

## AGRICULTURAL FINANCING AND POVERTY ALLEVIATION IN NIGERIA

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### ABSTRACT

The study examines the impact of agricultural funding on Nigeria's efforts to reduce rural poverty. Multiple regression analysis was used to assess the data that were taken from the Central Bank of Nigeria's (CBN) Statistics Bulletin for this study. The dependent variable was real gross domestic product, and the independent variables were government spending on the agricultural sector, commercial bank credit to the agricultural sector, loans from the agricultural sector guarantee scheme, and the lending rate to the agricultural sector. The results indicate that government spending on the agricultural sector contributes positively but insignificantly to Nigeria's gross domestic product, while commercial bank credit, loans from the Agricultural Sector Guarantee Scheme Fund, and lending rates all have a positive and significant impact. To improve the economy's performance in the agricultural sector, it was said that government at all levels should provide assistance for the industry. The researchers advise that the government enact measures to diversify the Nigerian economy, promote agricultural credit operations to reduce risk, and give specialised staff access to oversee loans given to farmers in order to minimise default. To encourage farmers to take out loans from deposit money banks, the government should see to it that the lending rate on loans to the agricultural sector is reviewed and set at a rate that is favourable to them.

**Keywords:** Agricultural Financing, Rural Poverty Alleviation, Real Gross Domestic Product, Government Expenditure to Agricultural Sector, Commercial Bank Credit to Agricultural Sector, Agricultural Sector Guarantee Scheme Fund Loan to Agricultural Sector, Lending Rate Loan to Agricultural Sector

### 1. INTRODUCTION

Finance is the lubricant that keeps production moving. The objectives of the government's agricultural policy, however, cannot be realised with current levels

of public investment in agriculture. Inadequate financing of agriculture foretells significant risk for a rising country with an oil-based economy, like Nigeria, for a variety of reasons (Badiene, 2008). Notwithstanding the assumed objectives of the various governments, budgetary support for agriculture has consistently fallen short of expectations and proven insufficient in recent years. For example, the agriculture industry has only consistently earned 4% of the federal government's annual total budget since 2006. (Sanusi, 2011). The Bank of Agriculture, whose 40-year-old share capital is only 41% paid up by the government, is another superb example. One way to solve the problem is for the government to wake up to its responsibilities and stop the deluge of lip service, broken promises, policies, and poor implementation of those policies. The African Union Maputo Declaration (AUMD), which was adopted in 2003 and mandates that by 2008, member countries invest at least 10% of their national budgets in agriculture, serves as an illustration of this. Five years after the deadline passed, Nigeria, a prominent AUMD member, is still not in compliance with this international accord.

Many Nigerian farmers, particularly small-holder farmers, are unaware of the ACGSF. Another major issue is corruption: senior government officials may transfer funds offered as loans to rural farmers for industrial use (Ida, 2009). Although Nigerian agriculture has a lot of potential, it may not have much of an influence on reducing poverty and fostering self-sufficiency. Some stand out among the several potential reasons for this development. They include the low levels of private investment in the agricultural sector, the inadequate access to assets and resources, the outdated technology, and the unstable power grid in the nation. The neglect of the sector has been exacerbated by the belief that agriculture is a subpar business whose economic contribution will surely decline as the economy grows. The diminishing percentage of agricultural GDP and employment, despite being statistical realities that can be seen in both developed and developing countries (Dim, 2013), Money is unquestionably important strategically for the revival and expansion of agriculture, but in order for finance to be effective and efficient, other production-related factors must be just as important. Poor macroeconomic policy stands out as a contributing factor to the aforementioned issues. managing the resources and infrastructure, including finances, roads, energy, agricultural goods, marketing, pricing, etc. Commodity boards should be revived and managed, and efficient storage options as well as possible value-added chain prospects should be taken into consideration. Therefore, it is more important to address the problem of inconsistent policy, especially corruption (Eboh, 2012).

