

A Review of Old and Current Agricultural Development Schemes in Nigeria: Lessons for Future Programme Designs

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Introduction:

The problems which plague Nigerian agricultural development efforts have not abated, despite the array of measures already taken or currently being contemplated by various governments to attain the major objectives of self-sufficiency in food and fibre production. There is a general concern within government circles among public officers, professionals and farmers about the frequent changes of Nigeria's agricultural development strategies and programmes, and the resulting confusion therefrom particularly among those charged with the implementation as well as the beneficiaries of these programmes.

Agricultural development in the context of the nation's overall economic development should form the basis of our industrial and sociological development. If we consider that development is not a chester of benefits given to people in need but rather a process by which a populace acquires greater mastery over its own destiny, then, we will agree that the only criterion for evaluating most of the old and current agricultural development schemes in Nigeria is to find out the extent to which they have improved the standard of living of the majority of rural dwellers. To some extent it is true that the pre-requisite for improved living standards is the active participation of communities in community-based agricultural programmes. The word 'community' is used here to mean those who earn their living and existence in an area and depend on that area for survival. Agricul-

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tural development schemes are therefore probably best evaluated in terms of the extent to which the programmes have originated from the conceived needs, ideas and problems of discreet communities.

The conclusions from earlier reviews have suggested that the goals of agricultural development schemes have scarcely originated from the needs and aspirations of communities. It will appear that, what successive governments have done is to pour resources away from the real farmers' needs into farming schemes designed to meet specific needs of the urban dwellers. One reviewer concluded that "Everyone of these programmes starts with the premise that as a group the large - body of small-scale farmers have failed the country and most, if not all of them should be consigned to the dunghill of history". While one finds it difficult to agree with this summary conclusion, the realities of our situation is that, it appears we can no longer feed ourselves as a nation, the share of agriculture as a foreign exchange earner has declined drastically while the cost of food imports and raw materials for processing has increased. At the same time, foreign exchange cost of agricultural production continues to increase uncontrollably.

Some of the constraints to meeting the challenges of our agricultural needs include the inability of traditional agricultural systems to generate enough marketable surpluses of food and raw materials, the inadequacy of rural infrastructures, feeder roads, storage facilities and marketing services, continuous dependence of production on rain-fed agriculture, inappropriate management of agricultural soils and until recently the overvalued naira which tended to make food imports cheaper. Some other constraints include the inadequacy of price incentives, rudimentary or almost total lack of farm credit system for small holders and the ever-changing public policy on agricultural development as well as the strategies which have proved most frustrating to both farmers and the public at large. It is these constraints that agricultural development schemes are designed to remove or minimize.

In Nigeria, small farmers dominate the agricultural scene. Average farm sizes range between 1 and 1.5 hectares. These farms are characterised by over dependence on rain-fed agriculture, inadequate investment, poor incentive to farmers, inadequate application of science and technology. These have resulted in low levels of productivity low aggregate farm output and hence low farm income, sub-optimal combination of farm enterprises resulting in skewed involvement in farm and non-farm activities, considerable under-employment due to seasonality of farm activities, static hoe-cutlass technology of farming, low capitalization of operations and a lack of optimal integration of production and distribution operations.

These characteristics of agriculture have resulted in skewed distribution of rural income, rural-urban income gap, sub-optimal distribution of national product, worsening farm/food problems, a poor farmer bargaining position as well as insecurity of the farmers. To change the status quo, there is the need to change the motive of farming from subsistence orientation to commercialization, and to promote (i) optimum allocation of farm resources to ensure increased efficiency, (ii) the adoption of new production technology/innovation conducive to maximum output and yield, (iii) the evolution of year round utilisation of farm resources (including labour, as a means of eliminating underemployment and ensuring full employment), and (iv) the co-ordination and reconciliation of production and distribution operations to ensure maximum returns to producers and consumers.

In order to achieve this change, structural strategies or development schemes have had to be evolved. The purpose of this paper is to review these strategies, both old and new, with a view to learning one or two lessons in designing new programmes.

The main objectives of the review are to re-examine the projects and schemes in the light of the objectives for which they were set up, review their strategies of approach and achievements as related to their objectives, the extent to which the schemes meet the aspirations of the communities in which they are situated, the degree of initiatives the programmes allow the farming communities, the reaction of planners and programme executors to changes in strategies, the effect of the various government sponsored schemes on local farm performances and to ascertain the reactions of both professionals as well as the producers to proposals which give greater initiative to farmers. The review paid special attention to the problems currently being encountered by the various schemes most especially where such problems are likely to affect the schemes' ultimate survival and success as a development strategy. Particular attention was also paid to new ideas from scheme operators which is based on their experiences on the job. From the above observations, a number of lessons for future programme designs will be presented.

Given the limitation of time and the variety of schemes that can be examined under this review, the exercise is limited to only seven States viz-- Oyo, Lagos, Rivers, Kano, Bauchi, Niger and Ogun States. This is because, these States present the desirable coverage of the various schemes of interest. The method of study preferred was on the spot evaluation and visits to the farms, field survey and personal interviews. This

was carried out during the months of August, September, as well as early part of October, 1986.

The schemes reviewed include (i) the Agricultural Corporation Plantation Development Schemes of the old Western and Eastern Nigeria, (ii) The Farm Settlement Schemes, (iii) Accelerated Food Production and Fertilizer Programmes, (iv) Operation Feed the Nation Programmes, (v) The Green Revolution Programmes, (vi) Current Agricultural Development Programmes (ADP's) and Accelerated Development Area Projects (ADAPs), (vii) School to Land Programmes, (viii) Graduate Farming Programmes (ix) Community Block Farms and (x) The River Basin Development Authority Farm Programmes. In order to provide some comparison with a privately sponsored agricultural development programme, the Shell Community Development Projects was also reviewed. In making this review, the impacts, strength and weaknesses will be considered.

Four major periods in the agricultural development of the nation were reviewed - the colonial administration, the period of internal self-government up to the end of the First National Development Plan i.e. 1968, the period starting with the Second National Development Plan up till 1983 and finally, the new generation of agricultural development schemes beginning with the current government projects up till the present.

The Colonial administration (1861-1950): Probably the most significant occurrence within this period was the establishment of a compulsory export marketing system for the principal agricultural exports. At the outbreak of the war in 1939, government owned Marketing Boards were set up in British West Africa to assure orderly marketing and to protect British supplies of raw materials. Prior to this, there was the establishment of a botanical research station in Lagos in 1893, the start of experimental work on cotton at Moor Plantation (named after Mr. R. D. Moor), the creation of Northern and Southern Departments of Agriculture which were later merged in 1921. Sporadic research activities on export crops, green manures, rotational trials, livestock feeding trials were initiated by British Officers during this period. As more information became available on the general agriculture of the country, demonstration and unit farms were set up. All these culminated in a ten-year plan of development and welfare for Nigeria which was launched by the Colonial Office in 1946 and from which two main policies emerged - conducting research into export crops and setting up extension work stations principally to expand the production of

these crops. These policies led to the establishment of the specialized research institutes for the West Africa region in Cocoa, Oil Palm, as well as the establishment of the Schools of Agriculture on Moor Plantation and later on at Kafinsoli as well as the Faculty of Agriculture at the University of Ibadan in 1948.

