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Effect of Government Agricultural Expenditure on Real Output Growth in Nigeria

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Abstract

The study examines the effect of Government Agricultural Expenditure on Real Output Growth in Nigeria. It was established that government agricultural expenditure implies as money spent by the public sector on the acquisition of goods and provision of services such as farm implement, healthcare, machineries etc. so as to aids farmers carry out its farming activities. The study equally adopted some mathematical and econometrics techniques such as ADF for unit root test, ARDL model for long run and short run coefficient, Bound test and Diagnostic test. The findings

revealed that there is positive and significant relationship between Government Agricultural Expenditure on Real Output Growth in Nigeria. The study concluded that GAE has positive and significant impact on real output growth in Nigeria. Therefore, the study suggested that the implementation of government agricultural expenditure should be well monitored by both Government and Nongovernmental agencies. And further suggested that machinery should be set up to ensure that money spent on farmers are utilized for the purpose.

Keywords: Government Agricultural Expenditure, Real Output Growth, ARDL Model

1. Introduction

Agriculture is one of the sector that drew the attention of world government in recent years. In many developing countries, the agricultural sector has been seen as a major sector that should drive economic development and industrialization because of it important in the provision of food for the increasing population, the supply of raw material to growing industrial sector, generation of foreign earnings, creation of employment opportunity, and provision of market for the product of the industrial sector (World Bank, 2016) ^[27]. To this effect, Orji, Ogbuabor, Okeke and Anthony-Orji, (2019) ^[20], agricultural product has been recognized to have industrial value and great potentials, increase farmer's income and many other economic agents involved in the processing and marketing of agricultural product.

Awoyemi *et al* (2017) ^[4] described agricultural sector as the engine and panacea to economic prosperity. Notwithstanding, Nigeria is blessed with vast arable land for cultivation, mineral, natural and favourable climate that supports agricultural production. But it is disheartening that agricultural sector in Nigeria is far from been developed. Poor funding or inadequate financing has been identified as one of the principal challenging facing famers and agro-allied entrepreneurs in Nigeria. To this end, (Udoka & Duke, 2016) ^[26], inadequate funding of the agricultural sector has been recognized as a leading setback for agricultural sector in Nigeria.

Agriculture was the bedrock of the Nigeria economic before the oil boom era in the mid-1970s. Nigeria was ranked among the largest export of agricultural commodities. Agriculture has served and still serving as the main source of livelihood for most Nigeria populace. Agriculture is the largest employer of labour, on sectoral comparison, employing about 66% of the country's labour force (Bekun, 2017). The sector is faced with series of challenges ranging from obsolete land tenure system, low level of irrigation development, usage of rudimentary tools for farming, poor access to loans and credit facilities, inappropriate storage facilities, poor access to market, low and unstable expenditure in agriculture research, inefficient fertilizer procurement and distribution (Aliyu, 2012; Bekun, 2017). These challenges have resulted in the retardation of agricultural productivity. Although, agriculture is the largest employer of labour in Nigeria, inherent challenges in production have stagnated agricultural performance in Nigeria.

Nigeria is generously endowed with abundant natural resources including biological and non-biological resources. The resources of this land should be developed to the fullest extent possible with available means as a whole can progress only by the efficient and rational use of the natural resources (Olajide, Akinlabi, & Tijani, 2017). Musa (2016), stated that robust fulfilling agricultural sector is structural for general economic growth, enhancing agricultural performance, create income to people which lead to households to save and spend more, this accelerates growth and investment in other sector. The growth

and development of any nation depend to a large extent, on the development of agriculture. The role of agriculture in reforming both the social and economic framework of an economy cannot be overemphasized. In line with that, Nigeria has a hilly diversified agro- ecological condition, which makes possible the production of a wide range of agricultural product. Hence, agriculture constitutes one of the most important sector of the economy. Despite Nigeria's rich agricultural resource endowment, the agriculture has been growing at a very low rate. Productivity is low and basically stagnant, farming system which are mostly small in scale are predominantly subsistence-base and for the most part depend on the vagaries of the weather.

In the work of Ayodele (2019) ^[6], agricultural sector plays a pivotal role in the development of a nation, successive Nigerian government at the federal, state and local government level have not been able to adequately address the specific constrain in an attempt to increase agricultural production in Nigeria. In light to that, poor people live in the rural and urban centers usually constitute a large percentage of the population in the country and they are the dominant producers of food and other essential materials; yet the formal financial institution have not adequately provided financial services to them as a result of their stringent condition for making funds available to farmers as the lack access to available funds. This is because most of the financial institutions are located in urban area far from the reach of the farmers who lives in rural area. These peasant farmers rely essentially on the informal financial institution in their area. On this note, issues of inadequate access to credit by the rural farmer, among other, have remained the central concern to farmers, and a key constrain to the modernization of diversification of their activities. The poor in the rural area whose main occupation is farming can contribute significantly to the development of the sector do not have an access to banking services.

