

## **Improving Rural Quality of Life and Socio-economic Development through the Provision of Rural Roads**

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### **Abstract**

The study evaluates the impact of rural road provision on the socio-economic development and quality of life of rural residents in Etche Local Government Area, Rivers State, Nigeria. The research adopts a quantitative approach, utilising a descriptive research design to study and understand the phenomenon under investigation systematically. The study employed stratified and simple random sampling techniques to collect data. The study population comprises residents of 10 selected communities, with a total projected population of 145,484 in 2022. The study employed the Slovin formula at a 5% precision level to determine the sample size. A total of 400 respondents were determined and interviewed, though 396 questionnaires were used for analysis. The data were collected using semi-structured questionnaires, photographs, and direct observation, and were analysed using univariate statistical tools. The findings indicate that a significant proportion of roads were constructed within a "4–6 years and 7–9 years" timeframes. The study also reveals that roads are the predominant means of

transporting farm products, with 96.2% of the respondents using them. The findings suggest that roads play a significant role in facilitating farm activities and the marketing of farm produce. However, not everyone shares this perception due to the deplorable condition of roads in some communities. The study also evaluates the contribution of rural roads to the quality of life of the rural residents in the study area. The findings collectively emphasise the central role of roads in transporting farm products, enhancing accessibility, and shaping household economic conditions in Etche LGA. The study also examines the potential impact of improved rural transport on basic service provision, focusing on the distances and costs of accessing basic services from respondents' homes. Based on the findings, the study recommends multiple interventions to improve the current condition of roads in the LGA, including reconstruction, rehabilitation, and the construction of transportation infrastructure. Well-maintained and well-connected roads can significantly improve accessibility, reduce transportation costs, and enhance trade opportunities, thereby positively impacting the area's socio-economic conditions. In conclusion, the study underscores the need for policy interventions, investment in transport infrastructure, and the provision of more feeder rural roads to address transportation gaps and improve connectivity in Etche Local Government Area and rural quality of life.

**Keywords:** *Rural Road, Socio-economic Development, Quality of Life*

## **Introduction**

In Nigeria, the most vital sector of the economy is located in the rural areas (Nyagba, 2009). Ugwuanyi and Chukwuemeka (2013) noted that rural areas significantly contribute to the country's capital and are key providers of domestic and raw materials for industrial use. Johnson and Ifeoma (2018) noted that rural residents engage in basic economic activities that lay the groundwork for the country's economic growth. Transportation is one of several variables that contribute to sustainable rural development, and it plays a key role because rural road infrastructure facilitates socio-economic development and improves the quality of life (QoL) in rural communities. QoL application measures the satisfaction with living conditions in relation to the settlement area, outlining the positive and negative effects of these conditions that determine wellbeing (Eyenghe, 2020; Eyenghe, Brown & Ibisiki, 2022; Barcaccia, 2013). This process is crucial to the development and growth of rural areas and serves as a precondition for the socio-economic advancement of the rural populace and their wellbeing.

In Southern Nigeria, the provision of rural roads has a significant impact on residents' lives in the Etche Local Government Area (LGA) of

Rivers State. This study aims to explore and understand the urgent need for improved rural road provision and its impact on socio-economic development, specifically focusing on the quality of life of rural residents in Etche LGA, Rivers State, Nigeria. The current state of the transportation system in rural areas, particularly in Etche LGA, is far from ideal due to the government's lack of focus and insufficient action to enhance road infrastructure. This study highlights the urgent need to improve rural road infrastructure to address the socio-economic challenges faced by rural residents.

This neglect has led to the increasing level of rural poverty, unemployment and a lack of access to crucial social and economic amenities, causing a drop in production levels. The state of the rural roads in Etche LGA is pretty bad; they are poorly maintained, and there are not enough of them. This situation has hindered socio-economic progress and negatively affected the quality of life of rural residents. As a result, there has been a rise in rural poverty, unemployment, and a lack of access to essential social and economic amenities, leading to a decline in production levels. The inadequate and poorly maintained rural road infrastructure in Etche LGA has hindered socio-economic development and adversely affected the QoL of rural residents. However, this study seeks to assess rural road provision and the socio-economic development of rural QoL.

