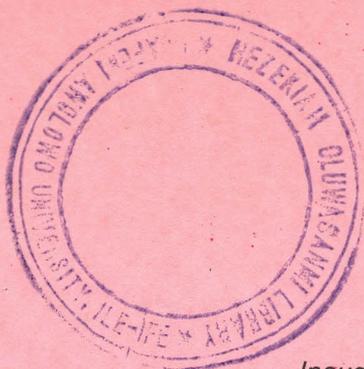


OBAFEMI AWOLOWO UNIVERSITY, ILE-IFE, NIGERIA.



Inaugural Lecture Series 103

**REGIONAL INEQUALITIES
IN SOCIO-ECONOMIC
DEVELOPMENT IN NIGERIA:
PROBLEMS AND PROSPECTS**

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J. O. Abiodun
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An Inaugural Lecture delivered at Obafemi Awolowo University on
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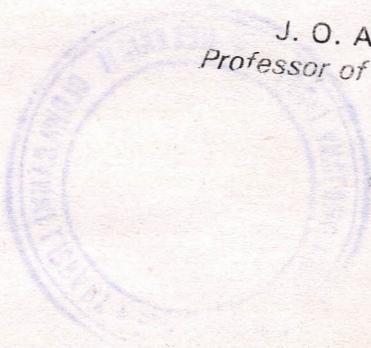
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INTRODUCTION

The Vice-Chancellor, eminent scholars, distinguished colleagues, students of this Great University, ladies and gentlemen,

It is a great pleasure and an honour for me to deliver this first Inaugural Lecture of the 1991/92 academic year. The topic of my lecture of today is **Regional Inequalities in Socio-Economic Development in Nigeria: Problems and Prospects.**

Spatial inequality in the level of social and economic development is a universal phenomenon. In the developed countries, the problems associated with this phenomenon had agitated the minds of scholars for centuries - for example, income inequality - which is considered synonymous with inequality in general, was given considerable attention by economists and sociologists such as John Stuart Mill, Karl Marx in the second half of the 19th century. In the 20th century, Keynes exercised considerable influence on ideas about income inequality and economic growth particularly in the period before World War II. However, in the less developed countries (LDCs) the topic hardly received any attention until in recent decades.

One major factor that inspired increasing focus on the problems of spatial inequality in the LDCs is the growing realization that increase in national income per capita is not necessarily accompanied by improvement in the living conditions of the poorest group in any given country. It is also well known that inequalities among units within a nation could lead to disaffection and result in political instability. The experiences of the Republic of Zaire, Sudan, Ethiopia are cases in point. Prior to 1975, development planning in Nigeria for instance focused on achieving greater rate of economic growth through sectoral investments. In consequence, not much attention was paid to the spatial patterns of inequalities in development. However, the Third National Development Plan (1975-1980) did recognize the need to take cognisance of the disparities in development levels among units within the country.

CONCEPTUAL FRAMEWORK

It is useful at this stage, to examine the concept of development which in itself has provoked several definitions and controversies over the decades. Particularly in the early post World War II, development in the economic literature was defined as "a rapid and sustained rise in real output per head and attendant shifts in the technological, economic and demographic characteristics of a society" (Easterlin, 1968). This

conceptualization of development found expression in the measurement of development in terms of economic growth. Lewis for example asserts that "the central problem in the theory of economic growth is to understand the process by which a community is converted from being a 5 per cent to a 12 per cent saver - with all the changes in attitudes, in institutions and in techniques which accompany this conversion" (Lewis, 1955). Based on this assumption, growth in the GNP was earlier on adopted in measuring development. This however, has since been found to be grossly inadequate.

The need to incorporate changes in social, psychological and political aspects led to the conceptualization of development as modernisation. While still incorporating economic growth, this viewpoint takes cognizance of the much wider process of social change which involves the "ultimate reshaping and resharing of all social values, such as power, respect, rectitude, affection, well-being, skill and enlightenment" (Lerner, 1968).

With regards to the less developed countries (LDCs) however, it became clear by the 1960s that neither the concept of development as economic growth nor as modernization was adequate. There continued to exist in three countries poverty and destitution sprinkled with pockets of a few rich elites. Development then came to be seen not simply as raising per capita income but more importantly, of reducing the poverty level among the masses. The basic needs of the mass of the population became the focus of attention. Development then focused on social justice. Thus, three major issues came to the forefront. Firstly, the nature of goods and services provided by governments for their populations, the accessibility to these public goods to different social classes and how the burden of development can be shared among these classes

Scholars of Marxian philosophical persuasion hold that the issue of distribution and social justice cannot be tackled without reference to the mechanisms which govern production and distribution. They therefore see development in terms of basic shifts in the mode of production with the attendant changes in the relative importance of social classes. Thus development from this viewpoint is the socio-economic transformation of a given society. It is however known that there is no historical epoch that is exclusively dominated by one mode of production, although a specific mode of production may clearly dominate at any given time. Lukacs (1971) for instance claims that -

The modes of production and the corresponding social forms and class stratifications which succeed and supersede one another tend in fact to appear in history much more as intersecting and opposing forces.

And Mabogunje (1980) claims that "The manner in which these intersecting and opposing forces operate within a country can be said to determine whether the country 'develops' or becomes 'underdeveloped'". In like manner, the extent to which these same process penetrates the different regions within a country, determines whether the region develops (relative to other regions) or is underdeveloped.

Three important points are implied in the Marxian conceptualization of development as socio-economic transformation. The first focuses development as essentially a human issue. That it concerns "the capacity of individuals to realize their inherent potential and effectively to cope with the changing circumstances of their lives". (Mabogunje, 1980). Secondly, that it involves the total and full mobilization of a society. Thirdly, that it involves a shift from an outward-oriented dependent status to a self-centred and self-reliant position with regard not only to the process of decision-making, but more importantly the pattern and style of production and consumption.