Furthermore, Agene, Urhie, Adediran, and Olaifa (2017) ^[3], stated that agricultural sector in Nigeria is seen to be an indispensable sector in establishing the framework for the nation's economic growth. Policies to improved and attract agricultural finance come from different ministries, including agriculture, finance and economy. The number of government actors influencing agricultural finance makes its development more complex. Financial regulation is critical for the efficiency of financial services and product, particularly to ensure optimal allocation of financial resources, minimize the transaction cost, in financial intermediation and adopt financial institution to changing environment (Martinal, 2015). The government and private sector has combined effort to strategies ways to foster the competitiveness of rice and cassava as well as other primary commodities in the international market. The government has showed readiness to stop massive food importation, especially rice, and promote cassava and rice value chains to create value for those commodities and create local and foreign market for farmers. A lot of policy measures has been instituted to promote rice and cassava value chain, but these policies failed because of the country's heterogeneity and different region might encounter different challenges because of a decentralized approach to design industrial policies that do not correlate with agricultural policies (FAO, 2016).

In line with this, various policies and programmes was designed to encourage agricultural financing in Nigeria,

recants among them are: Anchor Borrower Programme (ABP), presidential Fertilizer Initiative (PFI), Green Alternative, Youth Farm Lab, Presidential Economic Diversification Initiative (PEDI), Food Security Council, Agricultural Credit Guarantee Fund Scheme (ACGFS), FADAMA III Project etc. All these schemes were designed to fast track and facilitate the availability of funds to farmer in other to boost agricultural sector and improve agricultural productivity.

In the work of Orji, Ogbuabor, Okeke, and Anthony-Orji (2020) ^[21], the Nigeria government has over the years implemented many financing policies so as to improve the performance of agricultural sector by making credit accessible to the rural farmers but those policies have not attained their objective of significantly enhancing the development of agricultural sector and generating employment opportunities because the credit institution require from the farmers to have acceptable collateral before they can be granted credit and many of the farmers are rural dwellers who lack property right, making it impossible for them to access credit.

Agriculture has linkage with other productive sector such as the manufacturing sector and it has a high potential of generating employment for the deferent form of skilled and unskilled labour that constitute the labour force Orji *et al* (2020) ^[21]. However, agricultural product serves as a major raw materials and non-oil foreign exchange earnings for the nation. Food items and even some cosmetic product that are usually imported such as sardine and coconut oil can be manufactured in Nigeria through the processing of agricultural commodities thereby increasing output and generating more employment opportunities in the countries (Orji, Ogbuabor, Okeke, & Anthony-Orji, 2019) ^[20]. Considering the relevance of commercial bank credit facilities to agriculture in modern economic and its recognition in a global setting, it's imperative to give paramount attention to the activities of money deposit bank loan with low interest rate to pave way to farmers for easy outflow of funds. Thereby increasing output and generating more employment opportunities in the country Orji *et al* (2019) ^[20]. Adequate financing and proper management of funds are important for successful exploitation of these opportunities. Inadequate financing and lack of proper management has been identified as a major cause of the low performance of the Nigeria agricultural sector (Orji *et al*, 2020) ^[21].

2. Conceptual Framework

Government agricultural expenditure

Government agricultural expenditure can be described as money spent by the public sector on the acquisition of good and provision of services such as education, healthcare, agriculture, social protection, and defense etc. public spending enable government to produce goods and services or purchase goods and services that are needed to fulfil government's social and economic objectives.

Agricultural development effort, schemes and programmes by government in recent years

In an attempt to revamped agricultural sector and ensure steady and sustainable flow of funds to enhance agricultural output, several financial programme were put in place to facilitate agribusiness activities Ihenacho (2019). Agriculture in the context of the economy is tied with the

various sector and is essential for generating broad based growth necessary for development. In Nigeria, the federal government decided to embark on certain agricultural policies and programmes in order to improve the level of agricultural productivity in Nigeria. These agricultural policies or programmes were set up to meet specific objectives so as to boost greater production of crops and livestock in the country. Some of these agricultural policies and programmes are: Anchor borrower, Green alternative, Agricultural credit guarantee scheme fund, Food security etc.

