

IMPACT OF POPULATION GROWTH ON TRANSPORT FACILITIES IN ILORIN METROPOLIS, KWARA STATE, NIGERIA

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Abstract

This paper examined the socio-economic impact of population growth on transport facilities in Ilorin Metropolis. The aim of the study is to examine how various indicators of population growth has impacts both positively and negatively on transportation facilities. The study population comprised of all the road users in Ilorin Metropolis. A random sample of 15 workplaces was selected including traditional markets, educational institutions, motor garages and government offices. A purposive sample of ten (10) persons was chosen to obtain 150 potential respondents, structured questionnaire was administered. Data was obtained on population growth, adequacy of transport facilities and social impact from 126 actual respondents. The major findings indicated that: (i) Urban population growth in Ilorin Metropolis is rapid; (ii.) Transport facilities are inadequate; (iii) Social impact involving transport coverage, transport safety, social cohesion, air quality, noise quality and social amenities availability is negative. Modern planning measures should be deployed by the government to address the negative socio-economic impact of population growth on transport facilities in Ilorin metropolis.

Keywords: Population Impact, Socio-economic, Transportation, Urbanization

Introduction

In recent years, Nigerian cities have experienced rapid population growth as a result of increasing population. According to Clewlow and Mishra (2017), the main reason for this rapid increase in population is not far from uncontrolled migration and rapid urbanization. Nigerian population has gathered momentum. It will continue to increase for some time even if there is a favorable change towards family planning and birth control. Increasing population at the expense of economic development is inimical to peoples' wellbeing and development. An increasing population has consequences and implications mostly for a country like Nigeria especially on family income. Jiboye (2016) reported that, overall population growth and increasing urbanization have led, especially to the rapid growth of large cities, which have been overwhelmed by the sudden jump in travel demand, furthering that the supply of transport infrastructure lagged far behind and therefore concluded that public sector finance are so limited that funding for transport improvement is woefully inadequate.

Thus, population control is seriously needed if Nigerians are to leave sustainability, but the question is; where is population control needed most in Nigeria and what might inhibit its success? A lot of factors have been noted to work simultaneously to inhibit population control in Nigeria (Oramah, 2018). What then are the implications of exceeding the carrying capacity in an ecosystem? One of the following two things can happen in the very near future if the carrying capacity is exceeded. If the carrying capacity is not exceeded by a great deal, then the population will simply decrease back to the carrying capacity. Such a decrease takes place over a relative short period of time, resulting in what is known as a population crash or dieback. If on the other hand, the carrying capacity is too far exceeded, the population will crash to zero.

Recent reports from the International Programs Center, U.S. Bureau of Census projected the total population of the world to be at 6.4 billion (September, 2005 estimate). Currently the world's population growth rate which stands at about 1.4% (2000 est.), when applied to the world's population of 6.4 billion (Sept. 2005 est.). This represents an annual increase of about 85-90 million people. Because of the large and increasing population size the number of people added to the global population will remain high for several decades. It has been estimated that between 2000 and 2030, nearly 100% of this annual growth will occur in the less developed countries in Africa, Asia and Latin America, whose population growth rates are much higher than those of more developed countries.

At the moment, Nigeria's growth rate is projected at 2.56% (NPC, 2006) annually. With this high growth rate and supplying the doubt time growth analysis, Nigeria's population will be expected to have added 3,072,000 persons the first year of the estimate; and 3,150,643 the second year. This means that at 2.56% growth rate, it will take Nigeria to double in size in approximately 27 years (Oramah, 2018).

Ilorin's population is now estimated at 973,671. In 1950, the population of Ilorin was 113,565. Ilorin has grown by 23,805 since 2014, which represents a 2.51% annual change (Babatunde *et al*, 2014). These population estimates and projections come from the latest revision of the UN World Urbanization Prospects. These estimates represent the urban agglomeration of Ilorin, which typically includes Ilorin's population in addition to adjacent suburban areas.

Study Area

Ilorin the capital city of Kwara state is located on Latitude $8^{\circ}30'N$ and $4^{\circ}35'E$ and Longitude $4^{\circ}57'N$ and $8^{\circ}52'W$ (Figure 1). It lies in the plain of the South Western Party of Nigeria. The city is about -306km from Lagos, 600km from Kaduna and about 500km from Abuja, the Federal Capital city of Nigeria. At present, the city of Ilorin cuts across three (3) Local Government Areas namely Ilorin West, Ilorin East and Ilorin South Local Government Area, the pace of urban growth is historically unprecedented with rates of growth typically increasing in late 19th century. For instance the 1991 census shows that Ilorin had a population of 532,088 while the 2006 census figures shows that the figure had increased to 864,755 (NPC, 2006). Thus within 15 years the city's population had increased by 75% showing annual rate of 2.6% and it is believed that by year 2020 the population of Ilorin will reached 3,518,771(Babatunde, et al 2014)