Changes in the mode of production find expression in changes in social relations and spatial processes. The latter concept is embraced by spatial organisation. Competition, integration and diffusion constitute the three most important processes of spatial organization which find expression in spatial structure within which among others, inequality manifests itself. For example in a country with colonial experience such as Nigeria, areas of the country which possessed special advantages in the production of certain commodities which were in demand in the metropolitan country (during the colonial era) were favoured in terms of investment whether in mining or crop production. This was reinforced by investments in transportation designed to link such areas with the ports from where these commodities were shipped to the metropolitan country. The opening up of such areas introduced increased income in the areas thus stimulating further economic activities with the attendant social and infrastructural developments. Invariably, over time such regions tend to be relatively more developed than other areas of the country that lacked the initial advantages. Thus the process of 'circular and cumulative causation' first put forward by

Myrdal (1957) manifests itself. On the other hand, the initially disadvantaged areas had tended during that period to slip into correspondingly worsening conditions. Out-migration of the younger age groups to areas of economic activities became characteristic. Thus such regions had tended to loose labour, entrepreneurship and even capital to the economically active regions. The result is not only a real differentiation over time, but more importantly, sharp disparities in regional development within the country.

Mabogunje (1980) conceptualized development as synonymous with spatial reorganisation. The latter is defined as a new system of resource allocation which also implies efficiency. Efficiency in turn finds expression in the two important concepts of magnitude and time. Thus he claims for instance, that "it is not enough to know how many people live in a country. It is equally necessary to have an idea of the number and sizes of the settlements they occupy, the number and quality of route-ways that link these settlements, the number, size and ownership distribution of land as well as other assets and so on". He claims that all these are important in achieving efficiency in the new system of social relations. He further claims that "the more attention is paid to matters of magnitude and their changing complexity, the greater the chances of development in a country being well managed and directed".

Time factor is the other aspect of the concept of efficiency with regards to spatial reorganization. Development could be seen as an intense concentration of activities requiring a high degree of synchronization and sequential ordering over a short period of time during which the whole social fabric of a country is transformed and its spatial structure reorganized.

MODELS AND CONCEPTS IN REGIONAL INEQUALITY

An early idea addressing the problem of inequalities focused on the problems of developing backward regions. This was the *Balanced Grow* (BG) concept of Reosentein-Rodan (1943). This theory claims that inducement to invest is low in economically backward regions because of the small size of the market. The strategy therefore favours the establishment of whole set of complementary projects such that the needs of one industry create the demand for the output of related industries. Thus supply creates its own demand. It has however, been suggested that a BG strategy would result in the concentration of economic activities in some areas while other areas are neglected. This

was argued on the basis of the requirement of location economics and the possible bias of the ruling elites for the location of activities in certain areas in preference to others (Ilchman and Bhargava, 1966).

A rival concept is that of *Unbalanced Growth* (UG). Hirschman one of the chief exponents of UG, argues that the primary problem is to induce entrepreneurs to perceive and take investment decisions in order to achieve long-term growth. However, both BG and UG have the same objective, which is the achievement of balanced growth.

Hirschman (1958) writes:

It is the experience of unbalanced growth in the past that produces, at an advanced stage of economic development, the possibility of balanced growth.

Streeten (1959) makes a similar point:

It is possible to reformulate the choice between balance and unbalance in terms of choice between balanced over periods of varying lengths.

Again, Singer (1958) bases his UG -

"attack" on BG on the view that when you start with imbalance, you need further imbalance in order to come closer to balance.

Myrdal (1957) in his "circular and cumulative causation" hypothesis put forward that once a region starts growing ahead of others due to initial advantages such as resource endowment or the like, subsequent forces tend to attract new investments and activities to such a region such that it grows and develops further relative to other regions thereby increasing inequalities among regions. Backwash effects result in the flow of capital, labour, and materials from the less developed region to the growing region and tend to aggravate inequality. On the other hand "spread effects" are conceptualized as the positive effects of development which are diffused to the backward regions and can take the form of purchases of raw materials from the backward region, remittances to the backward areas of income earned by workers in the growing region or the development of linked establishment in the backward region.

The growth pole/growth centre concept address the strategy of dealing with inequalities among regions. Certain observable features of human activities constituted the basis of the concept. These are:

- i) That human activities tend to cluster together to generate internal and external economies of scale,
- ii) that if the process were left to itself, it may result in heavy social cost such as congestion, diseconomies of scale and spatial imbalance in social and economic development.
- iii) that it is possible to intervene in the operation of the processes which tend to create clustering and spatial imbalance and thus achieve certain desired spatial pattern of human activities.

Perroux (1955) observed that growth does not appear everywhere and all at once but "it becomes manifest at points or poles of growth, with variable intensity; it spreads through different channels, with variables terminal effects on the whole of the economy". (Perroux 1955, translation by Mckee, Dean and Leahy 1970, p. 94). He visualized growth poles as those from which centrifugal forces emanate and to which centripetal forces are attracted. In developing his growth pole concept, he based his argument heavily on Schumpeter's theories of innovation and large scale firms. The concepts of inter-industry linkages and that of industrial interdependence also play major roles - hence the importance of dominance of the pole in inter-industry relationship.

According to Perroux, a growth pole consists of a group of firms (or industries which are strongly linked through forward and backward linkages around a leading firm (or leading industry) which has been termed the propulsive firm (or industry).

Boudeville (1966) made an attempt to express the concept of growth pole in partial terms through a functional transformation which describes the relevant properties of economic process. He recognised three types of regions - homogeneous, polarized and programming regions. The polarized region which he regards as the most important is visualized as homogeneous, continuous area, consisting of interdependent, integrated units in which flows such as goods, services or political allegiance are predominantly towards the same direction - towards the regional centre or growth centre.

The programming region on the other hand is designed to achieve certain objectives on the basis of available resources and economic structure.