### **Aim and Objectives of Study**

The aim of the study is to evaluate the impact of rural road provision on the socio-economic development and QoL of rural residents in Etche LGA, Rivers State, and Southern Nigeria.

The specific objectives are as follows:

- i. Describe the socio-economic characteristics of rural residents in the study area;
- ii. Assess the state of rural road provision in the study area;
- iii. Evaluate the contribution of rural roads to the QoL of rural residents in the study area; and
- iv. Identify measures to improve rural roads and QoL of rural residents in the study.

### **Scope of the Study**

The scope of the study geographically covers Etche LGA in Rivers State in Southern Nigeria (see Figure 1). The content scope includes describing the socio-economic characteristics of rural residents in the study area, assessing the state of rural road provision in the study area, evaluating the contribution of rural roads to the QoL of rural residents in the study area, and identifying measures to improve rural roads and QoL of rural residents in the study.

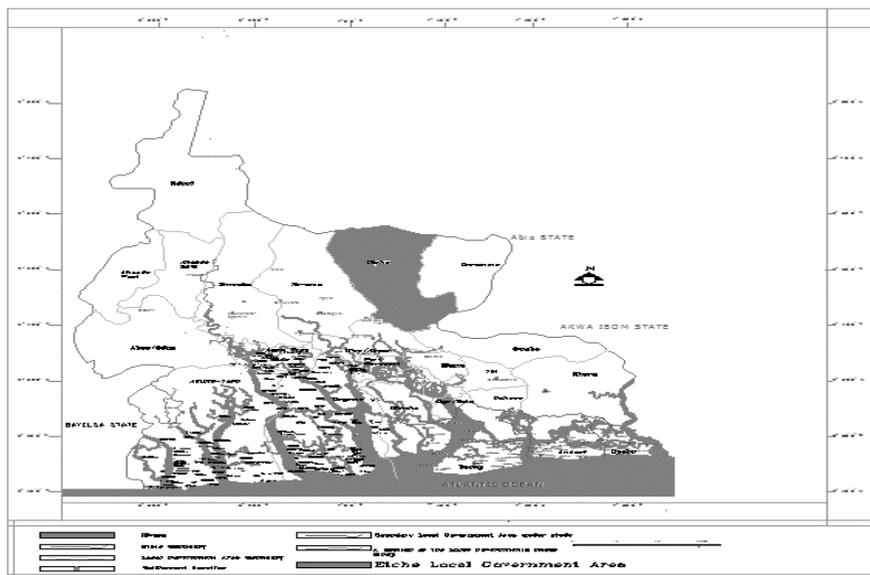


Figure 1: Map of Rivers State Showing Etche LGA

Source: Office of the Surveyor-General, Rivers State, 2023

## Literature Review

### Infrastructure

Infrastructure is a broader concept that embraces public investment in social services and physical assets in communities. The intention to strengthen public investments in rural and urban areas emanates from the perception that public infrastructure is a significant determinant of sustained, long-term growth for the rural poor, thereby enhancing their quality of life. Theoretically, three schools of thought exist regarding the effectiveness of infrastructure investment as a poverty-reduction strategy (Ogun, 2010). The first school contends that investing in social infrastructure, such as education and health, has a significant impact on achieving the goal of reducing poverty than investing in physical

infrastructure (Jahan & McCleery, 2005). The second school maintains that investments in both physical and social infrastructure reduce poverty. The last school holds that, in general, infrastructure investment does not affect poverty reduction (Jerome & Ariyo, 2004).

### ***Transport Infrastructure***

According to Cook, Huizenga, Petts, Visser & Yiu (2017), transport Infrastructure encompasses tracks, rural roads, footbridges, trails, paths, watercourse structures, rural waterways and their transfer facilities. Rural transportation services and structures entail planning, funding, maintenance, and regulation, coordinated across different levels of governance, from international, national, and regional policies to transport-specific policies (Golmohammadi, 2018; Starkey, 2016).

