

## The nexus between agricultural output and poverty reduction in Nigeria

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<https://doi.org/10.33003/fujafr-2026.v4i2.317.10-20>

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### Abstract

**Purpose:** This study examines the investment in agriculture and poverty reduction in Nigeria over the period 1990–2024. Specifically, the study analyzes the relationship between investment in agricultural – livestock, fishery, and forestry and poverty reduction in Nigeria.

**Methodology:** The study employed the ex-post facto research design, using secondary data extracted from the NBS and the CBN, the study employs the Phillips–Perron unit root test, Johansen co-integration technique, ECM, and OLS estimation.

**Results and conclusion:** The generated empirical findings established the presence of a long-run relationship among the variables. However, short-run and parsimonious estimates indicate that agricultural sub-sectors exert largely insignificant effects on poverty reduction during the period under review, although the ECM is correctly signed and significant, suggesting gradual adjustment to long-run equilibrium. The study concludes that structural constraints, insecurity, and inadequate sector investment may be responsible for this outcome.

**Implication of findings:** The findings imply that increases in agricultural investment have not transformed into meaningful poverty reduction in Nigeria.

**Keywords:** Poverty, Agricultural output, Unemployment, Co-integration.

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### 1. Introduction

One of Nigeria's most urgent development issues is poverty, which shows up as long-term lack of income, food insecurity, malnutrition, poor health, inadequate housing, restricted access to basic services and education, hazardous living conditions, and social exclusion (Oviasuyi, 2019). These multifaceted deprivations limit people's and households' ability to be productive while also undermining human dignity. Nigeria's federal, state, and local governments have responded by enacting a number of programs aimed at reducing poverty, many of which are based on agriculture as a crucial transmission mechanism for inclusive growth. Prominent among these measures is the Anchor Borrowers' Programme (ABP), aimed at improving agricultural productivity, enhancing farmers' incomes and eliminating poverty.

Agriculture plays a significant position in the development discourse of developing nations where other employment choices remain limited. According to Alam et al. (2019), even when productivity and income growth in the sector are slow, nations that are unable to create enough non-agricultural jobs typically rely significantly on agriculture for their lives. Crop cultivation, raising livestock, fishing, forestry, and other extractive industries that use natural resources for both commercial and subsistence purposes are all included in the wide category of agriculture (Osabohien et al., 2019).

Agriculture is widely recognised as one of the most powerful tools for reducing poverty and promoting widespread economic prosperity, even beyond the provision of food. The World Bank (2025) emphasises that growth originating from agriculture is 200 percent to three hundred percent more successful in decimating poverty when placed side-by-side with other sectors, particularly because it directly engages the weakest parts of society. Millions of jobs are created on farms by agricultural and food systems, which

also have significant potential to create jobs along value chains. Long-term economic performance, labour productivity, and nutrition are all improved by increased agricultural productivity.

The ongoing importance of agriculture to Nigeria's economy is demonstrated by recent data. Nigeria's export revenue in 2024 was significantly influenced by agricultural commodities, in the opinion of the National Bureau of Statistics (NBS, 2025). The agricultural export market was dominated by cocoa products, with superior-quality cocoa beans earning ₦836.23 billion and standard-quality cocoa beans for ₦269.34 billion. Other major contributors included natural cocoa butter (₦104.59 billion), sesame seeds (₦202.94 billion) and shelled cashew nuts (₦30.7 billion). These data demonstrate agriculture's potential as a source of revenue production, foreign exchange earnings and poverty reduction (National Bureau of Statistics, 2025)

Nigeria's poverty rates continue to be high despite these opportunities, which raises serious concerns about how well agricultural expansion will translate into significant poverty reduction. This study consequently revisits the agriculture–poverty link in Nigeria by disaggregating agricultural production into livestock, crop, fisheries and forestry sub-sectors over an extended timeframe (1990–2024).

