

*Inaugural Lecture Series 79*

**NIGERIAN ECONOMIC DEVELOPMENT  
AND  
INTERNATIONAL EXTERNALITIES**

By O. O. Ladipo



OBAFEMI AWOLOWO UNIVERSITY PRESS LIMITED



O. O. Ladipo  
Professor of Agricultural Economics

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Obafemi Awolowo University  
ILE-IFE, NIGERIA

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O. O. Ladipo

*Professor of Agricultural Economics*

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## I. DEFINITION AND MEASUREMENT OF DEVELOPMENT

The concept of development, and more narrowly economic development, is heavily "value-loaded" and consequently an operational definition of economic development is a matter of what a person defining it values most as the economy's, and hence society's, goals. For example, Okun and Richardson<sup>13</sup> defined economic development as "a sustained, secular improvement in material well-being... (which) is reflected in an increasing flow of goods and services." The key terms in this definition are (a) material well-being and (b) increasing flow of goods and services. The notion of improvement in material well-being could be interpreted to mean improvement in the number of houses built, number of cars, television sets, shirts, bicycles, etc. owned. This improvement is said to be seen or reflected in an increasing flow of goods and services the totality of which is called the Gross National Product (GNP). It seems that, by definition, if there is an increase in GNP (in constant monetary units) there is development. The emphasis in this definition is "material well-being" and any society whose "material well-being" — number of cars, TV's, houses, bicycles, etc. — is low has not developed and it is therefore under-developed or less developed. However, if there is the expectation of increasing the number of these "materials" preferably by buying them rather than producing them, even if payment is by loan, the society is developing and might be developed.

There is nothing wrong with this definition as long as the goal of the society is to amass economic goods and services. However, the goals and aspirations of any two societies will hardly be identical. This makes this definition and similar definitions of economic development faulty in that it expects and assumes that all societies mirror and are like the West. In measuring material well-being and hence development, emphasis is put on "rise in real national and

per capita income" which is probably adequate and acceptable for developed nations such as the USA, UK, FRG etc. but in Nigeria, a definition of economic development which excludes income distribution factors, resource ownership patterns, employment and poverty variables is inadequate. If we accept this inadequate definition then we accept the possibility of a country in which five percent of the population, possibly the country's elite, own ninety percent of the means of production and the country's wealth as achieving economic development as long as material well-being reflected in the quantity of goods and services and measured by GNP is growing satisfactorily.

The one thing most development scholars have in common is that they are almost all from advanced nations and their perception of economic development must of necessity be affected by the value system under which they were born and bred. The very use of the words "under-developed", "less developed" and "developing" in the economic development literature connotes a desirability for the development of the countries which the words describe. It could therefore be assumed that the writers and planners wish such countries to experience development. Thus, economic development is an experience, not merely a growth in productivity or an increase in the aggregate of goods and services produced by a nation. It is stated that economic development is not achieved by any nation unless that nation experiences a reduction in poverty, a continuing reduction in unemployment and an equitable distribution of income.

Economic development defies measurement and intra- and intercountry comparisons because of the lack of a common denominator. It also defies comparisons across space or time. Every nation must be viewed within its value system, natural endowment and the goals and aspirations of its people.

### "Theories of Economic Development"

In discussing economic development, mention must be

made of some theories of economic development even though economic development theories did not start by, nor were they written for the Less Developed Countries (LDCs) of today. The scholars in the less developed nations of Europe, particularly Germany in the nineteenth century, started speculations on economic development. The scholars systematized the process of economic growth within a framework of sequential stages with a general application across national and cultural boundaries. Because Germany was a late-comer to industrialization in comparison to Britain and because the promotion of industrialization and economic growth was regarded as the highest German national priority, the growth-stage approach to development emerged in Germany. The growth theory is therefore designed to explain and predict the German economic development process of the nineteenth century. Three variants of this growth theory are discussed here.

But before discussing these growth theories mention must be made of the beginnings of economic development discussions of Adam Smith whose theories laid the foundation of most of the debate in the present day economic treatise including economic development. He emphasized foreign trade as a vehicle of development because it expands the market, it permits division of labour and it provides an outlet for surplus products of a nation. The last point formed the anchor for Myint's "Vent for Surplus" model. It was also the basis of economic policy formulation of many LDCs especially in regard to their primary products.

In terms of the growth stage theories, the first one to be considered here is the theory of development advanced by Karl Marx. He divided development process into five stages of development, namely; primitive communism, ancient slavery, medieval feudalism, industrial capitalism and socialism. These five classifications were based on three main factors — production technology, changes in property rights, and ideology. In Marx's system the process of development is evolutionary. Progression from one stage to



another is driven by the forces generated by struggles between two classes — the owners of the means of productive capacity and the owners of labour. Critics of this theory of development faulted it on the basis of the class structure assumed. They argued that it is unrealistic to assume that a nation is composed of two classes of people — labourers on one hand and capitalists, owners of production resources on the other. Karl Marx was unable to foresee the modern ownership pattern of corporations and business in which the “labourers” are also owners as practised in the United States of America today.

In spite of this criticism, Marx’s theory is very important to the less developed countries, particularly Nigeria. This importance is not his pre-occupation with class struggle which, at best, could achieve political freedom without economic freedom and power but the importance is Marx’s emphasis on the role of technical change (and by extension technology) in shapping economic institutions. Firstly, in his system, changes in the technology of production represent the dynamic source of changes in social organization. It is the belief, in this page, that it is the restructuring of production technology which enhances changes in social organization, political organization included, and not the reverse as pontificated by political ideologists. Secondly, Marx makes growth in agricultural productivity a pre-condition to the emergence of development which he calls industrial capitalism. Lastly in the Marxian system, structural changes which lead to the elimination of subsistence farming are an essential step in economic development because it makes agricultural development the foundation stone of economic development. These three aspects of Marx’s teaching on development have been overshadowed by Marxism — the political ideology which has brought nothing good to LDC in my opinion.

The second variant was advanced by List who based his own classification into growth stages on shifts in occupational distribution unlike the Marxian technical change.

His steps are savage, pastoral, agricultural, agricultural-manufacturing and agricultural-manufacturing-commercial. In his opinion, “progress in agriculture could only occur under the stimulus of export demand or through the impact of domestic industrial development.” According to him, there are essentially two routes to development: agricultural development fuelled by export demand; and agricultural development fuelled by domestic industrial development.

Of these two, he recommended the latter for development as the most important generator because of (a) the double impact of the increased demand for farm products from an expanding non-farm sector and (b) the development of more efficient methods of production resulting from the application of science and technology.

The policy prescription emanating from this is for LDC to encourage industrialization through economic policies designed to promote agriculture and industry and thus promote both industrial exports and import substitutes. These policies appealed strongly to industrial entrepreneurs and the political leadership of LDCs and they tried to accept and try them with the help of the Western powers.

The third variant is Rostow’s leading sector growth stage theory. He gave five stages of development in the transition of a primitive economy to a modern economy. His stages are: the traditional society, the pre-condition for take-off, the take-off, the drive to maturity, and the age of high mass consumption. Rostow was primarily concerned with the process by which a society moves from one stage to another. In order to solve the growth problem, he introduced on the supply side the concept of a sequence of leading sectors which succeed each other as the basic generators of growth. He also introduced technical factors — declining price and income elasticities of demand — on the demand side to dampen the growth rate of leading sectors in order to transform them to sustaining and declining sectors. Technology plays an important role in both the emergence of new sectors

and the elimination of old ones in Rostow's system.

