



## **EFFECTS OF AGRICULTURAL TRACTOR LEASING PROGRAMMES ON FARMERS IN NIGERIA: 2015 - 2017**

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### **ABSTRACT**

The study analysed effects of agricultural tractor leasing programmes on farmers in Nigeria for the period 2015 - 2017. The study was carried out in Kaduna, Katsina, Osun and Ogun States, respectively. A random sampling technique was used in selecting 200 beneficiaries who registered with their State tractor owners and operators association of Nigeria (TOOAN). The sampling frame comprised all the registered TOOAN farmers' beneficiaries in the surveyed States who took bank loan. Data collected were analysed using simple statistical tools like frequencies, percentages, means, and inferential statistics (multiple linear regression analysis). The results showed that within the study periods, a total of 987 farmers applied for bank loan through State chapters of TOOAN in Nigeria totalling ₦137,049,650 leaving a credit supply gap of ₦65,163,900.00.00. The total amount of loan repaid by the beneficiaries during the period was ₦35,230,180.00 which gave a repayment rate of 69% and a default rate of 31%. The loan granted to the beneficiaries increased national output by 23.3% and affected positively on the beneficiaries' income. It was recommended that government should continue to encourage increased funding in collaboration with private sectors agricultural mechanization service providers to the agricultural sector for increased accelerated food production in Nigeria by small and medium scale farmers.

**Keywords:** Analysis, Farmers, Leasing programmes, Tractor.

### **INTRODUCTION**

Agricultural mechanization is the process of using agricultural machinery to mechanize the work of agriculture, thereby greatly increasing farm and farm worker productivity. In modern times, powered machinery has replaced many farm jobs formerly carried out by manual labour or by working animals such as oxen, horses and mules (Mechanized Agriculture, n.d.). Nigeria's Mechanisation rate is currently at 0.27 hp/hectare. This is far below the FAO recommended rate of 1.5 hp/hectare. Highly industrialised countries like Japan have mechanisation rates of 7.0 hp/hectare. Nigeria has ratio of 3 tractors per 1,000 hectares which makes it one of the countries with the lowest mechanisation rates. Our low mechanisation rate makes it obvious that there is high demand for agricultural mechanical tools and equipment (Ndidi, 2017).

In recent times, certain agricultural government policies became very necessary in this sector such as boost development of Micro, Small, Medium enterprises (MSMEs) in the Agriculture sector of the Nigerian economy by providing funding to mechanisation service providers at competitive interest rates, set the pace for mechanizing the operations of small and medium scale farmers in Nigeria, increase the productivity of cultivated land by providing funding to MSMEs that provide mechanisation services to small and medium scale farm owners, increase farm output, improve capacity utilization of agro-processors, and generate employment and diversify the revenue base of the country agro-processors, and generate employment and diversify the revenue base of the country (Asoegwu and Asoegwu, 2007). It is expected that by funding the procurement of tractor and various agricultural equipment for land preparation,



irrigation services, post-harvest processing and storage service, will greatly activate a chain reaction that will have several positive ripple effects in the agricultural sector of the Nigerian economy.

Central Bank of Nigeria (CBN, 2010a) reported that to reduce the risk of funding agricultural mechanisation, and moved by the desire to reduce import dependency, as well as by the need to relieve dependence on the oil sector for economic growth, Federal and State governments in collaboration with private mechanization service providers stepped up efforts to promote agricultural development through the establishment of a number of agricultural credit programmes. These programmes include the agricultural credit guarantee scheme fund (ACGSF), special emergency agricultural loans scheme (SEALS), supervised agricultural credit scheme (SACS), small and medium enterprises equity investment scheme (SMEEIS), agricultural credit support scheme (ACSS), and commercial agricultural credit scheme (CACs); and recently the Nigerian incentive based risk sharing system for agricultural leasing (NIRSAL). The NIRSAL though not a scheme at such, encourages farmers to insure their equipment and to borrow from commercial banks guaranteeing the interest paid by the farmer, hence the facilities under NIRSAL Programme will enjoy 50% – 75% NIRSAL Guarantee.

