been cut down without replacement.

Table 5: Types of Tree Species Planted and Source of Seedlings Acquisition by the Respondent

Source of Seedling	North Senatorial District	South Senatorial District	Central Senatorial District
Self-raised	18 (9%)	22 (11%)	8 (4%)
E.F Commission	98 (50%)	103 (53%)	90 (48%)
Purchased	50 (26%)	65 (31%)	77 (41%)
All of the above	30 (15%)	10(5%)	13 (7%)
Total	196 (100%)	200 (100%)	188 (100%)
Type of Tree Species Planted			
<i>Tectona grandis</i>	40 (20%)	50 (25%)	49(26%)
<i>Gmelina arborea</i>	82 (42%)	106 (53%)	90 (48%)
<i>Tectona grandis</i> , <i>Gmelina arborea</i> & <i>Terminalia superba</i>	23 (12%)	34 (17%)	40 (21%)
<i>Tectona grandis</i> & <i>Gmelina arborea</i>	51 (26%)	10 (5%)	9 (5%)
Total	196 (100%)	200 (100%)	188 (100%)

Field Survey, 2022

Based on the result of this study, it revealed the past status of Government Forest Reserves before the creation of Ekiti State Forestry Commission. The result revealed that government forest reserves have been overexploited, depleted and degraded due to illegal flitching at stump/felling of different of economics tree species, clearing land for agriculture activities and annual wildfire. This situation cannot be permitted to persist, the result of this research work supported by

(Owens, 2012) indicated that by 2015, that there may be no more trees to harvest from any of the reserves in the state, this assertion has come to reality today. As a matter of fact this was the reason why Forestry Commission was created to step down the rate of forest destruction. The commission has bring an improvement in regenerating our lost reserves through enrichment planting which will lead to availability and sustainability of forest resources.



Plate 1, The On-going Regeneration Activities in Ekiti State Forest Reserves.

Table 6: The Status of Government Forest Reserves before and after the Creation of Ekiti State Forestry Commission.

Senatorial District	Forest Reserve	Past Status	Present Status
North	Egbe	Depleted	Regenerated
	Eda 1 & 11	Depleted	Regenerated
	Ayede/Isan	Depleted	Regenerated
South	Ogotun group	Depleted	Regenerated
	Ikere	Depleted	Regenerated
	Emure	Depleted	Regenerated
	Ise	Depleted	Regenerated
Central	Ado	Depleted	Regenerated
	Aramoko	Depleted	Regenerated

Source: Field Survey, 2023

The Perception of the Stakeholders in Trends of Forest Offence before the Creation of Forestry Commission in Ekiti-State

This study established the trend in forest offences before and after the creation of forestry commission in Ekiti State. It was observed from table 7 that the rate of offences were high when forest areas in the State were under the supervision of Forestry department in the ministry of environment which aids extremely low generated revenue. It was deduced that illegal felling, flitching, non-production of log certificate were brutally high in the three senatorial districts with frequency of one hundred percentage (100%). Occurrence of forest offences has led to the increased in the destruction of many useful and potential use of forest resources. The increased incidence of forest offence in the country has therefore put differing degree of threat to sustainable forest resources management, forest conservation and tree planting in the country. Forest offences scommonly committed in the study areas include flitching, illegal felling, non-production of log certificate on demand, bush burning, all these were collaborated by (Sambe, 2020) who noted that illegal felling and encroachment are among of the commonly committed offences in Plateau State, Nigeria. The reason for these commonly forest offence committed might not be unconnected with the high demand for wood product and the needs to get fertile land for farming activities, unemployment,

inconsistent government policy, high cost of timber tariff and inadequate forest personnel. Many people engaged in illegal felling/flitching because they are in need of wood product and they don't want to involve themselves in delayed beaucratic process of obtaining permit to fell. The strong factor responsible for serious forest offence, especially in Nigeria is poverty as it was noted by (Ogundele, 2020). Trees fell and non-timber-forest-products collected were done in order to meet daily needs and violent displayed against any resistance by the forest guards on official duties. The damages done to the eco-system by bush burning is enormous, it leads to biodiversity loss, soil exposure and erosion, as noted by (Wajim, 2020) that wild land fire present a challenge because they have the potential to destroy vast amount of natural resources (both plants and animals).