2.1 Challenges of the Nigeria agricultural sector

Despite intervention and effort from the Nigeria government, agricultural sector constraint by some challenges which are as follow:

1. Resource shortage: over the years, Nigeria has dealt with very low yield per hectare due to shortage in the supply of input such as seedlings and fertilizers as well as inadequate irrigation and harvesting system, which hinders productivity and yield rate (Taiwo, 2020) ^[25].
2. Violent conflict: due to the desertification and water depletion in the northern part of Nigeria, nomadic herdsman are now shifting toward the south of the country in search of grazing fields and water for their animals. This has resulted in the violent conflict with crop farmers in the south. Increase in violation in the food production states is causing decline in Nigeria's food production output (Taiwo, 2020) ^[25].
3. Outdated system of agriculture: outdated methods of agricultural agriculture such as the use of hoes and cutlasses reduces efficiency as these methods are costly and time consuming. Nigeria failure to adopt advanced mechanized systems has reduced the quality of its agricultural product (Taiwo, 2020) ^[25].
4. Absence of value addition and supply-chain linkages: Nigeria focuses mostly on food production, neglecting the processing and manufacturing segment of the value chain. The chain reaction that arises from shortage of resource, lack of finance for small-scale farmers and inefficient transport system, exacerbate the development of food production along the value and supply chain (Taiwo, 2020) ^[25].
5. Insufficient supply to meet population growth and food demand: with a population of roughly 200 million people, Nigeria agricultural productivity is insufficient to meet the food demanded of its growing population thus increasing the demand and supply gap in Nigeria (Taiwo, 2020) ^[25].
6. Lack of access of to finance: although the Nigeria government has provided several facilities through the Central Bank of Nigeria (CBN) such as Anchor Borrower's Programme to help provide small-scale farmers with adequate financing industries still lacks adequate access to finance (Taiwo, 2020) ^[25].

3. Empirical review of literature

In the literature, Mordecai (2016) studied the impact of public agricultural expenditure on agricultural output in Nigeria from 1981 to 2014. Analytical tools employed included the Johansen Co-integration test, Augmented Dickey-Fuller test, Error correction model (ECM) and Granger causality test. The study concluded that public agricultural expenditure had a negative and significant impact on agricultural output. It further posited that

commercial banks loans to the agricultural sector and interest had a positive and not a significant impact on agricultural output in Nigeria. Also, Olufemi, Francis, Adeniran, Abiola and Damilola (2019) ^[19], examine impact of tax revenue on agricultural performance in Nigeria. The study uses Engel and granger approach, co-integration to establish the long and short-run-behavior. Akolo (2017) examine impact of agricultural financing policy and deposit money bank loan on agricultural sector productivity in Nigeria. The study used time series linear regression model employing data covering the period of 1981 to 2015. The result revealed that deposit money bank loan and agricultural finance policy proxy by Agricultural Credit Guarantee Scheme fund (ACGSF) have significant impact on agricultural productivity in Nigeria while lending Rate (LR) shows a significant negative impact on agricultural productivity. Abbas, Yuansheng, Abdul, and Luan (2016) examined the impact of Government expenditure on agricultural sector and economic growth in Pakistan over the period 1983-2011. The variables employed for the study included Government expenditure on agriculture, agricultural outputs and GDP. the study employed the Augmented Dickey-Fuller (ADF), unit root test, Johansen Co-integration test and Ordinary Least Square (OLS) techniques as analytical tools. The result of the Johansen Co-integration test shows that there exist a long-run relationship between Government expenditure on agriculture, agricultural outputs and economic growth in Pakistan. On the other hand, the empirical result of regression analysis revealed that agricultural outputs, Government expenditure has a positive and significant impact on economic growth in Pakistan. Furthermore, Ikpor, Afam and Eneje (2016) ^[14] examined the impact of agriculture financing on rural economic diversification in Nigeria between 1970 and 2015. The study represented rural economic diversification by the normalized Herfindal Hirschman index (HHI). On the other hands, agricultural financing was captured by the four variable namely percentage budgetary allocation to agriculture sector, bank credit facilities extended to the agriculture sector, interest rate charged on bank loans and demand deposit of bank. The results revealed that budgetary allocation to agriculture, bank demand deposits and bank credit to agriculture had positive impact on rural economic diversification while interest rate charged on loans exerted negative impact on economic growth. In this effect, Egwu (2016) ^[11] examined the impact of agriculture financing on agriculture output, economic growth and poverty alleviation in Nigeria between 1980 and 2010. Agricultural output was measured by share of agriculture sector in GDP. Also, agriculture financing was surrogated as agricultural credit guarantee scheme fund and commercial bank credit to agricultural sector. The study employed the Augmented Dickey fuller test, Philip-Peron test and Ordinary least square technique. The result showed that agricultural credit guarantee scheme fund and commercial bank credit positively and significantly impacted agriculture output, thereby alleviate poverty rate and induced economic growth. Comfort and Arigbede (2016) ^[10] examined the effect of agricultural productivity on economic growth in Nigeria. They sought to determine the effect of agricultural productivity on economic growth in Nigeria. They used annual time series data from 2000 to 2014. They study employed the Ordinary Least Square (OLS) method for analysis. The study suggested that there was a long-run

