

Proper Funding and Marketing of Green Economy: A Way Out of Nigeria's Agricultural Woes

Akpaeti, Aniekan J; Udo, Udoro J and Bassey, Nsikan E

Department of Agricultural Economics and Extension, Akwa Ibom State University, Ikot Akpaden, Mkpata Enin, P.M.B. 1167, Uyo, Akwa Ibom State, Nigeria.

Corresponding Author: Akpaeti, Aniekan J

Abstract

Agricultural policy papers have highlighted the critical role of agriculture to economic prosperity and development. In spite of the numerous agricultural policies, the Nigerian agricultural sector has performed so poorly in terms of its contribution to the country's GDP. Undoubtedly, green economy offers an alternative vision for correcting this dismal performance of the sector. To achieve this feat, proper funding and marketing becomes indispensable. Hence, this paper assesses the impact of proper funding and marketing on agricultural productivity through the development of green economy in Nigeria. Secondary data sourced from Central Bank of Nigeria; food and agricultural organization covering 1970-2010 were analyzed using co-integration, error correction and Granger Causality test techniques, the study found a positive and significant long run relationship between agricultural productivity (ARGDP), commercial bank credit to agriculture (CAG), total government expenditure on agriculture (TEA), consumer price index (CPI) and agriculture population (APOP) as well as a uni-Granger causality from TEA to ARGDP, CAG to TEA, CPI to APOP and TEA to APOP. It is recommended that concerted effort by all stakeholders are required to steer green agriculture on a sustainable production and productivity pathway through mobilization of funds and provision of an environmentally friendly alternative for Nigeria's transition from a mono economy to a diversified green economy for effective and efficient use of resources by present and future generations for sustainable development.

Keywords: Agricultural Productivity, Funding And Marketing, Green Economy, Inorganic Fertilizer, Nigeria.

INTRODUCTION

Nigeria's domestic economy is partly determined by agriculture which has experienced a rapid growth in recent times with recorded growth rate well above 5% compared with the less than 2% growth of early 80's (Falusi, 2008). In 2005, agriculture contributed 6.8% out of the 8.2% growth rate recorded by the entire non-oil sector (NEEDS, 2008) while in 2007, the sector also employed about 65 million persons and contributed about 41% of the Gross Domestic Product (GDP). Of this, the crop subsector contributed 85%, Livestock (10%) and Forestry (1%) (National Bureau of Statistics, 2007). Despite this growth rate, the Nigerian National planning Commission (NPC), (2004) citing the United Nations Food and Agriculture Organization (FAO) reported that productivity of Nigeria's farmland is low but has the potentials to improve if properly managed. Jeter (2004) submitted that there is a serious decline in agricultural productivity over the past two decades which has resulted in severe rural poverty. Undoubtedly these are the periods our farmers relied on inorganic fertilizer as the only major soil nutrient supplier. Much still need to be done to regain our agricultural lost glory of the early 1970 as a major driver of the Nigeria's economy. The performance of

Nigeria's agriculture is poor when we assess the current food import bill, rate and degree of rural poverty and rural-urban drift. The World bank data cited by Chigbu (2005) shows that more than 70% of Nigerians live below the poverty line (which is less than a dollar/day) implying that there has been an astronomical growth in the levels of poverty of Nigerians most of whom are engaged in agriculture from independence till today.

This low productivity calls for serious concern owing to the fact that the country is the largest in the region representing an average of 45 percent of total fertilizer consumption (in nutrients base) in the Economic Community of West African States (ECOWAS), followed by Burkina Faso, Côte d'Ivoire, Ghana and Mali for the years 2005-2009. (FAOSTAT, 2011), In addition to its vast natural and human resources, Nigeria has perhaps, the largest National Agricultural Research and Extension System (NARES) in Sub-Saharan Africa today, made up of: 17 Commodity-based Research Institutes, a specialized National Agricultural Extension Institute, 18 Faculties of Agriculture in regular Federal Universities; 3

specialized Universities of Agriculture and one International Agricultural Research Centre (IARC = IITA) (Arokoyo, 1998). A most pertinent question today therefore is: why has Nigeria's awesome natural, human and huge investment on fertilizer subsidy and extension service not been able to deliver the much needed agricultural growth and development. The reason for this is because more than 90% of the agricultural output is accounted for by small-scale farmers who depend on inorganic fertilizers with less than two hectares under cropping while out of about 75% (68 million ha) of estimated potential total Nigeria land for agricultural activities only about 33 million hectare is under cultivation (Chigbu, 2005). These situations have caused food production in Nigeria to fail to keep space with the increasing population thereby making Nigeria a net importer of food (Daramola et al., 2007). Therefore, the need to give agricultural productivity the greatest priority if the incidence of poverty is to be reduced in the economy with special attention on less carbon emissions and its negative impacts on the environment as this will ultimately reverse the present condition and leads to income growth justifies the quest for green economy.