Globally, rural transport services and facilities are critical to driving growth and revealing the equity potential of most rural areas. It is such that functional and reliable rural road services and infrastructure engender the expansion of industry, commerce, and agriculture, and enable the rural populace to access life-changing opportunities such as improved and sustainable healthcare, jobs, social activities, education, and culture. It is imperative to note that the rural transport system plays a significant role in achieving about half of the Sustainable Development Goals (SDGs). According to the Rural Access Index (RAI), transportation is one of the most significant global indicators embedded in the SDG framework (Roberts, Shyam & Rastogi, 2006).

There is a palpable disconnect between rural communities and the major roads and public transport systems in most developing countries. However, public transport services often enable access to social and economic activities and opportunities in cities. Access to rural communities is critical in the resolution of the first/last mile challenges that enable the emancipation of the rural poor from social exclusion and poverty by linking their goods and services to rural market towns, large cities, and the global marketplace (High-level Advisory Group on Sustainable Transport (HLAGST), 2016).

The rural transportation system in Sub-Saharan Africa has experienced an evolving nexus between rural development and the agricultural and transport communities in their strategies and understanding of how to target rural households and smallholders in actions promoting the growth of rural communities. Any enhancement to the rural transport system will have a significant impact on knowledge application, leading to reduced crop waste, better practices, higher-quality yields, improved

production, and the development of locally based industries that will enhance food security. It is expected that an improved rural transportation system will further stimulate economic development and rural employment, leading to more self-reliant rural communities in Etche Local Government Area (Banjo, Gordon & Riverson, 2012).

### ***Socio-Economic Development in Etche***

Socio-economic development accentuates palpable progress in social and economic factors within a specific geographic area. Social development entails the intricacy of social dynamics, including the connections among social structures, relationships, and processes. It further involves people-oriented participatory development strategies and the population's social apprehensions regarding development. It emphasises social justice, inclusiveness, and the common good, as well as information on employment security, employment, education, health, crime, income and poverty levels, and civic participation in rural areas. Similarly, economic development entails increasing prosperity by improving the production, circulation, and consumption of goods and services in any locality. The focus of economic development is the material and social well-being of social institutions and individuals, to achieve the maximum level of human development (UNESCO Encyclopaedia of Life Support Systems (EOLSS), 2000). Consequently, socio-economic development entails the incorporation of economic and social development. The notion of progress in the quality of economic and social life should be seen as progress only if it is rights-based and minimally affects, conserves, or improves the natural environment (Fritz, 2010).

### ***Socio-Economic Characteristics and Rural Road***

Socio-economic development encompasses the social and economic progress within a society. It is commonly measured through indicators such as GDP, life expectancy, literacy rates, and employment levels. However, it also involves less tangible factors, such as personal dignity, freedom of association, personal safety, and the extent of participation in civil society. Technological advancements and changes in laws, which fall under the purview of governance, are the fundamental drivers of socio-economic development. Scholars such as Gboyega (2003) underscore that the concept of development encompasses efforts to enhance the overall human condition. This process encompasses not only the material wellbeing of all citizens, but also sustainable development that does not

compromise the future. Chrisman (1984) views socio-economic development as a progressing society where partnerships between various sectors, corporate entities, and groups within the society drive improvements in the wellbeing of individuals. Socio-economic development involves not only the promotion of the standard of living but also the enhancement of economic conditions for the people.

To fully grasp the concept of socio-economic development, one must acknowledge the role of the state and government. Effective governance plays a critical role in the development of any society. It directly influences socio-economic development, production, wealth creation, and distribution. Solutions to socio-economic issues are often implemented through political channels. Government policies, such as taxation, tariff laws, infrastructure development (for example, railways, electricity, telecommunication), education (specifically, science and technology), and state support for agriculture and industry, have a significant impact on the socio-economic prospects of states and regions.