The achievements of this period resulted in the development of cocoa, oil palm and groundnut for export, the development of 'Allen' and 'Ishan' cotton in the north and south of Nigeria, Ondo and Abeokuta province, and wheat into some parts of the northern provinces. Emphasis was also given to the development of agricultural implements, farm building design, as well as the marketing of agricultural produce which gave rise to the Produce Inspection Service. In the livestock sector, the Nigerian Veterinary Department was established and a start was made in the management of range-lands and milk production on a commercial scale through the establishment of milk buying units in 1940. At this time also, a livestock investigation centre was established, while the West African Institute of Trypanosomiasis and a Fisheries Department were also created.

Although, the policies and programmes of this period cannot be said to have much direct impact on agricultural development schemes of these days, there can be no doubt that they did in some ways lay the foundations for a good beginning. However, these activities did not arise from any community based need or objective, they were not aimed at achieving any local objectives. They however served the colonial overlords and affected in no small measure the projects embarked upon in the period of internal self government.

The Period of Internal Self-government up till 1968: This period began with the regionalization of agriculture in 1951 which created a great awareness of the need for intensification of activities in both the research and extension field and led to the setting up of a host of organizations in the regions. There was no institutional federal responsibility for agriculture during this period and there were no agricultural sector objectives. These had to wait until the Second National Development Plan. The various regional governments held the erroneous belief that development could be achieved exclusively through the allocation of resources to specific objectives. This proved to be a major fallacy in an economy where institutional rigidities have been identified as the most important impediment to development and which calls for Government policies like the provision of roads and storage facilities, the improvement of market information, market

procedures and land tenure reforms.

Many of the agricultural production schemes undertaken during this period were predicated on the assumption that enough information on improved agriculture was available to be passed on to farmers by 1955. Experience however proved this to be false and raised a number of questions.

Some of the schemes undertaken during this period includes the Farm Settlement Schemes, the Tree Crop Plantations (developed through the Development Corporations) and the Smaller Farmer Credit Schemes. It should be noted that the Marketing Boards set up during the colonial era accumulated huge trading surpluses and became powerful instruments for the mobilization of savings for Government — sponsored economic development even at the cost of failing to achieve any measure of stability in farmers' income and perpetually keeping income low while the surpluses had a disincentive effect on peasants to increase production. It is clear that the reduction or total removal of the surpluses would have facilitated increased production from the lower-cost peasant farms. Again, the subsidized distribution of fertilizer, seed, and other essential inputs together with an export tax to finance such subsidies should have achieved the goal of technological change presumably sought through a Government-operated Credit Scheme which proved administratively difficult to operate successfully. More so, since the products of tree crops were being marketed centrally through the Marketing Board (which facilitates collection of cost of inputs supplied individual farmer) and since Government was in any case, already imposing heavy export taxes on these crops. The exclusive emphasis on tree crop and other industrial crops like cashew and pineapple at the expense of domestic food crops might be partly responsible for the shortage of food crops later on in the economy bringing with it inflation and problems of foreign-exchange balance. A few of the schemes during the period deserve special mention.

(i) *The Farm Settlement Schemes:* The Ogbomosho farm settlement which was established in 1960 on 2,428 ha with about 30 settlers have been considerably modified in both philosophy and approach. Most of the farm-settlements were later plagued with problems of inaccessibility and uneconomic farm size with the result that as of now, Oyo State with 12 settlements covering 23,000 ha have parceled out the croppable hectareage to a new generation of settlers at 10ha per farmer on a 15 year lease hold renewable basis.

As of 1986 in Oyo State, farmers are recruited through interview and are not necessarily indigenes of the area but majority of them do in fact belong to the Local Government Area. Recently, a number of retired personnel and medical doctors became farmers. These farmers are regarded as tenants on the land and in their houses. The farmers pay rent of ₦10/ha/annum and pay ₦10/month as loan repayment on the house. The cost of the houses vary with the year of recruitment of the settler to the farm. Those recruited before 1970 pay ₦1,200 those between 1977–1975 pay ₦1,400, those between 1976–1980 pay ₦1,600, those between 1981–1983 pay ₦1,700 while anyone recruited after April 1, 1981 will pay ₦1,800. It is expected that after payment, the settler will become entitled to the house. The researchers understood that arrangements are under way to survey individual farms and issue certificates of occupancy to these farmers. It is interesting to note that even after 26 years occupancy, some of the initial settlers still do not own the land on which they farm. It is no wonder then that many of the farmers own land outside of the settlements and merely use the opportunity to obtain other services through membership of a settlement scheme.

While the officials claim that there is hardly any farmer around the farm settlements that can produce as much as any farmer on the farm settlements, there is the general feeling that the only advantage of being a settler now is that being together, the farmers can be mobilized for effective purchasing and marketing. The farm-sizes are now limited by problems of further acquisition of land in various localities. As an agent of development, the farm-settlements appear to have become centres of food crop production as they tend to concentrate on maize, cassava, yams, tomatoes, pepper, cowpea and vegetables as well as poultry and as the farmer-types change and become much more independent of government interference in both their cropping programmes, pricing policy and marketing procedures.

Farm settlements are however limited by their current individual holdings and the break-down and unavailability of equipment and machinery. Indeed, some settlers are very apprehensive that with the soaring cost of tractors and implements, farm-power supply will become an increasing problem that will eventually further reduce the farm sizes and the ability of the settlers to continue production.

The farms on the settlements have important demonstration effects as other farms around often take up practices being carried out by the settlers. These farmers seek the crop-types, fertilizers and chemicals in use on farm settlements and are sometimes able to obtain these inputs from agro-service

centres. One cannot escape the feeling that if the current trend of making farm-settlers as independent as possible of government and supported with organized service inputs, technical advice, as well as provision of roads and storage infrastructures continue, the Farm Settlement Schemes might well serve as agents of agricultural development in this country. The question of ownership of land, house and farm power supply remain problems for which there are yet no obvious solutions.

The Farm Institutes which were originally set up to train prospective farm settlers are now mainly used as vocational training centres for extension staff and settlers on programmes such as blackpod control, fertilizer use, rice processing, or a farm management training course. We understand that a private organization is currently negotiating the use of the Ilesha Farm Institute as a training ground for farmers interested in the production of hybrid maize.

Farm Institutes were also established in parts of the north by the government with the objectives of training the modern farmers. Adult primary school leavers were trained for one year in farming practices and on graduation given a pair of bulls plus plough on loan, with a cash grant. The training was free, while trainees were accommodated, provided with uniforms and their wives given domestic science training. Experience showed that the rate of repayment of loans were poor and by 1984 the loans were stopped in Niger State while the cash grant continued. Also the trainees were required to continue on a day-return basis and this restricted the catchment area. By 1986, there were no students in these Institutes in Niger State.

