

# MOBILITY AND SURVIVAL: A NATION'S DILEMMA.

An Inaugural Lecture delivered at the University of Ibadan  
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By

MICHAEL OLANREWaju FILANI  
Professor of Geography  
Department of Geography  
University of Ibadan  
Ibadan, Nigeria.

This lecture is dedicated to my Academic Mentor, the  
Foremost Nigerian Geographer and a true Academician,  
Professor A. L. Mabogunje.

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## PREFACE

It is always gratifying to see one's writing in print. For this reason I wish to express my profound gratitude to the Committee of Provost and Deans for taking the decision to return to the University's traditional way of centrally publishing inaugural lectures.

This lecture was delivered about sixteen years ago. Ordinarily one would feel that some issues raised and dealt with at that time would by now be outdated. Surprisingly, this is not the case since little has changed over the years with respect to development in the transportation system and the facilities for promoting people's mobility in Nigeria.

When the lecture was delivered sixteen years ago, some friends thought and openly expressed the feeling that the writer was a "**Prophet of doom**" particularly with respect to his prediction on ownership of vehicles. The advice was then given:

**"Be warned**

**Take good care of your vehicle**

**You may be riding your last one".**

That advice is as good today as it was sixteen years ago. One still wonders how many individuals can afford to buy brand new vehicles today in Nigeria. Thanks to the advent of "**Tokunbo**" vehicles! The Federal Urban Mass Transit commented upon in the same lecture has completely collapsed and nobody seems to care.

The importance of transport to a nation's survival is still as important today as it was sixteen years ago. A nation that plays with its transport development undermines the major engine that propels socio-economic and political integration and development.

The recent attempts at promoting public-private partnership in transport ownership and operations is a welcome development if only the Federal Government could effectively demonstrate its commitment to these attempts.

# MOBILITY AND SURVIVAL: A NATION'S DILEMMA

## I. Introduction

Mr Vice-Chancellor,  
Deputy Vice -Chancellor  
The Provost, College of Medicine  
Dean, Faculty of the Social Sciences,  
Deans of Other Faculties  
The Head, Department of Geography  
Distinguished Ladies and Gentlemen,

I feel highly honoured to be called upon to deliver an inaugural lecture on behalf of the Faculty of the Social Sciences as part of the 1987/88 inaugural lecture series.

I answer this call with all humility, being the 7th inaugural lecture from the Department of Geography since Professor Ganier gave the first in 1951. Others after him include professors Barbour (1965), Mabogunje (1974), Udo (1976), Oguntoyinbo (1982) and Faniran (1984).

I am well aware that an inaugural lecture is meant to mark the inauguration or installation of a new professor to the chair of the subject he professes. Such an occasion affords the lecturer a unique opportunity to inform the world at large about what he professes. In this sense,

Mr. Vice-Chancellor, this lecture is seven years overdue.

With our system of multiple professorship which, I fully endorse, inaugural lectures no longer truly serve their original purpose. It is pertinent to state also that although the subject matter of my research interest has remained the same (that is, transport) since I became a professor, my research orientation, thinking and perspective have changed. For one thing, I am now more policy-oriented in my work. This change has partly influenced the choice of my topic for today's lecture. The other factor which has influenced the choice relates to my basic belief that academicians in developing countries cannot afford the luxury of pure esoteric research - an abstruse research, which though theoretically and mathematically rigorous, is socially irrelevant and is of interest only to a few initiates. I therefore, think it fit and proper on this occasion to speak on a current issue that is of serious concern all over the



world and particularly in Nigeria, our own country. The issue is that of mobility and hence the topic of my lecture is "Mobility and Survival: A Nation's Dilemma".

The lecture is divided into seven sections. After this introduction, the second section examines the issue of mobility and survival as a prelude to the third section which demonstrates the ongoing dynamic process through which changes in transportation technology have progressively altered the spatial dimensions of man's socio-economic system. Next in section four I consider mobility and spatial convergence in an attempt to show how man's conception of territorial space has been influenced by his own ingenuity and inventiveness. In section five, the financial implications of satisfying man's quest for mobility is treated using the countries in the West African subregion as a case study. Section six considers the existing situation of transport development in the region in general and Nigeria in particular and comments briefly on recent Federal Government policy actions in the transport sector. The lecture in section seven concludes with some specific policy recommendations for the improvement of Nigeria's transportation system.

## II. **Mobility and Survival**

The importance of mobility to the survival of any nation cannot be overemphasized. Wilfred Owen, a renowned transport analyst, once stated that "Immobility perpetuates poverty". Mobility is made possible by the various technological developments in transport. Transport is something which affects almost every human being in the course of his or her daily activities. It is difficult to conceive of a situation where transport does not play a significant role in the life of any given individual or society. As Munby<sup>2</sup> rightly stated "there is no escape from transport". This is more so because the daily rhythm of life is geared towards transport whether in the technologically advanced countries or in the most remote developing ones. The increasing mobility of people as well as goods is a direct manifestation of the various activities which take place in the society. People move from one place to another because they are compelled to do so for one reason or another. They

travel to work, to play, to buy and sell, to obtain professional services or simply to socialize. As standards of living rise and economies become more complex the reliance on transportation is intensified. And yet, the more mobile people become, the greater the attendant problems. The daily movement of people and goods in and out of the cities produces intense traffic flows. In major cities of the world, the sheer volume of automobile traffic has been such that their central business districts have virtually been strangulated, a case of literally moving into immobility. Volpe,<sup>3</sup> a former Secretary of Transportation in the United States of America once observed that Americans "have sought mobility above every other consideration: other needs have been neglected and the social equation is clearly out of balance. This observation was based on the serious problems which the USA, was facing at that time (and which still persist today) - problems of urban traffic congestion which threatened the future functioning of most American cities, shortage of parking spaces, pollution and gradual destruction of air, water, land and silence etc.

Moving people, goods and information through space has always required the expenditure of time, money and effort. To expend these resources and at the same time avoid the attendant problems of increased mobility is the greatest dilemma any nation faces. Yet certain trends appear to be likely in the future. People's mobility and thus, the demand for transport will continue to increase. Methods and techniques for providing mobility will become more sophisticated, more complicated and, therefore, more costly. Thus, facilitating mobility will continue to lay a large burden on each country's development programme. Apart from meeting current demand, many countries especially in the developing world are confronted with the need to eliminate transport bottlenecks and to catch up with maintenance and rehabilitation backlogs in transport infrastructure.

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1. Owen, Alfred (1968) *Strategies for mobility* (Washington, The Brookings Institute) chapter 1.
  2. Munby, D. (1968) *Transport* (Penguin, Harmondsworth).
  3. Volpe, J. A. (1969) "Urban Transportation Tomorrow" *American City*, 84, P. 60.



Also with its dependence on liquid fuels, the transport sector has now become a significant burden on most countries' balance of payments. For example, a recent World Bank Report showed that in 1980, of the total energy import bill of 74 million U.S. Dollars (N296.0 million) recorded for oil importing developing countries, some 50 per cent was accounted for by the transport sector. Indeed, the transport sector has typically been a major user of public budgetary funds.

Unfortunately most of the economies of these developing countries are going through a period of chronic crisis, the end of which nobody seems to be able to predict accurately.

Another dilemma, therefore, especially in the developing countries is how to meet their insatiable demands for mobility and still ensure their own survival with their meager and rapidly dwindling resources.

### III. Transport and Spatial Reorganization:

Transport provides the arteries for the flows of people, information, ideas and innovations, raw materials and finished products which build and maintain societies.<sup>4</sup> The need to move goods, people and services from place to place as rapidly and as cheaply as possible has resulted in major changes in transportation technology. The technological changes have, in turn, progressively altered the spatial dimension of the economic system. Today we live in an ever 'shrinking' world but the amount of shrinkage is not uniform everywhere on the earth's surface. The process leading to this shrinkage can be depicted diagrammatically (Fig.1).

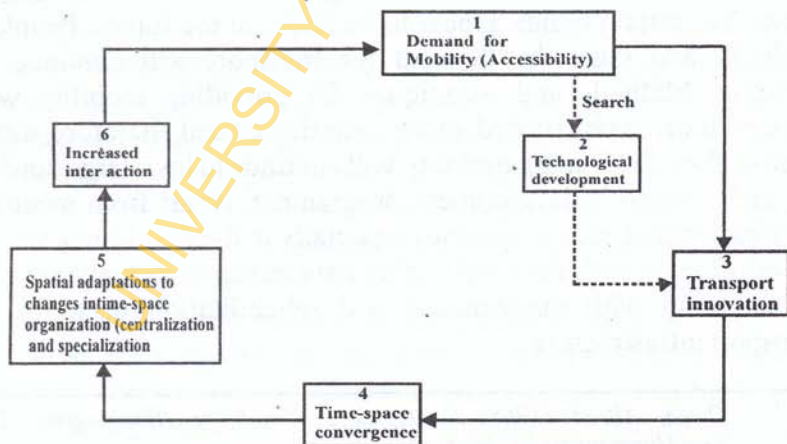


Fig 1: A Process of Spatial Reorganization in Response to Transportation improvements. Source Janelle (1969) Fig 3

4. Onyemelukwe J. O. C. and Filani, M. O. (1981) *Economic Geography of West Africa*. (London, Longman). chapter 7.

In figure 1 we have an on-going dynamic and circular process in which there is normally a problem of where to begin. For convenience, however, let us consider the process at work to be a concept or model made up of six distinctive steps as numbered on the diagram (1-6).

- Step 1. Demand for Mobility (or greater accessibility)  
This demand is a derived one which is generated by an economic system or some of its component parts, (such as individual businesses, urban centres, factories, shopping centre etc). Mobility or accessibility may be measured in terms of time, cost or physical distance:
- Step 2. Once the demand is generated, the search process for satisfying it begins leading to technological development which is encouraged by man's ever increasing ingenuity and inventiveness;
- Step 3. Successful technological development leads to transport innovations. Such innovations may take several forms such as:
- (a) increasing the speed of movement and thus reducing time-distance separating places;
  - (b) facilitating increase in the volume of traffic that can be carried through improvement in the methods of cargo packaging and handling; and
  - (c) evolving conventions and organizations to facilitate the movement of cargo from the seller's premises to those of the buyer.

Many economic historians, in fact, have observed that the eighteenth and nineteenth century industrial revolution cannot be considered in isolation from developments in transportation. Indeed some people have suggested that the Industrial Revolution, at least in the early stages, could, more correctly, be called "Transportation Revolution."<sup>5</sup> For instance, prior to the development of the steam engine, overland transportation was very costly and inefficient. This led to the carriage of most industrial and commercial commodities by water, giving rise to the early dominance of coastal settlements.

