

**AN ASSESSMENT OF THE IMPACT OF ROAD TRANSPORT ON RURAL DEVELOPMENT:
A CASE STUDY OF KWAMI LOCAL GOVERNMENT AREA OF GOMBE STATE, NIGERIA**

UMAR ADAMU (Ph.D)
Department of Public Administration
Gombe State University.

&

KABIRU DAHIRU
Department of Public Administration
Gombe State University.

&

BILKISU ABUBAKAR MAHDI
Department of Public Administration
Gombe State University.

ABSTRACT:

Rural transport and infrastructure development in Nigeria have being topical issue and have been identified by many as crucial components for economic development of the country. In light of the above, the paper adopted survey method to gather data while secondary sources of data were also utilised to argument the later. A total of three hundred set of questionnaires were administered in three randomly selected communities in the study area. The analysis of the data revealed an inequality in the provision of road infrastructure and rehabilitation of roads in the area, resulting in disparities in the level of development. The poor condition of roads in the area is having negative effects on agricultural activities which is the major source of income of residents, thereby increasing the poverty rate. The study recommendations integrated rural development strategy, empowerment of the grassroots dwellers by the government to enhance grassroots development. Other recommendations include the establishment of road maintenance unit at the local government level to ensure that existing roads are kept in good condition, encourage private-public participation in rural road development and finally, community efforts should be encouraged through self-help approach.

KEYWORDS: Rural Area, Accessibility, Poverty, Self- Help Approach and Development.

INTRODUCTION

Generally, rural areas serve as the base for the production of food and fiber, the major sources of capital formation for a country, and a principal market for domestic manufacturers (Olayiwola and Adeleye, 2005). In general terms, the rural areas engage in primary activities which form the foundation for any economic development. Despite this level of contribution to economic development, rural areas have been neglected in terms of development which has made it non- attractive to live in and also increase poverty level in the rural areas. This is justified by the high correlation that exists between rural living and poverty with this situation particularly exacerbated in developing countries (World Bank, 1994).

Sustainable rural development is a function of a number of factors in which transportation is of importance. Efficient and effective rural transportation serves as one of the channels for the collection and exchange of goods and services, movement of people, dissemination of information and the promotion of rural economy. Along this line, Owen (1968) stated that “Immobility perpetrates poverty”, effective transportation eases accessibility to inherent potentials of rural areas which could be harnessed for the development of its economy. In other words, rural transportation provision forms an intrinsic part of rural development strategies, serving as a mechanism and catalyst for rural transformation through the reinforcement of rural development and contributes to poverty reduction by enhancing both equity and efficiency outcomes.

In Nigeria, the issue of rural transportation development has continued to be of national importance. For instance, most of the rural roads are in poor condition, and this has imposed significant cost on the national economy especially to the agricultural activities due to increased vehicle operating costs and travel times (Akintola, 2007). The Federal Government of Nigeria (FGN) has embarked on various programmes at one time or the other to ensure the provision of adequate transport facilities to meet the needs of the rural population but these programmes have not been able to achieve hundred percent successes.

The importance of transport facilities in rural areas can be justified from both social and economic perspectives. Socially, a significant proportion of Nigeria population lives in the rural areas and demands various forms of transport to facilitate socio-political interactions. Secondly, the rural areas are indispensable in the supply of food, raw materials to urban centres and the country's economic growth as a whole. In light of the above, it becomes expedient to examine rural transportation problems, so that the extent of the problems can be known, and possible solution proffered to achieving sustainable rural development.

METHODOLOGY

In examining the impact of road transportation on the development of the study area, survey approach was adopted and data were collected through primary sources, which consisted of personal observation and questionnaire administration. A number of factors were assessed using a structured multiple-choice questionnaire. Information on the existing road transport facilities in the area, the economic activities of the inhabitants and the causes of various transportation problems in the area were obtained through the administration of the structured questionnaire. Randomized systematic stratified sampling technique was applied in the selection of communities adopted for the survey; three communities in the local government area were randomly selected for the survey namely Daban Fulani, Bojude and Komfulata.

Three sets of questionnaires were designed in gathering information for this study. The first set of questionnaire was designed to obtain information from the Head of Works Department at the Local Government Headquarters on the provision and maintenance schedule of roads in the area. Considering the fact that public transportation is the dominant means of transportation in rural areas. The second set of questionnaire was designed to obtain information from the commercial drivers in the area to assess their level of satisfaction or difficulties concerning the condition of roads in the area. Information retrieved focused on the road condition during both dry and raining seasons, and ease of access to the most remote part of the Local Government. The third set of questionnaire was administered to household heads or their representatives in the absence of the household heads in the randomly selected households in each of the three communities selected for the survey.

