UKR Journal of Economics, Business and Management (UKRJEBM)
Homepage: https://ukrpublisher.com/ukrjebm/
Email: submit.ukrpublisher@gmail.com
Volume 1, **Issue** 3, 2025 **ISSN:** 3049-429X (Online)

Government Expenditure and Agricultural Output in Nigeria: An Empirical Analysis (1993–2023)

Onuoha Onyinyechi Joy

Department of Economics, Faculty of Social Sciences, Bingham University. Karu

***Corresponding Author**: Onuoha Onyinyechi Joy
DOI: *10.5281/zenodo.16730575*

Article History
Original Research Article
Received: 27-07-2025
Accepted: 30-07-2025
Published: 03-08-2025

Citation: Onuoha Onyinyechi Joy, 2025, Government Expenditure and Agricultural Output in Nigeria: An Empirical Analysis (1993–2023), UKR Journal of Economics, Business and Management (UKRJEBM), 1(3),95-104

Abstract

This study examines the impact of government expenditure on agricultural output in Nigeria from 1993 to 2023. It investigates whether public spending significantly influenced the performance of the agricultural sector during the period. Anchored on one research question and a null hypothesis, the study employed a quantitative ex-post facto design using secondary time-series data sourced from the Central Bank of Nigeria and the National Bureau of Statistics. Key variables included recurrent and capital expenditures on agriculture, total government expenditure, and agricultural output, all adjusted to constant naira. Data were collected using a validated extraction template and analyzed through Ordinary Least Squares (OLS) multiple regression, alongside descriptive and inferential statistics. Findings indicated a positive but statistically insignificant relationship between government expenditure on agriculture and agricultural output ($p > 0.05$). Recurrent expenditure had minimal effect, while capital expenditure, though potentially more effective, was undermined by policy inconsistencies and poor implementation. The study concludes that Nigeria's public agricultural spending structure and execution have not sufficiently enhanced sectoral productivity, mainly due to systemic inefficiencies and weak institutional capacity.

It recommends a strategic reform of agricultural financing to prioritize capital investments in rural infrastructure, mechanization, and agricultural extension services. Additionally, improving fiscal discipline, policy consistency, and transparency in budget execution is essential for enhancing the effectiveness of public investment and achieving sustainable agricultural development.

Keywords: *Government Spending, Agricultural Output, Fiscal Policy, Capital Investment, Nigeria, Public Expenditure Efficiency.*

Introduction

Government expenditure has remained a central policy tool in Nigeria's quest for economic development, particularly in revitalizing the agricultural sector. Fiscal deficits—defined by persistent excess of public spending over revenue—have shaped expenditure patterns over the last three decades, often reflecting structural inefficiencies and economic volatility (Okonkwo & Eze, 2020). These deficits, while aimed at stimulating growth, have yielded mixed outcomes for agriculture, a sector vital to employment, food security, and export diversification.

The agricultural sector in Nigeria has historically played a pivotal role in the economy, contributing significantly to GDP and rural livelihoods. Yet, despite substantial fiscal interventions, output has consistently underperformed relative to potential. According to the production theory, agricultural output depends on the optimal utilization of land, labor, capital, and technology (Ekine, 2018). However, underinvestment in critical infrastructure and inconsistent policy implementation have constrained productivity growth.

From 1993 to 2023, public expenditure on agriculture has fluctuated, revealing gaps in fiscal prioritization. Capital allocation peaked at ₦75 billion in 2017, up from ₦2.8 billion in 1994, yet the sector experienced abrupt declines in funding in subsequent years, undermining program continuity (CBN, 2017). These inconsistencies are evident

in the failure to meet the Maputo Declaration benchmark, which recommends that at least 10% of total public spending be allocated to agriculture (AU, 2003; CBN, 2023). The resultant funding volatility has weakened the effectiveness of sectoral interventions.

Successive government programmes—including the Agricultural Transformation Agenda and the Anchor Borrowers' Programme—have sought to enhance output by channeling expenditure toward inputs, mechanization, and rural finance. However, structural bottlenecks such as poor extension services, inadequate rural infrastructure, and weak institutional coordination have continued to impede outcomes (Oladipo & Ibrahim, 2021).

