# THE IMPACT OF MACROECONOMIC POLICY REFORMS ON NIGERIAN AGRICULTURE

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*The aim of the paper is to identify the outstanding issues in Nigeria's agricultural policy in the context of the macroeconomic policy reforms adopted in the last ten years. Beset partly by macroeconomic policy distortions, agricultural sector performance was grossly inadequate in the 1970s and up to 1985. The macroeconomic policy reforms adopted in 1986 were aimed at removing the distortions to enhance macroeconomic stability and sectoral performance. A major finding of the study is that agricultural sector performance improved significantly especially during the initial phase of the policy reforms. However, the improved agricultural sector performance has not been sustained in recent years owing to poor policy implementation, lack of complementary policy measures to support the core policy initiatives such as the exchange rate adjustment and an imprecise agricultural development strategy during the period of reforms. The policy implications of the analysis include the need to strengthen and streamline the economic policy framework for agricultural development during deregulation, enhance policy analysis and implementation, design viable strategies for the delivery of services to producers, as well as institute a more viable public expenditure programme on the basis of well-defined public sector activities.*

## INTRODUCTION

In spite of the current dominance of the petroleum sub-sector in Nigeria's economic growth and development, agriculture remains a major source of economic resilience. Agriculture's contributions to the nation's food supply, exports, raw material supplies, savings and investment and general price stability have been critical for economic survival in the last three decades. While the petroleum sub-sector has been on a seeming decline since the early 1980s, agriculture and some informal activities have sustained the economy's productive capacity. Before the adoption of the economic policy reforms in the mid-1980s, some agricultural development programmes were adopted in a bid to improve agricultural performance. These were backed up by substantial budgetary allocations, but the development programmes were not totally coherent and logical (Ojo, 1991: 255-296). Consequently, although agricultural performance improved noticeably, the results were not adequate not only in relation to the committed financial resources, but also in relation to the nation's minimum needs of agricultural products. Thus, Nigeria's agriculture was expected to be a major beneficiary of the economic policy and structural reforms adopted from 1986. Ten years of implementation of these reforms would seem to indicate that while agriculture has continued to impart reasonable resilience to the economy, its overall performance is still below expectation. Improving Nigeria's agricultural performance

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to an acceptable and sustainable level is therefore, a challenge to policy makers in government and operators in the private sector. The focus of this paper is the identification of the outstanding issues in Nigeria's agricultural policy reforms. This will entail an overview of Nigeria's agricultural performance before and since the recent policy reforms, as well as analysing the policy implications for improved agricultural performance in a regime of economic liberalisation. The rest of the paper is organised into four main sections focusing on the status of agriculture before the policy reforms, evaluation of agricultural performance under the policy reforms, analysis of the outstanding problems of agriculture and the policy implications of the analysis.

## 2. STATUS OF NIGERIAN AGRICULTURE BEFORE MACROECONOMIC POLICY REFORMS

The following review of the status of Nigerian agriculture before 1986 focuses on several major issues of the Nigerian agricultural situation between 1970 and 1985, embracing a general discussion of agricultural development constraints, the policy strategies pursued and their impact on sectoral performance, as well as the dominant factors in the observed agricultural sector performance.

### 2.1 Agricultural Constraints and Policy

Nigeria's agricultural situation before 1986 indicated gross under-development arising from some general constraints which have been classified into six categories (Ojo, Ibid: 177-196): environmental, land, labour/manpower, capital, technological and marketing system constraints. These have been well articulated by several authors. We can illustrate with the example of the problem of inadequate capital. Normally, agricultural production requires substantial capital to finance current operations and capital investment. Such capital is derived from two main sources - government budgetary allocations and credit from financial institutions. From the First through the Fourth National Development Plans, government spent less than 10% of its total capital expenditures on agriculture which contributed more than 60% of the GDP. Also, the bulk of credit needs of farmers was derived from informal sources at prohibitive interest rates. The consequence of all the constraints was the rather low productivity of Nigerian agriculture. Average productivity of Nigerian agriculture was below the average on the African continent and much lower than the known potential. The agricultural sector was dominated by small holders who had scarcely been influenced by modern technologies.

To stem the adverse effects of these constraints and improve agricultural performance, a lot of financial resources were committed by government from the early 1970s to execute some agricultural programmes. The specific objectives of the programme were to:

(i) ensure adequate food supplies for the population;

(ii) provide higher incomes for farmers;

(iii) create new rural employment opportunities;

(iv) enhance the nation's foreign exchange earnings; and

(v) encourage the adoption of appropriate technologies.

The policy measures designed to achieve these objectives can be classified into three group: peasant-oriented programmes, government-directed projects and institutional reforms. Again, the elements of these have been well-analysed elsewhere. For purposes of this paper, we simply outline the various components of the programmes. The peasant-oriented programmes included the Agricultural Development Projects (ADPs) first introduced in 1975 as comprehensive rural development schemes focusing on efficient input and credit delivery to farmers, rural feeder road construction and rehabilitation and efficient extension and manpower training system. The projects, especially the pilot projects were very successful. Another peasant-oriented programme was the supply of purchased inputs such as agro-chemicals, improved seeds and agricultural machinery and equipment at subsidised prices. This scheme was constrained by logistic problems and inability to meet farmers' demand. The government-directed projects consisted of state farms and the River Basin Development Authorities (RBDAs) both engaging in direct agricultural productive activities and providing some facilities to neighbourhood farmers. The projects failed dismally. The institutional reforms focused on reforming some agricultural institutions such as agricultural research agencies, marketing boards and credit institutions. The credit institutions were established or directed where they already existed to provide credit to farmers at heavily subsidised interest rates. Only modest gains were made in these schemes. The bulk of the subsidised credit went to large scale modernising farmers.

