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TREND IN TRANSPORTATION AND SUSTAINABLE URBAN DEVELOPMENT

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ABSTRACT

Transportation is major tertiary activity. The economic development of any urban areas depends largely on the development of transportation and communication. Transportation is artery of any region. The revolution of automobile industry and liberalized economy has led to tremendous increases in the vehicle ownership levels. This has resulted in changing traffic characteristics on the road network. In the light of above in this paper an attempted has been made to analyze the changing trend of vehicle growth and urban transport problem such as cognition,, pollution and road accident of cities. Building on this background the paper proposes policy measures to improve urban transportation for sustainable urban development.

KEY WORDS: Trasportation, Urban, Sustainable.

INTRODUCTION :

Growth of urban transport along a sustainable path in cities is the foremost need of the hour; local pollution is a health hazard and Green House Gas (GHG) emissions are a global issue. Thus, the introduction of green transport is the current hot topic. The present urban transport scene in India, in general, is quite unsustainable; the use of cars and two-wheelers is rising, public transport (PT) is inadequate, while walking and cycling are becoming less popular. India is a very large country with over a billion people and nearly 50 of its cities contain populations above 1 million each. Most cities, it appears, are not aware about the role and importance of urban transport. While large cities have initiated steps, many more cities (those comprising about 1 million population each) have not realized the sustainability of present trends in urban transport growth. India, thus, needs a wide range of strategies to achieve sustainable urban transport. By 2051, the population of India is expected to be 1.7 billion. The number of cities with

population of more than 50 million people is expected to double. There will be 15 cities with populations in excess of 10 million each and 85 cities with populations between 1 and 10 million each. That is the challenge India is faced with. This paper describes the urban growth and urban transport scene in India, actions taken and being taken to promote sustainable urban transport, the author's view on essential ingredients of sustainable transport for the short and long terms, and the role of the IUT

OBJECTIVE

1.To study the Urban Transport Trends and Challenges.
2. To Analyze sustainable urban Transportation

URBAN TRANSPORT TRENDS AND CHALLENGES

1)Vehicular Growth in urban transport demand:

With rapid urbanization, urban transport demand in India continues to grow. Population in Indian cities is expected to increase by around 250 million in the next 20 years bringing enormous growth in urban travel demand. During the year 2009, 115 million vehicles were playing on Indian roads, According to the statistics provided by the Ministry of Road Transport & Highways, Government of India, the annual rate of growth of motor vehicle population in India has been around 10% during last decade. The basic problem is not the number of vehicles in the country but their concentration in a few selected cities,

2) Growth in private motorization:

According to industry data from the Society of Indian Automobile Manufacturers and India's private motor vehicle market grew by more than 85 percent between FY 2003-04 (around 59 million vehicles) and FY 2009-10 (around 110 million vehicles), at an average annual growth rate of close to 11 percent (CII 2011). Rapid economic growth, rising per capita incomes, ease of consumer financing options, and favorable government policies toward the automotive sector will continue to drive an unprecedented increase in private motor vehicle ownership and usage in India

3) Declining public transport mode shares:

Public transport mode shares declined in Indian cities (20-70% decline in different size cities) between 1994 and 2007. This can be attributed to the inability of public transport services to keep pace with rising demand and to maintain high quality of service, coupled with increasing private motor vehicle ownership and usage in cities.