Hunger and malnutrition are both causes and effects of poverty. The Food and Agriculture Organization (FAO, 2019) estimates that over one billion people globally suffer from hunger and malnutrition, with a disproportionate concentration in developing nations. According to the World Bank (2016), 1.4 billion people live on less than US\$1.90 per day, while 2.8 billion people struggle for survival with nearly US\$2 daily. In Nigeria, poverty-related deprivation continues to take thousands of lives every day, notably among children in rural and agrarian communities.

Ironically, despite having a huge work force, a variety of agro-ecological zones, and an abundance of arable land, Nigeria's agricultural output has not been enough to reduce poverty. Due to ongoing food shortages brought on by declining production, insecurity, climate shocks, and institutional limitations, the nation is mostly dependent on imports of important staples including rice, wheat, sugar, and fish. This reliance exacerbates balance of payment constraints and inhibits domestic employment generation.

The linkage existing between agriculture and poverty reduction has been the subject of numerous empirical research in Nigeria and beyond, but their conclusions are still ambiguous and often inconsistent (Ifeanacho et al., 2009; Nwankpa, 2017; Jamal et al., 2018). While some research indicates that agricultural growth significantly reduces poverty, other studies reveal modest or negligible effects. Furthermore, a lot of current research either focuses on short time horizons or uses aggregate agricultural output measurements, which obscures the varied effects of various agricultural subsectors.

The limited disaggregated and long-term analysis of agricultural subsectors – livestock, crops, fisheries, and forestry – and their varying effects on reducing poverty in Nigeria constitutes a crucial gap in the literature. Additionally, few studies extend their research to recent years that incorporate contemporary policy interventions such as the Anchor Borrowers' Programme and recent macroeconomic shocks. By using a disaggregated agricultural output framework over a lengthy period (1990–2024), this study closes this gap and offers more complex and pertinent data on the relationship that exist between agriculture and poverty reduction with focus on Nigeria.

The major purpose of the study is to analyse the nexus between agricultural productivity and poverty reduction in Nigeria.

## 2. Literature review

### *Agricultural output and poverty reduction*

Oriola (2009) conducted a research that focused on how Nigeria poverty reduction was impacted by food security. This enquiry presents an approach for appreciating the relationship that links irrigation systems, food production, and the existing rate of poverty. Furthermore, it recognized the Nigeria's resources that emanate from nature (land, together with sufficient water supplies for successful agriculture), irrigation technology serves as backup remedy for the vagaries of weather which act as disruption to suitable planting and harvest seasons. The paper looked at previous administrations' efforts to prevent hunger and attain food sufficiency. Current advancements in sustaining food availability and the existing rate of poverty were critically emphasized. The transformation carried out into the irrigated agricultural system, according to some scholars, will promote growth in food production that is expected to spur broader field, not only in the farm industry but together with the non-farm rural industry, therefore reducing poverty in the economy. Kilima et al. (2013) examined whether public investments in agriculture benefit farmers, especially those that have a big impact that can reshape the economy, using survey data gathered from on-farm examination in Tanzania. Effect data was gathered by questionnaires, and the distribution of income was examined using coefficients of variation, Gini coefficients, and Theil's t-statistic. The results showed that agricultural programs improved product sales and agricultural performance, which raised farm revenue.

In the same vein, Etim et al (2017) enquired into whether food shortage, poverty and hunger can have severe consequence on Nigeria's overall Security. The study focus was to determine how hunger, poverty, and food insecurity impact Nigeria's security. The general behaviour of the people was described through the use of relative deprivation hypothesis (RDH) at any point where there is existing gap between what ought to prevail and what is currently in existence of collective rate of satisfaction. Secondary sources provided the data. The report concludes that fully identifying and addressing the underlying reasons is the sure and successful means to bring peace together with security back to Nigeria. The research suggests the reformation and re-launch of agricultural productivity through increased study and implementation of innovative technology, while adding other necessary techniques where and when necessary. On the part of Ayodeji and Oladokun (2018), the authors applied regression analysis and the co-integration test to examine the connection existing between agricultural output and poverty alleviation in Nigeria. From the inquiry, what was discovered suggest that agriculture is suffering from insufficient allocation, not only from the public domain (government resources) but also from the private sector (commercial bank loans) and this has affected the promotion of agriculture to the height where it can dwarf the prevailing poverty debacle existing in Nigeria within the period of the examination (2000 to 2016). Also deduced from the data is the fact that the index that emanate from food produced together with existing credit obtained from microfinance bank and shared to agriculture indicated good influence which is able to decrease the prevailing poverty rate and the hunger trend in Nigeria.