Tractor owners and operator association of Nigeria (TOOAN), is one of Nigeria's most respected service providers. The association was founded in 1984 but was finally incorporated by the CAC on the 17th July, 1997. It came into Limelight by the spread across the Country through the program 'lease finance/tractor acquisition initiated and promoted by a Non-governmental Organization (NGO) known as PROPCOM in 2010. Today, it is one of the leaders in the private sector mechanization service provider, basically serves as an up taker between the government both state and federal and the beneficiaries' farmer, mostly in area of tractor acquisition. Obasi *et al.* (1995) reported that Central Bank of Nigeria (CBN, 2010b), between 1978 and 1989 when the government stipulated leasing quotas for banks under the Programmes, there has been consistent-increase in the leasing portfolios of banks to the-agricultural subsector. Experience gained from the implementation of these programmes show that although they have succeeded in increasing the level of funding to the agricultural sector, the effect has not been as significant as anticipated, and moreover, the successes recorded have almost in all cases been constrained by among others, poor loan repayment performance, late disbursement of loans, loan diversion, low output, low productivity, and reluctance on the part of formal leasing institutions to finance agricultural production (Njoku and Obasi, 1991).

The repayment of formal institutional loans by farmers in Nigeria has become such a problem that it has constituted a serious constraint hampering loan mobilization and disbursement in the formal financial markets in Nigeria (Eweka *et al.*, 1979). The repayment problem has manifested itself in the unwillingness of formal financial institutions to grant loan facilities to the agricultural subsector of the economy which it considers a high investment risk area. These therefore suggest that the programmes have been inefficient in fund delivery and recovery. As a result, there is the need therefore for research to analysis the performance of the various leasing programmes in Nigeria, with a view to deriving policy for better performance (Federal Ministry of Economic Development [FMED], 1981).

The broad objective of the study was therefore, to analysis effects of agricultural tractor leasing programmes on farmers in Nigeria for the periods between of 2015 - 2017. The specific objectives were to: determine the effects of formal financial institutional loans on income of beneficiaries; determine the effect of the loan granted to farmers on their income (farm plus non-farm income); and determine effect of financing procedures demanded by leasing institutions.



## MATERIALS AND METHODS

### The Study Area

The study was conducted in Nigeria in 2017 and covered four States where the activities of TOOAN were at peak. The States were Kaduna, Osun, Katsina and Ogun. Kaduna is the State capital of Kaduna State in north-western Nigeria, on the Kaduna River. It is a trade centre and a major transportation hub for the surrounding agricultural areas, with its rail and road junction. The population of Kaduna was 760,084 as of the 2006 Nigerian census. Rapid urbanisation since 2005 has created an increasingly large population, now estimated to be around 1.3 million. Kaduna's name derives from the Hausa word *kada*, for crocodile (Kaduna being the plural form). The latitude of Kaduna, Nigeria is 10.609319, and the longitude is 7.429504. Kaduna of Nigeria is located at Nigeria country in the cities place category with the geographical position system (GPS) coordinates of 10° 36' 33.5484" N and 7° 25' 46.2144" E.

Kaduna State lies on 613m above sea level; the climate is tropical in Kaduna. When compared with winter, the summers have much more rainfall. The climate here is classified as Aw by the Köppen-Geiger system. The average annual temperature in Kaduna is 25.2 °C | 77.3 °F. About 1211 mm | 47.7 inch of precipitation falls annually. Five major crops cultivated in the State are maize, rice, guinea corn, soya beans and beans. Seed is the major cropping material used during crop production. 69.4% of farmers used local seed during farming. There are 2,045,506.18 hectares of upland land and 883,717.47 hectare of lowland (History of Kaduna State; Wikipedia, Retrieved, 2020-05-24)

Katsina is a city (formerly a city-State), and a Local Government Area (LGA) in northern Nigeria, and is the capital of Katsina State. Katsina is located some 260 kilometres (160 mi) east of the city of Sokoto, and 135 kilometres (84 mi) northwest of Kano, close to the border with Niger. As of 2007, the State has estimated population of 459,022. The exact population of Katsina will be found in the incoming 2016 Nigerian Census. The city is the centre of an agricultural region producing groundnuts; cotton, hides, millet and guinea corn, and also have mills for producing peanut oil and steel. In Katsina State, the wet season is oppressive and mostly cloudy, the dry season is windy and partly cloudy, and it is hot year-round. Over the course of the year, the temperature typically varies from 58°F to 101°F and is rarely below 53°F or above 105°F. The State consists largely of scrub vegetation with some wooded savannah in the south (Katsina State; Wikipedia, Retrieved 2020-05-24)