The questionnaire were administered on the basis of 100 copies to each rural community selected, this number was selected to ensure a reliable generalization. Respondents were asked to rate each proposition as it applies to the situation in their community with respect to the road condition. Information was gathered on the effect of the road transportation on their daily activities, their socio-economic characteristics and their travel pattern. The questionnaires were administered through the help of ten self-trained survey assistants. Traffic count was also done on market days and ordinary days in selected communities to assess the volume of traffic in the area. In the presentation and analysing of the survey data of this work, complex statistical methods were deliberately avoided to enable a larger audience particularly the political officers and office holders to comprehend and see the true picture of road transportation situation in the study area. Based on this, simple tables and lucid explanatory paragraphs were adopted all through this report.

Study area

Kwami Local Government came to being in 1996 with its headquarters in Malam Sidi. Malam Sidi is about 28 kilometers from Gombe the state, capital of Gombe State. The Local Government is one of the Eleven Local Government areas in Gombe State. It has a total land area of 927.5 square kilometres (Adedeji, 2010). The National Population Census of 2006 published by FRN (2009) put the population of the area as 116,850. Kwami Local Government shares boundaries with Yamaltu Deba Local Government in the East, Funakaye Local Government in the North, Dukku Local Government in the West, and Gombe Local Government in the South, all in Gombe State, Nigeria.

CONCEPTUAL ISSUES AND LITERATURE REVIEW

The word “rural” connotes different meanings to different people depending on their background. What is regarded in developing countries as rural may be regarded as urban in developed countries. However, given certain criteria, rural settlements in Nigeria for instance are regarded as settlements with less than 20,000 people and whose population predominantly engages in primary production (Aderamo et al, 2010). Rural settlements was also described by (Weir and McCabe 2012), as areas with relatively low development densities, typically less than 1 resident per acre. .

Planning is concerned with the objectives and rational view of future conditions, assessing society desires, estimating the degree of control required, forecasting the amount of change and formulating policies to take account of this change and control (Adedeji, 2010). The nature and role of regional planning in Nigeria springs from the criticism that Federal and State Government administration is too parochial, the need emerges for national intermediary at the regional scale to provide a meeting place for national economic planning. “The concept of regional planning is thus largely based upon national economic planning and the need to translate this into physical context, define the problem and facilitate the implementation of the solution” (Ratchliffe, 1981).

The provision of infrastructure as an approach to rural development is one of the methods mostly used by developing countries of the world. The theoretical proposition of infrastructural approach to rural development be it physical, social or institutional infrastructure, is predicated on a modernization theory called the “trickle-down theory of development” (Oguzor, 2011). According to him, this theory is a general economic development model postulated by an American economist Hirschman in 1958. This theory is of the opinion that growth is supposed to trickle down from the core to the periphery to ensure a balanced development without an area being worse-off either rural or urban. In his submission (Perroux, 1955) stated that “growth does not appear everywhere at the same time; it manifests itself in points or poles of growth with variable intensities; it spreads by different channels and with variable terminal effects for the economy as a whole”. Hence, (Obateru, 2006) recognized a growth pole to be a point which centripetal forces are attracted and from which (in time) centrifugal forces emanates throughout the field of influence of the set of activities constituting the pole. This growth pole concept has been applied by many regional planning scholars in regional development issues because the concept has a fundamental importance to contemporary regional planning and constitutes a significant percentage of regional planning activities. According to Okafor et al, (1986) one of the main advantages of this model as a tool of spatial analysis and planning of rural development relates to its total coverage of the national space economy thus embracing both urban and rural development and actually seeing this in an integrated way. (Ayeni 1980) opines that growth pole as a system of spatial development within the space economy of any country will prevent parasitic development. A major de-facto market force and the distribution of assets is transportation. Also, growth poles (growth points) which aim at forcing economic activity on particular point within a region which would have a latent potential for exceptional growth can be stimulated by the introduction of particular road system. This would release the latent growth potential and produce beneficial multiplier effect throughout the region; many rural areas are bridge areas between states or metropolitan centres. Rural transportation is essential not only for connecting people to jobs, health care and family in the ways that enhances their quality of life, but also for contributing to regional economic growth and development by connecting

business to customers, goods to markets and tourists to destinations. Commodities including timber, fuel and agriculture product must be moved from rural areas where they are produced to urban areas where they are processed, consumed, or sent out of the state or country. Rural road network has significant effect on the distribution of facilities in rural areas and has the potential of reducing poverty (Aderamo et al , 2010).