Forest offences committed were also high before the creation of Ekiti State Forestry Commission in the three senatorial districts due to the fact that they were running an autocratic office without involving the stakeholders in the policy formulation and implementation. This rendered their work to be unproductive as people go scot-free in illegal forest activities, this opinion is supported by Roberts,*et al.*, (2020) that where people perceived that the forests, both reserves and the free areas, are well protected many people will not be ready to be involved in any illegal activities because of the fear of being caught.

Table 7: The Trends in Forest Offence before the Creation of Forestry Commission in Ekiti-State

Nature and Occurrence of Forest Offence before Creation of Forestry Commission	North Senatorial District	South Senatorial District	Central Senatorial District
Illegal felling			
Increasing	240 (100%)	240 (100%)	240 (100%)
Decreasing	0	0	0
No difference	0	0	0
Total	240 (100%)	240 (100%)	240 (100%)
Encroachment			
Increasing	240 (100%)	240 (100%)	240 (100%)
Decreasing	0	0	0
No difference	0	0	0
Total	240 (100%)	240 (100%)	240 (100%)
Flitching			
Increasing	240(100%)	240 (100%)	240 (100%)
Decreasing	0	0	0
No difference	0	0	0
Total	240 (100%)	240 (100%)	240 (100%)
Bush burning			
Increasing	240 (100%)	240 (100%)	240 (100%)
Decreasing	125	0	0
No difference	115	0	0
Total	240 (100%)	240 (100%)	240 (100%)

Field Survey, 2022

The Trends in Forest Offence after the Creation of Forestry Commission in Ekiti-State

This work as presented in Table 8 revealed that in the North and South Senatorial District, illegal felling reduced by one hundred percent while the situation was still the same in Central Senatorial District with no significant change in the illegal felling offence. Similarly, encroachment offence where people extended their farmlands beyond their property line reduced drastically through the effort of the commission via Land and housing.

The study also revealed that there is significant change in the flitching offence as compared to when forest areas were under the supervision of a department in the ministry. This is confirmed by the eighty-six percent (86%) of the respondents in the North senatorial district and one hundred percent (100%) of the respondents in South senatorial district. Meanwhile, one hundred percent (100%) of the respondents in the Central senatorial district had contrary opinion that there is no significant changes in flitching activities in the region.

Moreover, the study also revealed that one hundred percent (100%) of the respondents

across the three senatorial districts confirmed that there is no significant change on how people set bush on fire. In summary, forest offences committed were high before the creation of Ekiti State Forestry Commission in the three senatorial districts

due to supervisory lacuna which cumulated to management inefficiency. This fact is supported by Roberts, *et al.*, (2020) that well protected forests areas experience lesser illegal activities.

Table 8: Trends in Forest Offence after the Creation of Forestry Commission in Ekiti-State

Nature and Occurrence of Forest Offence after Creation of Forestry Commission	North Senatorial District	South Senatorial District	Central Senatorial District
Illegal felling			
Increasing	0	0	0
Decreasing	240 (100%)	240 (100%)	0
No difference	0	0	240 (100%)
Total	240 (100%)	240 (100%)	240 (100%)
Encroachment			
Increasing	0	0	0
Decreasing	240 (100%)	240 (100%)	240 (100%)
No difference	0	0	0
Total	240 (100%)	240 (100%)	240 (100%)
Flitching			
Increasing	0	0	0
Decreasing	210 (86%)	240 (100%)	
No difference	30 (14%)	0	240 (100%)
Total	240 (100%)	240 (100%)	240 (100%)
Bush burning			
Increasing	0	0	0
Decreasing	0	0	0
No difference	240 (100%)	240 (100%)	240 (100%)
Total	240 (100%)	240 (100%)	240 (100%)

Field Survey, 2022

Comparative Analysis over the Occurrence of Forest Offences Two Years before and after the Creation of Ekiti State Forestry Commission

The revenue generated (penalties) from the forest offences such as encroachments, illegal felling, flitching, bush burning and

collection of non-timber-forest-products like fuelwood, herbs, gum, rope and so on, committed across the four (4) zonal offices in the study areas two years after the creation of Ekiti State Forestry Commission as shown in Table 9 was higher than the revenue collected two years before the creation of the

Commission. The reason for this may not be unconnected to the fact that fines paid for offences committed has been increased. All these forest offences put pressure on the forest estate and threaten the sustainability of forest resources in the state as supported by Mukul *et al.*, (2014). However the amount of fine paid is an indication that people are in dire need of forest products. Many are ready

to obtain these forest products illegally even at the risk of being caught. This further proved that the forest protection laws in the state have not been effective. Mukul *et al.*, (2014), noted that forest laws enacted to protect the forest and its resources are bound to fail when pitted against the growing tide of the poor who needed forest resources for survival.