Although the farm settlements may have created an awareness of improved farming practices among neighbouring farmers, these farmers seemingly require other incentives to enable them adopt the improved farming practices. Our observation is that the adoption of various improved farm practices is still very low among non-settler farmers. For example, use of improved seed is less than 10%, tractor use less than 6%, while use of fertilizer is less than 20%.

Agricultural Development Corporation Projects: As was pointed out earlier, these projects were started by the Regional Governments of East and Western Nigeria which encouraged the development of tree-crops. For example, we have the Apoje oil-palm and citrus plantations, the ENDC oil palm plantations in the Rivers and Cross-River States, the Ilushin Rubber Estates of Ogun State, the Upper Ogun Cattle ranches etc. The fates of these

projects have been varied. While the Development Corporation concept survives in modified forms in Ogun and Ondo States as the Agricultural Development or Investment Corporations, it has been transformed in reality into some form of production company in most States. This trend is typified by the Risonpalm Company which is wholly owned by the River's State Government. The Agricultural Development Corporation (ADC) in Ogun State is in fact a holding company which now pays dividend to Government at a current rate of ₦250,000 a year. The ADC has the policy of initiating new projects, through invitation to share holders who are not necessarily indigenes of the State. The Corporation believes this new strategy for development to be good in that it puts the operators in direct control of production. The role of government here appears to be to guarantee the operations of its farming company. The ADC tree-crop farms do not appear to have expanded to the same extent as has Risonpalm in the River's State. This oil-palm plantation has expanded from an initial 3,049 ha plantation established between 1962-1966 to include a new 10,000 ha plantation established with the World Bank loan and the company currently has a 40 tonne/hour mill commissioned in 1985. Risonpalm plans a second phase development of 30,000-35,000 ha of oil palm farm, a reclamation programme of 78,000 ha out of which the balance of cultivable hectareage will be made available to local farming communities. Risonpalm, like Ilushin rubber estates in Ogun State are run under contract management consultants who have managerial autonomy in the execution of these projects.

These and other agent-managed production companies appear to have laudable objectives. For example, Risonpalm was designed to increase production of oil palm to the extent that the nation can become a net exporter of the product. To this end the agent was given managerial autonomy for extensive cultivation, installation of processing facilities at the gestation period of the plantation, intensive mechanization of operation and technology transfer. On reflection however, the longtime effect of the implementation of this project needs to be re-examined in the best interest of the nation. The review should be in the light of community involvement in production, employment generation of project, and the ability to maintain equipment and facilities. If the economy revives, as we all hope it does, the price of palm oil may go down as more producers expand plantations and the installed mill capacities in Ondo, Imo, and Bendel which depend on small holder units become fully operational. The foreign-exchange cost of the project may become excessive in the face of a falling world market price for oil-palm. Risonpalm has made some effort to improve oil-palm

production through the Small - Holder Units' campaign which supplied farmers with materials at ₦180/ha. The scheme failed because the timing was bad as it was more attractive for people to invest in other areas of agriculture in 1975. The policy of the management agents to complete installation of milling facilities at the end of the gestation period of plantations worked against the small holder schemes who tried to improve production from wild-groves as there were no mills to buy farmers' fruits. Even the 3,000ha from Elele could not be harvested in 1977 because there were no mills to process the fruits.

It appears that community involvement in government agricultural projects managed by agents is very little. The communities who are usually farmers feel displaced and have largely not benefitted from these development schemes.

One can conclude the review of this period by saying that the agricultural development schemes could not develop to their full potential because they were largely not related to the needs of the communities in which they were based. Their goals and objectives appear laudable but limited by the interests of their management agents. They have therefore been largely unsuccessful in stimulating the local farming communities and overall production as a whole. Indeed, the future of those of them that are still not wholly privatised is in doubt.

The National Accelerated Food Production Project (NAFPP)

This programme was designed as the main vehicle for the achievement of the agricultural sector goal during the second national development plan period. It is essentially a cooperative programme between the Federal, State governments and the farmers in each State. Three crop research institutes viz. The National Cereals Research Institute Ibadan working on maize and rice, the Institute of Agricultural Research in Ahmadu Bello University working on wheat, sorghum and millet and the National Root Crop Research Institute at Umudike working on cassava were expected to evolve high yielding varieties of these crops and pass these to the extension staff in the States for trial on farmers' plots in three phases, namely a "minikit" or small plot phase of variety and fertilizer trials, to be followed by a 'production kit' on 1,000 square meter for selected crop varieties, to be followed by a 'mass adoption' phase when the accepted varieties are expected to be in the hands of most farmers growing these crops. NAFPP also involved the establishment of various agro-service centres and provided opportunities for on-farm adaptive research, seed multiplication, training of extension staff in

research techniques, seed production, crop protection, crop management, mechanization techniques, grain storage and data collection. The provision of credit and marketing of produce appear to have been left largely in the hands of the farmers. The NAFPP called for the adoption of all items in each package. The farmers liked the programme as it brought them in close working relationship with both research and extension staff. The extension staff got adequate feed-back from farmers and there was a general feeling of real crop production improvement in all states.

Probably due to the low level of projected capital expenditure on agriculture during the second national development plan, the NAFPP programme was inadequately financed by both the Federal and State governments. Some state government were not adequately committed to the programme which was not given enough publicity. The economics of the production packages were not always sufficiently attractive to allow massive adoption probably due to inadequate research inputs. Further, research and extension staff were not motivated, often lacking adequate trained personnel, and transportation for effective supervision. Farmers also had difficulties in obtaining credit while some of the agro-service centres were poorly financed, run and maintained. There was a general lack of adequate storage facilities while production itself was limited in some instances by late supply or inadequate quantities of inputs.

Despite these constraints, a number of States were able to develop various schemes for assistance to farmers during this period. A few of these extension-based services programmes have survived to varying degrees and in various forms up till today. While for example, the procurement and distribution of fertilizers, the tractor hire service, improved seed distribution, land clearing programmes and the agricultural loan schemes exist as separate programmes in Niger State, all these activities have been invested into a service company in Kano State — the Kano Agric Supply Company (KASCO) which is fully owned by the Kano State Government and is supervised by the State Ministry of Agriculture. Similarly, these services are currently rendered by the Ogun State Agro-service Corporation and by the Agricultural Input Services Unit in Oyo State. The latter organization operates on a revolving loan and is also supervised by the Ministry of Agriculture. These input supply services have persisted as component parts of the various schemes which followed them, thus the philosophies are discernible in the Operation Feed the Nation (OFN), the Green Revolution Programme (GRP), the Agricultural Development Projects (ADP) and most of the new generation schemes that will be discussed later in this review. Suffice it to

say that when the input supply service schemes were started under the NAFPP programmes, it was with the idea that they will eventually be taken over by the cooperating farmers groups in each of the communities they serve. It appears that the trend to turn the organizations into public companies and corporations is a reversal of the original concept in their development. In the alternative, it could be proposed to capitalize the assets of these organizations and sell them out as shares in equitable proportions to the public, the state and the farming communities. Whatever the ultimate objective, consideration might be given to the scope of the services supplied by these organizations with a view to streamlining them to meet specific demands. It may well be that where there is a State company supplying all agricultural services, there is, in fact, need for several such organizations each one specializing in one or two inputs.

