ISSN 0024-5623

Local Government Quarterly

July - September 2022

A Journal of the
All India Institute of Local Self-Government

- ★ Human Fertility and Population Characteristics: G7 Countries and India's Neighbouring Countries
- ★ Urban Transportation in India: Issues and Remedies
- ★ Barriers from Supply Side for Non-adoption of Family Planning Methods Among Women from Khasi Tribe in India
- ★ Studying the Impact of CSR and Ethics on Changing dynamics of Business and Entrepreneurship

Vol : XCII, No. 3 July - September, 2022

Contents

- Editorial 3
- **Human Fertility and Population Characteristics: G7 Countries and India's Neighbouring Countries** 5
  M.V. Vaithilingam
- **Urban Transportation in India: Issues and Remedies** 27
  S K Kataria, Varsha Sharma
- **Barriers from Supply Side for Non-adoption of Family Planning Methods Among Women from Khasi Tribe in India** 36
  Bhawana Sharma, Vivek K Mishra, Nishtha Singh
- **Studying the Impact of CSR and Ethics on Changing dynamics of Business and Entrepreneurship** 51
  Anish Devale
- Report Review 63
- Our Contributors 68

Local Government Quarterly
Published by the
All India Institute of Local Self-Government

All India Institute of Local Self-Government
M. N. Roy Human Development Campus, Plot No.6, 'F' Block,
TPS Road No.12, Bandra (E), Mumbai – 400051.
Tel : +91 86576 22550 / 51 / 52 / 54
E-mail : dg@aiilsg.org Website : www.aiilsg.org

Local Government Quarterly

Printed by Dr. Jairaj Phatak I.A.S. (Retd.), The Director General, All India Institute of Local Self-Government, at Copytronics, Bandra (E), Mumbai - 400 051 and published by him at the All India Institute of Local Self-Government, 11, Horniman Circle, Mumbai - 400 023.

Urban Transportation in India: Issues and Remedies

S.K. Kataria, Varsha Sharma

"You can't understand a city without using its public transportation system."

— Erol Ozan

Transportation is non - separable part or facility of modern human societies and entire civilization. Transportation is the movement of goods and persons from one place to another and the various means by which such movement is accomplished. From good old days of bullock cart, horse carriage, and hand-pulled rickshaws to modern railways, bus transits, metros, and aircraft, the transport system in India has come a long way. Public transport or mass transit is the unique feature of modern cities which is characterized by a mechanism of transportation for passengers by group travel systems available for use by the general public and typically managed on a schedule, operated on earmarked routes, that charge pre-defined rates for each trip and this system is mainly directed, managed or controlled by the government or public authorities concerned. Indian cities are constantly reshaping themselves to face the modern-day transportation challenges due to rapid urbanization and growing population.

As per Census-2011, around 31 % population in India resides in 7933 cities and towns and about 400 cities have more than one lac population each. In such a complex situation, the Second Administrative Reforms Commission (Sixth Report, point no.5.4.5.2) observes that – "with motorisation growing at over 15 per cent in larger cities, there are significant adverse effects on the urban quality of life due to congestion, pollution and road accidents. In almost all our urban centres, bus transport is the only means of public transport. Rail based systems in varying forms have been set up in Kolkata, Delhi, Mumbai and Chennai. Except Delhi, all others are run by the Ministry of Railways. The Delhi Metro

and the Mumbai suburban rail system have significant passenger traffic. The Delhi Metro is the only example among these of a modern mass transit system. A large number of tier II cities do not have an organised, properly planned public transport system, and the transport services are provided by a heterogeneous mix of private and State-owned operators. Services like taxies, auto-rickshaws, cycle rickshaws also play an important role in the public transport system to fill the gap left by the formal public transport system." The 'Tonga' has been a popular transportation mode since Moghul period in India. Motorised and auto vehicles were being operated in India during British rule. The first motor bus route started on July 15, 1926, and ran between Afghan Church and Crawford Market, Bombay, while cycle rickshaw was first run on the roads of Calcutta in 1930. Modern auto- rickshaw came in existence in 1959. Motor buses have been most popular, widely-used and flexible public transport mode in India since a century. Considering the growing population in cities and resulting traffic congestion, the concept of 'Bus Rapid Transport System' (BRTS) was first introduced in Pune in 2006 and thereafter several large cities in the country experimented with it with mixed results.