### 2.2 Review of Agricultural Performance

Agricultural performance measured by trends in total agricultural production, food production and agricultural exports between 1970 and 1985 was rather low. Total agricultural production increased at an annual rate of 1.3% between 1970 and 1975, actually declined in the next five years, before recovering somewhat between 1980 and 1985 when it recorded a growth rate of 1.2% per annum. The growth rate for the entire period was 0.1% per annum. Contrary to expectations, the agricultural sector was finding it difficult to provide adequate food for the population. During this period, food production was growing at an annual rate of about 1.0% which was below the growth rate of the population estimated to be 2.5 - 3.0% annually. Consequently, food imports were on the increase. Many local processing plants were also importing raw materials for their factories. Food prices were also on the upward trend. Agricultural export volumes of traditional export commodities were on the decline. The total values of export earnings were on the decline except when world prices increased substantially. Total agricultural exports as a proportion of aggregate export earnings declined to 2.5% a year between 1981 and 1985, from as high as 61.3% in the early 1960s.

The failure of agricultural policy to achieve the main objectives for the period up to 1985 has been well-analysed in the literature. The first set of reasons had to do with problems endogenous to the sector, such as inadequate planning which led to wrong choice

of policy instruments, ineffective institutions which were unable to reach out to the smallholders, inadequate manpower to support the institutions and uncoordinated policy actions of the Federal and State Governments. The second set of reasons had to do with the linkage between agricultural and macroeconomic policies. For instance, government interventions through its increased spending on several development projects tended to inflate the economy and hike labour costs to the disadvantage of agriculture. The liberal import policy encouraged by the overvalued exchange rate also adversely affected agricultural exports and local incomes of farmers. These issues now form the focus of the rest of this paper.

## 3. MACROECONOMIC POLICY REFORMS AND THE AGRICULTURAL SECTOR

### 3.1 Macroeconomic Policies and the Agricultural Sector: Theoretical Considerations

In a typical agricultural system, micro decisions are continually being made by the key operators - producers, marketing agents and consumers. Typically also, the environment in which those decisions are made is strongly conditioned by government economic policies and actions. It is therefore, clear that fiscal and monetary policies, among other government policy packages, produce a significant influence on agricultural operators regarding in particular the structure of incentives and overall performance. Agricultural policy, in turn, must respond appropriately to the macroeconomic framework. There are at least four components of macroeconomic policies that induce such responses (Timmer et al., 1983: 215-259).

First, agriculture is one of the beneficiaries of government budget allocations. The budgetary allocation to agriculture is constrained not only by the size of the government budget but also by the desired allocations to the non-agricultural sectors. Undoubtedly, there are competing demands for government revenue resources and in the typical environment of a developing economy, agriculture tends to be overshadowed in the allocation process. Agricultural policy makers must then contend with the problem of sharing the sector's allocation between development programmes for producers and consumers. Within the agricultural sub-sectors, allocations must be made to sustain recurrent expenditures and investments in irrigation, road construction and agricultural research facilities. The recurrent expenses are usually on extension services, information system and subsidies on both inputs and output. Similarly, allocations to agricultural consumers must be shared between subsidy schemes and investments. All these considerations must therefore, give rise to a consistent component of agricultural policy.

Second, fiscal and monetary policies produce a significant influence on agricultural policy. Fiscal policy apart from budgetary allocations entails the processes of taxation and the financing of excess expenditures. Tax systems may be either progressive or regressive. In developed economies, they are largely progressive for equity reasons, but are usually regressive in developing countries because the tax burden falls more on easily identifiable commodities, such as agricultural export commodities. Furthermore, except in few cases such as the taxation of mineral resources, government revenue effort in

developing countries is constrained which has encouraged the financing of deficits through expansionary monetary policy. Demand-pull inflation develops, reinforced by cost-push and imported inflation. Thus, fiscal and monetary policies induce inflation which in turn affects the cost and supply/demand schedules in the agricultural sector. This is usually a main focus of agricultural policy.

Third, agricultural policy is influenced by the macro-price structure - exchange, interest and wage rates. When the exchange rate is not in generally equilibrium, it is either overvalued or undervalued (devalued). An overvalued exchange rate cheapens imports and hurts exports. It is an implicit tax on agriculture as farmers receive less for their export crops, while the consumers of agricultural products are being subsidised. Devaluation is resorted to so as to restore the international competitiveness of the economy. This should be backed up by tight fiscal and monetary policies that will help to reduce aggregate demand and inflation. The interest rate is the price of capital which reflects its productivity in increasing output. The interest rate should therefore, be at a competitive level. When it is fixed below the market clearing rate, only a few privileged borrowers gain access to cheap, often rationed credit. When this problem is compounded by high inflation, interest rates become negative in real terms which hamper savings mobilization and investment. Similarly, wage rates and policies can cause economic distortions. For example, attempts to set minimum wages often cause repercussions on decisions about investment, technology choice and job creation.

Fourth, actions that influence prices generally often affect the rural-urban terms of trade which are determined by the interaction of output and input prices for agriculture, as well as output and input prices for the urban industrial sector. Thus, macroeconomic policy actions that influence subsidies, tariffs and revenue mobilization dictate the level of profitability in the agricultural sector and the purchasing power in goods and services of agricultural income.

As indicated earlier, macroeconomic management in Nigeria prior to the policy reforms in the mid-1980s was characterised by distortionary tendencies. This was based on an interventionist approach to development generally. Domestic prices including the exchange and interest rates were administered, while quantitative controls were imposed on trade and foreign exchange transactions. Indeed, government became a provider of many services and a direct producer of many goods. In the agricultural sector, the interventionist policies involved government participation in the direct supply of major farm inputs and the marketing and processing of agricultural commodities. The effects on agricultural performance were adverse as administered prices and quantitative controls resulted in inefficient use of land, labour and other resources. Institutions that provided services were inefficient and provided such services at high cost which tended to reduce rural incomes. Many of the institutions such as the Commodity Boards incurred huge losses which were underwritten by budgetary support. These anomalies were the focus of the macro-economic policy reforms under the Structural Adjustment Programme (SAP) initiated in 1986.

