The Role of the World Bank in Nigerian Agricultural Policy

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Résumé: *L'aide est devenue la source la plus importante de capital pour l'investissement et la consommation directe en Afrique. Loin d'être une charité, l'aide entraîne des dettes, des obligations et des rapports de force inégaux entre les organismes de financement et les pays récipiendaires. Au Nigéria, la Banque mondiale est l'organisme d'aide le plus important qui intervient massivement dans le secteur agricole. Au milieu des années 1970, la Banque mondiale et le gouvernement du Nigéria mirent en place une stratégie intégrée de développement rural ainsi qu'un projet pilote de développement agricole qui avaient pour objectif de fournir un paquet d'améliorations des infrastructures, des services de soutien à l'agriculture, des intrants agricoles et du crédit. Ils avaient également pour objectifs majeurs l'augmentation de la productivité agricole et des revenus des populations rurales. Une décennie après, une évaluation de ces projets donna des résultats mitigés. Le site y tira des avantages suivants: de nouveaux intrants, des infrastructures améliorées comme des pistes de production, des trous de forages, des centres de formation et de nouveaux marchés. Cependant, le revenu général des paysans ne s'est pas amélioré pour autant. L'augmentation des revenus a été absorbée par l'augmentation des dépenses et de la consommation. Dans ce processus le petit paysan a été le plus grand perdant. La tendance fut au changement pour la monoculture. L'auto-suffisance alimentaire ne fut pas atteinte. Contrairement aux déclarations faites comme quoi ce programme est un programme intégré, le projet pilote ne porta que sur quelques cultures céréalières et négligea le cheptel. En réalité toute l'orientation du projet pilote est fondée sur l'hypothèse que le développement agricole peut être effectué grâce aux importations des ressources externes sous forme de capitaux de technologies améliorées et de gestion. Ainsi le Nigéria dû faire face à d'énormes dépenses financières dans le projet pilote. Le résultat fut que les choix économiques du Nigéria furent de plus en plus dictés par les marchés étrangers, les banques étrangères ainsi que par les agences de développement étrangères.*

Introduction

"*.... The rich ruleth over the poor, and the borrower is servant to the lender*". (Prov. 22: 7)

The above Biblical dictum can be said to have manifested its reality in the relationship between developing nations in general and those in Africa in particular, and the technologically advanced Western economies. The economic weakness of Africa has been translated to political, technological and military weakness thereby putting African nations in the borrower's

Africa Development Vol. XVII, No. 3, 1992, pp. 65-98

position and the Western nations in the lender's position. While students of Frantz Fanon and Walter Rodney explain Africa's weakness in terms of historical links with European mercantilism, slave trade and colonialism, post-independence economic problems are now being attributed to neo-colonialism, which entails the continued domination of economic, social and political structures of African nations by former and contemporary imperialists either directly or through their agents. The seriousness of it all in contemporary times is the growing liability of Africans to feed themselves. Food aid, technical aid, financial aid and all sort of aid have been devised to ameliorate the African development problem.

Musicians, sportsmen and women in the Western world have come up (between 1985-86) with innovative programmes for raising money for victims of famine in Africa. Aid has become the major source of investment capital as well as that of direct consumption to Africa. However, Western aid is not necessarily charity grant. Even when aid is defined as "a payment from one government to another on concessionary terms to promote economic development or prevent economic decline" (Streeten, 1972), the fact remains that aid entails debt, obligations and unequal power relations between donors and recipients. For most African countries the delimma now is whether to accommodate more loans and aid in the face of an already heavy debt burden on the one hand and a depressed economy with double digit inflation on the other. Several sectoral conferences in Africa, culminating in the 1980 Lagos Plan of Action (LPA), have consistently recognized the fact that not one of today's developed countries developed by depending excessively on external sources for the supply of the strategic inputs into their processes of generating and sustaining development and economic growth. The LPA emphasizes that: "outside contributions should only supplement our own efforts, they should not be the mainstay of our development" (Para. 14(III)). It maintains that for Africa, an agricultural-based export-oriented development strategy is an essential beginning to a process of long-term transformation and a prelude to industrialization.[1]

Some Background Issues

Like most other African countries, Nigeria has always recognized the importance of agriculture with respect to its complex interrelation with the population's level of nutrition and health, spatial distribution, employment, balance of payments and the related questions of dependence.

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1 It must be remarked here that while the World Bank identifies agriculture as the motor of *all* African countries, the Lagos Plan of Action recognizes that the motor of any country will depend on the content and nature of its natural resource endowment.

With an estimated 1982 population of 89.1 million and a geographical area of 924.00 sq. km., Nigeria is one of the largest countries in the continent of Africa. While about 75% of its total land area can be brought under cultivation, the actual per capita arable land varies between 0.20 to 2.52 hectares cultivated mainly under a bush fallow system. An estimated 65% of Nigeria's labour force (as of 1979) is engaged in agriculture.

Before 1960 when Nigeria gained political independence from Britain and until the outbreak of the civil war in 1967, Nigeria earned up to 80% of its foreign exchange from agricultural exports and was largely self-sufficient in food. Large corporate, private or government farms were negligible in number and in their contribution to this self-sufficiency. Rather, small scale operators were responsible for nearly all agricultural production. Governmental involvement in agriculture then was limited to the creation and maintenance of a network of marketing boards to ensure efficient overseas marketing of farm produce, and to some research into the major export cash crops. The official colonial policy discourages white settler plantations and foreign investment in agriculture but encouraged British firms to buy agricultural raw materials from the Nigerian farmers. Until 1954, there was no conscious effort on the part of government to reinvest surpluses accruing from the agricultural sector to improve the rural areas and expand local agricultural production. While agricultural research concentrated on export crops, food crops (except rice) received no attention at all. While food imports were limited, Nigeria was a reputed leading exporter of palm oil, kernel, cocoa, cotton, rubber, and groundnuts.

By 1970, when the civil war came to an end, Nigeria's economy experienced a dramatic change, with the beginning of an upward spiral in foreign exchange earnings from petroleum oil. This temporarily diverted attention from agriculture, until the 1973 Sahelian drought drove thousands of refugees from neighbouring countries into Nigeria and brought to relief the gap between the available quantity and quality of food and demand. A series of government programmes were the response: Gowen's Military regime launched a National Accelerated Food Production Programme (NAFPP); the Murtala/Obasanjo regime launched Operation Feed the Nation (OFN), while the civilian regime of President Shehu Shagari launched the Green Revolution.

The Inception of World Bank Aid to Nigerian Agriculture

As a longer-term measure, the Gowon regime in 1973/74 had initiated a plan, in conjunction with the World Bank, for a capital intensive project to serve both agricultural and rural development purposes. This project took off in a pilot form in 1975/76 at Funtua, Gombe and Gusau - all in the Northern savanna zone of the country. In addition, the Federal Government embarked upon the development of river basins to effectively harness water resources for agricultural development. Eleven River Basin Development Authorities

(RBDA) had been established by 1984. In 1979 prior to civilian rule, World Bank officials in conjunction with Nigerian experts were commissioned by the Federal Ministry of Agriculture to study the food production situation in Nigeria and recommend an appropriate strategy for achieving self-sufficiency in food production.

Before this Food Strategy Mission, the World Bank's first post-independence association with Nigeria's agriculture had been in 1971 when it assisted the then government of Western Nigeria in the rehabilitation of its cocoa farms. By 1985, the World Bank had been involved in twenty seven (27) agricultural and rural development related projects, worth on its part, approximately US $1,363.7 million (see Table 1) constituting about 10% of Nigeria's official external debt. With these projects at different stages of completion and at least seven others under negotiation, the World Bank has become the single most prominent multilateral organization in Nigeria's agricultural scene today.