4)Declining non motorized transport (NMT) mode shares:

Mode shares of NMT modes (walking and especially cycling) have declined in Indian cities. Cycling mode shares in cities have come down from an average of 30 percent in 1994 to less than 11 percent in 2007, attributed to an increase in average trip lengths as a result of urban sprawl, inadequate facilities for cycling, and growth in private motor vehicle ownership and usage

5)Use of Intermediate Public Transport as primary mode for daily commutes:

City commuters are increasingly using IPT, including auto-rickshaws, as the primary mode for their daily commutes in cities. As stated in the National Urban Transport Policy (NUTP), launched in April 2006 by the Ministry of Urban Development, Government of

6)Vehicular emission, congestion, and road safety issues

The Indian cities are facing serious environmental problem due to growing air pollution caused by fuels used in vehicles. Atmospheric pollutants commonly associated with motor vehicles are nitrogen oxides, hydrocarbons, carbon monoxide, sulfur oxides, and Suspended Particulate Matters (SPM). Pollutants from vehicular emission have various adverse health effects. One of the main pollutants, SPM particularly fine PM, has serious health effect

7)Road Accident

India is also facing serious road accident problems. According to the Ministry of Road Transport & Highways, during 2001, nearly 80,000 people were killed in road accidents. In the last decade, road accidental deaths increased at a rate of 5 percent per year. Although annual rate of growth in road accidental deaths in Indian cities is a little less than 5 percent, these areas face serious road safety problems..

SUSTAINABLE URBAN TRANSPORTATION

Focusing on Public Transport

Passenger mobility in urban India relies heavily on its roads. Although rail based transport services are available in few mega cities, they hardly play any role in meeting the transport demand in rest of the million plus cities. The time has indeed come to plan rail based mass transport system in all the cities having population more than 2 million. However, considering the financial health of various levels of governments (central, state, and local governments) and investment requirement to introduce and improve rail based public transport system, it is evident that bus transport will have to play a major role in providing passenger transport services in all million plus cities. Therefore, urban transport plans should specially emphasize on bus transport system.

Introducing Variety of Bus Transport Services

Bus transport operators operating in Indian cities still believe that the vast majority of its users make the same type of commuting trips every day, and so promote package that essentially assume this regularity. It may be possible that the current users of bus transport services have such regular pattern of use, but certainly many of those that have left it had varying mobility needs that they felt poorly satisfied either by the services themselves or by the price deals available. Therefore, it is required to segment the supply of bus transport system to provide different services for different people and even to the same person at different occasions.

Adopting optimal pricing strategies for transport services

Pricing of transport is another key issue which should be addressed properly. Pricing policy could effectively be used to encourage the public transport and restrict the usage of private vehicles. So far, in India, operating cost of using the private vehicles is far less than the marginal social costs which encourage people to use private modes. Over the years, government policies have been very supportive towards automobile industry

Enhancing Transport Coordination

To encourage people to use public transport, there is a need to have transportation system which is seamlessly integrated across all modes. The various modes of public transport including

intermediate public transport have to work in tandem. Presently, different agencies, independent of each other, are operating different services in Indian cities. For example, in Delhi, metro rail is operated by Delhi Metro Rail Corporation Ltd, sub-urban rail service by Northern Railway, bus transport service by Delhi Transport Corporation, and taxi and auto-rickshaw by private operators. There is a lack of coordination among these agencies. Since the ultimate objective is to provide adequate and efficient transport system, there is a need to have a coordinating authority with the assigned role of coordinating the operations of various modes. This coordinating authority may be appointed by the central or state government and may have representatives from various stakeholders such as private taxi operators, bus operators, railways, state government, etc. The key objective should be to attain the integration of different modes of transport to improve the efficiency of service delivery and comfort for commuters. At the same time, a single ticket system, where commuters can buy a transport ticket that is valid throughout the public transport network within the coordinating authority's jurisdiction, should also be developed and promoted. Integration between different modes of public transport provides quicker

Restraining The Use of Polluting Vehicles And Fuels :

More than 50% of motor vehicles in India are more than five years old. In general, emission performance of older vehicles is significantly inferior to newer vehicles because of poor maintenance and lax emission standards for in-use vehicles. The large Therefore, government needs to check the use of polluting vehicles and fuels and promote cleaner technology and better fuels. Government may use the market based instruments to do the same. For example, a relatively high annual motor vehicle tax, which may be increasing with the age of vehicle, may be imposed on two stroke two-wheelers and three-wheelers and all vehicles that are more than ten years old. Similarly, cars that use diesel could be discouraged in million plus cities by levying chess on diesel in those cities.