Transportation is a rural community's essential connection to the nation and the world. Benson and Whitehead (1975) defined transport as "that part of economic activity which is concerned with increasing human satisfaction by changing the geographical position of goods or people". In other words, transport creates time and place utilities. Ogunsanya et al, (1993) observed that the need for transportation arises in any economy that is distributed over space, this need is particularly so in the context of community development where transportation is considered as the engine of growth of such economy. Transportation as one of the tools of development is important and without it the inherent potentialities of an area may not be realized.

Rural Transportation in Nigeria

The evolution of rural transportation in Nigeria has spatial and temporal dimensions. For example, Aloba (1983) observed that, spatial development of rural road closely followed the evolution of rural settlement in South-Western Nigeria, while the temporal growth of rural roads take place in distinct stages coinciding with the three phases of the diffusion process; primary, secondary and saturated stages. While the spatial expansion of rural roads can be illustrated cartographically, temporal development may be demonstrated in Sigmund curve(s) in which the rate of road evolution was initially slow, then grew more rapidly, then fell or ceased altogether as soon as the geographical space was fully settled.

The emerging pattern from Aloba's study is that, when there were fewer rural settlements in Nigeria, correspondingly there were fewer linkages as well as increase in the number of rural settlement. Following an end to civil war and establishment of an effective central administration, there was an increase in the number of rural footpaths. An important development is the upgrading of footpaths into untarred roads, which could be used by automobiles much of the time.

Rural transportation development in Nigeria is not a function of increase in the number of villages alone; other important factors are the nature and structural changes in the level of socio-economic characteristics of the country side. For example, the discovery and exploitation of mineral and forest resources such as timber motivated the construction of more rural roads which were initially maintained and used exclusively by those companies which built them and later made available to the general public. (Such rural roads can be taken over by local communities or councils through whom they pass). The introduction of Groundnut, cocoa and other cash crops was substantially responsible for the evolution transportation in different parts of the country (Adedeji, 2010). Consequently, rural roads and mechanized forms of traffic emerged to cater for the increased demand for rural freight and movement, especially between rural and urban centres.

Considering the transport sector as one of the key elements of the country's needs, there has been series of effort on the provision of rural transportation and rural development in Nigeria. Successive government have come forth with various rural development strategies, for example, the establishment of the Nigeria Agricultural Cooperative and Rural Development Bank, the various State Agricultural Development Projects, River Basin Development Authority, Development of Local Government administrative systems among similar rural development initiatives has been embarked upon by government to facilitate the development of rural economy. The transport sector contributed about 2.4 % to real GDP in 2004; with road transport alone accounting for nearly 86 % of the transport sector output (World Bank, 2007). Nigeria's transport system consists of some 195,000 km of roads; this network comprises a combination of Federal, State and Local Government roads. The Federal trunk roads are the principal vectors of the system and have a total length of 32,100 km (16%) of which the majority is paved. State roads account for 30,900 km (16%) while the Local Government road system comprises approximately 132,000 km (68%). Out of the 195,000km roads, about 60,000 km are paved, 3,775 km of railways, 3 international and 78 domestic airports as well as 13 sea and river ports. Roads are the country's dominant mode of transport carrying more than 90% of cargo and passenger traffic (RAMP, 2007). Rural roads constitute the major percentage of Nigerian road system.

Realizing the importance of the rural transport, in early 2004 the Government launched a policy blueprint through the "National Economic Empowerment and Development Strategy" (NEEDS). The development strategy aims at interventions in the rural infrastructure, health, housing and employment sectors. Its two key objectives are to improve the transport infrastructure and promote agricultural development. In the road sub-sector, its focus is on the construction and maintenance of road infrastructure to improve accessibility and to facilitate movement of agricultural commodities.

As a follow-up of the NEEDS, the “State Economic Empowerment and Development Strategy” (SEEDS) was developed at the State level. Furthermore, through the Rural Travel and Transport Programme (RTTP), a National Policy on Rural Travel and Transport (NPRTT) was prepared by the Federal Government. This programme is aimed at improving rural access and mobility.