In their work to examine the nexus existing between agriculture and poverty, John and Dankawu (2018) employed the principal component analysis together with VECM to examine the two variables as it has to do with Nigeria between 1981 and 2014. Through the breakdown of variance, the study validated that shocks to all the components of agriculture in Nigeria had a major influence on poverty reduction. Amaechi (2018) investigated food security and how it affected Nigerian agricultural sustainability. The paper investigated the idea of sustained food distribution through the many methodologies available, policies, and tactics which are at the disposal of government to attain acceptable food security through constant and persistent growing of the agricultural sector. Along with the social ramifications and

constraints of sustainable agriculture, the necessity of agricultural sustainability was examined. The report advises the government at the centre to strengthen policy enforcement, inspection/estimation, and increase dedication to agriculture to earn sustained long-term agricultural benefits in Nigeria.

A further inquiry by Gassner et al. (2019) examined how accessibility and a rethinking of agriculture may lead to food security and the eradication of poverty in Africa. The results show that although there are technologies to boost yields emanating from farmers' with smallholdings in either threefold or fourfold – although this happened during the span of the period of rain – the small and inadequate available field hindered the promotion of farming which in turn ultimately resulted in individual agriculture's earning being insufficient to rescue people out of the current World Bank benchmark of poverty criterion of US\$1.90 per day.

Cordelia (2020) carried out a study on poverty alleviation, agricultural sustainability, and food supply in Nigeria. This study assessed how food production and agricultural productivity affect Nigeria's efforts to reduce poverty. The enquiry period comprised from 2009 to 2019, and the employed tool was regression analysis which led to the drawn conclusion that was reported at the end of the examination. In a nutshell, statistical estimation shows that food security index possesses a considerable and favourable influence on extermination of poverty while in the same breath, produce obtained from agriculture demonstrate a small negative influence. Furthermore, analysis of the report shows that Nigeria's desire to dwarf poverty can only be achieved if government's basic attention to agriculture is total and the budget for agricultural activities is constantly increased.

The issues of Agriculture and poverty was also looked at by Obiakor et al. (2021) through the utilization of pairwise Granger causality together with Fully Modified Ordinary Least Squares which was adopted to estimate the impact of agriculture with respect to how it generates employment for the Nigerian people between 1990 and 2019. . It was discovered from the study that the impact of agriculture was significant in contributing to job availability in Nigeria. Also, Granger causality analysis revealed that there was no relationship between agriculture and the rate of unemployment in the country.

Ebere et al. (2021) investigated the existing connection between agricultural output and agricultural finance in Nigeria between 1981 and 2017 using DOLS and Granger Causality estimation techniques. The authors argued that agricultural financing in Nigeria greatly increased agricultural productivity. Additionally, the analysis established a one-way causal relationship between agricultural credit and agricultural spending. Aderemi et al. (2021) used the ARDL approach to investigate the connection between poverty reduction and Nigeria between 1981 and 2016. The study found a strong short-term correlation between work in agriculture and poverty. Based on the above review, the following hypotheses were proposed:

- H1: There is no significant relationship between livestock production and poverty reduction in Nigeria from 1990 – 2024.
- H2: There is no significant relationship between fish production and poverty reduction in Nigeria from 1990 – 2024.
- H3: There is no significant relationship between crop production and poverty reduction in Nigeria from 1990 – 2024.
- H4: There is no significant relationship between forestry production and poverty reduction in Nigeria from 1990 – 2024.