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5. Lloyd, P. and Dicken P. (1972) *Location in Space: A Theoretical Approach to Economic Geography* (New York, Harper & Row Publishers) P. 86.



The advent of the steam engine in the eighteenth century and its application in the early nineteenth century, first to water transport and later to land transportation in the form of locomotives was nothing short of revolutionary.

The discovery and use of the steam engine heralded the introduction of a series of transportation improvements which have continued to the present day. The transportation revolution of the nineteenth century was based on the rapid spread of the railroads while that of the twentieth century is based on developments in automobile and air transport. In the twentieth century the automobile has become a symbol of the western urban-industrial society as has the aeroplane. The latest symbol is the pipeline which is a specialized form of transportation.

The automobile, in particular, has become the ubiquitous transportation medium, with a phenomenal growth rate since the turn of the century. For example in the United States, between 1910 and 1925 the number of vehicles registered increased from 460,000 to over 20 million. Today there are more than 100 million vehicles in that country. Coming nearer home in Nigeria, the total stock of vehicles more than doubled in the period between 1966 and 1978 from 138,285 to 394,113.<sup>6</sup>

These marvelous revolutions and innovation in transportation development are not without their 'humorous' aspects. The story was told of the first moving engine which was developed in France by Cugnot in 1769. His invention was an improvement on that of Watt and Newcome but when its first trial failed, Cugnot was locked up. Also the advent of the railways and its subsequent wide adoption had to overcome the initial erroneous belief that its noise could make women barren: When Leonardo da Vinci talked of flying machines, his friends laughed at him just as those of John Wilkins did when he talked about travelling to the moon! If man has learned the basic lessons in science, the future development and extension of human ingenuity and manipulation of the earth may even be more revolutionary than that which has occurred in the last two centuries.

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6. Olanrewaju, S. A. (1982) *A Study of the Road Haulage Industry in Nigeria* (Ife-Ife, University of Ife, Ph.D Thesis in Economics) pp.130.

Step 4. All the successive developments in technology have resulted not only in greatly improved transportation facilities but also in drastic general decline in the average cost of transportation. The universal decline in transportation costs has reduced the importance of such a factor in the overall cost structure of many economic activities. Over the last two centuries not only has the cost of overcoming the friction of distance declined spectacularly, the time involved has also greatly decreased.

We have witnessed progressive reduction in travel time between and within countries, cities and other settlements, making places effectively closer together than before and resulting in what Janelle called **Time - Space Convergence**<sup>7</sup> Long periods of comparatively little change in time - space relationship between two places are punctuated by abrupt changes corresponding to major transportation innovations.

Step 5. Resulting from such changes or innovations are the profound alterations in the overall spatial relationships between economic activities. As recognised by Isard<sup>8</sup>, the economic system has, in effect, undergone a degree of spatial reorganizations. For example:

- (a) the spatial pattern of production has been transformed from a dispersed to a concentrated pattern;
- (b) there has been increased differentiation between location on the basis of their intrinsic qualities; and the spatial extent of production have both increased.
- (c) the degree of geographic specialization and the spatial extent of production have both increased.

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7. Janelle, D.G. (1969) "Spatial Reorganization: A Model and a Concept" *AAAG* 59. pp. 348-364.

8. Isard, W. (1956) *Location and Space Economy* (Cambridge Mass. M. I. T. Press) chapter 5.



The production and distribution of units (e.g. farms, factories, central places, etc) which under primitive or high-cost transport conditions had to be scattered to serve distant markets, have tended to become spatially concentrated in areas of greatest comparative advantage. Market areas have become even more extensive as transportation has improved and supply areas have expanded.

Step 6. The result of such spatial reorganization as described in step 5 is a higher level of interaction as indicated in step 6 of figure 1.

1. Whereas under primitive transport conditions most needs could be satisfied locally, greater spatial concentration and specialization of production mean that this is no longer the case and interaction must of necessity increase. This increase demands for further improvements in transportation as the routes and networks become congested and obsolescent after a period of time so a renewed cycle in our model is initiated in step 1.

Although the friction of distance, in general terms, has greatly declined over time and continues to do so, the process is not spatially uniform. Some areas benefit far more than the others.

The historical development of Nigeria's transportation system and its effect on the country's space-economy illustrate the main features of our model. Before the advent of the colonial administration, mobility was achieved through human labour and muscle using tracks and bush paths. This system of transport had a limiting effect on the amount of trade goods that could be carried over great distances. It was also time consuming, energy sapping and quite expensive in terms of opportunity cost to the users. The arrival of the colonial rule brought about the introduction of modern transportation particularly the development of the railways. The colonial administration deliberately developed a corridor-type system of transportation to exploit the country's resources. The location of economically important resources largely determined the routing and extent of the transport networks. Consequently a transportation system developed that focused the flow of commodities on a few selected termini especially in coastal areas.



Since the railways in particular linked centres of production, they inevitably led to the emergence of such new towns as Enugu, Jos and Kafanchan, rejuvenated such old ones that fell on the new transport network as Kano, Kaduna, Ibadan, Port Harcourt and Lagos and almost paralyzed those that were not so fortunate such as Oyo, Maiduguri, Katsina and Sokoto among others (figure 2).

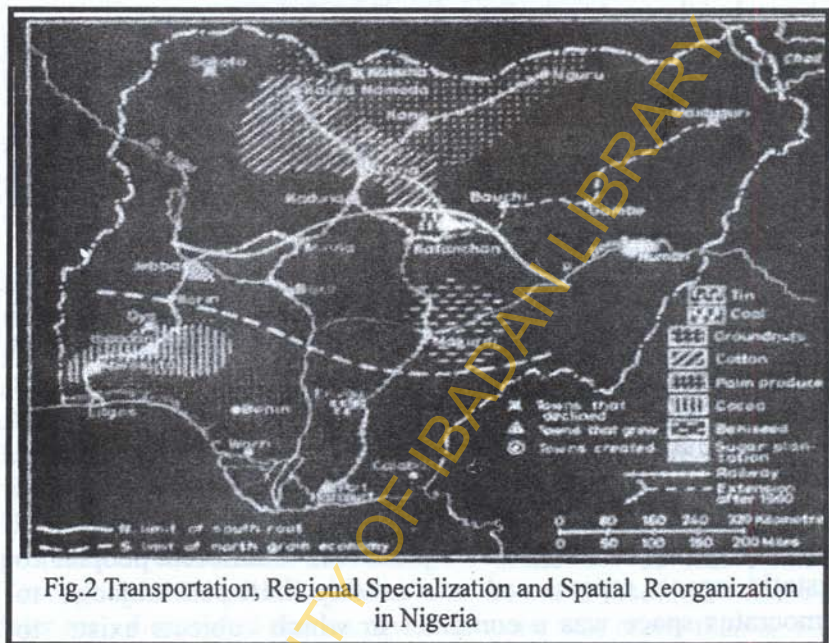


Fig.2 Transportation, Regional Specialization and Spatial Reorganization in Nigeria

Consequently the coastal towns and the urban centres favourably located along the networks developed at the expense of other 'disadvantaged' towns and the rural areas. This contributed to the emergence of regional inequalities which still predominate in the Nigerian space-economy.

The most significant effect of transport development occurred in the country's cash economy. Railways and roads broke down the friction of distance and fostered the free movements of traders from one part of the country to another. The effect was particularly dramatic in terms of export production. According to Harrison Church, in the 25 years before the 2nd World War, the railway enabled the export of groundnuts to increase 200 times, of cocoa thirty times, of tin twelve times and the internal trade in fish

to develop a hundredfold.<sup>9</sup> All these happened because of the remarkable shortening of travel times. In his study of tin mining in the Jos Plateau, Hodder showed that before the railway reached the plateau the journey from the tin mines to the coast took 35 days and cost ₦29. 10 s (N59.00) a ton.<sup>10</sup> With a connection to the coast at Port Harcourt in 1927, not only was the journey reduced to less than 35 hours but the cost came down to ₦8.00 (N16.00) per ton.

#### IV. **Mobility and Time-Space Convergence**

Each place on the earth's surface has a network of spatial interrelations (location, distance and direction) with all other places on the earth's surface. Things can change their positions in space only through a lapse of time.

Human conception of territorial space and of spatial relationships have undergone a continuing evolution. Like creatures in the animal kingdom man has a sense of territoriality; he identifies life and activities with specific places.<sup>11</sup> This is as true today as it was at the beginning of human history. Only the dimensions have changed. There has been a gradual evolution in human ideas and notions with respect to territorial space and spatial interchanges.

The term 'space' has different connotations to different people. To Aristotle space represented relationship between objects; to Democritus space was a container in which objects exist; to Albert Einstein it was a medium connecting the objects<sup>12</sup> Likewise to an astronomer, architect or a newspaper editor space has a particular meaning. To the geographer whose main interest is in space,

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9. *Harrison Church, R. J. (1949) "The Evolution of Railways in French and British West Africa". Congress Internationale Geographic, (Lisbon)*

10. *Hodder, B. W. (1959) "Tin Mining on the Jos Plateau" Economic Geography Vol. 35. No. 2. P. 110.*

11. *Robinson H. And Banmford, C. G. (1978) Geography of Transport (Plymouth, Macdonald & Evans Ltd). P. 4:*

12. *Spencer, J. E. And Thomas W. Jr. (1969) Cultural Geography (New York, John Wiley & Sons Ltd) p. 423.*



“It has the qualities of extent (length, area, volume), location (a specificity of place including site and situation), density (quality of phenomena contained per unit area) and succession (variations in quality owing to changes that occur during periods of time)”<sup>13</sup>

These attributes of space are closely associated with every aspect of transport.

The separation in space of production from consumption is basic to the concept of spatial interchange. This separation can be bridged only by the establishment of effective means of transport. Various technologies have been developed to foster interchange: a technology of movement of things and people (transportation) and a technology of processing, preservation and storage (resource conversion).

Since man evolved on land, movement on land had always involved the deliberate use of motive power. In the beginning all movement was effected by human power since this was the only motive power known to man. Later the domestication of animals added a new source of energy for transport. Animals were then used to carry, pull and push loads and adapting such inventions as the wheel, chariot, cart, horseshoes and light vehicles (wagon, carriage) to extend the range, volume, weight and distance of transport for people and things.

