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## **INTRA-URBAN TRAFFIC CONGESTION IN SOME SELECTED AREAS OF METROPOLIS CITIES IN INDIA: A GEOGRAPHICAL ANALYSIS**

Dr. Vineet Bala  
Associate Prof. Department of Geography  
Vaish College, Rohtak

### **Abstract :**

*India's metropolis and its transport system are intricately interdependent. The effect of transport on the city either at the intra urban level or at the level of the spatial evolution of the city is significant. It is in this vein that research work strives to geographically analysis intra urban traffic problems in Indian metropolis with particular attention to which local government areas traffic congestion occurs, what routes and at what particular point on these routes congestion occurs. This gap has however witnessed a backstop in previous literatures as little contribution has been made to the aspect of the research. Data were collected from primary and secondary. Two sets of questionnaire were used for motorists and commuters in each local government areas under study. The questionnaires were divided into two sections. Section A contained information on social economic characteristics of respondents and section B contained general information on purpose of trip generated areas of congestion, points of congestion, causes of congestions as well as ways of and how thing traffic congestion in the study areas..The study shows that urban transportation is a two-edge sword that is, transport contribute to the growth of urban environment and also brings some negative effectiveness to it. Be that as it may, transport is necessary evil that cannot be avoided in our environment. What we need do is to find means of mitigating the negative impact of transport which has been highlighted in the recommendation but may not be exhaustive.*

**Key words: Transport, traffic congestion, intra-urban, environment.**

### **INTRODUCTION**

The efficient movement of people and goods is essential to the economic development of any urban area, particularly a growing one like Lagos. The fact that transport is a derived demand from which every other sectors of the economy relied upon for effective functioning demands that urban planning should allows interaction of land development and transportation facilities that encourages the most desirable pattern and character of urban growth. Adenle(1981)observed that the urban transportation problems are as a result of the fast growth of the urban areas both in terms of population and area size. Urban based activities such as commerce, construction, manufacturing and general government presence are catalysts which had made urban centers grow more rapidly, which in turn encourages an accelerate the tempo of rural-urban migration Transportation infrastructure is one of the most important factors for a country's progress. in the modern context, transport demand in metropolitan cities has increased substantially, due to increase in population. These cities account for a larger share of total urban population- a trend that has been observed since independence. The present form of transportation system includes private and public transport has emerged as a result of intense development in the urban areas and offers both merits. and demerits. The existing transportation system in these cities experiences numerous traffic and environmental problems such as severe traffic congestion and road accidents.

### **METHODOLOGY**

Due to the nature of this study, two types of data were used. They are primary and secondary data. These sources included field survey carried out by the researcher. Data were collected with questionnaire went direct observations and interviews. Two sets of questionnaires were used for motorists and commuters in each local government area under study. The questionnaire was divided into two sections, section A Contained information on socioeconomic characteristics of respondents and section B contained general information on purpose of trip generated areas of congestion, points of congestion, causes of congestion as well as ways of and how thing traffic congestion in the study area. Personal observation and interviews were made to supplement the data on the questionnaires. The secondary data was collected from the Lagos State Ministry of Transport,

### **SAFETY AND POLICY MEASURES TO IMPROVE METROPOLITAN TRANSPORTATION**

It covers institutional responsibility of road safety action plan, raising safety action plans raising awareness and understanding of road safety problems, road crash data systems, and enforcement of traffic laws. We have to develop a road safety plan which should be prerequisite for achieving measurable long term and midterm road safety targets. A simple but effective monitoring and evaluation system is required to track the progress of road safety



activities and to estimate the safety impact. The introduction of self enforcing techniques in road designs is likely to have better short term result than improving vehicle standards. Policy measures to improve urban transportation in India: to resolve the transportation problems is the highest priority of Indian authorities. Transportation plans should emphasize on public transport system. Very few urban bus transport systems in India have been able to keep pace with the very rapid and substantial increases in travel demand of the last few years. Furthermore, transport policy should encourage the need for developing 'green' modes like bicycling, walking, through a provision of pedestrian paths and cycle tracks especially in new development areas of larger cities and small and medium towns which should be integrated with the transport network. The application of Transport System Management (TSM) strategy such as one-way systems, improvement of signals, traffic engineering improvement measures for road network, intersections, bus priority lanes, and suitable policies and development of intermediate passenger transport as a short-term measure should be introduced in all cities especially in metropolitan cities so that the existing road capacity and road user safety is increased. Road infrastructure improvement measures like new road alignments, a hierarchy of roads, a provision of service roads, by-passes, ring roads, bus bas, wide medians, intersection improvements, construction and repair of footpaths and roads, removal of encroachments, good surface drainage etc. should also be introduced at least in metropolitan cities. These can be considered as short and medium-term measures.