In an effort to enhance agriculture's contribution to economic development, the government has adopted a number of policy initiatives and programmes over the years after understanding the declining role that agriculture plays in it. Yet, a closer examination of the federal government's investment in agriculture as a proportion of its total investment in capital presents a dismal picture for the sector's future expansion in the country. With the exception of 1981, 1982, and 1983 (the highest), 1985, 1986, 2001, 2002, 2004, 2005, 2007, 2008, and 2009, which were the years that coincided with or followed a number of government agricultural development policies and programmes, including the Green Revolution in 1980 and the structural adjustment programme (1986), between 1980 and 2011, the federal government's capital expenditure on agriculture was less than 10%, according to (Eboh, 2012). As a result, the study focused on how agricultural funding affected the reduction of rural poverty in Nigeria. The primary objective of the study is to investigate how agricultural funding affects the reduction of rural poverty in Nigeria.

## **2. CONCEPTUAL FRAMEWORK**

Agricultural financing is used to fund all aspects of the industry, from production to marketing. It describes a range of financial services, including short-, medium-, and long-term loans, leasing, and crop and animal insurance, that cover the entire agricultural value chain, which includes input supply, production and distribution, wholesaling, processing, and marketing (Tiffin, 2012). Agriculture funding is the term for resources (public or private) that are used to enhance social welfare through the development of the agricultural sector. These resources might take the form of shares, grants, or loans (Shreiner & Yaron, 2011). Together with public assistance, it also includes money from non-governmental organisations that use matching grants to promote local empowerment, community and sector development, and income equality. In Nigeria, agricultural finance improves economic growth through increased productivity, economic sustainability, a reduction in poverty, business possibilities, institutional reforms, and incentives for innovation, according to a study by Adesina (2016).

According to Shreiner and Yaron (2011), "agriculture credit" is a term used to describe (public or private) resources (in the form of equity, a gift, or a loan) that are used to improve social welfare by fostering the growth of the agricultural industry. Together with public assistance, it also includes money from non-governmental organisations that use matching grants to promote

local empowerment, community and sector development, and income equality. Public funds are subsidized, but private contributions, regardless of price, are not unless they are tax-free or the market price is affected by an explicit or implicit governmental guarantee of the obligations of a development finance institution. It is possible to distinguish between non-debt (non-leverage) and debt (leverage) types of agricultural credit and financing. Agricultural financing is used to fund all aspects of the industry, from production to marketing. It makes reference to financial services that encompass every aspect of the value chain in agriculture, including input supply, manufacturing, marketing, and distribution. These services include leasing, crop and livestock insurance, as well as short-, medium-, and long-term loans. Although there are many different types of finance, the focus of this subject is on borrowing money or using credit (Sandri, 2007).

Agricultural credit might be defined as the mobilisation of resources at all scales for the objective of increasing agricultural productivity and production. In a developing country, agricultural loans may benefit the growth of gross domestic products, which reflects favourably on the state of the broader economy. Agricultural credit and finance promote growth while addressing production-related difficulties in the industry (Wiggins, 2009). Economic growth, as described above, is “a long-term increase in a country’s capacity to provide its population with increasingly diverse economic goods; this growing capacity is dependent on developing technology and the institutional and ideological adaptations that it demands” (Todaro, 1992). This concept states that institutional, attitudinal, and ideological changes, persistent national production growth, the availability of a wide range of economic commodities, increased technology, and other factors all contribute to economic growth.

## **2.1. Theoretical Framework**

The concept of commercial loan liquidity was first presented by Adam Smith in 1776. The commercial loan hypothesis states that short-term loans used to pay for the transit of saleable goods from producer to consumer are the most liquid loans a bank can offer. Due to the impending sales of the things they are financing, these loans are self-liquidating. From the transaction that the loan finances, the borrower receives the funds necessary to repay the bank. These loans are liquid, in Adam Smith’s opinion, because both their aim and their collateral were movable. Goods are quickly moved from manufacturers to wholesalers, who subsequently give them to retailers, where the final cash-paying customer purchases them (Aliyu, 2002). The idea of commercial loans served as the study’s foundation. Ewubare