Green economy is "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities" (United Nations Environment Programme [UNEP], 2010). It is aimed at sustainable development without degrading the environment while emphasizing production and consumption modes that are environmentally and socially sustainable. By sustaining natural resources and ecosystem services, it protects the global commons allowing current and future generations to meet their needs. And by promoting social inclusiveness it generates jobs for the poor and enhances their access to basic services (UNCTAD, 2011). A transition to a green economy involves expanding green production and markets; reducing depletion of natural resources and degradation of ecosystems caused by economic activity; and increasing reliance on low-carbon energy supply to mitigate climate change. The transition is not automatic though; it needs to be supported by development-led policies and concerted actions to ensure that outcomes are inclusive across and within countries (UNCTAD, 2011). This would help in reviewing the production and postharvest constraints affecting agricultural productivity in Nigeria as an important step in formulating policies to reverse these trends in the future.

Over the years, Nigerian government has almost been the sole provider of financial and other capital resources to support agriculture. She has attempted to increase expenditure on agriculture through budgetary allocation and through the provision of cheap and

readily available credit facilities (Nwosu, 2004). This implies that the government budgeting allocation has become an important determinant of agricultural output in Nigeria (Nwosu, 1995). Yet, government budgetary allocation to agriculture is not without limitations. The first is the relatively low allocation to the agricultural sector. The second is the actual expenditure which often falls short of budgeted expenditure and the high rate of under spending which is usually higher for agriculture than for other economic sectors. The third is the vast proportion of the funds allocated to agriculture which does not go directly to farmers (Nwosu and Akpokodje, 1993; Omanukwu, 2005). Balogun (2007) posited that despite the rapid increase in financial lending to the economy by financial institutions, a significant proportion of the production loans go to manufacturing, probably to finance imports of raw materials, machineries and component assembly activities and to agriculture. This further suggests that financial institutions like commercial banks have always found an alternative portfolio investment more lucrative than lending to the agricultural sector. Apart from direct funding, government has also been involved in input procurement and distribution. Thus, government effort towards improving soil nutrients in the past had been focused on inorganic fertilizer procurement, distribution and use.

Apart from funding, efficient marketing system is desirable for the attainment of increased agricultural productivity; especially in developing countries that are characterized by high post harvest losses due to poor marketing infrastructures. Efficient food marketing system have been documented to reduce post harvest losses, ensure adequate returns to farmer's investment and stimulate expansion in food production thereby enhancing the level of food security in the country (Ladele and Ayoola, 1997). Other studies such as Bassey et al., (2013), Oladopo (2007) and Tura (2010) all lend credence to the importance of efficient marketing system in promoting economic development. However, efficient marketing system should incorporate both environmental and social sustainability as high incidence of post harvest losses could diminish the capacity of the rural farmers. Therefore, in attaining green economy in agricultural sector, proper funding of the sector, development of efficient marketing system as well as encouraging the use of organic manure becomes imperative. This is a sure way of ensuring sustainable development that is capable of reducing poverty and enhancing the much advocated national capacity building strategy. Against this backdrop, the study reviews the past government efforts and policies towards inorganic fertilizer procurement and distribution and also examines the impact of proper funding and marketing of green economy in enhancing agricultural productivity in Nigeria

2.0. Review of Past Government Effort towards Funding Inorganic Fertilizer

Nigerian Government has been involved in fertilizer procurement, distribution, and subsidizing of fertilizer at various times. The fertilizer distribution system prior to 1996 operated virtually as a government monopoly. Within this period, several variants of the procurements and distribution arrangements between the Federal government of Nigeria and its States were experimented with. This has been aptly reviewed and critiqued by IFDC (1994), Ogunfowora (2000), and Kwa (2002) and abridge thus:

Prior to 1976—State governments procured fertilizer independently and distributed the fertilizer through sales agents and the extension system. Fertilizer was subsidized at about 95%.

1976 to 1986—Procurement and distribution of fertilizer was centralized by FGN through the Fertilizer Procurement Distribution Division (FPDD).