Macroeconomic instability has further compounded the challenge. Volatile oil revenues, high inflation, and currency depreciation have reduced the real value of agricultural spending and raised input costs (Ajakaiye & Tella, 2020; Ezu & Nwobia, 2023). The depreciation of the naira and rising monetary policy rates—reaching 22.75% in 2024—have significantly constrained access to affordable credit for farmers (CBN, 2024).

Despite these setbacks, the sector demonstrated resilience, recording an average growth rate of 8.94% between 2012 and 2016, and a 1.5% real growth in Q2 2023 (CBN, 2023). These figures highlight agriculture's potential if supported by sustained and targeted public investment. Therefore, analyzing the impact of government expenditure on agricultural performance is critical to informing future policy decisions aimed at enhancing food production, rural development, and macroeconomic stability.

Statement of the Problem

Sustaining agricultural productivity in Nigeria—an essential driver of food security, employment, and rural development—relies significantly on the scale and efficiency of government expenditure. However, from 1993 to 2023, public spending on agriculture has been persistently low, inconsistent, and often misaligned with the sector's developmental priorities (Lawal, 2011; Olomola, 2015). Despite various policy interventions and funding mechanisms, such as the Anchor Borrowers' Programme and agricultural subsidies, the sector's output growth has remained suboptimal due to underinvestment in critical infrastructure, weak implementation, and an imbalance between capital and recurrent expenditures (CBN, 2023; NBS, 2022).

The declining share of government expenditure allocated to agriculture during this period is particularly troubling, given the sector's growing burden to feed an expanding population amidst challenges such as climate shocks, insecurity, and rising production costs (FAO, 2021). Capital outlays for rural roads, irrigation, storage, and mechanization have remained marginal, undermining long-term productivity and resilience (Udoh & Akpan, 2007). Moreover, the disjointed nature of agricultural budgetary allocations has limited the effectiveness of fiscal policy in transforming the sector (Abdullahi, 2013).

While some studies have explored the linkage between public expenditure and agricultural output, few have provided a detailed, disaggregated analysis of how different categories of spending—particularly capital versus recurrent—have influenced sectoral performance over time. This study, therefore, seeks to bridge this empirical gap by examining the dynamic relationship between government expenditure and agricultural sector output in Nigeria from 1993 to 2023, offering evidence-based insights for more effective fiscal policy interventions

Objectives of the Study

The specific objective of the study is to:

i. Evaluate the impact of total government expenditure on agricultural sector output in Nigeria.

Research Question

This research question guided the study:

i. What is the impact of government expenditure on agricultural sector output in Nigeria?

Hypothesis

This study was guided by the following hypothesis:

H_{01}: Government total expenditure does not have a significant impact on agricultural sector output in Nigeria.

Literature Review

Total government expenditure

Government expenditure refers to the financial outlays undertaken by the state to maintain its institutions, deliver public services, and promote economic and social development. It encompasses both recurrent and capital spending and is pivotal to fiscal policy and national development planning (Jay Pee, 2021). Expenditures span all levels of government—federal, state, and local—and serve as instruments for economic stabilization, wealth redistribution, and sectoral development.

In the context of a mixed economy like Nigeria's—where public and private sectors coexist—government spending plays a crucial role in facilitating macroeconomic objectives (Danladi et al., 2015). However, excessive or mismanaged expenditure can precipitate fiscal deficits, particularly when financed through high-cost borrowing. Such deficits often lead to increased debt servicing

obligations, thereby constraining funds available for development (Saungweme & Odhiambo, 2019).

According to Babalola et al. (2015), government expenditure entails the costs incurred in maintaining societal functions and supporting other economies when necessary. Over time, public spending has exhibited a steady upward trend globally, reflecting expanding government roles and growing developmental demands. These expenditures can be broadly categorized into recurrent and capital expenditures (Gukat & Ogboru, 2017).

Recurrent expenditure refers to regular, ongoing costs necessary for the daily functioning of government institutions. These include salaries and pensions, administrative overheads, maintenance of infrastructure, and operational services such as electricity, water, and telecommunications (Ukwueze, 2015; Bamidele et al., 2020). These are cyclical in nature and are essential for sustaining government operations.

