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# A TRANSFORMATION OF CITY BUS TRANSPORT OF KOLKATA (WITH SPECIAL REFERENCE TO SELECTED ROUTE FROM GARIA TO HAORA)

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# **Abstract**

Buses contribute as the most important mode of public transport in all cities. Rapid urbanization has generated corresponding increase in the sharp rise in ownership of vehicles in Kolkata. In 2005 ministry of urban development, Govt. of India launched the Jawaharlal Nehru national urban renewal mission (JNNURM). This paper focuses on this transformation. For the purpose of study selected routes of buses are taken between Haora to Garia. The main objectives of this study is to analyse: Present condition of bus transport, the impact of ban of 15 years old bus, the impact of JNNURM bus, the perception of bus owners, the perception of passengers, the perception of labourers.

**Keywords:** JNNURM, Public Transport, Urbanisation, Transformation



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#### Introduction

Buses contribute as the most important mode of public transport in all cities. Kolkata has a population of more than 10 million. Rapid urbanization has generated corresponding increase in the sharp rise in ownership of private vehicles.

As a result the problem of congestion and its consequences in the form of travel delays, loss of productivity, deterioration in the quality of air, noise pollution and mounting number of road fatalities are the debilitating downsides of life in the urban areas.

To combat this situation govt. have adopted Urban Renewable scheme

- Govt. was forced to ban 15 years old buses
- To buy new buses under JNNURM scheme

In 2005 ministry of urban development, Govt. of India launched the Jawaharlal Nehru national urban renewal mission(JNNURM).

# **Location Of Study Area**

For the purpose of study selected routes of buses are taken between Haora to Garia.It includes mainly Kolkata Municipal Corporation and a portion of the surrounding suburbs.For primary survey selected routes are taken.

#### **Aims And Objectives**

The main objectives of this study is to analyze:

- Present condition of bus transport
- The impact of ban of 15 years old bus
- The impact of JNNURM bus
- The perception of bus owners
- The perception of passengers
- The perception of labourers

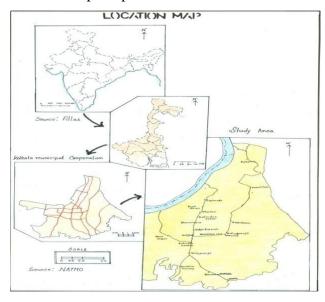


Fig 1. Location Map

# **Background Of The Study**

- Following the High Court Order in 2009, 15 year old buses were banned in Kolkata Metropolitan area.
- The result of this was scarcity of buses that the people of the city faced during that period.
   The main problem was faced by the passengers.
- The state government then bought 512 buses under Jawaharlal Nehru National Urban renewal Mission. The cost of each bus was 20 lakhs. The government had to take loan from the banks. Out of these 512 buses 496 buses were handed over to the private bus owners under the condition that they have to pay 50 % of the amount of the bus which is 10 lakhs. They have to repay the amount at a monthly installment of 22 thousand rupees.
- But at present the bus owners have paid only 20 % to 50 % of the loan amount. Some of them are not even willing to pay the money. In that case the loan amount is increasing due to delay of payment and at the end of May 2013 the loan amount has increased to 34 crore and 93 lakhs rupees.
- The bus owners are also facing problems like hike in fuel price, parts and maintenance of the buses etc. The maintenance cost of JNNURM buses is also high compared to the other buses. So the bus owners are also facing loss. Some of the buses are withdrawn from the streets due to this reason. So they want hike in bus fare. They also demand separate fair sheet for JNNURM buses. The govt. is not ready to increase the bus fair at present.
- The govt. has now decided to run the bus by them to provide services to the common people. The new buses which are bought now will be run by the govt. But this is a matter of huge cost by the govt.

#### **Literature Survey**

India is one of the emerging urban economies in the world. The pace of urbanization continues to be rapid. In 2001, India's total population was 1.27 Billion,28% of which lived in urban areas. The projection say that by 2026, the total population will be 1.4 billion and urbanization level will rise to 38%.

Rapid urbanization has generated corresponding increase in the demand for travel as seen in the sharp rise in ownership of private vehicles. From 1981 to 2001, the number of registered vehicles went up by 7.75 times. (According to Ministry of Urban Development Report.)

Kolkata is also facing similar problems related to traffic congestion and environmental decay.

To combat with the problems related to this Govt. have launched JNNURM scheme.

