The Social and Management Scientist ISSN: 2489-0006
Volume 13, Number 4, 2021

RURAL TRANSPORT INFRASTRUCTURAL IMPROVEMENT AND POVERTY REDUCTION STRATEGY IN AKOKO SOUTH – WEST LOCAL GOVERNMENT AREAS OF ONDO STATE, NIGERIA

Ale, A.S
Adekunle Ajasin University
Correspondence: Ale, A.S, Department of Geography and Planning Sciences, Faculty of the Social Sciences, Adekunle Ajasin University, Akungba-Akoko,Ondo State, Nigeria. Email: alesamniyi@yahoo.com

ABSTRACT

In Nigeria, transport infrastructural facilities are underdeveloped and of poor quality to aid rural dwellers' transportation system in order to enhance their quality of life. This study, therefore, examined the various facilities necessary for rural transport infrastructural improvement and the factors effecting its improvement as it relates to poverty level of the people in the rural areas of Ondo State. Data were collected through multistage sampling procedures in eleven (11) randomly selected settlements while a total of one hundred and ten (110) questionnaires were administered on the household head both male and female in the study area. Data collected were analyzed using simple descriptive statistical analysis to explain the socio- economic variables of the respondents as well as the impact of transport infrastructural development on poverty reduction in the study area. Similarly, inferential statistical analyses were used to determine the level of improvement in transport infrastructural facilities on poverty reduction in the study area. The results of the analysis revealed that there is a strong relationship between transport infrastructural facilities improvement and level of poverty reduction in the study area. The paper, therefore, recommends that provision for transport infrastructural facility should be part of its budget for proper planning policy for rural development.

Keywords: Approach, rural-transport, infrastructure poverty, strategy

INTRODUCTION

Rural transport infrastructural facilities in most of the developing nations in the world are poorly developed and substandard to support transportation system of the rural dwellers in order to better improve on their quality of life (United Nations 2000).The World Bank (2001),estimated that about 900 million rural dwellers in the developing countries do not have access to good road network and other road facilities during all climatic season while about 300 million of the same people do not have motorized access at all.

However, huge resources are being spent on regular bases to further upgrade the road network and other transport infrastructure higher than the economically justified standards to that of the urban environment that had already have a reasonable level of accessibility and efficient transportation system at the expense of the rural environment, most importantly in the developing nations (Ogunbodede 2017; World Bank 2001).

Existing evidence from literature shows that improvement in rural transportation system for better quality of life is very crucial (Ale 2018). Hence, a significant, effective and efficient rural accessibility is an ingredient of rural development as well as to sustain poverty reduction of the rural inhabitants of the developing nation like Nigeria and most importantly the rural area of Akoko South- west local government Area of Ondo State. Although improvement in rural transport is not the only instrument for rural development other

complementary elements include; portable water supply, power, schools (public and private), market (periodic or daily), recreation and tourism facilities as well as other economic services.

According to Ale and Fatusin (2018), investment in the transport sector is not only aimed at increasing the level of interaction within an environment but to further improve on the rural accessibility to various public facilities that are located at different points in the rural environment.

It is also evident from existing literature that improvement in transportation system of any society play a significant role in the overall development of such society in the desire to promote rapid socio – economic development most importantly the rural environment (Ale & Fatusin, 2018; Ogunbodede, 2010; Ogunsanya, 2002). Over the years, a lot of programs have been implemented as strategies for rural development despite the colossal amount of money invested and numerous professionals agencies created such as; rural water supply program, agricultural development program, rural electrification, operation feed the nation, rural transportation scheme among others. All these put together, has little or limited effect on the development of the rural environment as well as in the reduction of the poverty level of the rural inhabitants rather the rural dwellers are growing poorer every day (Ale 2018). This paper, therefore, examine the rural transport infrastructural improvement in Akoko South –west Local Government Areas of Ondo State, Nigeria. To achieve this, the following objectives were raised; identify the various rural road infrastructural facilities available and their quality on transportation system in the area, investigate the level of transport service on poverty reduction in the area and finally, examine socio- economic characteristics of the rural population on transport improvement as it determines the level of poverty reduction of the people in the study area.

