



Status of Forestry Trust Fund and its Impacts on Plantation Establishment in a Nigerian State

*Hammed Tobiloba Lasisi¹ and Adesoji Gregory Adedayo¹

¹*Department of Forestry and Wood Technology, Federal University of Technology Akure, Ondo State, PMB 704, Nigeria*

Email: lasisitobiloba90@gmail.com

Abstract

This study assesses the status of Forestry Trust Fund (FTF) and its impacts on plantation establishment in a Nigerian state from year 2000-2012 using a simple but systematic approach. Five forest reserves were purposely selected based on the available information and their popularity. Data were collected using a primary means (via a semi-structured questionnaires) and a secondary means (existing records). The results show that a large portion of the respondents agree that plantation establishment has improved by 50-60% since the inception of FTF. In addition, they agreed that fund for plantation establishment in the State has always been insufficient, thus ranking it higher than other identified sample questions. The secondary data collected further supported the respondent opinions, as Oluwa forest reserve recorded the highest number of hectareage planted with 825 hectares, followed by Owo and Akure forest reserves with both 640 and 633 hectares. Some problems like non-release of appropriate funds, late release of funds and corruption among some of the forestry officers were highlighted. Recommendations which can improve the implementation of FTF in the establishment of forest plantation were highlighted.

Keywords: Plantation; FTF; Forest reserve; Hectares; Funding; Nigerian State

1. Introduction

The alarming rate of deforestation is on the increase and about 13 million hectares of forest are loss globally between 2000 and 2010. It was also affirmed that the second highest rate of deforestation worldwide is Africa with approximately 3.4 million hectares of forest loss annually (FAO 2010). As of 2008, Africa deforestation rate is at twice the world's deforestation rate according to the United Nations Environment Programme (UNEP) and during the 1980s, 1990s, and early 2000s, she lost the largest percentage of tropical forests

than other continents (Alina 2015; FAO 2001). 22.8% of West Africa's moist forests remain as more of their parts are already degraded (Chamshama and Nwonwu 2004; Bada and Popoola 2005; Spilsberg 2010; Isikhuemen and Ola-Adams 2011). Nigeria (one of the richest countries in forest resources in Africa) has lost 81% of its virgin forests in just 15 years (1990–2005) (Forest Commission 2008; Akindele 2006; Akindele 2012) and this has drastically affected the country economic growth and development. Although, some efforts to protect and sustain forests from being exploited illegally have been made, it was discovered that one of the major causes of forest deforestation is lack of plan made or fund set aside for plantation reproduction and replenishing, poor forest management (as intensively managed forest will give a better outcome in terms of the number of trees, diversity of tree species that could be seen in a short term), amidst other issues (Santika et al. 2017; Fajar and Kim 2019). According to Santika et al. (2017), Community-based forest management (CBFM) has successfully achieved avoided deforestation. Also, intensively managed forests was discovered to give better results than forest that was not managed intensively, in terms of the number of trees, diversity of tree species, and benefits that could be taken by farmers in the short term (Winata and Yuliana 2014).

Plantation forestry began in Nigeria after the creation of the Nigerian Forest Department in 1906 by the protectorates. This activity began with the planting of Stapf (*Funtumia elastic*) in the forest reserves of Gambari, Ilaro and Oshun River. This continue as Farmers were encouraged to plant *Milicia excelsa* in forest reserves, a valuable timber species and by 1908 a total of 45,520 seedlings were planted in different timber licensed areas (especially in Benin) (Adeyoju 1975). In 1910, planting activities were intensified and more species, including *Khaya spp.*, *Milicia excelsa*, *Azizia spp.*, *Nauclea didierichii* and *Tectona grandis* were launched. By 1961, the country's complete plantation area had increased to 7,468 ha with the region of timber plantations growing from 3,000 ha to 150,000 ha (Enabor 1981; Akpan-Ebe 2017). The Nigerian states political reorganization from the former 4 regional agreements to her establishment as federating units of 12 states in 1968 also contribute significantly to the rise of forestry plantations. By 1993, the number of states has increased to 36 giving birth to each state operating a forestry department in conjunction with the Federal Forestry Department. This new development therefore established more policies for sustainable forest financing and to solve problems arising from the operation of the planting developments and other forestry related issues across the nation. This action was what rebirthed Forest Trust Fund (FTF) in Nigeria, although this concept has already been initiated in some countries before then (FAO 2010; Akpan-Ebe 2012; Akpan-Ebe 2017). FTF was first established in Nigeria in 1979 and its mission was to primarily help reforestation and

generate fresh plantations across the country, but because of over-exploitation of forests across the country, the established scheme finds it hard to thrive and the scheme later dwindle away (Faleyimu and Arowosoge 2011).