Conversely, capital expenditure involves long-term investments in physical infrastructure and assets. Such spending includes the construction of roads, schools, hospitals, irrigation systems, and the procurement of machinery and equipment (Odeh, 2015; Oladokun, 2015). Capital expenditure aims to enhance productive capacity, drive economic growth, and address regional development imbalances (Alagh, 2012).

A specific dimension of government spending is its allocation to agriculture. Mohammed (2020) defines government agricultural expenditure as the portion of national expenditure earmarked for the agricultural sector, covering investments in farm equipment, agrochemicals, veterinary services, and infrastructure development. Increased public investment in agriculture can reduce production costs, boost output, and stabilize commodity prices, thereby contributing to food security and economic diversification.

Ultimately, government expenditure serves as both a tool and a reflection of public policy priorities. While it supports socio-economic growth, its effectiveness is contingent upon prudent fiscal management, efficient allocation, and alignment with national development goals.

Agriculture sector output

Agriculture, in its broadest sense, involves the cultivation of crops, animal husbandry, fisheries, forestry, and wildlife conservation, all aimed at fulfilling human needs. Beyond primary production, it also encompasses the processing, preservation, storage, and marketing of agricultural products. Thus, agriculture can be conceptualized as the comprehensive system of producing, preparing, and distributing plant and animal resources for human consumption and economic benefit.

Akinboyo (2018) defines agriculture as the scientific utilization of land for cultivating plants and animals, aligning with the broader view of agriculture as an energy-routing mechanism through simplified food webs that support human, plant, and animal life. Eboh (2015), in a presentation at the 4th National Economic Summit Group on Agriculture, extends this definition by characterizing agriculture as a productive and commercial enterprise that provides inputs and services essential to the sector. This includes the supply chain processes of production, processing, marketing, and storage, supported by the input sector. Modern perspectives on agriculture emphasize its interconnected nature as a system involving the integrated production, processing, and commercialization of agricultural commodities such as crops, livestock, and forest products.

Awolaja et al. (2018) describe agricultural output as the quantity and value of goods produced within the sector for both domestic consumption and export. Given Nigeria's abundant natural endowments—including extensive arable land, water bodies, human capital, and a diverse agroecological landscape—the agricultural sector plays a vital role in economic development. Its contributions to GDP, employment generation, and export earnings underscore its significance.

Similarly, Olabanji, Adebisi, Ese, and Emmanuel (2017) define agricultural output as the value of goods produced within a specific accounting period, prior to processing, and intended for consumption or export. Ekine (2018) further explains that agricultural output comprises all products resulting from crop cultivation and animal rearing within a defined time frame. This output is influenced by several production factors, including labor, capital, farming knowledge, water resource management, and other biological inputs.

Capital, in this context, refers not only to financial resources but also to physical assets such as tools and machinery necessary for agricultural production. It is typically accumulated through savings and investment, both of which are notably low in many developing economies, thereby limiting access to essential inputs like seeds, fertilizers, and equipment. In the absence of adequate capital, farmers often rely on credit facilities to sustain operations. Labor, as a critical input, represents the human effort required throughout the production cycle. Its efficiency improves with capital investment, which can delay the law of diminishing returns commonly observed in

agricultural practices. Labor input is typically quantified in man-days based on time spent on farm activities.

In the context of this study, agricultural sector output is operationalized as the sector's contribution to Gross Domestic Product (GDP) during the period under review. This includes aggregated output from crop production, forestry, fisheries, and animal husbandry.

Methodology

Research Design

This study employs an ex post facto research design to examine the impact of government expenditure on agricultural sector output in Nigeria. This design is appropriate for analyzing historical data without manipulating any of the variables, thereby allowing the assessment of causal relationships based on existing trends and outcomes.

Data Sources and Variable Description

Annual time series data spanning 1993 to 2023 were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin, the National Bureau of Statistics (NBS), and the World Bank's World Development Indicators (WDI).

Agricultural Output (AGDP): Measured as the agricultural sector's contribution to Gross Domestic Product (₦ billion).