### 3.2 Macroeconomic Policy Framework And Agricultural Development Under The Structural Adjustment Programme.

The economic policy framework embarked upon during the SAP was designed to correct the structural distortions in the economy and create a conducive environment for stable growth and development. The framework was structured with emphasis on short to medium term macroeconomic stabilization with a view to curbing the inflationary tendencies and achieving a viable balance of payments position. Furthermore, the SAP framework aimed at eliminating imbalances in the structure of production and expenditures. Consequently, specific adjustment packages were designed for implementation in a systematic self reinforcing approach. The objectives and strategies of the SAP were clearly designed for attaining ultimate structural transformation and stability of the economy. The programme was to reduce dependence on imports and encourage non-oil exports, eliminate over-dependence on the petroleum sub-sector, stimulate the agricultural sector, and thereby achieve steady and balanced economic growth.

The specific objectives of the SAP were to:

(i) restructure and diversify the productive base of the economy in order to lessen the dependence on the oil sector and imports;

(ii) achieve fiscal and balance of payments viability overtime;

(iii) lay the basis for sustainable, non-inflationary or minimum inflationary growth; and

(iv) lessen the dominance of unproductive investments in the public sector, improve the sector's efficiency and intensify the growth potential of the private sector.

These objectives were to be achieved using the following strategies:

(i) adoption of a realistic exchange rate policy coupled with the liberalization of the external trade and payments system;

(ii) adoption of appropriate pricing policies in all sectors with greater reliance on market forces and reduction in complex administrative controls; and

(iii) further rationalization and restructuring of public expenditures and customs tariffs.

It is obvious that these objectives and strategies would influence agricultural development directly and indirectly. The policy instruments applied in the implementation included fiscal, monetary and exchange rate policies which, as stated earlier, would produce a positive impact on the agricultural sector. For instance, fiscal policy was to reduce the persistent government deficits and rationalize public expenditures as a means of eliminating distortions in all the sectors of the economy. Monetary policy was to complement fiscal

policy in the reduction of inflationary pressures and to allocate efficiently more resources to the productive sectors. Trade and exchange rate policy instruments were enunciated to enhance greater efficiency in the use of foreign exchange and encourage competitiveness in the production of non-oil exports, the bulk of which originates in agriculture. Consequently, the macroeconomic framework of the SAP was designed to induce more attractive agricultural prices that would induce higher incomes for farmers as well as improve the living conditions of the rural poor, majority of whom are farmers. Moreover, some institutional reforms were undertaken to enhance the quality of public sector services to the farmers. The specific macroeconomic policy measures adopted in the structural adjustment programme to improve agricultural performance can be summarised as follows:

1. **Under the Fiscal Policy Framework**
   The annual government budgets were partly aimed at encouraging agriculture to expand output, through tax concessions and increased capital allocations for agricultural services. Federal Government capital allocations to the agricultural sector were generally on the increase throughout the programme. Its allocation increased from ₦412.4 million in 1986 to ₦1,856.2 million in 1990 and ₦3,924.6 million in 1995. Also, government allowed a five-year tax free period for profits earned by private companies that engaged in agricultural production and agro-allied processing.

2. **Under the Monetary Policy Framework**

   (a) concessional credit policy with regard to the cost of borrowing and moratorium period in spite of deregulation of interest rates were accorded to the sector.

   (b) liberalized loan terms for small scale farmers were packaged during the programme without collateral. The institutional credit to smallholders was implemented under the Central Bank's Agricultural Credit Guarantee Scheme, which operates through the banks. The Nigerian Agricultural Credit Bank (NACB) also had a scheme of uncollateralized loans of about ₦5,000 and below for small holders.

   (c) the loan repayment period for cash crops with long gestation periods, was extended to seven years.

   (d) the minimum of total deposits of rural banks to be extended as loans to rural borrowers was increased during the programme.

3. **Under the Trade and Exchange Rate Policy Framework**

   (a) Efforts were made to adopt a realistic exchange rate of the naira through several institutional arrangements such as the Second Tier Foreign Exchange Market (SFEM), Dutch Auction System, Interbank Foreign Exchange Market (IFEM) and lately the Autonomous Foreign Exchange Market (AFEM). Consequently,

the Naira exchange rate depreciated to the enhancement of the prices of agricultural export products. However, the depreciated Naira exchange rate also resulted in higher prices of imported agricultural inputs such as fertilizer and other farm machineries locally produced with high import contents.

(b) The 100 per cent retention of foreign exchange repatriated from non-oil exports assisted and encouraged agricultural production through easier access to foreign exchange for importing inputs. Other measures in the package included abolition of export prohibition, rationalization of export licensing requirements, export guarantee scheme, export adjustment facility, etc.

(c) The policy of sourcing raw materials locally was backed by the ban on the importation of many types of foods and industrial raw materials.

(d) The abolition of the Commodity Boards resulted in a liberal pricing system for agricultural commodities in both the local and domestic markets which was an inducement to farm incomes.

**4 Under the Institutional Development Framework**

(a) The Federal Government established the Directorate of Foods, Roads and Rural Infrastructures (DFRRI) to speed up the development of the rural areas thereby promoting economic activities which will improve the income and employment opportunities of the rural communities.

(b) The Federal Government also adopted programmes to improve the lot of rural women through the Better Life Programme and Family Support Programme.

### 3.3 Assessment of the Impact Of Macroeconomic Policies On The Agricultural Sector:

The main thrust of the economic reforms outlined above was the improvement of the non-oil sector which is largely agriculture-based. This section will therefore, attempt a partial impact analysis of the macro-economic policy reforms on the agricultural sector focusing primarily on the trends in food and agricultural production, as well as agricultural trade. The impact analysis is partial because of lack of data on those factors of production that may not be quantifiable like political stability and other socio-economic variables.