Rosebaum and Lindsay (2001) define FTF as received income from contributions and compensations for environmental purposes, which is spent for the sustenance of forest in priority areas. Faleyimu and Arowosoge (2011) also define it as fund raised from payments made by people that are caught exploit forest resources but quite often, these payments are made as regeneration fees. Most of the national and international talks on forests are been concentrated on the issue of how to and who should finance sustainable forest management (Program on Forest 1998). As budgets apportioned for forest administration by government are drastically reducing and prices of many forest products on the decline, the current financial resources for forest management are gradually becoming insufficient in many regions of the world (Chamshama and Nwonwu 2004). Under these conditions, alternative and forward-thinking financing systems are needed to be explored by national and international agencies, NGOs, and the private sector in several countries of the world.

Recently, Daily Trust Newspaper (2018) reports that the Nigerian government has re-established the trust fund as National Trust Fund for Forestry and the fund was promised to take-off before the end of year 2018. Mr Tolu Osakuade, the Director of Forestry at the Federal Ministry of Environment reveals this and further states that forestry in Nigeria is highly democratic as most of the forest reserves belong to State Governments except for National parks but Alhaji Suliaman Zarma Minister of Environment in year 2019 affirmed that, partnership has been established with State Governments to provide lands for plantation establishment in their states. He further added that this National Forestry Trust Fund will provide resources to achieve significant increase in forest cover, sustainable production, supply of forest products and services for socio-economic development. This study therefore assesses the status of FTF and its impacts on plantation establishment using one of the major States in Nigeria with some sizeable forest reserves as case study. This is done with a view of ascertaining the effectiveness of forestry trust fund on the development of forest plantation in Nigeria.

2. Materials and Methods

2.1 Brief description of the study area

This study was carried out in Ondo state, which is one of the states located in the Southwestern zone of Nigeria. It lies between latitude 7° 6' 0.0180" N and longitudes 4° 50'

30.0984" E of the Greenwich Meridian making it lies entirely in the tropics. It has a population of approximately 3,460,877 (Nigeria Population commission 2006) and covers land area of about 15,500 km². Its capital city is Akure and also has 18 Local Government Areas. The ethnic composition is largely from the Yoruba subgroups of the Akoko, Akure, Ikare, Ilaje, Ondo, Owo, Arogbos and Akpois who are Ijaw extraction. Most of its residents are engaged in various occupations like farming, fishing, trading, teaching and so on with some substantial parts being civil servants. Ondo State is bounded in the West by Oyo and Ogun States, East by Edo State, North by Ekiti and Kogi States and in the South by the Atlantic Ocean. The state has several forest reserves and plantations. Figure 1 gives the map of Nigeria showing Ondo State which is the area of study.