Perhaps one should let sleeping dogs lie by avoiding to mention the demise of quite a number of other production companies which were established following closely on the heels of the NAFPP. These companies include The National Grains Production Company, the National Livestock Production Company, which had many subsidiaries, Nigerian Food Company and the National Fish Production Company. The experience gained from the fortunes of these companies should raise questions in our minds on the advisability of completely public ownership of the means of agricultural production. This question will be further alluded to when we consider the lessons for the future.

Operation Feed the Nation (OFN) Programme: With the change of military government in 1976 came the Operation Feed the Nation programme designed as a strategy to bring about self-sufficiency in domestic food supply. It was expected that the programme will stem the rural urban migration and reduce food imports which was becoming alarming. The mechanism for achieving this objective was by subsidizing land clearing, input supply, seed and fertilizer supply, credit and mechanization. The OFN programme commissioned 69 rural storage depots which were to play a vital role in the proposed cooperative intra and inter-state food marketing and distribution network. Most of the depots have now deteriorated and have had to be rehabilitated. Some are still under construction but most are empty. The OFN programme was however successful to the extent that it gave political backing to agriculture and awakened the interest of many Nigerians in this age long profession. The prestige which had proved hitherto elusive to the profession was instantly acquired. It is probably also to the credit of this

programme that, today, many schools are engaged in agriculture of some scale while many retired civil servants, army officers and business-men have taken up agriculture as a profession. Unfortunately, the programme probably made very little impact because it was directed at the wrong people. The subsidies went to a few elite; the peasant farmers, who produce the bulk of the food eaten in the country were not involved in the programme. Consequently, OFN had little impact on food supply to the nation. There was little doubt that most of the resources applied to this programme could have been better used in support of the NAFPP which it succeeded.

Agricultural programmes of the River Basin Development Authorities.

These development authorities were experimented upon as early as 1973 when the Sokoto-Rima and the Chad Basin Development Authorities were established. The performance of these two basins led to the creation of 10 more in 1976 as an instrument of surface and underground water supply for multiple purpose use. The authorities were mandated not only to construct dams, boreholes and supply irrigation water, but to control floods and manage water-sheds including afforestation. In 1979, the authorities' roles were expanded to undertake production programmes in fisheries, mechanized clearing, land cultivation, large scale seed multiplication of livestock, fish and seedlings and to process crops and livestock products. Although the authorities were also to aid State and local governments in the construction of small dams, wells and boreholes, rural electrification, farm service centres, grazing reserves and agricultural staff training, most of these were only partially implemented. The basins developed *Farmer Based Projects* to carry out their agricultural production mandates. For example, in the Ogun - Oshun, River Basin Development Authority, a group of farmers is settled as irrigated farm plot owners who pay partly for the capital expenses, but fully for the recurrent and operating inputs supplied to them for farming on their plots. These farmers have to follow a crop sequence of maize/cassava or rice as planned by the professional managers. The River Basin ploughed, harrowed, planted and harvested charging the farmers for the operations. The farmers weeded and fertilized their plots. The Basin authorities took over the produce, processed, marketed and deducted the cost of services and paid the balance to the farmers. The selection of farm sites was based on a motivation strategy while plot allocation is based on traditional entitlement to land ownership in the locality as well as proven commitment to farming as a career with a good physique.

While the programme lasted, the Basin Authority observed that in places like Itoikin, Mokoloki and Eyinwa, the communities were not very much interested in taking up the irrigated lands provided, whereas in Egbado area and in Oke-Odan, the farmers have been much more enthusiastic and a lot more of the land provided has been taken up.

In Kano State as in most other states, what is left of the NAFPP was transferred to the River Basin authority which also undertook fertilizer, herbicide, agro-chemical procurement and distribution, agricultural mechanization, crop seed multiplication programmes. However, by 1986, River Basin Development Authorities have been divested of their responsibilities for agricultural development programmes and so legally have to transfer these activities to the various Ministries of agriculture or to the Agricultural Development Projects where these operate. However, the Basin recognise the need for complementarity of activities, since the irrigation facilities need to be developed. The direct production farms of the Basin authorities will henceforth serve as demonstration projects for the farmers, enable professionals study the economics of irrigated production of the various crops and serve as a training ground in the management of irrigation facilities for both staff and farmers.

The Green Revolution Programme (GRP): Like its predecessor, this programme was ushered in following another change of government in 1979. The civilian regime which succeeded the military commissioned a team of World Bank and Nigerian consultants who jointly produced a food production plan for Nigeria. The plan was to make the nation self-sufficient in basic food supply within five years and to rehabilitate the export produce within seven years. The strategy was to produce the nation's 'miracle seeds' of maize, rice, sorghum, millet and wheat through a package of complementary input supply. Thus, the GRP included a package of other programmes. Examples are: (i) Farm Mechanization Schemes in various States in which machineries and implements were distributed for political rewards to communities; (ii) National Rice Production Programme under which land was cleared freely for selected farmers, and tractors with implements, motorized harvesters, rice fan threshers, seed drill, fertilizer spreader and milling sheds were constructed in 40 locations, (iii) Small Holder Rice Schemes in Anambra, Imo and Cross River States which were extensions of the NAFPP programmes, (iv) Grain processing projects in Mokwa and Kaduna, (v) Large Scale Root Crop production and processing programmes implemented through the National Root Crop Production Company, and (vi) Large Scale

Farms for increasing the production of groundnut and implemented by the Nigerian Groundnut Board. Various Tree Crop production projects as well as food and cash crop supporting services were part of the Green Revolution programmes.

This programme led to substantial increase in the volume of rice, maize, guinea corn, millet and cassava produced while it probably boosted the production of palm oil and gave impetus to the rehabilitation programmes for groundnut, cocoa, rubber and cotton. The programme also invested in human resources to improve livestock, fisheries and forestry programmes. Several problems however militate against the achievement of the GRP. Aribisala (1983) extensively enumerated problems of finance, research and extension, of equity or the inadequate distribution of benefits from the programme. Others are land tenure problems, paucity of data prior to land development, inadequate infrastructures, lack of improved foundation stock of livestock, of politics, government bureaucratic delays in implementing projects, inadequacy of executive capacities in a number of projects as well as of inability to capture the advantages of economics of size.

Despite this array of constraints, the Green Revolution Programmes built on some of the achievements of the OFN as well as the NAFPP. They also share some of their pitfalls, most especially the fact that like the OFN, it was not directed to the generality of farmers. The politics of the situation was such that large and medium-scale farms, as well as politically favoured communities had access to resources which were not optimally utilized in all instances. The programme was therefore not as effective as it could have been in increasing food and fibre production to the extent of its full potential.