Ogun State is a State in south-western Nigeria. Created in 1976, it borders Lagos State to the south, Oyo and Osun States to the north, Ondo to the east and the Republic of Benin to the west. Abeokuta is the capital and largest city in the State. The State's appellation is "Gateway to Nigeria". It was created in February 1976 from the former Western State. The 2006 census recorded a total population of 3,751,140 residents. The latitude for Ogun State, Nigeria is: 6.9098333 and the longitude is: 3.258362600000055. Ogun State has two main types vegetation, namely, tropical rain forest and guinea savannah. Ogun is one of the coldest regions in Nigeria with an average daily high temperature of only 31 degrees centigrade. High humidity and high temperatures are making the weather pleasant at times, but also and partly tropical hot and humid (Wikipedia, "Ogun State". Ogun Smart City. Retrieved 2020-05-24).

Osun is an inland State in south-western Nigeria. Its capital is Osogbo. It is bounded in the north by Kwara State, in the east partly by Ekiti State and partly by Ondo State, in the south by Ogun State and in the west by Oyo State. The State is situated in the tropical rain forest zone. It covers an area of approximately 14,875 sq km and lies between latitude 7° 30' 0" N and longitude 4° 30' 0" E. The climate is tropical in nature. In winter, there is much less rainfall than in summer. This climate is considered to be Aw according to the Köppen-



Geiger climate classification. The average annual temperature in Osun is 26.2 °C | 79.2 °F (Wikipedia, Retrieved 2020-05-24).

**Sampling Procedure and Sample Size**

The method of proportionate random sampling technique was used in selecting a sample of 200 beneficiaries from the four (4) States (Table 1). The sampling frame (N) comprised all registered farmers with the States’ chapter of TOOAN who took loan under any of the leasing programmes. In addition, five (5) commercial banks that participated in the financing programme to the association in each of the State were studied. These banks were First Bank, Access Bank PLC, Eco-Bank, First City Monument Bank, and Bank of Agriculture. In addition, to the five (5) commercial banks, a Non-governmental Organization (NGO) was surveyed. The reason for the inclusion of the NGO in the list of leasing institutions was informed by the situation on the ground, whereby the Commercial banks do not lend directly to the farmers but through farmer associations and cooperative societies.

**Table 1:** Sampling Frame and Size Selection Plan of the Study

State	LGAs	Farmer’s communities	Sample frame	Sample size
<b>Kaduna</b>	<b>3</b>	<b>3</b>	<b>20</b>	<b>60</b>
<b>Osun</b>	<b>2</b>	<b>3</b>	<b>20</b>	<b>40</b>
<b>Katsina</b>	<b>3</b>	<b>3</b>	<b>20</b>	<b>60</b>
<b>Ogun</b>	<b>2</b>	<b>3</b>	<b>20</b>	<b>40</b>

**Method of Data Collection**

Two (2) sets of data were collected for the study. These are primary and secondary data. The primary data were collected directly from the field through questionnaire administration. The period of data collection lasted between January 1st, 2017 and August 2nd, 2017. The variables on which data were collected are; farmers socio-demographic characteristics (such as age, membership of cooperative society, years of farming experience, household size, farm size, educational attainment, and occupation), types of enterprises practiced, annual income (farm and non-farm), main sources of income outside farming, interest rate charge, volume of loan applied for and the amount granted, amount of loan repaid to date and amount outstanding, time of application for loan and date of disbursement, loan transaction costs, repayment period, collateral pledged, awareness of the Nigerian incentive based risk sharing system for agricultural leasing (NIRSAL), use of insurance facilities by farmers, labour use (family and hired), wages paid, extension contact, problems faced by farmers. The secondary data needed were collected from publications of the participating institutions such Bank of Industry, NIRSAL, TOOAN and CBN.

**Analytical Techniques**

In order to determine the effects of formal financial institutional loans on income of beneficiaries, equation 1 was estimated.

$$Y_i = \alpha + \beta X + e \quad \dots(1)$$

where;

$Y_i$  = Total income (farm plus non-farm income) of the  $i$ th loan beneficiary (₦)

$X$  = Amount of loan borrowed by the  $i$ th beneficiary (₦)

$\alpha$  = Constant term

$\hat{\alpha}$  = Regression coefficient

$e$  = Stochastic error term



The repayment performance of the leasing programmes and the default rate were calculated using the formulae specified in equation 2 and 3, respectively.

