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Research Paper

Enhancement of Urban Infrastructure – An Initiative to Moderate Global Warming

Commerce

KEYWORDS : Urban infrastructure, automobile, global warming, and climate change.

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ABSTRACT

This article contemplates an innovative approach to enhance the urban infrastructure through implementing strategies towards the automobile usage. Carbon emissions from automobiles and transports are drastically causing pollution and congestion in the urban environment. The ultimate aim of this initiative is to reduce climate change and global warming. The limitations are addressed for daily car usage and purchase of new cars. These efforts ultimately motivate the passengers to utilize the public transport at a maximum rate. These innovations intensify environment friendly future by moderating global warming.

INTRODUCTION

India has a prominent and reasonably well developed substructure framework extending to all constituents of the nation. However, certain areas of transport need further elaboration and modernization (Eisner 1991). India's transport sector is diverse; it provides to the needs of 1.22 billion people. Good physical connectivity in the urban areas is essential for economic growth. Since the early 2000s, India's developing economy has ascertained advancement in demand for transport infrastructure and services. However, the transportation sphere has not been able to keep pace with growing demand and is proving to be a depicting on the economy. Major advances in the sector are necessitated to affirm the country's extended economic emergence (Ramanathan 2001). In this article an attempt is made to conceptualize the hassle of hectic traffic congestion in the urban infrastructure. Around 15 lakh people move from rural areas to urban cities. In terms of infrastructure needs and daily necessities, India is facing rapid increase in energy consumption (Weber 2012). As carbon emissions from automobiles and transports are drastically polluting the environment, the ultimate scope of this article is addressed towards the climate change – global warming.

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TRANSPORTATION IN INDIA

In hashing out macroeconomic profits of infrastructural investment, Berechman (2011) pointed out that effective demand is the cost to be paid to accelerate employment and income. In order to increase the effective demand, the stress should be on infrastructure investment. India has witnessed a marked growth in the transportation network in the recent two decades. Transportation forms a major section of the economic system of the entire nation. The important modes of Indian transportation are air, road, and rail. The orthodox means of transportation admitted walking, palanquin, bullock carts and horse coaches, pedals, hand-pulled rickshaw, cycle rickshaw, and trolleys. The modern-day modes of transport include buses, taxis, suburban railway, auto rickshaws, rapid transit (metro and monorail), two wheelers, automobiles, and utility vehicles.

ROAD TRANSPORTATION

Roads are the prevailing manner of transportation in India. It carries almost 92% of the nation's passenger traffic and 68% of its consignment. The denseness of India's highway network is at 0.66 km of highway per square kilometre of land (Randeep, 2011). This is similar to that of the United States (0.65) and a lot greater than China's (0.16) and Brazil's (0.20). However, most highways in India are narrow and congested with misfortunate surface quality. The metropolitan city roads are often severely congested during the peak hours. The dramatic growth in automobile vehicle ownership during the past decade - has reduced rush hour speeds especially in the central areas of urban cities.

INFRASTRUCTURAL CHALLENGES OWING TO AUTOMOBILE GROWTH

Indian automotive industry is one of the largest in the world and one of the fastest growing internationally. India's passenger and commercial vehicle manufacturing industry is the sixth largest in the world, with an annual production of more than 4.5 million units in 2012. In today's fast moving environment, the value of time is distinctly immense. People are focusing on how they could be transported in a timely and dependable manner. Besides the public transportation mode, people are more prompted in owing a premium automobile to make themselves more confortable. In urban cities driving is not for the faint of heart, especially in metropolitan cities, but that has not curbed consumer appetite for automobiles. In congestion, it can take hours to travel a short distance. Driving skills are a prerequisite on roads where pedestrians, bikes, and odd three-wheeled autos are reluctant to give way for cars.

EFFORTS BY CHINA - Beijing

To overcome these vigorously flourishing issues, Beijing has come up with better alternatives such as:

- Plate Licencing
- Car Lottery Licencing

In the early 2011, the Beijing Daily newspaper reported within 10 minutes of the licence plate website opening at the start of the year, 6,000 people had applied for new plate numbers. By evening, over 53,000 applications had been submitted through online. Plate licences were awarded only for 20,000 plates during the first batch. To avoid over-crowding streets, Beijing had come up with this plate system. The new system aims to reduce the number of cars in the notoriously gridlocked capital. The city will only allow 240,000 new car registrations in 2011 - two-thirds lesser than 2010 - and is distributing them out through the monthly online basis. The city now has 5.71 million vehicles, up from 4.76 million in 2011. A global survey conducted last year by IBM said Mexico City is tied with Beijing for the world's worst commute. Future growth in Beijing is choking itself towards more difficulties in moving people and goods around the city. During early August 2012, more than one million people in China's capital participated in a lottery of a different kind. The people of Beijing desired for the golden ticket that would give them neither riches nor rewards, but an option that was far more ordinary: the right to buy a car. Among the participated crowd only 20,000 registration certificates were issued. Beijing took the drastic, widely unpopular, step of limiting car sales. This move hopes to address rising traffic congestion and pollution problems that have left the city with clogged streets and smoggy skies. Urban planners and environmentalists welcomed the lottery system as a necessary and long-overdue measure. They hoped that this would boost public transportation and inspire other cities, in China and in rapidly urbanising countries to follow this city's example.

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AN INITIATIVE TO MODERATE GLOBAL WARMING

The number of cars in India has more than quadrupled over the last decade. In 2011, a remarkable sales of 6 lakh new cars in Delhi, demonstrate the rising prosperity and the aspirations of an expanding middle-class family. While India has invested heavily in road infrastructure — India's six ring-roads, elevated expressways that run around from the North until the South take the pressure of arterial roads, are an infrastructure feat that China's cities can only dream of — it has still, remarkably, miscarried to keep pace with the growth in number of cars. To ease congestion, following initiatives can be followed in the urban cities:

- There can be a restriction in the usage of cars by banning vehicles for two days in a week according to its registration.
- No family with four members can own more than two cars.
- New cars can be bought only by a luck draw of 100,000 cars per month.

This could act as the fundamental way to encourage people to use public transportation more could be made through an implementation of limitation to purchase and use cars in the urban parts of India. Urban planning has a very direct bearing on automobile emissions and the pollution problem.

SWOT ANALYSIS OF THE INITIATIVE

Strengths

1. The usage of petroleum products and other depleting natural resources can be preserved.
2. Public transports could be utilized to the maximum.
3. Global warning and traffic congestion could be managed.

Weakness

1. Passengers have to come out of their comfort zone.
2. Public transports have a deficit in carrying more people.
3. This could turn out to be a time consuming practice and cannot be implemented for the existing cars.

Opportunities

1. This could pave way to a greener environment.
2. Urbanization will become more peaceful.
3. More eco-friendly products can be innovated.

Threats

1. Political intervention could be experienced.
2. Rich people would contradict and are insubordinate to change.
3. Limitations to own cars.

CONCLUSION

In the near term, there are a vast number of novel engineering available on new vehicles or top of the range vehicles that will become more common in future. The underlying issue is how we deplete it. Being one of the oldest civilizations, in adoption of this proposed plan, the potentiality of creating national infrastructure could be made immense. Low carbon emission will be witnessed in the near future. These efforts will reduce the traffic congestion. Changes in the area of transportation lag importantly less to the changes we have encountered in communications and Internet technology. These mechanical systems are much harder to design, test and enforce, but there existing strong demand. In the coming years, this proposed innovative measure will be very exciting to watch.

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