Table 9: Comparative Analysis on Penalties Generated Two Years before and Two Years after the Creation of Forestry Commission

ADO ZONE	OFFENCES	2017	2018	2019	2020	2021
ADO	Illegal Felling	95,000	75,700	810,650	800,000	650,000
	Illegal Flitching	300,000	475,000	1,120,000	1,673,000	4,750,500
IREPODUN/ IFELODUN	Damages to forest crops	380,000	0	200,000	150,000	0
	Failure to produce TIC on demand	65,000	30,000	250,000	196,500	202,000
	Illegal Felling	35,000	45,000	150,000	142,000	98,500
	Illegal Flitching	76,000	100,000	300,000	450,000	400,000
	Damages to forest crops	0	0	0	0	0
	Failure to produce TIC on demand	65,000	58,000	190,000	175,000	201,000
ARAMOKO	Illegal Felling	0	0	0	0	115,000
	Illegal Flitching	102,000	87,500	165,500	275,000	150,000
EFON	Damages to forest crops	20,000	43,000	60,000	15,000	70,000
	Failure to produce TIC on demand	0	0	0	0	0
	Illegal Felling	5,000	15,000	56,000	45,000	39,000
	Illegal Flitching	25,000	31,000	100,000	120,000	85,000
	Damages to forest crops	0	0	0	0	0
	Failure to produce TIC on demand	3,000	5,000	20,000	10,000	25,000
Total		1,171,000	965,200	2,972,150	3,459,500	6,022,500

Source: Forestry Commission, 2022

The Problems Faced by Ekiti-State Forestry Commission in the Management of Ekiti Forest Resources

There are lots of factors that hinder the performances of Forestry Commission in the management of Ekiti forest resources. Some of these are shortage of staff, insecurity, poor funding, political instability, high revenue generation targets often set by governments for the commission and lack of vehicles for monitoring and patrol. (Ezebilo, 2006) affirmed that forest resource management are usually confronted with series of challenges.

Shortage of staff constitute a major challenge faced by Ekiti-State Forestry Commission in the Management of Ekiti Forest Resources as revealed in Figure 2. In a situation where a group of patrol and monitoring team should consist of ten staff but are left with only four staff, have a significant negative impact on securing the forest resources of the State. ((Federal Department of Forestry, 2000) noted that shortage of staff can reduce worker's morale, and can, increase their workload which will reduce productivity.

Another major problem faced by Ekiti State Forestry Commission is poor funding which has drastically reduced the performance of the Commission as shown in Figure 1. Often times, funds necessary to purchase equipment are not available. This has therefore negatively affected the operations of the Forestry Commission. According to (Federal Department of Forestry, 2000) the budgetary allocations to the forestry sub-sector over the years have been generally poor. Before the recent removal of Federal Department of Forestry from the Federal Ministry of Agriculture to Federal Ministry of Environment, less than four percent of the budget had been allocated to agriculture of which forestry had a partly equivalent of two percent (Ajakaye, 2001).

The forest development in Nigeria and indeed Africa has in the last decade faced with very low level of appropriation in the national budget. It is therefore a major limiting factor for sustainable forest management as adequate funds are needed for protection, forest assessment, post harvesting operations, silviculture, research, community and environmental management as supported by Arowosoge *et al.*, (2006).

