

Assessment of Transportation Needs in Rural Areas within Nasarawa State, Nigeria

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ABSTRACT

Rural transportation in Nigeria has been typical issue as it has been identified by many as crucial component for economic development of the country. In the light of the above, the paper aims to determine the basic need of transportation in Nasarawa local government and considered survey method to gather information while secondary sources of data were utilized to augment the information. A total of three hundred copies of questionnaire were administered in three randomly selected communities in the study area. The analysis of the data revealed an imbalance in provision of road infrastructure and rehabilitation issues with roads in the area is having negative effect on agricultural activities. And since Agriculture is the major source of income of residents, there is tendency for increased poverty rate. The study recommended integrated rural development strategy, to ensure that existing roads are kept in good condition, while encouraging private-public participation in rural road development and also, community efforts should be encouraged through self-help approach.

KEYWORDS:Rural transportation, economic development, road infrastructure, integrated rural development

I. INTRODUCTION

Transportation plays an important role in the political, economic and social development of any society and whether in rural or urban societies, transportation constitutes the main avenue through which different part of the society are linked together. As society grows in terms of population

and functions, the need for interaction among its various components also grows thereby requiring quality and effective transportation systems. In the words of munby (1968) “there is no escape from transport even in the most remote and least developed of inhabited regions” Also Hailey (1957) opined that “there seems to be no other types of development that can affect so speedily a change in the economic and social conditions of backward notions except transportation”.

In recognition of the role transport plays in the overall development of any society and the desire to promote rapid socio-economic development particularly in the rural area, the federal, state and local government in Nigeria has been working towards the improvement and development of transportation system in the country; in the first, second, third and fourth national development plans, 19% 23%, 22% and 15% respectively of the total capital outlay went to the transport sector (Adeyemi, 2001). These investment on the transportation sector, are not only aimed at increasing the level of rural-urban movement but also to improve rural;- urban accessibility particularly as it's relates to accessibility of rural people to the various public facilities that are located at different parts in the rural landscape.

Transportation exhibits a close relationship to change the style of living, the range and location of productive and leisure activities and the goods and resources for example the time spent in building, maintaining and operating the transportation system, fueling material and land on which roads are but. These expenses would not be bone if there were no substantial benefits form the

extensive use of transportation in improving the overall capacity and quality of life.

Nasarawa is a local government area in Nasarawa State, Nigeria. Its headquarters is in the town of Nasarawa. It has an area of 5,704 km² and a population of 189,835 at the 2006 census. The postal code of the area is 962. Nasarawa town is home to Nasarawa state only federal institution, the federal polytechnic Nasarawa. Some languages spoken in Nasarawa town and its environs include: Agatu, Gade, Basa, Gumna, Dibo, Ebira, Eggon, Eloyi, Gade, Gbari, Gwandara and Hausa etc. Inadequate transportation network, inequitable distribution of infrastructure in the area and the disparities in development in the surrounding area.

1.1 AIM

The aim of this research is to determine the basic need of transportation in Nasarawa local government.

1.2 OBJECTIVES

1. To examine rural development through transportation.
2. To suggest on how to reduce poverty in rural and semi-urban through a good transportation system.
3. To examine the impact of transportation on agricultural produce in Nasarawa local government.
4. To suggest on how to improve the level of infrastructures and public facilities development in rural areas.
5. To come up with effective means of movement for both residents and non-residents, to transport goods and services from one particular place to another.

II. RESEARCH METHODOLOGY

2.1 METHODOLOGY

Three sets of interviews were designed in gathering information for this study

- The first set of interview was designed to obtain information from the head chief of each town on the provision and maintenance schedule of roads in the area. Considering the fact that public transportation is the dominant means of transportation in Nasarawa rural area.
- The second set of interview was designed to obtain information from the commercial drivers in the area to assess their level of satisfaction or difficulties concerning 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 interview was administered to household heads or their representatives in the absence of the household heads in the randomly selected household in the randomly selected households in each of the three commodities selected for the survey. 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 interviews were administered through the help of six self-trained students.

2.2 RESEARCH INSTRUMENT

In carrying out this research work, the researchers made use of some vital research instruments which include the following:

PERSONAL INTERVIEW

This is a conversation carried between the interviewers and respondents, it was conducted in Nasarawa Town and its surrounding villages.

PERSONAL OBSERVATION BY THE RESEARCHERS

This was done only by the researchers going around the villages to observe the nature of the roads and getting some facts down to help them in getting conclusion about the research being conducted.