Literature Review

Availability and access to transport infrastructure (TI) most importantly within the rural environment are very critical to poverty reduction as well to rural sustainable development both in the developed and developing countries of the world. Such road transport infrastructural facilities include; bus stop, lay- by, tarred road, well-constructed culverts, bridges, surface dressed track roads, drainage, road signs, strseet light and bus services as the case may be. knowing fully well that most of the movement undertaken in this type of environment are made by trekking, using of non- motorized vehicles (bicycle) while some are made by using motorized vehicles (motorcycle, tricycle, pick-up and mini-bus) among others.

However, rural mobility mostly involve intra and near village movement, village to farm locations, as well as movement to neighboring periodic market (for buying and selling of farm products) especially women and their children and to purchase higher order goods that are not readily available in the village (Ale, 2014). Various studies have shown that rural household particularly women and their children, spend a substantial amount, time and efforts on transport before some of these facilities can be accessible. However, the bulky of this effort is required for other domestic activities, in particularly; trip to farm, trip to collect firewood, gridding mill and trip to neighboring periodic market among others.

According to Ale (2018), a lot of energy and time that could have been devoted for other economic activities of the rural household are wasted on such trips. Therefore, an improved quality transport facilities are so much important when considering accessibility within the rural communities for poverty reduction by the three tiers of governments. Studies on the relationships between sustainable development and transport abound in the literatures. For example, Odufuwa *et al.* (2012) and Ogunbodede (2017) drawn attention to the significance of transport sector towards achieving sustainable development in a

sustainable mobility. Mbara (2002), in his studies also found that the more mobile any society is, the more developed it is. Relative to this study, the developed countries are more advanced and developed because they are more mobile than the less developed ones. Poor transport system and poverty are strongly linked together because transportation is a sine-qua-non to the development of any human society.

On the other hand, a number of scholars like Litman (2003) and Odufuwa *et al.* (2012) viewed the concept of sustainable mobility as finding a proper balance between environmental, social and economic qualities. Ogunbodede (2017) and Litman (2008) argued that mobility sustainability is a measure of efficiency in the transportation system, a positive value and a key indicator of environmental, social and economic qualities of a given area. Mobility consequences, which serve as the main indicators of sustainability have been used to set sustainable mobility goals and standard with a view to monitoring whether the current mobility system fits into the sustainable development of a society or not (Gudmundsson, 2001; Litman 2003).

Odufuwa *et al.* (2012), have argued that sustainable transportation system of any society should form a basic foundation that facilitates movement of goods and services in the present generation and capable of taking care of incoming generations. Thus, it must be affordable, efficient, available, safe, and as such supports economic development.

According to Mbara (2002) any change in the transport sector is capable of inducing changes in the patterns of other sectors of the economy, which in turn may affect sustainable development. in order to achieve long-term goal of sustained development, transport must take a centre stage in fulfilling economic and social functions of the society.

Transportation and Rural Poverty

Fundamentally, rural areas serve as the base for production of food and fibre, the major sources of capital formation for a country, and a principal market for domestic manufactures (Olayiwola & 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 as well increase poverty level in the rural areas (Ogunsanya, 1987). This is justified by the high correlation that exists between rural living and poverty with this situation particularly in developing countries (World Bank, 1994).

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 per cent successes.

The importance of transport facilities in rural areas can be justified from both social and economic perspectives. Socially, a significant proportion of Nigerian population that lives in the rural areas demands various forms of transport to facilitate their socio-political interactions as well as demanding transport for the supply of both food and raw materials to urban centres. In light of the foregoing, it becomes expedient to improve on transportation system of the rural areas, so as to achieve sustainable rural development. Rural transportation is essential not only for connecting people to jobs, health care and family in the way that can enhance their quality of life, but also for contributing to regional growth and economic development of a place. From the foregoing, the means to improve rural development is to strengthening the capacity increase, expansion and modernization of existing rural transport facilities as well as introduction of new technology to movement patterns within the rural environment (Ale, 2014).