$$\% \text{ Repayment} = \frac{\text{Volume of loan repaid} + \text{Interest charged}}{\text{Volume of loan granted} + \text{Interest charged}} \times 100 \quad \dots(2)$$

$$\% \text{ Default rate} = \frac{\text{Outstanding loan balance}}{\text{Volume of loan granted}} \times 100 \quad \dots(3)$$

In order to determine the effect of the loan granted to farmers on their income (farm plus non-farm income), equation 4 was estimated using the linear, double-log, semi-log and exponential functions. Following Olayemi and Heady (1981), the double log function was chosen as the lead equation and used for further analysis of the data and specified as:

$$\text{Ln}Y_i = \text{Ln}15.95 + 1.0985X_i \quad \dots(4)$$

$R^2 = 0.935$   $F\text{-cal} = 45.75$   $n = 200$ ; \*significant at 1% level Ln = Natural logarithm figures in parentheses are t-ratios.

## RESULTS AND DISCUSSION

### Socio-demographic Characteristics on Agricultural Tractor Leasing

Table 2 results of the socio-demographic characteristics of the beneficiaries show that 95% are males while 5% were female. Further analysis of the data based on gender distribution across the leasing programmes show that 1% of those that obtained loan under AEHE are females while 99% were male, under PROPCOM, 100% males. Similarly, for direct loan financing between TOOAN and the five (5) selected commercial banks shows that 9% were female and 91% were male beneficiaries. Highlighting the socio-demographic characteristics of beneficiaries in a study of this nature is very necessary because studies (Kuhn *et al.*, 2000; and Akinbode, 2013) have linked loan repayment performance to borrower personal and employment characteristics, previous loan histories and or micro lender traits. The results also show that 96% of the beneficiaries are members of TOOAN while 4% do not. Membership of TOOAN enhances members' access to institutional credit through group leasing with or without collateral. The results also show that majority (80%) of the beneficiaries' farmers were within the age brackets of 55 to 60 years and 45 to 50 years, respectively. The figure further shows that only 14% of the beneficiaries were farmers who are within the ages of 35 to 40 years. This suggests that only a small fraction of Nigerian youths are engaged in food production. The mean age of the farmers is 55 years. The analysis further shows that 62% of the beneficiaries have household sizes of 7 to 10 persons. The mean household size of beneficiaries is 9 persons. Although large household sizes are needed to boost food production, it exacerbates poverty level among families. Table 2 further shows that 43% of the beneficiaries had secondary education, 22% had primary education, and 31% had tertiary education, while 4% had no basic education. The policy implication of this is that agricultural mechanization in Nigeria is possible if the 96% with basic education are supported by government with tractors, planters, harvesters and high yielding seeds and breeds of animals. The mean year of education of beneficiaries was 11 years. Access to basic education is vital for the adoption of improved farm technologies. This emphasizes the need for farmers in co-operative associations to acquire more tractors and pull their farm lands together so as to cultivate large hectares of farm land under mutual agreement using modern farm equipment. In doing this, the farmers will be able to attract assistance in the form of modern inputs from the government. This is necessary if the agricultural subsector of the country must be transformed. The implication of this is that agricultural production in Nigeria may not be commercial oriented. This has wider policy implication for the country as the citizens may face



severe food insecurity should a situation trigger off global food crises. As a result, it is suggested here that efforts should be made to attract wealthy Nigerians into commercial agriculture so that the country may produce enough food to feed her teeming population.

**Table 2:** Socio-demographic Characteristics on Agricultural Tractor Leasing

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Age</b>		
35-40	28	14
45-50	12	6
55-60	160	80
<b>Sex</b>		
Male	190	95
Female	10	5
<b>Loan distribution under leasing programme</b>		
<b>AEHE</b>		
Male	198	99
Female	2	1
<b>PROPCOM</b>		
Male	200	100
Female	0	0
<b>Direct loan financing between TOOAN and 5 commercial banks</b>		
Male	182	91
Female	18	9
<b>Membership of TOOAN</b>		
Members	192	96
Non-members	8	4
<b>Household size</b>		
1-6	68	34
7-10	124	62
10-12	8	4
<b>Education</b>		
Primary	44	22
Secondary	84	42
Tertiary	62	31

