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The effect of population growth on Transportation facilities in Mubi-north local government area, Adamawa State

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Abstract

This article examined the effect of population growth on transportation facilities in Mubi North Local Government Area of Adamawa State. Collected data were analyzed using simple percentage statistics. Some of the major findings includes the fact that population growth has severe effect on transport facilities in the area, High crime rate and increased robbery which is majorly caused by urban problems and rapid population growth which has a very severe effect on transport facilities, It was observe that trading and market activities

have been affected by rapid population growth. Some of the recommendations of the study includes: Government and private organizations should organize public awareness programs on the dangers of inexperience driving alongside the positive role of transport system on rural development, Government/private individuals should provide good road network, basic infrastructure such as rural electrification and power supply to the rural populace.

Keywords: Transport, Distance, Birth control, Crime rate

Introduction

Problems and issues emanating from rapid population growth and urbanization abound and are enormous and alarming. This has in recent time called for a periodic re-examination of the effects of population growth on transportation facilities in Nigerian cities, towns, and villages. The growth rate of the population needs to be studied, monitored and managed properly with conscious efforts (Precious 2011). If not, it can militate against all the efforts of government to fulfill its commitment to improving the quality of live and standard of living of the people of the country. Rapid population growth is detrimental to economic and social development. According to Umar (2011), population will continue to eat up any gain in economic development and these may lead to adverse effects on the people as put forward by Malthus. Nigerian population requires and deserves urgent attention as a result of its alarming and unprecedented growth rate, also, because the population has gathered momentum.

One of the fundamental problems of man since antiquity is that of overcoming the friction of distance both in space and time (Umar, 2011). Man has been on the move from one place to another seeking for a means of survival. The emergence of modern means of transportation in the world and most importantly in developing countries like Nigeria has a remarkable influence on the socio-economic development of urban and rural areas.. Transportation enhances the process of economic growth in urban areas by making needed services available to rural dwellers (Ajiboye and Afolayan, 2009).

It has been discovered in recent studies (such as Umar, 2011; Aderamo, 2012; Adedotun and Adedotun, 2014) that the lack of good road in the Nigeria cities, town and villages makes it difficult for the people to access good markets for their farm produce as more than 86.6% of roads in the area are very bad. This was discovered to have affected the socio-economic activities of the people thereby increasing the level of poverty in the communities in Nigeria cities and villages. Problems pervading urban transport facilities in most developing countries range from inadequate and poor quality of infrastructure, mismatch between demand and supply to increased rate of accidents. These problems are triggered by interrelated trends such as urban population growth; unplanned and uncoordinated growth of cities (Adedotun and Adedotun, 2014). The transportation system in Nigeria is overrun by private entrepreneurs. These private entrepreneurs operate in an uncontrolled manner and provide erratic and unreliable services. In the study area, there is no known vast problem on transportation facilities because of the rise on population growth; this has compounded the problem of mobility in the study area. To this end, this study intended to examine the effects of population growth on transportation facilities in Mubi North Local Government of Adamawa State, Nigeria.

Material and Methods

The study area is geographically located between Latitudes 10°30' and 10°05'N and Longitudes 13°10' and 13°30'E North of the Greenwich Meridian (Figure 1). It lies on the west bank of the Yedzeram River, a stream that flows north into Lake Chad, and is situated on the western flanks of the Mandara Mountains which form its both drainage system and relief. The area is bounded internationally by Cameroon and within the state by Michika to the east, Hong to the west and Maiha to the south. Also, it occupies an area of 192,307km and has a population of 260,009 people (National Population Census, 2006).

The main mode of public transport in the study area is by road, and most vehicles used include buses, taxis, and converted pick-up vans, motors, scooters Canto rikshaws and Petal Rickshaws (Adesanya 2011). Motorcars, motor cycles and Kekenapep (a tricycle) are the common vehicles used. Apart from the metropolis, most of the road in the study area is untarred. According to Peter (2011), major roads form 1.5% of the road networks in Mubi and are restricted to the city center. While minor and access roads form 12.9% and 85.6% respectively of the road network. The peripheral districts of the town are mainly served by pathways. And

apart from the barrier caused by the rivers during the rainy season the inaccessibility of good roads render sick and expecting mothers abilities to save life difficult. Apart from the inaccessibility of roads in the villages within Mubi Metropolis, you find difficulty passing the roads that contributed to major towns' road (Ahmadu Bello Way) due to traffic congestion most especially on Tuesdays and Wednesday which are cattle market day and official market day.