Marx, List and Rostow treat transformation or transition from an agricultural to an industrial society as the major problem of development.

There are many other theories of development which will not be mentioned in this lecture. However, the population theory propounded by Malthus and described as a theory of doom by some scholars overshadowed his contribution to the dual economy theory of development. His variant of this theory is more useful to LDC as a policy reference point. In the simplest terms he stated that at the beginning of development all investible funds would go to agriculture until all cultivable lands are cultivated and there are no more investment opportunities in land. In other words agriculture would be developed first to a point of saturation, a point at which it no longer pays to invest further in agriculture because the point of diminishing returns is reached. In order to avoid diminishing returns to land there must be technical progress in the industrial sector, the other sector in the economy, and this progress must be rapid enough to absorb the resources coming from the saturated agricultural sector. Secondly, enough investment must take place in industry to use the rapidly developing technology and finally, industry must absorb the growing population. Rather than advocate a transfer of labour from agriculture, he advocates a shift in investment when and if the agricultural sector is saturated with investment and it no longer pays to invest in it. This is similar to List's approach to development. Apart from Malthus' theory there are four main variants of dualism in the modern economic development literature. Two of these variants could be classified under static dualism, the third is the unlimited labour surplus of Arthur Lewis and the fourth is dynamic dualism.

## II. NIGERIA'S ATTEMPTS AT DEVELOPMENT

Given this wealth of theories, models, and planning strategies mentioned earlier to choose from, why have we in

Nigeria failed to develop relative to the rest of the world, particularly the Western developed countries ?

The theories of development had generated numerous courses of action called economic policies. As the science of economics continues to grow with its components growing with it as well as the theory of economic policy, one of such functional components forms the foundation stone of the discussion of a country's attempts at development. The theory of economic policy begins at the point where a social welfare function has been derived or postulated. It is this function for which it is meant that is supposed to provide the basis for inter-personal comparisons by the use of the indifference curve analysis. In economic development analysis which is essentially an analysis of the effectiveness of economic policies, it is assumed that the political process of any nation or society produces the social welfare function. For this function to be operational it is assumed that the state is neutral between social classes; the state recognizes a national goal towards which the state strives and that there is a general agreement within the state in terms of the objectives of economic policy. Consequently, analysis of economic development concentrates on the economic policy measures which are required for the attainment of the national objectives of economic growth, full employment, price stability, and balance of payment and on the constraints which might prevent the realization of the objectives. The analysis is focussed on the effectiveness of policies concerning fiscal and monetary policies, debt management, and control of income and wages, prices, and imports.

The success of an economic policy, the policy tools and the accompanying strategies of execution require not merely a stable political system but one in which national feeling and commitment are much more important than individual achievement and material acquisition. The political situation in Nigeria is characterized by an unstable equilibrium of

economic, ethno-social, and political forces and by a pathological desire of Nigerians, especially the politicians, to amass individual wealth within the shortest time possible. Consequently, the assumptions underlying the theory of economic policy, the policy tools and strategies breakdown in Nigeria.

In looking at the development efforts in Nigeria, the policy tools and strategies which are designed to generate economic development and are contained in the National Plans will be considered and presented in three main categories, namely, the colonial period, the civilian period and the military period.

### **The Colonial Period**

Nigeria as a single entity did not exist before the 1914 amalgamation of the Northern and Southern Protectorates of Nigeria. Prior to the British "protectorate" and colonial rule there were sections of the country ruled as kingdoms and empires each with its own name, government and standing army in some cases. The most popularly known ones were the Oyo Empire in the southwestern area, the Benin Kingdom of the Midwestern area, the El-Kanem Empire in the northeast, the Sokoto Caliphate or Othman Dan Fodio Empire of the northwest. Faced with such organized systems and a very hostile climate, the British resorted to friendly tactics of colonization by trading. By 1900 there were three separate units, each made up of heterogeneous city states, kingdoms and empires under the British rule. Britain acquired the monopoly to rule them at the Berlin conference of 1885 at which the Europeans carved up Africa. These three units were the Southern and Northern Protectorates and the Lagos colony.

Since Nigeria was created by the amalgamation of the Southern and Northern protectorates and the colony of Lagos in 1914, our story of the development of Nigeria must of necessity start from 1914.

Between 1914 and 1929 there was no effort to plan any development. Trade in raw materials continued unhindered during the period. The first attempt at developing Nigeria came in 1929 when the British government passed the first Colonial Development and Welfare Act. Economic historians attributed this act of development planning for the colonies to the impending great depression in Europe and America.

At this point in time the British government was sure of the available resources in Nigeria. These resources include land, people and minerals. Export of agricultural products were encouraged, the crops emphasized include groundnut, cocoa, oil palm, palm kernels, cotton and rubber. By 1929, coal, tin and gold were being exported to Britain. Transportation system was being developed to evacuate the agricultural and mineral products from the various parts of the country for shipment to Britain.

The question that comes to mind is "why did Britain want to develop a colony such as Nigeria?" The objective of the Colonial Development and Welfare Act of 1929 answered this. The main objective of the act was ".....aiding and developing agriculture and industry in the colony or territory, and thereby promoting commerce with or industry in the United Kingdom." The strategy for executing the objective was to encourage the adoption of improved machinery and equipment for cultivation and for the preparation of agricultural products for the market under the British control.

The country then continued to produce crops and minerals for export to Britain and the British developed such infrastructure as were necessary to enhance the achievement of the development objectives until 1939. This year was important to Nigeria in two ways. It marked the beginning of World War II and apart from Nigeria supplying some men for the war, Nigeria continued to be one of the suppliers of raw materials to Britain in her war efforts. Secondly, the growing political awareness in Nigeria as a result of under-



standing of our "indirect route" to colonial domination forced Britain to specify, explicitly, her economic development plans for Nigeria. This specification came in 1940 when the Governor of Nigeria said:<sup>4</sup>

The economic policy of the colonial government aims at developing the resources of the country *through the medium of the people themselves.* While it is not unlikely that economic development may bring with it the establishment of subsidiary industries which will provide good wages for certain classes of the population of the economy, there is NO INTENTION WHATSOEVER of turning the people of Nigeria from a race of farmers into a race of labourers. The peasant proprietor is the backbone of Nigeria and I hope he will always remain so.

The British development policy for Nigeria as contained in the governor's speech of March, 1940 was a denial and repudiation of the objectives of the 1929 Colonial Development and Welfare Act which was meant to aid and develop agriculture and industry in the colony with a view to promoting commerce with United Kingdom. This policy statement brought the British intentions for Nigeria into the open.

The implications are obvious. From the first sentence, it is not certain initially what form the development "through the medium of the people themselves" meant until later in the statement. Simply stated, the British development policy for Nigeria was aimed at:

1. Keeping Nigerians as "peasant" farmers whose duty was only to supply Britain with raw materials.
2. Since "economic development may bring (about).... industries" this must be discouraged as the British government has "no intention whatsoever" of creating jobs and gainful employment for Nigerians who must be kept on the subsistence level farms permanently.
3. When there is no development there will be no "demand" internally for the mineral resources —

coal, tin and gold to mention a few, — which could be sent to Britain.