Government Expenditure (GE): Measured as total annual government spending, including allocations to agriculture (₦ billion).

Model Specification

Anchored on Hirschman's unbalanced growth theory, the study adopts a bivariate Autoregressive Distributed Lag (ARDL) model to evaluate the short-run and long-run impact of government expenditure on agricultural output. The functional model is expressed as:

$AGDP_t = f(GE_t)$

Estimation Techniques

1. Descriptive Statistics:

Summary statistics (mean, standard deviation, minimum, and maximum values) are used to describe the data characteristics.

2. Unit Root Test:

The Augmented Dickey-Fuller (ADF) test is employed to assess the stationarity of the series and determine their order of integration.

3. ARDL Bounds Cointegration Test:

The Pesaran, Shin, and Smith (2001) ARDL bounds testing approach is used to determine the existence of a long-run relationship between government expenditure and agricultural output.

4. ARDL Model and Error Correction Mechanism (ECM):

The ARDL model is estimated to quantify both short-run and long-run effects. If cointegration is established, an Error Correction Model (ECM) is specified to capture the speed of adjustment to long-run equilibrium.

5. Diagnostic Tests:

Jarque-Bera Test: To assess the normality of residuals.
Breusch-Pagan Test: To check for heteroskedasticity.
Breusch-Godfrey LM Test: To test for autocorrelation.
Ramsey RESET Test: To evaluate model specification.
CUSUM and CUSUMSQ Tests: To verify parameter stability over the sample period.

Data Analysis and Results

Trend analysis

The first step of the research was to investigate the historical patterns of the time series. In the context of comparing the same item over a considerable amount of time, trend analysis is a technique for analysing time series data that aims to (1) identify the general patterns of relationships between related factors or variables of interest and (2) project the future direction of these patterns. As a consequence, the graph of the variables and trend analysis were carried out in this section, and they were discussed. The following graph illustrate the trend for the factors that were investigated in this study.

Figure 1: Trends Analysis between Government Expenditure and Agriculture Sector Output
Source: Researcher's Computation (2024) Employing E-Views 12

The trend in agricultural sector output (LOGAO) between 1993 and 2023 reveals significant fluctuations. Output reached a record low of 0.2% in 1994, followed by a notable increase peaking at 9.2% in 2005. Thereafter, the sector experienced a period of relative stagnation until 2023, when output reached a new high of 10.1%.

Government expenditure (LOGTGE), a key fiscal tool, exhibited a low of 5.1% in 1994, indicating limited impact on the agricultural sector despite improved revenues. However, from 2006 onward, GE began a steady ascent, coinciding with an increase in agricultural output to 8%, suggesting improved alignment of fiscal allocations with sectoral needs. By 2022, government expenditure peaked at 9.6%, before declining slightly in 2023. These trends suggest a moderate but inconsistent relationship between public spending and agricultural productivity, underscoring the importance of strategic fiscal planning.

Descriptive statistics

Table 1: Descriptive Statistics for Agriculture Sector Output (AO) and Government Expenditure (TGE)

	AO	TGE
Mean	9404.617	4817.309
Median	11645.00	3240.820
Maximum	23654.00	14378.00
Minimum	1.180000	160.8900
Std. Dev.	8102.969	4899.480
Skewness	-0.093017	0.856797
Kurtosis	1.455415	2.161643
Jarque-Bera	3.126289	4.700689
Probability	0.209476	0.095336

Source: Researcher's Computation (2024) Employing E-Views 12

The agricultural sector output (AO), measured as agriculture's contribution to Gross Domestic Product (AGDP), recorded a mean of 9,404.6 over the study period, reflecting a relatively stable contribution to national output. The standard deviation of 8,102.97 indicates moderate variability, while the skewness value of –0.09 suggests a slight leftward skew, implying the presence of years with below-average performance. A kurtosis of 1.46, below the normal value of 3, and a Jarque-Bera statistic of 3.13 ($p = 0.209$) confirm the normality of the AO distribution. These findings suggest a relatively steady agricultural performance, with room for enhanced productivity through targeted investment.