Encouraging green modes

Transport policy should also encourage the need for developing green modes like bicycles, cycle rickshaws, pedestrians, etc. The potential of green modes is often underestimated since they are used primarily for short distances. But, large fraction of journeys made by cars and two-wheelers are mainly for short distances say less than 6 km, a distance over which use of motor vehicle does not provide significant time advantage (Singh, 2006). Moreover, motor vehicle emissions are high for short distance travel because fuel consumption is high due to cold engine and because the catalyst is not yet working at full efficiency. Due to this reason, the use of green modes in place of motor vehicles for short distances has huge potential for pollution reduction. Green modes particularly walking and cycling have huge health benefits as well. However, to promote green modes, the safety concerns of cyclists and pedestrians have to be addressed adequately. For this purpose, there has to be a segregated right of way for bicycles and pedestrians. Apart from improving safety, this will help to improve traffic flow, increase the average speed of traffic, and reduce emissions resulting from low vehicle speed.

Introducing public awareness programs

Public attitudes influence politicians and policy makers and increase the political will to tackle problems. The adverse health effect of air pollution due to vehicular emission needs to be communicated to people as a means of influencing public attitudes. Deaths and injuries resulting from road traffic crashes are also a major and growing public health problem. Media, NGOs, and research institutions should be encouraged to highlight these issues, conduct independent analysis, and

advocate possible solutions to policy makers and implementing agencies. At the same time, fair and equitable procedures for public complaints should be instituted. These can enhance awareness and understanding, influence public attitudes and public support, and create the necessary political will to tackle the problem of congestion, air pollution, and road safety. At the same time, public awareness programs should also be initiated to communicate the benefits of public transportation, efficient vehicles and fuels, car pooling, green modes, economical driving, etc.

CONCLUSION :

It is evident that vehicle emissions are problematic to the global environment. CO2 specifically leads to climate change and other vehicle emissions contribute to air pollution causing negative health effects for the world's inhabitants. A logical way to reduce these negative impacts would be to decrease vehicle emissions; to catch the problem before it worsens. This can be accomplished through lowering the number of vehicles on the road. The increasing trend for private vehicle ownership can be replaced by increased reliance on public transportation. Policy recommendations for reaching this goal involve improving current public transportation systems, encouraging the use of public transportation systems, discouraging the use of private vehicles, and changing urban plans and city designs. It would be incorrect to assume that all countries will follow in the deleterious footsteps .

Developing countries like India, the issue of vehicle emissions can be addressed by improving and promoting public transportation. However, the reality is that cars are not going to leave society's framework anytime soon. Thus, the more we can reduce their impact upon our environment and our health, the better it will be for the sustainability of all mankind.

REFERENCE

1.Agarwal, O. P. 2001. Towards a national urban transport policy. Indian Journal of Transport Management 25 (6): 593–616.

2.Central Pollution Control Board (CPCB). 2010. Air Quality Monitoring, Emission Inventory and Source Apportionment Study for Indian Cities. National Summary Report. December

3.Ministry of Urban Development, India (MoUD). 2006. National Urban Transport Policy. April. Online at: http://www.urbanindia.nic.in/policies/ TransportPolicy.pdf. (February 16th, 2011).

4.Mohan, D. 2002. Work trips and safety of bicyclists. Indian Journal of Transport Management 26 (2): 225–233.

5.Singal, B. I. 2000. Urban transport strategy for Indian cities. Urban Transport Journal 1 (1): 24–34

6.Sharma, N. P., and S. Mishra. 1998. Transport for healthy tomorrow, issues and options. Presented during the Seminar on Planning Delhi: Healthy City in the Next Millennium, DRC, ITPI, New Delhi.

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