THE EFFECTS OF GOVERNMENT BUDGETARY ALLOCATION ON AGRICULTURAL OUTPUT IN NIGERIA.

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ABSTRACT

The study, "Government Budgetary Allocation to the Agricultural Sector and its effect on Agricultural output in Nigeria", is an attempt at highlighting the quantity and quality of national commitment (through public expenditure/budgetary allocation) to agricultural development over the years. Using government budgetary allocation to the agricultural sector and commercial bank credit to the agricultural sector as our explanatory variables, we examine the effect of government budgetary allocation to the agricultural sector on the output of the agricultural sector. Data were obtained from CBN's Statistical Bulletin, and NBS's Annual Abstract of Statistics. Employing the OLS regression technique, our results revealed that Budgetary Allocation to Agricultural Sector has significant effect on agricultural production in Nigeria, and that the relationship between them is strong, positive and significant. Thus, the study recommends that budgetary allocation to the agricultural sector should be increased and monitored, to guarantee food security, employment and overall economic growth and development in Nigeria.

Key Words: Government, Budgetary Allocation, Agricultural Sector, Credit, Food Security and Employment.

INTRODUCTION

Budgeting is a tool for planning and controlling finances by both private individuals/establishment and government. In the process, there is a wise selection of essential activities to be executed. It is also the process by which scarce resources are allocated in the most efficient manner to address most important needs/problems.

Budgets are formulated to achieve certain prime objectives such as to reduce inflationary pressures, to sustain growth and development, increase employment opportunities, reduce poverty and to meet individual set goals. It could also be aimed at developing a specific subsector (or sector), or a certain group of subsectors, or indeed an aspect of the economy, to achieve a specific goal.

Nigeria, like the government of most less developed countries, have come up with different policies and budget that aimed at enhancing the standard of living of the populace. Every Federal Government budget covers all the various sectors of the economy irrespective of whether it is a servicing, manufacturing, or production outfit. However, much emphasis are usually laid on one or some sectors than others depending on the exigency of the situation at hand or in the nation/economy. Successive government in Nigeria have made concerted efforts at enhancing the quality of life of the populace over the years but often with little achievement to show for it.

In Nigeria, the importance government places on some sectors like health, agriculture and some others has led to the development of some related institution in the country with the aim that this efforts would enhance growth in these sectors. However, in most cases, the efforts on these sectors (e.g. agriculture) do not produce the desired results. Question often asked is that does government budgetary allocation to these sectors have any positive impact or significance on their performance?

Since 1960 when Nigeria achieved independence, the performance of the nation's agricultural sector has been inconsistent. Between the 1960s and the late 1980s, real agricultural growth per capital fluctuated between -19% and +15% per year (International Food Policy Research Institute, 2008).

As a tool for planning and controlling finances, Budgets are formulated to achieve certain prime objectives such as to reduce inflationary pressures, to sustain growth and development, increase employment opportunities, reduce poverty, etc. It could also be aimed at developing a specific sector, or a certain group of subsectors, or indeed an aspect of the economy, to achieve a specific goal.

According to Matthew, (2008), the Nigeria agricultural sector provides to meet the Nigeria's food requirement and also made significant contribution to raw material supply. Thus, it can be seen that agriculture holds the potential for tackling unemployment in Nigeria, at least in the short run. But despite the significance of agriculture in Nigeria's economy, the sector is clearly the least

Productive when compared with other sectors as at 2007. The productivity of the sector in 2007 was ₦ 0.66 million per worker, while the productivity for the mining and quarrying sector was ₦ 254.89 million per worker, also in 2007,(Ujah and Dom, 2009).