relationship between agricultural productivity and economic growth. The variable for the study were the agricultural sector contribution to GDP, gross access to credit/loans on economic growth in Nigeria among other.

Also, Olufemi, Francis, Adeniran, Abiola and Damilola (2019) ^[19], examine impact of tax revenue on agricultural performance in Nigeria. The study uses Engel and granger approach, co-integration to establish the long and short-run-behavior. In line with this, Adewole, Adekanmi and Gabriel (2015) ^[1] examined the contribution of commercial banks in agricultural financing in Nigeria between 2002 and 2014. Commercial banks' loans and advances to agricultural sector was proxy as agricultural financing while liquidity ratio, cash reserve ratio and discount rate were employed as the explanatory variable. The results of the regression analysis showed that cash reserve ratio, discount rate and liquidity ratio has negative but insignificant impact on agricultural credit. There is negative correlation between the ratio and agriculture credit. In the same path, Operinde, Amos, and Adeselu (2017) examined the influence of Agricultural Credit Guarantee Scheme Fund on Fishery development in Nigeria. They obtained time series data from 1981 to 2012. The variables were analysed using Descriptive Statistic, Growth Function and Autoregressive Distributed Lag. The study show that fishery sub-sector was the least financed in the agricultural sector of the economy. It concluded that; in the long run, volume of loan to agriculture from agricultural credit guarantee scheme fund had positive relationship with fishery contribution to agriculture and GDP.

More so, Ayeomoni and Aladejana (2016) ^[5] examined the relationship between agricultural credit and economic growth in Nigeria between 1986 and 2014 using Autoregressive Distributed lag-model. Economic growth has regressed on agricultural sector credit, private domestic investments, real exchange rate, interest and inflation. In line with this, Makinde (2016) ^[15] examine the impact of deposit money bank's loan and advances on the growth of mining and quarry manufacturing and the building and construction sector, service sector and agricultural sector from 1986 to 2014. By employing regression analysis, the study found out that unlike mining and quarrying, manufacturing and building and construction sector and service sector which have benefited in a little way from the deposit money bank credit, it has significant positive effect on agricultural sector, implying that agricultural sector has benefited from funds thereby driving economic growth of Nigeria. Bada (2017) ^[7] employed ADF unit root test; Co-integration test; Vector error correlation and causality to assess the relationship between banks' credit to private sector, interest rate, prime lending rate, M2, exchange rate, prime lending rate and agricultural credit guarantee scheme fund were sourced secondarily from CBN annual report. The study empirically disclosed that credit have positive significant impact on Agricultural and Manufacturing sector in Nigeria. In this regard, Proso (2015) evaluate the effect of deposit money banks on agricultural output in Nigeria, using Ordinary least square regression estimation techniques. They found out that commercial banks credit and government expenditure have positive and significant influence on agricultural productivity while interest rate has negative effect on agricultural output.

Similarly, Sogules and Nkoro (2016) ^[24] used Johansen co-integration techniques to analyze the long run relationship

between bank loan and advances and performance of manufacturing sector between 1970-2013 in Nigeria. Evidence from the study showed that long run relationship exist in the model. The short run ECM showed negative significant relationship between bank loan and advances and performance of manufacturing sector. Bernard and Adenuga (2017) ^[9], employed error correction model and granger causality test to examine the contribution of the agricultural sector to employment generation in Nigeria. The result from their findings showed that over the years the agricultural sector contributes significantly to employment generation in Nigeria. In line with this also, Ogbeide (2016), conducted a study in three local government area in Edo state, Nigeria on the progress of agricultural employment intervention programs to reduce unemployed youth. Data was generated through qualitative research by carrying out focus group discussion. The analysis and interpretation of the result was positive recommending further application of the agricultural employment intervention program. Akolo (2017) examine impact of agricultural financing policy and deposit money bank loan on agricultural sector productivity in Nigeria. The study used time series linear regression model employing data covering the period of 1981 to 2015. The result revealed that deposit money bank loan and agricultural finance policy proxy by Agricultural Credit Guarantee Scheme fund (ACGSF) have significant impact on agricultural productivity in Nigeria while lending Rate (LR) shows a significant negative impact on agricultural productivity.