Railways in India was first introduced as suburban transportation from Bori Bunder (present day Chhatrapati Shivaji terminus) to Thane on April 16, 1853 and Horse-drawn tram was introduced in Calcutta in 1873 while electric tram started operating first in 1895 in Madras. So far as modern metro rail system is concerned, it was inaugurated first in Calcutta on October 24, 1984. These days metro rail has emerged as a popular and favourite mode of public transport which is operational in Delhi, Kolkata, Mumbai, Chennai, Jaipur, Ahmedabad, Hyderabad, Kanpur, Kochi, Lucknow, Nagpur, Bengaluru, Noida, Pune, Gurugram and it is under construction in Bhopal, Indore, Surat, Thane, Patna, Agra, Allahabad, Varanasi, Visakhapatnam, Meerut, Guwahati, Gwalior, Dehradun, Srinagar, Coimbatore and Bareilly. Kolkata is the only city in India which provides almost all modes of public transportation including metro rail, motor buses, taxis (yellow), auto-rickshaws, tonga, cycle rickshaws, hand–pulled rickshaws (being replaced by Totos i.e., electric rickshaws), ferries and trams.

Indian cities' public transportation system cannot be ranked as satisfactory due to overcrowding, traffic congestion, peak hours rush, environmental impacts, lack of adequate safety measures and issues related with parking, etc. Especially the outskirts of many expanding cities are marked by informal, minimally regulated public transport options.

Violation of traffic rules is a common trend across the country especially in small cities and towns and that lead to severe accidents.

As per the Road Transport Year Book 2017-18 and 2018-19,- "The number of registered vehicles has recorded annual growth at the rate of 9.9 percent during the last ten years (2009-2019) with 296 million registered vehicles in India as on 31st March, 2019. Personalised modes of transport (Cars and two-wheelers) constitute about 88 percent of total vehicular population".

The waves of LPG (Liberalization, Privatization and Globalization) and trends of consumerism have increased number of private vehicles very fast. India is now the sixth largest producer of cars and one of the fastest growing automobile markets in the world. It is considered as the home to almost all the major global automobile brands. The vehicle to population ratio which was 1: 1203 in 1951 grew to 1: 4.6 in 2019. While it indicates the country's growing economy, it has resulted in increase in air and noise pollution, traffic and street congestion, increase in road accidents and spread of life style diseases, etc. National Urban Transport Policy-2006 document says that – "travel in the city has become riskier with accident rates having gone up from 1.6 lakh in 1981 to over 3.9 lakh in 2001. The number of persons killed in road accidents has also gone up from 28,400 to over 80,000 during the same period. This has tended to impact the poor more severely as many of those killed or injured tend to be cyclists, pedestrians or pavement dwellers."

Private vehicles especially bikes and cars hardly solve the problems related with public transportation, rather these vehicles adversely impact the environment and social structure. Number of private vehicles is very different in big cities mainly due to availability of public transport facilities. There are 1 crore vehicles in

Population and Registered Vehicles in India

S.N.	Year	Population	Registered vehicles	Vehicle: Population ratio
1.	1951	36.10 crore	3lac	1 : 1203
2.	1961	43.92 crore	7lac	1 : 627
3.	1971	54.81 crore	11.9lac	1 : 460
4.	1981	68.33 crore	50.4lac	1 : 135
5.	1991	84.69 crore	2crore 14lac	1 : 39.5
6.	2001	102 crore	5.5crore	1 : 18.5
7.	2011	121 crore	12.7crore	1 : 9.5
8.	2019	136 crore	29.6crore	1 : 4.6

