

# BUS RAPID TRANSIT

## A struggling corridor to a green future

As the capital city of India grapples with a rapidly worsening transport situation, the Bus Rapid Transit system seems to have fallen on its face in an attempt to ease the problem. But have we given it a fair chance? Is it not a viable solution? **Govind Singh** looks beyond the acerbic review the BRT was given, and comes up with some startling truths.

A little over five months ago, the Transport Department of the Government of NCT (National Capital Territory) of Delhi unveiled the much-awaited, and rather ambitious project, for giving the city a congestion-free and smooth transport system. Formerly called the HCBS (High Capacity Bus System), the BRT (Bus Rapid Transit) system is meant to be a low-cost, flexible, mass transportation system that can reach every part of the city and make itself accessible to other modes of feeder-transport like cycle rickshaws and three-wheeler scooters as well. When the first phase of the project was launched, it clearly succeeded in achieving the underlying objective of encouraging people to use the public transport and at the same time discouraging them to use private vehicles, especially cars.

The implementation of the system was, as has often been the case, not perfect, and there were initial confusions among pedestrians, cyclists, scooters, and car drivers alike. Furthermore, the BRT is a complete system that can only be executed in phases. And it will not work to perfection until all the phases are complete and the entire system has been put in place. Until then, it will not be possible to understand the importance of the system and fully realize its potential in solving the traffic problem. It is the latter fact that made a large section of the media – the key opinion making body in the country – to

declare the BRT a failure, to an extent that it seemed as if the media had initiated a 'campaign' calling for the system to be scrapped, hours after it was first launched.

The BRT system is a safe, fast, comfortable, and comparatively affordable system of transport that makes the best use of the available road space. It has found many ardent advocates the world over as a relatively inexpensive and efficient mass transport system. The road is designed and engineered with dedicated bus lanes on which no other vehicle can encroach. Likewise there are separate lanes for cyclists, motorized vehicles, and pedestrians. This set-up ensures both safety and speed. The system uses low floored, high capacity buses that are more comfortable and are designed for safety. Besides, the construction of a BRT system costs fifty times less than a Metro system and can serve as much as hundred times the area of a rail-based system. While the BRT costs approximately Rs 5 to Rs 50 crores per km, the Metro costs approximately Rs 100 to Rs 1000 crores for the same distance. (This is not to take anything away from the efficacy of the Metro, which has proved to be a veritable boon to the city.)

Despite all these benefits, such is the negative publicity that the BRT received from the media that it has now become the most controversial infrastructure project in the country. From pointing out loopholes in the design, to analysing the

improper implementation of the system, the BRT has so far been criticized from all angles possible. Construction on the next phase of the system has also been halted in the capital city, until further notice. Suggestions were also made to widen the car lane and to give more space for private vehicles. And these suggestions, if adopted, would have defeated the very purpose of implementing such a system. Moreover the BRT construction came at the cost of over three thousand trees that had to be removed from all along the corridor. Further expansion would have only meant even a greater loss of green cover.

The BRT in Delhi is actually the brainchild of the IIT-D's (Indian Institute of Technology-Delhi) Traffic Research and Injury Prevention Programme and was executed by RITES Ltd, a Government of India enterprise. The DIMTS (Delhi Integrated Multi-Modal Transit System) a 'special purpose vehicle' set up by the government is supervising the Project. Clearly then, the Project never had a single head, probably leading to the mess that came about when it was first launched. Consequently, after a part of the BRT corridor was put on trial run, it got mixed reactions from the people at large. And even after becoming fully operational, it required over 70 traffic marshals, 35 traffic policemen, and 20 transport department officials for enforcement. However, before the teething problems faced during the



The swanky BRT corridor in New Delhi did not meet with a good reception.

**In an interview to TerraGreen last month, Ms Sheila Dikshit, Hon'ble Chief Minister of Delhi said that BRT was the only solution to Delhi's traffic problems.**

implementation could be overcome, the media had already begun its sustained campaign against the first BRT corridor —calling it, amongst other things, a 'manic mess', 'killer corridor', and a 'Tughluqian disaster'. Citizens interviewed to back this claim were, however, all private car owners.