2.3 THE STUDY AREA

The study of the research is in Nasarawa town and its surrounding villages particularly Udege Mbeki and Ara. The population of the study areas were put at 200,624 in 2006 (NPC 2006) and is inhabited predominantly by Afo and Gwandara speaking people whose major occupation is farming.

The sparse population and absence of major cash crop made the authority and the post-independence government to pay little attention to the provision of public facilities in the area and particularly the development of modern transport networks.

Transportation was poorly developed in the zone during the authority's period and the early parts of the post-independence period.

III. RESULTS AND DISCUSSION

The indices used in assessing road quality in the study area are: surface condition, road width, number of lanes and reliability in all seasons (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 15% of respondents in Nasarawa town indicated that there are roads with good surface condition while in Udege-Mbeki and Area responses to good surface condition was low, 3% and 2% respectively. This shows that there are disparities in the levels of

development, hence, no uniform development in rural areas. This has a significant effect in the overall development in the areas. Response in 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 road.

Table 4.1 Quality of rural roads in selected communities in Nasarawa Local Government

Communities	Variables	Attributes	No. of Response	Percentage
Nasarawa Town	Surface condition	Good	15	15.0
		bad	85	85.0
	Road width	wide	22	22.0
		narrow	78	78.0
	Number of lane	one	100	100
		two	-	-
		four and	-	-
		above	-	-
	Reliability in Raining season	reliable	60	60.00
		not reliable	40	40.00
Udege-Mbeki	Surface condition	Good	3	15.0
		bad	97	85.0
	Road width	wide	10	22.0
		narrow	90	78.0
	Number of lane	one	100	100
		two	-	-
		four and	-	-
		above	-	-
	Reliability in Raining season	reliable	5	5.00
		not reliable	95	95.0
Ara	Surface condition	Good	2	2.00
		bad	98	98.0
	Road width	wide	10	10.0
		narrow	90	90.0
	Number of lane	one	100	100
		two	-	-
		four and	-	-
		above	-	-
	Reliability in Raining season	reliable	10	10.0
		not reliable	90	90.0

Author's Survey 2017

3.1 TRIP DISTRIBUTION IN THE STUDY AREA

Trip in this context is regarded as the movement from origin to destination. The respondent 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, Nasarawa has 40%, Udege-Mbeki has 88% and Ara has 77% (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 4.2 Summary of trip distribution in selected communities in Nasarawa Local Government

Communities	Farm Trips	Social Trips	Market Trip	Work Trips	Others
Nasarawa	40%	16%	29%	10%	5%
Udege-Mbeki	88%	2%	7%	2%	1%
Ara	77%	2%	15%	3%	2%

Authors Survey 2016

3.2 TRIP FREQUENCY TO URBAN CENTRES

Urban centres serve as centre of attraction for rural dwellers, adequate rural transport facilitates propel interaction between rurally secure urban and urban dwellers in the process of exchanging goods and services. Frequency of tri to urban centre influences the rate of social and economic development of rural and semi-urban areas. Table 3 shows a low level of interaction between the rural, semi-urban areas and

neighboring 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 conditions, most especially in raining season. Adequate rural and semi-urban transportation plays a strategic role in linking rural communities to markets and also fulfils a vital roles in transporting goods locally and maintaining social ties.

Table 4.3: Trip frequency to neighboring urban centers from rural and semi-urban communities in Nasarawa Local Government

Communities	Daily	Weekly	Fortnightly	Monthly	Occasional
Nasarawa Town	5	19	23	35	18
Udege-Mbeki	4	17	25	43	11
Ara	2	16	29	38	15

Authors Survey 2016

3.3 WAITING TIME AT BUS STO/ROAD SIDE

Owing to bad road condition, transporters usually waste time on 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 on get vehicles. Often, some commercial vehicle drivers would have gotten

more than enough passengers from their origins, prompting some commuters findings it difficult to transport their farm produce to the market.

Table 4 shows that 68% of respondents in Nasarawa town spent 15 minutes to get commercial vehicle and 28% spent over 30 minutes. But the case is different compared with Ara and Udege-Mbeki where 41% and 50% spent between 30-45 minutes and 56% and 73% spent 45 minutes and above respectively to get commercial vehicle especially on market day.

Table 4.4: Waiting time at the bus stop/road side before assessing commercial vehicles in the rural and semi-urban communities in Nasarawa Local Government

Communities	0-15 Minutes	16-30 Minutes	31-45 Minutes	46-60 Minutes	60 minutes and above
Nasarawa Town	68	28	4	0	0
Udege-Mbeki	1	2	41	39	17
Ara	2	5	50	23	20

Authors Survey 2016

3.4 TRAFFIC SURVEY

Traffic survey was conducted on market days and non-market days (ordinary days) to assess the volume of traffic. In the case selected for this research, there are regular farm produces. For instance, Nasarawa town have their market days at every five day while udege-mbeki and are have their market days at every eight day intervals.