Poor mobility and accessibility in the rural areas poses a great challenge to rural development efforts in Nigeria as it has continued to make most of the rural areas isolated from the main stream of the modern societies (Ale, 2013; & Aloba, 1986). This has resulted in low provision of social infrastructural facilities, low productivity, low income and a fall in the standard of living of rural residents as well as high rate of poverty among others. The rate of poverty in most rural communities in Nigeria has progressively increased over the years. Poverty is at a higher level in the rural areas in Nigeria than in the urban areas. In 1980, the poverty level of the rural dwellers was put to be 29.3%; in 1985 it went up to 51.4% and in 1992 the figure came down to 46.1% while in 1996, the rural population in poverty had increased to 69%. In respect of urban areas, poverty levels were 17.6% in 1980, 37.8% in 1985; 37.5% in 1992 and 55.5% in 1996 respectively (FOS, 1999).

METHODOLOGY

Akoko South - West Local Government Area is located in the Northern part of Ondo State, with an area of 796 sq. km. Its latitudinal position is 5° 31′ and 6° 01′ North of the equator and longitudinal position is between 7° 21' and 7^0 31′ East of the Green which meridian. It is bounded in the west by Emure Local Government Area in Ekiti State, to the East by Akoko South East Local Government Area of Ondo State, to the North and South by Akoko North East and Owo Local Government Area of Ondo State respectively. The study area has a total population of 121,764 people. In general, the hilly nature of the relief in areas like Akungba, Supare, and Oba allows construction of access route through the available pass to promote easy evaluation of food crops to the market. The main mode of transport in the study area is basically road transport. The Local Government has about 569kms of intra-rural and inter-rural roads network. Most of these inter rural roads are tarred but poorly maintained while the villages and the farmsteads are mostly connected by roads that were not tarred