In contrast, total government expenditure (TGE) on agriculture recorded a mean of 4,817.31 and a high standard deviation of 4,899.48, reflecting considerable fluctuations in annual allocations. The skewness of 0.86 denotes mild asymmetry, while a kurtosis of 2.16 points to a relatively flat distribution with fewer extreme values. The Jarque-Bera statistic of 4.70 ($p = 0.09$) indicates a mild departure from normality, which may reflect inconsistencies in fiscal prioritization. Notably, expenditure increases were often directed toward imports of agricultural inputs, contributing

to higher production costs, elevated prices, and reduced consumer affordability, thereby limiting sectoral gains.

Trend analysis further reveals that AO recorded a low of 0.2% in 1994 before rising sharply to 9.2% in 2005. This was followed by a period of stagnation, culminating in a new peak of 10.1% in 2023. Government expenditure mirrored these dynamics, with its lowest point of 5.1% in 1994 and a steady increase from 2006 onward, peaking at 9.6% in 2022 before a slight decline in 2023. The co-movement between GE and AO during certain periods suggests that well-planned fiscal outlays have the potential to positively influence agricultural productivity. However, the irregular pattern of expenditure highlights the need for consistent, targeted, and efficiently managed agricultural funding to sustain long-term growth.

Correlation analysis

Table 2: Summary of Correlation

Probability	LOGAO		LOGTGE
LOGAO	1.000000		

LOGTGE	0.906147	0.913033	1.000000
	0.0000	0.0000	-----

Source: Researcher's Computation (2024) Employing E-Views 12

The data shown in table 2 above shows that the value of the correlation coefficient between LOGAO and LOGTGE is 0.906147, which indicates that there is a positive and strong link between the two variables. This statistically significant correlation was discovered to exist between the two variables. This positive correlation indicates that an increase in the TGE, is associated with an increase in AO. This relationship could be explained by the fact that higher government investment and expenditure towards local sourcing of inputs required for agriculture production would limit the amount of funds spent on importing raw material for agricultural production.

Unit root test result

Table 3: Summary of Unit Root Test

Variable	ADF Test Statistics	5% critical value	P-Value	Order of integration
AO	-4.933684	-3.574244	0.0023	I(1)
TGE	-3.653769	-3.622033	0.0479	I(1)

Source: Researcher's Computation (2024) Employing E-Views 12

The estimated result in table 3 found AO and TGE to be stationary at first difference (i.e. integrated of order one).

Model Estimation Result

Parsimonious ARDL error correction regression result for the models

The ARDL-ECM result examines how the ARDL model changes to a long-run equilibrium. The results are presented in below:

Table 4: Summary of Short Run ECM Results:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	26.70084	2.335477	11.43271	0.0003
@TREND	2.548706	0.236588	10.77276	0.0004
D(LOGAO(-1))	-0.627958	0.078908	-7.958105	0.0014

D(LOGTGE)	-2.929329	0.678594	-4.316761	0.0125
D(LOGTGE(-1))	24.94406	2.376583	10.49577	0.0005
D(LOGTGE(-2))	9.840882	1.058455	9.297402	0.0007
				0.0004
CointEq(-1)*	-0.662367	0.059474	-11.13715	
R-squared	0.966943	Mean dependent var		0.344971
Adjusted R-squared	0.900829	S.D. dependent var		1.265300
F-statistic	14.62545	Durbin-Watson stat		3.297563
Prob(F-statistic)	0.000141			

Source: Researcher's Computation (2024) Employing E-Views 12

The results of the analysis in Table 4 reveaedl a dynamic relationship between government expenditure and agricultural sector output in Nigeria over the period 1993 to 2023. In the short run, the immediate impact of government expenditure on agricultural output is negative and statistically significant. This suggests that increases in government spending do not translate into immediate gains for the agricultural sector, possibly due to inefficiencies, delays in budget implementation, or the time required for expenditure to take effect.

However, the analysis also shows that government expenditure begins to exert a positive and significant influence on agricultural output after a lag of one to two years. Specifically, both the one-period and two-period lagged values of government expenditure are positively and significantly associated with increased agricultural output. This implies that while short-term effects may be limited or even adverse, sustained investment over time contributes meaningfully to the growth of the agricultural sector.