(2016) suggested the concept of multiple lending in 1976. Many lending theories predict that banks should be less likely to syndicate loans (share lending) in the presence of robust equity markets and after a precise consolidation. Outside equity, mergers, and acquisitions improve banks' lending capacity, which reduces the need for greater diversity and control through share lending (Ewubare, 2016). In light of the industry's 2005 consolidation effort, this idea has more implications for Nigerian banks. According to this school of thought, the traditional system sees the interest rate, exchange rate, deposit rate, and financial ratio of banks as powerful, unwavering variables that influence the amounts of loans and advances given to private citizens and corporate entities. The real theory of interest rates is what this is known as. This is so because these variables are not at all dependent on the state of the economy. However, in the traditional system, saving equals capital supply (Baghebo, 2011).

### **3. LITERATURE REVIEW**

Itiveh (2022) claims that poverty has been and still is one of the most well-known and significant problems affecting numerous economies all over the world. As wealthy countries work to diminish this menace, certain developing countries engage in its hegemony with impunity. Rural locations have been reported to have higher rates of poverty, which has been linked to a number of well-known barriers to its elimination, such as governmental failures, deprivation, inflation, and infections. Nigeria has established a number of laws and programmes to fight poverty, but the problem persists. In light of the foregoing, this article investigates whether measures to alleviate poverty could promote economic growth in the most afflicted region, the sub-Saharan region. The purpose of this study is to determine whether Nigeria's lack of democratisation and under-utilization of its abundant natural and human resources are to blame for the population's persistent growth in poverty. The study also offers some optimistic and attitudinal recommendations for how to successfully implement the numerous policies and initiatives intended to reduce poverty to the barest minimum and assist the expansion of the Nigerian economy.

The Obadire (2022) study was carried out in Ogbomosho Metropolis, Oyo State, Nigeria, to evaluate the efficiency of microfinance institutions as a strategy for eradicating poverty there. The standard of living of the respondents was looked into, and the accessibility of microloans for expanding small and medium-sized businesses was also evaluated. The strategies were evaluated by distributing surveys directly to the microfinance institutions' customers. In order to examine

the primary data, the chi-square test, Pearson correlation, and Analysis of Variance (ANOVA) tests were performed. The findings revealed an association between the respondents' level of living and the effect of microfinance banks on their household that was both favourable and significant ( $p < 0.05$  and  $r = 0.212$ ). The t-statistic test's value of 16.383 with a p value of 0.05 indicated that the poor had strong access to loan facilities from microfinance banks for the growth of microenterprises, according to the data. The impact assessment's conclusions led to the conclusion that microfinance institutions have the power to eradicate poverty, notably by improving the standard of living for the poor and granting microloans to small businesses. Hence, a consistent increase in micro lending led to a significant drop in poverty in Nigeria.

Oyakhilomen and Zibah (2014) did a study on the relationship between agricultural productivity and the growth of the Nigerian economy, with an emphasis on lowering poverty. Time series data were employed in this work, and the data were examined using unit root tests and boundaries (ARDL) testing for cointegration. The data analysis showed that Nigeria's strong economic growth pattern was significantly influenced by agricultural production. The country's monolithic oil-based economy must be replaced with one that is more pluralistic, with agriculture as the dominant industry, while poverty in Nigeria is still on the rise. Pro-poor policies should be created to increase public and private sector investments in agricultural development in order to decrease rural poverty. Oluwasegu, Toluyemi and Opeyemi (2016) conducted a study on various agricultural investment options and their benefits for alleviating poverty in Nigeria. The Cobb-Douglas Production Function served as the study's theoretical underpinning and was one of two models employed for the time series econometrics research. The annual poverty rate and the percentage of the agricultural sector in the GDP, respectively, are the dependent variables in the two models. Time series secondary data from 1985 to 2012 were used for this inquiry. The unit root test for stationarity indicated that each variable was stationary at the first difference, which increases the likelihood that there may be short-run disequilibrium among the variables. The Johansen cointegration test was run to see if there was a long-term connection between them. As a result, the Error Correction Model (ECM) was created. The level of poverty in the current year was found to be statistically significantly reduced by the lag effects of capital, labour, and ACGS. In light of the higher labour sensitivity to productivity, which is also found to reduce poverty, the study recommends that public investment in the agricultural sector be redirected towards the provision of infrastructural facilities, the purchase of fertilisers and agrochemicals, and

the pursuit of labour-intensive methods of production. Private investment in the agricultural sector should also be given a significant boost through the expansion of credit facilities under ACGS.

