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Agricultural Investment and Poverty Nexus in Nigeria 1981-2015

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Abstract

This study investigates the dynamic relationships between Agricultural investment and poverty in Nigeria for the period 1981-2015 using Johansen co-integration test and Vector Error Correction (VEC) approach to analyze the data leading to key findings. The results indicate that in the long run, Public Investment in Agriculture has a positive significant impact on poverty while Private Investment in Agriculture does not sustainably translate to poverty alleviation in Nigeria. In addition, Foreign Private Investment in Agriculture has a positive but insignificant impact on poverty rate while Unemployment aggravates poverty by about ½ percent in Nigeria. In the short run, Private investment in agriculture and foreign private investment in agriculture appears to be poverty inducing, though their impacts proved to be insignificant and it appears foreign investors might constantly repatriate profits instead of ploughing them back due to un-conducive business environment. Results of VEC indicate the system corrects its previous period's disequilibrium by 28.6 percent a year. The study therefore recommends that government should expand public investment particularly in private sector complimentary areas in Infrastructure and R&D in order to motivate the private sector to participate fully and those broad based policies should be designed for alleviating poverty through agribusiness.

Keywords: *Public Investment, Private investment, Economic growth, Poverty Incidence*

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Background to the Study

Generally, the core of macroeconomic policy design of most economies, especially the developing economies, is the pursuit of a sustainable growth path. The general desire for economic growth stem from the fact that a growing economy is expected to elevate people above the poverty level and improve their standards of living. However, a cursory survey of growth literature has shown that while policies on growth in Africa have actually improved the gross domestic product of many continental economies, such growth has been largely exclusive. This implies that while such developing economies have seen rapid growth of their gross domestic product, their human development indices have not improved substantially and Nigeria is a case in point. Hence, inclusive growth has become imperative for Africa and ensuring growth is inclusive requires that a substantial part of the country's labour force participate in the process of wealth creation.

In this respect, the drive towards the attainment of the current sustainable development goals target of 2030 especially in Africa has impelled a renewed interest in the agricultural sector which employs a large percentage of the continental labour force in subsistence agriculture. Since most of the world's poor people earn their living from agriculture, knowing the economics of agriculture ensures we would know much of the economics of being poor" (Shultz, 1979). Furthermore, agriculture is said to play a key role in promoting inclusive growth-by stimulating economic growth, reducing poverty, and creating employment for millions of people in developing world. This assertion is largely true because the rural population who are mostly smallholding farmers still accounts for the bulk of the poor; hence there is considerable potential to propel inclusive growth by expanding the horizon of rural Agriculture through a comprehensive investment strategy.

The magnitude of the relevance of growth in the Agricultural sector for inclusive growth is habitually depicted by statistics. In poor developing countries, agriculture generates about 29 percent of the gross domestic product (GDP) and employs 65 percent of the labour force; more than half of the developing world's population—3 billion out of 5.5 billion—lives in rural areas; and as much as 75 percent of developing world's poor live in rural areas, most of them dependent on agriculture either directly or indirectly. Hence, it seems straightforward to argue that the focus of development policies in developing countries should be on promoting Agriculture but it is not so simple (Timmer 2005).Surmounting this defect in agriculture requires that both the public and the private sector pool their resources for investment in this sector which is the largest employer of labour domiciled in the rural area and operating at a subsistence level. This will not only get more people to work, it will positively impact on income distribution and improve access to facilities, speed up the growth of rural economy and generally improve the standard of living.

Statement of the Problem

Despite the widely acclaimed growth potential of the Agricultural sector, its contribution to economic growth in Africa is not commensurate and this is a major source of worry to policy makers because of the implications on other sectors of the economy. The reality of the connection between Agriculture and Inclusive Growth in Nigeria like much of Africa is tied to

the fact that a majority of the poor who ordinarily should significantly participate in the process of growing the economy are employed in subsistence Agriculture which is usually incapable of generating enough revenue to nourish itself. This has led to the wide spread poor quality of life depicted by a low human development index. Nevertheless, in their quest for general improvement in the sector, successive Governments in Nigeria have attempted to promote investment in the Agriculture sector by employing various policies to impact the flow of public and private investment aimed at expanding the sector, increasing productivity, boosting the Gross Domestic Product and ultimately improving the poverty scourge in the country.