The reason for the very low productivity in Nigeria's agricultural sector cannot be farfetched. Approximately 70% of the Nigeria's population engages in agricultural production at subsistence level, while agricultural holdings are generally small and scattered (FGN, 2008). Small holder farmers constitute 81% of all farm holdings and their production system is inefficient. Small scale(0.1-5.9 hectares), medium scale(6.0 to 9.9 hectares) and large scale (above 10 hectares) are the three broad categories of farm holdings in Nigeria, with the Small-Scale farm holdings predominating the country's agriculture and accounting for about 81% of the total farm area and 95% agricultural output (Shaib et al., 1997; FGN, 2008). The estimated average operational holding is 2 hectares per farm family.To this end, it can be concluded that agriculture in Nigeria needs to be given some attention which would facilitate the overall performance of the sector. Therefore budgetary allocation to the agricultural sector and its effects in enhancing agricultural output is imperative and in fact is the case that this present study wants to address.

LITERATURE.

In Keynes' General Theory of Employment, Interest and Money in 1936, the Keynesian model or ideas were developed. A simple Keynesian argument is that high level of government consumption will increase employment, and also profitability and investment via multiple effects on aggregate demand, hence increase in output too.

Keynes concluded that both increased government purchases and lower taxes can be used to raise output and employment. Thus, the Keynesian Aggregate Demand-Aggregate Supply (AD-AS) framework will be the main theoretical basis or framework of this research.

Also, some researchers have also formed some empirical findings and conclusions which would also be considered. Some researchers have concluded that larger government revenue in GNP enhances economic growth mostly in poorer developing countries (Rubinson, 1977). Ram (1988) has found positive relationships between government spending and economic growth. The work of Grossman(1988) utilized a simultaneous equation model making allowance for a non-linear relationship between growth in government spending and total economic growth, while that of Ram(1986) was based on a production function approach.

Blejer and Khan, (1984) maintained that public investment which has some bearing on infrastructure and provision of public goods can be complementary to private investment. They show for a group of developing countries that a longer term infrastructural expenditures rather than short term public investment positively induce private investment capital.

Ihimodu, (2007), opined that agriculture remains the mainstay of the Nigerian economy. It contributes 40% of the nation's gross domestic product(GDP) and over 60% of employment, this is in spite of the dominant role that the oil sector has been playing since about two-and-half decades now. Agriculture provides most of the food needs of the citizens as well as raw materials required in the domestic industries especially the agro allied ones. Ihimodu, (2007) observe also that in spite these advantages of the agricultural sector on the Nigerian economy, in review of the sector's performance, mixed feelings were observed. Some of these constraining factors to agricultural performance during the period of 1988 agricultural policy includes: Non-conducive enabling macro-economic environment under the policy operated, Inconsistency and instability of macroeconomic policies that discourages medium and long term investment, Poor state of infrastructures, especially in the rural areas, Poor funding of agricultural development activities and Inadequate availability of inputs, including credit and poor targeting of beneficiaries.

Eboh, Ujah and Nzeh(2009) on their own part observed that the contemporary economic significance of agricultural sector is even more remarkable. They opined that in the past half a decade, the impressive growth rate of the nation's economy has been driven by the non-oil sector, particularly the agricultural sector. This, in other words, according to them means the growth rate of the overall economy is to a large extent dependent on the growth rate in agricultural GDP.

They further showed that there are, however doubts about the sustainability of the current growth rate. According to Mogues et al. (2008) and Eboh et al. (2006), the recent upsurge in agricultural growth rate has been driven mainly by production increase resulting from the expansion in area planted to staple crops, while productivity have actually declined over the past two decades.

According to Idachaba (2000), the small scale farmer will continue to be the back bone of Nigerian agriculture for the next 25 years. This implies Nigeria's agricultural policy thrust in the next decade and beyond should have small scale farmers as its centre piece. However, Eboh et al. (2004) stated that average age of farmers in the country is high and increasing, thus reflecting low inflow of younger entrepreneurial labour force into agriculture and signifying the urgent need for the renewal of the farming population by making agriculture very attractive and qualitative.

Public spending (e.g. Budget) is one of the most direct effective instruments used by governments to promote agricultural growth and poverty reduction. Public spending at the Federal level and sub-National level follows a basic structure-recurrent spending and capital spending. This spending structure is characterized by different expenditure categories depending on the ministry, department or agency.