Number of Vehicles in Major Cities

S.N.	City	Registered vehicles in 2009	Registered vehicles in 2019
1.	Delhi	58.99 lac	1 crore 14 lac
2.	Ahmedabad	17.80 lac	40.30lac
3.	Bengaluru	26.40 lac	80.10 lac
4.	Bhopal	5.7 lac	10.30lac
5.	Chennai	27.01 lac	60.0 lac
6.	Coimbatore	9.09 lac	20.30 lac
7.	Hyderabad	24.46 lac	20.70 lac
8.	Indore	9.28 lac	10.90lac
9.	Jaipur	12.88 lac	30.0 lac
10.	Kanpur	5.97 lac	10.90 lac
11.	Kochi	2.56 lac	9.0 lac
12.	Kolkata	5.72lac	8.0 lac
13.	Lucknow	9.61 lac	20.30 lac
14.	Ludhiana	6.84 lac	13.36 lac
15.	Madurai	4.40 lac	10.20 lac
16.	Mumbai	11.99 lac	30.10 lac
17.	Nagpur	9.46 lac	15.0 lac
18.	Patna	4.71 lac	16.0 lac
19.	Pune	11.40 lac	27.0 lac

Source- Road Transport Year Book (2017-18 and 2018-19) page-30

Delhi while the figure in Kolkata is just 8 lac. The rapid growth in income levels especially in middle class families and the absence of an appropriate public transportation system boosts vehicular growth in India.

So far as regulatory functions and processes regarding city transportation are concerned they are controlled and directed through many laws of Union government and State governments. Railways, roads, road rules, inland waterways and ferries are the subjects of all three lists .i.e.- Union, State and Concurrent lists under Schedule Seven of the Constitution of India. The urban public transportation in India is governed by various legislations including- The Indian Tolls Act, 1851, The Indian Bills of Lading Act, 1856, The Stage Carriages Act, 1861, The Indian Tolls Act, 1864, The Carriers Act, 1865, The Northern Indian Ferries Act,1878, The Indian Tramways Act,1886, The Land Acquisition Act, 1894, The Road Transport Corporation Act, 1950, The National Highways Act, 1956, The Travancore- Cochin

Vehicles Taxation (Amendment and Validation) Act, 1959, The Delhi Motor Vehicles Taxation Act, 1962, The Specific Relief Act, 1963, The Limitation Act, 1963, The Motor Vehicles Act, 1988, The Carriage by Road Act, 2007, The Central Road and Infrastructure Fund Act, 2010, The National Green Tribunal Act, 2010, etc.

Psycho- Social Impact of Heavy Road Traffic in Urban Areas

Traffic congestion is a common scenario in our urban areas but it is important to understand that its physical and psychosocial impacts are not normal. Continued exposure to congested traffic conditions can lead to development of several adverse behavioural problems such as irritation, frustration, anxiety, aggression, depression, helplessness, and poor sleep quality. The negative effects of traffic congestion can affect the other aspects of one's life including giving rise to conflicts at home, and at the workplace, ineffective communication, inability to manage emotional turmoil, and many more.

Some major consequences of constant exposure to congested traffic in urban areas are as follows-

1. **Adverse consequences for health:** Traffic jams can cause increase in heart related issues, sleepiness, irritation in eyes, backache, body pain, reduced brain functioning, etc. Negative health impacts can increase the risk of road accidents. Rash driving behaviour can exaggerate the existing problems. Hotz (2011) reported that many researches indicate a negative effect of road traffic on public health including heart disease, cancer, respiratory ailments and also damage to brain cells and also learning and memory skills.

2. **Causes Frustration:** The very realization that this traffic jam cannot be controlled in any way can create frustration in the driver. When even after some time the individual comes out of the jam then it is natural to get frustrated. Frustration always leads to aggression. Lajunen (1999) studied relation between traffic congestion and aggression among drivers.