 ISSN: 2489-0006

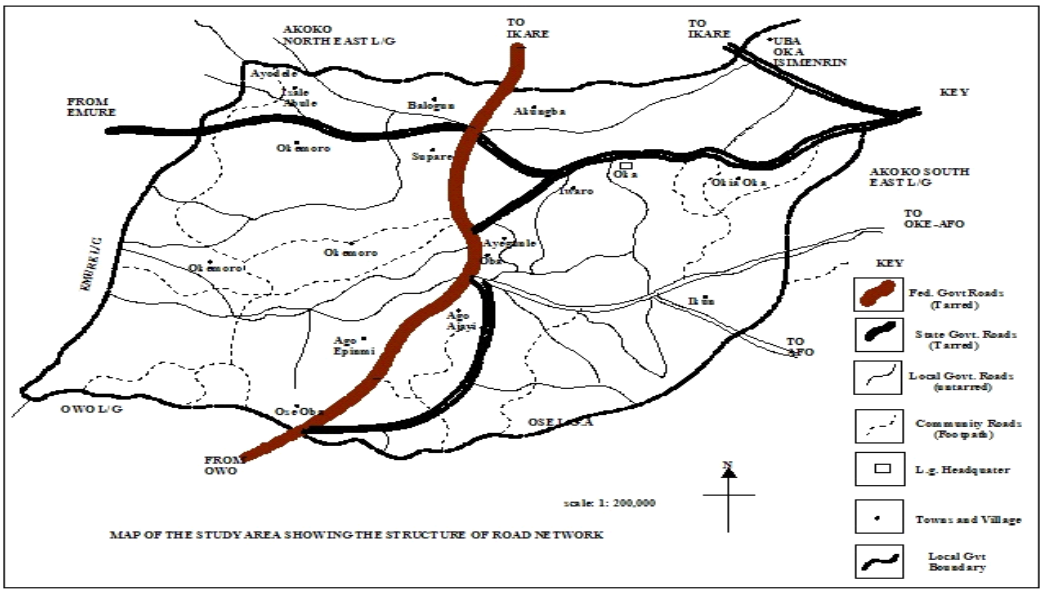

Figure 1: Route network map of the study area.
Source: Adapted from Ale, 2017

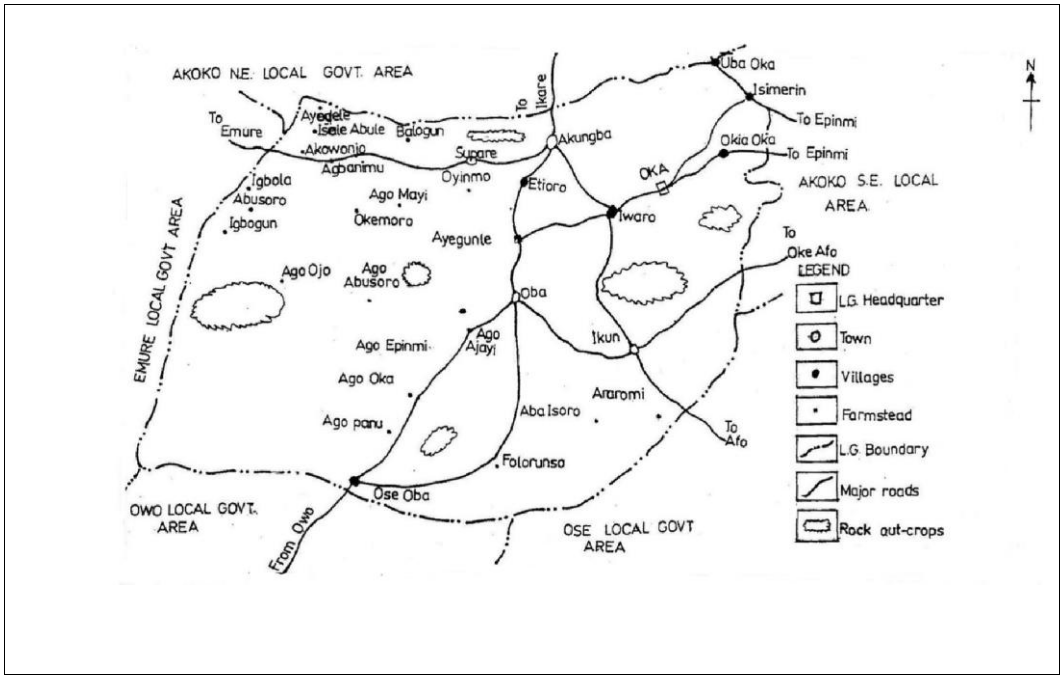

Figure.2: Map of the study area
Source: Adapted from Ale, 2017

Primary data were obtained both from the rural farm settlements and the rural areas in Akoko South - West Local Government Areas of Ondo State. The study area consists of eight Towns and Villages and Thirty - three rural farm settlements. Seven of the rural areas and four farm settlements were purposively selected in the study area. Housing unit or arrangement in

some of the rural communities and farm settlements follow no definite pattern, hence, random sampling method was used to sample ten houses in each of the selected settlements. In the course of this study, one hundred and ten (110) houses were sampled. In so doing one hundred and ten(110) copies of questionnaire were administered on the household head both male and female in each of the sampled houses in the study area. All these information were harmonized and used for this study. Specifically, the study employed the use of simple descriptive statistical analysis to explain the socio- economic variables of the respondents as well as the impact of transport infrastructural development of poverty reduction in the study area. Similarly, inferential statistical analysis were employed to know weathers transport infrastructural facilities has significant influence on poverty reduction on the rural dwellers in the study area. A null hypotheses was tested at (P =0.05) using the data collected on the field, however: Ho: there is no significant difference between road transport infrastructure improvement on poverty reduction in the study area.

RESULT

Socio- Economic characteristics of the Respondents

The socio–economic and demographic characteristics of the respondent; age, gender, marital status and income were analyzed as shown in Figure 3, 4 and in Tables 1 and 2.

Sex of Respondents

The analysis of gender distribution of the respondents in the study area was performed and the result is as shown in Figure 3.