The Mechanisms of the Strategy

Statements that have become basic to the growth centre strategy were put forward by Hirschman (1958) and Myrdal (1957). These scholars focus on the mechanisms whereby a developed region (growth centre) influences a backward region. These mechanisms they termed "polarization" and "trickling down" effects (Hirschman, 1958) and "backwash" and "spread effects" (Myrdal, 1957). "Polarization" or "backwash" effects relates to the negative impacts of development at the growth centre on the zone of influence of that centre. This is conceptualized in terms of the flow of capital, labour, investment raw material and other resources to the growth centre to the disadvantage of the rest of the region that is influenced. This process tends to exacerbate regional inequalities in development level.

On the other hand, the "trickling down" or "spread effects" mechanism is supposed to diffuse the positive impact of growth centre development to the surrounding zone of influence. In fact, the great intuitive appeal of growth centre strategy rests on this mechanism. However, it is still not clear in quantitative terms how the favourable economic impact is spread from the urban growth centre to the surrounding territory. Neither is the range nor the speed of the various impacts specified in the literature.

One significant fact is the vital role of innovation diffusion in the process of regional development. Friedmann (1966) highlighted his in this core-periphery model. He expects regional development to occur through a discontinuous but cumulative process of innovation. However, he believes that innovation first appears in a relatively small number of core regions and tends to spread downward and outward from these centres to the peripheral areas.

The concepts of growth pole/growth centre had come under severe criticisms. Much of the international interest in growth centre strategy as a means of promoting growth in backward areas is associated with the ideal of "spread effects". This in turn is commonly associated with the induced generation of "secondary jobs" in the surrounding areas. The tendency has been to identify the induced effects of an economic activity with locally induced effects. Thus, it is believed that investment in a large centre will ultimately stimulate growth in the region in which the centre is located. However, many studies indicate that this view is mistaken. For instance, after reviewing 17 studies of growth centre impacts, Gaile (1973) concluded that if any trend was discernible it was

- i) that spread effects were small
- ii) limited in geographic extent
- and iii) less than the backwash effects.

Disenchantment with growth centre approaches, particularly policies based on large scale industrial concentration had led to the adoption of variants of the strategy. These include the rural centres and the service centres. However, these have been so difficult to sustain and are limited in effect because of the multiplicity and intricacy of the actions necessary to upgrade local socio-economic structure. Alternative strategies put forward includes Friedmann's (1975) "Agropolitan district" as a means of developing rural areas of the less developed countries.

The basic needs approach (BNA) attracted the imagination of scholars. It was hailed as the strategy for development particularly in the less developed countries (LDCs). According to the document of the ILO World Employment Conference (1976) basic needs include:

Certain minimum requirements of a family for private consumption: adequate food, shelter and clothing are obviously included, as would certain household equipment and furniture. Second, they include essential services provided by and for the community at large, such as safe drinking water, sanitation, public transport, and health and educational facilities.

Participation of the people in decisions that affect them is important in this approach. Employment is however seen as a means and end. The report went further:

Not only must the structure of production change, but the total amount produced must also rise over time. For this reason, it should be stressed that a rapid rate of economic growth is an essential part of a basic needs strategy (ILO, 1976).

Higgins (1980) views as illogical the idea of singling out employer, "both as a means and an end". He contends that many other things can be similarly regarded as both means and ends in the development feedback process. Such include health, nutrition, education, transport and stable honest and efficient government - to name but a few.

The approach itself has certain features in common with the Unified Approach (UA) earlier put forward by the United Nations expert in Stockholm in October 1969. The two approaches seek to attack poverty and unemployment. They insist that all social groups must share the benefits of development and advocate the participation of the population in planning and implementation of development projects. However, once the basic needs are met, the BNA approach becomes less compelling. However, where effort has been made to provide basic needs in the less developed countries, the disparities between backward and prosperous regions still remain substantial.

The Integrated Rural Development Approach (IRDA) is another strategy to which the less developed countries have been attracted. This approach stems from the realization that the bulk of the population in the LDCs particularly in Africa, South and East Asia live in the rural areas where the basic activity is agriculture. Two options are therefore open to planners interested in raising the living levels in the rural areas where income are generally much lower than in the urban areas. There could be a programme to improve agricultural productivity and hence, income in the rural areas. This would normally involve land reforms and improvements in agricultural technology. The provision of public services in rural areas is also essential to this option. Another approach is to transfer rural unemployed labour to urban employment in secondary, tertiary activities at levels of income far above the poverty.

THE NIGERIAN SITUATION

Prior to the 1950s no real regional inequality can be said to occur within the Nigerian socio-economic system. No doubt there were areas of regional specialization in the production of export crops such as cocoa, cotton, oil-palm, rubber, timber and in mineral production such as tin in Jos Plateau. There was also the "bread-basket" of the country - the middle belt which exported large quantities of yams, cassava, maize and rice to the export oriented regions of the North and the South. Nevertheless, it is doubtful whether the differentials in terms of income to farmers in the export oriented activities vis-a-vis those in the internal exchange activities were significant. As noted by Mabogunje, farmers received very low prices for their crops, irrespective of the prices paid on the world market. This was because farmers received prices determined by local competition and such prices were invariably low.

The situation improved gradually after World War II with the

establishment of the commodity Marketing Boards whose main function was to stabilize prices paid to farmers. Even when the Boards came into operation as from 1947, they kept a large part of their accumulated earnings in various securities abroad rather than invest them locally to generate more income. In the case of the tin-mining areas, the vast majority of the employees who were unskilled labourers were earning less than £20 per annum in 1950 and by 1968/69 were earning not more than £70 per annum. Thus there were no great divergences in income to create significant regional inequality at this point in time although regional differentiation no doubt existed.