3. **Triggers Anxiety &Stress:** Traffic jams can also trigger anxiety and stress responses due to the delay caused due to the jam. The fear of being late can make the driver anxious and can lead to a stressful experience. Kumar & Verma (2020) conducted a study on mushrooming traffic congestion and its psychological implication for drivers. The study revealed the fact that traffic jams negatively affect the mental health of drivers by increasing in their depression, frustration and levels of stress.

4. **Reduces Tolerance threshold:** Tolerance is the ability to be patient and calm even in adverse situations. The tendency to become easily irritated can be the indication of reduction in the tolerance threshold. Leon (2007) stated that exposure to road traffic is related to hypertension, headaches and heart related issues especially among elders.

5. **Road traffic congestion may create conflicts at home:** Stress on roads may be carried to homes. Due to the irritation caused by traffic jams one can have conflicts or heated discussions with family members. Nadrian et. al (2019) conducted research to understand the family mental health impacts of road traffic and stated that experience of traffic jams can negatively affect the family mental health and can diminish the quality of life.

6. **Road traffic congestion may create conflicts at workplace:** One can face difficulties at the workplace due to irritated mood states due to traffic jams. This state can bring about a feeling of helplessness and frustration when one gets late due to the uncontrollable traffic scenario. Chidi & Ideh (2018) studied the relation between the traffic jams and quality of work life. They stated that constant exposure to road traffic jams can negatively affect their life expectancy and quality of work life.

Some Effective Suggestive Strategies

Some of the strategies to address the above negative fallouts are as follows-

1. **Attitude change in favour of sustainable/public transport:** Over time, the dependence on personal modes of transport has increased. This has exacerbated the problem of traffic congestion. There is a need to come out of the so called 'car culture'. Whenever possible use of cycles, pooling, public transport options should be encouraged.

2. **Strict implementation of traffic rules and fines:** Strict implementation of the traffic rules and also the imposition of fines should be done fairly. It has been noticed that non-implementation of traffic rules may discourage the one who is actually following the rules. Once the punishment and fines are strictly enforced, traffic is likely to become more orderly.

3. **Maximum limit on number of vehicles per family:** Upper limit of number of vehicles per family should be implemented. This may reduce the unnecessary purchase of more and more vehicles. Easy availability of vehicle loans is also

one of the reasons for greater traffic on roads. It should be ensured that only those should be allowed to purchase vehicles that have sufficient parking space at their residence.

4. **Behavioural patterns need to be improved:** There is a need to make improvements in one's behaviour pattern. This could include aspects such as time management, practising relaxation techniques, overcoming procrastination, etc. All these could help an individual cope better with the stress of traffic congestion in our cities.

5. **Inculcating traffic sense:** among the most important, it is necessary to run awareness campaigns which could improve citizens' traffic sense and the adherence to road/traffic rules. Unnecessary blowing of horns, wrong overtaking, rash driving and improper parking all add to the traffic congestion problem and add to stress of road users. These must be avoided. Alongside citizens must respect the rights of other road users and act responsibly.

As per the press release of the Press Information Bureau (24 April, 2015) – "The National Transport Development Policy Committee (NTDPC), constituted under the chairmanship of Shri Rakesh Mohan, submitted its report in 2015 and suggested reforms for development of various modes of transport. These reforms are categorized as immediate reforms and long-run goals. Immediate reforms have been suggested at national, state and metropolitan levels. However, long term goals are for national and metropolitan levels. At the national level, the Committee has suggested the formation of a high-level and independent Office of Transport Strategy (OTS) and to move towards investment and strategy for transport as an integrated system. It has also suggested National Transport Infrastructure Finance to be neutral with respect to means of delivering mobility, sustainability and inclusion goals. At the State level, the Committee has suggested to establish urban transport as a subject to State level and to develop formal mechanisms for State participation in decisions about initiation, siting, size and other aspects of airports and rail-based transport. It has also suggested formation of State-level counterparts of OTS, with particular focus on urban transport. At metropolitan level, the Committee has suggested for creation of Unified Metropolitan Transport Authority (UMTAs) as statutory authority. It further suggested independent budgets expert personnel in all urban agglomerations with population greater than three million and formation of metropolitan planning committees as per Constitutional mandate. The Committee's recommendations include creation of

public-private centres of excellence in urban transport in all cities larger than one million and investment in unified metropolitan databases."