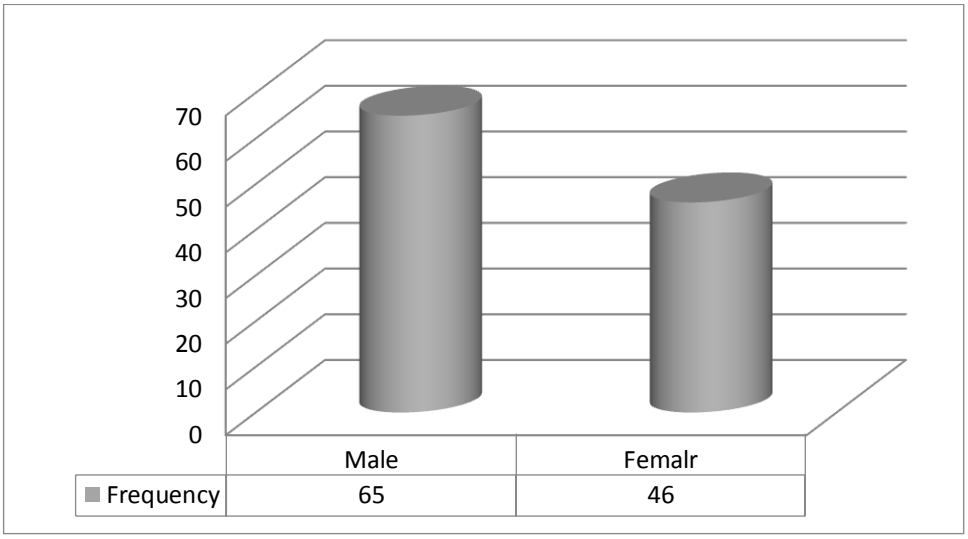

Figure 3: Sex of Respondents
Source; Field Survey 2019

From the figure, 59.09% of the respondent in the study area were male while the remaining 45 representing 40.91% of the respondents were female. From the break down, it shows that larger percentages of the respondents in the study area were male

Age Structure of respondents

Analysis of the age distribution of the respondents in the study area were carried out and it is a known fact that age structure of respondents is one of the socio - economic

 ISSN: 2489-0006

characteristics that determine the pattern and mode of transport used to different points of activities in any space economy, most importantly when movement of goods, people and service are involved. However, the age category of the respondents were grouped into three; 20 - 30years, 31-40 years,41-50years of age and age 51 years old and above respectively (See Table).

Table 1: Age distribution of respondents

Age Catergory	Frequency	%
20-30 year	18	16.4
31-40 Year	**37**	33.6
41-50 Years	40	36.4
Above 51 Years above	**15**	13.6
Total	**110**	**100**

Source: Field Survey (2019)

Analysis from Table 1 revealed total ages structure of the respondents in study area. As a result, 16.4% of the respondents fall within the age group of 20- 30 years, 33.6 % of the respondents were between age of 31 -40 years and 36.4 % were within the age grade of 41-50years while the remaining 13.6% of the respondents were above the age of 51years respectively. However, the labour force accounted for the larger percentage of the respondents in the study area.

Marital Status

Analysis of the marital status of the respondents in the area was also performed as represented in Figure 4.

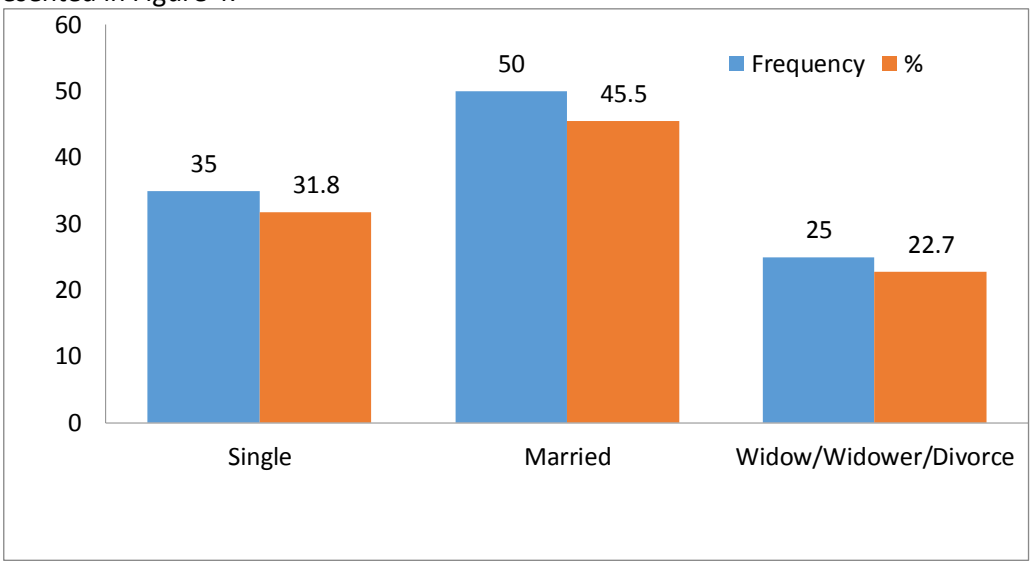

Figure 4: Marital Status of Respondents
Source: Field Survey (2019)

Monthly Income of the Respondents

The analysis of the monthly income distribution of the respondents in the study area was performed and the results are as shown in Table 2.