This denial of any hope of economic development led to public debates, agitations and for the first time a national awareness on the part of Nigerian legislators and the forming of political parties to demand political independence. The war years, 1939–1945, were fairly quiet and all efforts were directed in support of Britain to win the war. Immediately after the war, however, there was agitation not only in the colonies but also in Britain. This led to putting the Colonial Development and Welfare Act of 1929 (revised in 1940 and again in 1945) into operation. For Nigeria, a ten year development plan, 1946–1955, was produced. The 1945 Act made grants available from the British government to cover part of the cost of official program of development. In practice, however, the British companies — the private enterprise — had priority claim over the assets. The colonial officials were to develop those assets which were left unused by the private enterprise for the purpose of promoting secondary industries, organizing internal markets for British manufactured goods, regulating production and stabilizing earnings from export commodities. It is clear that even though the policy has changed, the objective remained unchanged. The direction of development was for the maximum benefit of Britain. The ten-year development plan 1946–1955 was revised in 1951 to accommodate the regional goals.

The 1951 development plans were revised in 1955 in view of the growing powers of the regions which now kept their tax collections after the federal share had been deducted. The regions also used the Marketing Boards to siphon income from the farmers whose export crops — cocoa, cotton, groundnuts, rubber, oil palm products, etc. — have now become major foreign exchange earners. The 1955 revision was highly influenced by the World Bank experts through a mission sent to Nigeria in 1953. This mission saw development merely as growth in the output of goods and services

which implies a rise in living standards. This view of development — output growth — dominated our development efforts until 1960 and it was a diversion from the path of true development. The mechanism of income distribution to generate reduction in poverty and in unemployment and to create equitable distribution of welfare and thus achieve “true development” was of little importance to the planners. Their central objective was to maximize the “distributive pool” through the achievement of rapid economic growth under the assumption that once there is growth all other things would follow.

### **The Turbulent Political Era: 1960–1965**

In preparation for granting political independence to Nigeria in 1960 the British government had granted internal self-governing status to both the Western and Eastern Regions in 1957. The Northern Region opted to wait until it was ready in 1959. In essence, by 1959, we had three independent states within a dependent State. This was the second dis-stabilizing factor introduced into our system by Britain. It was this that led to the civil disorders over census and the break-down of law and order in the country, particularly the Western Region, between 1962 and 1966 and the eventual take-over of government by the military in 1966.

The politicians had led Nigeria ably between 1914 and 1960 at least until Nigeria achieved political independence in 1960 and apparently they outlived their usefulness as they were unable to pursue the business of development having been bogged down by quarrels over censuses and the sharing of national revenues. When the military took over they pursued the business of development adhering to the 1962–68 Development Plan which was the first truly national plan Nigeria ever had. The main emphasis of this plan was to achieve growth in production and hence in per capita income. The question of income distribution, and hence development, was secondary. This plan lasted until the outbreak of civil war in 1967. The main theme of the war plan

was the survival of Nigeria as a nation.

Immediately after the war, 2nd Five-year Development Plan came into operation. This was followed by the 3rd Five-year Development Plan. Regulatory measures were used to direct the economy toward a path of sustained development. Efforts to achieve development were not limited to regulatory policies, there were efforts at changing the structure of the economy through statutory and institutional development and restructuring designed to achieve rapid economic development. These structural changes will be described for the most important sectors of the economy, namely: the oil, the industrial and the agricultural sectors.

In order to be able to use the oil revenue for achieving the national development plan objectives, the military government designed policies for effective Nigerian participation in the oil industry. In 1971 the government established the Nigerian National Oil Corporation (NNOC) to engage in all oil related economic activities of the nation. The corporation did not begin operations before 1973 because Nigeria had no share, nor ownership of her oil activities. The 1973 global energy crisis forced Nigeria to acquire part ownership of all oil producing companies in order to have a “say” in what goes on in the Nigerian’s oil industry. The NNOC took over from the government the 55% ownership of oil producing companies acquired by the government the previous year. The corporation was empowered to operate in partnership with foreign or domestic oil companies. Up to 1975 the marketing of Nigerian petroleum was a monopoly enjoyed solely by Shell-BP, a foreign company, but in 1975 the government sought and acquired participation in the marketing activities. The Nigerian Oil Marketing Corporation was formed to handle the 60 percent of the marketing acquired from Shell-BP which now owns 40 percent instead of 100 percent of the marketing activities. Following a re-organization and restructuring of NNOC the government changed the corporation’s charter and the terms of reference and renamed it Nigerian National Petroleum Corporation



(NNPC) which, in 1979, acquired an additional 5 percent in equity in all oil companies to bring Nigeria's participation in her oil industry to 60 percent.

In order to achieve industrial development, the government tried to avoid foreign-absentee control of the economy by promulgating the Nigerian Enterprises Promotion Decree in December 1972. The law was designed to create opportunities for Nigerian indigenous business entrepreneurs, maximize local retention of profits or minimize profit exportation and to raise the level of intermediate and capital goods production. To implement this law, an enterprises board was established. Apart from the institutional set-up, economic steps were also taken. It was discovered that the Nigerian entrepreneur was unable to raise loans from the foreign controlled commercial banks and in effect the objectives of the law could not be achieved. Consequently, the government established two special banks and a management council. The Nigerian Bank for Commerce and Industry and the Nigerian Industrial Development Bank as well as the Nigerian Agricultural Bank were established in 1973 partly to grant medium and long-term loans to Nigerian entrepreneurs to enable them to acquire ownership of certain foreign business, establish their own or form partnership with other businesses. The Agricultural Bank was established to finance agricultural activities. The Nigerian Council for Management Education and Training was equipped with a management development centre which was designed to provide managerial and technical training for Nigerian entrepreneurs without whom there could be no effective participation of Nigerians in Nigeria's economy. In order to make training funds available and easily accessible the Industrial Training Fund was set up for intermediate manpower training.

The attention accorded the industrial sector was not extended to the agricultural sector which was virtually neglected between 1970 and 1975 in the hope that it would catch up with industrial development. This is not to say

that nothing was done in the agricultural sector. In 1971 an agricultural research council was established to coordinate agricultural research in the country and the agricultural research institutes were reorganized. In 1972 a national agricultural production programme was launched for the distribution and demonstration of small-farmer technology packages for grains and root crops. The establishment of the Nigerian Agricultural Bank was the "best" thing that could have happened to Nigerian agriculture if it served the small scale farmers. The Bank had, by April, 1973 approved ₦286 million (about \$400 million then) and disbursed ₦124 million (about \$174 million then) to corporations, cooperative societies and private companies. Fifty-eight percent of the disbursed loan went to corporations, usually state-owned finance corporations, and cooperative societies, most of which are thrift cooperative societies at 3 percent p.a. interest for on-lending at 5 percent p.a. to their clients. Little of this reached the farmers, the real producers of food. The remaining 42 percent went to private companies at 5 percent p.a. interest rate.

The neglect of agriculture led to sky-rocketing increases in food prices because the farms were abandoned in preference to industrial wage employment. The military government saw this approaching disaster and sought to correct it with a massive campaign and subsidy programmes.

All these efforts yielded less than expected results and by 1978 the country was in an economic crisis. The oil glut in the world market had caused an enormous reduction in foreign exchange earnings and yet the nation's import bill was increasing at an increasing rate. To make the situation worse, the nation faced a food crisis in the face of dwindling domestic food production, and increasing preference for imported food. This brought about land reform with the Land Use Decree of 1978 which conferred ownership of all land on the government in order to assert and protect by law the rights of all Nigerians to the use of land in the country.