Table 1 : IBRD Assisted Agricultural Projects in Nigeria (1985)

Project Name	Number	Loan Amount (US$m)	Schedule Agreement FY-July	Loan Cancelled	Closed June
1. Western State First Cocoa	764	7.2	1971	0	1979
2. Second Cocoa	1045	20.0	1975	0	1983
3.Funtua ADP	1092	29.0	1975	0.6	1983
4. First Livestock Devlpt.	1091	21.0	1975	0	1984
5. Rice	1103	17.5	1975	0	1983
6. Gusau ADP	1099	19.0	1975	0.1	1983
7. Gombe ADP	1164	21.0	1976	--	1983
8. Bendel State Oil Palm	1183	29.5	1976	16.5	1982
9. Imo State Oil Palm	1191	19.0	1976	0	1986*
10. Ondo State Oil Palm	1192	17.0	1977	10.1	1982
11. Lafia ADP	1454	27.0	1977	0	1984
12. Ayangba ADP	1455	35.0	1977	0	1984
13. River State Oil Palm	1591	30.0	1979	0	1985*
14. ARMTI	1719	9.0	1980	0	1986*
15. Bida ADP	1667	23.0	1980	0	1985*
16. Ilorin ADP	1668	27.0	1980	0	1985*
17. Forestry Plant.	1679	31.0	1980	0	1986*
18. Oyo North ADP	1838	28.0	1981	0	1987*
19. Ekiti-Akoko ADP	1854	32.5	1981	0	1987*
20. Bauchi State ADP	1981	132.0	1982	0	1987*
21. Kano State ADP	1982	142.0	1982	0	1987*
22. Agri.Tech.Assist.	2020	47.0	1982	0	1987*
23. Sokoto State ADP	2185	147.0	1983	0	1987
24. Fertilizer Input	2345	250.0	1984	0	1986*
25. Kaduna State ADP	2436	122.0	1985	0	1990*
26. Southern Borno ADP	=/=	=/=	=/=	=/=	=/=

-- Less than $0.1 million

* Projected

=/= Not yet agreed

Source: World Bank Report No. 4723-UNI. Nigeria: *Agricultural Sector Memo*, Vol. 1, Feb. 25, 1985 (Annex 1), p. 51.

The Research Issues, Study Objectives and Approach

Neo-classical economic theory considers foreign investment beneficial on the simplistic assumption that perfect competition and knowledge prevail in the markets of developing economies. In reality, however, monopolies and oligopolies often dominate their capital markets. It is also assumed that aid is provided on humanitarian grounds or as a form of restitution for past exploitation, although numerous studies clearly demonstrate that political and economic interests are crucial considerations in foreign aid.

In debates on African agriculture some consider that aid is indispensable for its development while others maintain that donors can only exacerbate the current crisis in African agriculture in order to entrench their hegemony over the economies. It is within this ideologically conflictual background therefore that this chapter examines the massive involvement of the World Bank in Nigeria's agriculture. More specifically this study aims to answer the following questions:

1. Why has World Bank assistance been necessary for Nigeria's agricultural development, despite various declarations of a self-help oriented development strategy?
2. To what extent is there a convergence of interests between the World Bank and Nigeria in terms of specific development policies, and/or how has the World Bank influenced Nigeria's development policies?
3. What have so far been the positive and negative impacts of the World Bank assisted agricultural development projects in terms of:
   (a) Nigeria's food supply problem;
   (b) Nigeria's general agricultural development;
   (c) Nigeria's rural development;
   (d) General economic options.
4. What prospect does aid hold for Nigeria's agriculture?

Since World Bank activities in Nigeria are relatively extensively documented, this study depended heavily on an analysis of selected documents on each World Bank project and a review of Nigeria's agricultural policies. This was supplemented by interviews with various individuals who have been involved with the planning, implementation and evaluation of World Bank assisted agricultural projects. Evaluation studies of completed pilot agricultural projects were also reviewed in order to answer the questions on impact. These sources of information were complemented by visits to selected project areas, although resource limitations constrained interviews with farmers in the project areas.

External Aid and Nigeria's Economic Development

Types of Aid to Nigeria

The working definition of 'aid' used here is essentially economic, in that it regards 'aid' as any purchase or credit negotiated through governmental or voluntary agencies on terms more favourable than 'normal' commercial terms (Eldridge, 1969).

Finding themselves economically, politically helpless, independent developing nations have resorted to foreign aid in the form of short or long-term loans and 'gifts' in order to promote economic development, lay basic needs infrastructures and raise the standard of living of their citizens.

Foreign donors on the other hand, have found aid convenient because it enables them to promote regimes which will be favourably disposed to their ideologies, (namely the West, to keep developing countries under the ambit of capitalism, and the East, to break or weaken the economic and political links between recipients of its aid and their former colonial Western powers). Furthermore, the lure of multilateral aid is said to lie in its divestment from ideological interest of the donor agency. This argument, however, either underrates or overlooks the fact that these multilateral agencies are in the long run equally controlled by similar ideological interests.

Financial aid may be in the form of loans or gifts but the 'aid' component is often the concession granted in terms of long repayment periods and low interest rates. However the build up of interest and amortization on such loans has led to a great debt burden for recipient countries. During the 1960s resource flows to developing countries in the form of loans and grants from the OECD member nations took the form of:

i) grants for budgetary subsidies to ex-colonies (mainly Francophone) and military allies;
ii) loans for capital projects;
iii) loans for general support of infrastructural development;
iv) transfer of surplus agricultural commodities against loans repayable in local currencies.

Whereas OECD States tended to prefer private investment, most loans from the Soviet bloc were directed to public investments.

The term 'tied aid' refers to a situation in which a loan is tied to the purchase of needed inputs from the donor or its approved agents. This deprives the recipient country the best bargain in terms of price and quality of goods. A related term 'turn-key', refers to a situation where the donor agency builds the plant or starts the needed project, manages it for a period before 'turning over the key' or handing it over to the recipient country. The pilot agricultural projects (ADPs) discussed in this work were good examples of tied aid and turn-key projects.

Olakanpo (1964) reviewing foreign aid to Nigeria's second Development Plan, maintains that external capital: (a) enables a developing country to receive all the essential ingredients of development in a balanced proportion; (b) if channelled towards investment in growth-sensitive areas, it enables such investment to proceed without taxing domestic resources which could then be directed to other equally important investment; (c) bridges the gap between the foreign exchange earned and private investment and the amount needed for developmental activities as well as settlement of debts; (d) external aid is also often sought to alleviate the problems of executive, technical and technological capacities. In this regard, financial aid may have been very crucial for Nigeria's economic development in the early 1960s when foreign exchange was one of the major constraints, but during the 1970s the problem was that of technical and managerial capacity as petroleum oil provided the necessary foreign exchange. In the 1980s there has been a synthesis in that both factors are lacking.

Sources of Aid to Nigeria

The major sources of financial and technical aid to Nigeria, like most other developing nations, include bilateral sources, which embrace all conventional loans and grants based on government-to-government negotiations. The first post independence National Development Plan of 1962-68 was largely structured around expected inflow of bilateral aid, including technical assistance. This aid did not materialize as foreign investors resorted to contractor finance and supplier credit arrangements. The then Nigeria Consultative Group (made up of the USA, UK, West Germany, the Netherlands, Italy, Belgium, Canada and Japan with Switzerland as an observer) formed under the sponsorship of the IBRD, following the inauguration of the First Plan in 1962, was only able to raise a loan for the Kainji Dam Project. Political instability was reportedly the major hindrance to substantial aid from bilateral sources.

The second major source of Nigerian aid is multilateral, including agencies such as the IBRD, DAC, IDA, C.D.C., United Nations Agencies, the European Development Fund and the African Development Bank. By far the World Bank (both the IBRD and the IDA) has been and continues to be the principal source of multilateral finance to Nigeria, having contributed approximately 96% of such total inflows by 1982 and almost 100% by 1985.

The third most important source is the private non-commercial organizations like the Ford and Rockefeller Foundations, and the International Development Research Center (IDRC).

As shown in Table 2, the major sources of external capital to Nigeria, from the late 1970s and in the 1980s, in descending order, have been the international capital markets, multilateral loans - particularly those of the World Bank (IBRD and IDA) - and then Bilateral loans. Analysis of the directions of these loans shows that mining/quarrying and manufacturing/processing accounted for 64% of total investment with a noticeable shift since 1978, from mining/quarrying to manufacturing and processing (see Table 4). Total investment of foreign capital in agriculture accounted for only 2.2 percent of the total and this came mainly from multilateral sources (Central Bank of Nigeria, 1985).