Table 2: Monthly Income

Monthly Income	Frequency	%
Below N10,000	8	**7.3**
# 11,000 – # 20,000	10	9.1
# 21,000 – #30,000	25	22.7
# 31,000 – #40,000	28	25.5
#41,000 – # 50,000	27	24.5
Above # 51,000	12	10.9
Total	**110**	**100**

Source: Field Survey (2019)

The analysis of monthly income of the respondents was grouped as follows; below **#** 10,000, **#**11,000 and **#** 20,000, **#** 21,000 and **#**30,000, between **#** 31,000and **#**40,000 as well as between **#** 41,000 and **#**50,000 and above **#** 51,000 respectively. From the Table, it is vividly shown that only 7.3 % of the respondents from the sampled settlements realized less than N10, 000 monthly. It was clearly indicated that poverty level in the study area is still at a very high side. Similarly, a total of 10 and 25 of the respondents that accounted for 9.1 % and 22.7 % of those who realizes between **#**11, 000 and **#**20, 000 and between **#**21, 000 and **#**30, 000 per month while the remaining 25.5 %, 24.5 %, and 10.9 % of respondents earned between **#**31, 000 - **#** 40, 000, **#** 41, 000 - **#** 50, 000 and above **#**51, 000 respectively. The implication of this is that transportation and its other ancillaries in the study area were poorly developed which has negative impact on the economic status of the poor rural inhabitants. The implication of this income distribution is that most of the respondents in the study area may find it difficult to move their goods and farm outputs to and from their farms and markets or other collecting centres for sales due to low monthly income. This may suggest why the poverty level in the study area seems to be high, and this will also have negative impact on their standard of living and quality of life.

The Type, Number and Nature of Rural transport Infrastructural facilities Available in the Study Area

The availability of the types, number and nature of infrastructural facilities available in the stud area were carried out and discussed in Table 3 and 4.

 ISSN: 2489-0006

S/N	Names of Settlement	Rural Transport Infrastructural Facilities and Road conditions																										
		Bus Stop	Condition	No	Lay- by	condition	No	Motor park	Condition	No	Tarred Rd	Condition	No	Unsurfaced	condition	No	Culvert	condition	No	Bridges	Condition	No	Drainage	Condition	No	Rd Sign	Condition	No
1	Akowonjo	Y	P	1	N	-	-	N	-	-	Y	P	1	Y	P	3	Y	P	2	N	-	-	N	-	-	N	-	-
2	Ayegunle	N	-	-	N	-	-	N	-	-	Y	G	2	Y	P	5	Y	P	4	N	-	-	Y	P	8	N	-	-
3	Igbo-egun	N	-	-	N	-	-	N	-	-	N	-	-	Y	P	4	Y	P	3	N	-	-	N	-	-	N	-	-
4	Igbo-nla	N	-	-	N	-	-	N	P	-	N	-	-	Y	P	3	Y	P	8	N	-	--	N	-	-	N	-	-
5	Ikun	Y	P	1	N N	-	-	Y	-	1	Y	P	2	Y	P	8	Y	P	9	Y	P	1	Y	P	9	N	_	_
6	Okemoro	N	-	-		-	-	N	P	-	N	-	-	Y	P	2	N	-	5	N	-	-	N	-	-	N	-	-
7	Oba	Y	P	2	N	-	-	Y	-	1	Y	P	2	Y	P	13	Y	P	2	Y	P	1	Y	P	11	Y	G	1
8	Okia	N	-	-	N	-	-	N	-	-	Y	F	1	N	-	-	N	-	7	Y	F	1	N	-	-	N	-	-
9	Simerin	N	-	-	N	-	-	N	P	-	Y	P	1	Y	P	2	Y	P	-	Y	P	1	Y	P	2	N	-	-
10	Supare	Y	P	2	N	-	-	Y	-	1	Y	G	10	Y	P	7	Y	F	-	Y	F	1	Y	G	13	N	-	-
11	Eti- oro	N	-	-	N	-	-	N	-	-	Y	G	1	Y	P	5	N	-	-	Y	P	1	N	-	-	N	-	-
Total				6	N		0			4			20			52			40			6			43			1