**Theoretical framework**

This study is grounded on significant economic and development theories that explain the link between agricultural output and poverty reduction in emerging nations. In particular, the Sustainable Livelihoods Framework, the Poverty Trap Theory, and the Agricultural-Led Development Theory serve as the study's guiding principles. These ideas jointly offer the analytical framework for studying how agricultural output promotes poverty alleviation in Nigeria.

**Agricultural-Led Development Theory:** According to the Agricultural-Led Development Theory, poverty reduction and economic growth in emerging nations are based on agriculture. According to early development economists like Lewis (1954), Johnston and Mellor (1961), and Rostow (1960), agricultural growth boosts the supply of food, creates jobs, increases income, supplies raw materials to the industrial sector, and generates foreign exchange profits. Growth in agricultural output has the potential to immediately increase household income and lower poverty in economies like Nigeria, where a significant number of the impoverished rely on agriculture for their livelihood. Improvements in grain production, livestock raising, fisheries, and forestry boost productivity, promote rural employment, and cut food costs, ultimately enhancing the welfare of low-income people. Therefore, this hypothesis offers a compelling argument for considering agricultural productivity as a crucial factor in reducing poverty in Nigeria.

**Poverty Trap Theory:** The Poverty Trap Theory defines chronic poverty as a self-reinforcing loop characterized by low income, poor savings, low investment, and low productivity (Sachs, 2005). In rural economies, poverty traps are typically worsened by restricted access to financing, low technology adoption, inadequate infrastructure, and sensitivity to natural and market shocks. Increasing agricultural output is viewed under this concept as a way to end the poverty cycle. Programs like the Anchor Borrowers' Program, which provide access to better supplies, financial facilities, and market possibilities, are examples of agricultural interventions that can increase productivity and income among low-income people. Households are more equipped to invest in productive assets, health care, and education when income rises, which lowers poverty. This hypothesis backs up the notion that agricultural productivity is essential to reducing poverty in Nigeria.

**3. Methodology**

The ex-post facto research was employed in this study. Secondary sources provided the data used in this investigation. The National Bureau of Statistics (NBS)-statistics, Central Bank of Nigeria (CBN) statistics bulletin database, annual report, and statement of accounts spanning the years 1990 to 2024 were the sources of the secondary data. The data sourced include Gini index (proxy for poverty); animal production, fish production and crop production and forestry production.

**Model specification**

$$POV = f(LIVP, FISH, CROP, FORP) \dots \dots \dots 1$$

To show the reaction of the variables, the model is further presented as follows.

$$POV = b_0 + b_1LIVP + b_2FISH + b_3CROP + b_4FORP + \mu \dots \dots \dots 2$$

Where

- POV = Poverty Reduction.
- LIVP = Livestock Production.
- FISH = Fish Production.
- CROP = Crop production.
- FORP = Forestry Production.

For the purpose of estimation, it is necessary to re-write the model in the form of equation as;  $\beta_0$  = Constant term;  $\beta_1, \beta_2, \beta_3, \beta_4$  = the coefficient of livestock production contribution to POV, fish production contribution to POV, crop production contribution to POV and forestry production contribution to POV.  $\mu$  = error or stochastic term.  $\beta_1, \beta_2, \beta_3, \beta_4 > 0$  = the a priori expectation.

To estimate the link between the variables of interest, the study will employ an econometric approach. Using e-views, the Perron unit root test, Johansen co-integration technique, ECM and Ordinary Least Square (OLS) technique was used to produce numerical estimations of the equation's coefficients. Because it has several optimal properties, a relatively straightforward computational process, and a crucial role in the majority of other estimation techniques, the OLS method is selected. From 1990 to 2024, the estimation period was covered.

Because the hypotheses are tested at the 5% level of significance, the study's conclusions can only be broadly applied to this degree.