Table 2 : Capital Supply to Nigeria from External Sources 1978-1982 (US$ Million)

	1978	1979	1980	1981	1982
A. Suppliers Credit					
France	24.3	19.6	12.7	6.2	2.1
Italy	5.2	3.9	2.1	0.6	0.1
United Kingdom	4.6	3.0	2.1	1.1	0.5
Others	2.6	2.0	1.2	0.6	-
Sub Total	36.7	28.5	18.1	8.5	2.7
B. Private Institutions					
France	-	10.5	9.3	4.8	21.6
Western Germany	-	23.5	15.7	16.8	98.0
United Kingdom	0.3	0.2	0.1	-	45.2
Multiple Lenders	1,398.9	2,219.8	3,060.4	3,924.7	6,659.6
Euromarket Loans	(954.2)	(1,710.9)	(2,051.8)	(2,310.9)	(4,552.3)
Others	2.8	1.7	1.1	0.4	-
Sub Total	1,402.0	2,255.7	3,086.6	3,946.7	6,824.4
C. Multilateral Loans					
African Develop. Bank	5.0	4.7	4.0	3.2	2.5
European Inv. Bank	-2.9	12.5	17.3	26.1	
I.B.R.D.	447.1	478.2	516.6	562.2	674.0
I.D.A.	38.3	37.9	37.5	37.1	36.7
Sub Total	490.4	523.7	570.6	619.8	739.3
D. Bilateral Loans					
Canada	42.1	42.3	41.0	41.2	39.0
Western Germany	111.5	109.5	92.4	86.4	131.3
Italy	11.3	0.7	7.5	5.1	3.9
Japan	81.3	64.9	85.1	73.6	64.6
Netherlands	23.2	23.4	20.2	16.4	14.9
United Kingdom	57.0	56.9	66.3	45.1	32.6
United States	85.9	82.2	78.7	85.5	80.5
Others*	6.2	23.8	20.8	17.5	37.9
Sub Total	418.5	412.7	412.0	371.1	404.7
Grand Total	2,347.6	3,220.0	4,087.3	4,946.1	7,971.0

* Including Loans from Denmark, Hungary, Norway and USSR.
Sources: (1) International Monetary Fund Publication, 1983
(2) IBRD External Debt Division.

Aid to Nigeria's Agriculture

The *World Development Report* of 1984 classified Nigeria as a "middle-income oil exporting country", using a GNP per capita of over US$360 as the selected world poverty threshold. A profile of federally collected gross annual revenue indicates that, outside the civil war years, Nigeria's annual income increased steadily from 1966 until 1981 when sharp decreases in revenue were experienced (see Table 3). Even then, Nigeria's gross annual income still soars above those of most sub-saharan African countries. Why then can Nigeria not devote a substantial part of its income to the development of its agriculture without the need for external loan?

Table 3 : Nigeria's Gross Annual Federally Collected Revenue and percentage total allocation to Agriculture, 1966-84

Year	Total Revenue N (Million)	Total Allocation to Agriculture N (Million)	Percentage
1966	378.4	6.8	0.018
1967	327.0	6.2	0.019
1968	284.8	3.2	0.011
1969	378.4	6.0	0.016
1970	633.2	8.2	0.013
1971	1,169.0	12.7	0.011
1972	1,404.8	23.1	0.016
1973	1.695.3	48.8	0.029
1974	4,537.0	112.0	0.025
1975	5,514.7	250.0	0.045
1976	6,765.9	147.7	0.022
1977	8,042.4	155.7	0.019
1978	7,371.1	136.6	0.019
1979	10,912.4	120.1	0.011
1980	15,234.0	469.3	0.031
1981	11,978.9	509.5**	0.043
1982	11,748.8	178.9**	0.015
1983	10,947.4	472.4**	0.043
1984	11,738.5	285.3**	0.024

* Recurrent and Capital

** Provisional Figures

Source: Central Bank of Nigeria, *Annual Report and Statement of Account* (for the various years).

Perhaps more intriguing is the fact that since 1970 when the food problem surfaced, Nigeria has embarked upon at least twelve different capital intensive programmes, projects and reforms at the federal level, aimed at agricultural and rural development, without the involvement of external finances. Prominent among these were the National Accelerated Food Production Programme (NAFPP), The River Basin Development Authorities (RBDAs) charged with a comprehensive development of the nation's major water resources; the Nigerian Agricultural and Cooperative Bank (NACB) established to accelerate the flow of funds to the farm sector; the Operation Feed the Nation (OFN) and the Green Revolution Programme (GRP).

The need for external loans for Nigeria's agricultural and rural development has been justified as follows by Professor Francis Idachaba, Head of the Federal Agricultural Coordinating Unit, (FACU) in an exclusive interview:

1) Foreign Loans guaranteed foreign exchange for the purchase of necessary inputs in the face of an acutely dwindling external reserves situation.
2) Nigeria's wider conception of agricultural development as an integrated programme including the provision of rural infrastructures, entails a more complex and higher level of managerial ability which has not existed hitherto internally.
3) As a developing society there are multifarious demands on Nigeria's resources and the development of agriculture is only one of such demands hence any assistance that would lighten the burden in the short run is welcome.
4) The World Bank loan is actually a small part of the total capital outlay in Nigeria's agricultural and rural development. It is given under more favourable terms than other sources; Nigeria is a member country of the Bank and should therefore enjoy any facility which can enhance its economic development.

One might then ask to what extent this kind of rationalization is consistent with Nigeria's December 1985 rejection of the IMF loan which could have helped to correct her balance of payment problems? One explanation is that the different regimes adopted different development strategies. Thus for instance, while the civilian government of the so-called Second Republic (1979-83) was all out for external financial input into Nigeria's development, Babangida's regime declared that:

> *We must reduce the excessive link of our society to external impulses and move towards a more inward-looking development strategy involving not only the reduction of imported goods and services, but also the acquisition of and pride in our own technological capabilities* (President Babangida's 1986 Budget Speech).

Besides development policy inconsistency being a direct reflection of changes in governments, the IMF loan conditions have been seen by Nigerian governments to infringe on policy decisions, while the World Bank's concern is seen mainly in relation to the productivity of the development projects it funds and the ability to repay loans. This vision arises because, given Nigeria's size and potential, as a potential leading nation in Africa, perhaps it has received more favorable assistance from the World Bank.

It was however Professor Idachaba's opinion that given the political will, Nigeria should be able to do without World Bank loans in her agricultural and rural development programmes. This lack of political will become apparent when one balances the pattern of budgetary allocation to agriculture in relation to other sectors both as a percentage of federal revenue (see Table 3) and by foreign investment. It is also significant that foreign investments in general shot up as from 1979 with the inception of the civilian government.

By 1986 however the shortage of foreign exchange had become rather critical due to the sharp decline in petroleum prices on the World market. The question therefore is not whether Nigeria needs external assistance but in fact, whether Nigeria is still creditworthy and can repay any loans it accumulates at this time. The prevailing attitude in Nigeria today is that we should use what we have to get what we want - an inward-looking philosophy.

The World Bank and Nigeria's Agricultural Policy

General Patterns of Agricultural Aid

The World Bank's declared orientation during the 1970s was to assist in the elimination of absolute poverty by targeting increasing proportions of its funds to the lower 40 percent of the populations of developing countries. This was defined as:

> *a strategy designed to improve the economic and social life of the rural poor and extending the benefits of development to the poorest among those who seek a livelihood in the rural areas - small scale farmers, tenants and the landless being included in this group* (World Bank, 1975).

Thus in respect of Nigeria, whereas World Bank loans and credit facilities between 1958 to 1970 were exclusively directed towards transportation infrastructure, the bulk of its loans from 1971 were for agriculture and rural development. Out of a total sum of 413.5 million Naira (US$617.2 million) loaned to Nigeria by the World Bank between 1958 and 1974, only 18.22 million Naira (US$27.2 million) went to agricultural projects. In contrast, since 1971 until December 1985, World Bank loans to Nigeria's agriculture have been in excess of $1.3 billion (see Table 1), whereas loans for infrastructural development have dropped significantly to less than $500 million.

Significantly also, a greater proportion of the World Bank's loan to Nigeria since the 1970s were directed towards an integrated rural development scheme, involving small-holders in area agricultural development, food crops, fertilizer imports, livestock, forestry, training of project managers and technical assistance. To some extent this emphasis coincided well with Nigeria's stated policy and objectives in agriculture and rural development.

Nigeria's Agricultural and Rural Development Policy

The Nigerian governments declared policy is that agriculture, is a major development priority area since it is basic to the overall development of the economy, in terms of food, raw materials for export earnings and domestic industries, and employment for a vast majority of the population. The government also acknowledges that this potential has not yet been fully realized, particularly since the ascendency of petroleum oil as the major foreign exchange earner and the gross neglect of food production programmes, which led to a drastic food deficit estimated at about 3 million metric tons in grain equivalent in 1980. The result has been massive importation of food, soaring food prices and the accompanying reduction in the real income of the average Nigerian, a high level of dependence on imported raw materials by Nigerian industries and a dramatic reduction in traditional agricultural exports. Government also acknowledged that hitherto the main thrust of Nigeria's agricultural policy had been in the direction of expanding the cultivated area instead of raising productivity through the intensive application of modern innovative technologies. It recognized the inadequacy of supporting only physical infrastructure such as feeder roads, storage facilities, marketing outlets, and of social or institutional infrastructures like extension education and credit facilities.