### **METROPOLITAN TRANSPORTATION AND INFRASTRUCTURE**

Metropolitan cities in India have grown at an unprecedented rate in recent years. A number of initiatives and projects have been taken in the field of urban transport and related infrastructure to solve the transportation issues and mobility. In general, the percentage of space used for transportation is far less and insufficient. Out of the three cities undertaken for study Mumbai, Kolkata are served by railway systems. Delhi with a population of about 12.7 million is the alone mega city which does not have an urban railway system. Delhi and Kolkata are served by well organized bus services. Virtually, if we look through then, there are no buses in India specifically designed for urban conditions. Delhi: Delhi has a significant reliance on its transportation infrastructure. It has a developed a highly efficient public transportation system with a rapid modernization and expansion. There are 16.6 million vehicles registered in the city, which is the highest in the world which does not follow any pollution norms. Delhi is connected to various parts of country through several national highways. Most of the highways from Delhi lead to Haryana or Uttar Pradesh and continue from there. Delhi is directly connected to the state of Haryana by The Delhi-Gurgaon Expressway and National Highway 8 to city of Gurgaon, National Highway 2 to the city of Faridabad, National Highway 1 to the city of Panipat, and National Highway 10 to the city of Rohtak. Delhi is directly connected to the state of Uttar Pradesh by the DND Flyway to the city of Noida. Delhi has 5 highways:

### **RECOMMENDATION**

It is in line with previous conclusion that the following recommendations are made towards reducing the problems of traffic congestion in the study area.

#### **Use of non-motorized transport**

The volume of commuter travel by motorized means should be reduced while non-motorized means such as bicycles and walking should be encouraged. These nonmotorized means will help in reducing air and noise pollution, promote personal fitness and good health, reduce energy consumption, reduce fatal accidents in addition to provision door to door services and making use of less space of parking.

#### **Telecommunication**

With the recent proliferations of the usage of the Global System for Mobile Communication (GSM) in Lagos, it is hoped that tele banking, teleshopping and telecommuting would be on the increase and subsequently reduce physical contacts hence, volume of commuter travel by motorized means of transportation in the metropolis.

#### **Traffic restraint methods**

In Indian metropolis, most areas are characterized by narrow roads, which create problems for smooth traffic along such narrow corridors. The adoption of the following traffic management techniques will however help in reducing traffic in Indian metropolis. The techniques are as follows: Road capacity enhancement scheme, one-way streets or system, Traffic sign (that is, pavement marking, road signs etc), Pedestrian safety measures (that is, traffic Islands, guardrails, crossmarkings etc) vehicle parking regulations and controls, modernization of junction controls (that is, priority control, signalization, improved signal through coordination and computerization), routing and operational polices for heavy goods vehicle and high occupancy vehicles among others.

#### **The use of mass transit/bus priority**

The use of mass transit has an advantage in moving more people than tax-cabs and mini-buses. In addition to this, the space occupied by smaller vehicles will be well reduced, if larger buses, trains and ferries are patronized. The incorporation of bus only lanes on highways will also help in easing congestion.

#### **Intermodal coordination**

A single means of travel may not be able to serve adequately intra-urban needs. Since the environment of Lagos State has a terrain that is dominated by both land and water, a means of incorporating both means will help in



reducing the burden on only one means of travel. For example, it is possible for a commuter who intends covering Sango to Lagos Island to take a bus to Oshodi, from Oshodi take a train to Apapa and from Apapa take a ferry to C.M.S. Using this modal split and coordination approach; the negative impact of one mode constituting too much traffic on the road would be eliminated.

### **Traffic education**

Another veritable approach to reducing traffic problem is to embark on mass education of road users. This should involve student's drives, commuters and traffic offenders. There should be a curriculum development that would cut across all segments of the society and should be incorporated in the educational syllabuses at primary, secondary and tertiary institutions. The programme could also make use of Road Safety campaigns, Posters, Mass media (radio, television etc) bills and slogans. In addition to the aforementioned, government at federal, state and Local level should put in place policies to the following effects:

1. Creation of more parking spaces in the Local government.
2. Rehabilitation and expansion of roads.
3. Construction of drainage channels.
4. Removal of markets along roadsides.

It is hoped that if the aforementioned are strictly adhered to the problems of traffic congestion will be reduced in the metropolis.

This study shows that urban transportation is a two-edge sword that is, transport contribute to the growth of urban environment and also brings some negative effectiveness to it. Be that as it may, transport is a necessary evil that cannot be avoided in our environment. What we need do is to find means of mitigating the negative impact of transport, which has been highlighted in the recommendation but may not be exhaustive. As situations demand, solution should be proffered by taping experiences from both commissioned and researched works to formulate and recommend transportation policies that would be enduring and make the environment of Lagos state livable and capable of sustainable the raising population of vehicle in the near future. It is on this note this research has attempted a geographical analysis of intra-urban traffic pro

### **CONCLUSION**

In history, urbanization is known to be one of the most significant factors of transformation of human society. With rapid urbanization and economic growth comes motorization accompanied by the negative externalities of traffic congestion, which has engendered several challenges and problems to humanity. However, it is recognized that a sustainable urban transport development cannot be isolated from the broader social and economic development of any country as they are interdependent and are mutually reinforcing components of sustainable development. The transportation system is the lifeline of the metropolitan cities. It is the need of time that several implementations should be done in the transportation system. As a result of urbanization problems like pollution, congestion, road accidents are increasing day by day. The development of the transportation system couldn't make in pace with the rapid population explosion and urbanization. The public transportation system should be given more attention as if it would be developed in a concise and cogent manner so many of the problems can be abandoned. The condition of roads should be improved; crash points should be highlighted in order to reduce the number of accidents. Intelligent traffic system used for efficient traffic management in other developed countries should undergo adaptation and innovation to fit with the contrasting traffic characteristics of India. It is an eminent way to resolve, or at least minimize traffic problems. Its major aim is to evaluate, analyze and integrate information and communication technologies and concepts to achieve the traffic efficiency, improve environmental quality

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