Human and animal transport, apart from the use of wind in ship propulsion dominated the transport scene for several millenia. Throughout this period mobility was slow and laboured. Somewhat later man discovered that transport on water was easier than on land. Thus boats were invented and rivers became the world's first great highways. Infact the earliest civilizations were potamic (river - oriented). This eventually led to the invention of ships and super tankers.

Since the nineteenth century man's creativity has brought the steam-propelled ships, cars and trains, the bicycles, the locomotives, the automobile - the truck and buses; the diesel ships, trucks and trains; the aeroplane which was first propeller- driven and later jet-powered; and finally the several man-orbiting satellite. The results of all these inventions have been astounding. For example, the land-speed record has been pushed from about 15 kilometres an hour in the early nineteenth century to about 1000 kilometres per hour today; in the air it is possible to fly at speeds greater than the speed of sound and of course astronauts and

13. *Spencer & Thomas (1969), ibid p. 424*



cosmonants move at over 30,000 kilometres an hour. While it took Columbus' Santa Maria 79 days to cross the Atlantic, a modern liner today does the same distance in 4 ½ days and a jet aircraft makes the crossing in a few hours. <sup>14</sup> A century ago the French novelist Jules Verne wrote a book titled "Around the World in 80 days." This was the story of a breakneck attempt to make a circuit of the earth within what was then thought to be virtually impossible time limit. Today British Airways runs a 48 hour service round the world. Developments during the past thirty years have led to the attainment of speeds hitherto undreamed of.

The sum total of the effects of innovations in transportation and communication systems is what was earlier referred to as **Time-Space-Convergence**. Janelie <sup>15</sup> calculated the rate at which London and Edinburgh converged in time-space between 1776 when the journey was made by rail coach and 1966 when the trip was made by airplane (Figure 3).

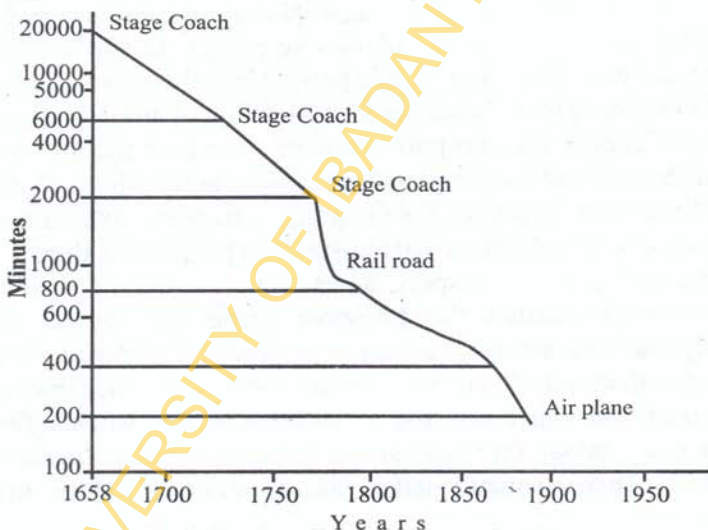


Fig. 3: Time-Space Convergence Between London and Edinburgh 1776-1966

Adapted from Janelle (1968)

Time-Space Convergence 1776-1966 = 29.4 mins per Year from the formula

$$\frac{TT^1 - TT^2}{Y^2 - Y^1}$$

Where  $TT^1$  and  $TT^2$  = the travel time between the two places in year 1 and some later year 2 and  $Y1$  and  $Y2$  are the two dates in question

14. Robinson and Bamford (1978) *op.cit* p. 7.  
 15. Janelle, D. G. (1968) "Central Place Development in a Time-Space Framework" *Professional Geographer* 20. p.p. 5-10.

The result showed that the two cities converged at the rate of 29.4 minutes per year. Applying the same concept to the telephone service and assuming an average speed of 30 seconds in toll calls in 1970, Abler<sup>16</sup> discovered that the rate of time-space-convergence between New York and San Francisco has been about 16 seconds per year since 1920. (Fig. 4).

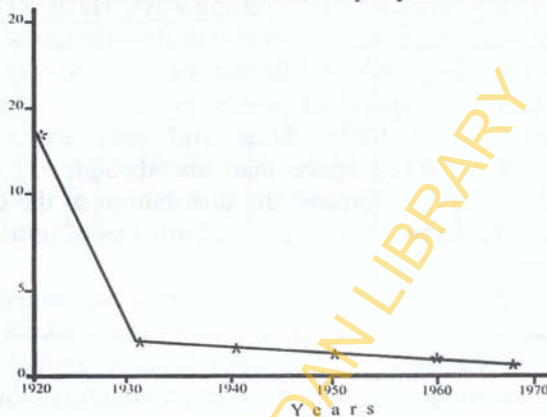


Fig. 4. Telephone Time-Space Convergence Between New York and San Francisco, 1920-1970  
SOURCE - Abler, R (1975) fig 3. 2

Applying the same formula, it is calculated that the Jos, on the Plateau and Port Harcourt had converged in time-space at the rate of 33.4 minutes per year between 1927 and 1988.

Although the figures given above represent a gross simplification which seem to neglect the timing irregularities of transport and communication innovations, they are nonetheless measures of the changes to which the remainder of man's social, political and economic environments and institutions must adjust. World trade, tourism and international conflicts are all conditioned by the new environments created by convergence, divergence and man's ingenuity.

Also, although convergence has wide impact at global as well as local levels, it has by no means released man from the shackles of space and time. The negation of distance and the efforts needed to overcome it occur at varying rates for different socioeconomic and political groupings. Man's freedom in mobility expands with every advance in transportation and communications technology, but only for those who can afford such opportunities. For those possessing lesser means, time-space convergence may be negligible. Infact there is reason to believe that convergence contributes to the polarization of the "haves" and "have nots" in the world.

16. Abler, R (1975). *Effect of Space-Adjusting Technologies on the Human Geography of the Future* in Abler R. et al (1975) *Human Geography in a shrinking World* - North Scituate, Mass: Duxbury Press 33-56.

It is clear that with the powerful effects of space-adjusting systems (transportation and communication) the physical maps of the world are becoming increasingly inaccurate as representation of functional relationships.

Indeed space-adjusting systems control and convolute "real" or absolute spatial relationship in peculiar and exciting ways. Today what is important is not how far places are from one another in absolute units like kilometers but rather how far the people at different places think they are from each other. The terrestrial space in which people live are much more psychological than absolute. Time and cost are now powerful determinants of perceived space than are absolute distance and any attempt to extrapolate or forecast the distribution of the decades ahead must, of necessity, be based on accurate estimates of time and monetary cost of movement.

Geographers need therefore, to develop sound, imaginative theories and models of spatial process and structure, taking cognisance of the possible elimination of the friction of distance, apply them to what is presently known and produce alternative spatial futures. Since the 1970s there has been a growing number of geographers interested in the search for such theories and models. There is an increasing interest in studying the future (or alternative futures) in order to improve current decisions whose result will determine the future of humankind. This is the group that has now metamorphosed to the study Group on Communications of the International Geographical Union, a group to which with all humility, I was invited to join in 1987. So far a book has been published in this area, titled "Human Geography in a Shrinking World."<sup>17</sup>

#### V. **Financing Mobility**

In the introductory part of this lecture, I stated that meeting the demands for mobility constitutes a great financial burden on the development programmes of developing countries. National planners in developing countries look eagerly towards transport investment as the catalyst of economic development. Consequently most of the countries earmark between 20 and 40 per cent of the total national planned expenditure on transport. Table I illustrates this point clearly.

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17. *Abler R, Janelle D.G, Phillbrick A and Sommer J (1975) Human Geography in a Shrinking World (North Scituate, Massachusetts, Duxbury Press) 307 PP.*



**Table 1 : TRANSPORT INVESTMENT AS PERCENTAGE OF TOTAL PUBLIC SECTOR INVESTMENT IN SOME DEVELOPING COUNTRIES**

Country	Plan Period	% of Investment on Transport	Country	Plan Period	% of Investment on Transport
Mauritius	1971 - 75	27.5	Malawi	1971 - 80	34.8
Uganda	1971 - 75	28.2	Senegal	1973 - 77	17.5
Tanzania	1969 - 74	28.9	S. Leone	1973 - 78	21.3
Kenya	1974 - 78	40.6	Nigeria	1975 - 80	22.3
Sudan	1970 - 75	14.8	Philippines	1971 - 74	57.5
Botswana	1973 - 78	26.2	Thailand	1972 - 76	19.5
Zambia	1972 - 77	29.7	Malaysia	1971 - 75	18.4
Swaziland	1973 - 77	17.0	India	1974 - 78	19.2

Source: Thomas, S (1977) "Road investment and pricing in Developing Countries" *Oxford Bulletin of Economics and statistics* pp. 203-217

Most of these countries spend at least one quarter of their total public investment on transport. Several factors can be adduced for such huge investment on the transport sector. Some of these are

- (a) the influence of the literature on transportation in the late 1950s and 1960s which was replete with the view that transport development was a panacea for economic growth and development;
- (b) the fact that transport investment is visible and thus attractive to politicians who must impress the electorates;
- (c) the notion that since transport investment has a long gestation period, faults or failures are not quickly detected; and perhaps more important,
- (d) the attractiveness of transport investment as a major avenue for contract awards which politicians cherish.