The year, 1978, saw the beginning of austerity measures designed to restructure the economy in such a way as to enable it to cope with changing conditions in the world market and at home. Apart from several tax policies, the importation of several consumer items were prohibited and a capital transfer tax was imposed on assets of one hundred thousand naira transferred as gifts to plug the hole in the law governing transfer of assets. The government continued the use of the law restraining wage increases. These policies of "cutting your coat according to your cloth" otherwise known as austerity measures continued until 1979 when the military handed power to a civil government under a new constitution.

### **The Second Civilian Government: 1979–1983**

The new civilian government which came into power after the 1979 elections was hailed as the return to democracy. The new government continued the policies and programmes of the military regime especially with respect to the emphasis put on agricultural development initially but because that class of politicians, a mere re-run of the old timers, have outlived their usefulness they ruined the economy and by 1983 Nigeria was begging IMF for a loan. The civilians were thrown out again by the military and the process of restructuring and reconstruction began anew.

After all these efforts at developing, can it be said that Nigeria is developing? In looking at development, what are the variables that must be considered. According to Gillis *et al* "Economic Development implies fundamental changes in the structure of the economy".<sup>3</sup> If we accept that Nigeria has achieved a rise in per capita income, has she achieved structural changes to enable her achieve development? In looking at structural change a number of factors become very important. These factors include, among other things, the rising share of the non-agricultural sector relative to the declining share (not declining production) of the agricultural sector; a declining proportion of people engaged in agri-

culture and in the rural sector; changes in the structure of consumption with a declining percentage of income spent on basic needs; and most importantly, the citizens of the country must be major participants in the economy, participating actively as producers and consumers in the process of structural change. Participation in the benefits of development as well as in the production of those benefits is a focal point in development.

Available information shows a declining share of agriculture and an increasing share of non-agriculture in the Gross Domestic Product (GDP) which indicates that Nigeria's economy is developing. The phenomenal decline in the share of agriculture could not be explained totally by the increases in manufacturing of 5.48 percent points and mining with 13 percent points in the same period. It could be concluded that the structural change depicted is not an indication of development in Nigeria as shown by analysis of the components of the economy in Table 1.

A summary of the manufacturing growth rate between 1958 and 1980 is presented in Table 2. The average rate of growth of 11.4 percent p.a. for the period of 1958 to 1980 is an encouraging growth but the question is whether or not the growth is an indication of a change in the structure of the economy. A look at Figure 1 shows that the manufacturing sector has remained stagnant, relative to the growth of GDP oscillating around 6 percent of GDP for 22 years. Based on these, it is easy to conclude that Nigeria, though achieving a fairly good rate of growth, is not developing. On the other hand, if the information in Table 3 is considered and we examine the economy in terms of private and public consumption, Gross Domestic Investment and Savings and Export Activities, a better picture of the performance of the economy might emerge. The public consumption is an indication of government expenditure especially on providing infrastructural facilities. An increase in this is a sign of growth; since investment and savings are

**Table 1: The Structure of Nigeria's GDP(-): 1960–1976**

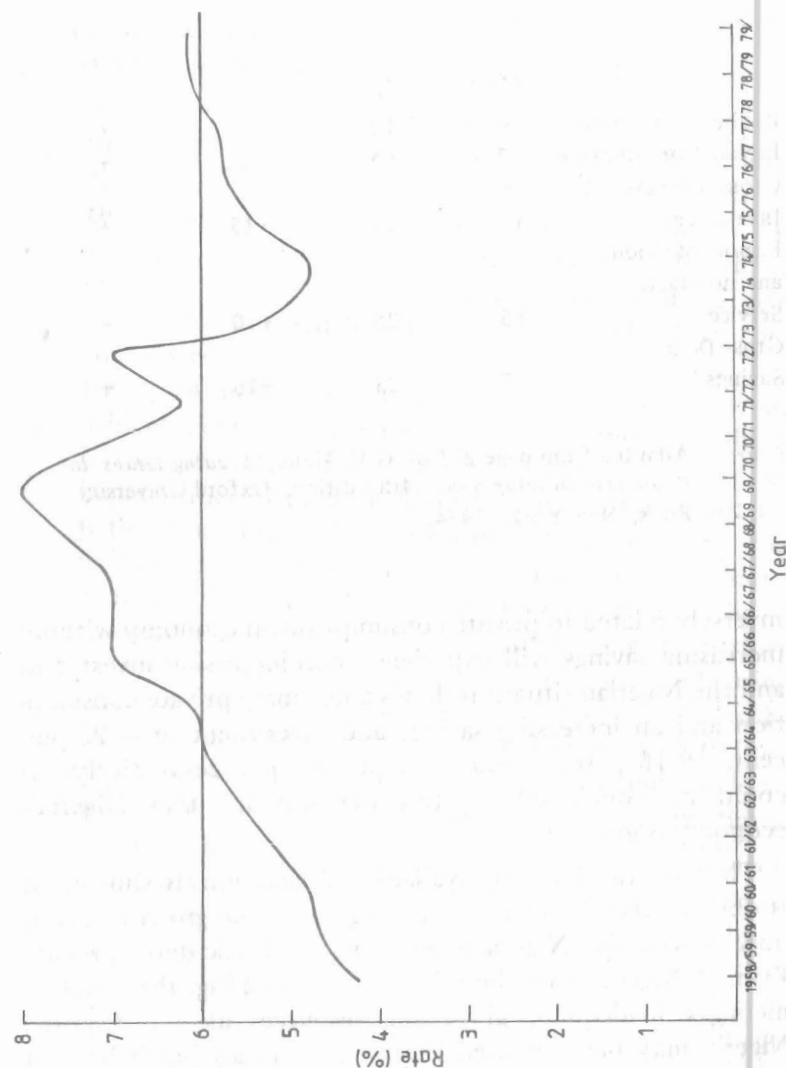
<i>Sector</i>	<i>1961</i>	<i>1966</i>	<i>1971</i>	<i>1976</i>
Agriculture	65	55.37	43.84	28.07
Mining	1.2	4.76	12.15	14.20
Manufacturing	4.8	7.02	7.58	10.28
Electricity and water	0.32	0.58	0.59	0.93
Distribution (Middlemanship)	12.71	13.30	12.31	12.33
Transportation				
Communication	4.56	4.64	3.20	5.22
General Government	3.20	3.08	7.50	9.11
Education	2.56	3.08	2.72	3.83
Health	0.50	0.72	0.88	1.27
Other services	2.03	2.30	2.77	3.64

Source: Federal Office of Statistics, National Accounts of Nigeria, Lagos, 1978

**Table 2: Average Annual Growth Rates of Manufacturing Industries at 1973–74 Factor Prices**

<i>Period</i>	<i>Rate</i>	<i>Historical Remarks</i>
1958–1965	15.1%	Civilian Rule
1966–1970	6.7%	Civil War Years (Military)
1970–1975	7.3%	Military (Reconstruction)
1975–1980	13.9%	Military (Reconstruction)
Overall 1958–80	11.4%	

Source: *Proceedings of the 1980 Annual Conference of the Nigerian Economic Society*, P. 200.



