Book Review

Publisher: Wiley, USA
December, 2016
E-book Published by the Copenhagen Consensus Center and BRAC, 2016

Prioritising Dhaka's Urban Transport System

ROBERT GALLAGHER

Considered one of the fastest growing cities in the world, Dhaka's metropolitan population has grown almost exponentially during the past four and a half decades, from 3 million in 1971 to around 18 million today. The population density of the city is now almost double or treble than that of Tokyo, London or Shanghai, and is one-third higher than even Kolkata and Mumbai. Over a twenty-year time-span beginning from 2015, Dhaka's population is expected to jump by another 50%, reaching a milestone of 26 million in 2035.

Traffic congestion has become a major problem in Dhaka city over the past two decades. Too many motor vehicles trying to move on the available roads and jams lasting for hours are now quite common. The two major factors identified as contributing most to Dhaka's traffic congestions are lack of adequate planning and preparation over the previous decades, and excessive reliance on private cars due to a deficient public bus system. Ironically, even though there are 33 times more cars than buses in the city, cars account for just 13 percent of passenger transportation, while buses are responsible for 49 percent. The average traffic speed in Dhaka is currently only 6.4 kph (kilometres per hour). But if vehicle growth continues at the current pace without substantial investments in public transports, the average speed may fall to 4.7 kph by 2035—almost as slow as walking.

The Government of Bangladesh commissioned a Revised Strategic Transport Plan (RSTP) in 2014-15, which proposed building five metro railway lines, two rapid bus routes, and 1,200 kilometres of new roadways. The total proposed public outlay in the Plan stood at about Taka 351,000 crore over a 20-year period. In a nutshell, it envisaged building five elevated expressways and three ring-roads, five MRTs (mass rapid transit or metro-rail transit) and two BRTs (bus rapid transit).

The study sponsored by the Copenhagen Consensus Centre and led by Robert Gallagher found that private investment in Dhaka's transport system

over the next two decades would be much greater than the proposed public outlay in RSTP. If all the private operating costs like fuel, drivers' wages, garaging, plus the actual purchase cost of new cars, motorcycles, auto and cycle rickshaws were included, then the private spending could be around Taka 608,400 crore, or almost twice the public spending as per RSTP.

The public expenditure proposed in the RSTP is projected to help make Dhaka's traffic flow better, both in terms of enhanced street capacity and additional metro rail. Modelling has shown that it could raise Dhaka's traffic speed up to a level of 13.7 kph —the speed that was last seen in around 2010. The biggest part of these benefits would emanate from the travel time saved. Overall, the analysis showed that compared to a 'Do Nothing' scenario, each Taka spent under the RSTP scenario would yield about Taka three of future benefits.

Transportation outcomes, however, largely depend on the mix of vehicles occupying the new roads. The additional 360,000 cars expected in the draft RSTP will occupy a massive expanse of spaces in Dhaka city. If RSTP proposals were fully implemented, the five metro railway lines might carry about 12% of Dhaka's total passenger demand in 2035, with buses (including Bus Rapid Transit or BRT) carrying a further 40%. The contribution from automobiles (cars, jeeps, auto-rickshaws) would be only around 15% of total passenger-kilometres, although they would occupy nearly half (44%) of the total road-space.

Gallagher explored an alternative scenario that focused on greater investments in bus transport system and infrastructure, which could mitigate the need for so many space-intensive private automobiles – motorcycles, auto-rickshaws and cycle-rickshaws. The scenario assumed the same amount of public outlay as under the draft RSTP, but with 9,000 additional buses. This scenario would result in addition of only 100,000 cars by 2035, less than a third of the number expected under the RSTP strategy. This alternative option would occupy considerably less road space, reduce traffic congestion, and lead to an average traffic speed of 14.4 kph, saving more time for the commuters. It would lead to reduction in cost of overall investment by about US$ 17 billion, 16% higher passenger output and about 20% lesser requirement for roads.