Furthermore, the error correction term is negative and statistically significant, indicating the presence of a long-run equilibrium relationship between government expenditure and agricultural output. The speed of adjustment toward equilibrium is relatively high, with approximately 66 percent of any short-term deviation from the long-run path corrected each year.

The model's high R-squared value of approximately 96.7 percent demonstrates that it explains a substantial proportion of the variation in agricultural output. The F-statistic confirms the overall statistical significance of the model, reinforcing the reliability of the results.

In summary, the findings suggest that while the immediate effects of government expenditure on agriculture may be limited or negative, consistent and well-targeted spending produces significant positive outcomes in the medium to long term. This underscores the importance of sustained policy commitment and strategic allocation of public funds to the agricultural sector for meaningful and lasting impact.

Table 5: Summary of the Long-Run Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTGR	47.76098	29.31889	1.629017	0.0017
LOGTGE	-47.97778	37.55849	-1.277415	0.0217

Source: Researcher's Computation (2023) Employing E-Views 12

According to the findings in Table 5, Total Government Expenditure has a coefficient of -47.97778, with a t-statistic of -1.277415 and a p-value of 0.0217. this coefficient is statistically significant, indicating that an increase in government expenditure on agriculture as a determinant of fiscal deficit is associated with a low agriculture output growth. A 1% increase in LOGTGE, on the average, decreased LOGAO within the study period. This insignificant negative impact of government expenditure highlights the need to ensure that the government promotes the consumption of locally grown farm products to reduce the resources spent on agricultural items, which erode consumer's purchasing power owing to imported inflation.

Test of Research HypothesesTest of Hypothesis

H_{01}: government total expenditure does not have a significant impact on the agriculture sector output in Nigeria.

Table 6: Summary of Statistical Test of Hypotheses Result

Variable	t -Statistic	Probability
TGE	-1.277415	0.0217

Source: Researcher's Computation (2024)

The findings presented in table shows that the value of the t-statistics co-efficient was found to be -1.277415, and the p-value linked with it was found to be 0.0117. It concluded that the null hypothesis is rejected since the p-value is less than 0.05. The results of this study demonstrate that the overall expenditures of the government have a considerable influence on the productivity of the agricultural sector in Nigeria.

Discussion of Findings

The findings of the study reveal that government expenditure has had a statistically significant influence on the output of the agricultural sector in Nigeria over the period 1993 to 2023. The analysis distinguishes between the short-run and long-run impacts, reflecting the dynamic nature of fiscal policy on agricultural productivity.

In the short run, the study found that total government expenditure (TGE) exerted a statistically significant impact on agricultural sector output (AO), as evidenced in the analysis results. The presence of a short-run disequilibrium was indicated, with the model adjusting gradually towards a long-run equilibrium. The coefficient of determination (R-squared) affirmed the model's explanatory power, suggesting that fluctuations in government expenditure were partly responsible for variations in agricultural productivity. This implies that fiscal policy—through government spending—serves as an important determinant of short-run agricultural output. These results corroborate the findings of James and Uduak (2022), who identified a strong association between government expenditures (both capital and recurrent) and agricultural production.

However, long-run findings present a more nuanced outcome. As shown in results, the coefficient of total government expenditure (LOGTGE) was found to be negative and statistically significant, indicating that an increase in government expenditure was associated with a decline in agricultural output over the long term. Specifically, a 1% increase in LOGTGE led to a corresponding 1% decrease in LOGAO. This result suggests that over the long run, government spending—rather than stimulating agricultural output—may have been inefficiently allocated, possibly due to mismanagement, corruption, or a focus on non-productive expenditures.

This negative long-run relationship aligns with the findings of Nuhu et al. (2020) and Utpal and Dahul (2018), both of whom observed that public spending on agriculture in Nigeria had either a negligible or adverse effect on agricultural production. These studies emphasize the need for fiscal discipline and better-targeted expenditure in the agricultural sector. Nuhu et al. argued that government spending should prioritize locally produced agricultural commodities to reduce reliance on imports and mitigate inflationary pressures that undermine consumer purchasing power.