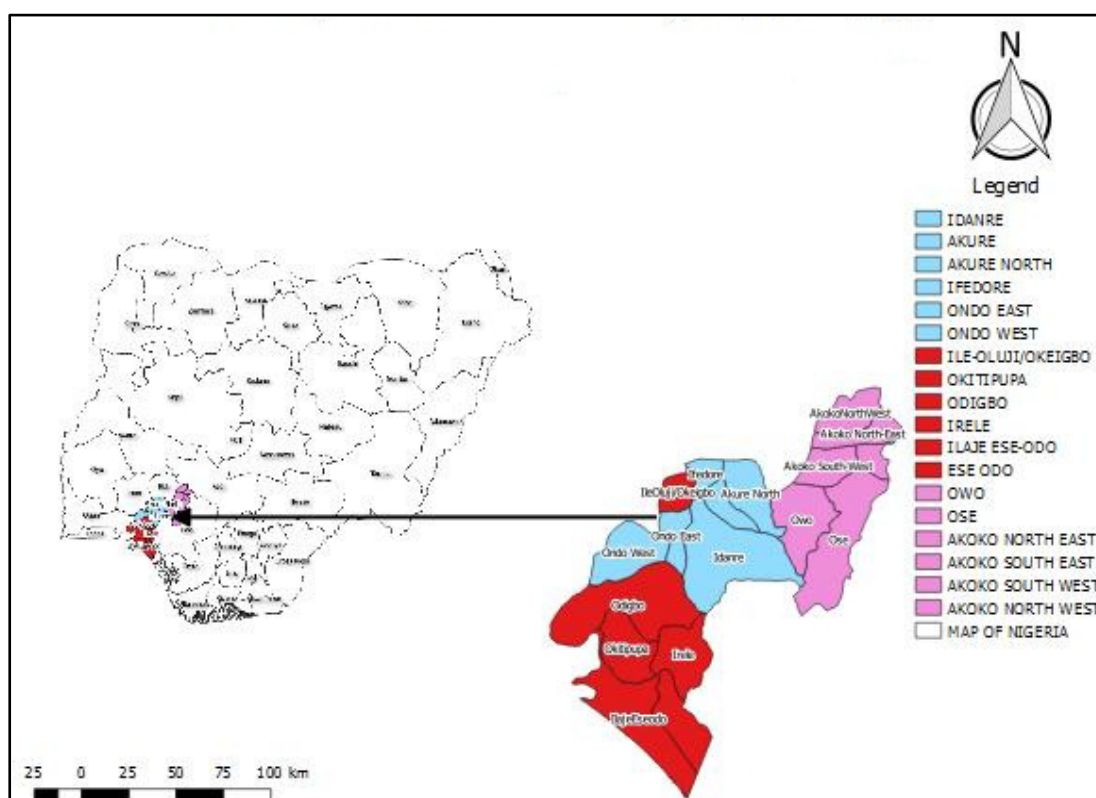


Figure 1. Map of Nigeria showing Ondo state and list of all the LGAs in it

2.2 Methodology

2.2.1 Data collection

The study was conducted using both primary data (which is via a semi-structured questionnaire) and secondary data. The area of study was divided into three parts using the Ondo State senatorial districts as reference. These districts are the central senatorial district, the southern senatorial district and the northern senatorial district. A total of five forest reserves were purposively selected from these three districts (with at least one chosen from each district). This selection was based on the extent of establishment of these plantations

from year 2000-2012. Before this selection, a reconnaissance survey was made to all the forest reserves established within the jurisdiction of Ondo State. A written permission was issued to the author by the Ondo State Ministry of Environment to prevent any form of harassment during visits. The reserves are called by the name of the town/city in which they are located or that is closest to them. They are Akure Forest Reserve, Owo Forest Reserve, Oluwa Forest Reserve, Oyinmo Forest Reserve and Idanre Forest Reserve. Their locations and sizes are given in Table 1. A total of two hundred and eighty (200) questionnaires were administered to Foresters of various cadres using a random sampling method. Sixty (60) questionnaires were administered each at the Central and Northern senatorial districts while the remaining eighty (80) questionnaires were administered at the Southern senatorial district (being the district with the highest number of Foresters).

Table 1. Locations and Sizes of the Forest Reserves

S/No	Forest Reserve	Latitude and Longitude Coordinates	Size in Area (km ²)
1	Akure	7 ⁰ 249 ⁰ N and 5 ⁰ 030 ⁰ E	66
2	Owo	6.969 ⁰ N and 5.563 ⁰ E	241
3	Oluwa	6 ⁰ 49'23"N and 4 ⁰ 40'26"E	829
4	Oyinmo	7.105 ⁰ N and 5.798 ⁰ E	27.23
5	Idanre	6.858 ⁰ N and 5.106 ⁰ E	561

2.2.2 Design of questionnaire

The questionnaire for this study was designed based on major key points of FTF on plantation establishment. In the questionnaire, respondents were asked to rate their opinions. Also, the selective/semi-selective based format of the questionnaire required respondents to tick in the appropriate box and fill in their suggestions in blank places. The structured questionnaire covers four parts (see supplementary material). The first section shows the background information of the respondents while the second to fourth sections concentrated on the funding status of plantation before the inception of FTF, the impact of FTF on plantation establishment and problems associated with FTF program.

2.2.3 Data measurement, computation and analysis

To effectively measure the data obtained, variables were measured following the n-point likert scale with responses ranging from 1 – 5 representing 1 to be 'Strongly Agree', 2 to be 'Agree', 3 to be 'Neither Agree nor Disagree', 4 to be 'Disagree' and 5 to be 'Strongly

Disagree'. Each level on the likert scale is assigned a numeric value, usually starting at one (1) and incremented by one at each level. Numerical values were assigned to identify the funding status of plantation establishment before FTF on a five-point scale of 1 to 5. The five-point scale was then converted to Relative Important Index (RII) for each reason. The output of the Relative Important Index (RII) value usually ranges from 0 to 1, the higher the value of the RII, the more important the reason or factor under consideration is. The RII is calculated as follows:

$$\text{Relative Important Index (R.I.I)} = \frac{\sum_{i=1}^5 (a_i)(n_i)}{A \times N} \quad (1)$$

Equation 1 is expanded to give Equation 2 as:

$$\text{Relative Important Index (R.I.I)} = \frac{5n_5 + 4n_4 + 3n_3 + 2n_2 + 1n_1}{5N} \quad (2)$$

(0 ≤ RII ≤ 1)

Where:

a_i is constant expressing weight given to i th response: $i = 1, 2, 3, 4, 5$

n is Variable expressing frequency of i

N is Total number of Respondents,

A is Highest weight (i.e., 5 in this case),

n_5 is Number of Respondent for Strongly Agree,

n_4 is Number of Respondent for Agree.

n_3 is Number of Respondent for Neither Agree nor Disagree,

n_2 is Number of Respondent for Disagree,

n_1 is Number of Respondent for Not very Strongly Disagree

Other computations of the sample questions were done using the descriptive statistics and frequency analysis.