Required data were from primary and secondary sources. The primary data were obtained through questionnaires and were complemented with oral interviews of Estate Surveyors and Valuers, and occupiers of commercial properties involved in the study. Secondary data were obtained from property pages of newspapers in circulation; these newspapers include Castles, The Guardian, and The Punch. The data on volume of traffic along the major roads in the study area was obtained from field observation. The data was collected over a period of months between. The period for traffic counts covered fourteen hours daily between 6a.m. and 8 p.m. at thirty minutes intervals. Average of the total counts for the seven months period was determined for each road.

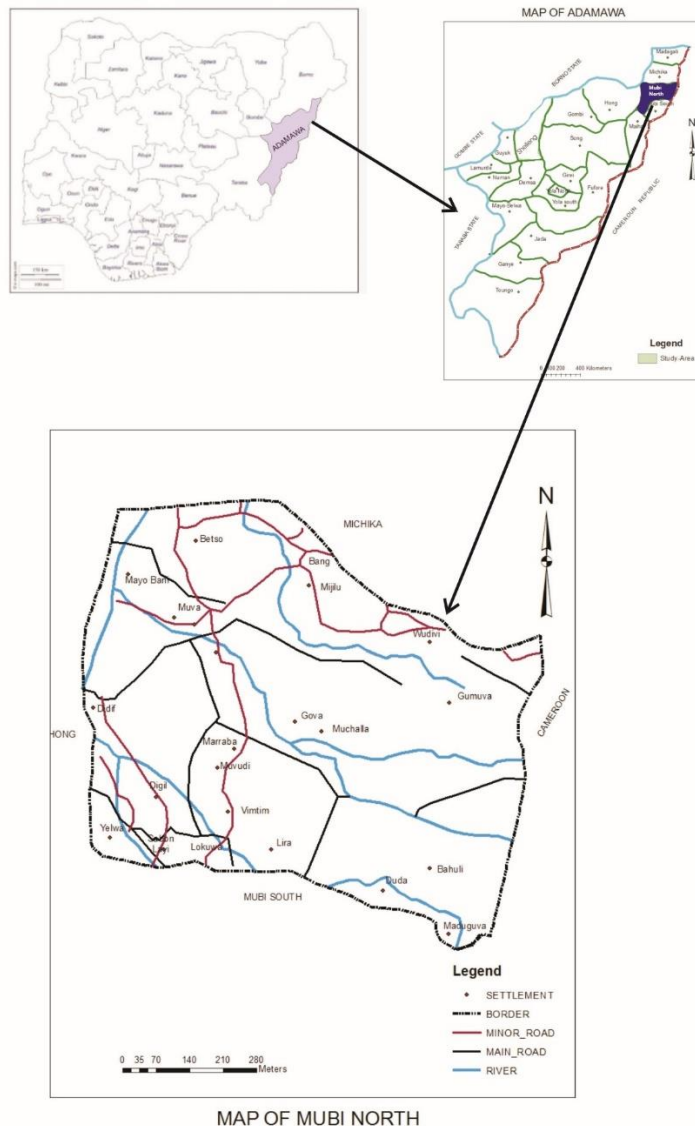


Fig 1

Results and Discussion

Table 1: Location of residence

Response	Frequency	Percentage (%)
Urban	64	64
Rural	36	36
Total	100	100

Source: Fieldwork, 2019

The table 1 shows that 64% of the total respondents who responded to this question live in urban areas while 36% live in surrounding rural areas. This shows that life is more pleasurable in urban areas than in rural areas of Adamawa. Urban areas are provided with basic and social amenities which are not readily available in rural areas. This is the major reason why most respondents prefer to stay in urban areas than surrounding rural areas despite the high cost of living in urban areas.

Table 2: Social/basic amenities provided in Mubi North.