References

1. Report of the Study on Traffic and Transportation Policies and Strategies in Urban Areas in India, Ministry of Urban Development, Govt. of India, New Delhi, May, 2008.

2. Report of the Committee on Road Safety and Traffic Management, Ministry of Road Transport and Highways, Govt. of India, New Delhi, April, 2007 (S. Sundar Committee).

3. India Transport Report: Moving India to 2032, National Transport Development Policy Committee and Routledge, New Delhi, 2015 (Rakesh Mohan Committee).

4. Report of the National Transport Policy Committee, Planning Commission, New Delhi, 1980 (B.D. Pande Committee).

5. National Urban Transport Policy, 2006, Ministry of Housing and Urban Affairs, Govt. of India, New Deli, 2006.

6. National Road Safety Policy, 2010, Ministry of Road Transport and Highways, Govt. of India, New Delhi, 2010.

7. Annual Report, Ministry of Road Transport and Highways, Govt. of India, New Delhi, 2021-22.

8. Sixth Report: An Inspiring Journey in to the Future, Second Administrative Reforms Commission, Govt. of India, New Delhi, October, 2007.

9. Road Transport Year Book- 2017-18 and 2018-19, Ministry of Road Transport and Highways, Govt. of India, New Delhi.

10. C. O. Chidi, & D. A. Ideh, The Menace of Traffic Jams and Quality of Work-Life in Lagos State, Nigeria, E-Journal of International and Comparative Labour Studies,2018.

11. R,Hotz, The Hidden Toll of Traffic Jams, The Wall Street Journal, 2011.

12. R. Kumar & B. Varma, Mushrooming traffic congestion and its psychological implications among drivers, 2020.

13. H. Nadrian, M. Taghdisi, H. Pouyesh, K. Khazaee-Pool, M. & T. Babazade, "I am sick and tired of this congestion": Perceptions of Sanandaj inhabitants on the family mental health impacts of urban traffic jam, Journal of Transport & Health, 2019.

14. Timo Lajunen, Dianne Parker, Heikki Summala, Does traffic congestion increase driver aggression?, Transportation Research Part F: Traffic Psychology and Behaviour, Volume 2, Issue 4, 1999.

❐ ❐ ❐

For submission of papers/contributions, kindly note the changed e-mail IDs

aiilsgquarterlyjournal@aiilsg.org
or
info.algq@aiilsg.org

Our Contributors

- **M. V. Vaithilingam**

  Dr M. V. Vaithilingam is Research Officer, International Institute for Population Sciences, and Visiting Faculty, SIWS's College, Mumbai

- **S. K. Kataria**

  Professor S. K. Kataria is Professor, Department of Public Administration, Mohanlal Sukhadia University, Udaipur

- ***Varsha Sharma***

  Dr Varsha Sharma is Assistant Professor, Department of Psychology, Mohanlal Sukhadia University, Udaipur

- ***Bhawana Sharma***

  Bhawana Sharma is Ph.D. Scholar, Tata Institute of Social Sciences, Mumbai

- ***Vivek K Mishra***

  Vivek K Mishra is Programme Officer, Demand Generation, JSI

- ***Nishtha Singh***

  Nishtha Singh is pursuing MSW at Bharati Vidyapeeth (Deemed to be University), Pune

- ***Anish Devale***

  Anish Devale is Ph.D. Research Associate, Abhijit Kadam Institute of Management and Social Sciences, Solapur, Bharati Vidyapeeth (Deemed to be University), Pune

- ***V Vijaykumar***

  V Vijaykumar is Senior Advisor, All India Institute of Local Self-Government