As shown in figure 2, insecurity is also part of the problems faced by Ekiti State Forestry Commission. Often times, field staff are attacked and prevented from performing their duties. This attack is carried out either by herdsmen or by illegal fellers

The bureaucratic nature of Civil Service is another problem to the Commission where non-professionals are brought to oversee the activities of the Commission. Most activities of the Commission are under the control of political leaders. According to (Ahmed 2016), political leaders give orders that are detrimental to forestry development. In addition, political leaders also cause more problems through non release of regeneration fees. Regeneration fees are the fees paid by timber exploiters meant to plant new trees in replacement of the felled ones, (Aweto 1990). However when this fee is not released the concept of sustainability in the management of forest resources is defeated. The work of the Commission is also affected by the inadequate number of vehicle for staff to monitor the forest reserves against illegal felling and encroachment. This leads to ineffectiveness and poor delivery in the system, (Ladan 2014).

According to this work, it was discovered that revenue generation target often set by the government for the commission is too high. This has led to over-exploitation and subsequent denudation of forest resources (which is the main cause of deforestation in the state) in an effort to meet the revenue

target. This problem is not limited to Ekiti alone as noted by Barnett *et.al.* (2004), the

development of forestry activities has been very low due to this high set target.

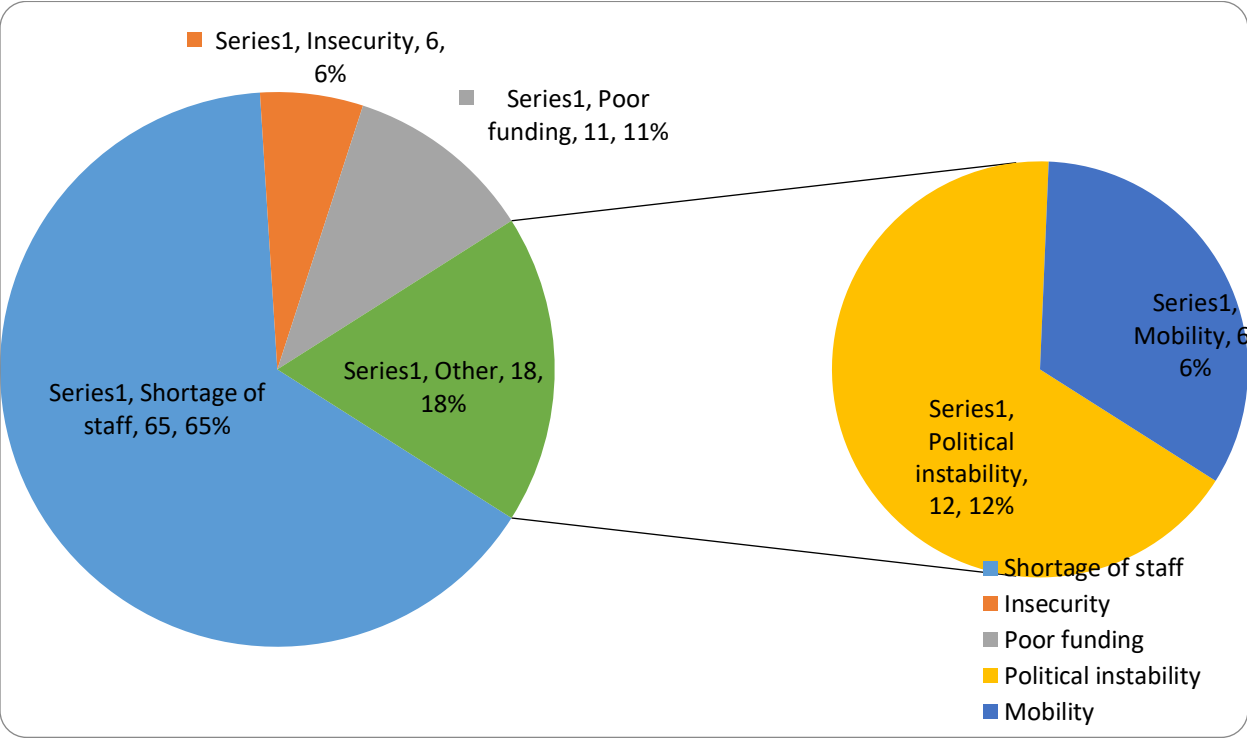


Figure 1: Percentage Distribution of the Problems Faced by Ekiti-State Forestry Commission in Management of Forest Resources

The Problem Faced by Respondents (Stakeholders) in Plantation Establishment and Management, Sawmilling and Timber Trading