According to Ujah and Dom(2009), Federal Budget increased nominally by 63.5% from 2000 to 2008, Total Federal Recurrent Budget increased by 427.2% and Total Federal Capital Budget increased by 150.3%. For the agriculture and water resources sector, within the same period, total recurrent budget increased by 317.5%. In real terms, total agriculture capital expenditure increased to an all time high of approximately ₦0.06 billion(in 2001) from ₦0.02 billion in the year 2000 before unstably declining to ₦ 0.03billion in 2008.

Moreover, the total Federal Agriculture Budget(recurrent plus capital) in 2008, represented only 4.6% of total Federal Budget. This is below the CAADP's(Comprehensive Africa Agriculture Development Programme) recommended thresh hold of 10% of Budgetary spending on agriculture.

Fan, Moses and Benin (2009) noted that in recent years, many sub-Saharan African countries have pledged to increase government support to agriculture in order to achieve the goal of 6% annual agricultural growth set by the New Partnership for Africa's Development (NEPAD) through CAADP. As part of the Maputo Declaration of 2003, Africa heads of state and governments have agreed to allocate 10% of their National Budget to agriculture. Few countries in Africa including Burkina Faso, Ethiopia, Malawi and Mali have surpassed this threshold.

From Table 1 below, both the budgetary allocation and the output of the agricultural sector increased steadily between 1995 and 2009. In 1995, the allocation was N6927.7 million while the worth of the agricultural output was N96220.7 million. In 2003, the allocation was N16045.2 million while the worth of the agricultural output was N203409.9 million. The terminal date of this study, 2009, recorded the highest in terms of allocation and output. The allocation was N184500 million while the output was N299996.9 million. The trend shows a positive relationship between budgetary allocation to the agricultural sector and output of agricultural product.

TABLE i: TRENDS OF BUDGETARY ALLOCATION TO THE AGRICULTURAL SECTOR AND AGRICULTURAL OUTPUT (1995-2009)

YEARS	REAL G.D.P OF AGRICULTURAL SECTOR (₦ In Millions.) Proxy for Agricultural Output (AGOUT).	BUDGETARY ALLOCATION TO AGRICULTURAL SECTOR (BAAS). ₦ In Millions.
1995	96220.7	6927.7
1996	100216.2	5574
1997	104514	7929.6
1998	108814.1	11840.4
1999	114570.7	10047.3
2000	117945.1	10596.4
2001	122522.3	64943.9
2002	190133.4	44803.8
2003	203409.9	16045.2
2004	216208.5	49926.4
2005	231463.6	76636.7
2006	248559	107463.9
2007	266477.2	126600
2008	283175.4	171400
2009	299996.9	184500

SOURCE: Central Bank Of Nigeria's Statistical Bulletin(2009), & National Bureau Of Statistics' Annual Abstract Of Statistics(2009).

METHODOLOGY AND DATA.

Method of Data Analysis: The method of data analysis adopted by this study

Is analytical. It involves the use of the ordinary least square regression analysis.

Sources of Data: The study relied basically on secondary data sourced from CBN publications, journals, reports, and Bureau of statistics review of the economy for various years.

Model Specification: For this study, our model was developed to assess the role of Government budgetary allocation on the on Agricultural output in Nigeria between 1995–2009. The regression model is hereby specified thus:

$$AGOUT=b_0 + b_1BAAS + b2CRAGS + e$$

Where;

AGOUT = Agricultural Output
BAAS = Budgetary Allocation to Agricultural Sector
CRAGS = Credit to the Agricultural Sector
$b_{0,}$ b_1 and b_2 = parameters
e = Stochastic error term.
Note: Agricultural contribution to Real GDP(GDP deflated by the consumer price index at constant factor cost) is used as a proxy for Agricultural Output.

RESULTS AND DISCUSSION

$$AGOUT = 116036.083+1.077BAAS + 0.432CRAGS$$

$\bar{R}^2$ = 0.792
$F_{-Statistics}$ = 49.478
D.W. = 0.928

Note: the values in bracket are the t values.