These countries' interest in transport investment is complemented and even encouraged by the readiness of international financial Institutions to pump money into the transport sector. Of all such institutions, the World Bank has played the most remarkable role as a veritable source of huge sums of money to developing countries. Table 2 shows

**Table 2: WORLD BANK LENDING TO BORROWERS IN WESTERN AFRICA BY SECTOR, FISCAL YEARS 1978-87.**

Sector	Annual Average 1978-82 (million US \$)	%	Annual Average 1983-87 (million US \$)	% Change 1978-82 & 1983-84
1. Agric & Rural Development	261.2	34.17	257.7	25.16
2. Development Finance Companies	22.6	2.96	126.0	12.30
3. Education	29.0	3.79	40.9	3.99
4. Energy; Oil Gas & Coal Power	26.9 58.6	3.52 7.67	20.9 24.8	2.04 2.42
5. Industry	17.1	2.24	13.1	1.28
6. Nonproject	42.0	5.49	209.8	20.48
7. Population Health & Nutrition	-	-	34.5	3.37
8. Small Scale Enterprises	15.9	2.08	17.2	1.68
9. Technical Assistance	21.3	2.79	29.5	2.88
10. Telecommunications	7.6	0.99	9.3	0.91
11. Tourism	2.8	0.37	-	-
12. Transportation	179.6	23.49	137.9	13.45
13. Urban Development	19.8	2.59	70.7	6.90
14. Water Supply & Sewerage	60.0	7.85	32.1	3.13
TOTAL	764.5	100.0	1024.4	100.0

Source: Calculated from *The World Bank Annual Report 1987, Table 5.5 pp. 83*

\* *Western Africa by the Banks Definition includes all 17 ECOWAS Countries plus Central African Republic, Peoples Republic of Congo. Soa Tome & Principe.*

World Bank lending to borrowers in Western Africa, by sector during the fiscal years 1976 to 1987. Between 1978 and 1982, of the total 8 billion dollars (N32 billion) lent out to all sectors, transportation alone accounted for about 180million dollars (N720 Million) or 23.5 per cent of the total. This percentage share is second only to agriculture and rural development with 34 per cent of the total during the same period. Of the annual average of 1billion dollars (N4 billion ) lent out by the Bank for all the sectors between 1983 and 1987, the transport sector consumed an average of 138 million dollars (N552 million)or 13.5 per cent, taking the third place after Agriculture and Rural development and Non project. (Table 2).

Furthermore, over the five year period 1977 to 1981, the World Bank lent out 8.6 billion U.S. Dollars (N34.4 billion)for transport constituting nearly 18 per cent of its total lending (Table 3).

Table 3 WORLD BANK LENDING FOR TRANSPORT 1977-81

Fiscal year	Transport projects		Transport Components in Non-Transport project		Total lending for Transport	
	Amount (\$ million)	Share of total bank lending %	Amount (\$ million)	Share of total bank lending %	Amount (\$ million)	Share of total bank lending %
1977	1,048	14.8	275	3.9	1,323	18.7
1978	1,093	13.0	600	7.1	1,693	20.1
1979	1,904	19.0	322	3.2	2,227	22.2
1980	1,444	12.6	396	3.5	1,840	16.1
1981	1,124	9.1	400a	3.3	1,524	12.4
Total	6,613	-	1,993	-	8,607	-
Weighted Average	-	13.4	-	4.0	-	17.4

a = approximate

Source: World Bank (1983) *Transport Sector Support Strategy Paper* (Washington, D. C) Table 3.1, pp. 14.

As shown in Table 3, approximately 6.6 billion dollars (N8.0 billion)went to transport components included in non-transport projects. The declining share of total Bank lending earmarked directly or indirectly to transport during the period reflects, in part, the increase of lending to Agriculture and Rural Development, Energy and Structural Adjustment programmes.



Table 4 WORLD BANK AVERAGE ANNUAL LENDING BY MODE  
1977-81 and 1982-85

Mode	Actual Landing 1977-81		Planned Landing 1982-85	
	Amounts (\$ million)	Percent of Total	Amounts (million)	Percent of Total
Highways	703.9	53.1	734.9	36.5
Rural Roads	100.2	8.3	222.6	11.1
Ports	142.2	10.8	309.0	15.3
Domestic Water	45.0	3.4	139.8	6.9
Railways	292.2	22.1	609.5	30.2
Aviation	30.2	2.3	-	-
<b>TOTAL</b>	<b>1,322.7</b>	<b>100.0</b>	<b>2,016.0</b>	<b>100.00</b>

Source: Calculated from the World Bank (1983) *Transportation*  
(Washington D. C. Sector Support Paper) p.3

Table 4 shows the Bank's Actual average annual lending by mode from 1977 to 1981 and the planned average annual lending for 1982 to 1985. Between 1977 and 1981, highways accounted for more than half of total average annual lending, followed by railways with 22 per cent, ports (10.3 per cent), and lastly aviation with only 2.3 per cent. The planned lending for 1982 to 1985 showed significant change in the intersectoral allocation. For example, the share of highways declined to a little over one third while that of railways increased to more than 30 per cent. More emphasis was laid on ports and rural roads than in the earlier period. It is curious, however, that there was no plan to lend to the aviation subsector.

With regards to the geographical distribution of the Bank's lending between 1978 and 1987, it is significant that more than 40 per cent of all transport projects approved by the bank were for sub-saharan Africa (Table 5).

Table 5 WORLD BANK LENDING TO BORROWERS BY REGION FOR  
TRANSPORT DEVELOPMENT: FISCAL YEARS 1978-87

Region	Annual Average 1978-1982 (\$ million)	% of Total Sector Lending	Annual Average 1983-1987 (\$ million)	% of Total Sector Lending
1. Eastern & Southern	124.5	17.24	174.0	18.20
2. Western Africa	179.6	23.49	137.9	13.46
3. East Asia & Pacific	255.0	11.28	599.0	17.51
4. South Asia	99.0	4.19	339.9	9.52
5. Europe Middle East	360.4	15.73	273.9	10.15
6. Latin America & the Caribbean	409.0	15.49	4551.1	11.32
<b>Overall Annual Average</b>	<b>237.9</b>	<b>14.57</b>	<b>330.1</b>	<b>13.38</b>

Source: Calculated from the World Bank Annual Report 1987 Several Tables

Infact, when transport projects in North Africa and transport components of these projects are considered, about 50 per cent of all transport projects and 32 per cent of total Bank lending for the transport sector went to the African continent.<sup>18</sup> Table 6 depicts the percentage of World Bank lending between 1977 and 1981 by mode and Region.

**Table 6 : WORLD BANK ACTUAL LENDING BY MODE AND REGION 1977-191**

Region	MODES (Percent Distribution)						Regional Distribution	
	Highways	Rural Roads	Domestic Waters	Railways	Ports	Aviation	Amount (\$ million)	%
E. Africa	11.5	7.3	-	13.1	4.8	16.6	696.5	10.5
W. Africa	14.0	24.5	-	12.0	7.1	4.6	859.3	13.1
E. Asia & Pacific	18.8	11.4	53.3	15.8	22.9	-	1,238.9	18.7
S. Asia	4.1	9.5	2.2	18.8	1.4	-	485.0	7.3
EMENA <sup>1</sup>	28.3	5.9	44.5	10.1	50.9	-	1,636.6	24.7
LAC 2	23.3	41.4	-	30.2	12.9	78.8	1,696.0	25.7
	100	100	100	100	100	100		

a. Domestic Water includes inland water Transport, Coastal shipping and Inter Island Shipping

1. Europe, Middle East and North Africa

2. Latin American and the Caribbean

Source: Calculated from World Bank (1983) *Transportation*, p 33.

The overall regional distribution pattern shows the dominance of two major groups of regions - the EMENA; that is, Europe, Middle East and North Africa and L.A.C. made up of Latin America and the Caribbean. These two groups accounted for a little over half the 1.7 billion U.S. Dollars (N6.8 billion) lent out during the period.

South East Asia recorded the lowest closely followed by East Africa and West Africa. More than 50 per cent of all Highway lending went to the two dominating regions while East Asia and the Pacific alone accounted for more than half of the lending in Domestic Waterways; together with EMENA they consumed about 98 per cent of the total. The fact that no lending went to East Africa, West Africa and the Latin American countries demonstrate the unimportance of inland waterways

18. *World Bank 1983) Transportation (Washington D.C. Sector Support Strategy Paper, Transportation and Water Department P. 16.*

in these regions. As for port development, East Asia and Pacific and EMENA are the greatest debtors accounting for almost three quarters of lending to that subsector.

Aviation lending is significantly monopolized by Latin American countries. This is not surprising if one considers the rugged terrain of the countries which make the development of air transport much more necessary and feasible than that of other modes. Lending in rural roads was dominated by Latin America and the Caribbean (LAC) with more than 40 per cent of the total and closely followed by West Africa with 24 per cent.

Mr Vice-Chancellor, there is no doubt whatsoever that the World Bank has played a significant role in the development of the transport sector of the developing countries. However, one must quickly add that this is not a free money. The huge debts of these countries to the World Bank must be paid back one way or the other, constituting a heavy burden on the foreign exchange earnings of the individual countries.

In the context of this lecture, what is important is not the amount of money earmarked for transport development either from the periodic national development plans or through borrowing from world financial institutions but how well the money is spent in terms of the physical development of the different transportation modes. It is to this issue that I now turn.

## **VI Existing Situation of Transport Development**

In examining the existing situation of transport development in Western Africa and Nigeria, I have decided to concentrate on the highway (road) subsector for some obvious reasons. First, as stated earlier, this sector accounts for more than 60 per cent of all World Bank lending to the countries in the transport sector; for the individual countries, on the average, more than 70 per cent of their budgetary allocation to transport in the periodic national development plans goes to the road subsector. More importantly, road is the most accessible mode of transport to the inhabitants of the region. In the case of Nigeria, it accounts for more than 90 per cent of all freight moved and 95 per cent of all passenger movements. It follows, therefore, that the situation in the road subsector could be said to mirror the extent of development or underdevelopment of transport in the region.

The 20 Western African countries considered in this lecture have a combined total estimated population of about 187 million in 1984. (Table 7),



TABLE 7. ECONOMIC INDICATORS OF WEST AFRICAN COUNTRIES AND THE QUALITY OF THEIR ROAD NETWORKS

Country	Area (sq. km)	Population (1985)	Per capita income (1985)	GDP (1985)	GDP per capita (1985)	Literacy rate (%)	Life expectancy (years)	Road network (km)		Road quality (%)		Road condition (%)	
								Total	Per km <sup>2</sup>	Good	Poor	Good	Poor
Algeria	2,381,741	16,200,000	1,000	16,200,000	1,000	60	75	100	0	100	0	0	0
Benin	274,967	10,000,000	200	2,000,000	200	40	60	100	0	100	0	0	0
Burkina Faso	274,967	7,000,000	150	1,050,000	150	30	50	100	0	100	0	0	0
Cameroon	475,339	12,000,000	400	4,800,000	400	50	70	100	0	100	0	0	0
Cote d'Ivoire	322,469	10,000,000	1,000	10,000,000	1,000	60	75	100	0	100	0	0	0
Ghana	238,533	12,200,000	300	3,660,000	300	50	65	100	0	100	0	0	0
Guinea	245,934	5,000,000	100	500,000	100	30	45	100	0	100	0	0	0
Liberia	111,369	3,000,000	100	300,000	100	30	45	100	0	100	0	0	0
Mali	1,240,000	10,000,000	100	1,000,000	100	30	45	100	0	100	0	0	0
Niger	1,267,000	10,000,000	100	1,000,000	100	30	45	100	0	100	0	0	0
Nigeria	923,768	97,000,000	100	9,700,000	100	30	45	100	0	100	0	0	0
Senegal	769,153	7,000,000	100	700,000	100	30	45	100	0	100	0	0	0
Togo	568,830	5,000,000	100	500,000	100	30	45	100	0	100	0	0	0
Zambia	752,617	5,000,000	100	500,000	100	30	45	100	0	100	0	0	0

**NOTE:**  
 1. Data for 1985.  
 2. Per capita income based on 1985 prices.  
 3. GDP based on 1985 prices.  
 4. Literacy rate based on 1985 data.  
 5. Life expectancy based on 1985 data.  
 6. Road network data based on 1985 data.  
 7. Road quality data based on 1985 data.  
 8. Road condition data based on 1985 data.