1987 to 1991—the physical transport from Port and Federal Superphosphate Fertilizer Company (FSFC) became the responsibility of the states but FGN reimbursed transport costs.

1992 to 1994—the depot system was abandoned. FPDD was given responsibility to distribute imported fertilizer only while NAFCON distributed locally produced fertilizer. State agricultural ministries and/or Agricultural Development Projects (ADPs) distributed the fertilizer.

1995 to 1996: FGN stopped importing fertilizer in 1995, and fertilizer was imported by the private sector.

NAFCON and blending plants became agencies for distributing locally produced fertilizer. States collected their fertilizer allocation from the fertilizer plants to be reimbursed for transport by FGN later (similar to the 1989-1991 policy). Task forces were set up to monitor distribution.

1997-2002—FGN discontinued the fertilizer subsidy and distribution programs in 1997 and adopted a complete privatization/liberalization of the fertilizer sector. Subsidies were abolished and the import tariff reduced from 10% to 5%. However, this policy was largely ineffective because the ground work had not been properly laid for the private sector to take over. Fertilizer use declined sharply and the FGN reintroduced a fertilizer subsidy of 25% in May 1999.

Evidence as shown above indicate the huge investment and attention to fertilizer industry through fertilizer import, subsidy and the establishment of fertilizer production and blending industries aim at improving agricultural productivity. From the above review, Nigerian government has seriously downplayed on the support for green economy.

In addition to the above policy actions, government has also established about thirty two (32) fertilizer companies in different locations across the country between 1976 and 2003. As evidence in Table 1, of the thirty two (32) fertilizer production plants established by the government, only one was for organic manure. This is an indication that government funding in the organic manure subsector has not been encouraging and has undermined the quest for the attainment of a green economy.

Table 2.1. Installed Fertilizer Production Units in Nigeria from 1973-2003

S/N	Fertilizer Production Units	Year of Establishment	Products	Installed Capacity	Location
1.	Federal Superphosphate Fertilizer (FSFC)	1973	NPK	100000	Kaduna
2.	Notore, Formely called National Fertilizer Company of Nigeria (NAFCON)	1981	Ammonia Urea NPK	200000 550000 250000	Onne, Port Harcourt
3	Cybernetics Nigeria Ltd	1986	Micronutrients	-	Kaduna
4.	Fertilizer & Chemical Co.	-	NPK	200000	Kaduna
5.	Morris Nigeria Ltd	1989	NPK	200000	Minna
6.	Afro-Nutrients & Chemical Co. Ltd	1993	NPK	300000	Kano
7.	Kano Agricultural Supply Co. (KASCO)	1993	NPK	100000	Kano
8.	Golden Fertilizer Company Ltd	1993	NPK	200000	Lagos
9.	Zunguru Fertilizer Company Ltd	1997	NPK	200000	Niger State
10	Zamfara Blending Plant	1998	NPK	84000	Gasau

11.	Funtua Fertilizer Company Ltd	-	-	100000	Katsina
12.	Bauchi Fertilizer Company Ltd	1998	-	121000	Bauchi
13.	Gombe Fertilizer Company Ltd	1999	NPK	96000	Gombe
14.	Bor----no Fertilizer Company Ltd	1999	-	120000	Borno
15.	Bauchi Kaolin Industry	1999	-	-	Bauchi
16.	Gaskiya Fertilizers	1999	-	54000	Kano
17.	Sasisa Fertilizer Co.	1999	NPK	20000	Kano
18.	Edo Blending Plant	2001	-	40000	Edo
19.	Samrock Blending Plant	2000	-	-	Sokoto
20.	Kebbi Blending Plant	-	-	30000	Kebbi
21.	Adamawa Blending Plant	-	-	-	Yola
22.	Crystal Fertilizer Blending Plant	-	-	100000	Kagara
23.	Scentum Al Fertilizers	-	-	-	Enugu
24.	Morgan Int. Ltd	-	NPK	60000	Lagos
25.	Jimco Nigeria Co.	-	NPK	60000	Lagos
26.	Yobe Fertilizer Co.	2002	-	-	Damatoru
27.	Pacesetter Organic Fertilizers Co. Ltd.	-	Organic Fertilizer	-	Ibadan
28.	Albarka Agro Allied & Chemical Nigeria Ltd	-	-	-	Kano
29.	Plateau Fertilizer & Chemicals Co.	2002	-	-	Jos/Bocos
30.	Ebonyi State Fertilizer & Chemicals Co.	2002	-	-	Abakaliki
31.	Aweba Fertilizer Co.	2003	-	-	Nasarawa
32.	West African Fertilizer Co.	-	-	-	Okpella
	Total Installed (Potential) Capacity	-	-	2945800	

Source: Federal Fertilizer Department (FFD) and International Fertilizer Development Center (IFDC) cited in eIFDC Internal Draft Reporting Assessment of Nigeria and Fertilizer Market (2012).