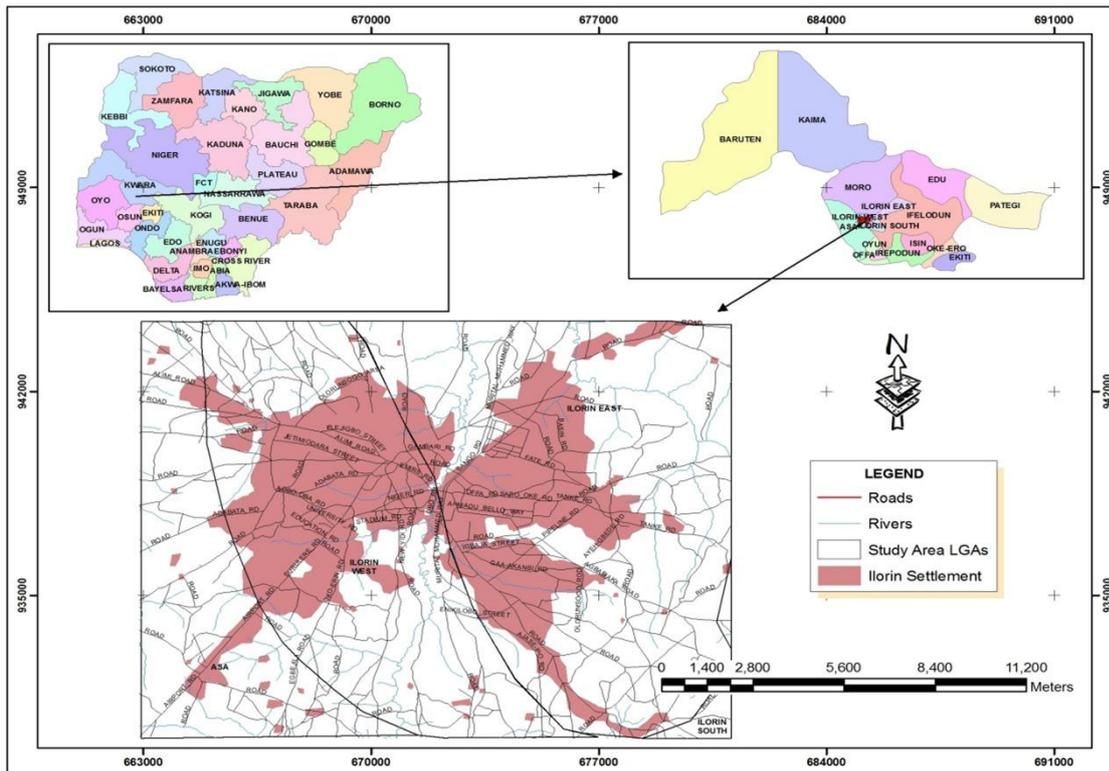


Figure 1: Map of Kwara showing the study Area

Source: Oriola and Kolade (2014)

Literature Review and Conceptual Framework

Concept of Transportation

Transportation is important in physical and economic development of towns and cities all over the world. In most communities, a large fraction of the working population travels daily in one form of mechanized vehicles or the other to and from work not to mention journeys made for recreation, shopping and other social activities goods are also shipped over a long distance to provide those materials, which are part of the expected standard of living. Transportation is an integral part of the functioning of any society and advanced in transportation have made possible changes in the way we live and the way societies are organized. Transportation exhibits a close relationship to the style of living, the range and location of productive and leisure activities and the goods and services, which will be available for consumption. The route network coupled with increase transport investment result in changed levels of accessibility reflected through savings in travel time, and other benefits.

Traffic Congestion

In general, cities, are perceived as places where one could have a better life; because of better opportunities, higher salaries, better services, and better lifestyles. The perceived better conditions attract poor people from rural areas. People move into urban areas mainly to seek economic opportunities. In rural areas, often on small family farms, it is difficult to improve one's standard of living beyond basic sustenance. Thus, the most important transport problems are often related to urban areas when transport systems, for a variety of reasons, cannot satisfy the numerous requirements of urban mobility (Rodrigue *et al*, 2006). One of the most significant urban transport problems is traffic congestion. It is experienced when the supply of the urban transport networks can no longer meet the demand for them.

Today nearly all cities in both developed and developing countries suffer from traffic congestion. It manifests itself predominantly in recurrent queues, delays and time wastage which commuters experience along major networks especially during rush hours.

Population Growth

Population growth can be defined as an increase or decrease in the population size of living species including human beings. Human populations are also subject to natural process of birth and death. There has been a rapid increase in the world's human population over the last few decades (UNFPA, 2011). Unless urgent steps are taken to control population, serious problems can arise like environment damage and limited availability of food resources. Continuous population growth can be problem and therefore it is important to understand how we can manage population growth for the benefit of all. Human beings have tried to make food resources available for all the population in many ways. Starting from the industrial revolution, advances in modern medicine, and green agriculture revolution have all made us self-sufficient so far. However such technology development cannot go forever and therefore unless we manage population a day may come when all resources will be finished.