Amenities	Frequency	Percentage (%)
Electricity	34	34
Pipe-borne water	10	10
Educational facilities/institution	40	40
Health care facilities	10	10
Housing/transportation	6	6
Others	0	0
Total	100	100

Source: Fieldwork, 2019

The table above reveals that 34% of the respondents indicated that population increase has affected the adequate provision of electricity/power supply since the carrying capacity has posed pressure on available power resources, 10% said it has resulted to shortage of water supply, 40% said increased population has affected educational and institutional faculties such as congestion in classroom/place of learning and

shortage of available teaching and learning materials thereby resulting to low learning in institutions, 10% said it has led to shortage of health care facilities and 6% said it has led to housing congestion and transportation facilities problems and high cost of rent in urban areas. It could be deduced that increased population has a huge effect on available infrastructural facilities.

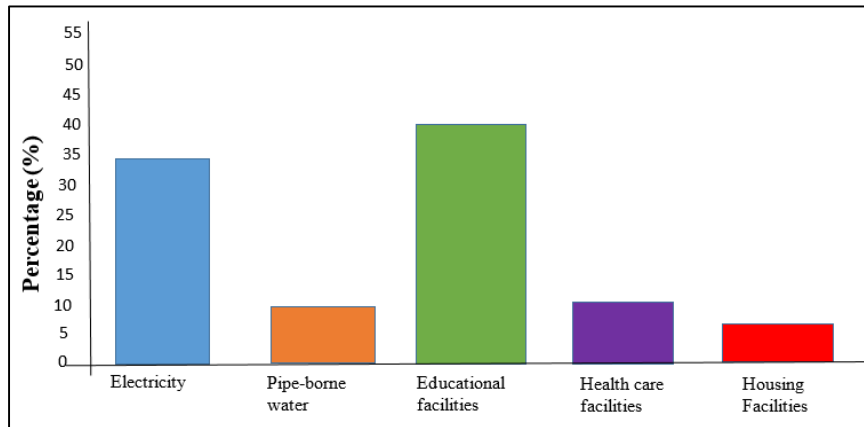


Fig 2: Social/basic amenities provided in the area

Table 3: Modes of transport in the study area

Modes of Transportation	Frequency	Percentages (%)
Air	0	0
Water	0	0
Land	100	100
Rail	0	0
Others	0	0
Total	100	100

Source: Fieldwork 2019

From the above, the findings shows that no respondents use air, water, and rail transport as their mode of transportation in the area, 100% use land, which is the most common mode of transport in the area. This implies that land is the widely mode of transport in the area. People use road transport because it is cheaper, reliable, consistence, and comfortable compared to other means of transport. The rural dwellers mostly use road transport because it is easily accessed, best convenient and affordable.

Table 4: Effect of population growth in the area

S/N	Item	Yes	No	No idea
a.	Population growth is more severe in cities/urban center.	86 (86%)	10 (10%)	4 (4%)
b.	Life in the urban area is more pleasurable than in the rural areas.	69 (69%)	28 (28%)	3 (3%)
c.	Government have played key role in addressing the problems associated with the effect of population growth on transportation facilities.	11 (11%)	39 (39%)	50 (50%)
d.	Population growth has adverse effect on the socio-economic life of the people in the area.	76 (76%)	19 (19%)	5 (5%)
e.	Population growth has socio-economic effect on the livelihood of the inhabitants of the study area	48 (48%)	24 (24%)	28 (28%)

Source: Fieldwork 2019

Row (a) in table 1.3 shows that 86(86%) of the respondents agreed that population growth is more severe in cities/urban center while about 10(10%) of the respondents disagreed to this view. They claim that the surrounding rural areas feel the impact more than the core cities. Meanwhile, 4(4%) of the respondents has no idea of the issue raised by the researcher. It could therefore be deduced that population growth is more severe in cities/urban center.

Row (b) shows that about 69(69%) of the respondents agreed to the view that life in the urban area is more pleasurable than in the rural areas while 28(28%) did not agree. Also, 3(3%) of the respondents had no idea of the issues raised. It could be observed that life in the urban area is more pleasurable than in the rural areas.

Row (c) reveals that, 11(11%) of the respondents agreed that government have played key role in addressing the problems associated with the effect of population growth on transportation facilities while 39(39%) disagreed. Meanwhile

50(50%) of the respondents had no idea raised about the issue raised. It could be observed that government have not played key role in addressing the problems associated with the effect of population growth on transportation facilities.