#### 4. Results and discussion

##### *Philip Perron unit root test*

Stationarity characteristics of all variables used in the study were tested. The study employed the Philip Perron (PP) Unit Root Test. The results are presented in Table 1 below.

**Table 1: Philip Perron unit root test**

Variables	Level	Critical Value	1 <sup>st</sup> Diff.	Critical Value	Decision
POV	-3.279	-3.518	-9.778	-3.521	I(1)
CROP	21.523	-3.518	-4.251	-3.521	I(1)
FISH	2.1318	-2.931	-2.370	-1.949	I(1)
FORP	1.590	-3.524	-3.839	-3.530	I(1)
LIVP	-0.561	-3.518	-13.085	-3.521	I(1)

Source: Author's Computation using E-views 12.

To make sure the variables utilized matched the correct model, the PP unit root test was performed. Furthermore, the test ensured that the results were robust and provided verification of findings. Furthermore, in order to meet the requirements for the econometric methods used in the study, the unit root test was performed. Levels and first differences were used to test the variables. Since all of the probabilities were less than 5%, the PP tests disproved the existence of unit roots in the variables. Furthermore, at I(1), every variable was stationary. The Johansen Co-integration test was used to determine whether a long-term relationship existed, and the results are shown in Table 2.

**Table 2: Johansen co-integration result**

Hypothesized	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
No. of CE(s)				
None *	0.973	207.708	69.819	0.000
At most 1 *	0.685	66.802	47.856	0.000
At most 2	0.266	21.788	29.797	0.310
At most 3	0.184	9.707	15.494	0.304
At most 4	0.044	1.774	3.841	0.183

The Johansen co-integration test was used to investigate the presence of a co-integrating relationship since, as table 1 illustrates, all the variables were stationary at the first difference. The null hypothesis that there is no co-integrating link in Table 2 can be rejected because the p-value of the trace statistics for this hypothesis is less than 0.05. Furthermore, the null hypothesis that there is no co-integrating relationship between the variables cannot be accepted because the value trace statistic (207.7080) is higher than the 0.05 critical values of 69.81889. The null hypothesis that there is at most one co-integrated equation or co-integrating connection between the variables, however, cannot be rejected (i.e., accepted) because the p-value of the trace statistic corresponding to "At most 2" is 0.3104, which is greater than 0.05. After confirming that there is a long-term link between the variables, a short-term regression analysis was carried out.

**Table 3: Parsimonious estimation/short-run  
Dynamic model**

Dependent Variable: POV

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	55.160	2.973	18.552	0.000
D(POV(-2))	0.025	0.198	0.126	0.901
D(LIVP(-2))	-0.042	0.111	-0.381	0.706
D(LIVP(-3))	-0.011	0.103	-0.106	0.916
D(FORP(-2))	0.331	0.693	0.477	0.637
D(FISH(-2))	0.005	0.041	0.135	0.893
D(CROP(-2))	-0.001	0.005	-0.230	0.820
ECM(1)	-0.389	0.189	-2.053	0.050

For the one-lag period, the POV change was positive but statistically insignificant. The rate of poverty reduction rises by 0.2% for every 1% increase. The anchor borrowers' program is one example of government intervention in the agriculture sector that may be to blame for this. However, in the two and three lag periods, respectively, the LIVP difference was negative and negligible. In the two- and three-lag periods, respectively, a 1% increase in livestock output lowers poverty reduction by 4% and 1%. The instability in the country's northern region, where animals are the primary source of output, may be the cause of this.

The forestry difference, on the other hand, was beneficial but not very important in explaining the variances in poverty reduction. Poverty reduction increases by 33% for every 1% increase in forestry. The significance of forest resources may be the reason behind this. By absorbing CO<sub>2</sub>, forests clean the air and water, stop soil erosion, manage floods, and provide vital habitat for a vast array of species. Forests also supply livelihood, fuel, and wood. Additionally, although it was statistically insignificant, fish output increased over the previous year. Poverty reduction increases by 0.05% for every 1% increase in fish output. Fish is a vital source of protein, and many households in Nigeria's coastal regions make a living from the production of fish. The two-lag period had little and negative crop production. The poverty reduction rate falls by 0.01% for every 1% rise in agricultural production. This may be explained by the nation's declining food production rate as its reliance has mostly switched to oil.