Currently, different institutions are responsible for the management and financing of rural roads in the country, through the National Planning Commission (NPC) in charge of planning, the Federal Ministry of Transport (FMT) and the Federal Ministry of Agriculture and Water Resources (FMAWR) responsible for rehabilitation and construction, the Federal Ministry of Finance (FMOF) for budgeting and financing and Federal Road Maintenance Agency (FERMA) for maintenance, apart from State Ministries of Works responsible for the State network and Local Government Councils for the Local Government network. Apparently a lot has been done by successive government to address rural transportation problem yet, little has been achieved due to frequency of policy variation and government instability (Fayinka 2004). At individual and community based level, some communities have taken it upon themselves to provide accessibility in their area through self-help approach; this community-driven approach according to (Musa, 2010) is as a result of Nigerians concern to foster rural economic development that is sustainable over a long term and the achievement of the national goal of sustainable development.

Rural transportation problem in Nigeria

The condition of rural transportation has frustrated rural development efforts in the country and this has resulted into series of challenges such as the cutting off of many rural areas in the country from neighbouring larger settlements from which they could access higher order socio-economic services, low productivity, low income and a fall in the standard of living of rural residents and high rate of poverty (Aderamo and Magaji, 2010).

Rural transportation problem in Nigeria relates generally to the provision of access to natural resources like minerals, agriculture, forestry and the provision of access for the rural population so that they can access services at affordable rate. Findings by (Ovubude, 2000) have shown that the movement of passengers and freight in rural areas of Nigeria are comparatively smaller than those of intra-urban movement. People in rural areas travel less than their urban counterparts and this is not independent of the absence of reliable and easily affordable means of motorized public transport in those areas. The distance over which motorized transport is required within the rural areas is relatively shorter because of the small and compact nature of the rural settlements generally. Rural transportation problem is accentuated by the dispersed spatial derivation of traffic, this is conditioned by the nature of rural environment and economy, bulkiness and perishable nature of rural product, imbalance in inflow and outflow, and marked variability in demand for transport.

Demand for rural transport is subject to three dimensions of traffic variation and fluctuations and these are diurnal, short term, and seasonal (Ovubude, 2000). The volume and direction of rural transport is influenced by the cyclic market system in rural areas. Hence, in most cases, traffic between main urban centre and dependent villages varies in volume depending on the cycle of the periodic markets in the area concerned. The cycle of rural transport demand also appears to correspond with the seasonal pattern of local agricultural and forest products availability.

The condition of most rural roads in the country is very poor compared to inter-urban and intra-urban roads in the country. During raining season, most rural roads deteriorate and become impassable; this poses a threat to sustainability of rural socio-economic development. Apart from the networks and few terminals which are government property, almost all other aspects of rural transport in Nigeria belong to private sector. Some of the vehicles plying rural roads are not road-worthy, this makes their services to be slow, irregular, unreliable, inefficient, and even constitute risk to rural travellers.

Motorized transport cost become very high during rainy season as public transport operator hike up their fares because of the increased vehicle running cost often occasioned by the prevalent very bad road conditions. Adesanya et al. (2000) had observed that, rural travel and transport in most rural areas in Nigeria still take place with great difficulties thereby compounding and worsening the problem of rural productivity and rural poverty. The ability of agricultural and forest freight to absorb motorized transport cost varies according to the purpose and type of agricultural production. On the whole, only large-scale or commercial agricultural forestry concerns and mining firms are found to be more able to absorb public transport costs than the subsistence primary producers who predominates the country’s rural area (Adedeji, 2010). As a result of the foregoing reasons, head portage moves substantial part of the country’s rural agricultural commodities. Bicycles, hand drawn/push carts, pick-up van and adapted vehicles (Bolekaja and Mammy Wagons) are the dominant modes of public transport in the rural areas. Beasts of burden (mules, donkeys

and camels) are used widely in the Northern Nigeria while canoes and boats are used in riverine and navigable inland water ways throughout the country.

FINDINGS AND DISCUSSION

Assessment of road quality

The indices used in assessing road quality in the study area are: surface condition, Road Width, Number of lane and reliability in all season (Adeyemo et al, 2010). Table 1 shows the quality of roads in the study area, road quality is an attribute of transportation system. The condition of road in the study area varies from one community to another; some enjoy good roads while some do not. For instance, table 1 shows that 85% of respondents in Daban-Fulani indicated that there are roads with good surface condition while in Malleri and Jurara responses to good surface condition was low, 5% and 12% respectively. This shows that there are disparities in the levels of development, hence, no uniform development in rural areas. This has a significant effect on the overall development in the area. Response on the reliability of roads in all season shows that the roads in the area are seasonal in nature. This is as a result of a bad surface condition and poor drainage system along the roads.