In addition, Agbada (2015) ^[2] analyzed agriculture financing and optimization of output for sustainable economic development in Nigeria. Output is proxied by gross domestic product while agriculture financing is proxied of the endogenous component of agriculture credit guarantee scheme fund namely loan to individual farmers, loan to informal groups, loan to cooperative and loan to companies. The study employed the regression analysis. Also, Eweten, Fakile, Urhie, and Odunta, (2017) ^[12] investigated Agricultural output and economic growth in Nigeria. The study examined the long-run relationship between agricultural output and economic growth in Nigeria for the period of 1981 to 2014 using time series data. Result from Johansen maximum likelihood co-integration approach and vector error correction model in Nigeria. Granger causality test also confirms the co-integration results indicating the existence of causality between agriculture output economic growth in Nigeria. Zuberu, Iliya, Yusuf, and Salihu (2017) ^[28]. The study investigates Agricultural seed financing: Implications for productivity and export earnings for Nigeria economy. The choice of research design employed in this study is the archival and documentary research strategy, associated with the deductive approach, which involved secondary data collection. The population comprised 16 years' data on annual financial expenditure on agricultural seed improvement, agricultural productivity output and export earnings from 2000 to 2015 (16years). Secondary data on cumulative annual expenditure on seed finance (SIF), Agricultural productivity (AP), indicator and export earnings (EE), were employed. The findings revealed that seed improvement finance has a significant impact on increased Agricultural production output and that there is a significant relationship between Agricultural production output and increased export earnings in Nigeria.

4. Data sources and methodology

The study used annual time-series data. The data used in this research were obtained from secondary source, mainly the periodic publications of the Central Bank of Nigeria's, statistical Bulletin and World Bank development indicators.

The study used statistical and econometrics method for data presentation and analysis. The statistical methods are: tables, chart, graphs etc. the econometrics method include: Augmented Dickey-Fuller Test (ADF) for unit root testing, Autoregressive Distributed Lag (ARDL) model was adopted to run the regression in order to conduct the long run\short run relationship between the variables. ARDL Bound Test was also to check the cointegration of long nexus among the variable. Also, Granger causality test is employed to determine the causal relationship between the independent and the dependent variables. Diagnostic Test: was conducted for stability, unfitness and reliability of the parameter.

In examine the effect of government agricultural expenditure on real output growth in Nigeria having reviewed some relevant literature that are concerned, therefore, the following model is hereby formulated,

$$GDP = f(GEA, ACGSF) \quad (1)$$

The mathematical expression of this model is

$$GDP_t = \beta_0 + \beta_1 GEA_t + \beta_2 ACGSF_t + \mu_t \quad (2)$$

Where:

GDP = Gross Domestic product i.e. real output growth

F = Function

GAE = Government agricultural expenditure

ACGSF = Agriculture credit guarantee scheme fund

β_0 = Intercept

$\beta_1 - \beta_2$ = The respective coefficient of the explanatory variables

μ_t = Error term of a specified period of term

4.1 A'priori expectation

The following are the a'priori expectation for the study; $\beta_1 < 0$; $\beta_2, \beta_2 > 0$. This implies that, the relationship expressed here shows that BOA which determine the level of credit facilities to farmers is expected to be negatively signed with economic growth. While GEA and ACGSF are expected to have a positive relationship with economic growth; meaning their positive impact will lead to an increase in real output growth which invariably will lead to economic growth.

5. Results and analysis

5.1 Unit Root Test

Table 1 shows the stationary of the variables which were tested using Augmented Dickey-Fuller (ADF) unit root test to ascertain whether or not the variables were stationary or nonstationary at levels and 1st difference.