In human life, the importance of market cannot be overemphasized both locally and internationally. Market forms points where good 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. At udege-mbeki for instance there was a market variation between market day and ordinary day as shown in table 5. The volume of traffic in market day is higher than ordinary days in all classes of transportation mode.

Table 4.5: Traffic Survey conducted on both market days and ordinary days at Nasarawa Town

Transport mode	Market day Income	Market day outcome	Ordinary day income	Ordinary day outcome
Motorcycle	60 and above	35 and above	30 and above	20 and above
Cars/taxis	86	79	49	42
Buses	42	3	22	23
Lorry	3	3	3	2

Authors Survey 2016

Table 4.6 Traffic Survey conducted on both market days and ordinary days at Udege-Mbeki

Transport mode	Market day Income	Market day outcome	Ordinary day income	Ordinary day outcome
Motorcycle	35 and above	15 and above	10 and above	7 and above
Cars/taxis	40	30	4	2
Buses	25	20	3	1
Lorry	2	1	0-1	0-1

Authors Survey 2016

Table 4.7 Traffic survey conducted on both market days and ordinary days at Ara

Transport mode	Market day Income	Market day outcome	Ordinary day income	Ordinary day outcome
Motorcycle	30	15	10	5
Cars/taxis	35	25	3	1
Buses	20	15	3	1
Lorry	2	1	0-1	0-1

Authors Survey 2016

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 neighboring communities especially Nasarawa which is the only road that links good and tarred roads to the nearest urban centre. Inadequate rural and semi-urban transportation constitutes between 60% and 80% increase in the marketing costs of food stuff 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 and semi-urban 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 and semi-urban road will result to decrease it the cost of food for low income groups and this will have an important impact on poverty reduction and this contribute to the achievement of the government's food security strategy and the overall poverty reduction objective.

IV. CONCLUSION AND RECOMMENDATION

4.0 CONCLUSION

It has clearly come out from the 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 area. This opportunity that should not be swept under carpet.

4.1 RECOMMENDATION

There is need for integrated development strategy which according to Shiru (2008) is a strategy which seeks to develop all sector of the rural and semi-urban link them up effectively with the 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 sector of the rural and semi-urban economy. The level of development in the area is very low and this is a result of the poor road condition among other contributing factor. To improve the level of development in the area, there is need for adequate provision of rural and semi-urban transportation and other infrastructural facilities. The need to empower the grassroots government is at paramount importance owing to the fact that the

construction and rehabilitation of most rural and semi-urban roads fall within the jurisdiction of the local government .

Maintenance culture is 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 and semi-urban road maintenance. Such maintenance should include clearing of bush edges, provisions of adequate drainage system and the maintenance of bridges and culverts to prevent blockage at such bridges and culverts among others. Public private partnership program is another means of ensuring sustainable rural and semi-urban department. Considering Nigeria population and sizes it is impossible for the government to meet substantial part of the need of every community.

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APPENDIX

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RESERCH TITLE: STUDY OF TRANSPORTATION NEEDS IN RURAL AND SEMI URBAN AREA-NASARAWA TOWN AND IT'S SURROUNDING VILLAGES.

SECTION A: RESPONDANT PROFILE (Please tick Appropriate)

1. Sex
 - a. Male
 - b. Female

2. Occupation
 - a. Farming
 - b. Trader
 - c. Driver
 - d. Other

3. How often do you travel to neighboring urban centers daily
 - a. Daily
 - b. Weekly
 - c. Fortnightly
 - d. Monthly
 - e. Occasionally

4. Road surface condition

Good

Bad

5. Reliability of road in raining season?
 - a. Reliable
 - b. Not reliable

6. Number of lane
 - a. One
 - b. Two
 - c. Four and above

7. Road width
 - a. Wide
 - b. Narrow

8. Most common trips engaged in the community?
 - a. Farm trips
 - b. Social trips
 - c. Market trips
 - d. Work trips
 - e. Other

9. How long do you wait at the bus stop/road side before accessing commercial vehicles
 - a. 0-15 minutes
 - b. 16-30 minutes
 - c. 31-45 minutes
 - d. 46-60 minutes
 - e. 60 minutes and above

10. Most frequent transport mode in the community?
 - a. Motor cycle
 - b. Cars/Taxis
 - c. Buses
 - d. Lorry
 - e. Others