The study's findings are consistent with those of Gassner et al. (2019) and Cordelia (2020). In particular, Cordelia stated that the influence of agricultural output on poverty alleviation is minimal. As can be deduced from the report, to reduce poverty in Nigeria and sustain food distribution to all according to need would be dependent largely on government's sustained focus and dedication to agriculture and to

enlarge budgetary allocation to agricultural activities. Additionally, Gassner et al. (2019) discovered that the restricted amount of available space hindered the expansion of farming, which ultimately resulted in agriculture's per capita income not being insufficient to lift citizens away from the prevailing World Bank criteria used to estimate poverty, which is US\$1.90 daily. As Ayodeji and Oladokun (2018) pointed out, between 2000 and 2016, the agricultural sector did not get enough government funding or commercial bank loans to advance to a height at which it could inhibit the threat of poverty which Nigeria is currently in.

However, the findings of the study run counter to those of John and Dankawu (2018), Aderemi et al. (2021), and Kilima et al. (2013). Kilima et al. (2013) confirmed that shocks to all the components of agriculture in Nigeria had a substantial influence on poverty reduction, whereas Aderemi et al. (2021) found a strong short-term association between agricultural and poverty level. According to John and Dankawu (2018), by enhancing agricultural performance and product sales, agricultural initiatives raised farm revenue.

The ECM (-1) variable is statistically significant and has the appropriate a priori sign. The degree of convergence is shown by the adjustment speed of -0.388863. Specifically, as the data used are yearly, nearly 39% of the disequilibrium or departure from the long-term POV in the prior era is rectified in the current year. In the meanwhile, serial autocorrelation is present in the model, as shown by the Durbin Watson (D-W) statistics value of 0.702949.

Moreover, Table 3's results demonstrate that the delays of each independent variable – CROP, LIVP, FISH, and FORP – were not sufficiently significant to account for changes in the dependent variable, which is poverty reduction.

**Post estimation tests**

The normality test shows a probability value of 0.621890 which is greater than 0.05 critical value, the null hypothesis that the residuals are normally distributed is hereby accepted

**Table 4: Breuseh-Godfrey serial correlation LM test,**

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	21.232	Prob. F(3,20)	0.000
Obs*R-squared	27.397	Prob. Chi-Square(3)	0.000

The Breusch-Godfrey Serial Correlation LM Test results indicate that the chi-square value is 0.000 and the F-Statistics is 21.23173. The analysis validates serial correlation in the model as this shows that the probability value of 0% is smaller than the crucial value of 5% (0.05).

**Table 5: Breusch-Pagan-Godfrey heteroskedasticity test)**

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.241	Prob. F(12,23)	0.316
Obs*R-squared	14.148	Prob. Chi-Square(12)	0.291
Scaled explained SS	4.113	Prob. Chi-Square(12)	0.981

**Source:** Author's Computation using E-views 9.

The results of the Breusch-Pagan-Godfrey test for heteroscedasticity indicate a chi-square probability of 0.2913 and an F-statistic of 1.240967. Given that the Chi-square probability value is higher than the 5% P-value, this result implies that there is no indication of heteroskedasticity in the model, indicating that the residuals are homoscedastic or have constant variance.

### Stability test

#### CUSUM test

The CUSUM stability test diagram is displayed in Figure 2. When you consider that the blue line falls within the upper and lower red lines of (+5 and -5) respectively, it suggests that the model is stable.

#### CUSUM square test

The crucial boundaries are shown by the dotted red lines in the above image. The short-run POV residuals are comparatively stable, as the preceding chart illustrates. This is particularly true between 1981 and 2024. The findings suggest that, at a 5% significance level, the null hypothesis – that there is no stability of the short-run POV – can be disproved.