To alleviate these problems, the government first experimented with large scale direct production, through the establishment of food crops and livestock production companies, large scale plantations and ranches wholly owned or in partnership with private entrepreneurs. It soon became obvious that government direct production could neither succeed on its own as an economic venture nor meet the overall developmental objectives of the agricultural sector. A shift in policy was therefore made in favour of the small-holder farmers as the centerpiece of Nigeria's agricultural development effort.

Government also realized that the root of the agricultural development impasse derived from the relative underdevelopment of the rural areas, hence its focus on an Integrated Rural Development (IRD) approach, whereby not only inputs delivery to farmers but also their health, housing and general quality of life are taken in consideration. This new approach was particularly mentioned in the *Second National Development Plan 1970-74*, during which time the World Bank's expertise was sought and when the first generation of pilot Agricultural Development Projects (ADPs) were established at Funtua, Gusau and Gombe by 1975. One may say here that this new policy posture marks one point of policy convergence between Nigeria and the World Bank's new development orientation.

Other more specific agricultural policy objectives of government include: the adoption of mechanized land clearing; the supply of fertilizers, agro-chemicals, improved seeds and stock, livestock feeds and fishing nets; the use of price subsidy on inputs to induce farmers to adopt new technology and to assure them a reasonable profit margin; the liberalization of commercial bank's lending policies to make loanable funds available to farmers; a more favourable farmer-extension staff ratio; development of institutions designed to facilitate the implementation of agricultural policies; fiscal incentives for large scale production; a land policy ensuring availability of land and security of tenure for productive agriculture; settlement of nomadic herdsmen and development of livestocks service centers with watering points, improved pasture, and veterinary services; expansion of manpower training schemes; support of agricultural research and the effective harnessing, management and exploitation of the country's water resources for agricultural and other rural activities. With specific reference to rural development, there is no national rural development policy as such. Rather, the development of rural Nigeria has come to be defined and understood mainly in terms of the construction of feeder roads, boreholes and dams for year-round water supply, rural electrification, agro-service centers, consumer shops and some basic health care facilities as a service to agricultural development project areas.

The 1986 budget speech by President Babangida, however, proposed some policy measures on rural development, including the creation of a Directorate of Food, Roads and Rural Infrastructures in the office of the President with a mandate to construct 60,000 kilometers of feeder roads and other rural infrastructure nationwide.

The Pilot Agricultural Development Projects

In pursuance of its Integrated Rural Development Strategy of agricultural development, the Nigerian government during the Third National Development Plan period, established the Pilot Agricultural Development Projects at Funtua, Gusau, Gombe, Lafia and Ayangba located in Kaduna, Sokoto, Bauchi, Plateau and Benue States respectively. These were to provide a package of infrastructural improvements, agricultural supporting services, farm inputs and credit. The general primary objectives included:

(a) the increase of agricultural productivity in terms of food and industrial crops and the incomes of rural people;

(b) the improvement of the standards of living in the rural areas.

These projects marked the beginning of the Federal Government's involvement in both financial and management partnership with state governments in agriculture and rural development, an area which hitherto had remained the exclusive responsibilities of the states.

The first set of ADPs at Funtua, Gusau and Gombe were identified in November 1972 and the World Bank Appraisal Mission visited Nigeria in September/October 1973 and published its reports in September 1974. The Funtua and Gusau, projects therefore, commenced in April 1975 while Gombe project followed in November 1975. The Ayangba and Lafia ADPs were identified in June 1974 but the projects did not start until April 1978. These five agricultural projects have therefore come to be known as the Pilot ADPs, as subsequent projects were to benefit from their experiences.

In terms of project support, each project is supposed to be the direct responsibility of the state in which it is hosted. The Federal Government however contributed 25 percent of the total expenditure, while the World Bank-loan funds covered between 35 and 47 percent of the total and the state concerned provided the remaining 30 to 40 percent of the total expenditure. Functionally the ADPs emphasize:

(a) an input delivery and credit supply system through a network of farm service centres, which ensures that no farmer travels more than 5-15 kms to purchase needed farm inputs;

(b) the construction of rural feeder road networks to open up new areas for cultivation and facilitate the rapid evacuation of farm produce and timely input delivery;

(c) an intensive systematic extension and training system backed by timely input supply and adaptive research;

(d) a solid project management and in-built project monitoring and evaluation process.

These Pilot ADPs had a 5-year operational life span and in area they covered a few Local Government Areas (LGAs) hence their designation as "enclave ADPs". The major features and achievements of these ADPs are schematically presented in Table 4.

The State-wide Agricultural Development Projects

The end of the project life of the pilot ADPs between 1980-82 coincided with the incoming of the civilian government of the Second Republic and the beginning of the 4th National Development Plan period. National self-sufficiency in food production featured high in the priority list of that government which launched the Green Revolution Programme and ADPs or projects designed to cover all parts of the country. Thus from 1981, statewide ADPs came into being, as slightly scaled down versions of the pilot ADPs but intended to attain the magnitude of the pilot ADPs as funds increased during various phases - hence their alternate name "phased ADPs". By March 1986, the "statewide ADPs" operated in 17 out of the 19 States, while Rivers and Lagos States, yet to adopt this programme, either already had comparable programmes (for instance the "school-to-land" programme in Rivers State) or intended to embark upon fisheries (Lagos State), which did not immediately interest the World Bank.

The statewide ADPs, which are supposed to cover all Local Government Areas (LGAs) within a State, are not yet uniform in character as World Bank technical input is still awaited in some States, while other States (for example Gongola) currently have alternative simple programmes similar to ADP but without World Bank support. The ADPs in Bauchi, Kano, Kaduna and Sokoto States have gone completely statewide partially because some of these States inherited the pilot ADPs. The ADPs in Borno, Anambra, Benue, Bendel, Cross River, Imo, Ogun and Plateau States only took off between 1984-86.

The States also have different modes of ADP operation. For instance, the Imo State ADP, initially aimed to strengthen the already existing extension service, so that within two years half of the State's farmer population could be reached on a regular basis. Here they established a limited liability commercial company to distribute fertilizer and other farm inputs and improve at least 100 km of feeder road networks within that period.

The 1986 Budget Speech now vests the ADPs and the State Ministries of Agriculture with the responsibility of agricultural extension, seed multiplication, on-farm adaptive research, input distribution, and other infrastructural support activities. The ADPS in particular are to take over the agricultural functions of the River Basin and Rural Development Authorities (RBDAs), thereby releasing them to concentrate on water resources development; especially irrigation and flood control infrastructure along designated river basins.

As these new ADPs have been established at different times and are therefore at different stages of maturity, it is not too meaningful to consider the performance of each of them at this point. Rather Table 4 shows the overall operations of the existing ADPs in 1982, 1983 and 1984 while the detailed features and achievements of a sample of these are presented as appendices.

The ADPs deal mainly with food crop production, although the Federal Government is aware of the high supply/demand gap of meat, which by 1985 was placed at 110.0 million metric tons with the highest deficit in beef followed by poultry, sheep and goats in spite of an annual beef production growth rate of 3.5%.

The World Bank had, between 1975-83, assisted Nigeria in its livestock development. A more elaborate appraisal of the livestock situation was concluded in 1985, establishing a second livestock project in which the World Bank was to contribute US$81.0 million, while the Federal Government, Commercial Banks, the Nigerian Agricultural and Cooperative Bank and Farmers were to contribute the balance of US$47 million equivalent. The 5-year project proposed aims were to raise the productivity of some 30,000 pastoralists and mixed farmers' small scale herds and goat flocks. Sheep and poultry production would be assisted on a smaller scale. The project was scheduled to commence in 1987. The project cost estimates are as shown on Table 5.

Table 4 - Operations of Nigeria's ADPs, 1982-84

Performance Indicators	1982	1983	1984
1. No. in Operation	9	10	10
2. Capital Expenditure (N million)			
(a) Federal	183.4	37.52	7.5
(b) State	223.0	19.1	9.6
(c) IBRD	197.6	17.1	26.1
3. Infrastructural Facilities Provided			
(a) Roads (km)	4,112	1,624	657
(b) Earth Dams (No.)	33	33	29
(c) Boreholds (No.)	360	764	745
(d) Farm Service Centers (No.)	128	128	19
4. Farm Inputs Supplied			
(a) Fertilizers (Tonnes)	45,054	68,292	103,925
(b) Seeds (Tonnes)	2,162	3,331	7,396.6
(c) Tractors (No.)	40	20	17
5. Production ('000 Tonnes)			
(a) Maize	201.1	340.5	110.0
(b) Rice	103.7	40.7	60.0
(c) Millet	344.0	1,315.6	350.0
(d) Sorghum	519.2	1,057.6	300.0
(e) Cowpeas	61.3	308.5	n.a.
(f) Cassava	425.9	552.9	500.0
(g) Yam	1,327.7	1,700.7	400.0
(h) Cotton	38.0	44.0	n.a.
(i) Groundnuts	n.a.	151.1	25.0

Source: Central Bank of Nigeria, *Annual Report and Statement of Account for the year ended 31st Dec. 1984*, p. 23.