Mabogunje claims that one reason why the growing regional differentiation did not lead to widening regional inequality was the fact that apart from the exploitative interest of the colonial administration in the country, it was also interested in maintaining a degree of law and order necessary to ensure exploitation. Thus while the requirement to export influence production pattern, expediency of administration influenced investment pattern. Consequently, the export producing areas were up to the early 1950s left to their own devices to capitalise as best they could on the advantages of their natural endowment rather than to re-organize the structure and techniques of their production in such a way as to enable them to make a major leap forward. Thus even when there was a significant increase in the prices paid for major export crops on the world market such excess income were never invested in activities that resulted in any major forward linkage within the economy. For instance, with cotton production, no attempt was made to establish a textile mill for a long time. In consequence, production lacked internal stimulation and remained subject to the vagaries of a fluctuating and highly competitive world market. Of course, the establishment of local industries would have been inconsistent with the objectives of the colonial administration.

Another aspect of regional differentiation was in respect of social facilities especially education. The differentiation arose from the fact that while in the South, Christian missionaries were allowed to introduce Western type education, in the North, it was part of the agreement at the time the colonial administration took over, that Christian missionaries would not be allowed in this sector of the country. Thus Islam remained the predominant social and educational influence in the North. On the other hand, the missionaries remained the main agents of Western type educational development throughout the colonial period (See Table 1).

TABLE I
**INEQUALITIES IN THE DEVELOPMENT OF WESTERN EDUCATION IN
 SOUTHERN AND NORTHERN NIGERIA 1906 - 1956**

Year	SOUTH				NORTH			
	No. of Schools		Pupils in Attendance		No. of Schools		Pupils in Attendance	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
1906	126	1	11,872	20	1	0	Not Known	0
1912	150	10	35,716	67	34	0	954	0
1927	3,828	18	138,249	518	125	0	5,210	0
1937	3,533	26	218,610	4,285	539	1	20,269	65
1947	4,984	43	538,391	9,657	1,110	3	70,962	251
1957	13,473	176	2,343,317	28,208	2,080	18	185,484	3,643

SOURCE: Coleman, J.S. Nigeria: Background to Nationalism, Berkeley University of California Press, 1958, p. 134.

Nevertheless, the type of education available during the colonial period was mostly geared towards liberal arts with little vocational or technical content. It was designed to produce clerks for government and commercial sectors as well as school teachers. In terms of earnings, educational attainment did not offer much better prospects than agriculture except that it was less strenuous physically and more prestigious socially. Hence inequality was not significant at this period although regional differentiation did exist.

Overall it is claimed that prior to 1950 regional differentiation did exist, but regional inequalities were not manifest. The production of different types of crops or minerals do not by itself produce inequality. For inequality to emerge, it is essential that these activities lead to changes in the structure of production and organization in such a manner that increasingly higher and higher per capita income to one or more regions relative to others occur on an almost permanent basis. The vagaries of prices received for export agricultural crops, the fact that the prices did not result from improved production and organizational techniques and the absence of strong linkages with the rest of the economy emphasise that there was little inequality in Nigeria before the 1950s.

This situation however changed dramatically with the emergence of petroleum as the dominant foreign exchange earner in the Nigerian economy. As shown in Table 2, petroleum made no contribution to Federal Government revenue in 1950. By 1960 it accounted for only 3.4 per cent of Federal Government revenue. However, by 1970/71 crude petroleum accounted for more than half of the total Federal Government revenue. In subsequent years particularly with the oil boom period, petroleum became the indisputable mover of the Nigerian economy. Earnings from crude petroleum found expression in the general economic and social activities within Nigeria. The multiplier effects of oil money permeate the socio-economic landscape of the country

Year	Percentage of Federal Government Revenue
1950	0.0
1960	3.4
1970/71	52.0

TABLE 2
**THE CONTRIBUTION OF PETROLEUM TO THE TOTAL
 FEDERAL GOVERNMENT REVENUE IN SELECTED YEARS
 1950 (in millions)**

Year	Oil Revenue (a)	Total Revenue (b)	(a) as % of (b)
1950	Nil	£71.72m	0.0
1960	£4.4m	£128.5m	3.4
1965/66	£59.5m	£1,540.3m	3.86
1970/71	₦517.2m	₦891.4m	58.0
1973	769.2	1,695.3	45.4
1975	2,707.5	5,514.7	49.0
1980	8,564.3	15,234.0	56.2
1981	6,325.8	12,180.1	52.0
1982	4,846.4	10,617.7	45.6
1983	7,253	10,508.7	69.0
1984	8,209.7	11,193.8	73.3
1985	10,915.1	14,606.1	74.7
1986	8,368.5	12,302.0	68.0
1987	19,027.0	25,099.8	75.8
1988	20,933.8	27,310.8	76.6
1989	41,334.4	59,272.1	69.7
1990	54,713.2	66,895.4	81.8

- SOURCE:**
1. Central Bank of Nigeria, *Annual Report and Statement of Accounts* 1961-1990.
 2. Federal Republic of Nigeria, *National Development Plan*, 1962-68, p.11.

With these changes, new production and consumption patterns were introduced into the country. However, the process by which the innovations which accompanied these changes penetrated the different areas of the Nigerian territorial space differed widely. In consequence, regional inequalities became manifest in the Nigerian socio-economic space. The discussions that follow examine this feature.

Nevertheless, the type of education available during the colonial period was mostly geared towards liberal arts with little vocational or technical content. It was designed to produce clerks for government and commercial sectors as well as school teachers. In terms of earnings, educational attainment did not offer much better prospects than agriculture except that it was less strenuous physically and more prestigious socially. Hence inequality was not significant at this period although regional differentiation did exist.

Overall it is claimed that prior to 1950 regional differentiation did exist, but regional inequalities were not manifest. The production of different types of crops or minerals do not by itself produce inequality. For inequality to emerge, it is essential that these activities lead to changes in the structure of production and organization in such a manner that increasingly higher and higher per capita income to one or more regions relative to others occur on an almost permanent basis. The vagaries of prices received for export agricultural crops, the fact that the prices did not result from improved production and organizational techniques and the absence of strong linkages with the rest of the economy emphasise that there was little inequality in Nigeria before the 1950s.