2.2.4 Data analysis

Data obtained were analyzed using Microsoft excel version 2016 and Prism graphpad software version 8. The results were presented using tables and charts.

3. Results and discussion

3.1 Questionnaire survey analysis

Two hundred (200) copies of questionnaire were distributed to selected respondents out of which One hundred and eighty-seven (187) were retrieved which is 93.5% of the total respondent rate and seven (7) of the 187 questionnaires were not imputed for analysis due to inconsistency in response of the respondents. The total number of One hundred and eighty

(180) questionnaires were computed and analyzed as seen in Table 2. The evaluation of overall return rate was considered as excellent according to Domninowski, (1980) as he opined that, for any questionnaire-based research, response/return over 50% can considerably be reported, while the overall value above 60% and 70% can be mentioned as good and excellent respectively.

Table 2. Response degree of questionnaire distribution

Description	Frequency	Percentage (%)
Usable	180	90
Unusable	7	3.5
Not Returned	13	6.5
Total	200	100

Source: Field survey 2020

3.2 Socio-economic characteristics of respondents in the study area

The results of the responses of the respondents based on their socio-economic characteristics are presented in Table 3. The results of sex of the respondents show that approximately 84% of them are males while the remaining 16% are females. This result is somewhat expected as more male officials and workers are employed because of the nature of the work. In addition, personal prejudices of individual, that some work are specifically assigned for the male gender because they believed to be naturally endowed for such task. Analysing their age, approximately 46.7% of the respondents aged from 31-40 years while 39.9% aged from 41-50 years. Both age brackets of those ≤ 30 years and above 60 years have 6.7% each. This revealed that most of the respondents are physically matured and it is believed, that this will also aid their mental maturity in making choices. For their year of working experience, the analysis shows that 20.0% of the respondents have work experience of less than 5 years, 13.3% have 5-10 years, 26.7% have 11-15 years, 31.7% have 16-20 years and 8.3% have above 20 years of work experience. This result obtained further validates and strengthen the analysis of the results and the overall outcome of the study, as a large portion of the respondents are well experienced. Furthermore, Table 4 gives the frequency analysis of the various cadres of the respondents working in the Forestry Department of the Agriculture Development Project office in the study area. From the result, the senior forest officers has the highest with 38.3%, followed by the junior forest officers with 26.7% while both the both Managers and Assistant Directors have 5.0%. The Principal forest officers, Chief forest officers and the Forest accounting officers have 8.3%, 13.3% and 8.3% respectively. This result reveals the active participation of both the Junior and the Senior forest officers which are actually more familiar with activities both in office and on site. Also, the participation of

the principal officers was important and it all together help strengthen the overall aim of the research.

Table 3. Socio-economic characteristics of respondents in the study area

Variable		Frequency	Percentage (%)
Sex	Male	152	84.4
	Female	28	15.6
Age	≤ 30 years	12	6.7
	30 -40 years	84	46.7
	41 -50 years	72	39.9
	51- 60 years	12	6.7
	above 60 years	0	0
Working year experience	≤ 5 years	36	20.0
	5 -10 years	24	13.3
	11-15 years	48	26.7
	16 -20 years	57	31.7
	above 20 years	15	8.3

Source: Field survey 2020

Table 4. Cadres of the respondents

Rank	Frequency	Percentage (%)
Senior forest officer	69	38.3
Principal forest officer	15	8.3
Chief forest officers	24	13.3
Managers	9	5.0
Forest accounting officers	6	3.3
Assistant Directors	9	5.0
Junior forest officers	48	26.7

Source: Field survey 2020

3.3 Frequency distribution analysis for funding status of plantation establishment before the inception of FTF

The opinion of the respondents' funding status of plantation establishment before FTF was initiated in the State was analyzed and presented in Table 5. A higher percentage of the respondents agreed and strongly agreed that firstly, there was total collapse of plantation, and secondly, funds for plantation establishment in the state used to be insufficient before the inception of FTF with respondents' opinion totaling up to 86.7% and 90.0 % respectively. They further agreed that afforestation programme was heading nowhere until the inception of FTF in spite of the effort made by the UNEP. The reason was because, residues obtained from forest operation and management was low and could not cater for the execution of plans

made to expand the forest through afforestation. It was believed that allocation of special fund, to provide sustained benefits for the forest via afforestation programme and other beneficial packages will be of great help. As regarding the funding system for plantation establishment in the study area until the arrival of FTF, more respondents also attest to the fact of non-existence of any funding system in place for plantation establishment until the arrival of FTF. Although some handful number of respondents (totaling to 13.3%) disagreed while the remaining minority were skeptical in their choices. From the responses of the respondents, it can be inferred that, no specific structure and funding programme for plantation establishment was in existence until FTF programme was initiated.