METHODOLOGY

Theoretical Framework and Model Specification

The study use the neoclassical growth model often referred to as growth accounting framework to explain the channel of growth in an economy by examining the impact of proper funding and marketing of green economy in enhancing agricultural productivity in Nigeria. The latter model is used in conjunction with Cobb-Douglas production function which is consistent with the supply theory that underlies the specification of the supply-side of agricultural output (Koskela, 2000). The Cobb-Douglas production function is specified as:

$$Y = f(A, L, K) = AL \dots\dots\dots (1)$$

Where,

Y = Output

A = Efficiency of labour or total factor productivity,

L = Labour, K = Capital stock, T= Time dimension.

Several studies have attempted to integrate exogenous variables with endogenous variables in explaining growth in output. Hence, this empirical study adopts neoclassical production function employed by Odusola (1998) and Iganiga and Unemhilin (2011) as follows:

$$Y_t = A_t L^{\beta_1} K^{\beta_2} P^{\beta_3} \dots\dots\dots (2)$$

Where,

Y = output

P = Additional Input

$\beta_1 + \beta_2 + \beta_3 = 1$ (assuming constant returns to scale)

The log linear form of equation 2 taking the natural logarithm of both sides is

$$\ln Y = \beta + \beta_1 \ln L + \beta_2 \ln K + \beta_3 \ln P \dots\dots\dots (3)$$

It is assumed in this study that government expenditure is the being the main determinant of agricultural output.

$$\ln \text{ARGDP} = \beta_0 + \beta_1 \ln \text{TGEA} \dots\dots\dots (4)$$

$$\ln \text{ARGDP} = \beta_0 + \beta_1 \ln \text{TGEA} + \beta_2 \ln \text{CBA} + \beta_3 \ln \text{CPI} + \beta_4 \text{APOP} + U_t \dots\dots\dots (5)$$

Introducing other factors into equation 4, we have,

Where:

ARGDP = Agricultural Real Gross Domestic Product (₦M)

TGEA = Total Government Recurrent Expenditure on agriculture sector (₦M)

CPI = Composite consumer price index (1985=100)

CBA = Commercial bank credit to the agriculture sector (₦M)

APOP = Agricultural Population

β_0 is the intercept while $\beta_1, \beta_2, \beta_3, \beta_4$ are parameter estimate of the linear equation. U_t is the error term which captures all other variables not explicit captured in the model and is expected to be independently distributed.

Data Collection: Secondary data were used for the study. Time-series annual data covering 1970-2010 from publication of the Central Bank of Nigeria Statistical Bulletin, Annual Report and Statements of Account of Central Bank of Nigeria (CBN), Food and Agriculture Organization (FAO) online data base were employed.

Estimation Procedure

Analysis was carried out using Econometric View (E-View 7.1). Four estimation procedures were employed as follows:

(i). **Unit root test:** This was done to solve the problem of spurious regression arising from the time series properties of the data set used in estimation of equation 5. The Augmented Dickey-Fuller (ADF) unit root test was employed for this purpose to test the integration level and the possible co-integration among the variables. The model is written as:

$$\Delta y_t = \alpha_0 + \gamma_t + \alpha_1 t + \sum \beta_j \Delta y_{t-1} + e_t \quad \text{..... (6)}$$

Where y is the series t is (trend factor), α_0 is the constant term, e_t is the stochastic error term b is the lag length.

(ii). **Co-integration:** If the data set indicates integration property of the order 1(1) for the employed variable,

co-integration test among the variables using Johansen (1988, 1991) will be employed.

(iii). **Error correction Model (ECM):** If the variables tested are co-integrated, then ECM will be estimated to test for the short-run dynamics of the model. Thus,

$$Y_t = \alpha + \beta y_t + \xi_t$$

$$\text{..... (7)}$$

$$\Delta y_t = U_{t-1} + \sum \beta \Delta x_{t-1} + \sum \alpha_t \Delta y_{t-1} + \varepsilon \quad \text{..... (8)}$$

U_{t-1} is the one period lagged value of the error from cointegrating regression while Δ denotes the first differences operator.

