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ANALYSIS OF THE NATURE AND CONDITIONS OF ROAD TRANSPORT FACILITY IN A DEVELOPING ECONOMY. THE CASE OF REMOLAND, OGUN STATE, NIGERIA.

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Abstract

This paper examined the place of transport in the development of a nation be it developed or developing. It attempts to analyse the nature and conditions of road transport facilities in developing economy with Remoland as the case study. Furthermore, it analyse the mobility and accessibility characteristics of the study area and applied it to other parts of the world and finally made some policy recommendations and conclusions.

1.0 Introduction

Transportation constitutes one of the major features of the socio-economic development of all the nations and the contribution of road transport to development of Nigeria is not only significant but decisive. It has helped in the opening of economic and settlement frontiers of the country. Today, transportation has been seen as the critical investment sector that stimulate economic growth through increased accessibility provided by transport facilities.

In spite of the inevitable role of transportation in the distribution of agricultural and industrial products, there is an increasing concern about the ability of road transportation to meet the growing demand. In recent years, there has been a serious transportation crisis which resulted from increasingly inadequate transport system. For instance, it has been established by Filani (1997), Onakomaiya (1981), and Ajiboye (1988, 1994) that road transport system in Nigeria accounts for more than 90 percent of all the freight moved and it is the most widely used and apparently the most patronized according to Mbagwu (1977) for movement of goods and people and therefore the most appropriate vehicle for change Adeniji, (1987) but the facilities are not well located and maintained.

Infact, the poor conditions of the several rural roads which are constructed to link the agricultural producing areas with the consumption areas have had their transport services restricted or even removed completely and therefore imposing severe constraint on the marketing of farm produce and thereby leading to product wastage, low agricultural productivity and as well as high production and marketing cost according to Aloba (1986) and Ajiboye (1988).

In reality, many parts of the country particularly the rural areas are not so accessible, the nature and condition of the roads can hardly be better described as being horrible and death traps though the rural road traffic increases daily. It is against this background that an attempt is made in this paper to examine in depth the transportation situation in developing economy in general and Remoland, Ogun state in particular.

This paper is structured into five major sections. Firstly, the background information about the transport situation in developing economy and the second section will look at the nature and condition of road transport facilities in Remoland. Thirdly, the mobility and accessibility characteristics of the study area and the fourth section discusses the policy strategies and finally the conclusion.

1.1 THE NATURE AND CONDITION OF ROAD TRANSPORT FACILITIES IN DEVELOPING ECONOMY. THE CASE OF REMOLAND NIGERIA.

Remo-land is one of the four divisional areas of Ogun state, Nigeria and it is made up of three Local Government Areas namely Sagamu, Remo North and Ikenne. It is an urban area with an urban population of about 64% and population of 265,757 in 1991 population census. Among the major settlements in the study area are Sagamu, Iperu, Isara which are designated as urban by the Ogun State government in 1988 while other prominent ones include Ikenne, Ilishan, Ogere, Ode-Remo, Akaka, Irelu, Ilara, Ode-Remo, Ewu-Osi, Ewu-Ode and Ipara.

The area is bounded in the east by Odogbolu and Ijebu-North Local Government Areas, in the north by Oyo State, in the south by Lagos State and in the West by

Obafemi/Owode and Ifo Local Government Areas. It has an absolute location of latitude 6° and 7° North of the equator and longitude $2^{\circ}45'$ and 4° east of Greenwich meridian and a land area of 97, 293.34 hectares. It is one of the areas that occupy a strategic position in Ogun State being that it is situated midway between west and east.

The study area is an important commercial and industrial area. Apart from agriculture a considerable number of people of Remo land have shown interest in trading. There are 20 daily, periodic and night markets in the land which serves as outlets for agricultural produce and other goods from within and outside. Prominent of these markets are Sabo-Ofin, Awolowo, Falawo and Oja Oba in Sagamu, Ifepade, and Magbon in Isara, Aketan in Iperu while Sabo-Ofin market is the largest market noted for kolanut and general goods merchandise.