**Level of Awareness of Financial Institution Supporting the Leasing Programmes**

The results Figure 1 showed that 61% of the beneficiaries are aware of NIRSAL and knew about it through the activities of their state chapter of TOOAN. This suggests that greater awareness is needed to adequately inform the farmers of the benefits of the NIRSAL program. This may imply that loans are more easily accessible, affordable, and available to farmers for access to tractors under AEHES only. For instance, the interest drawback program of the NIRSAL under Agricultural Enterprise and Hiring equipment scheme (AEHES) which offers a rebate of 40% on the amount paid as interest on the loan by the borrower provided full repayment was made as and when due, with a grace period of three months for delayed repayments after which a beneficiary farmer is ineligible for the rebate is a very big incentive to farmers to borrow and repay on time under the scheme. These guidelines appear to be responsible for the greater number of beneficiaries under AEHES leasing programme. The policy implication of this is that government may continue to encourage the acquisition of tractors by farmers through the AEHES leasing programmes.

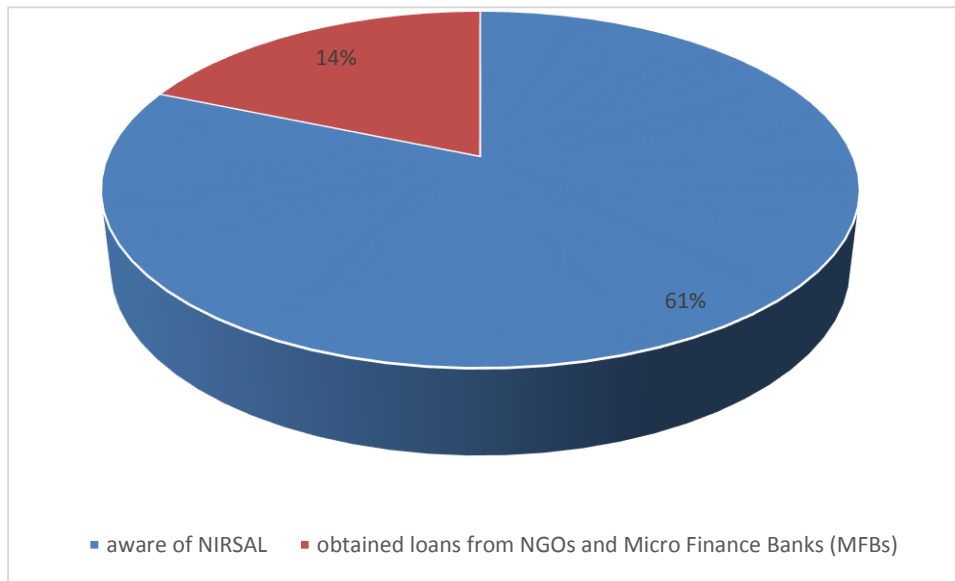


Figure 1: *Level of Awareness of Financial Institution Supporting the Leasing Programmes*

However, 14% of the beneficiaries obtained loans from NGOs and Micro Finance Banks (MFBs). The NGOs and MFBs serve as plat forms through which farmers’ multipurpose cooperative societies obtained loan and disbursed to their members under loan programmes such as *Fadama*, National Programme on Food Security (NPFS), Rural Finance Institution (RUFIN), and National Poverty Eradication Programme. This information is very vital for policy formulation as it calls for the strengthening of the NGOs and MFBs that grant loan facility to farmers especially in States like Katsina and Ogun.

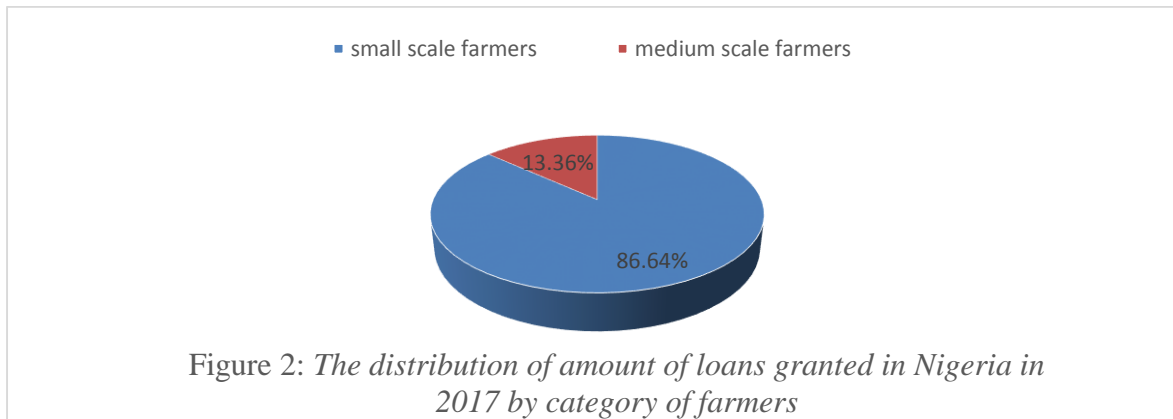
**Agricultural Tractor Leasing Programmes and Related Programmes in Nigeria**