Performance and Impact of the World Bank on Nigeria's Agricultural and Rural Development

In evaluating the impact of the World Bank assisted agricultural programme, therefore, the pertinent question to ask would be: to what extent does the ADP programme contribute to the agricultural policies objectives of the Nigerian government both in the short and long term? More specifically:

(a) To what extent have absolute food production targets been met?

(b) Have ten years of World Bank investment in Nigeria's agriculture led to self-sufficiency in food and industrial crops production? or, to what extent has a foundation for self-sustaining agricultural and rural development been laid, in terms of physical, institutional and social infrastructures required by the farming population?

(c) To what extent have participating farmers in particular and the surrounding rural areas in general benefited, taking into special consideration incomes and asset acquisition, access to and continued adoption of innovations and general enhancement of standards of living.

Table 5 : World Bank Assigned Second Livestock Project in Nigeria Estimated Cost

	US$ (M)			N (M)		
	Local	Foreign	Total	Local	Foreign	Total
A. Livestock Production Programme						
1. Credit Program	7.5	21.4	28.9	7.5	21.4	28.9
2. Non Credit Program	.9	1.0	1.9	.9	1.0	1.9
3. N'dama Ranches	1.0	1.0	2.0	1.0	1.0	2.0
4. Grazing Reserves	.8	.5	1.3	.8	.5	1.3
5. Livestock Systems Research	3.0	1.7	4.7	3.0	1.7	4.7
Sub-Total	13.2	25.6	38.8	13.2	25.6	38.8
B. Project Management and Support Services						
1. National Livestock Project Unit						
- Admin. & Central Services	8.2	18.9	27.1	8.2	18.9	27.1
- Field Services	14.3	6.8	21.1	14.3	6.8	21.1
Sub-Total NLPU	22.5	25.7	48.2	22.5	25.7	48.2
2. NACB Livestock Credit Unit	1.3	.5	1.8	1.3	.5	1.8
3. Federal Livestock Dept.						
- Sectoral Planning Unit	.2	2.5	2.7	.2	2.5	2.7
Sub-Total	24.0	28.7	52.7	24.0	28.7	52.7
Total Base Costs	37.2	54.3	91.5	37.2	54.3	91.5
Physical Contingencies	.9	1.0	1.9	.9	1.0	1.9
Price Contingencies	20.2	14.4	34.6	20.2	14.4	34.6
Total Project Costs	58.3*	69.7	128.0	58.3	69.7	128.0

(* US$5.0m of this go to duties and taxes)

Financing Plan	Local	Foreign	Total
IBRD	11.3	69.7	81.0
NACB	4.0	-	4.0
Farmers	11.4	-	11.4
Commercial Banks	19.4	-	19.4
Federal Government	12.2	-	12.2
Total	58.3	69.7	128.0

Source: World Bank Confidential Report No. 57 UNI Staff Appraisal Report, Nigeria: *Second Livestock Development Project*, Aug. 22, 1985, (p. iv).

Production Targets

One of the major objectives of the pilot ADPs was to increase food production, through the package approach involving extension and input supply services. Table 6 shows the crop production performance indices for the first three pilot ADPs. It clearly indicates that except for millet which was not originally in the production plan and maize which was not a popularly planted crop in those parts of Nigeria, most of the other crops met and surpassed their original production targets. Some farmers in the areas however, also found themselves changing from mixed to sole cropping systems of farming.

Table 7 showing the performance indices of crop production in the other two pilot ADPs - Ayangba and Lafia - illustrates fantastic performance particularly in Ayangba ADP. Such spectacular results raise doubts on the accuracy of estimated production levels prior to project implementation.

Table 6 : Crop Production Performance Indices for Funtua, Gusau and Gombe ADPs

	Funtua ADP			Gusau ADP			Gombe ADP		
	Crop Target Production (Tonnes)	Actual Production (Year 5)	Performance Index (%)	Crop Target Production (Tonnes)	Actual Production (Year 4)	Performance Index (%)	Crop Target Production (Tonnes)	Actual Production (Year 3)	Performance Index (%)
Cotton	59,712	206,400	345.66	17,26	228,000	162.21	21,160	21,160	99.21
Groundnut	27,720	11,520	41.56	21,888	32,000	146.20	6,825	8,000	117.22
Guinea Corn	96,900	206,339	212.94	52,500	98,000	186.67	52,500	138,000	262.86
Maize	65,750	57,254	87.74	11,750	700	5.96	11,75	17,000	144.68
Millet	-	60,480	-	-98,000	-	-	39,000	-	
Cowpea	3,340	3,500	104.79	1,687	18,000	1066.98	1,564	7,100	453.96

* Performance Index = Actual Production x 100
Target Production

Source: F.S. Idachaba, *Concepts and Strategies of Integrated Rural Development: Lessons from Nigeria* - University of Ibadan, Dept. of Agric. Econs. Food Policy Technical Research Paper No.1, Dec. 1980, p.64.

Table 7 : Crop Production Performance Indices for Anyangba and Lafia ADPs

	Ayangba ADP			Lafia ADP		
	Crop Target Production (Tonnes)	Actual Production (Tonnes)	Performance Index (%) Dec. 1984	Crop Target Production (Tonnes)	Actual Production (Tonnes)	Performance Index (%)
Yam	2,180.4	1,649,363	75644.97	365,000	2,523,310	691.32
Cassava	2,024.0	585,564	28931.03		-	--
Maize	766.2	556,516	72633.3	40,000	210,250	525.63
Sorghum	92.1	51,823	56268.2	32,000	56,800	177.5
Rice	117.1	27,381	23382.6	-	6,470	-
Millet	113.1	33,525	29641.9	-	-	-
Cowpea	47.1	6,908	14666.7	-	-	-

Source: Calculated from the *Project Directory*, Federal Agricultural Coordinating Unit, n.d.

With the ADPs going state-wide and ostensibly reaching all farmers rather than a select group, production targets have not been established for any particular crop. Instead the project appraisal reports only stipulate targets for physical infrastructures and input distribution.

Food Self-Sufficiency

Regarding the attainment of self-sufficiency in food export crop production, as a result of the ADP approach to agricultural development, the evidence on food imports and declining exports indicates that this goal has not been achieved (Table 8). Furthermore the high yields on ADPs have so far not been explained as to their causal factors: are increases attributable to the availability of new infrastructure, price factors (inflation) and in fact, what would have happened within that period in those areas, to crop production levels if the ADPs were not established?

At any rate the pilot ADPs were experiments to be replicated if successful, suggesting that little impact on overall food production could have been expected from them. Moreover, whereas 'food' refers to a variety of plants and animal materials used for sustenance and growth, the ADP concentrated only on a few cereal crops and neglected livestock. It is on this score among others, that the programme has been criticized as being neither an integrated agricultural project nor an integrated rural development project (Idachaba, 1980). The index of agricultural production in Nigeria (Table 8) indicates that as of 1984, the volume of staple crop production was still below the 1975 level, whereas the production of other foods and livestock outside the ADPs were relatively higher.

Finally, even if it was found that Nigeria had attained self-sufficiency agriculturally, it would have been very difficult to objectively attribute it all to the ADPs because a number of competing food production programme have been going on simultaneously in the country besides the ADP.

Table 8 : Index of Agricultural Production in Nigeria 1982-84

	1982	1983	1984	Changes between 1982, 1983 & 1985	& 1984
1. Crops					
(a) Staples	74.7	72.6	81.5	-2.8	12.3
(b) Other Crops	120.3	108.0	115.1	-10.2	6.3
2. Livestock	08.4	94.1	102.4	-4.4	8.8
3. Fish	107.7	111.1	73.5	9.2	-33.8
4. Forestry Product	113.4	105.7	107.4	-6.6	1.6
5. Aggregate Index	91.9	37.9	91.4	-4.4	4.0

Source: Central Bank of Nigeria, *Annual Report and Statement of Account for the Year Ended - 31st December 1984*, p. 14

Foundation for Self-Sustaining Agricultural Development

With respect to laying a foundation for self-sustaining agricultural and rural development the ADP has been acclaimed for its attempt to take cognizance of supporting infrastructural facilities as well as the basic needs of the clients. For instance, every project establishes its own seed farm under expert management as the heart of a local seed industry, which takes new varieties from the institutions, multiplies them rapidly, cleans and presses the seeds and makes them immediately available to all farmers through the Farm Service Centers (FSC). To speed up the process the Projects register and supervise out-growers multiplication farms, a system which will eventually ensure that farmers control their own seed multiplication schemes. These Farm Service Centers have become one of the motive factors in agricultural development in the project areas.