The Agricultural Development Projects (ADPs) and Accelerated Development Area Projects (ADAP's): These projects were first experimented with in Funtua (Kaduna), Gusau (Sokoto) and Gombe (Bauchi) 1972. The concept of ADP has extended to six enclave projects and four statewide projects by 1985. These were located in Ayangba (Benue), Lafia (Plateau), Bida (Niger), Ilorin (Kwara), Oyo North (Oyo), Ekiti Akoko (Ondo) and Statewide projects in Bauchi, Kano, Sokoto and Kaduna. In addition, three states, Borno, Gongola and Imo, without the assistance of the World Bank launched a modified version – the Accelerated Development Area Project in 1985. For now, there are plans for eight new-state-wide ADP's in Benue, Plateau, Imo, Anambra, Bendel, Cross River, Rivers and Ogun which have

already being appraised by the Federal Agricultural Coordinating Unit (FACU) and the World Bank. These are likely to be implemented in the form of Phased ADP's and will be executed in three phases.

The core elements of the ADP or ADAP programmes appear to be (i) a reorganized and revitalized agricultural extension and training system backed by effective adaptive research activities, (ii) a new farm input supply system that relies on a readily accessible network of Farm Service Centres or Agro-service Centres and backup input commercial services, (iii) an extensive feeder road network that opened new areas for cultivation and facilitated the evacuation of farm produce and timely delivery of farm inputs, (iv) a seed multiplication and supply system which ensured farmers are provided with needed seeds, (v) a strong project management support with a built-in monitoring process and (vi) a viable institutional mechanism for State/Federal cooperation and collaboration in agricultural programming.

The ADP has as its target group the small-scale farmer on which it relies to bring about the necessary increase in agricultural productivity. ADP management does not engage in direct production with the possible exception of seed production. ADPs merely establish the infrastructural environment which along with an efficient input distribution system provides the driving force which motivates millions of farmers. ADPs, in effect, demonstrate the alternatives and lets the farmers make the choice. While the NAFPP expects a farmer to adopt all of the items in a package, the ADP training and demonstration method of extension allows the farmer to pick for adoption the item(s) of package the farmer believes fits into his operation. The village extension worker or extension agent attends to 800 to 1,500 farm families. The farmers are organized into 8 groups of 100 farmers, ten percent of which are known as contact farmers who take leadership in initiating discussion on programmes, problems etc. The extension agent usually meets the contact farmers at specific weekly periods to discuss the next two weeks programme. These decisions are then passed on to farm groups who are expected to copy the practices of the contact farmers. The demand for insecticide, fertilizer, improved seed are met by the commercial service organization of the ADPs. For now these demands are ultimately met by governments through agro-service centres some of which are reminiscent of the earlier development schemes and are in various stages of commercial transformations. In the new generation, state-wide, phased ADPs, it is proposed that there will be a very strong programme for the privatization of the ADPs' commercial services i.e. input supply and maintenance of equipment. It is however not clear if the plan is to leave the farmers

in the hands of a new type of middlemen or to involve the users in the management and supply of these new inputs.

Governments appear to have accepted the ADP concept as a viable strategy of agricultural development principally due to attractive agricultural infrastructure provision aspect incorporating small dams, irrigation facilities, water supply, farm service centres and access roads. ADPs also enjoy financial and administrative insulation from the traditional bureaucratic bottlenecks through the establishment of a virtually autonomous government authority. The ADPs permit the consolidation of government extension services for the rapid modernization and mechanization of small holder agricultural schemes. Initially, ADPs tend to suffer from a public image problem arising from the highly decentralized decision making process through which participating farm families respond in their own way to incentives and disincentives based on their assessment of profitability. It is therefore not possible to point to large hectrages of highly mechanized farms which tend to give an early favourable public impression of government and policy makers.

Even in the shortrun, the ADP concept appear to have introduced a viable management structure with inbuilt monitoring and evaluation system into agricultural development. There is financial assurance with the World Bank's ability to import inputs cheaply. This may change with the new realignment of the naira currently going on. The original extension concept of *training and visit* was changed to *training and demonstration* due to staff shortage. The ADPs should leave a legacy of integrated approach to inputs and infrastructure supply, as well as change the income and perception of life in the rural areas. They have introduced improved technologies to the farms and forged links between research and extension services.

While it appears too early to evaluate the ADPs in terms of overall agricultural productivity and food supply, modifications are already being made in this concept as a recognition of a few inherent problems. The old ADPs were five year projects and highly capital intensive and in some cases, the existing system did not have the capacities to absorb all the inputs. Some people feel that, money was being loaned to Nigeria from the World Bank to do what could have been done by improving the old extension service or even the later NAFPP programmes. The awareness to reduce the need for heavy capital investment probably gave birth to the phased ADPs proposed for the remaining eight states. The phased ADPs are expected to be less capital intensive as they will concentrate on major crops and rural infrastructure in the first phase of four years. The next phase of three years will

only be planned based on the achievements of the first phase. This modification may however not take care of some of the other criticisms such as the limited involvement of Nigerians and the excessive dependence on expatriates at the top-management level of ADPs. The management of ADPs also appears not to take cognisance of existing institutional arrangements in a number of instances. For example, the NAFPP programmes were reportedly rendered redundant in a number of States while the State extension services were by and large reduced to policy formulating organs, running of large scale farms, fishery and forestry programmes not under ADP and processing of land allocation forms for farming purposes. In a number of States, ADPs have only concentrated on production of crops and leaving the provision of infrastructure for storage and marketing to the farmers. The criticism that ADP concentrates more on crops than on livestock, fisheries and forestry may be true in most states except Kano and Bauchi where there are substantial programmes in crop residue utilization by ruminant stock, forestry and horticulture and home economics improvement.

In an attempt to solve the problem which may arise when ADPs have to depend entirely on local funding, some states have made it an arm of the States Rural Development Authority. Thus, the Bauchi ADP is a unit within the Bauchi State Integrated Rural Development Authority in preparation for the World Bank handing over of the ADP. However, such foresight and longtime planning does not feature in ADP activities of some other States. In these States, there appear to be little cooperation between the ADP and other machineries of government. Roads constructed by ADPs which are supposed to be handed over to local government have deteriorated due to poor maintenance. Pipes have not been laid to connect dams meant for nearby towns and villages as there are no links with the local water authorities in the area. ADP activities have been seriously hampered by inadequate local funds presumably expected to be supplied by State governments. With the shortage of funds over the last couple of years, managers have forced a tactical retreat in strategy and the projects are becoming less integrated.

Finally, it is fair to say that some of the grumblings on the involvement of expatriate managers in ADPs is justified especially in cases where there are capable Nigerians who can perform these jobs. The real issue however is the lack of incentive pay and service systems that will attract highly qualified Nigerian managers and professionals from the Universities, research institutes and the private sector. It appears that considerations of parity do not permit enough incentives to encourage Nigerian staff into the management of these projects on a permanent basis.

One other question that remains to be answered is what happens to the ADP programmes when completed. At present most enclave ADPs simply become state-wide on completion. There are no substantial provisions for post project development except as have been noted in States like Bauchi and Kano where they have become parts of the Agricultural and Rural Development Authorities with the status of a parastatal. Does this mean that ADPs will go the way of the old Development Corporation Tree-Crop Farms?