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TABLE I

Year	Crude Petroleum	Other	Total
1950	0.0	100.0	100.0
1960	3.4	96.6	100.0
1970/71	52.0	48.0	100.0

PATTERN OF INEQUALITIES IN SOCIO-ECONOMIC DEVELOPMENT IN NIGERIA

In examining the pattern of inequalities in Socio-economic development in Nigeria, the following variables were adopted and available data analysed in respect of the former 19 states. The non-availability of data for recently created states has constrained this study to adopt the old 19 state structure.

Variables Used in the Study

1. Number of Primary School Pupils/100,000 population 1981/82
2. Number of Secondary School Pupils/100,000 population 1981/82
3. *Female Enrolment in Colleges of Education per 100,000 population 1987/88.
4. Enrolment in University/100,000 population 1988/89
5. Percentage of National Industrial Employment, 1980
6. Hospital Beds/100,000 population 1987
7. Dispensaries/Clinics per 100,000 population 1987.
8. Number of Licenced Pharmacists/100,000 population, 1989.
9. Internally generated revenue per capita, 1987.
10. Capital expenditure per capita, 1987

*Due to the fact that access to colleges of Education by female students is more ubiquitous nationally; the variable, Female Enrolment in Colleges of Education has been used as surrogate measure for Female enrolment in tertiary institutions.

These variables were initially processed by examining the degree to which they are related among themselves. Table 3 shows the correlation matrix of the ten primary variables. Apart from the diagonal elements which show values, indicating self correlation of each variable, there are 45 different correlation co-efficients, each indicating the relationship of a specific pair of variables. Among these only 8 are negative correlations. This indicates that, in general, if we take any pair of variables, there is a tendency for an increase in one to be associated

TABLE 3
CORRELATION MATRIX OF PRIMARY VARIABLES

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10
X1	1.000									
X2	0.555	1.000								
X3	0.246	0.612	1.000							
X4	0.221	0.466	2.95	1.000						
X5	0.272	0.416	0.08	0.656	1.000					
X6	0.304	0.82	0.737	0.396	0.439	1.000				
X7	0.536	0.474	0.068	0.144	0.27	0.288	1.000			
X8	0.347	0.511	0.223	0.664	0.97	0.54	0.326	1.000		
X9	0.376	0.63	0.312	-0.185	0.938	0.635	0.324	0.98	1.000	
X10	-0.373	-0.323	-0.125		-0.318	-0.31	0.074	-0.384	-0.402	1.000



with an increase in the other. The only exception is with the variable - capital expenditure per capita, which records negative correlations with all the other variables except one. This shows that the pattern of per capita capital expenditure cannot be positively associated with the eight other variables. This probably exhibits the political factor in decisions on capital expenditures.

One then asks the question as to whether, in each pair, one variable could be a sufficient substitute for the other and whether we can eliminate one without loss of detail in describing the pattern of inequalities in the level of economic development within the Nigerian territorial space. It is only through a further analysis by the multivariate technique i.e. factor or component analysis, that such a question can be satisfactorily answered. In this study, the principal factor analysis has been adopted.

A further analysis of the data yields three principal factors which are shown in Table 4. The eigenvalue of each and the degree to which each of them accounts for the total variance of the original primary variables are also shown. The first principal factor with an eigenvalue of 4.907 accounts for 68.7 percent of the total variance in the original primary variables. Factor II, with an eigenvalue of 1.396 accounts for 19.6 percent of the total variance. With the third principal factor, having an eigenvalue of 0.836 and contributing 11.7 percent of the variance of the original primary variables, the variability in the original primary variables are completely accounted for. Thus a reduction in the dimension of the problem has been achieved. Since the principal factors obtained by multivariate analysis are statistically uncorrelated, each introduces information not accounted for by any other. We shall then proceed to examine our problem using those three principal factors.

The identification of each new principal factor depends on the strength of the correlation co-efficients between it and the original primary variables. The loadings of the primary variables on the principal factors are shown in Table 5. It is interesting to note that all the primary variables, except per capita capital expenditure load positively on the first principal factor. Another point of interest is that only Female Enrolment in Colleges of Education and Dispensaries/Clinics recorded loading below 0.5. All other loadings exceed 0.5 and two of them exceed 0.9. We therefore label this factor as the general socio-economic factor. The second principal factor gives the greatest positive weight to Female Enrolment in tertiary institutions and is labelled the

TABLE 4
THE CONTRIBUTION OF PRINCIPAL FACTORS TO ORIGINAL
VARIANCE OF THE PRIMARY VARIABLES

Principal Factor	Eigenvalue	% of Variance	Cumulative % of Variance
1	4.907	68.7	68.7
2	1.396	19.6	88.3
3	0.836	11.7	100.0

SOURCE: Analysis by the Author using the IBM Computer of the Obafemi Awolowo University, Ile-Ife.

Female Enrolment Factor Dispensaries/Clinics load highest on Factor III and is therefore labelled the primary health factor.

We next discuss the performances of the different states with regards to each of these identified factors. The dominance of Lagos State on Factor I is overwhelming. It scored 3.93 which is the highest positive factor. Most other states record negative scores on this general measure of level of socio-economic development (see Table 6). On Factor II - Female Enrolment in Tertiary Institutions - the importance of Lagos State drops drastically with a score of (0.158). The states which performed very well on this measure are former Anambra State (1.081), former Bendel State (1.805), former Imo State (1.045) and Ogun State (1.488). On Factor III - the primary health factor, former Oyo State (1.175) and former Niger State (1.506) had the highest scores. Maps 1 to 3 show the general patterns of inequalities among the States with regards to socio-economic development as identified by the factors examined.