### ***Impact of Rural Road on Rural Quality of Life***

Rural transportation contributes to a higher QoL and standard of living. Because rural transport is affordable and accessible, it allows all citizens to use it, giving everyone the same mobility opportunity. It is therefore related to the wellbeing of the people in various settlements (Csaki & Tuck, 2000). Mabogunje (1980) noted that transport plays a vital role in a country's development, and he dwelt at length on rural transport. Road transport improvement is becoming a means of achieving socio-economic and political functions in rural areas across the country. Ogunsanya (2002) defined rural transportation as a derived demand which serves to bridge the distance between origin and destination. In other words, transportation serves as a connector. At the same time, distance is a significant determinant of the intensity of relationships among various sets of phenomena distributed across other sectors of the economy, including agriculture.

Transportation has been a facilitator, aiding the development of other sectors of the economy, including agriculture. Rural transport is one important component of a broader concept of rural access. Indeed, transport per se is not the end that transport users seek; instead, it is access to markets, public services, labour opportunities, and household consumption items that provide benefits. Furthermore, transport itself is a composite of several kinds of inputs. Among these are the power source (human, animal, or mechanical), the means of transport (bicycles, trucks,

or head baskets), and a fixed RTI (road, track, or path). There are three major themes in the role of rural transportation, including:

1. Firstly, the efficient provision of rural transport services is essential to accessibility and to promoting economic growth.
2. Secondly, the current emphasis on roads fails to address rural mobility. An effective rural transport system needs to take an integrated approach, considering roads alongside vehicle services and the location of essential facilities and services.
3. Thirdly, the market plays an important role in providing rural transport services.

Furthermore, the central role of rural transport in Nigeria is to ensure equitable access to rural areas and respond to people's needs. It is important to define what actually constitutes basic needs. At the lowest level of basic needs, there are three requirements: food, clothing, and shelter. For transport planning, this definition must be expanded to encompass all transport elements required to meet the needs. Howe (1983) lists core-level local movement requirements as healthcare, education, markets, water, and source-to-energy (firewood).

Other subsistence tasks (principally farming), these six core-level local movement requirements represent the first and most important level of accessibility in the rural context or community. According to Donnges, Edmonds, and Johannessen (2007), the availability and affordability of rural transport services and intermediate means of transport are vital for rural development. However, studies indicate that many rural inhabitants have been left out of rural transport, affecting the sustainability of the agricultural sector, especially agro-business, and their access to necessities, job opportunities, and trade development. The literature review has shown that rural transport is a tool for socio-economic development. The ultimate goal is to ensure access to basic social and economic goods, services, and facilities that rural communities require to lead a socially and economically productive and decent life.

## **Research Gap**

In recent times, there has been a dearth of information regarding the relationship between quality of life, socio-economic activities and road infrastructure in Etche Local Government Area. This study has highlighted how road infrastructure has enhanced the quality of life of rural dwellers in Etche Local Government Area.

## Methodology

Thus, to obtain information and data to achieve the study's aim and objectives, the study adopted a quantitative research approach and a descriptive research design to assess the impact of rural road provision on the socio-economic development and QoL of rural residents in Etche LGA, Rivers State, Nigeria. The study employed stratified and simple random sampling to select the study communities and the residents sampled for data collection. The study employed the Slovin formula at a 5% precision level to determine the sample size. A total of 400 respondents were determined and interviewed (see Table 1). The study area was stratified into 5 strata representing the 5 identified clans in the Etche LGA of Rivers State, namely Ozuzu, Mba, Ulakwo/Umuselem, Okchi, and Igbo. Randomly, 2 communities from each clan were selected for sampling, resulting in 10 studied communities. Accordingly, to determine the sample size, the population of the studied communities were projected for the study year (2022) using 1991 population census results with a 3.2% growth rate (National Population Commission (NPC), 1991; NPC, 2018). Thus, an average of 5 persons per household was used to estimate the number of households in the selected communities (National Bureau of Statistics (NBS), 2016). Hence, the Slovin formula was used and distributed proportionally across the study's sampled communities. A simple random technique was used to select respondents (households) that were interviewed. A total of 396 questionnaires were retrieved and valid for collation and analysis. Direct observation and photographs were also employed to characterise the current situation of the study area on the subject matter.