The Agricultural leasing programmes in operation in Nigeria are the Agricultural Enterprise and Hiring equipment scheme, Credit Guarantee Scheme Fund (ACGSF), Commercial Agricultural Credit Scheme (CACS), Agricultural Credit Support Scheme (ACSS), Supervised Agricultural Credit Scheme (SACS), and the Small and Medium Enterprises Equity Investment Scheme (SMEEIS). As presented in Table 3, the amount of loan granted by these credit programmes show that the highest amount of ₦212,223,750.00 was disturbed by AEHES, while ACGSF and SACS disbursed ₦16,936,700.00 and ₦5,376,000.00, respectively. The least amount was disbursed by SMEEIS. The main enterprises funded by these leasing institutions of concern to this study are Tractor Farm equipment across the States. With regard to the amount of loan granted to the enterprises in 2017 by the leasing institutions, the highest amount of ₦22,369,000.00 went to tractor enterprise. The result obtained suggests that the leasing banks were keeping to the guidelines establishing the leasing programmes.

**Table 3:** Amount of Loan Granted by Credit Programmes (2015-2017)

Credit programme	Amount granted
Agricultural Enterprise and Hiring equipment scheme	₦212,223,750.00
Agricultural Credit Guarantee Scheme Fund (ACGSF)	₦16,936,700.00
Supervised Agricultural Credit Scheme (SACS)	₦5,376,000.00
Small and Medium Enterprises Equity Investment Scheme (SMEEIS)	₦2,390,000.00

Figure 2 also show the distribution of amount of loans granted in Nigeria in 2017 by category of farmer show that 86.64% of the amount disbursed to farmers during the period went to small scale farmers, while 13.36% went to medium scale farmers. This could suggest that the loan facility may have been granted to the intended beneficiaries, as these categories of farmers are the major food producers in the country and it corroborates the findings of Henri-Ukoha (2011) on loan acquisition and disbursement by small scale farmers.



**Repayment of Loans Guaranty by TOOAN and Category of Farmers**

Analysis of the distribution of agricultural enterprises according to amount of loan repaid from 2015 to date shows that Ogun State repaid 90% of initial price value, while Osun repaid 85% of the loan was granted (Figure 3).

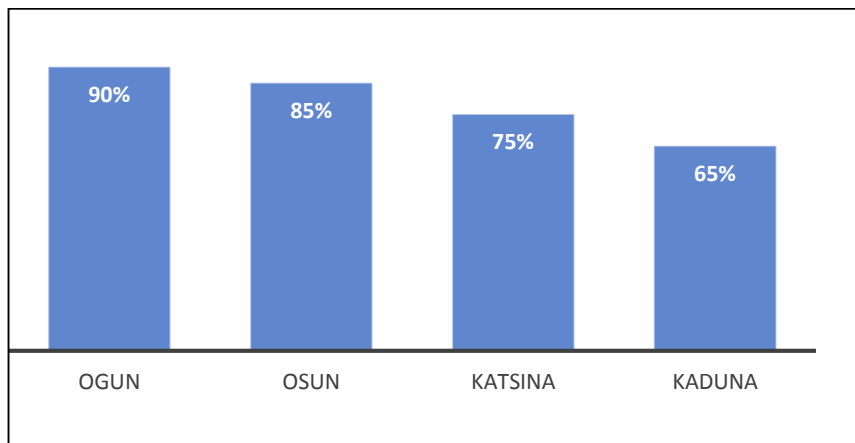


Figure 3: *Graph of distribution of agricultural enterprise by state*

Similarly, in Figure 3, Katsina and Kaduna had 75% and 65%, respectively. With respect to repayment according to category of beneficiaries’ farmers, small scale farmers repaid (60.48%) of the loan granted to them, while medium scale farmers repaid (69.85%) of the loan granted to them. The outstanding balance against small scale farmers is (41.52%), while the amount outstanding against medium scale farmers is (40.15%). The overall repayment for the year 2012 is 58.66%, while 29.52% of the bank loans granted is outstanding. However, for the period 2015 – 2017, 49% of the bank loans granted to farmers were repaid, while 51% is outstanding.