Table 1: Unit Root Test Results (ADF Unit root test)

Variables	Level		Difference		Order of Integration
	t-stats	Prob.	t-stats	Prob.	
GDP	-3.15	0.004	-0.48	0.633	I(1)
GEA	-3.46	0.002	2.91	0.007	I(1)
ACGSF	-2.03	0.051	1.51	0.140	I(1)

Source: STATA 14 output (2022)

All the variables are stationary at levels. However, the variables are stationary at 1st difference at 1% level of significance. The null hypothesis is therefore rejected, which implies that the variables do not have a unit root. The results also indicate that the data can be model and forecast. This is the justification for adopting ARDL approach to cointegration. In the case of maximum lag selection, the study followed a general-to-specific lag selection technique, and the maximum dependent and dynamic regressors lags were selected using Akaike Information Criterion (AIC).

5.2 ARDL Estimation Results

This section presents the results of bound test long run coefficients and short run coefficients.

Bound test

The study employed bound test in order to check if there is long run relationship between the independent variables and dependent variable.

Table 2: Bound test

Null Hypothesis: No long-run relationships exist		
F-statistic	95% Lower Bound	95% Upper Bound
5.342**	3.23	4.35

Source: STATA output 2021

Note: ** Significance at 5% critical value bounds

The result of a cointegration test for the nonlinear specifications is presented in Table 4.3. The result shows that there is evidence of long-run relationship between the independent variables and the dependent variable. In this regards the study estimated coefficient of the error correction term in order to check the impact of the independent variables on the dependent variable in the long run.

Table 3: Long Run Coefficients (1, 2, 2, 3)

Variable	Coefficient	Std. Error	t. Statistics	Prob.
GDP (-1)	0.5295	0.1823	2.91	0.009
GEA	1.0139	1.7427	0.58	0.567
ACGSF	3.1678	3.020	3.05	0.007
Short run Error Correction Model				
GEA (D1)	1.4325	0.6919	2.07	0.049
GEA (LD)	0.9769	0.5558	1.98	0.043
GEA (L2D)	-0.6730	0.6586	-1.02	0.319
ACGSF (D1)	0.6549	1.3895	0.47	0.643
ACGSF(LD)	0.0554	0.8548	0.06	0.949
Const.	0.0254	.4065	2.93	0.008
R ²	0.6305			
Adj. R ²	0.4272			
Log likelihood	-27.1685			

Source: STATA Output (2022)

The coefficient of multiple determination (R^2) is 0.6305 and an adjusted R^2 of 0.4272. The later indicates that 42.72 percent of variations in the observed behaviour of GDP is jointly explained by the independent variable i.e., GAE. This shows that the model fits the data well and has a tight fit. This indicates that the high adjusted R^2 value is better than would have occurred by chance, therefore the model is statistically robust. The goodness of fit of the model as indicated by the adjusted R-squared shows a good fit of the model that the model fit the data well. The total variation in the observed behaviour of GDP is used at a measure of

agricultural growth. The apriori expectations about the signs of the parameter estimates are confirmation to economic theory.

The ARDL estimates in Table 4.4 extricate relationship between GDP (Real output growth) and GEA in both short-run and long-run periods. This implies that the estimates in Table 4.4 specify the asymmetric long run relationship between the GEA and GDP. The study shows that on long run with the speed of adjustment of about 0.5295 in absolute value, which indicates about 52% of the adjustment towards the long-run equilibrium per annum. Hence, there is a pass-through of GEA and ACGSF to GDP which signified a positive relationship between GEA and Real output growth (GDP) in Nigeria. This signified that GEA has positive significant impact on real output growth (GDP) on long run with positive coefficient of 1.0139 and probability value of 0.567. More so, the positive implies that other things remain constant 1% increase of GDP would increase GDP by 101.39%.

6. Conclusion and Recommendations

The study examines the impact of Government Agricultural Expenditure on real output growth in Nigeria. It was established that Government agricultural expenditure can be described as money spent by the public sector on the acquisition of good and provision of services such as farm implements, healthcare, machineries etc. so as to aid farmers to carry out its farming activities. However, from the findings above, evidence shows that there is positive and significant relationship between Government Agricultural Expenditure and Real output growth in Nigeria. By implications, an increase or decrease in GAE will have a severe effect on real output growth in Nigeria. In view of the aforementioned, the following policy recommendations are suggested as follows:

1. The implementation of government agricultural expenditure be well monitored by both Government and Non-governmental agencies. Since evidence from the findings reveals that GAE have positive impact on agricultural productivity and economic growth.
2. Agricultural schemes target should be well spell out and design to ensure that the specific objectives are achieved. This can combat unnecessary diversion of resources made for the programmes since they have significant effect on agricultural output and economic growth.
3. Machinery should be set up to ensure that money spent to farmers are utilized for the purpose. Farmers caught using the loans for other purposes should be sanctioned.

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