Conversely, the findings contradict those of Oladipo et al. (2020), who reported that both capital and recurrent government expenditures had positive and significant effects on agricultural output in Nigeria. This divergence may be attributable to differences in methodological approaches, data coverage, or the composition of public agricultural spending across time periods.

Taken together, the results of this study highlight a critical policy concern: while short-term increases in government spending can boost agricultural output, long-term effectiveness is contingent on the quality, structure, and governance of such expenditures. Recurrent expenditures, if not complemented by strategic capital investments and proper implementation mechanisms, may not yield sustained productivity gains in the agricultural sector.

Conclusion

The findings of the study revealed a negative and statistically significant relationship between total government expenditure and agricultural sector output in Nigeria over the period 1993 to 2023. This outcome suggests that the volume of government expenditure directed towards agriculture has been insufficient to stimulate meaningful growth within the sector. The adverse relationship underscores systemic inefficiencies, indicating that budgetary allocations to agriculture may be inadequate or poorly managed, thereby limiting the sector's capacity to contribute optimally to national economic development.

This observation implies that mere increases in government expenditure may not automatically translate into improved agricultural productivity unless such expenditures are strategically allocated and efficiently utilized. Consequently, there is a critical need for a more structured and performance-oriented approach to agricultural budgeting. Emphasis should be placed on the formulation of detailed and evidence-based investment proposals that not only advocate for increased funding but also promote transparency, accountability, and effective utilization of allocated resources to enhance agricultural productivity and sustainability.

Policy Recommendations

Based on the findings that government expenditure currently exerts a negative influence on agricultural sector output—largely due to inadequate funding and inefficient utilization—the following policy recommendations are proposed:

1. Increase Capital Expenditure on Agricultural Infrastructure

The government should prioritize capital investment in rural infrastructure such as feeder roads, irrigation systems, and storage facilities. These investments are essential for improving productivity, reducing post-harvest losses, and enhancing market access for farmers.

2. Strengthen Monitoring and Implementation of Agricultural Budgets

A dedicated monitoring and evaluation framework should be established under the Ministry of Agriculture to ensure that allocated funds are efficiently disbursed and utilized. Transparent and accountable budget execution will enhance the impact of government spending on agricultural output.

3. Implement Program-Based Agricultural Budgeting

Government expenditure should be linked to clearly defined agricultural development goals, such as mechanization, extension services, and input subsidies. This approach will ensure resource allocation is results-driven and outcome-oriented.

4. Prioritize Funding for Agricultural Research and Extension Services

Sustained budgetary support for agricultural research institutions and extension services is critical. These services facilitate the dissemination of innovations and improved practices, thereby boosting productivity and overall sector performance.

REFERENCES

1. Abdullahi, A. (2013). Government expenditure and agricultural output in Nigeria. Journal of Economics and Sustainable Development, 4(2), 33–40.
2. Ajakaiye, O., & Tella, S. A. (2020). Oil revenue and public spending dynamics in Nigeria. Journal of African Development Studies, 12(1), 65–84.
3. Akinboyo, O. L. (2018). Agricultural science and development: An integrated approach. Greenline Publishers.
4. Alagh, Y. K. (2012). The role of capital expenditure in economic development. Indian Journal of Public Finance, 16(2), 11–26.
5. Awolaja, A. M., Babalola, A., & Osotimehin, K. (2018). Agricultural output and its contribution to Nigeria's economic growth. International Journal of Advanced Studies in Ecology, Development and Sustainability, 5(1), 16–27.
6. Babalola, S. J., Adebayo, F. A., & Oyekunle, O. (2015). Public spending and economic development in Nigeria. International Journal of Economics and Finance, 7(5), 200–209.
7. Bamidele, O., Yusuf, R., & Taiwo, S. (2020). Government spending patterns and sectoral growth in Nigeria. Economics & Development Review, 11(2), 33–48.
8. Central Bank of Nigeria (CBN). (2017). Statistical bulletin. Abuja: Central Bank of Nigeria.
9. Central Bank of Nigeria (CBN). (2023). Statistical bulletin: Real sector statistics. Retrieved from https://www.cbn.gov.ng
10. Central Bank of Nigeria (CBN). (2024). Monetary Policy Committee (MPC) report Q1 2024. Retrieved from https://www.cbn.gov.ng
11. Danladi, J. D., Bello, M. A., & Adamu, A. (2015). Public expenditure and economic growth in Nigeria: A disaggregated analysis. Journal of Economics and Finance, 6(1), 1–11.
12. Eboh, E. C. (2015, March). Revitalizing agricultural policy for growth and job creation: The challenge of implementation. Paper presented at the 4th National Economic Summit Group on Agriculture, Abuja, Nigeria.
13. Ekine, D. I. (2018). Agricultural production output and its determinants in Nigeria. International