**Amount of Loan Granted on Beneficiaries’ Income to Acquire Tractor**

The result of the regression analysis presented in Figure 4 shows that the amount of loan granted to the farmers had positive effect on total income (farm income plus non-farm income) of the beneficiaries. The estimated coefficient associated with amount of loan granted is positive and statistically significant at 1% level. The positive relationship between amount of loan granted and total income of beneficiaries obtained in this study further confirms the response given by beneficiaries that the loan granted to them improved their output, and thereby improving their economic status. Some of the reasons given by farmers for the positive effect of the loan on their output include, increase in income through enhanced output, accumulation of more capital and savings, increased investment in agriculture through purchase of improved mechanised inputs, fertilizer and agrochemicals, and enhanced investment in income yielding non-farm activities. The result obtained here is consistent with Feijo (2001) and also reported by Obasi (1995) who found that there was a positive effect on the lives of farmers who benefitted from the credit facilities of the program to support family farming (PRONAF) in Brazil by facilitating economic transactions, accessing services that improve quality of life, protecting against economic vulnerability, making productivity enhancing investments, and leveraging assets. With regard to the effect of the loan on farm output, it was observed that the loan increased national farm output by 23.33% in 2016 year ending.

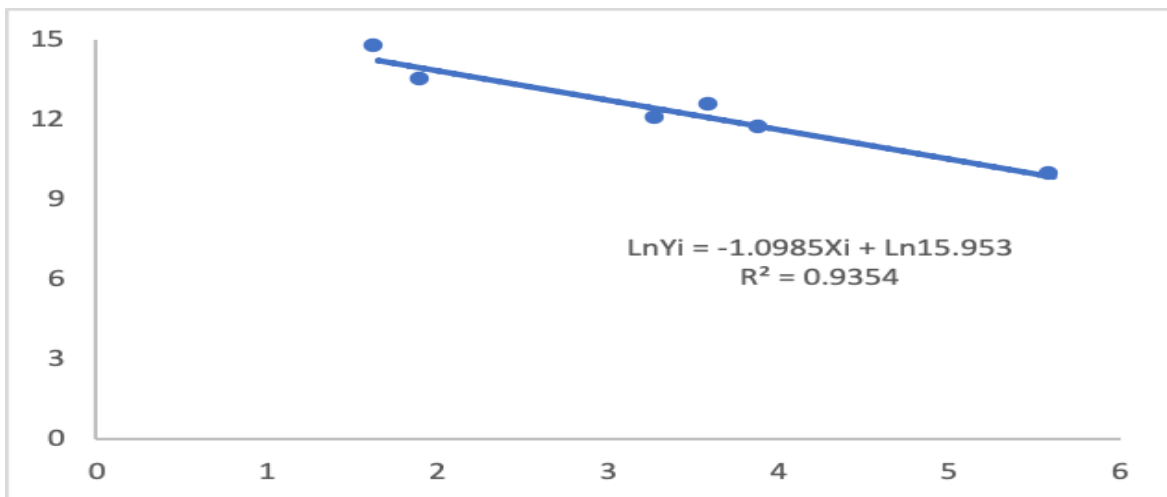


Figure 4: Graph of amount of loan granted on beneficiaries’ income to acquire tractor

**Analysis of Financing the Agricultural Tractorization Sub-sector in Nigeria**

In addressing the issue of the area of financing problems faced by the stakeholders in tractorization programme in Nigeria, it was considered pertinent to view it from the demand and supply sides of the problem. First, from the demand side by considering the total number of farmers that requested for bank loan to acquire tractors and implements in Nigeria during the period 2015 – 2017 and the amount of loan requested. Second, from the supply side by the vendors considering the number of farmers granted loan facility by banks during the period under review and the amount of loan granted to them. In line with Table 4, it can be seen that the number of farmers that requested for Bank loan to acquire tractor, the number of farmers that were granted Bank loan to acquire tractor and the number of farmers that were not granted Bank loan in 2015 - 2017 were 978 persons, 490 persons and 488 persons, respectively; while the volumes of loan requested by farmers, loan granted to farmers and loan applied for but not granted to farmers in 2015 - 2017 were ₦5,780,000,000, ₦137,049,650.00 and ₦880,000.00, respectively.