Table 9 shows the walking radius as well as FSCs per 100km sq. in the project areas. As shown, in Kaduna State as a whole there were only 26 Farm Service Centers whereas the Funtua-Malumfashi ADP had 77. Thus while farmers in the non-ADP area of Kaduna State walk an average of 27 km to a Farm Service Center, those in the Funtua ADP within the same State only walk an average of 5.8 km.

Table 9 : Walking Radius to Farm Service Centers in the ADPs

ADP	Project Land Area of FSC (Km^2)	Number FSC/ $100km^2$	Average Radius (Km)	Number of Walking per FSC	Farmers
Funtua	7500	77	1.03	5.00	779.2
Gusau	3800	40	1.05	5.37	1025
Gombe	5300	50	0.94	9.81	640
Ayangba	13150	34	0.26	26.41	4411.8
Lafia	9400	21	0.22	12.23	2057.1

Sources: Compiled from Oyaide, O.F.J. 1981 and Idechaba, F.S., 1980.

The Farm Service Centers of the ADP have also promoted fertilizer consumption tremendously in the project areas compared to pre-project periods, with for instance the Functua ADP accounting for over 40% of all fertilizer sales in Kaduna State. Moreover as the Third National Development Plan placed average national level of fertilizer consumption at only 1.28kg per hectare, there was a general rise in national farmer fertilizer consumption from about 174,000 metric tonnes in 1977 to 549,000 metric tonnes in 1980. More than half of this was attributable to consumption in the pilot ADPs and following this resurgence of interest a super-phosphate factory was established in Kaduna and another is to take off soon in Port Harcourt.

Other infrastructures established in the pilot project areas include about 3,233 km of high quality all season laterite surfaced roads, 117 km of rehabilitated unsurfaced roads, 132 earth dams with a capacity for 7.9 million cubic meters of water, 85 wells in Lafia area and a total of 5000 boreholes in the five ADP areas (see Table 4).

Project training centers equipped with classrooms and dormitory facilities were established in Gombe, Lafia and Ayangba to provide facilities for in-service training of Extension workers and other staff, while Mobile Training Units were introduced to introduce flexibility. The projects also constructed ten new markets to enhance the marketing of agricultural produce in Funtua and Ayangba areas.

The rapid increase of extension services in the project areas is perhaps one of the greatest institutional benefits of the ADP. For instance, field extension personnel expanded rapidly in the Funtua, Gusou and Gombe areas reaching a ratio of 1 : 400 farmers by 1978. Credit facilities were not firmly established in the project areas for farmers due to the very high cost of issuing, administering and collecting many small individual loans. Instead inputs were highly subsidized in order to lower farm gate prices for fertilizer and pesticides particularly. However farmers still required seasonal credit to meet the cost of labour and for medium-term loan items such as ploughs and oxen.

The projects also institutionalized an in-built system of continuous project monitoring and evaluation which is invaluable in data accumulation for effective planning.

While the ADPs seem to have initially laid a solid foundation for self-sustaining agricultural development in Nigeria, when the pilot projects came to an end in 1982 and the World Bank withdrew its management staff, the cost at which infrastructures were established and maintained during the project life time could not be borne by the Local Governments which inherited them. This will be discussed further later.

Other Benefits to the People

Since any form of development is ultimately directed towards the enhancement of man's quality of life, we need to examine the benefits to participating farmers in the pilot Agricultural Development Projects and the surrounding areas. To do this we will review research carried out by the Department of Agricultural Economics and Rural Sociology, Ahmadu Bello University, Zaria and by the Project Monitoring and Evaluation Unit, although these tended to be preoccupied with purely economic measures to the exclusion of social impact evaluation.

Income, Consumption and Expenditure

Surveys conducted in the Funtua and Gombe project areas at the beginning and end of the projects indicated that the farmers' gross incomes from crop outputs did not seem to change much for the better both at the beginning and end of the project. In Funtua area crop incomes constituted 48.1% at the beginning and 46.7% at the end, while in Gombe area the respective figures were 44.7% and 44.2%. Even when the value of livestock output was added to those of crops, farm incomes were still lower at the end of the project than at the beginning in Funtua (57% and 52.8%) and only slightly better in Gombe (52.1% and 53.8%). Overall however, net incomes rose by 112.6% in Funtua and 15.9% in Gombe. It was found that farmers tended to consume a great proportion of their crops and so tended to end up with deficits annually except in the case of the last year of the Funtua project (see Tables 10 and 11).

Table 10 : Funtua ADP: Household Income and Expenditures

		N	N	N
A - Income		1976-77	1977-78	1979-80
i) Value of farm crop output		545.74	509.68	959.30
ii) Value of Livestock output		100.83	79.39	126.33
iii) Value of Non-Farm Output		13.10	38.66	NA
iv) Income from Non-Farm Activities	387.81	487.52	661.57	
v) Borrowings		33.27	13.67	NA
vi) Other Incomes		54.49	81.37	309.51
Total		1134.29	1210.29	2056.51
B - Outgoings				
i) Crop Expenditure:				
- Hired Labour		64.31	67.31	76.77
- Others		31.20	14.85	
ii) Expenditure on Livestock		12.34	4.09	10.21
iii) Expenditure on Non-Farm Activities		255.44	321.75	453.73
iv) Lending and Loan Repayments		58.15	36.38	NA
Total		421.44	444.38	540.71
Net Income (A-B)		712.85	765.90	1515.80
C - Household Expenditure				
i) Value of Own Crops Consumed		316.60	332.10	447.76
ii) Value of Livestock Products Consumed		22.04	10.60	1.91
iii) Value of Off-Farm Production Consumed		13.10	38.66	26.77
iv) Household Cash Expenditures		360.86	472.269	79.49
Total		712.60	853.62	1455.93
Net Income - Household Expenditures	-0.25	-87.72	59.87	

Source: *APMEPU, Funtua ADP Completion Report*, Federal Dept. of Rural Development, Kaduna, 1982, p. 77.

Table 11 : Gombe ADP: Household Income and Expenditure

		N	N	N
A - Income		1977-78	1978-79	1979-80
i) Value of farm crop output		514.11	695.86	523.98
ii) Value of Livestock output		85.72	112.83	114.43
iii) Value of Non-Farm Output		29.42	37.40	NA
iv) Income from Non-Farm Activities	441.50	313.90	394.50	
v) Borrowings		12.13	13.12	NA
vi) Other Incomes		67.91	37.66	153.78
Total		1150.79	1210.77	1186.69
B - Outgoings				
i) Crop Expenditure:				
- Hired Labour		60.29	97.07	46.91
- Others		9.69	5.20	
ii) Expenditure on Livestock		3.21	9.31	1.43
iii) Expenditure on Non-Farm Activities		295.01	189.38	252.22
iv) Lending and Loan Repayments		18.22	14.76	NA
Total		386.42	315.72	300.56
Net Income (A-B)		764.37	895.05	886.13
C - Household Expenditure				
i) Value of Own Crops Consumed		387.20	533.44	412.38
ii) Value of Livestock Products Consumed		2.14	3.25	NA
iii) Value of Off-Farm Production Consumed		29.42	37.40	NA
iv) Household Cash Expenditures		441.71	435.50	515.36
Total		860.47	1009.59	927.74
Net Income - Household Expenditures		-96.10	-114.54	-41.61

Source: APMEPU, *Gombe ADP Completion Report, Federal Dept. of Rural Development*, Kaduna, 1982, p. 84.

The Project Completion Reports tend to attribute the low contribution of crop output to the farmers' gross incomes to the greater importance which rural northern Nigerians attach to trading and other non-agricultural activities. As for net farm incomes calculated as total receipts in kind, crop sales, value of own production consumed minus farm variable costs, the survey shows that in the early years of the Funtua ADP, 30 to 40 percent of farm households had a net farm income of 250 Naira or less while less than 10 percent had net incomes exceeding 1000 Naira. Similarly in Gombe ADP, about 67 percent of the farmers had net farm income below 500 Naira while the very small holder farmers had incomes far below the mean. The obvious implication here is that the small holder farmers have limited capacity for self-financing crop development and may not adopt innovations unless their costs are drastically brought down through subsidies.

In general therefore, it can be concluded that even though an impression of increased farm incomes was created by the pilot agricultural projects, such increases were illusive as they were reabsorbed immediately by increased expenditure and consumption with the very small scale holder farmers[2] being the worst hit.