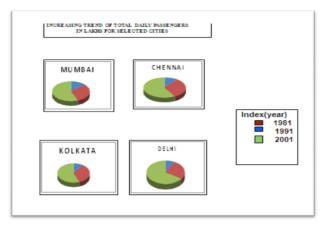


Fig 2. Trend of passengers

# **Population Density**

The area is totally urban center and that is why the settlement is growing so fast here. The population density is very much high. Kolkata is the main center point of West Bengal. It is the main commercial center in the eastern part of India. Therefore the population density is high in this region.

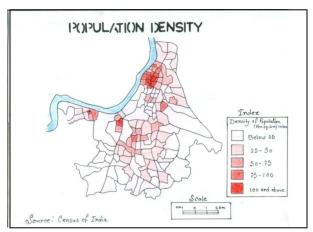


Fig 3 Population Density

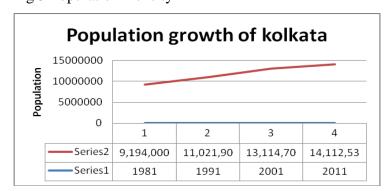


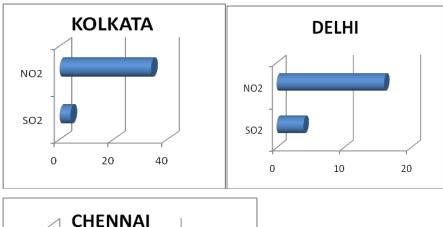
Fig 4 Population Growth

Kolkata urban agglomeration population growth			
Census	Total	%±	
1981	9,194,000		
1991	11,021,900	19.9%	
2001	13,114,700	19.0%	
2011	14,112,536	7.6%	
Source: Census of India			

Fig 5. KUA Population growth

Concentration Of Pollutants In Metropolitan Cities Of India (In ug/m3) Mumbai, Kolkata and Delhi each had a population of more than 10 million.Rapid urbanization has generated corresponding increase in the demand for travel as seen in the sharp rise in ownership of private vehicles.

As a result, the problem of deterioration in the quality of air.



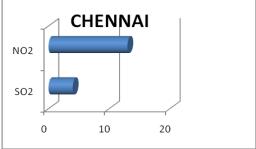


Fig 6 Detoriation of quality of air

# Jawaharlal Nehru National Urban Renewal Mission (Jnnurm)

The mission was launched with an aim to encourage urban level reforms and fast track planned infrastructure development of identified missing cities.

- These cities were selected on the basis of population or them being state capitals, or having certain additional features.
- Under JNNURM financial assistance is being provided to each of the cities for development and implementation for project of water supply, sewerage, drainage, solid waste urban transport, urban renewal, heritage Preservation and slum improvement.
- All other infrastructure sectors, urban transport demanded special consideration.

# **Advantages Of Jnnurm Buses**

- The new JNNURM buses filling the huge void of private buses (after the phase-out of old buses) besides adding to the govt. bus fleet are a welcome change, no short of a mini revolution for Kolkatans familiar dealing with 'tin boxes' called private bus with uncomfortable seating, small wooden windows and more space for standing than seating.
- In a stark contrast the JNNURM buses are big, airy, has modern, comfortable seats with more leg space, large glass windows and low footboard. And, as it should be, they have more seating space.

# **Frequency Of Buses**

In morning hours the number of buses travelling from Haora to Tollygunge is 123 and Tollygunge to Garia 75 buses. There has been an uneven balance between the routes and the buses.

- During the same time the number of buses from Tollygunge to Haora is 129 and Garia to Tollygunge 62 buses.
- In evening hour the number of buses from Haora to Tollygunge is 114 and Tollygunge to Garia is 54 buses.
- From Garia to Tollygunge 45 buses and from Tollyguage to Haora 107 buses.

#### **Fund Allocation**

• In the rules of govt., the cost division is that 50% of the total cost is to be paid by owner of the JNNURM bus and the second is 50% of the total Cost is should be paid by the govt.

• For JNNURM buses govt. has given 50000 rupees for buses of 90000 rupees and 40000 rupees for buses of 800000rupees.

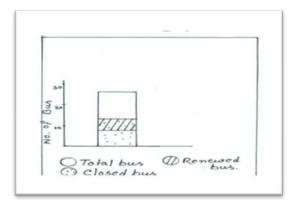


Fig 7.Status of Bus

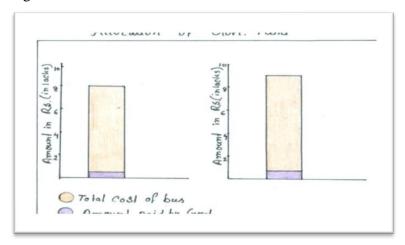


Fig 8 Allocation of Govt Fund

The total amount sanctioned under JNNURM for West Bengal is shown.