From the results presented above, it can be seen that Budgetary Allocation to Agricultural Sector (b_1BAAS) conforms to the a priori expectation as regards its sign. The parameter b_1 has a positive sign showing BAAS has a positive relationship with AGOUT. This is in conformity with the a priori expectation. This positive relationship shows that as Budgetary Allocation to Agricultural Sector is increasing, Agricultural Sector Output increases and vice versa. Also, credit to the agriculture sector conforms to a priori expectation as credit is expected to exert a positive effect on output

The regression result above shows that the intercept (b_0) is 116036.083. This implies that holding the value of Budgetary Allocation to Agricultural Sector constant, the value of Agricultural Output will be 116036.083.

The regression coefficient of Budgetary Allocation to Agricultural Sector (BAAS) is 1.077. This means that a unit increase in BAAS will lead to 107.7% increase in Agricultural Output (AGOUT). The coefficient of credit to the Agricultural (CRAGS) is 0.432. This means that 43.2% of the increase in Agricultural is accounted for by credit to the Agricultural sector. The coefficient of determination (R^2) is 0.792. This shows that 79.20% of the systematic variation in the dependent variable (AGOUT) is determined by the explanatory variable (BAAS).

The value of calculated F-statistics is 49.478 and the value of the tabulated F-statistics is 9.07 and 4.67 at 1% and5% levels of significance respectively. The value of the calculated F-statistics is greater than the value of the tabulated F-statistics. This indicates that the regression equation has a strong Goodness-of-Fit.

The Durbin Watson test (D.W) shows a result of 0.928. This shows the presence of auto correlation in the regression equation.

POLICY IMPLICATIONS

The results obtained from the regression results presented and analysed above are indeed revealing. Considering the explanatory power of the model, it is obvious that a major determinant of the Agricultural Production in Nigeria (Nigeria Agricultural Output), is Budgetary Allocation to Agricultural Sector and credit to the Agricultural sector. Thus targets of minimum of 10% allocation of the national budgets to agriculture recommended in the Maputo declaration of 2003 and the minimum of 15% of the Federal Government budget allocation to agricultural sector stipulated by the house committee on agriculture are welcomed and essential policies/steps because they would result in a high and positive response in the agricultural productivity of Nigeria. Conscious effort should be made by the Government towards channelling credit to the agricultural sector as this accounted for about 43.2% of the increase in output within the period under study,

SUMMARY OF FINDINGS

The study exposed that, the percentage, degree or amount of Budgetary Allocation to Agricultural Sector has a positive relationship with the total Agricultural Production in the country. This implies that the more the public spending on agricultural sector, the more the improvements in the performance of the agricultural sector. Also, a large degree of change in Agricultural Output is accounted for by change in Budgetary Allocation to Agricultural Sector. Thus, Budgetary Allocation to Agriculture has a large impact on Agricultural Output.

CONCLUSION AND RECOMMENDATION

The inevitable relevance of agriculture to meaningful national development has been exposed by this study. Agriculture accounts largely for the food needs of the country, and its contribution to employment is overwhelming as it account for over 60% of employment opportunities in the country), and yet, the sector suffers neglect, which is expressed in terms of the fluctuating and low percentage allocation to the sector from the national budget. Thus, in the light of this, it becomes very obvious that agriculture needs to be further strengthened in terms of increased budgetary allocation in order to enhance the quantity and quality of agricultural output, thus, enhancing and improving national development as a whole. The study specifically recommend thus:

Agriculture should be placed on Government top priority list such that its position within the sectoral allocation could be substantially enhanced. Conscious effort should be made by Government at all levels towards increasing budgetary allocation to the agricultural sector. In addition Government should put in place a monitoring mechanism to ensure that the allocation to the Agricultural sector are applied to what it is intended for to guaranty good result.

Government should provide an enabling environment that will encourage young school leavers (products of secondary and tertiary institutions) to embrace farming as a lucrative profession. This can be achieved through the provision of social amenities in the rural areas where most of the farming activities take place to reduce the rural – urban and also through the provision of incentives that will make farming business (agro-business) attractive.

We can therefore conclude that, increased budgetary allocation to the agricultural sector and the budget's adequate monitoring, is one of the sure and effective ways or instruments of achieving improvement in agricultural productivity which has remain an important challenge to Government in Nigeria.

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