*Table 1: Determination of Sampled Communities and Sample Size*

S/No	Clans	Communities	1991 Population	2022 Projected Population (3.2% Growth Rate)	No. Households (5 persons per HH)	No. Sampled HH
1	Ozuzu	Ozuzu	6957	18436	3687	51
		Elele	2397	6352	1270	17
2	Mba	Mba	5495	14562	2912	40
		Umuokuru	1689	4476	895	12
3	Ulakwo/Umuselem	Afara	8061	21362	4272	59
		Ulakwo	9264	24550	4910	68
4	Okchi	Okehi	9870	26156	5231	72
		Igbodo	4085	10825	2165	30

5	Igbo	Umuechem Igbo	4593 2488	6593 12172	1319 2434	18 33
	Total		54,899	145,484	29,095	400

*Source: NPC, 1991; NBS, 2016; Researchers' Computation (2022)*

## **Results and Discussion**

### ***Socio-economic Characteristics of Residents***

The socio-economic characteristics of residents revealed that both male and female respondents were interviewed in the study area. The data in Table 2 showed that 52% of respondents were male and 48% were female. This data equally showed that 24% of the respondents were in the age bracket of 30-35years, which was the highest age bracket. The following modal age brackets, as recorded in the study, were 40+years and 36-40years, which accounted for 22.7% and 22%, respectively, as shown in Table 3. Table 4 further revealed the educational status of the study's respondents. The analysis revealed that the respondents interviewed spanned all educational levels. The data revealed that 44.7% of the sampled communities in this study have secondary/commercial educational qualifications, 22.5% of the inhabitants have a primary school certificate, and 21% have a tertiary education certificate. The data also showed that 10.1% of the inhabitants hold a vocational education certificate, 1.5% have no formal education, and the remaining 3% hold other professional qualifications. The respondents' educational statuses and occupations are presented in Table 6. The data on respondents' occupation revealed that 31.1% are farmers. Teachers are at 23.2%, closely following it. 19.7% mentioned that they are artisan. Those who mentioned civil service and fishing accounted for 14.9% and 5.6%, respectively, while others engaged in other occupations accounted for 5.6%. The data presented shows that the respondents' socio-economic characteristics include all genders, aged 18-40years and above, with the majority in the 30-35 age bracket. These demographic data on respondents' educational attainment and occupation indicate a highly educated population. The population is more engaged in teaching, and civil service employment accounted for 38.1% of the distribution. Respondents are engaged in farming and artisan occupations, as the study area is blessed with arable land that supports agriculture and other informal activities.

*Table 2: Gender of Respondents*

S/N	Gender	F	%
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1.	Male	206	52
2.	Female	190	48
	Total	396	100

Source: Researchers' Survey, 2023

Table 3: Age of Respondents

S/N	Age Bracket	F	%
1.	18–25 years	58	14.6
2.	26–30 years	66	16.7
3.	30–35 years	95	24
4.	36–40 years	87	22
5.	40 years+	90	22.7
6.	Total	396	100

Source: Researchers' Survey, 2023

Table 4: Educational Status of Respondents

S/N	Educational Status	F	%
1.	Primary education	89	22.5
2.	Secondary/commercial education	177	44.7
3.	Vocational school/technical training	40	10.1
4.	Tertiary education	83	21
5.	No formal education	6	1.5
6.	Others (specify)	1	0.3
	Total	396	100

Source: Researchers' Survey, 2023

Table 5: Occupation of Respondents

S/N	Occupation	F	%
1.	Teaching	92	23.2
2.	Artisan	78	19.7
3.	Farming	123	31.1
4.	Fishing	22	5.5
5.	Civil service	59	14.9
6.	Others	22	5.6
	Total	396	100

Source: Researchers' Survey, 2023

## State of Rural Roads in the Study Area

The findings explored the distribution of road construction years. Notably, a significant proportion of roads (36.1%) were constructed within a "4-6 years" timeframe, highlighting a relatively recent construction trend (see Figures 2 and 3). Additionally, the data shows that substantial portions (23.5%) of the roads were built "Less than 1 year" ago. There is a gradual decline in the percentage of old roads over time, as construction increased,

with only 1.5% of roads being "10 years and above" (see Table 6). Overall, the findings and observations indicate that both Local and State governments have intervened within a short period to provide roads in the study area.