Row (d) shows that, 76(76%) of the respondents agreed that population growth has adverse effect on the socio-economic life of the people in the area while 19(19%) did not agree to this view. Meanwhile, 5(5%) of the respondents had no idea on the issue raised by the researcher. It could be observed that Population growth has adverse effect on the socio-economic life of the people in the area.

Row (e) reveals that, 48(48%) of the respondents agreed that population growth has socio-economic effect on the livelihood of the inhabitants of the study area while 24(24%) disagreed. Meanwhile 28(28%) of the respondents had no idea raised about the issue raised. It could be observed that population growth has socio-economic effect on the livelihood of the inhabitants of the study area.

Table 5: The role of transport facilities on the development of urban and rural areas

S/N	Option	Role				
		Active	Positive	Negative	Passive	No role
a.	Road network	40 (40%)	38 (38%)	10 (10%)	8 (8%)	4 (3%)
b.	Market system	41 (41%)	44 (44%)	6 (6%)	6 (6%)	3 (3%)
c.	Transport facilities	32 (32%)	46 (46%)	10 (10%)	10 (10%)	2 (2%)
d.	Basic infrastructure	18 (18%)	40 (40%)	28 (28%)	12 (12%)	4 (4%)
e.	Socio-economic development	18 (18%)	48 (48%)	21 (21%)	8 (8%)	5 (5%)
f.	Community development	20 (20%)	43 (43%)	23 (23%)	8(8%)	6 (6%)

Source: Fieldwork, 2019

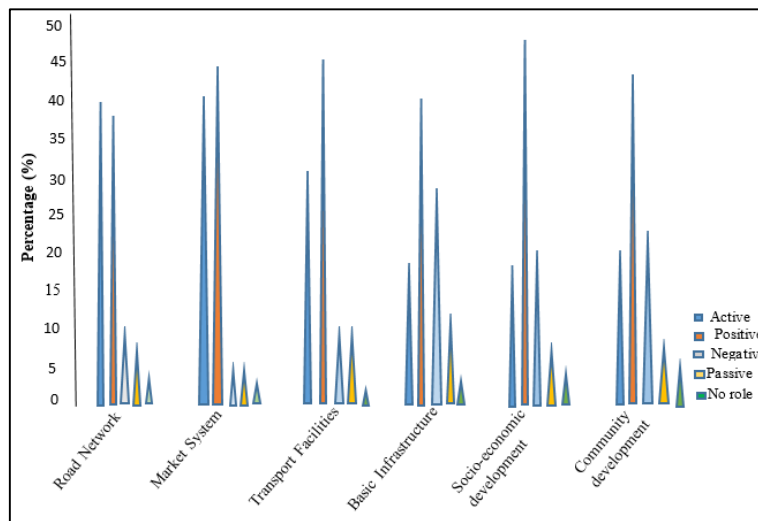


Fig 3: Role of Transport in Rural

Table 1.4 shows the various key role transport system played in the development of urban and rural areas of Mubi North. From the table above, Item (a) reveals that 40% of the respondents indicated that road network has played an active role in the development of rural areas, 38% said it has played a positive role, 10% said it has played a negative role, 8% said it has played a passive role and 4% it has played no role in the development of rural areas.

Item (b) shows that 41% of the respondents indicated that market system have played an active role in the development of urban and rural areas, 44% said it has played a positive role, 6% said it has played a negative role, 6% said it has played a passive role and 3% said it has not played any role.

Item (c) shows that 32% of the respondents were of the view that transport facilities have played an active role in the

development of urban and rural areas, 46% said it has played a positive role, 10% said it has played a negative role, 10% said it has played a passive (silent) role and 2% said it has played no role.

Item (d) reveals that 18% of the respondents indicated that basic infrastructure has played an active role in urban and rural development, 40% said the role is positive, 28% said negative role, 12% said passive role and 4% said no role. This implies that the provision of basic infrastructure has played an active role in the development of urban and rural areas

Item (e) shows that 18% of the respondents indicated that socio-economic development has played an active role in rural development, 48% said positive role, 21% said negative role, 8% said passive role and 5% said socio-economic development has not played any role in the development of

rural areas. This implies that socio-economic development has played a positive role in urban and rural development. Item (f) reveals that 39% of the respondents were of the view that community development has played an active role in the development of rural areas, 22% said it has played a positive

role, 19% said it has played a negative role, 13% said it has played a passive role and 9% said it has played no role. This implies that community development has played an active role in urban and rural development especially in the study area.