Nevertheless, wide spread incidence and severity of poverty, squalor and disease as well as extreme hardship persist. It is against this back drop that this study examines the nature of growth and investment in Nigerian Agricultural sector in relation to the incidence of poverty. Following from this introduction, Section 2 presents the theoretical basis and literature review while Section 3 contains the methodology employed. Section 4 discusses the results while Section 5 concludes with some policy recommendations.

Literature Review

Conceptual Framework

For the purpose of the study at hand, Investment is defined as additions to stocks of capital. Such additions are usually sources of future income streams. Therefore the study looks at investment from a general approach to capital that includes real tangible physical capital such as dams, irrigation structures, grain silos, etc., and social capital such as human capital through education and health, and on-the job training through intergenerational transfer of farming skills. Investment can be from both public and private sources, it could either be gross, which includes investments to replace depreciated capital stock, or net, to include only net additions to the capital stock. In this study investment can be from public (government) and/or the private sector, and can be foreign and/or domestic.

The conceptual linkage between Investment in Agriculture and inclusive growth is expected to result in a sustainable growth path through investible capital inflows, which are private or public, foreign or domestic. Such capital inflows create investment which in turn creates employment and generates increasing outputs of various kinds as driven by the patterns of demand.

Theoretical Review

The central theoretical basis of this study is the Structural change theory developed by Arthur Lewis in 1955 which focuses on a system by which underdeveloped economies, characterized by traditional subsistence agricultural production techniques are transformed into a more modern and technologically driven industrial diverse manufacturing and service economy. For Lewis (1955), an underdeveloped economy is made up of two sectors - a mainly traditional rural Agrarian economy with highly inefficient subsistent system of production and a minor modern/urban mechanized industrial production system. Inefficiency in the traditional sector manifests in zero marginal productivity of labour such that withdrawal of labour to the

modern sector does not result in loss of output in the traditional sector. The modern sector which could also include modern agriculture expands and attracts more surplus labour at a speed determined by its rate of industrial investment and capital accumulation. Such investment is occasioned by the excess of modern sector efficiency brought about by modern techniques of production and profit over wages on surplus labour. This modern sector's growth and employment expansion is expected to continue until there are no more surplus labour in the traditional sector to be absorbed by the modern sector, hence additional labour to the modern sector goes for higher wages. This is known as "Lewis turning point". One of the main weaknesses of Lewis theory is the assumption that faster rate of capital accumulation implies faster growth rate of the modern sector and faster rate of new job creation. However, capitalist profits could be reinvested in more sophisticated labour-saving capital equipment instead of just duplicating the existing capital as is implicitly assumed in the Lewis model.

Thus, alleviating the problem of unemployment in an agrarian economy like Nigeria where majority are subsistent farmers who reside in the rural area require an efficient comprehensive approach and a rapid Agricultural investment strategy aimed at engaging and improving the productivity of farmers. The expectant effect is increases in incomes of the farmers which in turn improves economic welfare and reduce their level of poverty. Moreover income growth pushes up saving capacity which eventually translates to investment within the economy. The implication of growth of the Agricultural sector for the economy is profound in agrarian economies like Nigeria. For instance, a 5% growth coming primarily from the oil sector in Nigeria would have much less impact on the poverty level compared to the same 5% growth which comes primarily from the agriculture sector. This is because the agricultural sector is a major employer of a larger proportion of Nigerian population (USAID, 2009; Tersoo, 2013). Hence, when growth comes from sectors that most poor people work in (the agriculture sector in Nigeria's case), poverty is reduced faster.

Empirical Review

Fan, Hazell and Thorat (1999), examined the effect of public expenditure on level of rural poverty across Indian States and found that spending on Agricultural R&D and rural roads has the greatest impact on both growth and poverty reduction. Shenggen and Neetha (2003) reported that the impact of government spending in Africa on Agriculture and Health was particularly strong in promoting economic growth and that growth in Agricultural production is most crucial for poverty reduction in rural areas. Agricultural spending, irrigation, education and roads contributed strongly to this growth.