PROBLEMS AND PROSPECTS OF DEVELOPMENT IN NIGERIA

Since the attainment of political independence and particularly with the emergence of petroleum as the prime mover of the Nigerian economy, certain basic problems have continued to plague socio-economic development in Nigeria and these have found expressions in regional inequalities. Among these are firstly, the persistent inability of output in the agricultural sector to keep pace with increasing demand for domestic consumption and for inputs into the manufacturing sector

TABLE 5
LOADINGS OF THE PRIMARY VARIABLES ON THE PRINCIPAL FACTORS

	LOADINGS OF PRIMARY VARIABLES ON PRINCIPAL FACTORS		
	I	II	III
X ₁ No. of Primary School Pupils/100,000 Popn. 1981/82	0.502	0.222	0.44
X ₂ No. of Secondary School Pupils/100,000 Popn. 1981/82	0.806	0.473	0.092
X ₃ Female Enrolment in Colleges of Education/100,000 Popn. 1987/88	0.480	0.595	-0.345
X ₄ Enrolment in University/10,000 Popn. 1988/89	0.646	-0.172	-0.138
X ₅ % of National Industrial Employment, 1980	0.888	-0.523	-0.022
X ₆ Hospital Beds/10,000 Popn 1987	0.771	0.4444	-0.242
X ₇ Dispensaries/Clinics/100,000 Popn. 1987	0.421	0.162	0.563
X ₈ No. of Licensed Pharmacists/100,000 Popn. 1987	0.909	-0.396	-0.025
X ₉ Internally Generated Revenue per capita, 1988	0.957	-0.276	-0.025
X ₁₀ Capital Expenditure/Capita, 1988	-0.382	0.017	0.06

Secondly, the distortions in social attitudes and economic activities which accompanied the massive injection of oil money into the economy particularly since the 1970s. Thirdly, the urban bias in resource allocation at the Federal level especially prior to 1986. Successive governments have responded to these problems with varying degrees of successes.

Due to time constraint, I have selected two of these problems for further elaboration. These are firstly, the urban bias in resource allocation at the Federal level. Secondly, and associated with the first problem - the dichotomy in the level of development as between the urban and rural sectors of Nigeria.

TABLE 6
SCORES OF UNITS ON PRINCIPAL FACTORS

UNIT	FACTORS SCORES		
	I	II	III
Anambra	0.068	1.081	-1.624
Bauchi	-0.176	-0.709	-1.096
Bendel	-0.145	1.805	0.757
Benue	0.577	-0.622	0.668
Borno	-0.216	-0.686	-0.668
Cross River	-0.234	-0.393	-0.171
Gongola	-0.443	-0.836	0.33
Imo	-0.022	1.045	-0.792
Kaduna	-0.134	-0.27	0.083
Kano	0.494	-1.542	-0.853
Kwara	-0.57	0.701	0.087
Lagos	3.93	0.158	0.978
Niger	-0.715	-0.794	1.506
Ogun	-0.603	1.488	0.6911
Ondo	-0.437	0.912	0.558
Oyo	-0.239	0.16	1.175
Plateau	-0.135	-0.69	0.027
Rivers	0.315	0.372	-1.348
Sokoto	-0.16	-1.182	-0.268

The pattern of resource allocation at the national level is very important in the process of socio-economic development in a Federation such as Nigeria. Over the decades, the urban bias in resource allocation at the Federal level operated to the disadvantage of the rural areas. The powerlessness of the rural people has been an important factor in this regard. According to John Friedmann, power in this context means "the ability of organizational and institutional actors, located in geographic space, to mobilize and allocate resources (manpower, capital and information) and intentionally to structure the decision - field of others (i.e. to constrain the decision of others by policies, rules and commands", (Friedmann, 1975, p.267). There is a close relationship between the spatial distribution of power and the allocation of resources. For instance, the concentration of power at the centre during the previous era of military rule in Nigeria, led to a substantial concentration of the nation's resources at the Federal Government from the total national revenue was 59.3%. This rose to almost 74% in 1967 and 80% and above between 1973 and 1980. The peak of 85.8% was recorded in 1974. The share of the states on the other hand declined from 40.7% in 1965 to 26.2% in 1967. It reached the lowest level of 14.2% in 1974. It is significant to note that this period coincided with the period when crude oil prices escalated on the world market beginning with the 1973 energy crisis. As a result, relatively massive resources were retained by the Federal Government to the neglect of the State Governments and by extension, the local and rural areas. For example, of the total ₦8 billion total national revenue in 1977, only ₦1.203 billion went to the 19 States. The remaining ₦6.840 billion was retained by the Federal Government. The hierarchical and authoritative nature of military power structure facilitated this relatively great imbalance in the spatial distribution of power and resources. The supreme power of the Federal Government gave it access to immense resources which were unfortunately wasted on sometimes irrelevant but expensive projects. The States and Local Governments were unnecessarily dependent on the Federal Government. This pattern found expression in the fortunes of the rural dwellers who were disadvantaged.

With the return to civilian rule in 1979, a substantial change in the pattern of resource allocation was introduced. This came with the Revenue Allocation Act of 1981. According to this, the Federal Government could only retain 55% of all Federally collected revenue. The states and the Local Governments were allocated 35% and 10%

respectively. There was a further improvement in 1991 when the present Federal administration increased the allocation to Local Governments to 15%. Simultaneously, however, there was a devolution of additional functions to Local Governments. These include primary health care, primary education and rural water supply. This was followed by complaints from various Local Governments that the allocation was inadequate given the additional responsibilities. Many complained that after paying the salary bills for teachers and other Local Government staff, nothing was left for actual development activity. In response, the Federal Government in its budget announced on January 1st, 1992. This has brought the share of Local Governments from Federally allocated revenue to 20% - an increase of 100% in 12 months. It is to be hoped that with this, meaningful development efforts would be initiated at the Local Government level. It is also hoped that Local Governments would themselves gear up their internally generated revenue.