*Table 6: Age Distribution of Roads Based on Time Since their Construction in Etche LGA*

S/N	Year of Construction	F	%
1.	Less than 1 year	93	23.5
2.	1 – 3 years	68	17.2
3.	4 – 6 years	143	36.1
4.	7 – 9 years	86	21.7
5.	10 years and above	6	1.5
	Total	396	100

*Source: Researchers' Survey, 2023*



*Plate 1: Condition Before and After Construction of Odufor-Akpoku-Umuoye Community Road in Etche LGA*

*Source: Rivers State Media, 2023*



*Figure 3: A Completed Road Construction of Chokocho-Igbodo Road in Etche LGA*  
*Source: Rivers State Ministry of Works, 2023*

### ***Contribution of Rural Roads to the Quality of Life of the Rural Residents***

The findings revealed that roads are the predominant means of transporting farm products, with 96.2% of the respondents using them (see Table 7). This data indicates that roads are the most common mode of transportation infrastructure for distributing farm products in the study area. The findings showed that the majority of the distribution, representing 41.7% believe that roads have positively enhanced accessibility (see Table 8). This data suggests that roads play a significant role in facilitating farm activities and the marketing of farm produce. However, not everyone shares this perception due to the deplorable condition of roads in some communities.

The study also evaluated the impact of roads on household economic conditions (see Table 9). The findings collectively emphasised the central role of roads in transporting farm products, enhancing accessibility, and shaping household economic conditions in Etche LGA. These findings suggest that road transport is a necessary ingredient in economic and social development, which is in line with Olawole, Aloba and Adetunji (2010) who stated that road transport plays an important role in getting land into production; marketing of agricultural commodities; development of industries; health and education programmes; and the exchange of ideas.

The study also examined the impact of rural transport on basic service provision, specifically the distances and costs associated with accessing basic services from respondents' homes. Respondents reported distances

between 800m and 1200m from their farms (see Table 10). The findings revealed that the majority of respondents living close to introductory service provisions believe that accessing the farms and other basic services closest to them is an advantage. Those whose homes are close to the farm but far from markets and other basic services will require a sound transport system to access those facilities. This situation aligns with the study conducted in Kenya by Baum and Korte (2001). The study showed that families living closer to the road used it more and were, on average, better off than those farther away. The provision of regular motorised transport enabled quicker transport of more goods to urban markets, with marginal savings on transport costs.

Furthermore, the study examined the transport costs for basic service provision, focusing on two key aspects: the cost of transport from home to the farm and from home to the market. The majority of respondents spend between N50 and N300 on transport for basic services. Those living at a far distance are likely to spend more than N300; the findings align with the World Bank Group Report (2015), which stated that improved rural roads have a positive impact on rural inhabitants. Such improvements are expected to enhance their ability to access social services, such as markets, education, and the work area, and therefore contribute to improving their living standards. The short-term impacts of such an undertaking are relatively straightforward because improved road conditions can reduce transport costs and travel time.

*Table 7: Means of Transporting Farm Products in Etche LGA*

S/N	Means of Transporting Farm Products	F	%
1.	Roads	381	96.2
2.	Water	2	0.5
3.	Others (specify)	5	1.3
4.	Non-response	8	2
	Total	396	100

*Source: Researchers' Survey, 2023*

*Table 8: Availability of Roads Enhancing Accessibility to Products in Etche LGA*

S/N	Roads Accessibility to Products	F	%
1.	Yes	165	41.7
2.	No	99	25
3.	Partially	122	30.8
4.	Non-response	10	2.5
	Total	396	100

*Source: Researchers' Survey, 2023*

*Table 9: Impact of Roads on Economic Condition of Households in Etche LGA*

S/N	Impact of Roads on Economic Condition	F	%
1.	Positive	165	41.7
2.	Negative	99	25
3.	No idea	122	30.8
4.	Non-response	11	2.8
	Total	396	100