The availability of infrastructural facilities such as pipe borne water, electricity, telephone, postal services and good network of roads at the major towns encourage the industrial and general development of the Remoland. A lot of the urban inhabitants are mostly engaged in non agricultural activities such as business and commerce, black and goldsmith, tailoring, wood and steel works, mat and basket weaving and cloth weaving etc. Furthermore, there are some industrial establishments which are urban based. This includes the West African Portland Cement Company, Sagamu.

Road transport is the most predominant mode of transportation in Remoland and this is a confirmation of the crucial role transport plays in the socio-economic development of a nation, be it developed or developing rural or urban especially in

movement of people, goods and services. Jegede (1992) further said that road transport has the most complex network, covers a wide range, physically convenient, highly flexible and usually the most operationally suitable and readily available means of movement of goods and passenger traffic over short, medium and long distances in Ogun State.

From the reconnaissance survey and the field operation carried out on the nature, quality, quantity and characteristics of roads in the study area, the following indices were used to determine the quality. These are the condition and width of the road, the period of motorability, materials used in the construction of the roads and bridges. Six major types of road transport network were recognized as being available, namely the expressway, trunk A roads, trunk B roads, the secondary roads and the rural roads as well as the bush/foot paths.

There are two main expressways that pass through the study area. These are the Lagos-Ibadan and the Sagamu-Benin owned by the Federal government and Ogun state government is also constructing Ilishan/Ago-Iwoye road as expressway. The Lagos-Ibadan is a four dual-carriage way linking the southwestern part of the country of the North and covers a distance of about 32kms of the study area while the later is also a four-lane dual carriage way linking the west to the east. It covers a distance of 24 km of the study area. The origin and destination of the traffic on these roads are not usually within the study area. The expressways were constructed and owned by the Federal government of Nigeria and designed for a speed of 100km per hour and have a right of

way clearance of 91 metres. Furthermore, they have bitumen surfacing with some uneven surface as a result of heavy traffic and bad construction. They are all-season roads with wide shoulders which is now over-grown with weed and the drainage blocked by sand deposit. There are 6 and 4 bridges built on the expressways respectively with iron and concrete and are relatively wide.

The Trunk A roads are built maintained and owned by the Federal government. They are tarred with asphalt and well aligned, but with some bends along the roads. They are of 2 lanes, with some pot holes and uneven surfaces although designed to the motorable all seasons.

The drainage facilities are blocked by sand deposit and the shoulder condition are overgrown with weed but the bridges; are made-with iron and concrete. A good example of this road are Ikorodu-Sagamu, Sagamu-Idi Ayunre and Isara-Ago Iwoye 27, 20 and 12kms of the roads passed through the study area respectively. They connect settlements like Iperu, Ode-Remo, Ishara, etc. Trunk B roads are constructed, owned and maintained by the Ogun state government. They also have the same attributes as Trunk A roads but are more in kilometers coverage while they are often linked with the main towns. Examples of this type of road are Ilshan-Irolu Remo-Iwoye, and Siun-Ogere-Iperu-Ilshan-Odogbolu.

	CATEGORY				CONDITION	CONDITION	FACILITIES	CULVERT
Lagos - Ibadan	Expressway	32kms	Federal Govt.	Except some curve along the road	Tarred with bitumen but some uneven surface	Well provided but over grown with weeds	Facilities provided but now blocked with sand deposit	Well constructed with iron and concrete and very wide
Sagamu- Benin	Trunk A	24kms	Federal Govt.	Well aligned	Well surface tarred with bitumen	Well provided and maintained	Facilities available and well drained	Well constructed with iron and concrete and very wide

Sagamu- Kibi-Ayintire	Trunk A	20kms	Federal Govt.	Not well aligned and some bends along the road	Asphalt surfacing with some pot holes	Not well provided and over grown with weeds	No drainage facilities	Wide but low and constructed with iron, concrete and culvert
Korodu- Sagamu	Trunk A	27kms	Federal Govt.	Not well aligned and some bends along the road	Asphalt surfacing with some pot holes	Not well provided and over grown with weeds	No drainage facilities	Wide but low and constructed with iron, concrete and culvert
Isara-Ago- Iwoye	Trunk A	12kms	Federal Govt.	Not well aligned and some bends along the road	Asphalt surfacing with some pot holes	Not well provided and over grown with weeds	No drainage facilities	Wide but low and constructed with iron, concrete and culvert