Table 5. Funding status of plantation establishment in the study area before FTF

S/N	Sampled Question	Measurement unit	Frequency	Percentage (%)
1	There was total collapse of plantation in the State before emergence of FTF	Agree	111	61.7
		Strongly Agree	45	25.0
		Neither Agree or Disagree	7	3.9
		Disagree	15	8.3
		Strongly Disagree	2	1.1
2	Fund for plantation establishment in the State used to be insufficient	Agree	99	55.0
		Strongly Agree	63	35.0
		Neither Agree or Disagree	6	3.33
		Disagree	12	6.67
		Strongly Disagree	0	0
3	Afforestation in the State was heading nowhere until the inception of FTF	Agree	117	65.0
		Strongly Agree	43	23.9
		Neither Agree or Disagree	2	1.1
		Disagree	14	7.8
		Strongly Disagree	4	2.2
4	No funding system for plantation in Ondo State until FTF came	Agree	78	43.4
		Strongly Agree	72	40.0
		Neither Agree or Disagree	6	3.3
		Disagree	18	10.0
		Strongly Disagree	6	3.3
5	There was serious decay in the area of plantation establishment in the State	Agree	108	60.0
		Strongly Agree	33	18.3
		Neither Agree or Disagree	18	10.0
		Disagree	21	11.7
		Strongly Disagree	0	0

Field survey 2020

3.4 Analysis of respondents' rating and computation of R.I.I for funding status of plantation establishment before the inception of FTF

The respondents were asked to rank the level of importance of each one of the identified funding status of plantation establishment before the inception of FTF. Table 6 and Figure 2 show the respondents' ratings and their computed relative importance indexes (R.I.I) According to the computed R.I.I values, these factors were ranked. It can be seen from Table

6 and Figure 2 that their relative importance index (R.I.I) values range from 0.820 – 0.910 with the sample question identified as “Fund for plantation establishment in the State used to be insufficient” was ranked the highest with 0.910 while the sample question identified as “No funding system for plantation in Ondo State until FTF came” was ranked the least with 0.820. The sample question identified as “There was total collapse of plantation in the State before emergence of FTF” was also considered important by the respondents, taking the second position in the list. This outcome clearly indicates the state of the funding capacity of the Ministry as regarding plantation establishment and it also further support the fact that low residues are obtained from forest operations and management.

Table 6: Computed relative importance indexes (R.I.I) for each funding status

ID	Sample Questions	5n ₅	4n ₄	3n ₃	2n ₂	1n ₁	A×N	RII	Rank
FS 1	There was total collapse of plantation in the State before emergence of FTF	555	180	21	30	2	900	0.876	2 nd
FS 2	Fund for plantation establishment in the State used to be insufficient	495	252	48	24	0	900	0.910	1 st
FS 3	Afforestation in the State was heading nowhere until the inception of FTF	585	172	6	14	0	900	0.863	3 rd
FS 4	No funding system for plantation in Ondo State until FTF came	390	288	18	36	6	900	0.820	5 th
FS 5	There was serious decay in the area of plantation establishment in the State	540	132	54	42	0	900	0.853	4 th

R.I.I

Figure 2: R.I.I of the identified funding status

3.5 Impact of FTF on plantation establishment after the inception of FTF

This section adopts more of a subjective approach in requesting for the respondents' opinions. This was purposely applied to streamline the decision of the respondents in order to achieve concise and reliable analyses. The outcome of sampled questions 2 and 7 given in Table 7 are separately presented in Figures 3 and 4 respectively for clarity of understanding. From the respondents' response, it was observed that majority of the respondents attest to the fact that, FTF has brought improvement in plantation establishment across the three senatorial districts of the study area as 85% of the respondents opt for "Yes". The respondents further strengthened their answers by giving an estimate improvement, and this was analysed based on region. Figure 3 shows the total percentage rating across the three senatorial districts of the State. The rating index with the highest plantation improvement is 51 – 60% while, rating index of "Above 70%" has the least. It can be inferred from this outcome that, FTF has brought about some improvement in plantation establishment in the State, but more work can still be done as only 5.56 %, 2.14% and 11.10% of the respondents in the Central, Southern and Northern Senatorial District respectively, assessed the rating index for "Above 70%". Furthermore, Figure 4 also buttress the respondents' opinion in support of their previous response explained in Figure 3 as approximately 82.2% rated the fund intervention strategy adopted by FTF towards solving the problems of plantation establishment in the study area as good and proper. Analysis of sample questions 3 to 6 are presented in both frequency and percentage form in Table 7.