**Figure 1: The Rate of Growth of Manufacturing Industry in Nigeria, 1958–1980.**

**Table 3: Structure of Demand, 1960–1981**  
(% of GDP)

Item	Year		Difference	Growth (+) Decline (–)
	1960	1981		
Public Consumption	6	12	+ 6	+
Private Consumption	87	65	– 22	+
Gross Domestic Investment	13	29	+15	+
Export of Goods and non-factor Services	15	25	+10	+
Gross Dom. Savings	7	23	+16	+

Source: Adapted from page 231 of G.M. Meier, *Leading Issues in Economic Development* 4th Edition, Oxford University Press, New York, 1984.

inversely related to private consumption an economy without increasing savings will experience non-increasing investment and the Nigerian situation shows a declining private consumption and an increasing savings and investment of – 22 percent, + 16 percent and + 15 percent p.a. respectively. It could be concluded by this performance that Nigeria's economy is growing.

Thus on the basis of available information as shown, it is obvious that Nigeria is achieving economic growth. Can it now be said that Nigeria is achieving economic development? Even if Nigeria could be said to be developing, the development is inadequate given the resources at her disposal. Nigeria may have reached the take-off point but it has not taken off. The factors that prevent this economic take-off are many and varied and could be summarized as international externalities which are exhibited in the form of technology and technological transfer; banking and financial

systems; debt generation, maintenance and servicing. These factors which slow down or prevent development would be examined presently.

### III. TECHNOLOGY AND DEVELOPMENT

The word “technology” brings with it the image of machines and hardware of production. In many instances technology is identified with knowledge of machines and the production process and sometimes it connotes labour-saving devices and methods. In thinking of the less developed countries (LDCs) and technology, we tend to perceive only a void to which adapted western technology could be transferred in order to generate increased labour productivity, to induce a restructuring of the economy and to achieve eventual development. But technology, whether it is for the LDCs or the DCs (developed countries), should be identified with both hardware and software not merely with machines. The hardware of technology consists in fact of the methodology of production which not only includes the use of resource inputs but also the skills, knowledge and procedures for making, using and performing productive activities. The manufacturing and using of machines belong to this element of technology hardware. The software starts with the second element of technology which consists of the marketable and non-marketable activities such as personnel and production management. Technological research leading to invention of new machines or modification of existing machines for doing useful things belong to this second element of technology. The third element is a specification of the product or products to be produced. Along with this specification or a determinant of it is the nature of what is produced. Managerial, marketing and operational techniques of production, the fourth element of technology form the core of the software of technology. The other elements of technology are the infrastructural services such as administration, education, banking and the law which promote technology and finally



the organization of productive units in terms of scale and ownership. This is the basis of engineering industry. There is a very strong relationship between the hardware and the software. An exogenous factor to technology, the presence of which aids technological progress, is political stability. In Nigeria today we do not as of now have a native engineering industry which is one of the major factors which generate economic growth and development. It was technology which propelled industrial revolution and the consequent economic development in Western Europe. Joan Robinson once stated that "The actual experience of the European peoples was that of a frontier community endowed with a full complement of tools and materials derived from a parent culture and almost completely severed from the institutional power system of its parent. The great inventions that lead to technological advancement are essentially new combinations of tools (which are now) devised for different purposes" and "the precondition for the (Western Europe's) industrial revolution is an accumulation of such combinations".<sup>16</sup> Robinson argues that the special characteristic of Western Europe was not that such combinations occurred only in Europe, they happened everywhere but Europe's case is unique in that it was free of "international externalities" such as we now face and which resist the emergence of new industrial nations as predicted by Robinson when she said, *inter alia*, that in Africa the most modern technology is coming to the notice of peoples very little encumbered by ancient (alien) traditions, ..... (and therefore) are destined, in due course, to outstrip us all." But as Schumacher argued, African countries "slip and are pushed into the adoption of production methods (technology) and consumption standards which destroy the possibility of self-help,"<sup>18</sup> and therefore prevent the very development predicted by Robinson. The effect of this "push" is permanent or at best long-term dependence on the DCs. This process of "push" into oblivion is carried out by the type and level of technology extended to LDCs, particu-

larly Africa, to keep it from emerging from the shackles of colonialism. The African industries are described by Schumacher as "industries demanding such advance expertise and such refined materials to finish their luxurious products that they cannot employ local labour or use local resources, but must import skills and goods from Europe and America (and from U.S.S.R.)"<sup>18</sup> In Ghana, for example, the Volta River power project built with high interest loan from U.S.A., provides Kaiser Aluminum with very cheap electricity contracted at a long-term low price. But no Ghanaian bauxite has been used by Kaiser, and no aluminum plants have been built in the country. Instead, Kaiser imports its aluminum for processing and sends it to Germany for finishing. A second example is the Aswan Dam in Egypt, built with Russian money and technology and producing a level of power far beyond the needs of the Egyptian economy without being able to export the surplus. Such technologies could not be said to be appropriate since the first was not designed to serve Ghanaian interests but the interests of U.S.A. whose banks benefited in the loans and Germany whose home factories reaped the gains that would have otherwise accrued to Ghana.

Nigeria's experience in her various efforts at development is unique. Nigeria fits that part of Africa which Professor Robinson predicted as "... destined, in due course, to outstrip ..." the West. If in the end Nigeria does not outstrip any Western or Eastern developed country it certainly will not be because it does not have enough ingredients for a rapid technological development. But in spite of petroleum and the income which accrued from it, Nigeria is, and will probably remain a less developed country, at least for the immediate future. Nigeria had, by 1978, become increasingly dependent on imports. The worst aspect of this dependence was the situation in which Nigeria began to import food items which she used to export. Prior to 1970 Nigeria was one of the leading world producers of groundnuts, cotton, palm oil and kernel, rubber, timber, etc. But by 1977 she



had become a net importer of most of these cultivable products. In particular, Nigeria was importing palm oil — an agricultural product for which she was the world's major producer and exporter up to 1970.

Nigeria has some unique problems which constitute obstacles to the achievement of technological development. These problems emanate from (1) contemporary Nigerian's innate desire for quick and immediate rewards manifested in the Nigerian's bias for low technology and robot-like activities; (2) tacit acceptance of foreigners in activities that could be used as training ground for Nigerians; (3) absence of an engineering industry and (4) the promotion of a socio-economic climate that nourishes "*k'a ta, k'a ra*" — general trading and intermediary services or middlemen activities.

Our industrial activities consist of bakery products, soft drink production which require only water and unskilled indigenous labour while the chemical and mixing formula are imported; cigarette manufacturing which hardly uses any domestic tobacco; textile industries which since 1970, imports almost all its cotton and other materials and a host of other low level technology activities. Is this bias for low level technology the preference of Nigerians or are they driven to it because of the lack of access to investment fund loans from the banking system controlled by and for the use of foreign companies?

There is also the pattern of acquisition of technology which creates the impression that an industrial culture is to be carried on in Nigeria, but that the question of the control of the commanding heights of the industrial culture and of the activities thereof are unimportant. Quite a number of government projects for example, are managed by foreigners who are presented as experts in spite of their manifest lack of requisite experience in many cases. Is this a reflection of the constraints of foreign loans euphemised as foreign aid or a reflection of the international barriers to the entry of high-

level technology industries, or is it simply a reflection of lack of information about what is possible, available, accessible and affordable in technology? Whatever it is, it is an international externality designed to keep us from competing effectively even in the West African regional market.