Table 1: Road Characteristics

Location	Trunk B	Distance	State Gov	Well or good	Asphalt	Not well	No drainage	Wide but low
Ilorin				with some bends	with some pothole	over grown with weeds	facilities	and constructed with iron, concrete and culvert
Ilorin-Ago-Iwoye	Trunk B	45km	State Govt	Not well aligned and full of bends	Asphalt surfaced with some pothole	Over grown with weed	No drainage facilities	Wide but low and constructed with iron, concrete and culvert
Sagamu-Ikere	Trunk B	7 kms	State Govt	Not well aligned and full of bends	Asphalt surfaced with some pothole	Over grown with weed	No drainage facilities	Wide but low and constructed with iron, concrete and culvert
Ikere-Ilorin	Trunk B		State Govt	Not well aligned and full of bend	Asphalt surfaced with some pothole	Over grown with weed	No drainage facilities	Wide but low and constructed with iron, concrete and culvert

Source: Author's field survey.

Note: The distance of the road that passes within the study area are only considered and not the entire length of the road.

Secondary roads are made up of local government roads which are divided into two namely the tarred and untarred. They are relatively wide about 16 metres right of way, better surfaced with asphalt or laterite. They are poorly aligned, poorly drained, the road shoulders are over-grown with weeds and characterized by pot holes but motorable throughout the year. They are narrow, and in many cases with poorly constructed bridges that hardly admit two vehicles at a time. Other hydraulic structures like concrete culverts are generally common given the drainage and climatic characteristics of the study area. The tarred ones are very common as township roads in the urban centres of Sagamu, Iperu and Isara and Semi urban centres of Ikenne and Ilishan while other roads that connects settlements are Ilishan-Ilara-Ode-Remo-Akaka, Sagamu-Makun-Araromi and Sagamu-Aiyeye.

The other type of road found in the study area are the rural roads. They are of two main types namely the wide, surfaced rural roads and less wide but unsurfaced rural road. The wide surface rural roads are relatively wide of about 16 meters right of way mostly built by communal effort but slightly better in terms of surface and construction, motorable throughout the year, while the bridges are reinforced with culverts. Most of these roads however have been taken over by the local government councils but they are often not well maintained due to the poor financial position of the councils as well as the large number of roads in their care.

The second type of rural roads which are widen tracks or bush paths of about 30cm in width and which are big enough for motor vehicles which link the villages with one another. These roads are usually built by communal efforts and they are numerous. They are generally circuitous with poorly constructed bridges and culverts if any and which are often

cept away by floods during the rainy seasons thereby reducing the already poor accessibility between the villages. The last type of road found in the study area are the tracks or bush paths of about 3m width which are the least developed but are by far the most common and connected. There are three types namely the inter-farm bush paths; the footpaths that connect the scattered farms with the farmstead; and foot paths that connect the farmsteads to the village paths. They are developed through clearing of bushes and constant trekking over by the people. The commonest vehicular traffic on these routes are bicycles and motorcycles while a large number of people make their journey on foot. The widespread nature of this is attributed to the culture of the people and the attendant land tenure system which allows the division of family land among the heirs of the deceased person. This resulted in the creation of small scattered and uneconomic farm holdings which make the farmer to seek or rent land elsewhere and has therefore resulted in farm fragmentation. Due to this, many farmers have two or more farms which are dispersely located and which encouraged the growth of the rural roads in particular.

The condition of these roads are relatively poor and need to be well maintained or even rehabilitated as shown in Table 1. However, some of them have very poor vertical and horizontal alignment except the expressways that were really aligned while others follow the track of the original foot paths and still retain several sharp curves and steep e.g.

Ikorodu-Sagamu road. The surface conditions of the roads can be categorized into three divisions which are those with bituminous, asphalt and latritic surfaces. However, some of the surfaces are full of pot holes and some are not even including the Lagos-Ibadan expressway while some of the roads are partly tarred. The

shoulder condition of all the roads are not well maintained, often washed away by erosion and are full of overgrown weeds while the few available drainage facilities have been blocked by sand deposit.