Table 1: Population Growth of Ilorin

1911-2020 Year	Total Population
1911	36,343
1921	38,700
1931	100,592
1952	136,704
1963	208,546
1970	251,994
1982	400,000
1991	532,088
2003	801,888
2006	864,755
2010	2,682,963
2015	3,059,145
2020	3,518,771

Source: Babatunde, *et al* (2014)

Urban Sprawl

The rapidity with which towns grow a much more noticeable in the developing than in the developed countries. Growth in the developing countries, including Nigeria has been described, recently with the word sprawl. The word sprawl connotes new growth, more occupancy of land at the city periphery, area expansion of cities, the rapidly of growth, and painlessness of growth (Conley, 2002). Several causes of sprawl have been adduced. One of the problems associated with urban sprawl is that of extending utilities and facilities such as water, electricity, school and transport facilities (Fatele, 1982). There is an increasing recognition that the growth of cities is inevitable and the solution to urban problems depends heavily on effective urban planning, infrastructure development and management. Rapid and often unplanned population growth is often associated with population demands that outstrip infrastructure and service capacity and leading to environmental degradation.

Materials and Methods

In this study, the descriptive survey research design was used, since it was carried out among selected road users out of a large population of road users. Descriptive research

design was carried out based on the existing status of the variables. These are population growth and transport facilities. The instrument that was used is questionnaire which was used as an interview protocol as the situation demands. Data was analyzed using frequencies and percentages means.

Results and Discussions

The major findings of this study is that population growth in Ilorin Metropolis is rapid. The trend in population from 1991 to 2020, with the population of 36,343 in 1991 and being projected to be 3,518,771 by the year 2020. This shows that the population trend is fast arising and increasing rapidly. Babatunde, *et al* (2014), Aderamo (2012), Ahmed (2013) and Adekunle, Aderamo and Atomole (2011) have also discovered that the population of Ilorin city was growing rapidly.

Three of the eight indicators of social impact attract positive assessment by the respondents. These three are transport flow, social cohesion and transport reliability. The remaining five indicators of social impact are negatively assessed, including transport coverage, noise quality and air quality. On the whole the social impact of population growth on transport facilities is not significantly positive. The social impact of population growth on transport facilities was found to be negative in this study. Aderamo (2002) had described the traffic situation in Nigerian cities as chaotic. Indiscriminate boarding and alighting of passengers occur along many routes, causing traffic congestion and increased accident risks (Ogunleye, 2004). Traffic gets muddled up with cars, buses, motor vehicles and pedestrians struggling to move passengers and goods to major commercial areas of the city. The result situation is one of noise, violence and unnecessary long queues. Moreover Aderamo (2012), Ahmed (2013) Akindele, Ogunleye and Muili (2014) have found that challenges of urban transportation led to congestion, energy consumption, air pollution and traffic accidents.

Table 2: Nature of Social Impact of Population Growth on Transport Facilities

S/No	Indicators of Social Impact	Total Score	Mean	Remarks
1.	Transport flow	328	2.6	Positive
2.	Transport safety	313	2.5	Negative
3.	Transport reliability	332	2.6	Positive
4.	Transport coverage	298	0.8	Negative
5.	Social Amenities Availability	302	2.4	Negative
6.	Social cohesion	340	2.7	Positive
7.	Noise Quality	300	2.4	Negative
8.	Air Quality	310	2.5	Negative
Grand Mean			2.0	Negative

Three of the four indicators of economic impact of population growth on transport facilities are positively assessed. They are property value, employment generation and fuel consumption. Support for industrial and commercial ventures is negatively perceived by the respondents. On the whole, however, the economic impact of population growth on transport facilities is significantly positive. Finding of this study is that the economic impact of population growth on transport facilities is positive. The indicators of economic impact include proper value like prices of land and houses, which have gone up. The same can be said of employment generation and fuel consumption by vehicles. Agarwal, Gurjur and Gupta (2016) discovered that this was true of city bus services impact in developing countries.

Table 3: Nature of Economic Impact of Population Growth on Transport Facilities

S/No	Indicators of Economic Impact	Total Score	Mean	Remarks
1.	Property Value	350	2.8	Positive
2.	Support for industrial and Commercial ventures	300	2.4	Negative
3.	Employment Generation	368	2.9	Positive
4.	Fuel consumption	357	2.8	Positive
Grand Mean			2.7	Positive

Conclusion and Recommendations

One of the four indicators of economic impact was negatively perceived while two of the eight indicators of social impact were positively perceived by the respondents in this study.

- (i) Rapid population growth and inadequate transportation in Ilorin Metropolis have negative social and economic impact.
- (ii) Despite the problems and challenges, government should take on more responsibilities to address the challenges and take advantage of the prospects inherent in urban growth and transportation.
- (iii) Measures can be undertaken such as sustain the provision and maintenance of motorable roads in order to reduce traffic congestion, improve vehicular flow in the Ilorin Metropolis and also establish garages and loading bays, bus stops, and car parks for intra-city buses and taxi cabs to ensure transport reliability and safety.
- (iv) Embark on modern town planning to address issues of chaotic transport situation in parts of Ilorin metropolis such as making available adequate parking spaces and adequate spaces for boarding and alighting and there should be provision of off-street parking facilities in designated parts of the Metropolis to cut out on-street parking and traffic congestion so as to reduce the congestion and improve the economic activities within the study area Ilorin metropolis.

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