Table 3: The Type, Number and the Nature / Condition of the Rural Transport Infrastructural Facilities Available in the Study Area

Available (Y= yes: N= nil): Condition (P= poor, F= fear and G=good)
Source: Author's Field Survey (2019)

Analysis of the various types, numbers and the condition of the road transport infrastructure available as shown in the table were also carried out in the study area. The result revealed that the study area devoid of necessary road transport infrastructural facilities that can enhance easy flow of people and goods and the little that are available were in poor condition. For example, most of the roads in the study area were not tarred except few state government or federal roads that traverse these areas, drains were in the state of disrepair, some the bridges in the study area are not passable even most of the roads in the area has been eroded thereby subjecting the rural dwellers to unnecessary hardship in terms of mobility. This signifies that government paid more attention on the improvement of urban transport at the expense of the rural areas, knowing fully well the urban residents depend on the rural areas for food and raw materials. From the analysis, it shows that the study areas were poorly developed in terms of transport development relative to other transport

infrastructural facilities as a result poverty level of the rural dweller remains very high despite the set 2015 Sustainable Development Goal Declaration for poverty alleviation. Thus one can easily conclude that the rural areas are neglected when it comes to raping the dividends of democracy

Table 4: Percentage of Rural Road Transport Infrastructural Facilities Available in the Study Area

S/No	Rural Road Transport Infrastructural Facilities	Total No of Distribution	%
1	Bus -stop	**6**	3.48
2	Lay- by	**0**	0.00
3	Motor park	**4**	2.33
4	Tarred Road	**20**	11.63
5	Un-surfaced Road	**52**	30.23
6	Culvert	40	23.26
7	Bridge	**6**	3.48
8	Drainage	**43**	25.00
9	Road sign	**1**	0.59
Total	**09**	**172**	**100**

Source: Author's Field Survey (2019)

Result in revealed that larger percentage of road transport infrastructures available in the study area were bad state of repair which made easy movement rural dwellers with their goods difficult and this further made them to suffer access to other essential infrastructures which could have lifted them out of extreme poverty. This observation is in line with the findings of Ale and Fatusin (2018) that improvement in road development is tool for rural poverty alleviation.

In other to determine the impact of rural road transport infrastructural development on poverty reduction on the people in the study area, Table 4 was further subjected to simple Chi – square statistical test. Analysis and summary of the Chi-square test is as shown in Table 5.

Variables d/f	df	Level of significance	Calculated X^2 Value	Tabulated value	Decision
There is no significant difference between improvement in rural transportation system and level of poverty reduction of the rural dwellers	(n-1)(n-1) =(9-1)(2-1) =8	.05 or 5%	14.88	15.51`	**H_o is *rejected*** and the alternative hypothesis **(H_1) is *accepted***

Table.5: Summary of chi-square analysis.
Source: Author's Field survey 2019

From the table, at level of significance of 5% and degree of freedom of 8, the calculated X^2 value is 14.88 is lesser than the tabulated value of 15.15. Since the calculated chi-square value (14.88) is lesser than the table value (15.51), the null hypothesis is rejected to accept the alternative hypothesis that improved transport infrastructural facilities has significant impact on poverty reduction among the rural population most importantly in the developing nation like Nigeria and in the rural areas of Ondo State in particular.