Many of the roads are poorly drained and similarly some of the bridges and culverts are poorly constructed with low quality materials and are usually very low and narrow and often swept away by floods during the rainy seasons. The consequences of the poor conditions of these roads are many and varied in impact. For example, it limits the speed of the driver which often makes journey very boring as well as increase the wear and tear of vehicles with attendant mechanical and electrical damages. However, the terrible condition of the roads are as a result of complete neglect of the roads by the Federal, State and Local Government as well as the communities as adequate and prompt maintenance and repair is hardly effected as at when due.

The relatively poor conditions of most of the roads and inadequate transport infrastructure facilities in Remo-land no doubt affect the agricultural development of the area a great deal. In spite of all these deficiencies associated with the road network in the study area as shown in Table 1 the road transport facilities still contribute to the socio-economic development of Remoland especially in the area of agricultural production, industrial development and rural urban-interaction.

MOBILITY AND ACCESSIBILITY CHARACTERISTICS

The importance of transport in the life of a nation lies basically in the fact that mobility and accessibility are essential to the achievement of every other aspect of socio-economic

growth. A nation's transport network which forms the critical channels for the flow of goods, services and people no doubt contributes to the basic structural framework around which activities are spatially arranged.

Urban features are the foci of networks as explained by Odugbemi and Badejo (1992) when describing Ijebu-ode as a nodal town. This statement is also applicable to some of the urban centres and semi-urban centres in the study areas such as Sagamu, Iperu, Isara, Ilishan, Ikenne, Ogere and Ode-Remo.

Road transport has been recognized all over the world as an important means of opening up the rural areas particularly for primary economic activities. However, from the observation of the study area and the available data, it was discovered that road transport facilities have been concentrated in the urban centres of Sagamu, Iperu, Ikenne, Isara, Ilishan, Ogere and Ode-Remo. These centres are well connected to other parts of the state and Nigeria through various road networks including the Sagamu-Benin and Lagos-Ibadan expressways. However, the rural areas like Emuren, Ode-Remo, Akaka, Ilara, Irolu, Orileoko-Isan, Ipara, Araromi and as well as the numerous farms such as Makun, Lisopi, Ewu-Osi Itaya, Isore, Ewu-Jagun, Odugboro, Ewu-Laduga and Ewu-Ojoiri which though they constitute the food basket of Remoland are often neglected. The map of Remoland was produced by adopting Ogundara (1970), Ogunsanya (1986) and Ajiboye (1994)'s method in which a grid of 10 by 10km were first super-imposed on the topographical map of the study area while the length of routes in each grid square were measured and recorded as well as the grid as shown in Table 1.2

Table 1.2 Frequency of length of roads per grid of 10km² in the study area

Length of road per grid (km)	Frequency (number of grid)	Total (%)
0.1-5.0	70	39
5.01-10.0	48	27
10.01-15	30	17
10.01-15	22	12
Above -15	10	5
TOTAL	280	100

Source: Author's field survey.

The total length of road obtained 501.6kms, was placed at the centre of the grid and regarded as the accessibility index of each grid (Ogundana, 1990) while the length and points with equal accessibility index are joined together. (Gould, 1960) and this brings out the broad categories of accessibility as very low, low, average, and high (Monhouse and Wilkinson, 1963). Sagamu Iperu-Ilishan and Ikenne axis have high accessibility and Iperu, Ogere, Ode-Remo and Isara axis have average accessibility.

On the attributes of the rural roads in the study area as show in Table 1.3, 3.7% of them are tarred while 47% of the tarred roads are tarred with bitumen surfacing and the remaining 53% are tarred with asphalt materials. Within the rural areas of Remoland, 11% of the roads are four lane

expressways, and 26% two lanes and the remaining roads which are mainly the rural roads in the area are one lane type.

Table 1.3 Attributes of the roads in Remoland

Variables	Attributes	Kilometers	Percentage
Condition of the surfaced	Tailed	190	37
	Untarred	329	63
Type of surface	Bitumen	90	17
	Asphalt	100	20
	Laterite	329	63
Number of lanes	Four lanes	53	11
	Two lanes	137	26
	One lanes	329	63
Motorable	All season	190	37
	Partially seasonal	129	25
	Straightly seasonal	200	38
Ownership of Tarred Roads	Federal Govt.	100	53
	Ogun State Govt.	52	27
	Local Govt.	38	20
Bridge Material	Iron and concrete		10
	Culvert and concrete		53
	Planks and tree trunks		37

Source: Author's field survey.