Sen, Mustafa and Quazi (2004) argued that agriculture's contribution was largely responsible for the pro-poor growth in Bangladesh and Vietnam and this position was supported by Timmer (2005), Irz et al. (2001) and Dev (1998). Similarly, Cervantes-Godoy and Dewbre (2010) used a sample of selected 25 countries to assess the importance of agricultural growth in poverty reduction. The authors classified the countries into three groups and found that agriculture showed more effectiveness in lifting the poorer groups out of poverty. Their major conclusion was that growth in agriculture is more effective in lifting the extreme poor out of poverty while non-agricultural growth is more effective in reducing poverty among the well-off poor closer to $2 per day.

Kolawole and Omobitan (2014) investigated the relationship between poverty and agriculture using the error correction model. Adopting the production index as proxy for agricultural output, the study found a negative relationship between poverty and agricultural output, suggesting that (all things being equal), increasing food production could lead to a drop in poverty level. However, another study carried out by Oni (2014) showed a contrasting result in which agricultural output was found to positively relate with poverty. While most work done on the role of Agriculture in poverty reduction adopted either agricultural output, agricultural expenditure or other qualitative variables which do not pay special attention to the investment component of the sector, this study consider investment as key to growth which if properly propelled will be pro poor in nature.

Materials and Methods

Description and Sources of Data

This study employs time series data for Poverty rate (POV), Public capital Expenditure in Agriculture (Proxy for Public investment in Agriculture PI), Gross fixed capital formation for Agriculture (Proxy for Private investment in Agriculture PR), foreign private investment in Agriculture (FR) and Unemployment rate (UN) over the period 1981 to 2015 in Nigeria. The data sets are collected from various secondary sources such as Central Bank Statistical Bulletin and Annual reports for various years, National Bureau of Statistics, Annual Abstract of Statistics for various years, World Bank Data bank and Published Research works.

Model Specification

The implicit relationship between Agricultural investment, Economic Growth and Poverty in Nigeria is expressed as follows:

$$POV = f(PI, PR, FR, UN) - - - - - - - - - - - - 1$$

The above equation is the functional form while the mathematical form showing a liner relationship is as follows:

$$lnPOV = ln\beta_0 + \beta_1 lnP1 + \beta_2 lnPR + \beta_3 lnFR + \beta_4 lnUN - - - - - - - - -2$$

The above equations give the long run estimates; while the short run dynamic relationship will be estimated using an error correction model. The error correction term integrates short-run dynamics and the long-run functions as shown below through error correction model (ECM);

$$\begin{aligned}\Delta lnPOV_t = \ & \alpha_0 + \sum_{i=1}^{p} \alpha_1 \Delta lnPOV_{t-i} \\ & + \sum_{i=0}^{p} \alpha_2 \Delta lnPI_{t-i} + \sum_{i=0}^{p} \alpha_3 \Delta lnPR_{t-i} + \sum_{i=0}^{p} \alpha_4 \Delta lnFR_{t-i} + \sum_{i=0}^{p} \alpha_5 \Delta lnUN_{t-i} \\ & + \partial ecm_{t-1} + \mu_t - - - - - - - - - - - - - - -3\end{aligned}$$

Where:

POV = Poverty rate,

PI= Public investment in Agriculture with Capital expenditure on Agriculture as proxy,

PR= Private investment in Agriculture represented by Gross fixed capital formation for Agricultural sector,

FR= Foreign Private investment on Agriculture,
UN= Unemployment rate,
μ= is the stochastic term in all the equations.
Δ = First difference operator,
p = Lag length, ∂ = Speed of adjustment, *ecm* = Error correction term,
$\alpha_1 - \alpha_5$ = Short run elasticities (coefficients of the first-differenced explanatory variables), and
$\beta_1 - \beta_5$ = Long run elasticities (coefficients of the explanatory variables).
Data analysis was executed using E-views 8.0

Analytical Framework

In order to ensure that results from the analysis are usable for policy recommendation, series of tests are conducted on them. Thus, this study conducted the Augmented Dickey Fuller unit root test to ascertain the level at which each variable is stationary or the order of integration. The study also conducts a Unit root test to know if the times series data under consideration are stationary at level or not.