**1. Impact of SAP on the Growth of Agriculture (GDP-Based)**

Between 1986 and 1990, the overall growth in GDP was very impressive, except for 1987 which showed a negative growth rate. The growth in the agricultural GDP generally dictated the pace of the overall GDP growth rates. The growth rate in crop production was 11.3 per cent in 1986, but was a negative 4.0 per cent in 1987. In 1988, it recovered to a positive 10.8 per cent, but showed declining rate from 1989 to 1995, with the lowest

rate recorded in 1993. The average growth rate for the period was 4.4 per cent per annum. Livestock GDP growth rate on the other hand was negative in 1986, but subsequently indicated rates of between 2.0 and 2.8 per cent during 1987-1990. In 1991, another negative growth rate was recorded, while the rate turned positive and improved marginally up to 1995. Forestry growth rate performance was mixed, with a very high negative rate of 24.3 per cent in 1989. Subsequently, the growth rate became positive, though exhibiting a declining trend. The performance of fishery production started impressively in 1986 and then declined in 1987. The sub-sector's performance was particularly impressive in 1988 and 1989. However, this performance was not sustained, as reflected in the rapid decline between 1992 and 1994 (Table 1).

**2. Growth in the Agricultural Production Index**

Similarly, the growth in the aggregate agricultural production index was very strong in 1986 with a 3.5 per cent growth rate and continued on the upward trend up to 1988, when it recorded a peak of 19.3 per cent. From 1989, however, the rate trended downward until 1995 (Table 2). Factors responsible for the performance were the initial macroeconomic policy shift in encouraging agricultural production during the SAP period 1986 to 1989 coupled with improved weather situation and availability of inputs and marketing infrastructural facilities. From 1989 when the macroeconomic policies were visibly managed, the performance of agricultural production declined correspondingly.

Among the sub-sectors, crop production showed a similar pattern to that of the aggregate index. Between 1986 and 1988, the growth rate was on the upward trend. The growth rate started on its downward trend in 1989 with 11.8 per cent and continued till 1995 with 3.4 per cent. Within the crops sub-sector, the staples dominated the performance except in 1993 when the growth rate was less than one per cent. This was attributed to the ten-year Sahelian drought cycle which started in 1973. Other crops whose performance had been usually moderate recorded negative growth rates in 1986, 1987, 1993 and 1994.

Livestock output recorded a very significant performance in 1990 as a result of the elimination of import and export licensing restrictions of the past years. However, the situation was not quite encouraging for fishery as performance in this sub-sector was mixed between 1986 and 1990, with negative growth rates recorded in 1987 and 1990. The increased cost of fish and fishing inputs such as nets and outboard engines which were mostly imported was the source of the poor domestic production of fish. This development was not complemented with reduced tariffs on fish imports. The situation did not improve as performance of the fishery sub-sector indicated negative growth rate in 1993. Prohibitions and high rates of duties affected fishery imports and off-shore fishing. The 1993 suspension of excise duties across the board was to help make domestic production of import substitutes more viable, but fishery implements were not produced locally, hence the pass-on cost to consumers of the sub-sector as indicated by the growth in index of the fishery sub-sector. Forestry, on the other hand had performed steadily with the rate of growth stabilizing after 1987.

### 3. Impact Of SAP On Output Of Major Agricultural Commodities

Under the SAP, the supplies of most major agricultural commodities were generally on the increase as their output responded significantly to the reform measures. In particular, the staples such as maize, sorghum, rice, beans, cassava and yam responded strongly to improved economic incentives. Under the SAP, for instance, the growth in maize and cassava output was quite impressive resulting in some exportation to neighbouring countries. The SAP period also coincided with the return of normal rainfall after an extended and devastating drought. However, export bans of agricultural staples depressed certain dynamic segments of agricultural production. Other crops which were basically traditional export crops performed averagely with the exception of groundnut oil which showed tremendous growth in 1990 and subsequent increasing reduction in growth.

Cocoa production which averaged 139,000 tons in the pre-SAP period (1982-1985) increased by almost 100,000 tons through 1990. This large increase in a relatively short time was attributable to improved care of existing stock, and a reduction in smuggling and unrecorded exports, rather than to new plantings. After 1989, however, its output fell drastically with production levels down from 256,000 in 1989 to 167,000 in 1992. Under the SAP, Nigeria generally improved its food self-sufficiency. By 1992, food imports declined by about 20 per cent and this was made possible because the SAP helped resuscitate agriculture to a high degree. The major actors were, first, that the SAP improved farmers' incentives. As a direct effect of the real exchange rate depreciation of 1986-87, international competitiveness of Nigeria's tradable cash crops was strengthened. Indirectly, devaluation discouraged production in the less-competitive manufacturing sub-sector, thereby releasing resources that then became available to agriculture. Second, there was a reverse migration of labour to the rural areas. During the oil boom, many young men had deserted the rural areas for urban employment in the rapidly expanding and well paying non-agricultural sectors. As the boom subsided, many returned to farming. Consequently, when public expenditure was cut, more labour became available for agriculture. Third, the agricultural sector benefitted from the economy's overall growth and higher reliance on domestic sourcing and inputs. Fourth, the improved weather and drought situation assisted agricultural activities generally.