**Table 4:** Data of Financing of the Agricultural Tractorization Sub-sector in Nigeria

Variables	Number/volume	Year
Farmers that requested for Bank loan to acquire tractor	978	2015-2017
Farmers that were granted Bank loan to acquire tractor	490	2015-2017
Farmers that were not granted Bank loan	488	2015-2017
Loan requested by farmers	₦5,780,000,000	2015-2017
Loan granted to farmers	₦137,049,650.00	2015-2017
Loan applied for but not granted to farmers	₦880,000.00	2015-2017

Therefore, to address the financial needs of the agricultural service mechanization subsector in Nigeria, the problems created by denying farmers’ access to institutional loan has to be addressed by addressing the factors that prevented the famers from having access to institutional loans *ab-initio*. In doing this, the financial constraints of the farmers in Nigeria would have been solved. This can be done through recommendations outlined by Obasi *et al.* (1995) e.g., first, issues that relate to collateral requirements by banks must be reviewed. Second, the leasing rate to the agricultural subsector must be addressed; while the apex bank should ensure that participating banks comply fully with the CBN guidelines on leasing to the agricultural sector. Third, government should encourage farther partnership with private sector and NGO mechanization service providers like TOOAN.

#### **Role of Leasing Programmes in Loan Disbursement and Recovery**

A closer analysis at the performance role of the leasing programmes in loan delivery and recovery of stakeholders during the period 2015 – 2017 showed that the programmes succeeded in making credit available to the targeted group of farmers, small and medium scale. A major factor that may have accounted for this could be found in the flexible guidelines of each of the leasing programmes. For instance, in Table 5, revealed that the AEHES guarantees credit facilities extended to farmers by banks up to 75% of the amount in default net of any security realized. In addition to this, an interest drawback program was established to further encourage farmers’ repayment of loans, reduce default and provide free funds for use by farmers in agricultural production. Under the interest drawback program, the NIRSAL offers a rebate of 40% on the amount paid as interest on the loan by the borrower, provided full repayment was made as and when due, with a moratorium period of three months for delayed repayments after which a farmer is ineligible for the rebate. Apart from the interest drawback, there is also the non-insistence of collateral component to the leasing institutions which does not only create incentives for beneficiaries to repay their loans, but shifts the risk of loss from the lenders to the beneficiaries. Under AEHES, applicants (practicing farmers and agro-allied entrepreneurs with means) can access funds by approaching their banks for loan through the respective state chapters of TOOAN and State Implementation Committees.

Again, in Table 5, under ACSS funds are disbursed to farmers and agro-allied entrepreneurs at a single-digit interest rate of 8.0%. Applicants who pay back their facilities on schedule enjoy a rebate of 6.0%, thus reducing the effective rate of interest to be paid by farmers to 8.0%, while under CACS interest on loan shall not exceed 9.0% inclusive of all charges. However, some the reasons why farmers find loans inaccessible are ; lack of consistent cash flow, insufficient collateral, debt-to-income ratio, customer concentrations, insufficient credit, personal guarantees, insufficient operating history, economic concerns, insufficient management team and weakening industry



**Table 5:** Role of Leasing Programmes in Loan Disbursement and Recovery

Leasing programme	Loan disbursement (%)	Recovery/rebate (%)
AEHE	75	40
ACSS	8.0	6.0
CACS	9	9

## CONCLUSION AND RECOMMENDATIONS

It can be concluded based on the results of the analyses, that the Agricultural Tractor leasing programmes have performed creditably well in loan delivery and recovery, and that the problem of lack of access to institutional loans in Nigeria could be solved by addressing the issues that relate to collateral requirements by banks, the leasing rates to the agricultural sector, and the apex bank ensuring that participating banks comply fully with the Central Bank of Nigeria (CBN) guidelines on leasing to the agricultural sector. However, the following recommendations were drawn:

1. It was recommended that the government should continue to encourage increased food production in Nigeria by small and medium scale farmers through the provision of institutional loans to these categories of farmers via stronger public private partnership with TOOAN.
2. Improved Agricultural mechanization in Nigeria could be achieved through government intervention by the provision of affordable Tractors needed by farmers to mechanize.
3. Farmers in co-operative associations should be encouraged to pull their farm lands together so as to cultivate large hectares of farm land under mutual agreement using modern farm equipment.

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