The seeming success of the ADPs may be due to the fact that they were established when the country had the financial resources to ensure the supply of the required mechanical, chemical, and biological inputs and to build the necessary infrastructure. Unfortunately, current economic reversals mean that the source of sustenance of these grandiose schemes must change in a way that the supply of these inputs can continue to be assured.

New generation development schemes: Along with the implementation of ADPs and ADAPs, a number of States have initiated a variety of new schemes. (See attached list in Appendix I). For example, in Lagos State we have the *Agricultural Input Credit Scheme* designed to promote mechanized agricultural activities through the provision of a package of tractors and set of allied basic implements at a cost to individual or group farmers on a hire-purchase basis. There is also the establishment of a *Graduate Farming Scheme* which is designed to tackle the twin problem of graduate unemployment and food shortage through provision of land, equipment and all necessary agricultural input services for cropping in Badagry, Epe, Ikorodu and Lekki agricultural estate zones. These estates are then allocated to elite farmers on a loan basis. Niger State operates a *Back to Land programme* which guarantees loans to various categories of farmers. Graduate of University and Polytechnics attract ₦6,000 loan and are expected to pay in 5 years, cultivating 8 ha each. Land clearing is free. On the other hand, unemployed, retired, retrenched workers are given loans of ₦3,025 per individual in cash or kind. They are expected to cultivate 5 ha each. The programme provides for 20 people in each local government area. *The Small-scale Farmer's scheme* in each local government area is limited to 10 individuals each with a loan of ₦400.00 cultivating 2ha in addition to any other farms. Also three cooperatives or groups in each local government area are given a loan ₦5,050.00 for cultivating up to 10ha each.

Bauchi State also has *Graduate Farming Scheme* which is expected to be financed through a Bank and is currently embarking on a *School leavers*

farming scheme. The school leavers are expected to cultivate 2ha each during the preliminary 9 months after which they will go back to their local government areas. This is similar to the very much publicised *School to Land Programme of the Rivers State* government. This programme was designed to reduce unemployment among school leavers as well as act as a catalyst to revolutionize agriculture. The programme involves the cultivation of 3,000ha of land in ten locations. Although the initiators plan to allocate land to individual farmers, all the farm sites are operated as government farms with State officials in charge. The student trainee farmers are paid ₦100,00 a month as stipend. There is plan to provide houses, water and electricity on farm sites. Students are supposedly in training for up to three years after which they should either settle on the farms or go to their local government areas. For now, government clears the land and provides all the inputs, harvests the crops and sells. The farmers as yet do not have any claims to anything except their salaries.

Already, the *School to Land programme* faces problems of land acquisition and in some cases, the older farmers feel displaced or dispossessed of their farm lands. This is not necessarily bad as the new farmers are young and energetic. Young farmers however feel alienated from their communities and often face the problem of where to build a house or take a wife from if they are not farming in their own locality. When they plan to go back to their own communities there is always the fear that they will not obtain the same input supply and infrastructural support as is often available on the government schemes. The programme has however further improved the status of farming as a profession in the State. Similar school leaver farm training programme operates in Oyo State as part of the *Integrated Self Employment Scheme*. Each student in this scheme is expected to operate a 2ha farm for 2 years. Each student is given ₦500 as take-off loan and the land is cleared free by government which also supervises the operations and supplies seed, fertilizer and mechanical needs. A *Graduate Self Employment Scheme* which attracts a loan of ₦5,000 per farmer started in 1986. Farmers were allocated 5 ha each either on existing farm settlements or on River Basin farmer based projects and operate essentially as settlers in the Farm Settlement Schemes.

Community Block Farms: This is really an extension programme for the village level production designed to encourage farming cooperatives in Rivers State. In these farms, farmers work as a group. They have the land cleared as a group while each farmer farms his own land. The supply of

services is pooled and farmers are jointly advised on choice of crop varieties, fertilizer use, pest control and receive training in a group. This kind of co-operative may be voluntary where a chief in an area demands that the people should come together and farm a communally owned land. The cost of clearing is recoverable from the sale of harvest products. Every member of the group is eligible for credit under the loan scheme. The farmer negotiates what he wants and the Ministry pays to the retailer on behalf of the farmer. The loans are guaranteed by the entire community. There are eleven such community based projects in the Rivers State.

There is also a *Community Land Development Programme* which is community based and supervised by the Shell Company in those areas from which oil is obtained. This programme started in 1970 and designed to provide an alternative means of livelihood to the original land owners of oil-well sites. The programme starts by undertaking an intensive study for a year or two on the culture, soil and climatic characteristics of the area to determine the needs of the people, the suitable crops for the area and other economic facilities available. After the study, a voluntary cooperative movement is initiated and an objective set which should be achieved within a given period. Shell Company helps with planning, crop production activities, marketing of produce, development of roads and supplies necessary inputs until the cooperative can stand on its own. The farmers are able, at this stage, to organize their production and obtain supplies through bank loans. They are also responsible for marketing and processing. The Shell Company runs production centres for producing seed and cuttings for distribution to farmers. Cooperatives may be specialized or multipurpose. Thus we have yam farmers, cassava farmers, pineapple and poultry farmers. Whatever the company gives to a farmer is expected to be returned in the same quantity and this is given to another community. The company runs an extension work-station at Bori from where it is able to supply the cooperatives with seed and planting materials of yams, cassava, pineapples suckers for propagation. This station also carries out limited research trials to select varieties and demonstrate performance to farmer on field trips.

These community based programmes recommend themselves as viable agricultural development strategies simply because they are community based. They are programmes designed to solve the needs of the community as expressed by the operators. They are not programmes imposed on the communities to stem unemployment, stem rural urban migration or provide food for city dwellers. They are designed to improve the agricultural production taking into consideration the limited resources available to the farmers.

There are no talks of large capital input, no acquisition of tractors or any big implements which cannot be repaired within the communities.

The Directorate of Food, Roads and Rural Infrastructures

This directorate was established with the 1986 Budget speech and formally inaugurated in February 1986. It has the specific objectives of developing rural infrastructural projects such as the construction of feeder roads and rural water supply. During its short span of life, the directorate has also been involved in the production and distribution of improved seeds of maize, rice, yams, plantain and cassava, guinea-corn and millet, fruits, tree crops and vegetables. The directorate further plans to promote rural and urban fish-farming, storage and processing of grains as well as supporting the production of sheep and goats.

The directorate operates through its state coordinating offices and has representatives in each local government area. Most of the activities appear to be carried out through established government channels.

In a way, the directorate does part of what the ADP's were constituted to do, i.e. promote the construction of rural infrastructures, feeder roads, rural water supply for agriculture, input services in terms of improved seed etc.

One cannot escape the conclusion that the government is setting up an organization outside of the Ministry of Agriculture, Water Resources, and Rural Development to carry out the work for which the ADP's have recognizably been expanded to become state wide organizations. If the kind of funds now available to the directorate can be channelled to the ADP's, perhaps they can do a better job with a little less bureaucracy than will otherwise be the case under the directorate system. This argument becomes much more attractive considering the fact that the directorate even now functions through existing institutions in the states some of which are already involved in ADP activities. The most important functions of the directorate is the supply of rural water, construction of feeder road and production and distribution of improved seeds are clearly the major portions of the function of the ADPs and since the two organizations will render these services to the communities through the same agencies, the earlier they coordinate their plans, the better for everybody involved.