Table 1: Quality of rural roads in selected communities in Kwami Local Government, Nigeria.

Table 1: Quality of rural roads in selected communities in Kwami Local Government, Nigeria. Communities	Variables	Attributes	No. of response	Percentage
Daban Fulani	<i>Surface condition</i>	<i>Good</i>	85	85.0
		<i>Bad</i>	15	15.0
	<i>Road Width</i>	<i>Wide</i>	22	22.0
		<i>Narrow</i>	78	78.0
	<i>Number of lane</i>	<i>One</i>	100	100.0
		<i>Two</i>	-	-
		<i>Four & above</i>	-	-
		<i>Reliable</i>	72	72.0
		<i>Not reliable</i>	28	28.0
Bojude	<i>Surface condition</i>	<i>Good</i>	5	5.0
		<i>Bad</i>	95	95.0
	<i>Road Width</i>	<i>Wide</i>	12	12.0
		<i>Narrow</i>	88	88.0
	<i>Number of lane</i>	<i>One</i>	100	100.0
		<i>Two</i>	-	-
		<i>Four & above</i>	-	-
		<i>Reliable</i>	18	18.0
		<i>Not reliable</i>	82	82.0
Komfulata	<i>Surface condition</i>	<i>Good</i>	12	12.0
		<i>Bad</i>	88	88.0
	<i>Road Width</i>	<i>Wide</i>	15	15.0
		<i>Narrow</i>	85	85.0
	<i>Number of lane</i>	<i>One</i>	100	100
		<i>Two</i>	-	-
		<i>Four & above</i>	-	-
		<i>Reliable</i>	13	13.0
		<i>Not reliable</i>	87	87.0

Trip distribution in the study area.

Trip in this context is regarded as the movement from origin to destination. The respondents most frequent trip ranges from farm trips, social trips, market trips and work trips. Data gathered shows that farm trip has the highest percentage of trip in the communities surveyed; Daban-Fulani has 63%, Komfulata has 77% and Bojude has 43% (See table 2). This implies that majority of the people in the area are farmers, the condition of road in the area has a significant effect on their farming activities. Considering the perishable nature of farm produce, most farmers in the rural areas find it difficult to transport their produce from farm to urban areas, where they have better patronage to boost their economic ability. Efficient and effective road facility will enhance the transportation of these produce to urban area where they are processed, distributed locally and exported for the growth of the nation’s economy.

Table 2: Summary of trip distribution in selected communities in Kwami Local Government

<i>Dabanfulani</i>	43%	13%	29%	9%	6%
<i>Bojude</i>	77%	6%	12%	3%	2%
<i>Komfulata</i>	63%	9%	21%	4%	3v

Trip frequency to urban centres

Urban centres serve as centre of attraction for rural dwellers, adequate rural transport facilitates propel interaction between rural and urban dwellers in the process of exchanging goods and services. Frequency of trip to urban centre influences the rate of social and economic development of rural areas. Table 3 shows a low level of interaction between the rural areas and neighbouring urban centres through the assessment of their trip frequency to urban centres. This is as a result of transportation problem which ranges from high cost of transportation to bad road condition, most especially in raining season. Adequate rural transportation plays a strategic role in linking rural communities to markets and also fulfils a vital role in transporting goods locally and maintaining social ties.

Table 3: Trip frequency to neighbouring urban centres from rural communities in Kwami Local Government.

<i>Daban Fulani</i>	5	19	23	35	18
<i>Bojude</i>	2	16	29	38	15
<i>Komfulata</i>	4	17	25	43	11

Waiting time at bus stop/road side

Owing to bad road condition, transporters usually avoid some roads; this eventually resulted to inadequacy of vehicles plying rural roads. Similarly, most of the rural areas could not maintain their motor parks. Consequently, commuters have to wait for considerable length of time by the road side or bus stop before they can get vehicles. Often, some commercial vehicle drivers would have gotten more than enough passengers from their origin, in the case of Daban-Fulani, vehicle passing through the community from Malleri-Jurara are unable to serve the passengers adequately mostly on market days, prompting some commuters finding it difficult to transport their farm produce to the market. Table 4 shows that 68% of respondents in Daban-Fulani spent 15 minutes to get commercial vehicle and 28% spent above 30 minutes. But the case is different compared with Bojude and Komfulata where 41 % and 50% spent between 30-45 minutes and 56% and 73% spent 45 minutes and above respectively to get commercial vehicles especially on market days.