This alternative scenario would also save substantial private investments on vehicles, drivers, spare parts, and fuel. Over a 20-year period, the more space-efficient buses could provide much greater transport capacity while saving total private transport investment of about Taka 132,600 crore compared to the RSTP scenario—a 15-percent cost reduction, equivalent to the cost of four and a half Padma Bridges. The combined benefits from decreased traffic congestion and reduced transport system costs would mean that each Taka spent would yield about Taka 6 of benefits, or almost double the expected benefits from RSTP.

Gallagher has made the following recommendations in case his analysis is accepted by the authorities and his proposals are taken up for implementation:

(a) Giving top priority to developing the city's public transport system, unlike the case of 2005 Strategic Transport Plan (STP) where the public transport proposals were not implemented.

(b) Reduce the generous subsidies given to private motoring, i.e. cars, jeeps and motor cycles; their rapid growth is attributed not only to rising incomes and limited public transport alternatives, but also to substantial subsidies, particularly in fuel and parking as well as extension of easy bank loans.

(c) Undertake specific measures to encourage buses by: giving them traffic priority through dedicated bus lanes, priority signals at junctions, 'queue-jumps' and other measures to ensure they are not slowed down by congestion; creating an integrated and inter-connected network; raising bus system quality through high quality buses, good shelters, well-managed terminals, passenger information systems, integrated ticketing etc.; providing services not only on the main roads, but also within neighbourhoods.

(d) Developing the opportunities for walking in Dhaka, as walking is an essential and healthy part of a city's transport system; 20-30% of all trips are made on foot in cities like Tokyo, London, Berlin and Singapore. 'Pedestrians first' is a motto universally practiced by city authorities all over the world. As good footways/footpaths and safe road crossings can transform a city, people should be encouraged to walk more and use vehicles less, thereby freeing up road-space; it would save people's money, make the city pleasant and liveable, and boost up people's health and wellbeing.

(e) Cycling should be prioritised in Dhaka, as it is one of the most efficient and environment-friendly transport modes available and has a great potential to make a visible contribution to bolster Dhaka's transport system. Compared to Dhaka's 2%, cycling accounts for 10-30% of all trips in cities like Berlin (13%), Tokyo (16%), Shanghai (20%), Amsterdam (28%) and Beijing (32%).

(f) Measures in the area of traffic management and control may include: more one-way streets, parking controls, better traffic signals, bus-stop discipline etc. The average traffic speed in Dhaka city could be increased by nearly one-third simply through following good traffic management practices.

(g) The under-staffed institutions responsible for city traffic and transportation should be strengthened, as proper management of traffic is not possible without sufficient staffs and resources in relevant public agencies. Recruiting competent staffs for bodies like Dhaka Transport Coordination Authority (DTCA) should therefore be a priority for Dhaka's transport development.

(h) Mobilising funds for improvements in Dhaka's urban transport system should be expedited, for example, by redirecting some of the existing resources already generated by the transport sector and by harnessing other sources with high potentials like property taxes and land development.

The above analysis by Robert Gallagher clearly demonstrates what can be achieved by putting more emphasis on public transports and by slowing down the growth of low-capacity private transports like cars, motor-cycles, auto-rickshaws and cycle rickshaws. He concludes his monograph by quoting from the transport visionary Enrique Penalosa, who claimed that the measure of a civilized city was whether it was safe for its children to walk in.

Robert Gallagher, a British transport planner, had worked in Bangladesh for much of his career. He lectured in the Department of Urban and Regional Planning at BUET for five years, and later carried out a research study of the rickshaw sector as a Visiting Fellow at the Bangladesh Institute of Development Studies (BIDS). He has worked on a wide range of urban transport projects in South Asia and the UK, including a joint collaboration between the Copenhagen Consensus Centre and BRAC under the 'Smarter Solutions for Bangladesh: Bangladesh Priorities' project.

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