Availability of executive capacity is a necessary ingredient in the acquisition of technology and eventual economic development. But the most serious of all the problems facing Nigeria is inavailability of high level manpower. We have the manpower, but it is not available as entrepreneurs for the development of an engineering industry. This is so because such manpower as exists is constituted by people who acquired technical expertise either through training in advanced economies or at home; but who find it easier and more immediately materially rewarding to engage in mushroom consultancy services or in acting as agents or as middlemen for foreign firms instead of engaging in more productive activities as entrepreneurs in the area of engineering industry. Consequently, the most potent source of technical entrepreneurship is lured away into areas of economic activity which further emphasizes the country's technological dependence on foreign firms. In addition to all these, Nigerian businessmen who are rich enough to establish or attract industries to the country prefer to invest their funds in foreign countries and use Nigeria as a market for dumping their finished products.

Government policy oftentimes creates obstacles to Nigeria's technological development as a result of misleading foreign expert advice. There is usually no provision or funding for a follow-through in research and development. Once an invention or discovery is recorded, the results end up in professional journals or departmental bulletins since there are invariably no funds to develop the new finding to the level of commercial production. Such inventions therefore end up in the hands of foreign firms who make the most use of them at the expense of their inventors. This was what happened to the gari processing plant, the pounded yam

machine and a host of others. This lack of technological infrastructure, the lack of complementary inputs and the surfeit of mis-oriented entrepreneurs have plagued and will continue to plague Nigeria's advancement in technology until such a time that appropriate changes shall occur.

I now turn in the next section to a consideration of financial system as a major externality.

#### IV. THE FINANCIAL SYSTEM: A MAJOR EXTERNALITY

There is general agreement that in all countries, the process of technological development, capital accumulation and economic growth are closely inter-connected. It was in terms of this interconnection, particularly of economic growth and capital accumulation, that the earliest theories of development were formulated. If capital is so important to rapid economic development how have we in Nigeria handled capital formation process? This is where the role of financial institutions becomes important.

Irrespective of political ideology, an economy's financial system is a network of interdependent financial institutions. Such a network may be formal like banks or informal like "*s'ogund'ogoji*" — a system of money doubling. It is the financial system which accommodates the growth of real output. But when the system malfunctions it inhibits and restricts growth in output. In the developed countries where the financial system functions efficiently, financing follows the footsteps of successful enterprises. In other words, the financial demand of enterprises determine the role and the direction of the operations and activities of the banks. This approach emphasizes the demand side of financial services. As the economy grows in scope and complexity, it generates additional, and oftentimes new demands for financial services. This growth in demand stimulates, on the part of the banking system, a supply

response in the growth of financial services. The situation in Nigeria is very different. Rather than expand financial services in response to demand for finance, the banks prefer to increase their profits while keeping the financial market captive. This action of the banks stunts the nation's economy.

The experience of Nigeria was that even when there was demand for financial services, the banks did not respond, ostensibly because of the heavy risk involved in lending money to Nigerian businessmen. In Nigeria, unless a bank is sure of repayment through adequate security, there would be no loan, no matter what the demand for the enterprise is. The present ability to pay should, however, not be a pre-condition for a loan, rather the potential ability to pay should be considered in each loan application. This lack of response from the foreign-dominated banks in Nigeria killed what was essentially a demand-following approach to develop through financial institutions.

This situation forced the Nigerian government to seek participation in the financial system which had undermined the principles of free trade for Nigerians. This government action had as a direct consequence the "creation of financial institutions and the supply of their financial assets, liabilities and related financial services in advance of demand for them" especially in advance of the demand of entrepreneurs in the modern, growth-inducing sectors such as the manufacturing sector. This deliberate action of government was designed, we were made to believe, to remove the externality created by the British-dominated banks and to wrest the effective control of the nation's financial system from the hands of foreigners. The implicit argument here is that the inability of most developing nations to have effective control of the financial system in their countries led many into debt traps set by developed nations. The lack of control of the financial system is one of the international externalities preventing less developed nations from developing.

By itself debt, national debt, is not a *bad* thing. It is actually the *right* thing to acquire when there is a resource gap which may inhibit progress in the economy. When LDCs identify resource gaps in their economies and they are "unable to generate sufficient domestic savings to fuel their aspirations for economic growth, they have historically sought finance from other countries. U.S.A. for example, relied heavily on foreign loans particularly during the period 1835 to 1860. Russia did the same to help propel its development spurt in the three decades before World War I. Thus, seeking foreign financing or going into debt for purposes of propelling development is not new to the 20th century LDC. But the new facet of the finance is the trap it generates in the present-day economy.

Prior to the point at which the LDC reaches "pre-conditions for take-off", it has virtually no resource gap. At this point the economy is in a static condition of self-sufficiency with very low income, low demand and low resource deficit. The economy is in a state of balance with itself and the immediate environment of its participants. Its debt is also low since there is no need to borrow. Then comes the shock to the economy as the participants interact with foreign economies and their demand for goods and services increases i.e. so-called development sets in. As "development" gathers momentum, the economy's demand for resource use increases at a rate faster than could be handled by domestic resources. This results in a resource deficit or resource gap. The need for a loan is thus identified.

Initially, when the country's economy is in phase 1 it is in equilibrium, albeit at a very low income level and without any need or use of loans (Table 4). During the second phase it identifies a resource gap but has not obtained any loans; its income is low but requires loans for capital development. This is the stage of development similar to Rostow's "pre-conditions for take-off". In order to initiate the take-off the LDC now borrows funds in order to fuel its aspirations

Table 4: Phases of LDC Debt

Phases of Development	Total Resource Gap	Debt Incurred	Nation's Income (Y)	Use of Loan
1. Low	Low	Low	Low	No Loans
2. Preconditions for "Take-Off"	High	Low	Low	Capital Development
3. Initiation of "Take-Off"	High	High	Low	Capital Development
4. Take-Off	High	High	Middle	Capital Development Generating Y
5. Drive to Maturity	Low	High	Middle	Home capital Replacing Foreign Loan
6. Sustained Growth	Low	Low	High	To Satisfy Gap.

for growth and development. At this point, phase 3 — initiation of take-off — the resource gap is high, debt is high because the economy has accepted loans for capital development even though its income is still low. At the beginning of phase 4, the heavy investment on capital development is supposed to generate income, moving the income level from low to middle but the resource gap and debt incurred remain high. This phase Four is similar to Rostow's "take-off" stage. This phase is the most critical stage for an LDC in that if it fails to take-off it is trapped in debt.

There are six critical factors which influence a country's ability to take-off; the factors are the nation's resource base, development strategy, geographical location, technological situation, leadership and international externalities. Given



these factors, the country must achieve certain critical targets in respect of the factors to reach a sustainable take-off. Some of these targets are: the establishment of an engineering industry to enhance the production of a sufficient range of import substitutes generated from an adequate and appropriate technology which is "native" to the country; overcoming stagnation in the traditional export markets; the development of new export products and markets; the mobilization of sufficient domestic resources to finance its own investment; and, above all, the creation of an atmosphere of nationalism.

At this point, phase 4, assuming that the five critical targets listed above are already achieved, the country could then be said to have taken-off and all its efforts would then be directed to moving to phase 5, to a sustained growth. The resources gap of the country will start to decline even though it is still high. But the debt which was contracted to finance the take-off (phases 3 and 4) will continue to increase for as long as the surplus earnings generated from exports and from reduced import bills amount to less than the loan servicing payments.

However, as soon as this surplus becomes greater than loan servicing payments, the country can then begin to pay back the loan and at this point the domestic resources generated from the heavy investment on capital development will now take over to eliminate the resource gap. The economy has therefore reached phase 5, a stage of development in which the developing nation is using home capital to replace foreign loans in closing the resource gap, continuing investment in capital development and keeping its income level. In the final phase, the developing nation joins the developed nations because by now its resource gap is low, it has paid back most of its foreign loans, its debt is low and the nation's income is high while the economy is enjoying sustained growth.