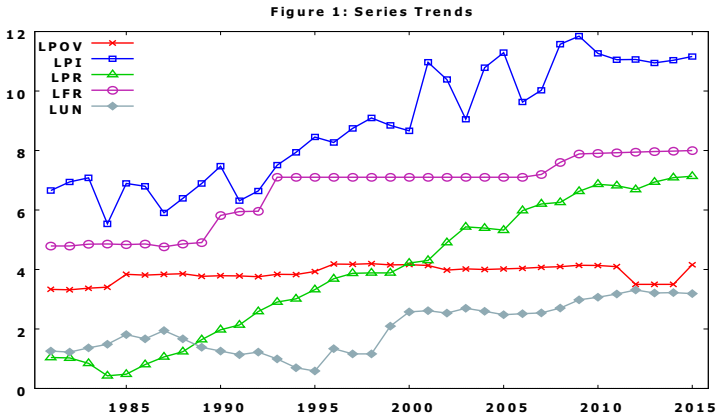
After establishing the order of integration, the Johansen co-integration test which shows if there is a long run relationship among the variables is employed. The Vector error correction model whose error correction term is used to tie the short-run behavior of the variables to their long run values is estimated using the variables that are shown to be co-integrated. This makes forecasting the speed of adjustment possible. Furthermore, a serial correlation LM test is conducted to ensure that the models are devoid of serial correlation. A test for stability of the models is done to ascertain if the models are stable using the CUSUM test, while the Breucsh-Pagan-Godfrey test is used for the test of Heteroskedasticity.

Results and Discussions

Trend Analysis

Figure 1 below plots the log form of the series used for this study and indicates multiple trends that were generally upwards. From Figure 1, it appears while poverty in Nigeria remained mostly on a kind of plateau within one growth band; unemployment generally rose over the years within two growth bands to converge with poverty levels in the last decade. The trend analysis also indicates private investment had the steadiest growth, rising within four growth bands to almost converge with foreign investment in the last decade. Public investment had the most erratic trend within the study period covering three growth bands.

Figure 1: Series Trends



Unit Root Test

The Augmented Dickey Fuller (ADF) unit root test result as shown in Table 1 indicates LPOV, LPI, LPR, LFR and LUN are integrated of order one. All the variables are not stationary at level but become stationary after first difference. At 5% test critical value, all the variables came up with Augmented Dickey-Fuller test statistic that are lower than the critical value in absolute terms, while after taking their first difference they all showed values that are greater than their test critical values in absolute terms. Therefore, the variables under study are integrated of the same order and this justifies the application of the Johansen co-integration test.

Table 1: Results of Augmented Dickey Fuller Test

Variable(s)	ADF Statistics	Lag	Test critical value (5%)	Order of Integration
Level:				
lnPOV	-2.501317	2	-3.548490	I (1)
lnPI	-2.461424	2	-3.557759	I (1)
lnPR	-3.536802	2	-3.552973	I (1)
lnFR	-1.511726	2	-3.548490	I (1)
lnUN	-1.707681	2	-3.548490	I (1)
First Difference:				
Δ lnPOV	-4.318967	2	-3.562882	I (0)
Δ lnPI	-9.307987	2	-3.557759	I (0)
Δ lnPR	-3.614985	2	-3.562882	I (0)
Δ lnFR	-5.508440	2	-5.508440	I (0)
Δ lnUN	-4.855088	2	-3.552973	I (0)

NB: ln=natural logarithm, Δ=difference operator.
5% significant level is used for the decision of the unit root.
Source: authors' compilation using Eviews 8.0

Johansen Co-integration Test

Table 2: Johansen Co-integration Test for Poverty Model (Model 2)