Table 7. Impact of FTF on plantation establishment in Ondo state since inception

S/N	Sampled Question	Measurement unit	Frequency	Percentage (%)
1	Has the intervention of FTF brought about improvement in the establishment of forest plantations in Ondo state?	Yes No Undecided	153 21 6	85.0 11.7 3.3
2	If yes, in your own view, rate using the given percentage how FTF have improved plantation establishment in Ondo State	≤ 50% 50 – 60% 61 – 70% Above 70%	See Figure 3	
3	Without FTF as Interventionist mechanism, plantation establishment would have suffered setback due to inadequate funds	Yes No Undecided	167 7 6	92.8 38.9 3.3
4	Your region can now boast of at least one established plantation using FTF	Yes No Not sure	108 54 18	60.0 30.0 10.0
5	Your welfare is been prioritized using FTF	Yes No	140 37	77.7 20.6

		Not sure	3	1.7
6	FTF implement their budget hundred percent (100%) which made it achieved success over time.	Yes	64	35.6
		No	103	57.2
		Undecided	13	7.2
7	Rate the fund intervention strategy adopted by FTF towards solving the problems of plantation establishment in your region	Good	See Figure 4	
		Very good		
		Average		
		Poor		
		Very poor		

Field survey 2020

Percentage rating (%)

Figure 3. Respondent's perception of improvement in forest plantation establishment via FTF

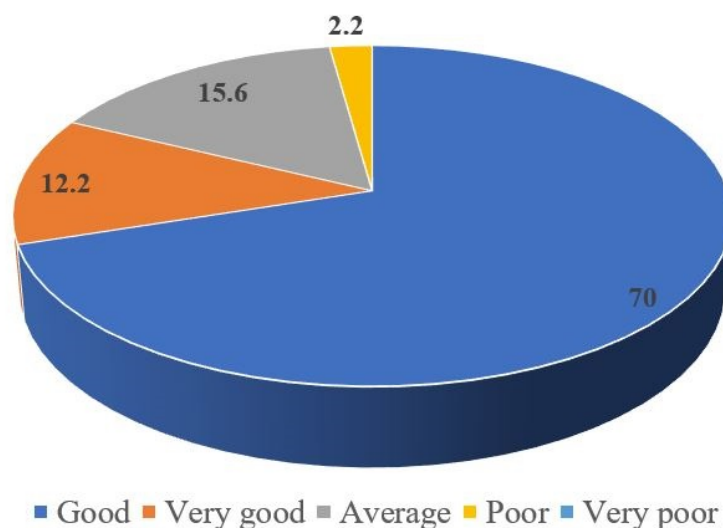


Figure 4. Respondent's perception of fund intervention strategy adopted by FTF towards solving the problems of plantation establishment in the study area

3.6 Extent of plantation establishment in the study area between year 2000-2012

To verify the extent of plantation establishment in the study area between the periods of 2000-2012, secondary data were obtained from the Forestry Department, Agriculture Development Agency, Ondo State. Table 8 shows that, Oluwa forest reserve has the highest number of hectareage planted with 825 ha, followed by Owo and Akure forest reserves with 640 and 633 ha respectively. Oyinmo forest reserve has 492.5 ha hectareage planted while Idanre forest reserve has the least with 200 ha. The result of Idanre forest reserve was attributed to the hilly landscape of the town which made it impossible to get enough plain land for plantation establishment. No development was recorded for the year 2003 (in all the forest reserve) and year 2004 (for Idanre and Owo forest reserves) because, there was a massive and extended industrial strike action by the labour force of the state which affected negatively plantation establishment in the study area. These obtained data further support most of the respondent's opinions as one of the main objectives of FTF is to establish more plantations at various forest reserves, and this is being accomplished in the selected forest reserves in the study area.