Table 4: Waiting time at the bus stop/road side before accessing commercial vehicles in the rural communities in Kwami Local Government.

<i>DabanFulani</i>	68	28	4	0	0
<i>Bojude</i>	1	2	41	39	17
<i>Komfulata</i>	2	5	50	23	20

Traffic survey

Traffic survey was conducted on market days and non-market days (ordinary days) to assess the volume of traffic. In the areas selected for this research, there are regular farm produces. For instance, at Komfulata trough Abuja Bula a daily market is in operation while Daban-Fulani and Bojude have their market days once a week. In human life, the importance of market cannot be overemphasized both locally and internationally. Market forms points where goods and services are exchanged either in monetary terms or trade by barter. The study area, which is predominantly agrarian, needs markets for the disposal of their

agricultural products because of its perishable nature of the products. The traffic survey revealed variation in market days and ordinary days in the study area.

Table 5: Traffic survey conducted on both market days and ordinary days at Esa-Odo

Motorcycle	11	7	9	6
Cars/Taxis	86	79	49	42
Buses	42	37	22	23
Lorry	3	3	3	2

Source: Authors' Survey, 2013

One of the effects of this variation is difficulty in accessing commercial vehicles on ordinary days, most of the taxis and cars in the area came in mostly on market days from neighbouring communities especially Gombe which is the only road that links good and tarred roads to the nearest urban centre. Inadequate rural transportation constitutes between 60% and 80% increase in the marketing costs for foodstuff and other primary produce. This is in agreement with earlier work of RAMP, 2007. This study has validated the assertion that provision of adequate rural transportation influences reduction of transport cost and this in turn will facilitate economic growth and improve accessibility to basic public services (education, health care, water supply). It has also become clearer that provision of good rural road will result to decrease in the cost of food for low income groups and this will have an important impact on poverty reduction and thus contribute to the achievement of the Government's food security strategy and the overall poverty reduction objective.

Provision and maintenance of roads

Data gathered from the head of works revealed that maintenance of existing roads and construction of new ones has been difficult due to frequent change in local government chairmen in the past. As gathered, a change in the local government chairmanship also brings about change in the priority list of the new local government chairmen. This affects development. Another factor pointed out was insufficient allocation which has made the local government incapable to carry out major projects like road construction and rehabilitation.

RECOMMENDATION

This study has examined the impact of road transportation on rural development in Kwami Local Government area. This was done by examining the condition of existing roads in the area vis-à-vis the effect on the development of the Local government area. The survey shows that development is concentrated in major towns in the study area while the core rural communities in the local government are being abandoned. To correct these anomalies and ensure sustainable development, there is need for integrated development strategy which according to Shiru (2008) is a strategy which seeks to develop all sector of the rural economy and link them up effectively with their urban counterpart without a sense of backwardness. In other words, this approach seeks to promote spatial, social economic and even psychological linkage among the various sectors of the rural economy.

The level of development in the area is very low and this is as a result of the poor road condition among other contributing factors. To improve the level of development in the area, there is need for adequate provision of rural transportation and other infrastructural facilities.

The need to empower the grassroots government is of paramount importance owing to the fact that the construction and rehabilitation of most rural roads fall within the jurisdiction of the local government.

Maintenance culture is one of the major factors lacking in the study area. To ensure that existing roads are kept in good condition, there is need to set up maintenance units at local government level who would be responsible for rural road maintenance. Such maintenance should cover clearing of bush edges, provision of adequate drainage system and the maintenance of bridges and culverts to prevent blockage of such bridges and culverts among others. Public-private partnership program is another means of ensuring sustainable rural development. Considering Nigeria population and size, it is impossible for the government to meet substantial parts of the needs of every community. To be able to do this and more effectively, there is need to encourage public participation in provision of basic facilities through various community self-help development programs. Similarly, Citizens' empowerment towards the development of their community to reduce the level of dependence on government was also recommended.

Various government policies on rural development in the past has died with the government that initiated it, there is need for successive government to uphold policies formulated by their predecessors to ensure that the aim is achieved rather than formulating new policies without achieving its aim.