CONCLUSION

The study examined the influence of road transport infrastructure improvement on poverty reduction among the rural population of ASWLGAs of Ondo State. The study shows that rural areas most importantly in sub-Sahara African countries and more importantly in Nigeria are neglected in terms of development either social or economic sector. In other to achieve the aim of the MDGs set up in 2015 as well as that of SDGs targeted for 2025. Governments at all levels should indeed focus more attention on total development of the rural areas for total eradication / reduction of poverty in a nation like Nigeria. It should be noted, however, that rural areas also contributes to the grown and development of a nation's Gross Domestic Products most importantly developing nation like Nigeria. The paper, therefore, recommends that governments at all levels should make sure that policy on rural transport development should be part of its budget for proper planning and development of the rural environment.

Acknowledgment

I am grateful to Mr. Ajaka Seyi and Mr. Ogunade Kayode (field officers) for their efforts in the distribution and administration of the questionnaire in the study area as well as corporate organizations which assisted in the area of secondary data. i want to also appreciate the efforts of my colleague Dr.(Mrs) Olorunlana in the Department of Geography and Planning Sciences for taking his time to edit the work.

References

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.

Ale, A.S. (2013). Rural Transportation and food crop production in Akokok - South Local Government Area of Ondo State, *Nigeria. Journal of Environment* 2 (5), 112-117.

Ale, A. (2014). Graph measurement of road network connectivity and accessibility on farming activities in Akoko South-West LGAs of Ondo State, Ngeria. *International Journal of Innovation and Applied Studies.*9 (3), 1258-1265.

Ale, A.S. (2018). Application of regression model on road network improvement and food crop production in Akoko South –West Local Government Area, *Journal of Geography and Planning Science*s 3 (1), 1-5.

Ale, A.S., & Fatusin, A.F. (2018). Rural accessibility and distribution of social-services in Ise-Orun Local Government Areas of Ekiti State, Nigeria. *Journal of Humanities and Social Sciences* 6(4), 103-108.

Aloba, O. (1986). Rural Transportation: In I. Falola, AA Olarewaju (Eds): Transport Systems in Nigeria Syracuse. University of Maxwell School of Citizenship and public Affairs Series XI (ii),125-138

FOS (1999). Federal Office of Statistics, Abuja. Review of the Nigeria Economy 42 – 44

Gudmundsson, H. (2001). Indicators and performance measures for transportation, environment and sustainability in North America: Department of Policy Analysis, National Environmental Research Institute, Ministry of Environment and Energy, Research Notes from NERI (148) Denmark.

Litman, O, (2003). Sustainable transport systems. *Journal of Transport Research*, 2(3), 45-47.

Litman, T. (2008). Evaluating accessibility for transportation planning. Victoria Transport Policy Institute.

Mbara, T.C. (2002). How have African cities managed the sector? What are the possibilities?

United Nations. (2000). Millennium Development Goals (MDGs) http//www.soverreignity.net/p/gov/made.html.

Odufuwa, B., Oriole, S., &Otubaga, O. (2012). Women and the use of public transport in Nigeria traditional city Ibadan. Global Journal of Human Social Science, Art and Humanities12(8):1256.

Ogunbodede, E.F. (2017). Trading pace for a cost: "A transport geographer's view" Inaugural lecture delivered at Adekunle Ajasin University, Akungba Akoko, Ondo State, Nigeria. Department of Geography and Planning Science on 20th June, 2017

Ogunbodede, E.F. (2010). Cell phone usage and travel behaviour in Ondo State, Nigeria. *Journal of Mobile Communication*, 4 (3), 68-74.

Ogunsanya, A.A. (1987). Food production problems in rural Nigeria. *Habitat International* 11(2), 71-75.

Ogunsanya, A.A. (2002): Maker and breaker of cities. Inaugural lecture delivered at the University of Ilorin, Ilorin, Nigeria. Department of Geography on 27th June, 2002

Olayiwola, L.M., & Adeleye, O.A. (2005). Rural infrastructural development in Nigeria between 1960-1990 problems and challenges. *Social Science*, 11 (2), 91-96.

Owen, W. (1968). *Distance and development*. The Brooking Institution, Washington D.C.

World Bank (1994).Adjustment in Africa: Reforms, Results and the Road Ahead. A World Bank Policy Research Report, Oxford University Press.

World Bank (2001).Design and appraisal of rural transport infrastructure, "Ensuring basic access for rural communities". World Bank, Washington, DC