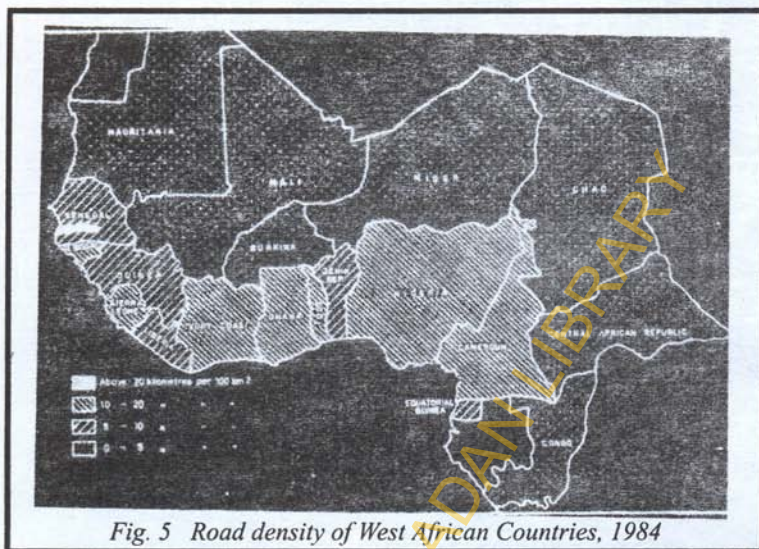
representing roughly one-third of the total population of Africa. The countries are among the poorest in the world with 16 of them recording per capita incomes of less than 500 U. S. Dollars (N2,000.00) in 1985, and only one of them, the Peoples Republic of Congo with a per capita income exceeding 1,000 U. S. Dollars (N4,000.00). The remaining 3 countries (Nigeria, Ivory Coast and the Cameroon) had percapita incomes ranging between 500 and 1,000 dollars.

The largest country in the region is Nigeria with a total population of about 97 million inhabitants or 52 per cent of the regional total. The second most populated country is Ghana with 12.20 millions or about 7 per cent of the total and 13 per cent of Nigeria's. Population growth rates generally range between 2 and 3 per cent per annum with Ivory Coast recording the highest at 4.4 per cent per annum. About 25 per cent of the region's population live in urban centres and more than half of these live in Nigeria. In all these countries except Nigeria and the Cameroons the urban population is concentrated in the capital cities.

#### (a) Road Network Condition and Qualities

While table 7 shows the general socio-economic characteristics and the conditions of road network developments in individual countries,

Figures 5 and 6 give a vivid picture of the situation with respect to density, condition and qualities of their main road networks by 1984.



All the countries together had a total length of 431,500 kilometres of roads in 1984. Of these, about 145,000 kilometres or 34 per cent constitute the main network or primary roads. With a total area of 8.9 million square kilometres, the region has an average road density of about 5 kilometres per 100 square kilometres of area. This shows the very low rate of connectivity of the region (Figure .5). For the individual countries road density ranges from the most poorly connected countries such as Mauritania, Niger and Mali with 1 kilometre or less of road to 100 square/ kilometres of area; to such moderately connected countries as the Republic of Benin, Equatorial Guinea, Guinea and Senegal with above 5 kilometres to 100 km<sup>2</sup> of area and to fairly well connected countries such as the Cameroon, Ghana, Guinea Bissau, Ivory Coast, Nigeria and Sierra Leone with over 10 kilometres of road to 100 km<sup>2</sup> of area. The most well-connected country in the region is the Gambia with above 1 kilometre of road for every 5 square kilometres of area.

A significant proportion of the 145,000 kilometres of the main network of roads is unsurfaced. This is partly due to the huge expenses necessary to provide bituminized surfacing. In the whole of Western Africa only about 54,000 kilometres or 37 per cent are surfaced. This percentage, however, varies from one country to another (Figure 6).



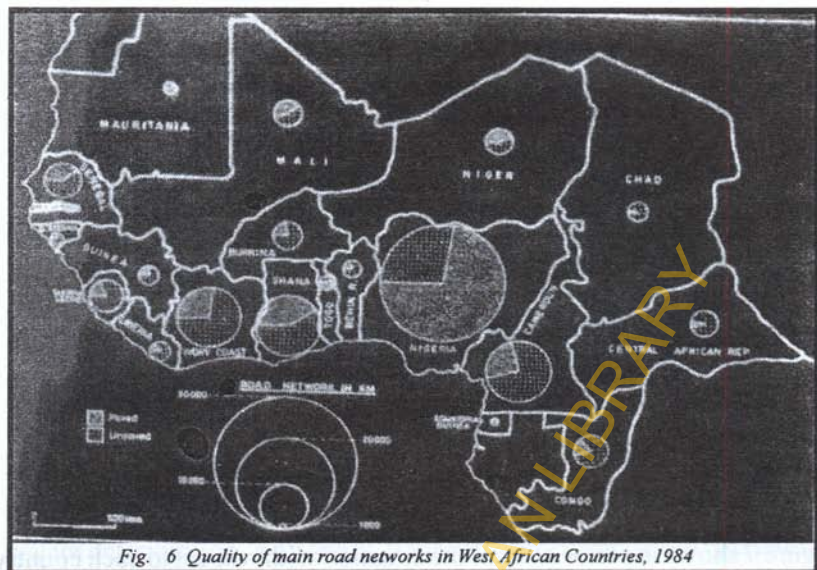


Fig. 6 Quality of main road networks in West African Countries, 1984

For instance, in Nigeria, 73 per cent of the 29,000 kilometres of main road network is surfaced, being the highest in the region, while Mauritania records 66 per cent and Togo (56 per cent); Niger, Ghana, and Equatorial Guinea surfaced more than 40 per cent of their main networks. The poorest countries in terms of road surfacing are Chad and Central African Republic (C.A.R) with only 4 and 8 per cent respectively.

Most of the roads in the region were built in the 1960s and 1970s. Unfortunately the road infrastructures of the individual countries have been crumbling most especially since the beginning of the 1980s. Majority of the road networks which were built at great expenses have been overused and inadequately maintained, resulting in their deterioration.

The World Bank, in a recent survey of various developing countries came up with the classification of their road into three main categories namely:

- (1) good - these are roads which require only routine maintenance to remain that way;
- (2) fair - roads that need resurfacing; and
- (3) poor - roads that have deteriorated to such a point that they require either partial or full reconstruction.



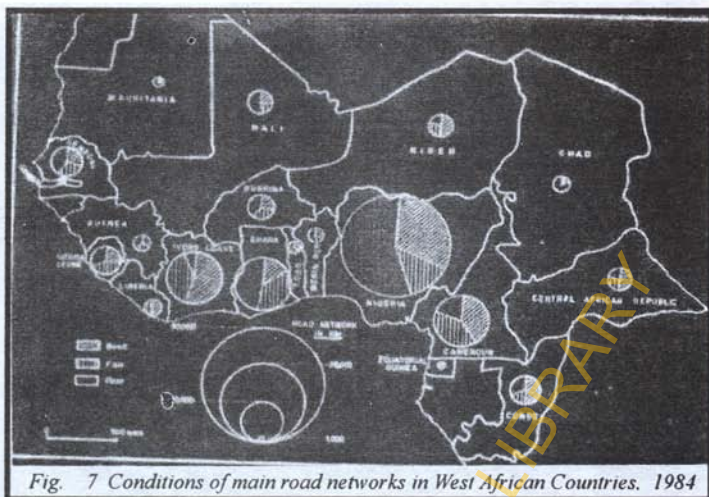


Fig. 7 Conditions of main road networks in West African Countries. 1984

Figure 7 shows in pictorial from the situation with respect to each country. The overall pattern shows that only 36 per cent of the main road in Western Africa can be classified as good, those that are fair and poor record 30 and 34 per cent respectively. The countries with more than 50 per cent of their main roads in good condition are the Republic of Congo, Central African Republic, Ivory Coast, Liberia and Niger. Those countries which have less than 20 per cent of their main road networks in good condition are Chad, Equatorial Guinea, Ghana and Mauritania. Guinea, Nigeria and Togo record a little over 30 per cent of their main networks in good condition.

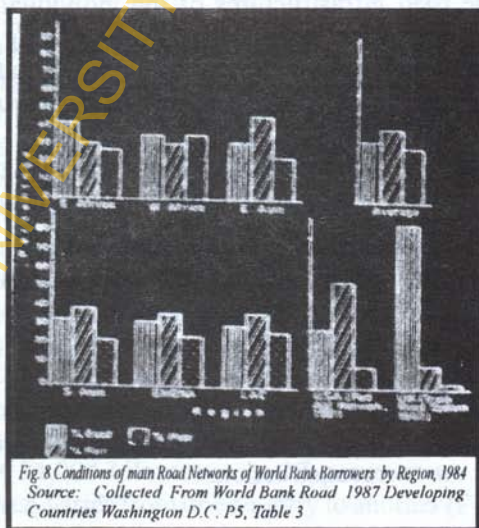


Fig 8 Conditions of main Road Networks of World Bank Borrowers by Region, 1984  
 Source: Collected From World Bank Road 1987 Developing Countries Washington D.C. P.5, Table 3

Figure 8 shows the regional averages for all the World Bank Borrowers in 1984 compared with those of the United States of America and the United Kingdom in 1981 and 1983 respectively. On the whole more than one-quarter (29 per cent) of all the roads in all the countries taken together are in poor conditions needing reconstruction and or rehabilitation.<sup>19</sup> For Western Africa, it is even worse with more than one-third of the total main networks in poor condition. That as high as 30 per cent of the roads are of only fair condition indicates the possibility of a major crisis unless sustained efforts are made to prevent them from deteriorating into poor conditions.