CONCLUSION

It has clearly come out from this study that inequitable distribution of infrastructure in the study area has resulted in the disparities in development that are primarily influenced by transportation. This situation is still redeemable. The implementation of the recommendations of this paper therefore becomes imperative in turning around the study area. This is an opportunity that should not be swept under carpet.

REFERENCES

- Aderamo, A. J. and Magaji, S. A. (2010) Rural transportation and the distribution of public facilities in Nigeria: Case study of Edu Local Government Area of Kwara State. *Journal of Human Ecology*, 29(3): 171-179.
- Adesanya, A., Philips, A.O, Titilayo, S.T (2000) Transportation Development in Nigeria in 2010 Ibadan: *Nigerian Institute of Social and Economic Research (NISER)*.
- Akintola, S.R. (2007) Coping with infrastructural deprivation through collective action among rural people in Nigeria. *Nomadic Journal of African Studies*, 16 (1). 30- 46
- Aloba, O. (1983) Evolution of rural roads in the Nigeria Cocoa Belt, in *Journal of Tropical Geography*, 4 (1) pp 1-10.
- Ayeni, B. (1980) Models of integrated rural development: Facts and fallacies. Paper presented at the Conference on Integrated Rural Development and Women in Development, University of Benin.
- Benson, D. And Whitehead, G. (2005) cited Aloba, O. (1986) rural transportation system in Nigeria pp. 125-138
- Fayinka, F.A. (2004) Food security in Nigeria: Challenges under democratic dispensation. Federal Offices of Statistics (FOS), Nigeria.
- Federal Republic of Nigeria (2007) Report on Rural Access and Mobility Project (RAMP) Cross River State Ministry of Works Civil Engineering Department Calabar, Cross River State, Nigeria.
- Federal Republic of Nigeria (FRN) (2009) Official Gazette- Legal Notice on Publication of 2006, Census Final Results. S.I.No.1 Pages B1-42. Gazette No.2, Abuja, 2nd February, vol. 96.Report on rural access and mobility project
- Musa, J. J (2010) Nigeria's rural economic development strategy: Community Driven Development Approach. *AU J.T.* 13(4): 233-241.
- Obateru, M. O. I (2005) Planning regional and rural development. Penthouse Publication, Nigeria.
- Oguzor, N. S. (2011) A spatial analysis of infrastructures and social services in rural Nigeria. *GeoTropico*, 5 (1), 25-38 .
- Ojetola, W. and Ogunsanya, A .A (1993) The transport factor in rural development: The case of Kwara State, Nigeria" in *Research for Development*, Vol. 1 & 2: 145-161.
- Okafor, F.C and Onokerhoraye, A.G. (1986) *Rural systems and planning*, The Geography and Planning Series of Study Notes. Benin, Eguavoen Printers. Nigeria
- Olayiwola, L.M., and Adeleye, O.A. (2005) Rural infrastructural development in Nigeria between 1960-1990- problems and challenges. *Journal of Social Science*, 11 (2): 91-96.
- Osun State Publication (1997) Three hundred and fifty six days ago of Lt. Col. Anthony Obi. Osun State, Nigeria.
- Ovubude, N.N. (2000) The role of transport in rural development: A case study of Badagry Local Government Area of Lagos State" Unpublished M.Sc. Thesis, Centre for Transport Studies, Ogun State University, Ago-Iwoye, Nigeria.
- Owen, W. (1968) Distance and development. The Brooking Institution, Washington D.C.
- Perroux, F.(1955) Notes on the concept of growth poles, in *Economic policy for development*, 1 & 2: 307-320.
- Raticliff, J. (1981) An introduction to town and country planning. The Built Environment, Hutchin, London.
- Shiru, J.J. (2008) Agricultural Mechanisation for Rural Development", *Bida Journal of Management and Technology*, vol. 1, No 1: 17-31

- Weir, L. J and McCabe, F. (2012) *Towards a Sustainable Rural Transport Policy: from* <http://www.irishrurallink.ie> (Retrieved October 20, 2013).
- World Bank (1994) *Adjustment in Africa: Reforms, Results and the Road Ahead*. A World Bank Policy Research Report, Oxford University Press.
- World Bank (2007) *Turkey-Transport Sector Expenditure Review: Synthesis Report*. Washington, DC.<https://openknowledge.worldbank.org/handle/10986/12307/LicenseCCBY3.0unportal>