Table 8. Extent of Forest Plantation established using Forestry Trust Fund between years 2000 - 2012 in the study area

Year	Forest Reserve				
	Akure (ha)	Idanre (ha)	Owo (ha)	Oyinmo (ha)	Oluwa (ha)
2000	20	N/A	20	100	50
2001	40	20	90	100	60
2002	60	20	30	100	30
2003	ND	ND	ND	ND	ND
2004	10	ND	ND	2.5	40
2005	95	20	50	30	200
2006	103	40	90	30	45
2007	55	25	75	45	100
2008	25	25	60	35	60
2009	50	50	50	50	40
2010	50	ND	50	85	70
2011	75	ND	75	75	75
2012	50	ND	50	65	55
TOTAL	633	200	640	492.5	825

Source: Forestry Department, Agriculture Development Agency, Ondo State, 2020

*N/A denotes No Development

3.7 Problem associated with FTF programme in the study area

The FTF was not without its challenges since the inception of the scheme. Some major problems amidst others which were highlighted by the respondents are non-release of appropriate fund, late release of fund, internal corruption, land problem, non-cooperative

attitude of forest officers and getting planters to plant. Out of the problems, non-release of appropriate fund, late release of fund and internal corruption were highlighted most by majority of the respondents. The opinions of the respondents on the subject matter were considered as true based on some previously existing facts. From history, budgetary allocation of fund to the forestry department by state government was lacking; instead, more attention is focused on other sectors. Famuyide et al. (2005) reported in a study of nine states in Nigeria whose actual disbursement always fell short of budgetary provision. Specifically, Faleyimu and Arowosoge (2011) noted that, the total money budgeted for forestry from 2004 to 2008 by Kaduna State Government was ₦317,490,793.71 while the amount received by the Forestry Department was ₦241,244,273.48 which was just a 75.98% of the total money. Furthermore, out of the total revenue of ₦15,320,228.04 that was generated between 2004 and 2008, only ₦7,169,234.32 which represents 46.79% was ploughed back for forest regeneration. In the same vein, Olaseni *et al.* (2004) stated that ₦667.04 million was realized as revenue from 1991 to 2000 in Ondo State and just a paltry sum of ₦66.91 million (10%) was released for forestry development as against 25% which was agreed under the forestry trust fund.

Furthermore, in cases when government releases fund for more plantation establishment and other necessary operations of the forest, it is released late and this act, most of the time slow down the rate of plantation establishment in the state. Adedayo (2003) opined that budgeted funds for the forestry sub-sector in most states of the federation are not only inadequate but also delayed or sometimes not released at all. He concluded that poor funding has hindered the effective management of forest resources in Nigeria. Lastly, the issue of internal corruption was emphasized to be the most common of all the problems associated with FTF. In cases, when funds are released by government for plantation establishment, funds released are not well utilized but rather embezzled by some top forest officers. Corruption in form of bribes are paid for receipt of benefit itself that is not scarce, forest officials allows timber smuggling to occur, they ignore illegal logging and breaches of concession terms and conditions thereby completely paralyzing the forest reserve activities of which plantation establishment stand to be a major part. Other problems highlighted like land problem, non-cooperative attitude of forest officers and getting planters to plant are minor issues which are often solved at the management level of operation.

4. Conclusion and Recommendation

The status of FTF and its impact on plantation establishment in the study area has been assessed. It can be concluded that, FTF scheme in Ondo state in those years of consideration

(2000-2012) greatly help plantation establishment and development across the state to some reasonable extent. Although, the problems been encountered by forest reserves were not completely eradicated, they were solved to a commendable extent. The continuation of FTF scheme majorly for the purpose of plantation establishment will be a great blessing to humanity if the earlier highlighted associated problems are addressed by ploughing back the funds generated by forestry sector into the sector as initially designed for forestry growth. Forestry laws and policies already in place should be enacted and monitored well. Nobody should be spared or given amnesty in facing the consequences of their actions when those laws are violated.

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References

- Adedayo AG. 2003. Stakeholders's roles in the implementation of community forestry strategies in kwara state, Nigeria, In: S.O. Akindele (ed.) Proceedings of the 29th Annual Conference of the Forestry Association of Nigeria held in Calabar, Nigeria. Pp. 193-200.
- Adeyoku SK. 1975. Forestry and the Nigerian Economy. Ibadan University Press, Ibadan, Nigeria. pp 26-27.
- Akindele SO, LeMay VM. 2006. Development of tree volume equations for common timber species in the tropical rain forest area of Nigeria, *For. Eco. and Manag.*, 226 (1-3), 41-48.
- Akindele SO. 2012. Status of Forest Cover in Nigeria. In Onyekwelu, J. C., Agbeja, B. O., Adekunle, V. A. J., Lameed, J. A., Adesoye, P. O., Omole, A. O. (eds) Research for Development in Forestry, Forest Products and Natural Resources Management. Proceedings of the third National Conference of the Forest and Forest Products Society. 3rd – 6th April, 2012

