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Stunted growth



Are India's almost uncontrollable traffic levels having an adverse effect on the country's growth effort? MALAVIKA NATARAJ reports

Photos by Krithika Srinath

Often slated to be the next world superpower, India is now at the edge of a spectacular boom.

However, in recent years, economic growth has been accompanied by a threatening rise in traffic levels. In the urban areas alone, traffic has more than doubled since the 1990s. With increased foreign investment and offshore outsourcing opportunities, India has also seen the expansion of an emerging middle class with an immense propensity to consume.

Consequently, over 30 per cent of owned motorized vehicles in the country are in the urban areas. Walking on Indian roads has become hazardous and nearly impossible, with vehicles choking roads, crippling movement and increasing overall pollution levels. Without the capacity to accommodate the growing number of vehicles on the roads, India's urban traffic situation can easily become a threat to the country's growth potential. Despite Government efforts to introduce road-tolling initiatives on national highways, the urban roads have gone largely untouched. So has the time come for India to concentrate its development efforts on implementing a long-term strategy to combat traffic congestion within its cities?

Following the lead – the best way forward?

Possibly the best example of a successful urban congestion charging system is the one currently implemented in London. Initially run in central London, vehicles were charged for entering the charging zone, thereby discouraging motorists from using congested roads during peak hours. Although the scheme is now rapidly expanding its scope, raising protest amongst the city's residents, the results have been promising so far - traffic in central London alone has reduced by 15 -20 per cent. With the success of this system, other cities in the U.K as well as on the continent are likely to follow suit. For instance, after a trial run in 2006, Stockholm has now been operating its own congestion charging system for a few months.

The concept of charging for road usage in urban areas originally found its way into Asia over 30 years ago. Singapore's Electronic Road Pricing system, similar to inter-urban road tolling systems in Europe, started in 1975. Gantries positioned on main streets and all vehicles are all equipped with tags, held inside the windscreen. As the motorist passes under the gantry, the charge is automatically deducted. Aside from emergency vehicles, all others are charged depending on their size. The Singapore system has seen immense successes. Much lower traffic levels in the business districts have improved overall congestion levels in the city.

Although India has not yet attempted to run congestion charging within the urban areas, evidence indicates that some of its cities already possess a very basic infrastructure through which such a system can potentially be implemented. In 2005, the Commissioner of Traffic Police of capital city Delhi revealed plans to install detection cameras at several road intersections across the city to monitor the movement of vehicles. The captured, real-time images were available for public viewing on the Internet, enabling people to avoid the

congested areas and plan their journeys better. The scheme initially aimed at installing ten cameras at key intersections, increasing the number to a hundred cameras by 2007. With detection cameras already in place, Delhi is a good candidate city for the implementation of a more sophisticated road pricing system.

The success of the London Congestion Charging system has been largely attributed to the fact that over 80 per cent of commuters were already using public transport prior to the implementation of the system. In the Western Indian city Mumbai (formerly Bombay), the intra-city rail system is the mainstay of a majority of commuters. But despite its strong public transport network, over a hundred thousand vehicles are added to its roads each year. A journey from North Mumbai to South Mumbai can take from anywhere up to three hours. Average vehicular speed on the roads has dropped from 38 km/h in the 1960s to 15 km/h today.

If Mumbai were to implement a road charging system, it would rely heavily on the support of its public transport. With a strong, fully functional rail system in operation, Mumbai could potentially focus efforts on easing road congestion. Despite appearances, however, it is uncertain as to whether a system like the one in London could actually work on Indian roads.

Yes, but would it work here?

Following the launch of the London congestion charging system in 2003, The RAC Foundation in the UK cautioned other cities within the island to consider the potential costs and improvements that they would have to make to their transport systems before congestion charging could be successfully implemented. In a country like India, where even basic infrastructural development is lopsided, can a system that requires a high level of infrastructural development actually be implemented?

Technologically, the answer is yes. With India's software and services exports growing by 30 per cent year on year, technological resources are far from scarce. In fact, several European and American transport projects have outsourced the development of IT systems to Indian companies. A case in point is of Capita - a specialist in business process outsourcing - which was contracted to manage the processes, databases and back offices of the London scheme (but whose contract will not be renewed, incidentally). Indian company Mastek, was further sub-contracted by Capita to develop solutions for customer interfaces to be incorporated into the overall system. Clearly, India does not lack the technological capability to create and implement a functional congestion charging system, but creating networks and the infrastructure is only part of the solution.

There are other challenges the country needs to overcome before such a program can run successfully.

Hurdles to finding a solution

There are several factors - in addition to the growing number of vehicles - that cause traffic congestion within the country. Added to the 59m motor vehicles on its roads, India has to contend with 20 other varieties of vehicles. Many of these cannot even be classified.



Bicycles, tri-cycles, horse- and cow- carts are some examples. Often, these vehicles have no licence plates or registration numbers and are almost completely unidentifiable. Wandering cows, road works delayed by bureaucratic red tape and inefficiency can also often cause hour-long traffic jams on the narrower roads. Consequently, establishing congestion-charging zones is far from being straightforward. Local councils will first need to assess which roads are the most congested, and most importantly, why.

The transport sector already accounts for over 10 per cent of the country's total infrastructure expenditure and the annual road budget of nearly US\$3,614 billion is far from adequate. If India were to implement a pricing system such as the one in Singapore, infrastructure construction alone would require huge investments. Such large amounts of capital can only be brought in by the private sector.

But the Indian transport industry is heavily political and dominated by government parties, which severely limit the involvement of the private sector. Transport services also operate within a fairly corrupt government network. In fact, corruption can account for as much as 20 per cent of transaction costs in transport projects. Additionally, a congestion charging system that records personal details such as home addresses, vehicle and bank details, is highly vulnerable to breaches in security. In a country where everything has a price, personal information in the wrong hands could prove to be fatal. But if a system is indeed implemented, transport authorities will need to create a strict enforcement procedure. For example, the London system has detection cameras that record vehicle number plates in order to identify the vehicles to be charged.

Driving across the poverty line

With several types of unregistered vehicles running on Indian roads, this is a virtual impossibility. Units installed within vehicles that enable overhead gantries to monitor vehicle movement are also impractical for the same reason. Moreover, the majority of road users are already living below the poverty line. Further taxation is likely to drive many into deeper debt, defeating the purpose of the entire system. Driven by poverty, those that can evade payment will make all efforts to do so. An obvious benefit of a road charging system – other than a reduction in traffic levels – is that the revenue generated from the scheme can be re-invested to develop better public transport systems and infrastructure. But if this results in widening the gap between the rich and the poor, will this system be sustainable in the long run?

Although it is evident that there is a strong requirement for a congestion charging system to control the flow of traffic through India's urban roads, authorities face the challenge of identifying the best possible solution despite existing hurdles. A system that has worked in more developed countries might not be the best way forward. In the future, the task may fall to European players entering the Indian transport market to work jointly with the government and find an optimal, holistic solution that meets all the objectives. **TH**