For one thing, the strongest argument for Local Government administration is that it promotes local development through the mobilization of local resources and self reliance. Local control also encourages unity through a sense of community and promotes discipline which is often lost in larger economic units.

Secondly, according to Bannett (1980), localized government implies -

the ability of smaller and more local governments to adjust more closely to geographical variations in local needs and preferences. Geographical localization in the organization and provision of public goods affords a greater awareness of costs and allows a closer matching both of services to needs and preferences and of benefits to costs (Bennett, 1980, p.279).

Another argument in favour of local governments is that it promotes freedom, democracy and responsible government. Through a network of Local Government Councils, political power is diffused and the rural people benefit.

Alexis de Tocqueville observed that local assemblies of citizens constitute the strength of free nations. Town meetings are to liberty what primary schools are to science; they bring it within the people's reach; they teach men how to use and to enjoy it.

A nation may establish a system of free government but without the spirit of municipal institutions it cannot have the spirit of liberty. (Tocqueville, 1966, p.62).

Also public opinion is more likely to influence government through a wide distribution of government which enable public pressure, backed by a real social consciousness of those exerting it to be applied at the maximum number of points (Cole, 1921, pp. 33-4).

The Nigerian experiences since the Local Government reforms of 1976 indicate the great advantage of localized government to the rural dwellers. However, as noted by Bennett there are also disadvantages which may be listed as follows:

- i) It can result in extreme inequity in service standards and fiscal burdens.
- ii) It can result in inefficient economic organization.
- iii) Fosters local autocratic rule.
- iv) Produces inertia and rigidity.

It is clear that extreme decentralization could narrow the resource base of grass-root level governments. Economic inefficiency would also arise from duplication of services, equipment, offices etc. and the inability to achieve economies of scale.

With the creation of 136 more Local Governments in 1991 which brought the total number of Local Governments in Nigeria to 589 and the creation of nine more states to give the nation 30 states, some of the above disadvantages have emerged. For example, there had been cases of narrow parochialism where non-indigene government workers were ordered to leave for their home states. This type of feature should be closely monitored to prevent negative impact on national unity.

The other area on which I intend to focus is rural development. It should be acknowledged that more than any other Federal administration since independence, the present Federal Government has devoted a lot of resources and attention to rural development. It appears that the awareness of the problems of urban bias in resource allocation, the neglect of the rural areas, their powerlessness in the political economy and the increasing income inequality gap between the urban and rural areas led the Federal Government in 1986, to establish

the Directorate of Food, Roads and Rural Infrastructure (DFRRI). The need for mass mobilisation of the people for development led to the creation of the Directorate for Social Mobilisation (MAMSER) out of DFRRI. The objective was to increase the political awareness of the people. Adult literacy programme, Expanded Programme on Immunization and Oral Rehydration Therapy, the Better Life Programme - all have combined to increase the awareness of the rural dwellers and stimulate them toward greater efforts at self development.

Mabogunje wrote thus:

True development is a matter of internal readjustment involving the deliberate transformation of traditional structures to serve the new goals our society sets for itself. Because most of these traditional structures are still preserved in the rural areas and especially around land as a factor of production, the socio-spatial organization of our rural areas is the first and major step in any real effort at developing our society (Mabogunje, 1977, p. 98).

Given that not less than 65 percent of the Nigerian population still reside in the rural areas the transformation of the rural economy in Nigeria is a task that must be done. In this regard Integrated Rural Development Strategy appears to be the most appropriate. DFRRI took the right step by opening up the rural areas through the construction of roads and the provision of basic amenities such as safer water through the construction of wells and also, the provision of electricity in selected locations. However, the task ahead is still enormous.

There is a crying need to modernize production methods in agriculture and to achieve greater productivity in the agricultural sector. Associated with this is the problem of farm subsidy. If we want increased performance from our farmers, there is no way we can substantially remove subsidy to this sector. Even the more advanced countries of Europe and America heavily subsidize their farmers.

Another problem is the provision of logistic support in our effort to mobilise the rural farmers for greater productivity. They need an efficient and effective back-up system. The support services must be able to respond to the demand by the farmer for fertilizers, seeds, irrigation support, storage facilities, transportation facilities, medical supplies and technical assistance among others. Failure of the supporting services to meet up with these challenges would turn rural development into

empty rhetoric and eventually discredit it. For support system to be effective, there is need for efficient organization, correct location and correct timing. They require commitment on the part of the state to reach the masses of the rural people and harness their efforts for national development.

Despite the various efforts at assisting the Nigerian farmers to greater productivity, basic inadequacies still manifest themselves. A very pertinent example relates to the supply of fertilizers. Even with the graduate farmers scheme, there are complaints that in many areas, relevant inputs do not reach the farmer for use at the appropriate time. Fertilizers may not be available until well into the planting season or when the planting season is nearly over. There is a need to take a close look at the organizational structure of support for the rural farmer in this country in order to make such support efficient and available at the correct time and correct location.

For example there should be available at the Local Government level, facilities such as storage and warehouses for farm products from the rural locations. There is a dire need to improve the organizational network in marketing agricultural products from the rural areas. In this regard, it is essential to ensure that access roads to the rural production areas are improved substantially to guarantee the uninterrupted flow of farm products from the rural locations to the Local Government storage or warehouse depot and also to the state and national metropolises at all seasons. The current efforts of DFRRRI with regards to rural roads is commendable. However, it is essential that the DFRRRI rural roads are maintained on a permanent basis and protected from deterioration.

Another area of challenge, if we are to reduce the gross inequality in the level of development as between the urban and the rural areas in this country, relates to the rural economy in general. There is a need to diversify the rural economy in order to provide additional employment outside the agricultural sector. Such a strategy would also assist in stemming the tide of rural-urban migration. We need to make our rural areas more attractive to live in. The provision of basic amenities such as safe drinking water, electricity and easily accessible health and educational facilities would go a long way in this regard. Rural industrialization is imperative and may initially be based on local agricultural products or resources where possible, credit institutions to support local producers should be available in strategic locations. The People's Bank need to target the rural areas. Other institutions which could harness surplus rural funds for development at the local level may

focus around community banks.