#### Table 6: Ramsey test result

Equation: UNTITLED

Specification: POV C D(POV(-1)) D(POV(-2)) D(LIVP(-1)) D(LIVP(-2))

D(LIVP(-3)) D(FORP(-1)) D(FORP(-2)) D(FISH(-1)) D(FISH(-2))

D(CROP(-1)) D(CROP(-2)) ECM(--1)

Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	0.969	22	0.343
F-statistic	0.939	(1, 22)	0.343
Likelihood ratio	1.504	1	0.220

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	132.496	1	132.496
Restricted SSR	3238.041	23	140.784
Unrestricted SSR	3105.545	22	141.161

LR test summary:

	Value	Df
Restricted LogL	-132.068	23
Unrestricted LogL	-131.315	22

The null hypothesis, according to Table 7, that there are no variables that were not included is accepted since the p-value of the f-statistics for the Ramsey reset test, which is 0.3432, is higher than the 5% level of significance. As a result, the basic assumptions of linear regression are met, and the model estimation is appropriately described.

## 5. Conclusion

From 1981 until 2024, this research examined the relationship between Nigeria's agricultural output and the fight against poverty. Poverty reduction (POV) is the study's dependent variable, while agricultural production is its independent variable. The Central Bank of Nigeria provided secondary data for the study, which employed an ex post facto research approach. The 44-year study period (1981–2024) was covered. To choose the best econometric method to use, the data was put through the Phillip Perron stationarity test. Given that the variables were stationary at I(I), the results of the stationarity test indicated that the Ordinary Least Squares approach is the most appropriate for the research. According to the OLS result, POV was negatively and negligibly impacted by the majority of the factors over the research period. To put it another way, agricultural productivity lowers the poverty rate, albeit at a remarkably negligible pace.

According to the investigation's findings, the research makes the following recommendations:

- i. The government ought to create policies that employ fish farming as a means of reducing poverty. The government must invest in fish farming as it lowers poverty and raises the standard of living for the vast majority of Nigerians.
- ii. It is possible to enhance forestry resources to provide jobs for unemployed youngsters and families. Nigeria's wealth of forest resources may be used as a focal point for constructive youth participation.
- iii. The government should address the unemployment rate in order to boost livestock output and use it as a means of lowering the nation's poverty rate. For households, raising livestock is a major source of meat protein and a way to generate revenue and fight poverty.
- iv. Farmers should get incentives from the government at all levels. Concessionary financing facilities, better seedlings or breeds, and other incentives ought to be offered.
- v. Once more, the agricultural industry ought to be mechanized.