Table 6: Effect of urban problems/rapid population growth on transportation system

S/N	Problems	Very Severe	Severe	Mild	No Effect
a.	Unemployment	44 (44%)	18 (18%)	14 (14%)	24 (24%)
b.	High crime rate	42 (42%)	26 (26%)	12 (12%)	20 (20%)
c.	Housing congestion	50 (50%)	22 (22%)	8 (12%)	20 (20%)
d.	Increased epidemic diseases	20 (20%)	38 (38%)	20 (20%)	22 (22%)
e.	High cost of living	42 (42%)	22 (22%)	16 (26%)	20 (20%)

Source: Fieldwork 2019

Table 1.5 shows the various responds of the respondents on the effect of urban problems/rapid population growth on transport facilities. Item (a) shows that about 44(44%) of the respondents indicated that the effect of urban problems/rapid population growth on transport facilities in terms of unemployment is very severe, 8(18%) said the effect is severe, 14(14%) indicates mild effect, 24(24%) indicates no effect. This is an indication that unemployment which is majorly caused by urban problems/rapid population growth has a very severe effect on transport facilities. Item (b) shows that 42(42%) of the respondents affirm that the effect of urban problems/rapid population growth on transport facilities in terms of high crime rate is very severe, 26(26%) said the effect is severe, 12(12%) indicates that the effect is mild, 20(20%) indicates no effect. This implies that high crime rate and increased robbery which is majorly caused by urban problems/rapid population growth has a very severe effect on transport facilities.

Item (c) depicts that 50(50%) of the respondents indicated that the effect of urban problems/rapid population growth on transport facilities in terms of housing congestion is very severe, 22(22%) said the effect is severe, 8(8%) said mild effect, 20(20%) indicates no effect. This means that housing congestion which is majorly caused by urban problems/rapid population growth has a very severe effect on transport facilities.

Item (d) reveals that 20(20%) of the respondents indicated that the effect of urban problems/rapid population growth on transport facilities in terms of increased epidemic diseases is very severe, 38(38%) indicates that the effect is severe, 20(20%) indicates a mild effect, 22(22%) indicates no effect. This implies that increased epidemic diseases which is majorly caused by urban problems/rapid population growth has a severe effect on transport facilities.

Item (e) shows that 42(42%) of the respondents indicated that the effect of urban problems/rapid population growth on transport facilities in terms of high cost of living, 22(22%) said the effect is severe, 16(16%) indicates a mild effect, 20(20%) indicates no effect. This implies that high cost of living which is majorly caused by urban problems/rapid population growth has a very severe effect on transport facilities.

Table 7: Causes of rapid population growth in the area

Causes	Frequency	Percentage (%)
Demographic causes	52	52
Environmental causes	8	8
Economic causes	22	22
Social causes	18	18
Others	0	0
Total	100	100

Source: Fieldwork, 2019

Table 1.6 above, 52% of the respondents indicated that demographic changes is the major causes of rapid population growth in the area, 8% said environmental causes, 22% said economic causes and 18% of the respondents said social causes is the major demographic causes of rapid population growth in the area. This implies that economic cause's especially favourable economic growth and better standard of living rural-urban migration and increased birth rate are the major demographic causes of rapid population growth in the area.

Table 8: Consequences of population growth on the transport facilities of Mubi North

Effects	Frequency	Percentages (%)
Housing congestion	34	34
Poor yield in agricultural produce due to overcrowded farmland	22	22
Social vices	14	14
Increase in crime rate	22	22
Unemployment/high level of illiteracy	8	8
Others	0	0
Total	100	100

Source: Fieldwork 2019

The table 1.7: shows that 34% of the respondents indicated that housing congestion is the most severe consequences of population growth on the transport facilities in the area, 22% said poor yield in agricultural produce due to overcrowded farmland, 14% said social vices, 25% said increase in crime rate, 13% said unemployment/high level of illiteracy and 0% mentioned other consequences of population growth in the area. This implies that population growth has severe effect on transport facilities in the area.