Source: Researchers' Survey, 2023

*Table 10: Average Distance from Home to Basic Services*

S/N	Distance from Home to Farm	F	%
1.	Less than 400m	263	66.4
2.	400m-800m	86	21.7
3.	800m-1200m	20	5.1
4.	1200m and above	0	0
5.	Non-response	27	6.8
	Total	396	100

Source: Researchers' Survey, 2023

### ***Measures to Improve Rural Roads and the QoL of Rural Residents***

Based on the findings and observations, the government has implemented multiple interventions to address the current road conditions in the LGA. From the findings, the interventions were: Reconstruction, which likely refers to the complete overhaul of existing roads or transportation infrastructure to ensure they are in good condition. Rehabilitation in this case typically involves repairing or improving existing infrastructure to extend its lifespan and functionality, and construction, which entails creating new transportation infrastructure to address connectivity and accessibility gaps. Other interventions include improved signage, road safety measures, and innovative transportation solutions (see Table 11). In view of the findings, potential physical planning measures to improve rural transport and socio-economic conditions could involve a holistic approach. It includes a combination of reconstruction, rehabilitation, and construction of transportation infrastructure. Well-maintained and well-connected roads can improve accessibility, reduce transportation costs, and enhance trade opportunities, thereby positively impacting the area's socio-economic conditions.

Table 11: Interventions Made by Government to Improve Rural Transport in Etche LGA

S/N	Interventions Made to Improve Rural Transport	F	%
1.	Reconstruction	165	41.7
2.	Rehabilitation	99	25
3.	Construction	122	30.8
4.	Others	5	1.3
5.	Non-response	171	43.2
	Total	396	100

Source: Researchers' Survey, 2023

## Conclusion

Despite the significant contributions of rural areas to a nation's economic development through food production and the like, they have not reaped the dividends of these contributions in the provision of social amenities, such as a good transport network. The study examined the impact of rural road provision on the socio-economic development and QoL of rural residents in Etche LGA, Rivers State, Nigeria. The study's findings indicated that rural transportation has had a beneficial effect on the socio-economic progress and quality of life of residents in Etche LGA, Rivers State. This conclusion is drawn from the analysis and interpretation of data gathered from respondents. Additionally, the research showed that rural transport has enabled easy access to essential services, with improved transportation leading to most basic facilities being conveniently accessible to households in the study region. The study also revealed that roads are the predominant means of transporting farm products in the study area. The study revealed diverse economic activities, including farming, mining, trading, lumbering, artisanal work, and oil mining, across the studied communities. The study found that some of the roads are in deplorable condition. Furthermore, the study highlighted that in recent times, the Rivers State Government has taken steps to enhance the transportation infrastructure in the area. These actions included both the rehabilitation of existing roads and the construction of new ones. The findings of this research contribute to understanding the specific transport challenges rural communities in Etche LGA face, and to providing road transport to cushion the challenges faced by rural residents in the study area. The study emphasises the need for policy interventions, investment in transport infrastructure, and the provision of more affordable feeder rural roads. Addressing transportation gaps and improving connectivity in rural areas can positively impact the socio-economic conditions of Etche LGA. It will enhance market access, stimulate economic activity, and improve

residents' overall well-being. The findings of this research can guide policymakers, local authorities, and stakeholders in developing effective strategies to address the transport needs of rural communities, ultimately fostering socio-economic development and improving the QoL in Etche LGA.

## **Recommendations**

To address the findings of the study, the following recommendations are suggested:

1. Policy makers and relevant stakeholders should form synergy to formulate policies and programmes that will develop transportation infrastructure and services that promote affordability and connectivity in the study area.
2. The Rivers State Government should foster collaboration among urban planners, transportation experts, economists, and community stakeholders to build more rural roads and improve transport infrastructure in the study area.
3. The Etche LGA Council should construct more feeder rural roads to improve connectivity and accessibility to basic infrastructure and services to open up opportunities for socio-economic growth and development of households in the LGA; and
4. The Rivers State Government, through its MDAs, should embark on the reconstruction, rehabilitation, and maintenance of transportation infrastructure to have a positive impact on the socio-economic conditions of the study area.

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