In planning for rural development, the "social learning" approach is preferable to the blueprint planning approach. In the formal approach, development is centred among the rural population themselves. The state offers political guidance, leadership and logistic support while the rural population, in their traditional communities make the critical decisions and carry out appropriate actions. The rural people are involved in project selection at all levels of planning (through village groups to the system of delegation at all levels). Thus the rural people identify with the project. However, it is usually at the regional level, that those physical structures and services which will support production and well-being at the village and local government levels often develop.

All the aforementioned activities require the input and technical skills of different specialist groups. There is a need to recruit young graduates to work for projects in the rural communities. The National Youth Service Corp has proved useful in this regard. However, greater involvement by the youths could be achieved if we institute a scheme of Voluntary Service in the Rural Areas over a specific period with special incentives. If Nigeria can support a scheme whereby our graduates are given very attractive incentives to work in developing other countries, under the Technical Aid Scheme under the Ministry of External Affairs, I feel the time has come when we should be prepared to make similar efforts in respect of our own frontier of development.

Mr. Vice-Chancellor, Distinguished Guests, traditionally, an occasion such as this requires at least a brief and precise statement of one's contribution to knowledge. I have specialized mainly in the fields of Urban Geography and Urban and Regional Development. I have published several articles in leading international Journals in these fields. My contributions to knowledge are as follows:

1. *Urban Geography*

My greatest contributions have been in the areas of methodology and in the empirical tests of concepts and theories. I can claim with modesty, as can be attested to in geographic literature that my work pioneered the use of the quantitative technique of Component Analysis in urban classification with respect to the less developed countries. My paper on "Urban Hierarchy in a Developing Country", introduced for the first time, into urban classification, the use of *Linkage Analysis* based on *Functional Distances* of settlements. The terminologies - "Functional

Distance" and "Functional Magnitude" of settlements were also first introduced in the paper into the literature on Urban Geography. I was able to quantify these measures and provided the formulae, which are now freely used by geographers.

So important and innovative were these contributions both in terms of the methodology of urban classification as well as in the concepts introduced that that work on Urban Hierarchy was reproduced in other Journals, and was extensively quoted and discussed in several geography texts for University teaching. The work was also acclaimed in several private communications to me from all over the world over the years. I have received more than two hundred requests for reprints by Geographers in different parts of the world as well as receiving specific requests for further enlightenment on the methodology. In 1968, Professor Peter Haggett, an internationally renowned expert in this field commended my contributions in these words:

"May I first of all congratulate you on an excellently conceived and executed piece of work: *It adds knowledge just where we need it* on cross-cultural tests of the urban spectrum".

Professor Wrigley of the Department of Geography, Cambridge University, England wrote:

I have now read the article and enjoyed it greatly. As it happens I have just finished marking a set of Tripos papers . . . They (the students) would have been very glad in many cases if they had had this paper available to them already to use as ammunition in the battle . . . I would like to congratulate you most warmly on your achievement.

I have been consulted by Town and Country Planners from as far as India who found the new concepts in my work very innovative. In addition, research scholars in different parts of the world have sought my assistance in their problems concerning methodology.

In recognition of my contribution to geographical knowledge, I was made an Honorary Fellow of the American Geographical Society in 1968.

My work on Consumer Behaviour is a contribution both in methodology and in its potential utility in regional planning. I have also tested the effectiveness of a modified gravity model in analysing human

socio-economic interactions among settlements. The model was found useful in predicting short-range interactions involving consumer movements among settlements. Among my contributions is the fact that the gravity model is not effective in predicting long range interactions in socio-economic activities. This inadequacy of the model was shown to be a result of the existence of competing urban centres with overlapping spheres of influence. The work is extremely useful in planning urban and regional facilities.

The main contribution of my work on the petroleum industry lies in its display of the strength of geographical analysis in the investigation of socio-economic phenomena and the capability of the geographer to unearth the spatial ramifications of resources exploitation. The work highlighted the impact of the civil war through the petroleum industry on the growth and decline of certain settlements in former Bendel and Rivers States.

2. *Regional Development*

In the field of regional development, my main contributions include a modification of the growth pole/centre concept through the advocacy of an integrated settlements system approach to regional planning. I also demonstrated the potential utility of a graph theoretical approach in obtaining a spatial framework for the location of basic facilities within a given spatial system.

My publications on Urban Growth and Problems and also on Housing Problems in Nigerian cities, emphasise the need for greater environmental planning in Nigeria. The inadequacies of most institutional approaches to solving Nigeria's housing problems were highlighted and suggestions were made for improvements. The role of innovation diffusion in regional development has been acknowledged as a universal truism. The idea that development occurs through "the impulses of growth being transmitted in order from higher to lower order centres in the urban hierarchy" was tested in my paper "Aspects of the Spatial Impact of Development: A Case Study of Nigeria". The study found that while this idea may be true for the more advanced countries and had been validated in the case of Chile, in the Nigerian example, it is not valid. Explanations were offered for this and suggestions made with respect to developing "lagging regions".

I have produced technical reports on Rural-Urban Migration under the auspices of the International Association for Metropolitan Research and Development, Canada.

International reactions to these modest contributions have come in various forms including special invitations to highly specialized workshops, seminars and conferences in different parts of the world and several other international awards.

These knowledge have over the years been shared with students who had passed through me, some of whom are now colleagues in this institution and elsewhere.

Mr. Vice-Chancellor, Eminent Scholars, Distinguished Colleagues, Ladies and Gentlemen,

These are the submissions of my lecture.

Please permit me to take this opportunity to express my gratitude to the University community especially my colleagues in the Department of Geography and in the Faculty of Social Sciences for the conducive atmosphere which has enabled me to make these humble contributions.

I thank you all for your attention.

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