The most worrisome aspects of the conditions of the roads in the region are their adverse consequences on economic growth and development and, thus, the survival of each country. For one thing, the aggregate effect of road deterioration on vehicle operating costs can be enormous. For example, a World Bank Report showed that by 1984, about 60 per cent of Ghana's main paved roads were in a state of moderate to severe deterioration. As a result, transport costs increased in real terms by about 50 percent on main roads and by over 100 percent on the rural roads that suffered greater neglect.<sup>20</sup> Such high transport costs can cut deeply into farm returns. A rise in haulage costs will definitely constrain the location of economic activities, hamper the integration of markets, limit the gains from area specialization and render unviable many socio-economic activities.

#### (b) Motorization

Another measure of development in the transport sector and the degree of mobility in any nation is the level of motorization. In 1982, there were a total of approximately 1.05 million registered vehicles in the

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19. *Less serious deterioration in the United States (U. S.) Federal highway network during the 1970s prompted widespread alarm, new legislators, new user taxes and a large infusion of Federal and State resources in the 1980s to remedy the situation. See Baker, M. (1984) Rebuilding America's infrastructure - Agenda for the 1980s (Durham, N. C., Duke Press) P. 40.*
20. *World Bank (1971) Road Deterioration in Developing Countries (Washington D. C.) p. 3.*

West African region.<sup>21</sup> About one-third of these (roughly 353, 5000) were registered in Nigeria followed by Ivory Coast with 146,000 or 14 per cent Table 8 shows the level of motorization in selected countries of West Africa. The level of motorization is quite low ranging from as low as 4 vehicles per 1000 inhabitants in Nigeria and Burkina Faso to the highest at 16 vehicles per 1000 people in Ivory Coast.

Table 8: VEHICLE FLEETS, MOTORIZATION AND GROWTH RATES  
IN SELECTED WEST AFRICAN COUNTRIES

Country	Total Population 1984 (million)	Population Growth Rate %	Vehicle Fleet (1982)	Vehicle Growth Rate %	Motorization (Vehicles per 1000 population)
1 Burkina	6.60	2.1	25,240	n.a	3.9
2 Cameroon	9.90	3.1	79,070	6.1	8.3
3 Ghana	12.30	2.9	74,050	0.3	6.1
4 Ivory Coast	9.90	4.4	146,600 <sup>b</sup>	3.6	15.8
5 Liberia	2.10	3.5	18,070 <sup>c</sup>	-3.1	9.3
6 Mali	1.30	2.7	27,950 <sup>b</sup>	3.7	3.8
7 Mauritania	1.70	2.3	19,700	n.a	12.3
8 Niger	6.20	3.2	33,120	n.a	5.6
9 Nigeria	96.50	2.6	353,000	n.a	3.9
10 Senegal	6.40	2.7	72,640	n.a	12.1
11 S. Leone	3.70	2.1	25,200	-3.1	7.9
12 The Gambia	0.71	3.7	8,049	n.a	11.8

a = Over 5 Yr period (not specified)

b = 1983 figures

c = 1981 figures

Source: Derived from Barrett Richard, *Urban Transport in West Africa* (World Bank Publication, Washington D. C. Table 1)

One major feature of the level of motorization in the various countries is the high degree of concentration of vehicles in the capital and major cities which account for between 50 and 70 per cent of the total (Table 9). Consequently the levels of motorization in the regions' urban centres are, therefore, much higher being in the range of 26 and 60 vehicles per 1000 inhabitants.

21. Barrett, Richard (1987) *Urban Transport in West Africa* (Washington, D. C. World Bank Report) P. 11.



**Table 9: VEHICLE FLEETS AND MOTORIZATION IN  
SELECTED CITIES OF WEST AFRICA**

City	Vehicles	Year	Proportion of National Fleet %	Motorizations (V per 100 population)
Abidjan	68,000	1983	46	30
Accra	36,000	1984	49	26
Douala	32,600	1982	43	48
Yaounde	26,000	1980	39	59
Bouake	18,700	1981	13	30
Freetown	16,300	1982	65	32
Monrovia	12,000	1984	65	30

Source: (1) *International Road Federation Statistics*  
(2) *Borrelt Richard (1987) Urban Transport in West Africa.*

It is equally significant to note that, in most of the countries, vehicle growth rates are lower than the population growth rates and significantly lower than the urban population growth rates. Resulting from this mismatch is a general fall in the level of motorization both at the national level and in the principal cities. In the six countries where vehicle growth rates are available, three have either been static (as in Ghana) or declined as in Sierra Leone and Liberia by only 4 percent (Ivory Coast and Mali) and one (Cameroon) has increased by 6 per cent.

The situation in Jos, Nigeria (Table 10) typifies the decline in the level of motorization in the principal cities.

**Table 10 : REGISTRATION OF NEW AND EXISTING MOTOR  
VEHICLES IN THE JOS REGION, 1982-86**

Year	New Vehicle Registration (1000's)	Rate of Growth/ Decline %	Existing Vehicle Registration (000's)	Rate of Growth/ Decline %
1982	5.6	-	19.0	-
1983	2.1	-62.5	18.0	-5.3
1984	1.2	-42.9	15.6	-13.3
1985	1.4	-16.7	15.7	+0.6
1986 (Jan-Sept)	0.5	-64.3	11.5	-26.8

Source: *Adapted from D.A.C. Moulder and P. R. Fourace (1987) Public Transport Provision in Jos, Nigeria (Berkshire, TRRL, Working Paper No. 219 Table 2. p. 3.*

As shown in table 10, there had been a substantial reduction in new vehicle registrations from 5,600 in 1982 to only 500 in 1986 (January to September), while the existing vehicle license renewals declined from 19,000 to 11,000 within the same period.<sup>22</sup> This type of drastic reduction in newly registered vehicles has also been observed in the Lagos Metropolitan Area. Bolade noted that the number of newly registered vehicles in the Lagos Metropolitan Area declined from 72,000 in 1982 to only 39,000 in 1983, that is about 46 percent reduction in one year.<sup>23</sup> A similar decrease was recorded in newly registered motorcycles which declined from 18,462 in 1982 to 10,773 in 1983, an absolute 42 percent decrease in one year.

The reductions in vehicle fleet in most of the countries are largely a reflection of economic recession and the subsequent stricter restriction on all categories of imports into each country. Conventionally, in the technologically advanced countries of the world, automobile sales are regarded as a critical barometer for measuring economic resurgence or recession.<sup>24</sup> In our own case new registration of vehicles could be used as the same estimator. The reduction in vehicle registration in most of the countries began to occur during the period 1975 to 1980 when the full impact of the hike in fuel prices began to have a serious impact on the balance of payment of the poorer countries. Most governments reacted by strictly controlling foreign exchange spending on all manufactured goods and fuel. One of the principal targets for such foreign exchange cuts are private vehicles and spare parts which together with fuel usually represent a large proportion of foreign exchange spending.

Another major consequence of the strict control of foreign exchange spending and structural adjustment programme in most of the countries is the phenomenal increase in vehicle prices which, from all available evidence, have skyrocketed beyond the reach of individuals most especially the wage - income earners.

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22. *Maunder, D.A.C. and Fouracre, P.R (1987) Public Transport Provision in Jos, Nigeria (TRRL, Overseas Unit, Crowthorne, Berkshire) P.3.*
23. *Bolade, Tunji A (1986) "Transport in Metropolitan Lagos" Transport Reviews Vol. 6. No. 1.*
24. *Hills, P. (1981) "Does Urban Bus Transport have a Future?" An editorial comment in Transportation 10 PP. 305-310.*

The Nigeria situation is again a good illustrative case.

Figure 9 shows graphically what has happened to the prices of different brands of the Peugeot cars within the last few years, using prices prevailing in Ibadan.

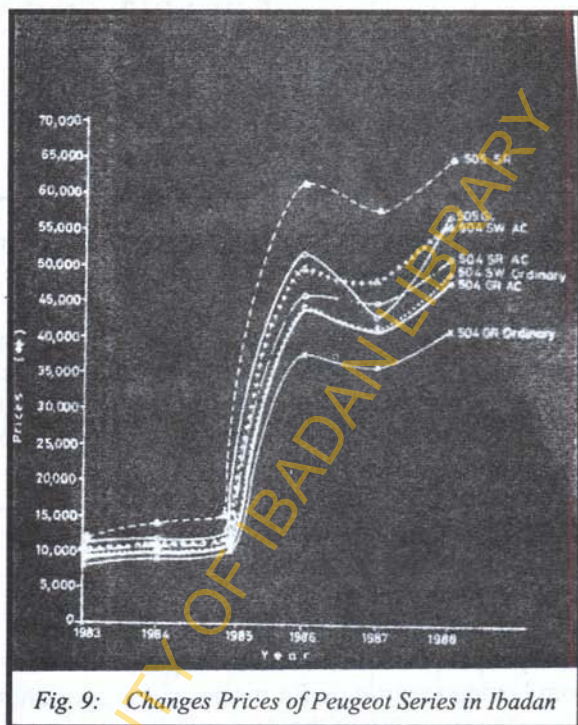


Fig. 9: Changes Prices of Peugeot Series in Ibadan

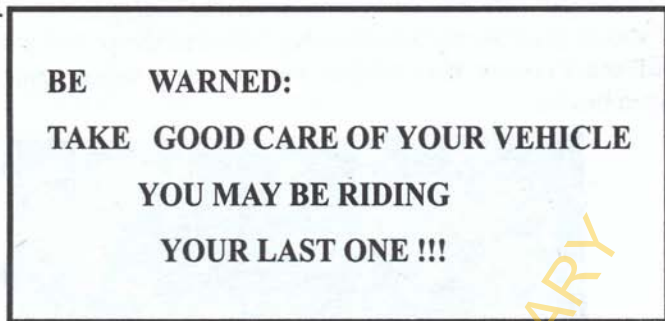
The increases are not only astounding but also scandalous! For example a Peugeot 504 CR (Ordinary) saloon which in 1983 was sold for less than N9,000.00 costs almost N42,000 in February 1988; a 504 SR with Air Condition costing a little over N10,000.00 in 1983 now sells for close to N58,000.00. While a 505 SR which was bought with about N13,000.00 in 1983 now sells for close to N66,000.00.

When viewed against people's personal income especially those in the public sector where the highest paid worker earns less than N20,000.00 per annum, there is no doubt that the country is already engulfed in mobility crisis.