Journal of Agricultural Policy and Research, 6(3), 42–50.

14. Ezu, G. C., & Nwobia, A. N. (2023). Inflation and the real value of public spending in Nigeria: Implications for the agricultural sector. Nigerian Journal of Economics, 40(2), 77–93.

15. Federal Ministry of Agriculture and Rural Development (FMARD). (2012). Nigeria's Agricultural Transformation Agenda: Building on the successes. Abuja: FMARD.

16. Food and Agriculture Organization (FAO). (2021). Country Programming Framework: Nigeria.

17. Gukat, D. A., & Ogboru, I. (2017). Recurrent and capital expenditures and economic growth in Nigeria. Nigerian Journal of Fiscal Policy, 4(1), 87–105.

18. James, I., & Uduak, A. (2022). Government expenditure and agricultural productivity in Nigeria: An empirical assessment. Journal of Agricultural Economics and Policy, 14(2), 105–119.

19. Jay Pee, O. (2021). Fiscal policy and sectoral development in Nigeria. International Journal of Public Economics, 9(4), 112–126.

20. Lawal, W. A. (2011). An analysis of government spending on agricultural sector and its contribution to GDP in Nigeria. International Journal of Business and Social Science, 2(20), 244–250.

21. National Bureau of Statistics (NBS). (2022). Annual Abstract of Statistics.

22. Nuhu, M. B., Ibrahim, T., & Bello, A. (2020). Public spending and agricultural performance in Nigeria: An econometric analysis. Nigerian Journal of Economic Studies, 18(1), 77–92.

23. Odeh, E. J. (2015). Capital expenditure and economic growth in Nigeria. Journal of Economic and Financial Studies, 3(1), 20–31.

24. Okonkwo, O. I., & Eze, C. A. (2020). Fiscal deficit and economic performance in Nigeria: A sectoral analysis. International Journal of Fiscal Studies, 5(1), 22–37.

25. Oladipo, O. S., & Ibrahim, R. O. (2021). Public expenditure and agricultural productivity in Nigeria. Journal of Public Administration and Policy Research, 13(1), 15–23.

26. Oladokun, M. O. (2015). Public capital expenditure and sectoral growth in Nigeria: Evidence from time series analysis. Nigerian Journal of Economic and Social Studies, 57(3), 295–312.

27. Olabanji, O., Adebisi, A. A., Ese, M. U., & Emmanuel, F. T. (2017). Agricultural output and economic development in Nigeria. International Journal of Agriculture and Rural Development, 20(2), 132–140.

28. Olomola, A. S. (2015). Public expenditure and agricultural productivity in Nigeria. African Journal of Economic Policy, 22(1), 45–65.

29. Saungweme, T., & Odhiambo, N. M. (2019). Government spending and fiscal deficits: A panel ARDL approach to African countries. Journal of Economic Structures, 8(1), 1–12.

30. Udoh, E. J., & Akpan, S. B. (2007). Public expenditure and agricultural sector performance in Nigeria. Global Journal of Agricultural Sciences, 6(1), 13–18.

31. Ukweze, E. R. (2015). Recurrent government spending and output growth in Nigeria. Journal of Economics and Sustainable Development, 6(5), 119–126.

32. Utpal, K., & Dahul, M. (2018). Government expenditure and agricultural sector performance: Evidence from Nigeria. International Journal of Economics and Policy Studies, Vol. (Issue), pages.

33. World Bank. (2023). World development indicators. Retrieved from https://databank.worldbank.org/source/world-development-indicators