The underlying assumption of the preceding analysis which shows that it is not a bad thing for a country in need

of development funds to go into debt is that the nation's income rises in subsequent phases which implies that the capital mobilized domestically and from external borrowings is used effectively to increase production capacity and national output.

In the Nigerian situation, it seems the country has used its external borrowing, debts, to finance increased consumption through importation of consumer goods instead of increasing national output through the importation and domestic development of capital goods required to increase Nigeria's productive capacity. Consequently, the country has not achieved the take-off as described by the critical achievements mentioned above, in spite of its rich endowment in petroleum, iron ore, marble deposits, tin ore, uranium and fertile land. It is the transformation of endowments into assets that can lead to development and it is economic achievement, the critical achievements, which produces assets and money or funds both of which, in turn, produce increased output. It is not the endowment, the assets and money which by themselves produce economic achievement; it is the reverse. The existence of endowments such as petroleum only serves as a guarantee for generating funds from external and internal sources for acquisition of production capacity. But if the endowment is not transformed into assets and the assets translated into the critical achievements, the result is a debt trap especially when the endowed resources, usually non-renewable such as petroleum, are used up.

Nigeria is being pushed into the debt trap and, *ipso facto*, into oblivion by her number one enemy — Britain and her allies, and with the active collaboration of Nigerian middlemen and commissioned agents. Nigeria devalued her currency and simultaneously liberalized trade in 1973, the consequences of these two actions were disastrous to the nation. These two conditions — devaluation and liberalization — were insisted on by IMF. Since "the fire of the fire plant does not burn a person twice," Nigeria refused these

conditions at this time. This time around, Nigeria expected her friends to support her efforts at reconstruction. In 1984 Nigeria discovered that it had no friends but trading partners who are out to keep Nigeria down in an economic abyss. Britain tried in 1984 to force Nigeria to accept an IMF loan and its conditions. When Nigeria refused to accept some of the conditions of IMF loan, the Fund withheld the loan and the two sides agreed to disagree, a fact that was diplomatically reported in *The World Bank Annual Report 1984* under "Structural Problems and Policy Responses" (Page 88, paragraphs 2 and 3). By August of 1984, Nigeria's government response to its structural problems started to bear fruits in that Nigeria's imports reduced drastically to about a quarter of what it was by 1982 and Nigeria saved more than the 1.7 billion naira it was seeking as a loan from IMF. This eight-month performance of the economy should have pleased a friendly trading partner, but not Britain, a revered enemy. Britain and her allies had earlier resorted to "blackmail" by saying that all loans and trade credits owned by Nigeria stand non-negotiable unless and until Nigeria accepted IMF loan conditions and the loan. *The Economist* of July 14, 1984, in an article titled "How Much Is on the Line" warned in a sibylline fashion that "Britain has more than pride at stake in deciding how to handle relations with Nigeria." According to the article, the annual trade with Britain was 4.8 billion pounds sterling per annum. With this type of trade relationship, why then is the British government seeking the downfall of the Nigerian economy? If Nigeria buckles under and accepts the IMF conditional loan, then the consequences are enormous. But we apparently did not buckle under. It has been reported that we rejected the loan and the British inspired conditionalities in spite of the British use of our people to destroy our economy as laid down in the British policy of development for Nigeria in 1940.

In my own opinion, we have allowed ourselves to be misled, misdirected, misadvised just to keep us from becoming an industrial nation capable of competing with

and probably unseating Britain and its allies in the West African subregional market. It is now left to us to examine which determinants of development "take-off" we have. Of the six determinants of development, we have two in our favour — a good resource base and geographical location in that we stand in a position to command the Atlantic. Alas, we have neither a development strategy even though we have development programmes nor the requisite technological situation — an engineering industrial base — to propel us to development. We remain in search of the right leadership, the type, for example, which can exploit the JMB scandal to Nigeria's advantage.

From the foregoing, we can now conclude that in order to develop, Nigeria needs: a development strategy; and an engineering industry, both of which are a MUST for national security. But what is this development strategy?

In the final section which follows, I shall turn only to consider what I mean by a development strategy for Nigeria's present predicament.

## V. A DEVELOPMENT STRATEGY

In Nigeria, the primary unit of development before the arrival of British colonialism was the village which was the smallest administrative unit of a kingdom. When the British came they adopted an indirect system of government by which the kingdoms were preserved. By 1951 district councils were established, some of which were along the lines of the existing kingdoms, and by 1976 they became known as local government areas. It is with this local government area especially the one corresponding to the old kingdom that an individual identifies and to which he owes his loyalty under optimum conditions. His home is here no matter where he is and where he may have been. He is held responsible for his actions in this community. His roots are here and the unit constitutes the primary object of his affection. *The nakedness of our situation is that Nigeria is thus an*



amalgamation of 400 ethnic nations of varying sizes and social complexities, some occupying several local government areas and some less than one. The structure that requires the most urgent breakdown in Nigeria is the *k'a ta, k'a ra* system, a system that emphasizes the search for and the distribution of consumer goods without any thought to the origin of production of the goods and their effects on the nation's production capacity. If Nigeria is to obtain the critical achievements necessary for take-off, it must de-emphasize consumption of imported goods and emphasize production of goods and services on a two-pronged approach. The first should be directed at the international market and the other at the domestic and the West African regional market. Nigeria's achievement in economic development as shown in Table 5 should be continued and expanded. The rural economy must be re-structured in such a way as to emphasize production and productivity at the village level.

**Table 5: Structure of Demand  
(% of GDP)**

Item	Year		Difference	Growth (+) Decline (-)
	1960	1981		
Public Consumption	6	12	+ 6	+
Private Consumption	57	65	-22	+
Gross Domestic Investment.	13	29	+15	+
Gross Domestic Savings	7	23	+16	+
Export of Goods and Non-factor Services	15	25	+10	+

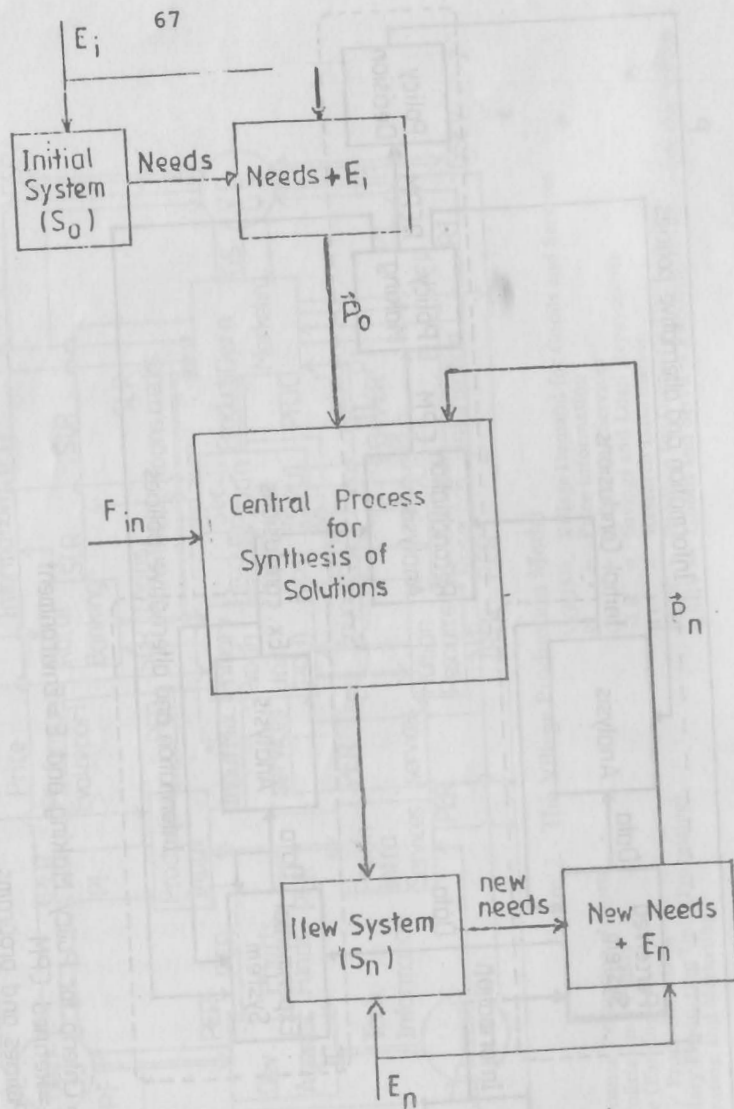
Source: Extracted from page 231 of G.M. Meier's *Leading Issues in Economic Development*, 4th Edition, Oxford University Press, New York, 1984.