The policies of the Nigerian government regarding agricultural finance and how they effected rural development were examined by Christopher, Ugochukwu, and Okon (2017). The study found that, despite the government's sincere attempts to develop efficient agricultural policies through schemes, programmes, and organisations, it has not been able to adequately finance them, along with corruption in the implementation of the policies. In order for the government's agricultural financing policies to fulfil its goal of rural development, Nigeria is encouraged to make enough investments in agriculture, modernise rural infrastructure, boost productivity, and improve the competitiveness of farm production. Mallum (2016) carried out a study on the evaluation of agricultural finance policy and the effects of credit on the growth of agriculture in Nigeria. Agriculture financing, which enables the purchase of all other inputs, is well known to act as the backbone and nerve centre of the agriculture sector. In acknowledgement of the importance that finances play in agricultural output, the Nigerian government has over the years developed agricultural finance laws, initiatives, and organisations that are meant to encourage food production and improve the lives of farmers. Various institutions, laws, and initiatives pertaining to agricultural financing are highlighted and examined. Credit is essential to the development of agriculture, and its limitations may affect how farmers behave while making investments. It has been found that those who receive loans frequently make more money from farming than those who do not. Due to the requirement for collateral, perceptions of high risk, and unpredictable agricultural output, small-scale farmers often have restricted access to finance. According to the article, the government should give farmers incentives, particularly financial support in the form of credit, because they make up the majority of Nigeria's population. It is also suggested that, in order to lower risk, regulations geared towards boosting the diversification of agricultural credit operations be supported and that specialist workers be allowed to supervise loans issued to farmers in order to prevent default.

Akinola (2013) analysed the successes and performances of the ACGSF, BOA Ltd., and the most recent CACS from each organization's foundation, which was about 40 years ago, in a study that was released in 2013. These are a few of the federal government-initiated initiatives in the areas of programmes, policies, and organisations designed to sustain the agriculture sector's economic

expansion and resurrection. Notwithstanding her oil wealth, the country's wellbeing is still very far from being recovered, and it has been recognised that one of the things that could help is its development and restoration. The study came to the conclusion that, while finance as a whole is significant as a factor of production, it cannot be employed alone to provide the desired outcome in the agricultural sector. The study mainly employed secondary data from journals, interviews, reports from these institutions, the CBN, and presentations from different stakeholders. Inconsistent and irregular regulations, a lack of institutions for commodities marketing and pricing, ineffective and inadequate storage, insufficient insurance coverage, and, most importantly, corruption are only a few of the factors that have been highlighted. Okezie and Njoku (2015) looked at the relationship between government spending on Nigeria's agricultural sector and its contribution to economic growth using time series data from 1980 to 2011 from the Federal Office of Statistics, the Journal of Food Research, and the Central Bank of Nigeria Annual Report and Statement of Account. It applies the unconstrained error correction model and pair-wise Granger causality tests, along with the Engle-Granger two-step modelling (EGM) method for cointegration. The outcomes of our analysis in this study demonstrate a cointegration between total government spending on agriculture and agriculture's contribution to GDP (gross domestic product). The speed of adjustment to equilibrium if the variables deviate from their equilibrium values is 88% within a year. Based on the results of Granger causality, the study concludes that there is only a very weak link between the two variables used in this investigation. These findings have policy implications since they show that any reduction in government support for agriculture would harm Nigeria's economic growth.