(iv). **Granger causality technique:** This was used to examine the direction of causality between variables.

RESULTS AND DISCUSSION

Effect of funding and marketing of green economy on agricultural productivity

ADF Unit Root Test

The time series behavior of each of the series is represented in Table 3.1. The result of the ADF test conducted at both levels and first difference revealed that variables were homogenous of order one. Thus, variables became stationary at first difference prior to subsequent estimations to avoid spurious regressions.

Table 3.1 ADF Unit Root Test

Variable	Level Intercept	1st Difference Intercept	Conclusion
LNARGDP	-1.7138	- 6.0123 ***	1(1)
LNTGEA	-0.6870	-10.2762***	1(1)
LNCBA	-2.1412	-11.1470***	1(1)
LNCPI	0.6662	- 6.6267***	1(1)
APOP	-2.8742	- 6.0002***	1(1)

Source: Computed by Author, 2014

Co-integration Test: Tables 3.2 and 3.3 show the results of Johansen cointegration tests indicating the presence of two (Trace) and one (Maximum Eigen value) cointegrating vectors respectively. With the fact that almost all the variables were stationary at the first differencing, it was necessary to carry out another test to assess if the non-stationary variables were co-integrated. In essence, the hypotheses were tested to affirm the rank of the cointegrating relationships that existed among the variables at 5 percent level of significance. This indicates that there was evidence of the existence of a long-run relationship among the variables. Therefore, applying the error correction model (VECM) would enable us to track the long-run relationship between the variables and tie it to deviation that may occur in the short-run (Lorde, Jackson & Thomas, 2009).

Table3. 2 Johansen Cointegration Trace Test

Null Hypothesis	Alternative Hypothesis	Test Statistic	Critical Value (0.05)
$r = 0$	$r = < 1$	81.74684	69.81889**
$r = 1$	$r = < 2$	43.45620	47.85613
$r = 2$	$r = < 3$	19.66315	29.79707
$r = 3$	$r = < 4$	6.857417	15.49471
$r = 4$	$r = < 5$	1.983648	3.841466

Source: Computed by Author, 2014. Notes: r indicates the number of co-integrating vector. ** is the significance level at 5%. P-values are obtained using response surfaces in MacKinnon, Haug & Michelis (1999)

Table 3.3 Johansen Cointegration Maximum Eigenvalue Test

Null Hypothesis	Alternative Hypothesis	Test Statistic	Critical Value 0.05
$r = 0$	$r = 1$	38.29063	33.87687**
$r = 1$	$r = 2$	23.79306	27.58434
$r = 2$	$r = 3$	12.80573	21.13162
$r = 3$	$r = 4$	4.873769	14.26460
$r = 4$	$r = 5$	1.983648	3.841466

Source: Computed by Author, 2014. Notes: r indicates the number of co-integrating vector. ** is the significance level at 1%. P-values are obtained using response surfaces in MacKinnon, Haug & Michelis (1999).

Error Correction Model

To examine if a significant short-run relationship existed between variables used in the study, an error correction modeling (ECM) analysis was employed as presented in Table 3.4. The parsimonious error correction model with a two-period lagged values of the explanatory variables and one lagged value of the

error term (ECM) estimate showed that R^2 value of 0.77 indicates the variables explained about 77 percent of agricultural output. F-statistic of 11.01 ($P < 0.01$) reveals that they are jointly significant and the Durbin Watson Statistic value of 2.08 implies that the model does not suffer from autocorrelation problem but has a very good fit. The error correction term with a value of -0.1045 approximately is appropriately signed but not significant. The ECM value provides an insight on the speed of adjustment of the model from its long run equilibrium on account of any short run shock. Thus, the value of -0.1045 indicates that a short run disequilibrium in the long run financing and marketing of green economy relationship will be corrected at a speed of 10.45 percent per annum and it would take nine years and six months for full restoration back to the equilibrium after a short-run distortion. Therefore, correcting any deviations from the long-run equilibrium. This implies that financing and marketing of green economy had impact on agricultural productivity in the short-run.