In an open letter to the editor of a leading national daily, signed by 90 people with scientific and professional backgrounds, Dunu Roy, Director of Hazards Centre, took to task the largely biased and skewed views supported and promoted by the editors of several newspapers, including the one in question. The letter also condemned, in no uncertain terms, the gross violation of journalistic ethics by the media house as not only did the daily declare the BRT to be a failure, it also accused some Traffic Research and Injury Prevention Programme (IIT-D) officials to be patronized by the companies that stand to benefit from the BRT.

**Delhi stands divided**

A poll conducted by a respected TV channel, that probably came closest to reality, showed that there is a sharp divide in opinion on the success of the BRT project between those who use buses on the corridor and those who drive

cars on the same stretch. In a city that safeguarded its clean air through a court order shift to CNG (compressed natural gas), the poll clearly stated that public transport must be considered a practical option for everyone, including people who cannot think about life beyond their luxury cars.

In an interview to *TerraGreen* last month, the Chief Minister of the NCT of Delhi claimed that the BRT was the most viable solution to the traffic problems in Delhi. She said, 'It is, in fact, the only solution if you want to cut down on cars. You have to bring discipline on the roads and make more and more people perforce use public transport. The Metro has helped a lot in the areas it covers. You would have seen that we have got new green buses, and for the first time, air-conditioned red buses so that people, who normally take a car or a scooter

to their place of work and leave it parked there for the rest of the day, should find it attractive enough to use public transport. It is about the only answer that we have to the problem of traffic congestion.'

'The shift from privately owned cars to any form of public transport will also bring down the city's carbon footprint', said Dr Chirashree Ghosh, scientist at the CEMDE (Centre for Environmental Management of Degraded Ecosystems), University of Delhi who is also heading a project sponsored by the Department of Environment, Govt. of NCT of Delhi to prepare a carbon map of the city. However, there are many who are of the opinion that the car is a symbol of ultimate freedom and no matter how good a system of public transport is put in place, the former would never lose its importance.

**Reality check**

A joint random perception survey of commuters travelling on the capital's first BRT corridor, carried out by the CSE (Centre for Science and Environment), Delhi Greens, and the IYCN (Indian Youth Climate Network) found overwhelming support for the corridor from pedestrians, cyclists, bus drivers, commuters and, surprisingly, car and two-wheeler drivers. Of the

1 500 people surveyed over a period of one week, 55% were bus commuters, 23% were cyclists and pedestrians, 16% were car and two-wheeler commuters, and the rest constituted a mixed category of those using autos, and so on. As many as 83% of all commuters said that they were happy with the dedicated lane system of the BRT. Contrary to popular reporting, only 8% of car and two-wheeler commuters polled said that BRT should be scrapped and 73% agreed that the project should be continued.

Most commuters wanted the Delhi Metro to be connected to the BRT corridor and the introduction of feeder buses on the corridor. This is something that was already part of the initial plan and would have been implemented in due course – had the media not carried out its vitriolic campaign against the BRT – which almost got the system aborted shortly after it was conceived and before it could take shape into something useful. There were also suggestions of cycles to be made available on rent on the stretch. The

## CROSSROADS AT A ROUNDABOUT

**The city of Delhi is known for its roundabouts, many of which have had a historical presence. An intersection with a central traffic island is how the Traffic Department of the Delhi Government describes these unregulated traffic crossings where the traffic signal is replaced by the 'give way to the right' rule. However of late, almost all major roundabouts in the city have simply failed to work. This is largely because of the ever-increasing number of vehicles on Delhi roads which is far more than the total number of vehicles from the other three metropolitan put together. One can therefore see traffic policewomen at all such roundabouts regulating the large number of cars, scooters, buses, and so on that only keep coming from all sides.**

Photo: Govind Singh



*Face to face: old rickety Blueline buses with the new, air-conditioned DTCs.*

survey's findings reinforced the argument that the BRT system is an important part of the solution to pollution and the ever-growing congestion nightmare.