### 4. Impact On Agricultural Exports and Imports

Before 1986, the export of non-oil commodities came almost to a complete halt recording a total value of only ₦192.1 million in 1985 and featuring only three major commodities - cocoa, palm produce and rubber. From 1986, non-oil exports responded modestly with improved export receipts and increase in the number of commodities exported. Between 1988 and 1990, the export value of non-oil exports improved to an average of ₦1,875.9 million. Between 1991 and 1993, the export value averaged ₦3,116.1 million, while in 1994 and 1995, the value of agricultural exports improved further, rising to ₦13,027.4 million in 1995 (Table 4). The list of agricultural export items also expanded from three to nine commodities. The expected impact was restricted by the expansion of export and import prohibitions. Prohibitions were reinstituted for some primary and processed agricultural products, some of which were timber and wood, maize, rice, cassava, yam,

beans, raw hides and skins, and unprocessed palm kernels. Export bans led to excess supplies and then to reduced farm gate prices, farm incomes, and productions incentives.

The impact of SAP on the imports of goods was generally to reduce the pressure on the balance of payments and promote import substitution. By the end of 1986, a total of ₦941.3 million worth of agricultural imports was recorded, out of which 85.2 per cent was for food and live animals. The value of agricultural imports had risen consistently since 1987 with a big jump in 1991 up to 1995 when the import level rose by over 92 per cent to ₦86,727.7 million. The low value of imports between 1987 and 1990 reflected import substitution induced by the depreciating naira exchange rate. The volume of imports showed considerable decline but was offset by large price increases resulting from the devaluations of 1992 and 1995 (Table 5).

The following tentative conclusions can be drawn from the above analysis.

(i) the policy reforms, especially between 1986 and 1992 encouraged increased agricultural output especially of food production;

(ii) the reform programme encouraged improvement in agricultural exports, while stimulating the domestic demand for agricultural products for consumption and inputs;

(iii) food imports were generally on the decline in real terms, the increased value of food imports being the result of the large depreciations in the naira exchange rate; and

(iv) the general improvement in agricultural production, exports and prices was subject to fluctuations owing to policy reversals and inconsistencies.

## 4. PROBLEMS OF AGRICULTURAL DEVELOPMENT UNDER MACROECONOMIC POLICY REFORMS

Agricultural performance was higher from 1986 largely as a result of the macroeconomic policy reforms embarked upon that year under the SAP. But, agricultural performance was not at a sustainable and acceptable level. Rates of increase of output were generally being outpaced by population growth rates. The major factors in this situation can be summed up as follows:

(a) There was poor implementation of some macroeconomic policies such as the issue of fertilizer subsidy reduction, exchange rate policy reversal, trade reform lapses and interest rate policy distortions all of which affected the agricultural sector adversely. Efforts were made to address the issue of fertilizer subsidy reduction, but the concerns were never fully addressed. The target-groups in the fertilizer subsidy scheme were not always covered, which was contrary to the policy objective. Thus, such subsidies were allocated to the wrong groups and at the expense of other areas needing critical attention such as infrastructure, research

and extension services which are traditional activities of the government. Similarly, the exchange rate policy regime was not pursued to its logical conclusion. Rather than apply appropriate demand management and supply-side policies, there was a resort to an administratively determined exchange rate. The resulting overvaluation of the naira exchange rate once again placed agriculture at a disadvantage vis-a-vis other activities with short term gestations. The interest rate policy also went the same direction with the cap on the rates adopted in 1991 and since 1994. The effect has been to deny agriculture valuable resources in the form of credit for farm operations. In addition, the trade reforms adopted since 1986 have been interrupted by several export and import prohibitions which have restrained long-term investment in the agricultural sector. After adopting a liberal posture, export bans were placed on several agricultural items mentioned earlier. As producers had invested in their production with a view to exporting, the new restrictions caused supply gluts and depressed farm gate prices, incomes and production incentives. Also, the resort to import prohibitions in 1989 in respect of meat, poultry, fish, vegetable juices, oils and beer and other products led to severe reduction in production and large price increases.

(b) Exchange rate depreciation during the SAP was the central instrument for enhancing agricultural production and exports. But this should normally be accompanied by the appropriate monetary and fiscal policies. As indicated earlier and as will be further explained later, the exchange rate adjustment was not fully backed up by appropriate macroeconomic policies. However, the supply response which is critical in exchange rate adjustment depends on the price elasticities of domestic production. By and large, agricultural commodities dominated the domestic and export trade in the non-oil sectors. In the case of annual crops such as staples and cotton, the short-run supply response was quite high. Here the main constraints to achieving full production potential were land and technological inadequacies. Added to these was the problem of fertilizer supply, pricing and distribution referred to earlier. We have also mentioned the continued poor state of research and extension services which could not give the complementary support to the exchange rate adjustment. For the tree crops such as cocoa, rubber and palm produce, the short-run elasticities of supply are quite low although the evidence produced earlier did indicate that dynamic farmers responded positively in the short-run by maintaining deteriorating farms and infrastructures which produced the impressive results observed. However, since the gestation periods of such crops produce only small elasticities of supply in the short-run, government actions to back up the exchange rate adjustment were needed to boost the long-run supply elasticities. In the absence of such actions, the supplies of such commodities have not changed significantly from the observed levels in the immediate post-reform period. In addition to this, marketing constraints have become more critical in the agricultural sector. The abolition of the marketing boards although welcomed, clearly created a vacuum which did not help farmers. Price fluctuations have been significant

while transport and storage bottlenecks have become more serious. With regard to local manufacturers, a lot of progress was made in utilizing local inputs as a result of the SAP reforms, especially the exchange rate adjustment. However, it is clear that imported raw materials and capital goods are a significant proportion of output costs. The exchange rate depreciation led in many cases to increased cost of production as the prices of those inputs increased. Capacity utilization in the manufacturing sub-sector has improved somewhat, but not as high as expected. Manufacturing industries engaged in the processing of agricultural commodities did well with the utilization of increased supplies of agricultural products but not with the importation of spare parts and other capital equipment that continued to be imported as the prices of these also increased.

(c) By and large, the fiscal and monetary policies of the government have been very expansionary during the SAP especially since 1988. It was only in 1995 that the expansionary tendencies subsided slightly. Huge fiscal deficits were financed by money creation resulting in reduced growth in credit to the private sector and high inflation. Persistent increases in domestic prices restrained agricultural production growth through increased costs and restrained demand growth.