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized N0. CE	**Eigenvalue**	**Trace statistic**	**Critical Value (5%)**	**Prob.****
None *	0.742989	96.43002	69.81889	0.0001
At most 1 *	0.583358	51.59496	47.85613	0.0214
At most 2	0.346546	22.70255	29.79707	0.2610
At most 3	0.193172	8.661630	15.49471	0.3976
At most 4	0.046703	1.578346	3.841466	0.2090
Trace test indicates 2 cointegrating eqn(s) at the 0.05 level * denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue				
Hypothesized N0. CE	**Eigenvalue**	**Max-Eigenstatistic**	**Critical Value (5%)**	**Prob.****
None *	0.742989	44.83506	33.87687	0.0017
At most 1 *	0.583358	28.89241	27.58434	0.0338
At most 2	0.346546	14.04092	21.13162	0.3617
At most 3	0.193172	7.083284	14.26460	0.4793
At most 4	0.046703	1.578346	3.841466	0.2090
Max-eigenvalue 2 cointegrating eqn(s) at the 0.05 level * denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values				

In the Johansen co-integration test, the data was tested using both trace statistics and Max-Eigen statistics at 5% critical values. As shown in Table 2 above, the result of the trace test and the maximum Eigen value indicates that in both cases, there are two co-integrating equations in the models at5 percent level of significance.

The Long Run Relationship Estimates

Going by the rule of thumb, the results of the estimated coefficients of the long run relationship in Table 3 below show that Public Investment in Agriculture has a positive but insignificant impact on Poverty rate in Nigeria. The estimated coefficient for Public Investment in Agriculture 2.892609implies that 1percent increase in Public Investment on Agricultural improves poverty at approximately the rate of about 2.9 percent, all things being equal. Also from Table 3, Private Investment in Agriculture indicates a negative and significant impact on poverty rate in Nigeria. Its estimated coefficient of -2.659719 implies that a percentage increase in Private Investment on Agriculture aggravates the incidence of poverty in Nigeria by approximately the rate of 2.7 percent. Foreign Private Investment in Agriculture showed a positive but insignificant impact on poverty rate in Nigeria. The result showed that a percentage increase in Foreign Private Investment on Agriculture improves the incidence of poverty in Nigeria at approximately the rate of 1.1percent. Unemployment rate showed a negative insignificant impact on poverty in Nigeria. A one percent increase in unemployment rate leads to 0.45 percent aggravation in poverty rate in Nigeria.

Table 3: Long-run Normalized Co-integrating Equation Coefficients for Model 2 Dependent Variable: LPOV

Regressors	Coefficient	Std Error	t-statistics
LPI	2.892609	(0.34878)	8.29351
LPR	-2.659719	-0.4634	5.73956
LFR	1.112154	(0.62603)	1.77652
LUN	-0.451809	-0.5315	0.85006

Source: Authors' compilation from E-view 8

The Short Run Relationship Estimate

Table 4: Results of the Short-run Dynamic Relationship for Model 2 (Poverty Model)

Regressors	Coefficient	Std. Error	T-value	p-value
C	0.020046	0.048766	0.411063	0.6845
ΔLPOV(-1)	0.137472	0.24037	0.571917	0.5725
ΔLPI(-1)	-0.031108	0.054739	-0.568296	0.5749
ΔLPR(-1)	0.017221	0.163557	0.105292	0.9170
ΔLFR(-1)	0.000785	0.137584	0.005706	0.9955
ΔLUN(-1)	0.096318	0.158322	0.608369	0.5484
ecm (-)	-0.285700	0.133805	-2.135192	0.0427

R-squared	0.200697	Mean dependent var	0.025597
Adjusted R-squared	-0.023108	S.D. dependent var	0.184329
S.E. of regression	0.186447	Akaike info criterion	-0.314126
Sum squared resid	0.869059	Schwarz criterion	0.048663
Log likelihood	13.18309	Hannan-Quinn criter.	-0.192059
F-statistic	0.896748	Durbin-Watson stat	1.733589
Prob(F-statistic)	0.524119		

Source: Authors' Compilation from E-view

The short run dynamic coefficients associated with the long run relationships obtained from the Error Correction Model given in Table 4aboveshowed that, in the short run, only public investment in agriculture, unemployment rate and the lag value of poverty rate showed the right signs. Private investment in agriculture and foreign private investment in agriculture appears to be poverty inducing though their impacts proved to be insignificant. The estimated error correction coefficient of -0.285700is highly significant at 5 percent probability level, has the correct sign, and implies a fairly slow speed of adjustment to equilibrium after a shock. This suggests that the system corrects its previous period's disequilibrium by 28.6percent a year.