High prices of the limited spare parts that are available make vehicle maintenance almost impossible, considering the fact that before the car, man must eat and clothe. Today it is more realistic to talk about car rehabilitation loans than car loans. The advice to vehicle owners is clear from the above.



(Fig. 10).



It is now a common scene to find old rickety and terribly shaking vehicles, taxis, buses, etc, plying the urban roads and carrying passengers at great risks to their lives!

Any keen observer of events would have noticed that as the number of vehicles decrease on the roads the queues at bus stops get longer and longer. This is a veritable sign of mobility crisis, which, if allowed to persist could paralyze a nation's economy, disrupt its socio-political stability and jeopardize its very survival.

Not unexpectedly, the visible symptoms of the mobility crisis have caught the attention of editors and feature writers in the daily newspapers. For example, in the Guardian's edition of Wednesday November 11, 1987, Adedoyin and Asuquo in describing the pathetic situation in the various bus stops in Lagos stated inter alia

These people whose faces mirror despair,  
From having to struggle for means of transportation  
hours after the close of the day's work, when they  
ought to be relaxing their nerves in preparation for  
the next day's job, are caught up in Nigeria's crisis  
of public transportation; hungry, ruffled and  
brutalised.<sup>25</sup>

The situation described by the writers is a common occurrence in other major cities of Western Africa where emphasis is now shifting towards the development of public transport system. Since the level of motorization is low, public transportations now plays a very important role in the daily lives of urban dwellers throughout West Africa.

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25. *Asuquo M and Adedoyin R (1987) Nigerian Commuters stranded in traffic chaos" The Guardian Newspaper*

(c) **The Nigerian Situation.**

Mr. Vice-Chancellor this lecture will not be complete and the lecturer will not be professionally satisfied without commenting specifically, however briefly, on the situation of transport development in Nigeria. From our earlier exposition, it could be inferred that compared with most other countries in the West African sub-region, Nigeria has done fairly well in transport development. But could this be the case of the 'one eyed man who is the king in the country of the blind'?. The myriads of problems confronting the nation today with regards to mobility seem to answer that question in the affirmative. What then went wrong and what should be done to rectify the situation?

Since political independence, every successive government in the Federation has shown much concern for transport planning and development. Since the early 1960's, transport had consistently ranked highest in the magnitude of public investment in infrastructures. Table 11 shows the pattern of resource allocation to the transport sector in the country's previous Four National Development Plans. The transport share of total planned public investment was approximately 20 percent, 24 percent and 22 percent respectively in the 1st, 2nd, and 3rd National Development Plans.

Table 11: **TRANSPORT SECTOR ALLOCATIONS IN NIGERIA'S NATIONAL DEVELOPMENT PLANS, 1962-85**

Plan Period	Total Transport Sector Allocation (N million)	% of Total Public Sector Investment	Roads (N million)	% of Transport Sector Allocation	Rail (N million)	% of Transport Sector Allocation	Water (N million)	% of Transport Sector Allocation	Air (N million)	% of Transport Sector Allocation
1962-68	309.09	19.5	171.60	55.5	40.34	13.1	76.51	24.7	20.64	6.7
1970-74	485.20	23.7	336.19	69.3	43.68	9.0	54.25	11.2	51.25	10.6
1975-80	9,677.50	22.3	6,965.90	71.9	986.10	10.2	924.40	9.6	801.00	8.3
1981-85	10,706.62	15.2	7,461.99	69.7	1,630.00	15.2	961.52	9.0	653.10	6.1

Source: Calculated from Nigeria's 1st, 2nd, 3rd and 4th National Development Plans

In the 4th National Development Plan, the decline in planned expenditure to 15 percent may be interpreted, to a great extent, as reflecting the maturity of the transport sector. It is instructive to note, however, that even though the percentage share of the sector oscillated during the period under consideration, the magnitude of actual investment rose from N309 million in 1962/68 First Plan period to N10.7 billion in 1981-85 Fourth Plan period; that is, an absolute increase of about 3,364 percent in less than twenty five years. The figures also show that the transport sector has



consumed on the average 20.3 percent of the total planned national resource outlay since the First National Development Plan period. This means, in essence, that of every Naira of Planned expenditure in Nigeria's developmental efforts since 1962 about 20 kobo had been allocated to this sector.<sup>26</sup>

The physical achievements in the transport sector have been substantial since the early years of the twentieth century. For example, the nation now boasts of a 3,500 kilometre railways route of 1.067 metre narrow gauge; its total road kilometrage progressed in quality and quantity from 44,000 kilometres in 1951 through 72,000 kilometres in 1962 to above 100,000 kilometres in 1980.<sup>27</sup> Roads with bituminous surface increased from 11,000 kilometres in 1960 to about 30,000 in 1986: as for air transport, prior to 1970 commercial flights were operated from two international airports - Lagos and Kano and six domestic ones; today the country can boast of at least 16 airports for commercial operations, seven of which are built to international standards; pipeline network extends over 28, 000 kilometres to distribute up to 7 million cubic metres of refined petroleum products; progress in inland waterways has been minimal

Despite the huge investments and these physical achievements, the country's transport sector is still confronted with many problems. These problems include inter alia insufficient public transport to cope with rising demand, urban traffic congestion, neglect of rural-to rural and farm-to village transport linkages, occasional port congestions and rapid rate of increase in road accidents.

The transport sector in Nigeria has received perhaps the greatest attention by hired foreign and indigenous consultants.<sup>28</sup> This attention may be interpreted in two ways. First, it could be taken as an

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26. Filani M. O. (1986) "How Do We Get There From Here: A Transportation Dilemma" (Ile-Ife, University of Ife, 1986 Alumni Lecture) p. 12.
27. Ezeife P.C. And Bolade, A. T. (1984) "The Development of the Nigerian Transport System" Transport Reviews Vol. 4, No. 4, PP. 305-330.
28. Filani, M. O. And Osayimwese, Iz. (1974) "The Organisation of Transport Planning in Nigeria" The Nigerian Journal of Economic and Social Studies, Vol. 16 No. 3, p. 398, Examples are the study by Economic Associates (1967), NEDECO (1972), NACO (1972), CANAC (1972), KAMPSAX (1972), OVE ARUP (1966), IBRD (1971), WORLD BANK (1981) among others.



Indication of the importance of the sector in the economy. Since the Stanford Research Institute Study of 1961, there have been at least seven other studies by consultants. On the other hand, the volume of consultants' reports in the transport sector perhaps reflects the seriousness of the so-called "management crisis" in the Transport Corporations. The NACO, CANAC and NEDECO Reports seem to portray this picture.<sup>29</sup> These reports appeared to have been prompted by the chaos in the management and finances of the Transport Corporations - especially the Nigeria Airways and the Nigerian Railway Corporation - a problem which eventually led the Federal Military Government under General Obasanjo to contract out management of the two corporations to outside Consultants - the KLM for the Nigeria Airways and the RITES of India for the Nigerian Railways. Although the contracts have since been terminated it is a matter for debate whether such contracting was a wise decision or not. To answer that question would require a detailed cost-benefit analysis of the performance of the two foreign management consultants.

All this notwithstanding it is obvious that each of the prevailing modes of transport - road, rail, inland waterways, aviation, coastal and ocean shipping - has its own history, its structural, organisational and operational characteristics and development problems. Their development reflects many influences including the country's stages of growth, her socio-economic and political structure, her resource endowment and other geographical characteristics.

The important roles which all the modes have played and will continue to play in the process of economic development call for major reforms and effective and meaningful planning not only in the overall national transport system but also in the individual modes.

At this juncture, Mr. Vice-Chancellor, let me make a few remarks on the recent actions of President Babangida's Administration in this pervading sector. This administration, since its inception in 1985, has taken several bold steps in the efforts to improve the country's transportation system. One of the major significant actions was the setting up in 1986 of what was called "The Committee of Experts on National Transport Policy". This Committee was given nine months to fashion out the nation's transport policy till year 2000 AD. The Committee has since submitted its report.

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29. *Ibid.* P. 399

Certain issues deserve comments with respect to this committee and its report. First the Federal Government must be commended for setting up the committee. Mr. Vice-Chancellor, in the 1986 Alumni Lecture of the then University of Ife (now Obafemi Awolowo University) which I was privileged to give, I stated among other recommendations the need for a “comprehensive integrated plan for transport development in Nigeria to cover between 15 to 20 years period to make it meaningful and operational”.<sup>30</sup> Thus, setting up the committee to draw up a comprehensive twelve year transport policy for the country is a decision in the right direction. However, examining the composition of the committee it would appear that the nomenclature of the committee was a misnomer. This is because from purely professional point of view and with all sense of responsibility a significant proportion of members of the committee are anything but experts in transportation matters.

Furthermore, certain recent actions of the Federal Government raise some curious anomalies about the Committee’s Report. It is surprising that a few days before the report of such an important committee was submitted to the president, the Government announced the splitting of the Ministry of Transport and Aviation into two, creating a separate Ministry of Aviation. This is contrary, to all recommendations that transport researchers and analyst both indigenous and foreign have made in the last two decades. In a paper which Osayinwese and Filani published in 1974, they recommended that the Ministry of Transport and Aviation should remain one but should be restructured on the basis of economic functions rather than by type of mode.<sup>31</sup> The functions include pricing, investment, control and monitoring of project implementation. Such a structure would promote intermodal policy harmonization and encourage better project planning. The recent splitting of the Ministry into two is a retrogressive step which does not augur well for transport development in the country.

Also as we were all eagerly awaiting the Government White Paper on the Report some daily newspapers published the curious news that the Federal Government had set up a Review committee to review the Report for purposes of writing a white Paper on it. This procedure looks strange and perhaps a departure from the normal governmental practice.

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30. *Filani, M. O. (1986) How Do We Get There From Here: A Transportation Dilemma. (University of Ife 1986 Alumni Lecture) p. 30.*

31. *Filani, M. O. And Osayimwese, I (1974) “The Organisation of Transport Planning in Nigeria”. The Nigerian Journal of Economics and Social Studies, Vol. 16, No. 3 p. 401*



Whatever happens, the outcome of the Report of that Committee is so fundamental to the shaping of the country's transport sector that Government should throw it open for public debate before writing a white paper on it.

Mr. Vice-Chancellor, in my Ife Alumni Lecture referred to above, I stated also that, although over the past three decades, Nigeria's transport policies and objectives have been well articulated, the major problem lies in the fact that the adopted strategies in the implementation of the programme and projects have not directly confronted development in the sector.<sup>32</sup> I still hold on to this viewpoint although eagerly awaiting the outcome of the committee's recommendations.