(d) Finally, the trends observed in the agricultural sector following the macroeconomic policy reforms showed that agricultural policy planning was not any stronger than in the pre-reform periods. Most of the problems of Nigerian agriculture have remained unresolved. Official actions for resolving the problems were never outlined except in an ad-hoc manner in the annual budgets. Systematic responses to the problems of agricultural policy especially as regards trade and tariffs, pricing, policy planning, agricultural research and extension, marketing and rural finance, among others, would have been complementary to the macroeconomic policy reforms for maximum outcomes. All these would have brought out an optimum public expenditure policy for the agricultural sector.

## 5. SUMMARY, CONCLUSION AND POLICY IMPLICATIONS

The paper has reviewed Nigeria's agricultural performance particularly in the context of the macroeconomic policy reforms adopted during the SAP from 1986. Against the background of declining performance and contribution of agriculture, the 1986 macroeconomic policy reforms sought to minimize distortions caused by inappropriate public spending, reduce inflation and allocate more efficiently resources for the sector, boost exports through exchange rate adjustment as well as improve the institutional framework for the delivery of efficient services to farmers. Under the reforms, agricultural sector performance improved substantially especially in the first phase of the review period. Both agricultural production and exports increased significantly while food imports declined in real terms. Following some policy reversals and implementation inconsistencies, agricultural sector performance was not sustained at the initial levels. The main constraints to further improvement were poor policy implementation especially with regard to the problems of fertilizer pricing, exchange rate and interest rate policy reversals, and trade reform lapses, lack of complementary policy measures to back the exchange rate adjustment, for example, tight fiscal and monetary policies and apparent lack of an agricultural development strategy in the period of reforms.

The analysis has several policy implications which can only be in outline form in this concluding part of the paper. First, the economic policy framework guiding agricultural development specially emanating from the SAP should be quickly streamlined and pursued logically. The most critical policy issues concern the exchange rate and trade policies, price stabilization measures, fertilizer pricing and distribution and rural finance. The second aspect is to strengthen policy analysis and implementation. This would involve enhancing the capacities at both the Federal and State Government levels. There should also be greater coordination between the two levels of government in agricultural policy analysis and implementation. Third, long-standing issues of a sectoral nature should be speedily addressed. These include the orientation of research, improvement in the extension system, installing a more efficient input supply and distribution system, irrigation schemes oriented towards the small farmers, general improvement of the rural environment and peculiar developmental issue in the livestock and fishery sub-sectors. Finally, a more viable and sustainable public expenditure programme should be designed so as to improve the efficiency of use of public resources for the agricultural sector and to improve the levels and composition of government expenditure to the agricultural sector.

## TABLE 1

### GDP GROWTH RATE, 1986-1995
(Per cent)

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 1/ |
|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture (Crops) | 11.3 | -4.0 | 10.8 | 5.0 | 4.3 | 4.5 | 3.0 | 2.9 | 3.0 | 3.2 |
| Livestock | -1.5 | 2.8 | 2.5 | 2.0 | 2.0 | -1.6 | 0.9 | 0.6 | 1.0 | 1.2 |
| Forestry | 10.9 | 1.2 | 1.4 | -24.3 | 7.9 | 3.0 | 2.3 | 2.0 | 2.4 | 1.5 |
| Fishing | 17.2 | -21.1 | 47.1 | 58.6 | 6.8 | 4.0 | -10.0 | -25.0 | -5.9 | 9.8 |
| Crude Petroleum | -5.2 | -9.8 | 8.1 | 15.4 | 5.5 | 9.2 | 2.7 | 0.2 | -2.6 | 0.8 |
| Mining & Quarrying | -46.6 | 11.0 | 10.1 | 7.2 | 4.2 | 3.5 | 3.7 | 7.1 | 3.3 | 0.0 |
| Manufacturing | -3.9 | 5.1 | 12.9 | 1.6 | 7.6 | 9.3 | -4.8 | -4.2 | -5.0 | 2.0 |
| Utilities | -22.3 | 5.9 | 6.7 | 8.5 | 11.1 | 1.9 | 9.8 | 3.6 | 1.7 | 3.4 |
| Building & Construction | -0.2 | 9.3 | 10.2 | 4.2 | 5.0 | 4.0 | 3.9 | 4.8 | 3.1 | 1.0 |
| Transport | -12.5 | 0.0 | 1.0 | 0.1 | 2.0 | 3.4 | 4.4 | 4.6 | 0.6 | 1.2 |
| Communication | 0.2 | 1.0 | 1.3 | 1.6 | 2.0 | -6.1 | 12.5 | 3.7 | 0.0 | 3.6 |
| Wholesale & Retail Trade | 3.5 | 6.3 | 9.1 | 4.0 | 3.0 | 3.2 | 3.0 | 3.0 | 0.0 | 0.1 |
| Hotel & Restaurant | 1.5 | 1.5 | 0.2 | 1.0 | 1.0 | 1.0 | 2.1 | 2.0 | 0.0 | 2.0 |
| Finance & Insurance | 20.7 | 8.1 | 22.6 | 39.4 | 52.0 | 4.0 | 3.9 | 3.9 | 2.9 | 4.2 |
| Real Estate | 6.1 | 1.2 | 1.0 | 1.5 | 2.0 | 1.5 | 3.9 | 3.7 | 3.6 | 3.5 |
| Housing | 1.0 | 1.1 | 1.0 | 1.5 | 5.0 | 4.0 | 4.2 | 4.0 | 3.0 | 3.3 |
| Producers of Govt. Services | 3.8 | 5.9 | 15.3 | 8.9 | 13.8 | 4.2 | 12.5 | 13.7 | 2.6 | 1.1 |
| Comm. Social & Personal Services | 4.2 | 1.0 | 1.0 | 1.6 | 2.1 | 1.6 | 5.9 | 11.1 | 12.5 | 16.7 |
| TOTAL GDP | 3.1 | -0.5 | 9.9 | 7.4 | 8.2 | 4.7 | 3.0 | 2.7 | 1.0 | 2.2 |