Diagnostic Tests

Table 5a: Jarque-Bera test of normality

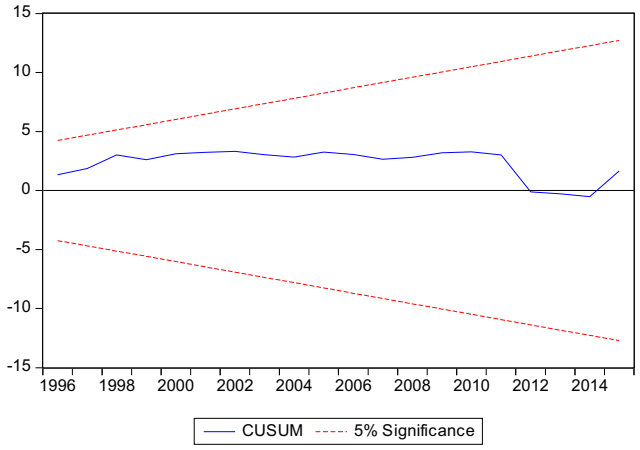
Variables	LPOV	LPI	LAGFCF	LFR	LUN
Jarque-Bera	3.685882	2.996355	2.806877	3.972256	2.772546
Probability	0.158351	0.223537	0.245750	0.137226	0.250005

Table 5b: LM tests

LM Test Statistics	*Observed* X^2	Prob.
A:Serial Correlation	2.142375	0.1433
B:Heteroscedasticity	11.51266	0.3190

Source: Author's compilation from E-view 8

Figure 2: The CUSUM Test



The outcome of the normality test based on the Jarque Bera test of normality showed that all the series are drawn from a normally distributed population while the Lagrange multiplier test for serial correlation based on the Breusch-Godfrey LM test, test for Heteroscedasticity based on the Beusch-Pagan-Godfrey test as well as the CUSUM test of Stability for the Model presented in Table 5a and 5b indicates that the model passed all the tests.

The cumulative sum (CUSUM) plot from a recursive estimation of the model is shown in Figures 2. This indicates stability in the coefficients over the sample period as the plot of the CUSUM statistic fall inside the critical bands of the 5% confidence interval of parameter stability.

Policy Implications for Poverty Alleviation

The study showed that Private Investment in Agriculture does not sustainably translate to poverty alleviation in Nigeria. One probable reason for this is the inadequacy of private investment. Although, the Public sector performs better, it however requires more extensive

support from Government on infrastructure, Research and development and other factors which could attract better Private investment in Agriculture to sustain the momentum for growth and development. Furthermore, foreign investors are usually out for profit and wouldn't want to jeopardize their interest, hence repatriate their profit to their home country when general cost of doing business is too enormous. Redressing this ugly trend requires a broad based holistic plan which encourages extensive participation of farmers in agricultural investment and production. Such strategy should also be able to attract the youths by providing gainful employment opportunity for them. The whole idea is to position such farmers as profitable income earners and also as investment catalyst whose income earning power redistribute income to the rural areas and whose investment capability promote employment and productivity.

Conclusions

This study has been able to expose the dynamic relationships between Agricultural investment and poverty in Nigeria for the period 1981 -2015.Time series Data on the indices for Public Investment in Agriculture, Private Investment in Agriculture and Foreign Private Investment in Agriculture were collected as agricultural investment indices in addition to unemployment rate data to make up the regressors while Poverty rate in Nigeria is the regressand. Johansen co-integration test and Vector Error Correction (VEC) approach was employed to analyze the times series data leading to key findings of the study.