Furthermore, only 37% of the roads are motorable at all seasons and 25% of the roads are partially seasonal in use and the rest 38% of the roads are slightly seasonal because of their poor condition and their inaccessibility mainly to poor drainage facilities as well as badly constructed bridges. Among the tarred roads; the Federal Government of Nigeria owns 53% while Ogun state government owns 27% and the remaining 20% are local government roads. On the traffic analysis, there are two main components along the roads except the expressways which the origin and destination are usually not within the study area. These are the movement of people and the evacuation of agricultural (e.g kolanut) and industrial products. The movement of people however involves the interaction between one village and another, between villages and urban centres, urban and urban centres, between villages and urban centres, urban and urban centres, between the villages and the divisional headquarter and as well as from the urban centres to the divisional headquarters.

1.3 Policy Recommendations

The inadequacy in transportation facilities in the study area has affected greatly the level of agricultural production and marketing and there is need to open up the area further especially the numerous rural areas and farms that have not been linked effectively in order to achieve the objective of integrated rural development as explained by Ajiboye (1994). Based on the foregoing discussions from this study certain basic policy recommendations can be made the government should make the issue of accessibility a major policy issue to be implemented with all vigor by

paying greater attention to the construction and maintenance of the roads in Romland in particular and in developing countries in general. The accessibility of the area could be achieved by the provision of good, all season and motorable roads to all settled and agricultural producing areas in quantity warranted by the level of traffic (human and agricultural products) in the area in order to ensure all year usability, the provision of proper drainage along the highways in order to prevent flooding, tarring of economically viable roads with bitumen and asphalt materials and making the tarred surface extended to gross verge on either side of the roads while sufficient right of way along the highways should be acquired for future expansion; the Federal and State Government should take over a large number of viable local government routes for efficient construction and maintenance while they should also allocate more funds for the local government in order to finance the construction, rehabilitation and maintenance of the roads within their councils; the transport operators should be encouraged by granting them loans in kind or cash to purchase new vehicles, necessary spare-parts as well as reducing the price of petroleum products; while the cost of transportation owners with the help of transport unions and by subsidizing the fare.

1.4 CONCLUSION

This study has confirmed the importance of transportation to rural development in developing world and more especially for agricultural production and marketing in Remoland. The rural areas of the study area are not quite accessible and are faced with serious transportation problem which has affected the level of production of the farmers and their enthusiasm to produce more since most of their products could not reach the markets.

Similarly, the flow of products from the producing to the consuming areas has been beset with the dominant use of the relatively inefficient means of transport such as head-porterage, bicycle and motor-cycle and the poor conditions of the roads which make accessibility and availability of vehicles very difficult.

The road transport which is the most efficient means of transport in the study area in term of speed and haulage capacity is not quite available to many of the farmers and the traders in the movement of the products to the markets. There is therefore the problem of inadequate flow of agricultural products from the farms to the markets and collecting centres.

This study has however further confirmed that transportation is very important to rural development as well as to agricultural production and marketing but it has been neglected for too long as a result of the socio-economic problems facing the nation and that the road. Transportation also determined the level of growth of agricultural production, distribution and marketing in rural areas of the developing countries.

However, it is the opinion of this research that if the rural accessibility of the study area is improved upon, following potential benefits shall accrue to rural areas

apart from the development of agricultural production.

These are that it would further open up the rural areas into economic focus, promote an improvement and modernization of agricultural activities, make exchange of agricultural products easier, facilitates the dispersal of economic activities, gaining access to various natural resources and market, making the diffusion of growth inducing processes easier, promote the social and political cohesion among the people, as well as facilitating the execution of various political and administration projects.

Furthermore, it could help the rural dwellers to diversify their income earning pursuits; decongest the urban centres as well as in the promotion of tourism and in the provision of essential social services to the citizenry.

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