1/ Provisional
Source: Federal Office of Statistics, Lagos

## TABLE 2

## GROWTH IN INDEX OF AGRICULTURAL PRODUCTION BY SUBSECTOR, 1986-1995
**(Per cent)**

| SUB-SECTOR | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 1/ |
|---|---|---|---|---|---|---|---|---|---|---|
| Crops | 7.4 | 11.0 | 22.9 | 11.8 | 6.1 | 8.1 | 9.8 | 3.3 | 3.4 | 3.4 |
| (a) Staples | 6.5 | 14.2 | 26.7 | 12.3 | 6.0 | 8.7 | 15.5 | 0.8 | 3.9 | 3.5 |
| (b) Other crops | -0.5 | -0.5 | 7.5 | 10.8 | 5.7 | 2.3 | 2.0 | -5.5 | -0.1 | 2.6 |
| Livestock | 4.6 | -3.9 | 6.3 | 6.7 | 33.4 | 2.3 | -0.9 | 1.4 | 1.5 | 4.2 |
| Fishery | 11.6 | -3.9 | 28.3 | 4.1 | -13.2 | 8.9 | 0.0 | -25.4 | 6.7 | 10.3 |
| Forestry | 3.1 | 0.2 | 2.6 | 3.3 | 3.9 | 2.0 | 2.3 | 2.0 | 2.6 | 2.2 |
| AGGREGATE | 3.5 | 7.2 | 19.3 | 10.5 | 9.5 | 6.8 | 7.7 | 2.3 | 3.3 | 3.6 |

1/ Provisional
Source: CBN Annual Report (Various Issues)

## TABLE 3

## GROWTH IN OUTPUT OF MAJOR AGRICULTURAL COMMODITIES, 1986-1995
**(Per cent)**

| STAPLES | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 1/ |
|---|---|---|---|---|---|---|---|---|---|---|
| Maize | 12.3 | 245.2 | 14.2 | -4.9 | 15. | 0.7 | 0.5 | 7.7 | 9.7 | 4.9 |
| Millet | 11.6 | -5.0 | 31.5 | -7.1 | 7. | -20.0 | 9.5 | 2.2 | 3.4 | 3.0 |
| Sorghum | 11.1 | 0. | -5.0 | 40.2 | -42.4 | 3.8 | 10.1 | 2.4 | 2.4 | 2.9 |
| Rice | 44.4 | 185.5 | 157.5 | 58.7 | -24.3 | 27.4 | 1.1 | -6.0 | -20.8 | 20.3 |
| Beans | 19.8 | -6.0 | 28.9 | 38.9 | 9. | -0.2 | 4.4 | 11.7 | -2.0 | 3.6 |
| Cassava | -8.2 | 12.0 | 12.0 | 12.0 | 9. | 6.8 | 12.1 | 3.4 | 2.9 | 1.3 |
| Yam | 9.9 | -6.2 | 86.9 | 5.2 | 41. | 24.5 | 16.7 | 9.4 | 7.0 | 5.2 |
| OTHER CROPS | | | | | | | | | | |
| Groundnut | 44.3 | -23.3 | 47.9 | 0 | 14. | 16.7 | -4.7 | 9.2 | 2.6 | 4.8 |
| Palm-kernel | 101.9 | 13.3 | -33.9 | 72.3 | 26. | 1.1 | 9.8 | -62.8 | 2.4 | 8.0 |
| Palm oil | 5.7 | 10.0 | -14.1 | 25.4 | -5.2 | 4.1 | 4.2 | 4.2 | 1.5 | 4.1 |
| Groundnut oil | - | - | - | -11.1 | 44. | 0.6 | 6.4 | 6.3 | 5.1 | 3.0 |
| Cocoa | -7.5 | -32.4 | 152.0 | 1.2 | -4.7 | 9.8 | 9.0 | 4.8 | 5.6 | 2.5 |
| Rubber | -15.9 | -5.3 | 17.2 | -37.4 | 11.4 | 46.3 | 48.8 | -29.7 | 2.2 | 1.3 |

1/ Provisional

Source: CBN Annual Reposrts (Various issues)

## TABLE 4A

## AGRICULTURAL EXPORTS BY CROP
### Volume (Thousand tonnes)

| ITEM | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 1/ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cocoa | 92.9 | 148.4 | 201.5 | 303.9 | 131.3 | 138.5 | 147.7 | 180.4 | 200.7 | 59.6 | 46.3 |
| Palm produce | 32.9 | 61.3 | 92.4 | 110.4 | 115.1 | 62.0 | 24.6 | 78.0 | 106.7 | 49.7 | 17.4 |
| Rubber | 6.0 | 33.0 | 38.6 | 67.4 | 103.0 | 105.8 | 108.6 | 96.2 | 98.2 | 54.4 | 125.3 |
| Coffee | N/A | N/A | N/A | 0.3 | 0.1 | 3.0 | 1.6 | 1.3 | 1.2 | 63.6 | 0.2 |
| Pineapples | N/A | N/A | N/A | 2.4 | 4.0 | 4.2 | 4.4 | 3.8 | 3.7 | N/A | N/A |
| Fish & Shrimps | N/A | N/A | N/A | N/A | - | 4.0 | 5.6 | 2.4 | 2.6 | 8.8 | 36.8 |
| Cashew-nuts | N/A | N/A | N/A | 9.8 | 0.1 | 0.2 | 0.4 | 2.6 | 9.1 | 8.0 | 13.8 |
| Spices (Ginger, Vanilla etc) | N/A | N/A | N/A | N/A | 0.5 | 0.5 | 3.2 | 1.1 | 0.7 | 0.5 | 3.6 |
| Cotton & Yam | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 5.6 | N/A |
| Nigerian Shea-nuts | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0.3 | N/A |
| Gum Arabic | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0.8 | 2.2 |
| Sesamseeds | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0.6 | 4.1 |