The results indicate that in the long run, Public investment in agriculture has a positive significant impact on poverty while Private Investment in Agriculture does not sustainably translate to poverty alleviation in Nigeria. In addition, Foreign Private Investment in Agriculture has a positive but insignificant impact on poverty rate while Unemployment aggravates poverty by about ½ percent in Nigeria. In the short run, Private investment in agriculture and foreign private investment in agriculture appears to be poverty inducing though their impacts proved to be insignificant and it appears foreign investors might constantly repatriate profits instead of ploughing them back due to un-conducive business environment. Results of VEC indicate the system corrects its previous period's disequilibrium by 28.6 percent a year.

Recommendations

The study therefore makes the following recommendations

1. The a broad based agricultural investment policy should be designed to make life meaningful to over 60% Nigerian farmers whose majority engage in subsistence Agriculture to survive.

2. In this respect, Government should expand investment on factors that tend to motivate the private sector in general such as adequate investment in R& D as well as infrastructural facilities like roads, electricity and storage facilities in addition to utilizing available funds in line with global best practices.

3. It is also important that government ensures that the atmosphere is conducive for both domestic and foreign investors in order to improve investors' confidence and also encourage on ground investors to plough back their profit. This will eventually impact poverty incidence in Nigeria positively through the trickledown effect of the policy implementation.

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Appendix 1: Data Used

YEAR	RGDP	PI	PR	FR	UN	POV
1981	15258.00	775.10	2.82	120.50	3.50	28.00
1982	14985.08	1035.10	2.78	120.50	3.40	27.50
1983	13849.73	1185.20	2.32	127.80	3.90	29.00
1984	13779.26	252.50	1.53	128.50	4.40	30.00
1985	14953.91	985.40	1.61	126.00	6.10	46.30
1986	15237.99	892.50	2.23	128.20	5.30	45.20
1987	15263.93	365.10	2.88	117.30	7.00	46.40
1988	16215.37	595.70	3.44	128.90	5.30	47.20
1989	17294.68	981.50	5.16	134.80	4.00	43.30
1990	19305.63	1758.50	7.20	334.70	3.50	44.20
1991	19199.06	551.20	8.45	382.80	3.10	43.90
1992	19620.19	763.00	13.26	386.40	3.40	42.70
1993	19927.99	1820.00	18.21	1214.90	2.70	46.30
1994	19979.12	2800.10	20.29	1208.50	2.00	45.90
1995	20353.20	4691.70	27.73	1209.00	1.80	50.80
1996	21177.92	3892.80	39.83	1209.00	3.80	65.60
1997	21789.10	6247.40	48.00	1209.00	3.20	64.90
1998	22332.87	8876.60	48.55	1209.00	3.20	66.30
1999	22449.41	6912.60	48.54	1209.00	8.10	63.50
2000	23688.28	5761.70	67.66	1209.00	13.10	64.20
2001	25267.54	57879.00	74.00	1209.00	13.60	62.50
2002	28957.71	32364.40	134.89	1209.00	12.60	53.40
2003	31709.45	8510.90	228.41	1209.00	14.80	55.50
2004	35020.55	48047.80	219.06	1209.00	13.40	54.40
2005	37474.95	79939.40	204.28	1209.00	11.90	55.50
2006	39995.50	15176.80	395.28	1209.00	12.30	56.60
2007	42922.41	22518.58	494.52	1329.90	12.70	58.60
2008	46012.52	106000.00	519.60	1999.20	14.90	60.10
2009	49856.10	138900.00	754.46	2647.60	19.70	62.60
2010	54612.26	78000.00	958.83	2700.55	21.40	62.20
2011	57511.04	62900.00	912.62	2754.56	23.90	60.00
2012	59929.89	63400.00	802.78	2809.65	27.40	33.10
2013	63218.72	56400.00	1028.40	2865.84	24.70	33.10
2014	67152.79	61900.00	1195.75	2923.16	25.10	33.10
2015	69023.93	70000.00	1252.41	2981.62	24.20	64.00