## Reference

- Aderemi, T. A., Adepoju, A. A., & Ogunleye, E. O. (2021). Agricultural employment and poverty reduction in Nigeria: Evidence from ARDL approach. *Journal of Economic Policy and Development Studies*, 6(2), 45–62.
- Alam, M. M., Siwar, C., Murad, M. W., & Toriman, M. E. (2019). Impacts of agricultural productivity on economic growth and poverty reduction: Evidence from developing countries. *Asian Journal of Agriculture and Development*, 16(1), 1–15.
- Amaechi, E. C. (2018). Food security and sustainable agricultural development in Nigeria. *International Journal of Agricultural Economics*, 3(4), 78–89.
- Archibong, E. P. (1997). Poverty alleviation policies in Nigeria: Issues and challenges. *Nigerian Journal of Social and Development Issues*, 2(1), 22–35.
- Ayinde, I. A., Aina, S. A., & Babarinde, T. O. (2017). Agricultural growth and poverty reduction in Nigeria. *Journal of Agricultural Economics and Rural Development*, 5(2), 66–75. <https://journals.sta.uwi.edu/ojs/index.php/ta/article/view/6540>
- Ayodeji, A. O., & Oladokun, O. O. (2018). Agricultural output and poverty reduction in Nigeria. *International Journal of Economics, Commerce and Management*, 6(3), 315–331. doi.org/10.24940/ijird/2018/v7/i9/SEP18080.
- Cordelia, O. N. (2020). Agricultural sustainability, food availability and poverty reduction in Nigeria. *African Journal of Economic Review*, 8(1), 112–129.
- Ebere, C. U., Okorie, D. I., & Nwankwo, O. C. (2021). Agricultural credit and output growth in Nigeria: Evidence from DOLS and Granger causality. *Journal of Agricultural Finance and Rural Development*, 4(1), 90–104.
- Etim, E., Patrick, I., & Udoh, E. (2017). Food insecurity, poverty and national security in Nigeria. *International Journal of Development and Sustainability*, 6(8), 922–938.
- Ewubare, D. B., & Okpani, A. O. (2018). Poverty and inclusive growth in Nigeria. *Journal of Economics and Sustainable Development*, 9(4), 45–58.
- Food and Agriculture Organization of the United Nations. (2019). The state of food security and nutrition in the world. FAO.
- Gassner, A., Harris, D., Mausch, K., Terheggen, A., Lopes, C., Finlayson, R., & Dobie, P. (2019). Poverty eradication and food security through agriculture in Africa. *Global Food Security*, 23, 132–144.
- Ifreanacho, M. I., Okorie, G. C., & Nwoye, E. S. (2009). Agriculture and poverty alleviation in Nigeria. *Journal of Development Studies*, 14(2), 88–102.



- Instituto Nacional de Estadística. (2009). Relative poverty and income inequality. Government of Spain.
- Islam, R. (n.d.). Theories of poverty. United Nations Development Programme.
- Jamal, S., Ahmed, F., & Bello, M. A. (2018). Agriculture and poverty reduction nexus in Nigeria. *Journal of African Development Studies*, 10(1), 55–71.
- John, E. I., & Dankawu, A. I. (2018). Agricultural activities and poverty alleviation in Nigeria. *Journal of Economics and Sustainable Development*, 9(6), 101–115.
- Kilima, F. T. M., Kuboja, J. M., & Nyoni, T. S. (2013). Agricultural investments and income distribution in Tanzania. *African Journal of Agricultural Research*, 8(18), 2041–2051.  
<http://repository.mocu.ac.tz/xmlui/handle/123456789/493>
- Merriam-Webster. (2013). Merriam-Webster online dictionary. Merriam-Webster Inc.
- National Bureau of Statistics. (2021). Foreign trade statistics report. NBS.
- National Bureau of Statistics. (2022). Nigerian gross domestic product report. NBS.
- National Bureau of Statistics. (2025). Nigerian export and foreign trade statistics. NBS.
- O'Donnell, G. (1997). Poverty, inequality and development theory. *World Development*, 25(9), 1451–1465.
- Obiakor, R. T., Nwoye, E. S., & Okafor, C. M. (2021). Agriculture and employment generation in Nigeria. *Journal of African Economic Studies*, 13(2), 77–94. <https://dj.univ-danubius.ro/index.php/EE/article/view/1331>
- Oriola, E. O. (2009). Food security and poverty reduction in Nigeria. *Journal of Sustainable Development in Africa*, 11(3), 210–225.
- Osabohien, R., Osabuohien, E., & Urhie, E. (2019). Agricultural development and employment generation in Nigeria. *African Development Review*, 31(1), 82–93.  
<https://doi.org/10.2174/1874331501913010082>
- Oviasuyi, P. O. (2019). Poverty and social exclusion in Nigeria. *Journal of Social Policy and Development*, 4(2), 33–47.
- Uniamikogbo, S. O. (1997). Structural constraints and poverty in Nigeria. *Nigerian Journal of Sociology*, 1(1), 56–69.
- Watt, P. (2000). Poverty and inequality in the modern world. Macmillan.
- World Bank. (2011). Poverty and shared prosperity. World Bank.
- World Bank. (2016). Global monitoring report. World Bank.
- World Bank. (2025). Agriculture and food overview. World Bank Group.