Lessons for future programme designs:

Some general observations

1. One striking feature of most of the current agricultural development schemes being pursued in the country is that they are scarcely community based. They are usually designed with minimum consultations with the communities they are supposed to serve. Even the ADPs which has the peasant farm families as its main strategy of development currently leaves the initiative for programmes in the hands of the project managers. The direction of the commercial service inputs, provision and maintainance of its infrastructure are all government based. The Shell community based projects and the Rivers State Community Block Farming schemes are notable exceptions. In these two, the initiative for development is largely in the hands of the cooperators. Their means of production therefore largely reflects the state of technology which these communities can best manage. In the face of dwindling financial national resources available to government, most development schemes die for lack of continued support. This is what happened to the Development Corporation Farms, the early generation Farm Settlements, Operation Feed the Nation, and the Green Revolution programme. This is what will happen to the ADPs, the School to Land Programmes, the Graduate Scheme and the Self-Employment Schemes unless urgent modifications are instituted. They all depend on available input supply resources from government to survive. They were not initiated on the will of the people they serve and in most cases the beneficiaries are not sufficiently involved in their control and management. The decisions on what goes on are usually in the hands of bureaucrats.

Designers of agricultural development programme need to remember that the peasant farmers are usually the owners of their lands and family labour and that this guarantees them a degree of independence from government bureaucratic power. This independence they exercise by ignoring demands placed on them by officials and make control and regulations difficult. Consequently government policy must be to primarily enhance peasant productivity and not continue to ignore the productive potential of the large-body of small-scale farmers.

The current agricultural development projects as well as the new generation development schemes must be redesigned to turn over the initiative for development to the growth of small-scale farm, community-base projects.

2. Another feature of current schemes points to the fact that our agricultural development policies need to be depoliticised and depersonalized. As of now, these policies and programmes changed whenever there is a change of government. This phenomenon probably accounts for the way institutional roles have changed so frequently during the last decade. We have had to set up ad-hoc agencies to direct development programmes as the OFN and GRP outside the relevant coordinating ministries. Even agriculture itself has been tossed between having a separate existence and being merged with a ministry of water resources. Responsibility for agricultural research is currently coordinated outside the ministry responsible for agricultural development.

3. The benefits of research expenditure does not appear to accrue to the farming communities due to the lack of organization of research on ecological basis, absence of well organized agricultural technology delivery system which should integrate technology development and utilization. There are only two multi-commodity based research institutes in the community while all others are commodity based with mandates to work in all ecological zones; these agricultural research systems are not responsible for improving productivities in any communities and are not usually as effective as they could have been. They seem to work for no one in particular but everyone in general since the problems they are working on frequently have no relation to the farmer based problems in the field. This is not to say that current research programmes are entirely baseless but to call attention to the need for reorganization in research priorities in order to ensure greater relevance to the problems being encountered by farming communities. There are, of course, a number of other reasons including poor motivation to research staff, the suspension of National Research Councils, that contribute to the ineffectiveness of research in our development efforts.

Recommendation

The reviewers will like to recommend that the following matters be given specific considerations.

(1) *Responsibility of government in direct agricultural production:* The focal point of government involvement in agriculture should be at the local government level working with community groups. Local governments know the communities and should be provided with staff for planning, prosecu-

ting and evaluating agricultural programmes. Only those projects that cut across local governments in scope, implementation and benefits should involve the State governments. The same principle should govern the involvement of the federal government in agricultural programmes. There is need to work out some criteria for involvement in projects between the three arms of government.

(2) *Large and Small-scale farms:* There is currently no proof that large-scale mechanized farms are more profitable than small scale ones. The basic consideration should be that of technical efficiency and profit maximization. Nigerian farmers, in their various communities and organizations should be allowed to operate farms of whatever size they find most profitable in order for them to stay in business. Government projects should therefore be directed towards the improvement of the productive potential of all types of farmers.

(3) *The role of government:* It is not desirable for government to be involved in direct production. Its main role should be in strengthening and helping the private sector to be more efficient in its production activities. Government activities in agricultural development should therefore be by:

- (i) Raising the level of investment in agriculture
- (ii) Restoring, protecting and developing arable land and rendering it more productive.
- (iii) Establishing of remunerative produce pricing policies, establishment and strengthening of incentive schemes, eliminating pricing policies that tended to discourage production and providing effective agricultural credit schemes. For example, instead of the NAFPP, River Basins schemes clearing land for farmers, farmer should be paid subsidies for each ha of land cleared by themselves or through the use of commercially available tractor hiring units.
- (iv) Development of livestock and livestock products through the utilization of agricultural by products, improved management and attention to animal diseases.
- (v) Development of mechanization and the use of modern farm and processing machinery, increased use of fertilizer, improved seeds and pesticides – provide support to manufacturing – (small scale) and distribution services through incentives.
- (vi) Improving and expanding the storage capacity and marketing

system by encouraging private entrepreneur to store and market agricultural products.

- (vii) Development of agricultural research and extension through the creation of a net-work of agronomical research stations and extension for the design and diffusion of appropriate agriculture technologies on ecological zonal basis.
- (viii) Placing at the disposal of small farmers the necessary inputs for increased yields; better utilization and improvement in management of water resources and the establishment of low cost irrigation schemes.
- (ix) Establishment of reafforestation; drought and desertification control programmes; improvement of agricultural implement maintenance capacity.
- (x) Establishment of assistance programmes for small farmers, especially women food producers and rural youth.
- (xi) Improvement of the distribution of agricultural products.
- (xii) Development of appropriate support service programmes as:
 - (a) Industrial production of agricultural tools, spare parts, components and equipment inputs.
 - (b) Processing raw materials and intermediate inputs.
 - (c) Rehabilitating and upgrading existing plants.
 - (d) Development of renewable energy sources – solar/biomass programmes.
 - (e) Training local capacity for project design.
 - (f) Maintenance and development of feeder, access and service roads, bridges and desert roads.
 - (g) Adoption of price incentives for agricultural products.
 - (h) Improvement of internal distribution channels and eliminating obstacles hindering trade expansion.

(4) *The River Basin Authorities* should concentrate on water resource development and should continue to be funded by government to enable the private sector practise agriculture more successfully. The Authorities should however develop a comprehensive water law which will permit it to earn revenue from the supply of water for irrigation and other purposes. It could however carry out pilot schemes for the purpose of demonstration and training, the new fishery type and the management of new irrigation schemes.