- Akpan-Ebe IN. 2017. Reforestation in Nigeria: History, current practice and future perspectives. *Reforesta*, 3: 105-115.
- Akpan-Ebe IN. 2012 Recovery potential of Nigeria's rainforest ecosystem. In: Etim L, Oribhabor B (eds), *Current Issues in Sustainable Tropical Agriculture*, Faculty of Agriculture, University of Uyo, Chapter 4, page 38-43.
- Alina B. 2015. Deforestation: Facts, Causes and Effects. Available on <http://www.livescience.com>. Accessed on 15th December, 2019.
- Bada SO, Popoola L. 2005. Sustainable Forest resources development in Nigeria. In: Popola L, Mfon P, Oni PI (eds), *Sustainable Forest Management in Nigeria Lessons and Prospects Proceedings of the 30th Annual Conference of FAN*, Kaduna, Nigeria, pp 38 – 48.
- Chamshama SAO, Nwonwu FOC. 2004. Forest plantations in Sub-Saharan Africa: A report prepared for the project Lessons Learnt on Sustainable Forest Management in Africa. Pp. 1-55.
- Daily Trust Newspaper 2018. National Forest Trust Fund: Rising Issues. Available at <https://www.dailytrust.com.ng/>, Accessed on 18th December, 2019.
- Dominowski, R. 1980. Research methods. Prentice Hall, Englewood Cliffs, N.J.
- Enabor EE. 1981. Problems of forest resources management in Nigeria. *Agricultural Research Bulletin*, Faculty of Agriculture and Forestry, University of Ibadan, Nigeria, 2(2): 15-19.
- Fajar NC, Kim JS. 2019. The Impact of Community-Based Forest Management on Local People around the Forest: Case Study in Forest Management Unit Bogor, Indonesia, *J. For. and Environ. Sci.*, 35(2):102-114, <https://doi.org/10.7747/JFES.2019.35.2.102>
- Faleyimu OI, Arowosoge OGE. 2011. Status of forest policy implementation in Kaduna State, Nigeria. *Australian Journal of Basic and Applied Science*, 5(8): 995 – 1001.
- Famuyide OO, Bagarawa AJ, Owonubi JJ, Usman JM. 2005. Funding of Forestry Sector in Nigeria between 1999-2004. *Nigerian Journal of Forestry*, 35(1): 8-16.
- FAO 2010. Global Forest Resources Assessment 2010. Country Report – Nigeria. FRA 2010/15.17 p.

- FAO 2001. Global forest resources assessment 2000: main report. FAO Forestry Paper 140. FAO. Rome, Italy. 479 pp.
- Forestry Commission 2008. National Forest Plantation Development Programme (NFPDP). Annual Report 2008. (Accessed 20th May, 2015). Available at [http://76.12.220.51/assets/file/Publications/Forestry_Issues/National%20Forest%20Plantation%20Development%20Programme/Annual%20Reports/nfpdp_annual%20report_2008\(1\).pdf](http://76.12.220.51/assets/file/Publications/Forestry_Issues/National%20Forest%20Plantation%20Development%20Programme/Annual%20Reports/nfpdp_annual%20report_2008(1).pdf).
- Isikhuemen EM, Ola-Adams BA. 2011. Tree population dynamics in a protected Rainforest ecosystem in Urhonige forest reserve, Edo State, Nigeria. *Nigerian J For.* 42(1&2):40–52.
- National Population Commission 2016. Population Census in Nigeria. Available on https://en.wikipedia.org/wiki/Ondo_State. Accessed on 15th December, 2019.
- Olaseni O, Agbeja BO, Adeyoju SK. 2004. Dynamics of forest revenue system collection and forestry development in Ondo State (1991 – 2000). *Bowen Journal of Agriculture*, 1(1): 43 – 51.
- Program on Forests 2004. Report of the Forest Investment Forum. The World Bank: Washington, Available at: <http://www.profor.info/pdf/investmentforumreportfinal.pdf>.
- Rosenbaum KL, Kenneth L. 2001. Timber, International workshop of experts on financing sustainable forest Management: An Overview of National Forest Funds: Current Approaches and Future Opportunities. Oslo, Norway, 22 – 25 January 2001. 16: 3-7.
- Santika T, Meijaard E, Budiharta S, Law EA, Kusworo A, Hutabarat JA, Indrawan TP, Struebig M, Raharjo S, Huda I, Sulhani, Ekaputri AD, Trison S, Stigner M, Wilson KA. 2017. Community forest management in Indonesia: Avoided deforestation in the context of anthropogenic and climate complexities. *Glob Environ Chang*, 46: 60-71.
- Spilsberg R. 2010. Deforestation crises: can the earth survive? New York: The Rosen Publication Group.