The concept of BRT is actually about equitable sharing of road space by all road users – car and two-wheeler users, bus users, pedestrians, and cyclists – that makes space utilization more efficient and smooth. The space occupied by four cars that can carry a maximum of five passengers each (and carries a Delhi average of two passengers each) if replaced with a bus, transports several times more people, while still occupying the same given space. In the absence of a dedicated bus lane, growing congestion hampers the performance of a bus transport system. Congestion leads to slower turn-around-time and affects service frequency and optimum utilization. Since buses require more time to complete one journey, giving buses a right of way helps them to improve speed, comfort, accessibility, convenience and costs.

However, the major drawback of the existing BRT corridor is the lack of adequate

buses on the stretch. The 'R' in the BRT is therefore still missing and the system will only be able to work in entirety, once the number of buses plying on the corridor increase – the sooner the better. While an attempt to compete with the Delhi Metro and the AC-enabled cars has already

**The concept of BRT is actually about equitable sharing of road space by all road users—car and two-wheeler users, bus users, pedestrians, as well as cyclists.**

been made by putting a fleet of twenty five AC buses (the beautiful red ones) on the corridor, the system may continue to face criticism unless it is truly rapid. The success of the BRT also depends on the proper functioning of other modes of public transport that feed into it, especially the auto-rickshaws.



It is said that transport differs from all other problems faced by developing societies, because it gets worse rather than better with economic development. A society that is truly committed to environmental equity, social justice, and economic growth thus necessarily needs to get its transport policy right. The Bus Rapid Transit System is one such step in the right direction. How we as citizens react to it and how the Government and policy makers take it forward will determine the fate of Delhi for times to come. ■

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## Very Frequently Asked Questions (vFAQs)

**Q. What is the BRT (Bus Rapid Transit) system? Is it different from the HCBS (High Capacity Bus System)?**

**A. The HCBS is the same as the BRT System. The HCBS or BRTS is a total system that is safe, fast, comfortable, comparatively affordable, and makes the best use of available road space. The road is designed and engineered with dedicated bus lanes on which no other vehicles encroach. Likewise there are separate lanes for cyclists, motorized vehicles and pedestrians. This set-up makes for safety and speed.**

**Q. Why do we need a separate lane for buses?**

**A. Segregated bus lanes make for faster travel for commuters in the BRT; it improves traffic management in general and improves the driving conditions of all other vehicles on the road as well. The segregated bus lane is designed in such a manner that it claims to reduce injury accidents by 40% and fatalities by 50%.**

**Q. Is the BRT better than the Metro? How?**

**A. While there is no comparison, the Metro is rigid and has no flexibility while the BRT can be altered, added-to, modified from and redesigned at low-cost and at short notice. Also, unlike the Metro, the BRT can reach every part of the city and make itself accessible to other modes of feeder-transport like cycle rickshaws and three wheelers scooters. There is a minimal need for staircases in some instances in the BRT system while it is essential in all cases for metro stations. The bus stop does not entail a long walk for the commuter unlike the metro station; these factors make the BRT user friendly.**

**Q. Are there BRTs operating in other cities as well?**

**A. BRTs have been successfully operating in 10 cities in Latin America, seven cities in Europe, six cities in America, ten cities in Asia, and two cities in Australia. As a matter of fact, Taipei, Seoul, Tokyo, Jakarta, Lagos, Hanoi, Beijing, and 20 cities in China have started work on BRTs.**

**Q. Why do buses in this system occupy the centre and not the side?**

**A. Though not universal, the central lane is the preferred location for the bus in most cities of the world; this is largely because it avoids coming into conflict with left turning traffic; it has increased throughput unlike buses on the curb-side lanes which are forced to stop for other left turning vehicles; it is also safer because the high volume of motorized two-wheelers and three-wheelers do not come into conflict with it.**

**Q. What do we do in the case of a breakdown on a dedicated bus lane?**

**A. The BRT System provides foolproof safety to the commuters. Any such unfortunate incident like a breakdown is addressed immediately and effectively without inconveniencing others on the road.**

SOURCE:TRIPP