(5) *Reforms of the ADP's and ADAP's*

- (i) *The Agricultural Development Projects:* These are now becoming state-wide and need to work out a proper balance between agricultural development and the development of infrastructural developments, as feeder roads, are more politically visible, the managers tend to overachieve in this area when compared with agricultural development. On the other hand, it may be that this in fact reflects the real need of rural people for roads and inputs which will lead to real agricultural development efforts.
- (ii) In order to ensure continued maintenance of rural infrastructures being developed under the ADPs, greater emphasis should be paid to the role of local governments authorities in agricultural development. The proper roles for Federal, State and local governments needs some guidelines in order to avoid waist and deterioration of the rural infrastructures so far developed.
- (iii) As much as possible, community based organizations and individuals should be encouraged to produce and provide needed services to their farming communities. The government should plan to get itself out of the business of supply agricultural services but become a facilitator for the provision of these services.
- (iv) The question of what happens to the ADPs after pilot project completion should be addressed in order to make plans for post project development. Since the ADPs mean a revitalized extension and research service with demonstration work-stations, may be a re-introduction of the old extension method at local government level should be considered.

(6) *Credit availability and agricultural development:*

There is a need for government to plan to take credit to the small-scale farmer. It may be unrealistic to expect the small isolated and may be illiterate farmer to find his way to the bank.

The experience of the International Fund for Agricultural Development (IFAD) is that low-cost credit is a way to help in a situation where so much has failed; it has made the allocation of credit central to its activities, describing it as a break through. Many African countries (37 between 1980/1983) have found themselves so short of money that they have invariably with appropriate prodding cut back Government spending and impose austerity in order to give the free market more prominence so that private investors

might be encouraged. However, cutting back on agricultural tools and seeds can be a devastating blow to subsistence farmers who desperately need to grow more but cannot afford many inputs. This year alone America subsidized wheat producers by \$15.00/tonne and expects to sell 4,000,000 tonnes of this subsidized wheat to the USSR.

Cut-back in government spending should come from a reduction in the implementation of a number of grandiose schemes like shopping complexes, five star hotels, on which huge loans and foreign exchange are being expended. If the World Bank persuades governments to end low-cost credit schemes, the end result will very likely be a reduction in the food grown by the poor and an increase in the number of hungry people. The World Bank believes that credit institutions should be subsidized rather than farmers, in order to encourage these institutions to take the higher risks of lending to small farmers. This view discounts the point, that many of the very poorest farmers have no access to the formal banking sector. They depend on the informal village level credit scheme which has proved to be their life line – enabling them, for example, to have money to buy seed, tools and other key inputs. Without such credit, the farmers have fewer inputs and produce less.

(7) *New generation agricultural development schemes:* As presently operated in some States the school to land programme differs little from the first-generation farm settlements with all its attendant problems. The school to land farmers still have to get title to their lands in the same way as the farm settlers are still tenants on their land and house even after twenty six years. There is as yet little motivation to conserve and develop the holdings. These programmes may also be subject to sociological problems as experienced in the farm settlements. In all cases, indigenes of a particular locality as well as those who reside and earn their living in the area should be encouraged to settle. This problem is tied to the question of definition of citizenship of a community, local government, and State which remains a naughty problem in our political evolution.

The trend to tie these programmes to Bank loans in some States is a good development. The same trend applies to the various graduate self-employment or graduate farming schemes. The involvement of banks in the financing of these schemes might guarantee some degree of commitment on the part of the beneficiaries as well as the sponsoring governments. In as much as these programmes provide opportunity for employment and contribution to food and fibre supply, they deserve all the encouragement pos-

sible. Governments must however progressively allow the farmers absolute freedom to decide on the production preferences and marketing strategies while the banks' involvement should ensure profitability to permit loan repayment. Government should not shy away from subsidizing farmers in general in order to encourage them and secure the nation from want of food.

(8) *Ownership of land and agricultural development:* In most of the new generation development schemes, land is proving to be a limiting factor. Graduate farming schemes are invariably limited to 10 ha holdings while school to land programmes range between 2 ha holdings during training and 4 ha on completion of training.

Very recently, modifications were suggested to the Land-Use Decree to ensure that small scale farmers are not denied access to land even in their own communities. The Land Use Decree should still be reviewed in order to make it easy for the peasant farmers to get title to their land. The nation should study the Land Bank System which operates in places like the Philippines. By this system all cultivable land is vested in a Land Trust which operates through out the country. Government undertakes a complete survey of agricultural land in a region and based on a land capability map classifies the land in different categories reflecting their productivity potentials. For example, class A land could be valued at ₦20/ha while class B land has a value of ₦15/ha, class C ₦10/ha and so on.

The amount of land belonging to the original land owner or community is valued and this is recorded to his credit in the land bank—say 200 ha of type C land at ₦10/ha. This farmer can either farm on his own land or go to farm in any other place to the value of the land credit he has in the land bank.

If, for example, he moves into a type A land area for farming he will only be entitled to 100 ha of land but can farm up to any amount if he is willing to pay the appropriate rent applicable to the excess land he is farming. Under this system, land owners will be obliged to either farm their land or rent it out to individuals or groups to farm and pay rent as each cultivable land will earn a land tax. The Land Trust will be obliged to undertake programmes that will ensure access to cultivable land and generally facilitate its use for agricultural purposes. The country can be zoned with several land banks operating in various zones.

(9) *Overall coordination of agricultural development in Nigeria:*

Before coming to a conclusion, concern must be expressed in the continuing policy of planning separate development strategies for crop production, livestock, forestry and fisheries in Nigeria. While one appreciates the need to make adequate provision for development in each sector, the absolute lack of coordination in these programmes continue to limit their individual achievements in terms of productivity. No matter how hard we try, the natural interrelationship between the various aspects of agriculture as it relates to food and fibre production cannot be neglected if we must achieve real progress. There must be a forum where all the plans which relate to each sector of agricultural development are considered in the light of the nations' goals and objectives.

Despite the dazzling array of public policies, projects and programmes at State and Federal Government levels, increased productivity and efficiency in agricultural production continues to elude us. The pressure for domestic food supply continues to increase in the face of rising cost of food, fuel and fibre. It appears we can no longer continue to neglect the small-scale peasant producer who, despite the perpetual cost-price squeeze, continues to provide the bulk of the food eaten by millions of Nigerians. Every effort must henceforth be made to restructure our institutions to enhance his productivity while we continue to encourage the large-scale farmers as well. At the same time, government parastatals, companies etc must evolve programmes which will eventually result in their own demise if the nation as a whole must survive.

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Oyo State	New generation Farm Settlement Schemes Oyo North Agricultural Development Project Agricultural Input Services Unit Integrated Self-Employment Scheme (Agricultural or Vocational and Technical) Graduate Self Employment Scheme River Basin Farmer Based Projects Ilero Mechanized Farm Ltd.
Ogun State	Agricultural Development Corporation Projects which includes: (i) Apoje Farm Company (ii) Ogun State Tree Crop Company (iii) Ogun State Livestock Production Project (iv) Ibara Onile Food Crop project Agricultural Input Supply Corporation New generation Farm Settlement Schemes River Basin Farm Projects.
Rivers State	Risonpalm (State Oil-Palm Company) including Small Holder Oil Palm Development Unit programme. Agro Industrial Oil Palm Estate Development (Ministry based) School to Land Programmes Community Block Farming Graduate Farming Scheme Shell Community Development Project.