There are lots of factors that hinder the private plantation owners, included are inadequate funds, inadequate labour, and unavailability of land, illegal felling, insecurity, poor plantation maintenance, fire hazard, and extinction of parent trees, long gestation period and harsh government policy supported by Abiddin,*et.al.*, (2023). It was revealed from this work that 82% of the respondents in North Senatorial districts, 83% of the respondents in South Senatorial districts while 78% of the respondents in the Central Senatorial districts were facing the problems of extinction of parent trees, long

gestation period and unavailability of land. Moreover, all the private forest plantation developers were facing financial problem as noted by (Davidson, 1989). This is not unexpected because plantation establishment and management involve huge amount of money starting from land clearing, purchase of seedlings, transplanting, thinning, weeding, pruning and fire tracing and many of the forest operations are labour intensive and compounded with difficulty in getting people with required experience and expertise, (Evans 1992). Extinction of parent trees constitute a major challenge faced by forest plantation owners. At least a third of the world’s tree species in the forest are at risk of extinction, according to (Rivers, 2023) and also that well-known

indigenous tree species such as *Melicia excels*, *Nauclea diiderichi* and *Khaya Spps*, *Oaks*, *Maple* and *Ebonies* are among the most threatened species. This might be connected with direct use by humans, ranging from harvested for timbers, food and wood for fuel and medicinal uses. The respondents claimed that indigenous trees takes many years to mature, they regarded it as tied-down-business. (Teklehaimanot 2004) also have encountered a lot of difficulties in attempting to raise an indigenous tree species. Difficulties in raising indigenous tree species is one of the reasons why private tree developers preferred to plant exotic tree species (*Tectona grandis* and *Gmelina arborea*). The implication of this is that exotic species is the dominant tree species in the private forest plantation because of its moderate fast growth, (Boven 2002).

Insecurity is major problem faced by forest developers, they are attacked and prevented from planting the tree seedlings, (Ladan, 2014). A lots forest developers have been attacked and killed by Fulani herdsmen; this killing eventually discouraged them involving in tree planting.

The work also revealed that another problem facing the forest developers in the study area is deforestation. The reason for this is not disconnected with the high level of poverty in the study area. The poor need forest and tree products to meet many of their needs, (Poulton 2001). They cannot afford to buy these products, they therefore result to cutting the trees and collect non-timber-forest-products without the consent of the owner. Some forest plantation developers are faced with the problem of fire hazard. As noted by (Bartlett., 2012), fire in Nigeria is used as a medium of clearing land for agriculture practices, pasture management for livestock and hunting for animals. Uncontrolled fire can cause tremendous

damage to trees. It is a problem to many private owners because it results into death of many trees. Fire occurrence is very common in Nigeria, (Bartlett, 2012), not only in the study area. As shown in Table 10 the percentage of Sawmillers facing the problem of finance, power supply, marshy terrain and cost of spare parts in the North and South senatorial districts of the State were eleven percent (11%) and ten percent (10%) respectively. Obsolete equipment (the band saw (CD6), planning machine and circular machine), a high cost and fake spare part are another problem faced by the sawmillers, Toppinen *et al.*, (2011). These lead to frequent break down of the machine wish run them into high indebtedness and finally to the closure of the mill.

A good number of sawmills are not operational for reasons of irregular supply of power and cost of electricity, scarcity of timber resources and outdated equipment. Babalola,*et.al* (2018). Majority of the sawmillers rely on the public grid for electricity supply which is not reliable, even the high cost of electricity cannot be affordable .They cannot afford the use of power generators due to high cost of diesel to power the generator (McDonough 2016). More so, the plank sellers in the three senatorial districts experienced lack of finance and fluctuation of sawing price at the mill at the frequency percentage rate of thirteen (13%) for both North and South Senatorial districts, and twenty-three (23%) for the Central Senatorial district.

According to the reports from the State Forestry Department (now Forestry Commission), Ekiti State Forest Sector Review and Strategies Analysis 2012, indicated that by 2015 there may be no more trees to harvest from any of the reserves and free areas in Ekiti State because trees are felled and not replanted. This assertion has come to reality today as reported by Obayelu

2014 that Ekiti State government forest reserves have been depleted as a result of long years of exploitation without

sustainable regeneration and afforestation programme.