It is more important than ever for Nigeria to look into how farm finance impacts economic growth, according to Obansa and Maduekwe (2013). Secondary data and a few econometric techniques, such as the Granger Causality Test, Augmented Dickey-Fuller (ADF) unit root test, and Ordinary Least Squares (OLS), were employed in this work as the Granger Causality Test, Augmented Dickey-Fuller (ADF) unit root test, and Ordinary Least Squares (OLS), were employed in this work. The results of the various models that were used indicate that economic growth and agricultural funding, as well as economic growth and agricultural growth, are causally related in both directions. Additionally, it indicates that foreign direct private loans, share capital, foreign direct investments, and development stocks will all be used to finance investment output more efficiently. Moreover, multilateral loans, domestic savings, Treasury bills, government development aid, foreign direct investment, and development stock



should all be used to fund the capital-output ratio. Maintaining credible macroeconomic policies that are pro-investment and the debt-equity exchange option are crucial for an economic expansion that is driven by agriculture. Nwankwo (2013) conducted a study on agricultural funding in Nigeria and its implications on the growth of the Nigerian economy using the ordinary least squares method and a quantitative research methodology. The rate at which loans have been returned over time has had a significant negative impact on that expansion, the study finds, and there is a clear correlation between agricultural financing and the growth of the Nigerian economy. The results have important policy ramifications for actions that will increase economic growth by funding agriculture. We advocate this because there is a long-term relationship between NACRDB agricultural financing and Nigerian economic growth. It is vital to increase the quantity and size of NACRDB agricultural loans through the implementation of lower interest rates in order to support greater economic development in the country.

Kamil, Sevin and Festus (2017) did a study to look into the impact of Nigeria's agriculture sector on the nation's economic growth using time series data from 1981 to 2013. The findings revealed an equilibrium relationship over the long term between real GDP, agricultural output, and oil rents. According to the outcomes of the vector error correction model, agricultural production had a positive effect on economic growth, but the rate at which the variables adjusted to their long-run equilibrium path was slow. The government and decision-makers were urged to change their strategies and allocate funds to support the agricultural industry. A study of Nigeria's agricultural financing 2013 saw the completion of Agbaeze and Onwuka's capital market option. Yet, one of the main challenges facing many developing countries, particularly in Africa, is developing proper development plans that would take into account the requirements of farmers, who make up around 70% of the population. Fair enough, the Federal Government of Nigeria has put in place a number of policies to achieve this goal, such as a commercial bill financing scheme, national commodity boards that replaced regional commodity boards, an export financing and rediscount facility (1987), the Nigerian Agricultural Cooperative and Rural Development Bank Ltd., community banks, the People's Bank, the Agricultural Credit Guarantee Scheme Fund (ACGSF), and the Small and Medium Enterprises Equity Investment. In retrospect, Nigeria's capacity to increase food production hasn't been significantly affected by these regulations. The essay proposes that all governmental levels in Nigeria may finance agriculture using the capital market after briefly examining agricultural financing in Nigeria. The

capital market option, if taken, will provide the necessary long-term financing for accelerated agricultural development.

Egwu (2016) conducted a study to learn more about the impact agricultural funding has on Nigeria's economic development and attempts to combat poverty. This was attempted using the Durbin-Watson Test, the T-Test, the R-Square, the Standard Error Test, and the Ordinary Least Squares Regression Method. The ADF/PP unit root and the cointegration test were used in the data analysis. The study's findings indicated that there was a long-term relationship between the variables in Nigeria during the study period, with the dependent variable, Agricultural Sector Output Percentage to Gross Domestic Product (ASOGDP), being significantly influenced by Commercial Bank Credit to the Agricultural Sector (CBCA) and Agricultural Credit Guarantee Scheme Fund Loan to Nigeria's Agricultural Sector (ACGSF). This lowered poverty levels and boosted Nigeria's economy. In light of the study's findings, the researcher advised the Central Bank of Nigeria to lower its cash-to-reserve ratio. Nonetheless, the funds created by such actions must be accounted for in the agricultural credit portfolios. The land use decree needs to be modified in order to provide Nigerians unrestricted access to land. The number of farmers who could potentially be used as collateral for banking system lending facilities will increase as a result. The study also found that the commercialization of agriculture is very important. Therefore, it is necessary for the government to take actions to encourage agricultural commercialization through cooperative structures, agricultural subsidies, and zero-tariffs for the importation of agricultural inputs.