"Level of Living" Attained

A measure of "level of living" from a sample of 350 households selected from 7 Funtua project villages and 13 outlying hamlets in 1980 indicated that while a considerable proportion of the households had acquired certain items like iron beds, bicycles, radios and wrist watches, a great number were still living in houses with grass roofs and reed walls and sharing open ponds of water with their livestocks (see Table 12). The data presented here is however defective in that it is neither a before and after measure nor is it disaggregated into project and outlying villages in order to bring out clear differences in levels of material possession as an index of participation in the project.

Table 12 : Level of Living Measures in Funtua ADP Villages and Outlying Hamlets, 1980

Items	Percentage Possession (n = 350)
Iron bed	74.0
Foam mattress	10.0
Radio	54.0
Wrist Watch	54.0
Bicycle	71.0
Motocycle	13.0
Horse	5.0
Ox-Plough	15.0
Sprayer	14.0
Poultry	80.0
Goats	75.0
Houses with grass roof	53.0
Houses with corrugated iron roof	6.0
Compounds with reed wall	67.0
Compounds with mud-wall	31.0
Compounds with cement wall	2.0
Compounds with well	51.0

Note: The data presented here are those generated by B. D'Silva, M.R. Raza, O. Nathaniel, O. Ejiga and I. Bogunjoko in their Socio-Economic and Extension Survey of the Funtua Agricultural Development Project, 1980.

2 Farmers holding less than 2 hectares of land constituted 37% (1976-77), 43% (1977-78), 45% (1978-79), 35% (1979-80) in the Funtua ADP. In Gombe ADP this category of farmers constituted 49% (1977-78) and 46% (1980-81) (see APMEPU Reports and Ekong E.E., 1983).

The Department of Rural Development's 1978 Report which tried to measure the "indication of wealth" in the Gusau ADP only enumerated bicycles, motorcycles, wrist watches and radios acquired between 1976 and 1977, and found 65%, 41%, 35% and 9% increases respectively in the possession of these items among project farmers (FMARD, 1978, p. 19). Apparently only part of this prosperity could be attributed to the project, while the data does not reveal whether other more basic needs were sacrificed by the farmers in order to purchase these "indicators of wealth".

Extension Effectiveness and Project Participation

Although the extension agent/farmer ratio in the project areas were by far better than the national average (see Table 13), the agents' level of technical knowledge compared to farmers was often questionable (see Gombe *ADP Quarterly Report No. 4*, p. 20). Two surveys of agricultural knowledge were conducted in 1978 and 1980 to evaluate the training performance of the extension service in Gombe area, in terms of both extension agents' and farmers' knowledge of a range of recommended practices and items of technical information required for such practices. The results showed only slight improvement in knowledge over the period among the two groups. In a similar survey carried out in the Funtua area, it was found that farmers' level of familiarity with a set of nine recommended practices for yield improvement actually declined between 1978 and 1980. The Project Completion Reports attributed these findings to:

(a) a run-down of funding, supervision and moral in the Extension Service at the end of Project Life;[3]

(b) The youth, lack of experience and lower status of many agents compared with the farmers they were supposed to advise and;

(c) arousal of farmers resistance to the extension message by the dissemination of advice (e.g. in respect to mixed cropping) at variance with farmers' experience.

The reports indicate that extension service was most effective in reaching farmers through the Farm Service Centers in their input supply capacity, the project film shows and radio programmes. Otherwise farmers' visits to demonstration plots were reduced over the period in Gombe while personal visits or contact method of extension played relatively minor roles (see Table 13).

3 The Funtua report, however observed that the situation was not better in 1978 when funding was adequate.

Table 13 : Farmer's Participation in Project Activities in Funtua and Gombe ADPs

Activities	Funtua 1977	1979	Gombe 1977	1979
		(% of farmers)		
1. Listened to Project Radio Programmes	67	88	47	57
2. Attended Project Film show	12	26	0	74
3. Member of Project Group	4	27	14	12
4. Visited Demonstration Plot	18	39	25	12
5. Personal Extension Visit	18	26	17	9
6. Visited Farm S.C.: For Advice	8	22	11	12
To Make Purchases	64	84	95	70

Source: APMEPU *Completion Reports on Funtua and Gombe*

The Extension workers of the Pilot ADPs actually classified farmers into three categories based on their sizes of farms and level of recommended farm practice adoption. The three categories - Large-Scale Farmers', 'Progressive Farmers' and 'Traditional Farmers' - therefore largely influenced the extension agents' level of attention. For instance, the Farm Management Unit of the Project made farm plans and soil maps for the Large-Scale Farmers and this group also had preferential access to fertilizer and tractor loans. The 'Progressive Farmers' being those who had adopted some of the farming practices recommended also received a great attention and advice from the agents, while the traditional farmers expressed a high level of deprivation in access to nearly all services rendered by the project.

It must be remarked, however, that farmers were not aware of the existence of these categories or to which one they individually belonged. Nevertheless this engineered discrimination contributed to the wide disparity in project benefits claimed by the farmers. For instance the project maize in Funtua area was mainly grown by large-scale and progressive farmers rather than small-scale farmers. Maize carried a guaranteed price of 24 kobo per kilogram or 240 Naira per tonne in 1976/77 while a traditional subsistence crop, such as sorghum which most traditional farmers dealt with in their mixed cropping system, carried a price of 13 kobo per kilogram of 130 Naira/tonne, (D'Silva and Raza, 1980). The small-scale farmers did not embrace maize production because the project maize required fertilizer both before planting and after first weeding - the requirement being in the region of 200 kg per hectare. As the project did not provide fertilizer on credit, most small-scale farmers could not cope with project maize production. Also most improved technologies introduced in the project (for instance the maize) called for sole cropping whereas small-scale farmers have known nothing better than mixed cropping in guaranteeing farm risks and income maximization.

Management Training

One of the glaring areas of weakness in Nigeria's agricultural development which the pilot ADPs brought to light was the total absence of experienced agricultural project managers. This was not too surprising as commercial agriculture was hitherto not widespread in Nigeria and hence farm business skills and specialized management were lacking. This led to a situation where nearly all top management staff in the pilot ADPs had to be recruited from abroad, as World Bank staff, at very high international salaries, while their Nigerian counterparts working in the same place received comparatively less. To remedy this situation, therefore, the Federal Government, with an initial loan assistance of about US $9.0 million form the World Bank, established in 1981 the Agricultural and Rural Management Training Institute (ARMTI) in Ilorin. This institute was established after the end of the Pilot ADPs, which were run essentially as 'turn key' projects.

State-wide ADPs

As earlier mentioned, the decision of the government to prosecute agricultural development in the country along the lines of the Pilot ADPs can be regarded as one of the greatest influences of the World Bank on Nigeria's development policy.

Theoretically, this approach coordinates various levels of government in agriculture and rural development; enhances policy making, and adequate planning and financing of agriculture and rural development. It also encourages agricultural production based on scientifically tested innovations and inputs; encourages production based on proven ecological advantage and ensures supporting physical and institutional infrastructural facilities for a more meaningful agricultural development. The State-wide ADPs thus developed as a learning process from the experiences of the Pilot ADPs, promoted careful planning and implementation over three consecutive 3 year phases and established an in-built provision for continuity at the end. Each of the phases were conditional on the various financing parties - State and Federal Government and the World Bank - meeting their commitments and were structured on the basis of experiences from preceding phases. The contribution from the World Bank was provided through an Agricultural Sector loan made to the Federal Government for on-lending to the States. The phasing of the programme thus reduced the magnitude of the initial financial outlays and the problem of recurrent financing.

Policy Implications of World Bank Involvement in Nigeria's Agriculture and Rural Development

Since 1980, the World Bank has pursued, as a matter of policy, what it calls a "programme of structural adjustment lending (SAL) for developing countries", directed at specific policy changes and institutional reforms designed "to achieve a more efficient use of resources and thereby: (a) to contribute to a more sustainable balance of payments in the medium and long term and to the maintenance of growth in the face of severe constraints; and (b) to lay the basis for regaining momentum for future growth" (*The World Bank Annual Report*, 1982, p.3). Over the years therefore, the World Bank through the SAL and its policy assessment activities has become a major force shaping the economic policies of various countries. Nigeria has not been an exception to this influence, with the Bank having established a permanent mission in Nigeria with appropriate connections to the Ministry of National Planning and the Central Bank of Nigeria.