Another major bold step taken by the administration for the improvement of the country's transportation system was the setting up in January 1988 of the **Task Force on Urban Mass Transit** which is expected to produce the guidelines on the implementation of the Federal Government programme on Mass Transit in the country. As we all are aware, a sum of ₦700 million had been set aside for the country's Mass Transit programme. The allocation of such a huge amount and the setting up of the Task Force show Federal Government's awareness of the serious mobility crisis which now threaten the major urban centres in the country. However, it is unfortunate that even before the Task Force started its onerous duty, some states of the Federal Government had ordered buses of various kinds and shapes. This action alone already preempts one of most important issues for consideration in a Mass Transit Programme - that is, the choice of the type of vehicles needed. For example, the double-decker buses meant for some states in the northern parts of the country had arrived at the Lagos port before any consideration was given to the possibility of their being able to pass under the flyovers along the express ways.

A Mass Transit Programme needs careful planning and there is an urgent need for an Urban Mass Transit Policy in the country. The past terrible experiences of the public sector (State and Local Governments) participation in the provision of Mass Transit at the inter-and intra-city levels call for caution and detailed studies on the various possible options necessary for an efficient Mass Transit system. There are hopeful indications that the Task Force has provided a blueprint to guide the Federal and State Governments on the several issues necessary for an effective Mass Transit System. Such issues include the Institutional Framework, the

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32. *Filani, M. O. (1986) op. Cit. p. 28*



Types of vehicles, the extent of indigenous technology needed and which should be encouraged in the building of vehicles, the laws and regulations, maintenance etc.

Another major recent policy action of the Federal Government in the area of transport development was the setting up of the Directorate of Foods, Roads and Rural Infrastructure in the Office of the President. One of the major tasks of this Directorate relates to that of rural transport, an area which unfortunately had been neglected by past National Development Plans. The Directorate is expected to oversee the construction and maintenance of about 60,000 kilometres of feeder roads in the rural areas. Fifty percent of the N900 million expected to be realized from the petroleum subsidy adjustment is earmarked for this programme. This again shows Federal Government's awareness of the critical role of transport in rural development. It is well known that where roads are impassable, where transport costs are high and where marketing is uncertain, progress in agriculture and indeed in rural development will be limited.

I am aware that since its inception the Directorate has allocated a substantial part of its capital budget to states for the construction and rehabilitation of rural feeder routes. For example, about 50 percent of its 1986 capital budgeting, totalling almost N200,000 million was disbursed to the different states. The allocation ranges from N5.6 million for Abuja to N11.2 million for Sokoto State.<sup>33</sup> The total kilometerage of road expected to be constructed by each state is also specified ranging from 627 kilometres in Abuja through 941 kilometres in Imo to 1,277 kilometres in Borno State. This allocation is said to represent the first phase of the road development programme of the Directorate. Although there are some hitches here and there the Directorate ought to be given a pat on the back for what has been done so far. The recent introduction of monitoring teams to visit the states and monitor the progress of the Directorate's work is really commendable. I am also aware that the Directorate is working on other important relevant issues that could improve further the efficiency of rural transport. Such issues include the form which overall rural transport development should take at the level of individual states, the type and choice of roads to be constructed, the technology of construction, the maintenance of the roads and the types of modes and vehicles that would eventually be encouraged.

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33. *This information is contained in some publications obtained from the Directorate of Foods, Roads and Rural Infrastructure.*

The most recent of President Babangida's policy action on transport was the setting up of the Federal Roads Safety Corps under the distinguished leadership of Prof. Wole Soyinka. It is common knowledge that Nigeria has one of the World's world's worst record of accidents.

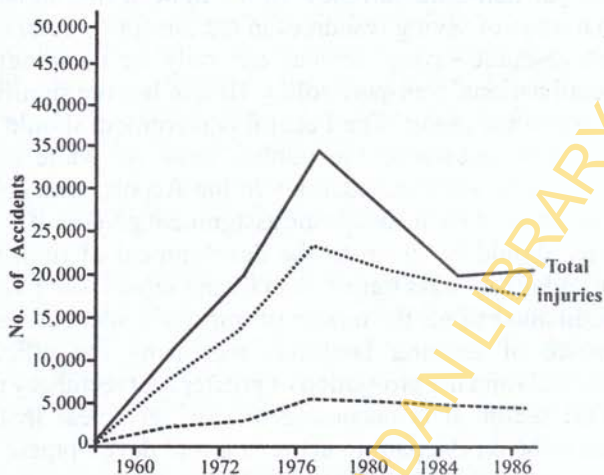


Fig. 11 Road Accidents and Casualties in Nigeria 1968-1986

As Figure 11 shows, the total number of accidents reported on Nigerian roads increased from a little over 12,000 in 1968 to more than 37,000 in 1982. The total numbers of fatalities and those injured were more than quadruple. With the past enviable record of Prof. Soyinka as Marshall in the defunct Oyo State Road Safety Corps, one has great hopes for the success of the Directorate.

## VII Concluding Remarks and Recommendations

Mr. Vice-Chancellor, at the beginning of this lecture I stated the importance of transport as a key factor in economic, social and political development of any nation. The very existence and survival of any nation depend on an efficient transportation system. Thus once established, a transport system requires constant adaption to the requirements of a dynamic economy and society. It is, therefore, imperative for any nation particularly the developing ones like Nigeria to continue to give top-priority to the development of sound and meaningful policy for their transport sector, provide adequate and efficient capacity for investment planning, project selection, contracting and maintenance in the transport sector.

With specific reference to Nigeria, I would like to make some recommendations some of which are mere repetitions of what I have been saying in my research writings for the past two decades and which many



other scholars have suggested. It is an incontrovertible statement to say that the country's economic situation today is gloomy. We are confronted with a sharp decline in the level of foreign exchange earnings, and a drastic devaluation of our domestic currency. In the light of this situation, it is imperative that ways of saving resources in the transport sector should be devised. Such resource-saving devices can only be meaningful if set within an overall national transport policy. Herein lies the significance of the Adeniyi committee report. The Federal Government should make its view on the report known to the public, write its white paper and implement any viable recommendations in the Report. One only hopes that the committee has done justice to the assignment given to it.

Priority should be given to the development of rural transport infrastructure and urban mass transit, the rail and inland waterways, more effective coordination of all the modes of transport, adequate protection and maintenance of existing facilities, increasing the efficiency of transport parastatals and the promotion of greater cost recovery measures in the transport sector. It is becoming increasingly clear that Nigeria cannot be said to be on the path to achieving real development until the rural problems are solved. One of these problems and perhaps the greatest is that of mobility. The efforts of the Federal Directorate of Foods, Roads and Rural Infrastructures in this direction is noteworthy. However, more attention should be directed towards building simple tracks suitable for non-conventional vehicles and to encouraging the use of such vehicles. In the building and maintenance of rural roads, emphasis should be on the use of labour - intensive techniques. Such techniques are not only more efficient in accomplishing the job for lower cost, they depend less on imports and at the same time assist in meeting the important need to generate local employment.

There is an immediate need for a few extensions of the railway to serve the ports of Tin Can Island in Lagos and Onne near Port Harcourt and also to complete the Orukpo-Ajaokuta link.

As for urban centers it is plausible, for several reasons to suggest that public transport will play a greater role in the years ahead. This viewpoint is based on the following premises:

- (a) It is very difficult to foresee any major improvement in the country's economy in the nearest future.
- (b) Vehicle and spare parts' prices are likely to continue to rise and will be beyond the reach of individual private potential buyers.



- (c) As a result of 'b' above the growth in vehicle fleet will continue to be low.
- (d) Urban population growth will continue to rise much higher than that of vehicles and the level of motorization will continue to fall.

All these will increase the demand for public transport if mobility will not be totally paralyzed in the major cities. I therefore support the setting up of a Directorate of Urban Mass Transit as recently recommended by Air Vice Marshal Yahaya's Task force to implement the Federal Government's programme and find ways of spending the N700 million judiciously and effectively. Such a body must be free from ministerial control.

The efficient utilization and realization of the benefits of the huge expenditure on transportation infrastructure depend, to a large extent, on adequate maintenance. Unfortunately, we are generally more interested in awarding contracts for new projects than in preventive maintenance. With the present financial constraints more efforts will have to be concentrated on the maintenance and improvement of existing facilities.

Another major issue relates to management efficiency in the transport parastatals. With the exception of roads, all other modes of transport in Nigeria are controlled by public corporations. I do not envisage, neither do I support, the possibility of privatization in any of our transport parastatals now or in the foreseeable future. The reasons for this viewpoint are many and varied. First, transport infrastructures require heavy capital outlay and high maintenance cost: they also have a long period of gestation and pay-off; and their capital is usually 'lumpy and indivisible'. These peculiar characteristics make investments in transport infrastructure generally unattractive to the private sector where entrepreneurs are traditionally profit-oriented. Secondly, even if the private entrepreneurs are willing to purchase some of the parastatals it would be unjustifiable since in my own opinion, doing this will concentrate further the country's wealth in the hands of a few and, more so, there is no way the huge amount of money already sunk in some of them by the government can be recovered fully from the purchasers. Thirdly, privatizing the Railways and the Nigerian Airways will be detrimental to the principle of distributive justice. At present both corporations perform a combination of "social" and economic service which private entrepreneurs cannot afford to provide. Thus, the service of these modes might be priced beyond the reach of the middle and low-income travellers. What, therefore, is necessary is an improved efficiency in the management of the parastatals. I do not subscribe to the often quoted idea that Nigerians

cannot manage them properly - a view that led to the invitation of RITES and KLM to manage the Railways and Airways respectively. Given the necessary autonomy, devoid of incessant political interferences, adequate funds and given clear set of operating and financial targets, the average Nigerian manager would perform.

Mr Vice-Chancellor, I wish to note however, that the development of the nation's or any nation's transport system as enumerated in the greater part of this lecture is a necessary but not a sufficient condition for economic growth, development and survival. The development of the transportation system as a goal in and for itself makes no economic sense. If a country is deficient in the factors conducive to growth no amount of transport infrastructure and planning can create the economic development that is required. My optimism about the nation's survival through increased mobility is predicated on the hope for political stability, efficient resource utilization and government commitment to and consistency in transport matters and with this, the economy will improve and its transport requirements will be met and the question of mobility and survival would cease to be a dilemma.

I thank you all for listening to me.

*M. O. Filani.*