Onukwuru and Ekine (2018) look at the performance of Nigeria's agricultural industry from 1986 to 2016 in relation to the credit provided by deposit money banks. A variety of issues of the CBN statistical bulletin were among the secondary data sources examined for the empirical inquiry. The study's dependent variable, agricultural sector output (ASP), served as a stand-in for the performance of the agricultural sector. The study's main explanatory variable was the amount of credit provided by deposit money banks to the agricultural sector (BCA), and to boost the model's explanatory power, interest rates (INR) and government spending on agriculture (GEA) were used as check regressors. The study employed descriptive statistics, ordinary least squares (OLS), unit root test, co-integration, and ECM methodologies as analytical methods. The results revealed that there was no co-integrating (or long-run) relationship between deposit money banks' credit to the agricultural sector and the sector's performance in Nigeria during the study period; rather, deposit money

banks' credit to the agricultural sector (BCA) had a positive and significant impact on the sector's performance (ASP), while the relationship between the interest rate (INR) and the performance of the sector was negative and insignificant (ASP). Also, the study discovered a slight but positive correlation between GEA and agricultural sector performance (ASP). Given the aforementioned, it is suggested that the government and ordinary people collaborate to encourage or increase investment in the agriculture sector. The interest rate on loans to the agricultural industry must be looked at carefully and set at a level that will entice farmers to borrow money from deposit money banks.

Mulubrhan and Nathaniel (2017) conducted research on the factors that either lower or increase agricultural productivity. In addition, we investigate whether agricultural productivity, as measured by land productivity, improves household consumption growth using nationally representative Living Standards Measurement Study-Integrated Surveys on Agriculture (LSMS-ISA) panel datasets from Nigeria combined with in-depth novel climate and bio-physical information. The findings demonstrate that agricultural production is positively correlated with labour and farm inputs, which is consistent with the inverse land size-productivity link so commonly seen in the literature. Farm size increases result in a loss in land production. We also find that climate risk and bio-physical factors have a role in understanding agricultural productivity. Moreover, agricultural output has a favourable influence on the growth of household consumption. The results also demonstrate that while agricultural productivity raises non-poor households' welfare, it lowers welfare for poor households. Michael's study, *Achieving Sustainable Economic Growth in Nigeria Via Financial Inclusion in the Agricultural Sector* (2016), it was mentioned that the financial inclusion of the Nigerian agricultural industry might be used to encourage long-term growth. The research recommends, among other things, adding more financial institutions to rural areas and encouraging individual financial responsibility in order to improve financial inclusion in the agricultural industry. Agbada (2015) conducted a study on agricultural financing and production optimization for sustained economic growth in Nigeria. While gross domestic product acts as a stand-in for agricultural output, the endogenous components of government-secured Agricultural Credit Guarantee Scheme (ACGS) loans act as a stand-in for agricultural financing. The CBN statistical bulletin for 2012 served as the source of the data, which was then analysed using multiple regression techniques. Although there is a positive association between Nigeria's output growth and the amount of ACGS funding available, research findings indicate that the trends in these growth rates, as depicted by

their graphs, are not the same. The graphs' features suggest that during the time period under review, the agricultural sector's contribution to GDP growth was incredibly small. Yet, the significance test was passed by other statistical factors. We therefore conclude that there is a positive association between the variables, despite the fact that it initially appears to be minor. We urge the government to take proactive action by making concerted efforts to improve the financial status of agricultural stakeholders rather than solely depending on policies. Additionally, in view of the detrimental consequences that a lack of domestic food production, agricultural export revenue, and a reduction in populace living standards are having, we suggest regulatory authorities to tighten their control of how banks disburse sectoral loans.