Table 3.4 Parsimonious Error Correction Model for Short-run Impact

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.078090	0.057359	1.361414	0.1842
D(LNARGDP(-1))	0.555906	0.149662	3.714415	0.0009
D(LNARGDP(-2))	-0.095670	0.089788	-1.065513	0.2957
D(LNAPOP(-1))	-10.75602	1.194855	-9.001948	0.0000
D(LNAPOP(-2))	8.375462	1.931414	4.336441	0.0002
D(LNCAB(-1))	0.046584	0.045513	1.023537	0.3148
D(LNCPI)	-0.070670	0.090156	-0.783866	0.4397
D(LNCPI(-2))	-0.047946	0.096320	-0.497784	0.6225
D(LNTGEA)	0.039740	0.045683	0.869895	0.3918
ECM(-1)	-0.104518	0.153656	-0.680208	0.5020
R-squared	0.779686	Mean dependent var		0.133892
Adjusted R-squared	0.708871	S.D. dependent var		0.384908
S.E. of regression	0.207682	Akaike info criterion		-0.084681
Sum squared resid	1.207694	Schwarz criterion		0.346263
Log likelihood	11.60893	Hannan-Quinn criter.		0.068646
F-statistic	11.01016	Durbin-Watson stat		2.081627
Prob(F-statistic)	0.000000			

Source: Computed by Author, 2014

Granger Causality Test

Granger causality test was used to examine the direction of causality between two variables (Granger, 1969) with a maximum lag of two (2) on the first difference of the log transforms of the variables as presented in Table 3.5. The empirical results of the Granger causality test showed that Granger causality runs uni-directionally from Total Government Recurrent Expenditure on agricultural sector

(LNTGEA) to Agricultural Real GDP (ARGDP), Commercial bank credit to the agriculture sector (LNCBA) to Total Government Recurrent Expenditure on agriculture sector (LNTGEA), Composite consumer price index (LNCPI) to Agriculture Population (LNAPOP) and Total Government Recurrent Expenditure on agriculture sector (LNTGEA) to Agriculture Population (LNAPOP).

Table 3.5. Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Probability
LNCBA does not Granger Cause LNARGDP	39	2.33115	0.11253
LNARGDP does not Granger Cause LNCAG		1.07336	0.35316
LNCPI does not Granger Cause LNARGDP	39	0.49608	0.61325
LNARGDP does not Granger Cause LNCPI		0.40468	0.67036
LNTGEA does not Granger Cause LNARGDP	39	2.80676	0.07444
LNARGDP does not Granger Cause LNTGEA		1.02488	0.36966
LNAPOP does not Granger Cause LNARGDP	39	67.3989	1.5E-12
LNARGDP does not Granger Cause LNAPOP		1.59790	0.21714
LNCPI does not Granger Cause LNCBA	39	0.61609	0.54597
LNCBA does not Granger Cause LNCPI		0.84108	0.44002
LNTGEA does not Granger Cause LNCAG	39	0.68020	0.51327
LNCBA does not Granger Cause LNTGEA		4.19355	0.02356
LNAPOP does not Granger Cause LNCBA	39	0.11552	0.89125
LNCBA does not Granger Cause LNAPOP		2.23345	0.12265
LNTEA does not Granger Cause LNCPI	39	1.48505	0.24081
LNCPI does not Granger Cause LNTGEA		1.44354	0.25020
LNAPOP does not Granger Cause LNCPI	39	0.04534	0.95573
LNCPI does not Granger Cause LNAPOP		2.64678	0.08544
LNAPOP does not Granger Cause LNTGEA	39	1.42134	0.25537
LNTGEA does not Granger Cause LNAPOP		6.01277	0.00581

Source: Computed by Author, 2014

CONCLUSION AND RECOMMENDATIONS

The role of finance cannot be over-emphasized since no tangible investment can be done without funds. The outcome of the review shows that government funding of the organic subsector has not been encouraging and has undermined the attainment of a green economy. Findings also revealed that government is the prime mover of funds to agriculture. This is evidence with the uni-direction of government funds to agricultural output and agricultural population. Also, the uni-direction of consumer price index to agricultural population is an indication that proper marketing of green economy to the populace by all stakeholders in the business coupled with proper financing both by the government and financial institutions would boost agricultural productivity in the country. It is therefore recommended that concerted efforts by all stakeholders

are required to steer green agriculture on a sustainable production and productivity pathways. Funds used for inorganic fertilizer procurement and subsidy should be re-directed to organic manure. This is a sure way towards Nigeria's transition from inorganic based economy to a diversified green economy for sustainable development as well as reducing poverty and heightened National capacity building strategy.

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