The World Bank has become the authority in the determination of Nigeria's international credit rating. It also influences fiscal policies through the devaluation programme initiated as far back as 1983 when it started to use the rate of 70 kobo to the dollar in its project evaluation estimates, in spite of the official rate of one Naira to US $1.60. It is not unlikely that this "devaluation" was also anticipating Nigeria's acceptance of the IMF loan which was then being negotiated. With the institution of the Second Tier Foreign Exchange Market as an alternative to an outright devaluation of the Naira, it is observed that the World Bank also volunteered to play a part in the supply of part of the required foreign exchange. The World Bank has therefore been a veritable force in the structural adjustment of Nigeria's economy during the 1980s, through the determination of its agricultural development policies and via other fiscal and monetary policies.

Project Financing and Control

Although the World Bank's loan to the pilot ADPs in Nigeria ranged from about 31% in Anyangba ADP to about 51% in the Gusau ADP with the Federal and State Governments bearing the rest of the cost (both in the short and long run), the effective control of projects lay with the World Bank. It used its loan contribution mainly: (i) for the procurement of capital development components, (ii) for the payment of the salaries of international staff which it recruited, and (iii) the release of World Bank's contribution to the project was also made to be contingent on the availability of local funds thereby causing delays in most instances and a shortfall in expected amounts, owing to fluctuations in currency exchange rates. In this respect, it must be remarked that with the establishment of other capital guzzling agricultural projects such as the river basin development authorities and the green revolution, the Nigerian governments were finding it increasingly difficult to meet their own financial obligations to the enclave ADPs.

The World Bank also insisted on the use of a calibre of project managers not available locally, leading to the use of overseas consulting firms to recruit international staff at a high cost, while the local management training was purely an *ex post facto* design. Furthermore the World Bank's policy of input procurement by international competitive bidding was applied to the

Pilot ADPs. Thus although tractors are assembled by Stery Nigeria Limited in Nigeria (in Bauchi State), the project could not buy from the local plants on the excuse that it could not offer a 20% price preference over imported ones. Thus the World Bank influenced Nigeria, through project design, to rely on foreign imports in its agricultural strategy.

The Cost of Borrowing and Debt Repayment

The presumption throughout the design of the Pilot ADPs in Nigeria was that agricultural development could be achieved mainly by bringing in external resources in the form of improved farm technologies and management, through the injection of capital. But what was the cost of borrowing such capital and how does Nigeria repay it?

As mentioned earlier, the World Bank's loan to Nigeria by 1985 constituted 10% of Nigeria's total external debt. Such debt repayment increasingly placed Nigeria under ever greater pressure to orient every aspect of its economy to exports thus ensuring that economic choices are determined by foreign markets, foreign banks and foreign development agencies.

In the specific case of the World Bank and Nigeria's agricultural development, it is curious to note that contrary to the World Bank's basic loan criteria, which stipulate among other things that such loans should be for specific technically and economically sound projects, in order that the loan can be repaid without imposing undue hardship on the economy of the borrower (WB & IDA, *Questions & Answers*, 1971), the agricultural projects in Nigeria were not meant to boost the production of a specific export crop but to enhance domestic food crop production. There could not, therefore, be any exportable surplus which would yield enough foreign exchange to repay the loans with interest. This means that the World Bank banked on Nigeria's oil resources for loan repayment, rather than on the ADP proceeds. This casts doubts on the World Bank's conviction of the ultimate economic worth of the ADPs.

According to Edozien (n.d.) a nation is generally considered solvent if its debt-service ratio does not exceed 10% of its annual export receipts. The fact that in 1985, Nigeria spent over 44% of its export receipts on debt servicing and had to negotiate with its creditors to bring it down to 30% in 1986, was therefore indicative of the precarious financial situation Nigeria, like most developing nations, presently is in. It is clear therefore that the World Bank has considerably influenced Nigeria's debt profile.

Prospects for Aid in Nigeria's Agricultural Development

The World Bank in its *Agenda for Action* (1982) observed that Nigeria's aim in embarking upon the ADP was "to plough part of its oil wealth back to the rural areas with no great desire to recover costs or even to cultivate a financially self-sustaining agricultural sector" (p. 53). The reality of

Nigeria's economy in 1986, especially given the World's oil market and its debt burden, meant that Nigeria had to reverse such aid utilization practices. In fact Nigeria has already adopted nearly all the IMF economic adjustment prescriptions, including the removal of subsidies from petroleum and fertilizers, which mean higher direct costs to the farmers.

A central feature of the new state-wide ADPs in Nigeria is that they do not engage in direct agricultural production but concentrate on infrastructural support, agricultural extension and input distribution leaving production to private farmers. The need for making the ADPs state and nation wide goes back to the "politics of sharing" and even development, which have bedeviled otherwise purely economic matters in a multi-ethnic and unevenly developed Nigeria.

The financing of most rural infrastructural development in Nigeria henceforth may have to come from funds realized from the removal of the petroleum subsidy, as the 1986 budget has already directed, which could mean less reliance on foreign loans for rural development.

The opening of local fertilizer plants in the north and south of the country, the institutionalization of seed multiplication, the improvement of extension contacts with farmers and the realization of the need to give price incentives to farmers should all go a long way to deemphasize the need for massive foreign loans for agricultural development in Nigeria in the next decade. In other words, Nigeria is more likely to look inwards rather than outwards in finding the capital to invest in its agriculture in the 1990s. However the debts accumulated in laying the necessary foundation for this expected self sufficiency will yet linger.

The agricultural development projects in Nigeria have not in their conception and implementation been different from earlier World Bank supported projects in other developing countries in spite of a purported change of policy orientation in the 1970s. In the case of Nigeria, the notion of an available oil wealth needing to be ploughed back to the rural areas, may have distorted the conception of the projects in terms of size and financial implications in addition to other predictable lapses which have now become typical of this kind of projects. For a number of reasons, Nigerian farms have not yet been successfully integrated into the world market[4] through the universal food system. How long Nigerian farmers will continue to decide on their own, what to plant and which market to plant for remains to be seen. It seems that presently the Nigerian government's overriding interest lies in the ability of the Nation to feed itself and produce raw

4 This is a strategy used by Multinational Corporations to stimulate and orient agricultural production in Developing countries for the benefit of metropolitan markets (see George, 1981).

materials for the existing industries. The scaled-down, state wide ADPs are likely to enhance this aspiration. It is however curious that in spite of having done a similar project in Malawi, the World Bank did not deem it wise to transfer experience which could have saved Nigeria the huge financial expenditure on the pilot ADPs.

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Appendices

The following are summaries of a sample of the World Bank assisted Agricultural Development Projects (ADPs) in Nigeria.

Project: Bauchi ADP

(1) Project Summary

(a) Area Covered: Bauchi State (Statewide)

(b) Commencement Date: June 1981

(c) Termination Date: December 31, 1988 (2 years extension)

	Total Fund	Disbursement	Balance
(i) IBRD	72.60	61.20	11.40
(ii) FGN Grant	51.70	20.48	31.20
(iii) State Govt.	53.70	17.17	36.50
(iv) Others	14.80	3.97	10.80
Total	192.80	112.82	79.90

(2) Project Description

The Statewide Project expanded from, and is based on the experience gained under the enclave Gombe Project (Loan 1981 UNI). The project aims at increasing food production and improving farm incomes by providing a package of farm services which include improved farm and water management practices, extension advice, crop production measures and the provision of small scale pump irrigation on the Fadama. Physical infrastructure includes constructing feeder roads, drilling boreholes and establishing project headquarters and farm service centers. The project is designed to benefit 425,000 small holder-farm families of which about 70 percent are expected to adopt improved farm practices.

Geographical Area: 66,000 Sq. Km.
Cultivated Area: 56,345 Sq. Km.
Vegetation: Sudan Savanah
Average Farm Size: 3.9 Ha.
Agriculture: Mixed cropping mainly Sorghum and Millet, cowpeas, groundnuts and maize.
Farm Production: 1,000,000 tonnes (G.E. in average year)
Farm Income per Annum: Naira 126 (1978)
Naira 205 (1982)

(3) Status and Achievement

Appraisal Item	Total Unit Target or Planned to Dec.1984		Achievement
(1) Physical Infrastructure			
(a) Rural Roads	km	1,200	888
(b) Earth Dams	No	75	58
(c) Boreholes	No	1,150	749
(d) FSC/Stores	No	181	69
(e) Workshops	No	-	5
(f) Offices	No		27
(g) Other Buildings	No		190
(2) Agricultural Training & Planning			
(a) Staff Training			
(i) External	No	-	104
(ii) Internal	No	-	2,481
(b) Extension Agents	No	-	706
(c) Demonstration Plots	No	-	
(d) Statewide Survey Conducted	No	-	5,917
(3)Input Distribution			
(i) Fertilizer available	Tons	468,056	232,745
(ii) Spayer	No	1,216	172
(iii) Crop Production	Ha	300,000	-

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