In Nigeria, between 1990 and 2014, Evbuomwan and Fankun (2017) conducted a 25-year study to evaluate agricultural finance, policies, programmes, and efforts for sustainable development. Due to the falling price of oil on the global market, Nigeria's economy needs to be diversified towards agriculture if it is to thrive sustainably in the future. The Central Bank of Nigeria's (CBN) Statistics Bulletins, Annual Report and Statements of Accounts, Bullion, The Economic and Statistical Review of the National Planning Commission, conference journals, World Bank and United Nations publications, and textbooks were all utilised in the study. The study's findings show that the Nigerian government's commitment to agricultural operations was insufficient for achieving agricultural sustainable development. The fact that the Maputo Declaration and the Food and Agriculture Organization both stipulate that agriculture must get at least 10% and 25% of the budget, respectively, is proof of this. It was also found that the proportion of commercial bank credits to total credit was excessively low. So many agricultural strategies and goals were not translated into concrete actions. The study makes several recommendations, including the following: adhering to the minimum 10% and 25% minimum agricultural budgetary allocation to agriculture, the government should support its agricultural policies and initiatives with actions, and increase investment in agricultural inputs and equipment to ensure that Nigeria's agricultural sector develops sustainably.

## **4. METHODOLOGY**

### **4.1. Research Design**

This study, which spans the years 1981 to 2022, looks into the effects of agricultural funding on the reduction of poverty in Nigeria. The Statistical Bulletin of 2022

from the Central Bank of Nigeria served as the data source for this study. The study's adopted model is shown below. The researcher adopted the model as stated by Egwu (2016). Hence, the Egwu (2016) model is stated below:

$$\text{GDP} = F(\text{CBCA}, \text{ACGSF}, \text{ASOGDP}) \quad (3.1)$$

$$\text{GDP} = p_0 + p_1 \text{CBCA} + p_2 \text{ACGSF} + p_3 \text{ASOGDP} + U_t \quad (3.2)$$

Where;

GDP = gross domestic product

CBCA= Commercial Bank Credit to Agricultural sector

ACGSF = Agricultural Credit Guarantee Scheme Fund Loan to Nigeria's  
Agricultural sector

ASOGDP = Agricultural sector output percentage to gross domestic product

Po = intercept Pi-p<sub>3</sub> = parameter estimate Ut = stochastic variables

The model for the study is specified below;

$$\text{RGDP} = F(\text{GEAS}, \text{CBCAS}, \text{ASGS}, \text{LRLAS}) \quad (3.3)$$

The mathematical regression model for the equation above is transformed to the econometric model: thus:

$$\text{RGDP} = \beta_0 + \beta_1 \text{GEAS} + \beta_2 \text{CBCAS} + \beta_3 \text{ASGS} + \beta_4 \text{LRLAS} + U \quad (3.4)$$

Where:

RGDP = Real gross domestic product

GEAS = Government expenditure to agricultural sector

CBCAS = Commercial bank credit to Agricultural sector

ASGS= Agricultural sector guarantee scheme fund loan to Agricultural sector

LRLAS =Lending rate loan to Agricultural sector

$\beta_0$  = Intercept

$\beta_1 - \beta_4$  = parameter estimates

Ut= error terms

## 5. RESULTS AND ANALYSIS

### 5.1. Results

Regression analysis was done to look at the connection between agricultural financing and Nigerian economic growth and how it would affect rural

poverty reduction. The following regression analysis findings are shown in Table 1 below:

**Table 1: Inferential Result**

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
ASGS	0.720097	0.007110	68.95443	0.0000
CBCAS	1.365752	8.27E-06	33.56482	0.0000
GEAS	1.175970	7.35E-06	21.18625	0.1790
LRLAS	-1.801960	1.59E-06	6.359512	0.0000
C	2.364438	0.002934	175.5327	0.7821
R-squared	0.974548	Mean dependent var		32411.94
Adjusted R-squared	0.960122	S.D. dependent var		35270.42
S.E. of regression	6096.588	Sum squared resid		8.55E+08
F-statistic	8.201683			

*Source:* Authors' analysis with e-views 10 output

Ceteris paribus, or holding the explanatory factors constant, the constant (C) predicts that real gross domestic product (RGDP) will rise by 2.364438 units.