Table 9: Level at which population increase have affected transportation system in the area

Level	Frequency	Percentage (%)
High level	42	42
Medium level	32	32
Small level	16	16
Low level	10	10
Total	100	100

Source: Fieldwork, 2019 .The Researcher

The table 1.8 above shows that 42% of the respondents indicated that population increase have affected transportation system in the area at a very high level, 32% said medium level, 16% said small level and 10% said low

level. This implies that population increase has to a high level affected transportation system in the area.

Table 10: Remedies to solve the problems of transportation in the area

Remedies	Frequency	Percentages (%)
Provision of good road infrastructure	15	15
Provision of good road network/maintenance	20	20
Government should provide speed limits to avoid accidents	7	7
Government should employ experienced and qualified drivers	6	6
Improved transport system	43	43
Improved traffic system	3	3
Government should establish other transport unions	5	5
Others	1	1
Total	100	100

Source: Fieldwork 2019

The table above reveals that 15% of the respondents suggested that the government/private individuals should provide good road infrastructure in rural areas, 20% suggested that government should provide good road network and there should regular maintenance of existing road networks, 7% of the respondents suggested government should provide speed limit to regulate over speeding and prevent frequent road accident, 6% suggested that government should employ experienced and qualified drivers in the case of government owned transportation companies, 43% suggested that government should improve the transport system, 3% suggested that there should be improved traffic system to regulate driving speed especially when crossing busy roads, 5% suggested that government should established other transport unions other National Union of Road Transport Workers (NUTRW) and 1% suggested other ways to solve transportation problems.

Conclusion

These research findings shows that Land transport is the widely mode of transport in the area. The rural dwellers mostly use road transport because it is easily accessed, best convenient and affordable. With the rapid population growth and urbanization, population growth is having a great influence on transportation facilities in Mubi- North

Recommendations

The government/private individuals should provide good road network, basic infrastructure such as rural electrification and power supply to the rural populace. Government should embark on maintenance and rehabilitation of existing roads, provide speed limit to regulate over speeding and prevent frequent road accidents. There should be improvement on the transport system through the provision of basic amenities and community services. Let there be improved traffic system to regulate driving speed especially when crossing busy roads. Government should organize public awareness/enlightenment program to educate the inhabitants on the implication of rapid population increases and uncontrolled migration in Mubi North. Community services should be provided to the urban and rural dwellers.

References

1. Adedotun, S. B., and Adedotun, D.O. (2014): „Road Concession and Pricing: Panacea for Urban Road Sustainable Development in Osun State, Nigeria“. International Journal of Comparative Studies in International Relations and Development Vol 3 No. 1, July 2014.

2. Aderamo, A. J. (2012): Urban transportation problems and challenges in Nigeria: A planner’s view. www.primejournals.org/pre

3. Adesanya O. (2011) Mass transportation and city sustainability, paper presented at the Nigerian institute of town planners (NITP) and town planning registration council of Nigeria (TOPREC). Mandatory Continuing Professional Development Programme (MCPDP) 2011 edition Ibadan Nigeria.

4. Ajiboye, A.O. and Afolayan, O. (2009). The Impact of Transportation in Agricultural Production in a Developing Country: A Case of Kolanut Production in Nigeria. International Journal of Agricultural Economics and Rural Development, 2(2), 47-57.

5. Musa, I. J. (2003). Effects of Roads Development in Agricultural Marketing in Greater Zaria. Journal of Nigerian Institute of Transport and Technology. Vol 2 (6)

6. National Research Council (2013): Rapid Population Growth: Consequences and Policy Implications, 2 vols. (Baltimore, MD: Johns Hopkins University Press).

7. Peter Y. (2011). Application of satellite Remote Sensing and GIS for mapping road networks in Mubi metropolis IN Rodrique J. The Geography of transport systems.

8. Precious, O. E. (2011).An Analysis of the Effects of Road Transport Development on Spatial Integration in Kaduna State. An Unpublished M.sc. Thesis, Dept. of Geography, Faculty of Science, Ahmadu Bello University, Zaria.

9. Umar, A. (2011). The Effect of Road Transport Development on Marketing and Distribution of Food Grains in Katsina State. An Unpublished M.sc. Thesis, Dept. of Geography, Faculty of Science, Ahmadu Bello University, Zaria. Kaduna State, Nigeria.