Nigeria's rural sector is basically agricultural and the sizeable agricultural components of rural development to date therefore presuppose the need for a careful assessment of the problems and structure of the primary production within the context of ecological diversity and limitations. The economic problems connected with the production environment — the village, the types of investment and the feasibility of the adaptive technology — must be assessed. The infrastructure designed for achieving rural development with given or available technological tools must be carefully worked out within the community framework. In other words, the changes required for a meaningful rural development should include a systems-oriented organisation of the village economy.

An example of such a village production system is given in the Village Production Model (Fig. 2) in which the government stimulates agricultural development through development agents such as the River Basin Development Authorities and the Agricultural Development Projects. Funding is provided in appropriate institutions for continuous inquiry to make research information available as input to the system with emphasis to be on production, processing and distribution. Establishment of a rural banking system such as mobile bank serving several villages is a must as this will reduce the distrust of the rural people in the nation's banking system as well as the menace of the money lender in the rural sector. The human resource component will ensure the production of all levels of manpower through a system of education which emphasizes technical training and does not look down on the use of the hand.

Our research information production must of necessity take a systems-approach which allows the acceptance of the existence of incomplete knowledge of the economy as the real system of interest (Fig. 3). But the system that each researcher identifies as the state of affairs of the economy is the perceived system. It is on this system that all kinds of data collection and analysis as well as all types of experimen-





Where:  $E_i$  = Initial environment;  $E_n$  = new environment;  
 $\vec{P}_0$  = Initial set of problems;  $\vec{P}_n$  = new set of problems;  
 $F$  = Information used in central process;  
 → denote vectors

Figure 4: Creative Process

tation take place. The results of these research efforts are collated and discussed at the reconciliation analysis stage at which policy makers are present and actively participate. The result of such interaction is a set of policy recommendations leading to policy-making and the eventual policy decision such as could bring about agricultural programmes like rural loan scheme for small-holder farmers, tried on the real system. The process then continues as shown in the creative process (Fig. 4). In this process once the environment ( $E_i$ ) is identified the initial system — that is the real system — is known. The needs of the system is identified and through the research process described earlier, solutions are found. Once solution are found to the first set of problems a new system emerges with its new needs and new problems requiring new solutions and the dynamism of the process continues.

An example of problem-solving inquiry in the creative process is the on-going research led by my colleague, Babajide Matanmi of our Department of Plant Science. Briefly, he is seeking to utilize predatory larvae of the giant mosquitoes, *Toxorhynchites* as a control agent of the larvae of the malaria-carrying mosquitoes, a major public health problem in Nigeria. If the inquiry succeeds, a new situation arises which may throw up new problems and the process continues. Presently, we have a lot of information with which to get started. Right here at the University of Ife there are enough small-scale machines invented which are adequate for village level production. In addition to machines, we have, in agriculture, developed new high yielding peas (Ife brown, for example), tomato (Ife plum), pepper and maize seeds as well as new management systems for poultry, goats, sheep and swine.

In order therefore to combat the international externalities and their pernicious effects on our nation, the development of agriculture and an engineering industry is a pre-requisite for our survival and national security.

The critical bind which the creative process rejects is a situation in which transnationals and their agents such as the banks, commercial houses and oil companies appropriate home-grown technologies and sell them back to us at crippling costs — costs in our very blood.

## REFERENCES

1. Bocke, J. H. *Economics and Economic Policy of Dual Societies*, 1953.
2. Ekuerehare, B. U. "The Impact and Lessons of Nigeria's Industrial Policy Under the Military Governor 1966-1979," *Proceedings of the 1980 Annual Conference of the Nigerian Economic Society*, pp. 199-223, 1980.
3. Gillis, Malcolm, D. H. Perkins, M. Roemer and D. R. Snodgrass *Economics of Development*, W. W. Norton and Co. New York, 1983.
4. Government of Nigeria; (a) Governor's Speech, Nigerian Legislative Council Debates, 18th Session, March, 1940. (b) 2nd National Development Plan.
5. Hayami, Y. and V. M. Ruttan, *Agricultural Development: An International Perspective*, The John Hopkins Press, Baltimore, 1971.
6. Hayter, T. and C. Watson: *Aid Rhetoric and Reality*, Pluto Press, London, 1985.
7. Higgins, B. "The 'Dualistic Theory' of Underdeveloped Areas" *Economic Development and Cultural Change*, Jan. 1956.
8. Jorgensen, D. W. "Surplus Agricultural Labor and the Development of a Dual Economy," *Oxford Economic Papers*: Nov. 1968.
9. Keynes, J. M., *The General Theory of Employment, Interest and Money*; Harcourt, Brace and Company, New York, 1935.
10. Ladipo, O. O. and A. A. Adesimi, "Income Distribution in the Rural Sector," in *Inequality and Develop-*
11. Meir, G. M. *Leading Issues in Econ. Development*; 4th Edition, Oxford University Press, New York, 1984.
12. Myint, J. *Economic Theory and the Underdeveloped Countries*, Oxford University Press, New York, 1971.

13. Okun, B. and R. W. Richardson, *Studies in Economic Development*: Holt, Rinehart, and Winston, New York, 1961.
14. Ranis, G. and J.C.H. Fei, "A Theory of Economic Development" *AER* Sept. 1961, pp. 533-565.
15. Rimmer, Douglas, "Development in Nigeria: An Overview" in *Inequality and Development in Nigeria* edited by Brenen, H. and V. P. Diejomaoh; Holmes and Meier Publishers, Inc. New York, 1981.
16. Robinson, Joan, *Economic Philosophy*, Aldine Publishing Company, Chicago, 1962.
17. Rostow, W. W. *The Stages of Economic Growth*, Cambridge University Press, London, 1960.
18. Schumacher, E. F. *Small is Beautiful*, Harper and Row Publishers, New York, 1973.
19. Schultz, T. W. *Transforming Traditional Agriculture* Yale University Press, New Haven Conn., 1964.
20. World Bank, *The World Bank Reports*, 1982, 1984.
21. World Bank, *World Development Report*, 1984 Oxford University Press, New York, 1984.