### TABLE 4B
### VALUE (₦ MILLION)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cocoa | 182.1 | 370.7 | 846.7 | 1,475.9 | 1,043.5 | 1,047.0 | 2,000.9 | 1,557.9 | 1,683.8 | 1,816.2 | 5,396.0 |
| Palm produce | 6.2 | 7.5 | 30.2 | 67.9 | 115.9 | 94.9 | 47.9 | 88.1 | 137.2 | 131.3 | 89.0 |
| Rubber | 3.8 | 29.1 | 60.5 | 203.2 | 508.3 | 769.6 | 669.3 | 875.4 | 875.5 | 698.7 | 4,087.7 |
| Coffee | N/A | N/A | N/A | 0.5 | 1.5 | 38.0 | 0.7 | 6.1 | 15.0 | 4.5 | 16.9 |
| Pineapples | N/A | N/A | N/A | 2.0 | 2.8 | 2.9 | 4.4 | N/A | N/A | N/A | N/A |
| Fish & Shrimps | N/A | N/A | N/A | N/A | N/A | 97.3 | 308.1 | 212.7 | 234.5 | 312.0 | 1,312.6 |
| Cashew-nuts | N/A | N/A | N/A | 31.1 | 4.2 | 9.2 | 32.0 | N/A | N/A | 81.0 | 634.3 |
| Spices (Ginger, Vanilla etc) | N/A | N/A | N/A | 4.7 | 2.9 | 3.9 | 12.4 | 4.6 | 12.4 | 476.9 | 17.4 |
| Cotton Yam | N/A | N/A | N/A | N/A | 8.5 | 96.7 | 194.2 | 79.0 | 119.7 | 232.4 | 1,134.9 |
| Nigerian shea-nuts | N/A | N/A | N/A | N/A | N/A | N/A | 60.9 | N/A | N/A | 4.1 | N/A |
| Gum Arabic | N/A | N/A | N/A | N/A | N/A | N/A | 32.3 | 25.9 | 57.4 | 14.0 | 104.7 |
| Sesamseeds | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 5.1 | 233.9 |
| TOTAL | 192.1 | 907.3 | 937.4 | 1,780.6 | 1,687.6 | 3,159.5 | 3,363.1 | 2,849.7 | 3,135.5 | 3,776.2 | 13,027.4 |

1/: Provisional
Source: CBN Annual Reports (Various Issues)

## TABLE 5

## IMPORTS BY SITC SECTIONS
**(₦ million)**

| ITEM | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Food and Live Animals | 801 | 1,646.5 | 1,220.0 | 2,108.9 | 3,763.5 | 7,785.5 | 11,738.4 | 13,912.9 | 16,585.8 | 76,879.1 |
| 2. Beverages and Tobacco | 14 | 27.0 | 55. | 136.3 | 181.4 | 179.0 | 286.3 | 496.9 | 805.2 | 2,626.3 |
| 3. Animal + Vegetable Oils + Fat | 124 | 57.7 | 78. | 69.9 | 136.0 | 715.9 | 1,002.1 | 1,325.0 | 1,610.3 | 7,222.3 |
| TOTAL | 941 | 173.2 | 1,354.2 | 2,315.1 | 4,080.9 | 8,680.4 | 13,026.8 | 15,734.8 | 19,001.3 | 86,727.7 |

Source: CBN Annual Report (Various Issues)

## TABLE 6

## GOVERNMENT EXPENDITURE
## (₦' MILLION)

| ITEM | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 1/ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Govt. Expenditure | 14,828.8 | 16,773.7 | 22,018.7 | 27,749.6 | 41,028.3 | 61,149.1 | 66,584.4 | 92,890.2 | 233,846.5 | 210,437.5 | 256,520.8 |
| Recurrent | 7,215.5 | 7,696.9 | 15,646.2 | 19,409.4 | 25,994.2 | 36,219.6 | 38,243.5 | 53,126.9 | 136,727.1 | 89,974.6 | 135,382.5 |
| Capital | 7,613.3 | 9,076.8 | 6,372.5 | 8,340.2 | 15,034.1 | 24,929.5 | 28,340.9 | 39,763.3 | 97,079.4 | 120,462.9 | 121,138.3 |
| Total Agric Expenditure | 346.9 | 412.4 | 515.3 | 742.9 | 1,885 | 1,856.2 | 1,427.7 | 1,406.2 | 2,908.1 | 3,362.1 | 3,924.6 |
| Recurrent | 41.1 | 38.1 | 72.6 | 83.0 | 151.8 | 258.0 | 208.7 | 464.9 | 1,083.7 | 1,183.3 | 1,510.4 |
| Capital | 305.8 | 374.3 | 442.7 | 659.9 | 1,733.2 | 1,598.2 | 1,219.0 | 941.3 | 1,824.4 | 2,178.8 | 2,414.2 |
| Prop. of Agric to Total Exp. (%) | 2.3 | 2.5 | 2.3 | 2.7 | 4.6 | 3.0 | 2.1 | 1.5 | 1.2 | 1.6 | 1.5 |
| Prop. of Recurrent Agric to total (%) | 0.3 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.3 | 0.5 | 0.5 | 0.6 | 0.6 |
| Prop. of Capital Agric. to total (%) | 2.1 | 2.2 | 2.0 | 2.4 | 4.2 | 2.6 | 1.8 | 10 | 0.8 | 1.0 | 0.9 |

1/ Provisional
Source: CBN Annual Reports (Various issues)

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