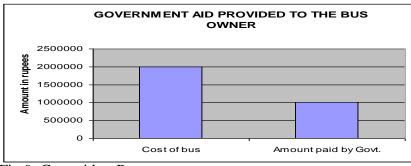


Fig 9. Govt aid to Bus owners

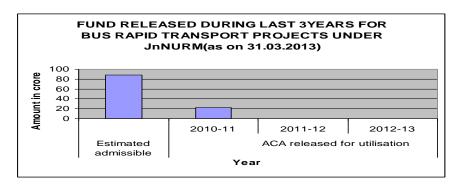


Fig 10 Release of Fund

#### **Types Of Passengers**

Age sex comparison of passengers are that 37-45 years passengers(male & female) are high in no. Followed by 18-37 years of passengers. Passengers of 0-8 years group are least in number. Their purpose of travelling is school, college, office but most of them are travelling for official purpose. Rest of them are travelling for various other purposes.

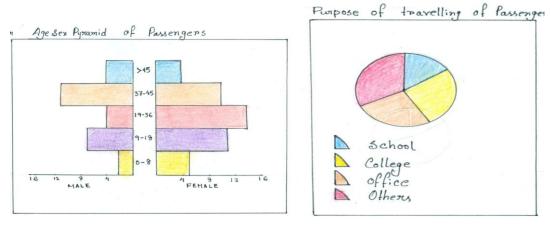


Fig 11 and 12 Age structure of passengers and purpose of travel

# **Types And Perception Of Passengers**

Types of passengers who are travelling in buses are most private sector workers. 60% of them preferred to travel in govt.buses. Other passengers preferred to travel in private buses. Most of the passengers are not satisfied on availability of buses.

Types of Passengers travelling in different category of bus

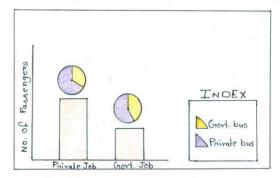


Fig 13 Type ofpassengers

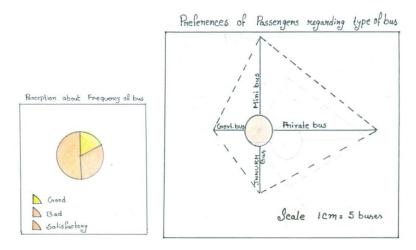


Fig 14 and 15 Perception and preference diagram

# **Fare Chart**

The fare structure of non JNNURM buses is low compared to the AC JNNURM buses. There is also a difference between the fare structure of ordinary buses and Non AC JNNURM buses. The fare of ordinary buses start at Rs 5 for a distance of 1 km and AC JNNURM start at Rs 20 for a distance of 1 km.

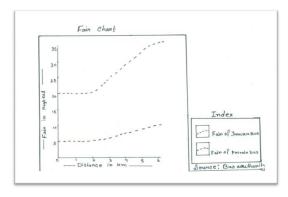


Fig 16 Fair Chart

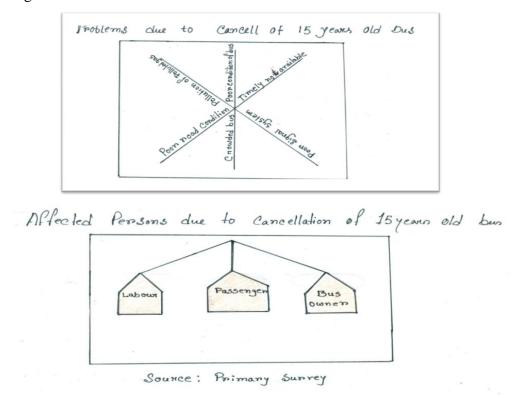


Fig 17 and 18 Problems and affected persons

#### Conclusion

- Thus it can be concluded that due to ban of 15 year old buses the passengers, bus owners along with the labourers are affected. Though Govt. have introduced JNNURM buses with new technology but the cost of these buses are very high. This is causing problem for the bus owners to continue the bus. Unless there is a hike in bus fares.
- So Govt. have to take strong measure in this regard so that the bus owners can maintain the buses and the passengers are also not troubled.

# References

Census of India (2001), Demographic data of West Bengal, Director of Census Operation, West Bengal, Kolkata.

Human development Report, 2004, Development and Planning Department, Govt. of West Bengal, Calcutta, West Bengal.

Report of Ministry of Urban Development, 2010

Saxena H. M, 2005, Transport Geography, Rawat Publication

Statistical Abstract, West Bengal, 2005, Bureau of Applied Economics and Statistics, Govt. of West Bengal.