Table 10: Problems Faced in Plantation Establishment and Management, Sawmilling and Timber Trading

Problems faced plantation establishment and management, planks selling and sawmilling	North Senatorial District	South Senatorial District	Central Senatorial District
Finance, Power supply, marshy terrain and cost of spare parts	11 (5%)	10 (4%)	0
Extinction of parent trees, long gestation period, unavailability of land and finance	196 (82%)	200 (83%)	188 (78%)
Fluctuation of sawing price at the mill	31 (13%)	30 (13%)	52 (23%)
TOTAL	240 % (100)	240 % (100)	240 % (100)

Field Survey, 2022.

CONCLUSION

This research work has shown the roles of Ekiti State Forestry Commission in the development of forestry sub-sectors. Since the Commission was established in 2019, the participation of private sectors has improved. Members of forest growers were made to be part of Commission Board which enhanced more potentials in forest development. This brings about an enormous improvement on forest plantation establishment both in forest reserves and in the free areas. The Commission encouraged the participation of private tree growers through supply of tree seedlings and some forest nursery inputs like polypots. The forest developers were encouraged to practice biodiversity in planting indigenous trees because it has higher commercial value than the exotic tree species, and also to implement sustainable forest management.

The Commission is aiming at regenerating indigenous tree species threatened with extinction. The Commission embarked on mass tree planting campaign and educative programme on silvicultural activities. Ekiti

State Forestry Commission undoubtedly are facing series of challenges in the management of Ekiti forest resources, ranging from shortage of staff, insecurity, poor funding, political instability, high revenue generation targets set by governments and inadequate vehicles for monitoring and patrol.

The private plantation owners are not equally exempted from these struggle. They are with challenges such as inadequate funds, inadequate labour, and unavailability of land, illegal felling, insecurity, poor plantation maintenance, and fire hazard, extinction of parent trees, long gestation period and harsh government policies.

Other stakeholders in the forestry subsector which are Sawmillers and Timber Traders also have their share of this poor forestry management lacuna not limited to irregular supply of power and cost of electricity, scarcity of timber resources and outdated equipment that led to having a good number of sawmills out of operation.

In nutshell the forest protection laws in the state have not been effective which cumulate

to increase in forest offences committed and management inefficiency. The present Forestry Commission administration is determined to reverse the pattern of mismanagement of forest resources over the years.

RECOMMENDATIONS

The shortcomings that led to the establishment of forestry commission must be critically addressed. The continuous production of timber on sustained yield basis from both natural and plantation forests that is based on correct and timely application of appropriate silvicultural treatments and practices should be imbibed.

Forestry Commission Board should compromise the professionals with sufficient expertise and relevant experienced stakeholders in the policy formulation and implementation.

The budgetary allocations to the forestry sub-sector should be improved upon. This becomes necessary because plantation establishment and management involve huge amount of money ranging from land clearing, purchase of seedlings, transplanting, silvicultural treatments, fire tracing and many intensive labour cost.

The outdated forestry laws should be reviewed and new ones enacted and enforced to stop forest violations and protect forest resources.

Since offence committed might not be unconnected with the high demand for wood product and the needs to get fertile land for farming activities, unemployment, and inconsistent government policy, high cost of timber tariff and inadequate forest personnel, government should proffer solutions to the aforementioned problems. Despite all the roles performed by the commission in the study area, they are still facing challenges which make their output to be ineffective. To

increase the efficiency of the commission in the Management of Ekiti Forest Resources, the following recommendations are made:

- (1) There is need for the state government to recruit new staff and improve the welfare of the staff by given those hazards allowance and the working materials.
- (2) The forest guard should be better equipped with weapons and so far that illegal act carryout in the night, there is need to reinforce task force and patrol squad and the security official to mane the forest both free areas and the forest reserves in the day and night.
- (3) Since finance has been recognized as a major and common factor militating against tree planting, government should increase the allocation given to the commission and also the Timber Development levy (N200) paid on each timber felled for regeneration should be released to the department for massive afforestation/regeneration.
- (4) Since there is no continuity in government forestry management should be transferred from a political portfolio to the forestry head, they are more capable of long term planning and less tied to the short term political influences;
- (5) Government should change their orientation on forestry revenue generation to massive regeneration and research should be conducted on how to reduce the gestation period of some economic indigenous species.
- (6) There is need for government to provide vehicles for monitoring and patrol of the state forest areas.

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