Based on the regression results provided in Table 1, the adjusted R-squared of 0.960122 shows that 96% of the total fluctuations in the dependent variable (GDP) were explained by the explanatory variables (CBCAS, ASGS, GEAS, and LRLAS), and the remaining 4% were related to the error term. The F-statistic revealed that the independent variables (CBCAS, ASGS, GEAS, and LRLAS) jointly and significantly explained the variations in the dependent variable (8.201683). (RGDP).

## 5.2. Summary of Results

From the data analysis, the following summary of findings is observed in Table 1:

- i) The R-squared of 97% demonstrated that the independent variable accounted for 97% of the fluctuations in the dependent variable, with the remaining 3% explained by stochastic variables.
- ii) The real gross domestic product in Nigeria was positively and significantly impacted by commercial banks' credit to the agriculture sector.
- iii) In Nigeria, government spending on the agricultural sector had a small but favourable impact on the country's real gross domestic product.

- iv) Loans from the Agricultural Sector Guarantee Scheme Fund to the agriculture sector significantly increased Nigeria's real gross domestic product.
- v) The loan rate for the agriculture sector had a negative and notable influence on Nigeria's real gross domestic product.

## **6. CONCLUSION, RECOMMENDATIONS AND FUTURE RESEARCH**

### **6.1. Conclusion**

This study looked into the effects of agricultural funding on Nigeria's rural poverty reduction. The study's findings demonstrated that government support for Nigeria's agricultural industry has a marginally favourable effect on real GDP. Commercial bank loans to the agriculture sector have a favourable and large impact on Nigeria's real gross domestic product. The actual gross domestic product of Nigeria is positively and significantly impacted by loans from the Agricultural Sector Guarantee Plan Fund. Rates of interest charged on loans to the agricultural sector have a detrimental effect on Nigeria's real gross domestic product.

The agricultural sector has many positive effects on the Nigerian economy, including feeding the nation's growing population, supplying enough raw materials to a developing industrial sector, creating a sizable number of jobs and foreign exchange earnings, and providing a market for the industrial sector's output. The purpose of the study is to ascertain how agricultural funding affects the decline of rural poverty in Nigeria. The study's conclusions demonstrated that government support for Nigeria's agricultural industry had a negligible but constructive effect on GDP. Commercial bank loans to the agriculture sector have a favourable and considerable impact on Nigeria's real GDP. Loans made to the agricultural sector at high interest rates have a negative and large impact on the real gross domestic product of Nigeria, but loans granted under the Agricultural Sector Guarantee Plan have a positive and considerable impact. In conclusion, poverty in Nigeria is still increasing despite the country's expanding economy, calling for a shift from an overwhelmingly oil-based economy to one that is more pluralistic with agriculture as its primary industry.

### **6.2. Recommendations**

The government should raise financing on all levels to strengthen the economy's agriculture sector. The regulatory authority's oversight of sectorial credit

distribution by banks needs to be strengthened in light of the consequences and implications of the lack of food production for domestic consumption, earnings from agricultural exports, and the negative effects on Nigeria's economic growth. The government should implement policies that would diversify the Nigerian economy, encourage agricultural credit operations to lower risk, and offer specialised workers access to manage loans made to farmers to prevent default. The government should make sure that the lending rate on loans to the agricultural sector is reviewed and established at a rate that is favourable to them in order to encourage farmers to take out loans from Deposit Money Banks.

### **6.3. Future Research**

It is suggested that more research be done on this topic, including:

1. The effect of agricultural sector output on the general level of living in Nigeria
2. Agricultural entrepreneurship and the reduction of poverty in Nigerian rural communities

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### ***Conflict of Interest***

This article's publication does not include any conflicts of interest.

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