Collective mobility

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On February 8, 2022, the Capital Development Authority (CDA) announced a plan to construct either three interchanges or underpasses on the Srinagar Highway at G-9, G-10, and G-11 signals to ease traffic congestion at these intersections.

The Srinagar Highway is a two-way five-lane road that is already stretched to its limits and covers around 90ft on one side. It is wider than some of the world's most efficient roads including the Oklahoma State Highway 33 and California State Route Highway in the US and the Autobahn Highway in Germany. None of these roads has more than four lanes. The two highways in the US cater to a top speed of 120-140 kilometre per hour (kph), and the Autobahn Highway has no speed limit. The speed limit on the Srinagar Highway is only 80kph.

The costs of the proposed interchange and the underpass are Rs3 billion and Rs700-800 million respectively (these calculations are based on the figures quoted in the earlier tenders submitted for the construction of the 7th Avenue Interchange and the G-7 underpass).

Numerous studies have shown that widening a road is not the solution to traffic congestion. The Braess's Paradox proves that adding one more lane to an existing road network will only worsen the whole congestion dilemma. Similarly, increasing the capacity of the Srinagar Highway or converting it into a signal-free corridor is likely to attract more traffic from the nearby arteries. By investing more in road networks, we are incentivising people to buy more cars.

The question is: what should we do to tackle this never-ending loop of more roads and cars? The answer is public transport or what is called 'collective mobility'. The Capital Development Authority (CDA) recently announced that it is launching a new bus service in Islamabad, with a fleet of 29 buses; this is indeed an appreciable step in the right direction. But we need more such projects and not underpasses and flyovers which inefficiently consume billions of rupees from the national exchequer.

The authorities concerned must further explore the option of collective mobility and increase the scope of this new bus service. Instead of only 29 buses, it should deploy a hundred or even 200 buses and develop a comprehensive ecosystem of collective mobility in the city. To finance this development, the authorities should explore different modes such as public-private partnerships. An air-conditioned (AC) 29-seat coaster costs close to Rs15 million and 33-seat and 49-seat buses cost around Rs26 million and Rs31 million respectively. So, the proposed project projects approximately Rs3 billion for one interchange, and it could be replaced with a public transport-related project. With this budget, we can buy 201 29-seat coasters, 315 33-seat coasters, and 299 49-seat buses – this will include buses without an AC too. Similarly, if the authorities opt for underpasses, the total cost is projected to be around Rs 2.1 billion. This budget can finance the purchase of around 140 29-seat coasters, 220 33-seat buses and 137 49-seat coaches.

Purchasing such a large number of buses will have numerous advantages for the city. First, traffic congestion will be greatly reduced as cars occupy more spaces per person as compared to public transport. Secondly, accessibility within urban zones will be greatly improved.

According to the Islamabad Capital Territory Administration (ICTA), there are 44 proposed routes for the use of public transport vehicles. But, unfortunately, only 15 out of the 44 are operational, the

rest are inoperable due to low ridership. The vehicles which operate on these routes are typically flying coaches from the 1990s, mostly unfit.

According to a CDA study, conducted in 2012, 80 percent of the public transport users are dissatisfied with the quality of the network due to the following reasons: long travel time, outdated vehicles and harassment of women. Instead of investing on underpasses and overheads, purchasing new buses will improve the mobility ecosystem or reduce traffic congestion in the city; also, individual commuters will shift towards public transport. Globally, the average occupancy rate of cars is 1.5 persons whereas bus occupancy is 85 percent to 95 percent, during peak hours.

Additionally, the purchase of new buses will greatly benefit the Pakistan Metrobus System as the corridor has serious accessibility issues, particularly in Islamabad, and new buses will significantly resolve the problem. According to the Pakistan Bureau of Statistics (PBS), transportation is the fourth highest household expense in the country, accounting for approximately seven percent of the total household income. If such a transportation system as mentioned above is implemented, the cost of transportation will be significantly reduced, and we will witness a shift from personal mobility to collective mobility. It'll also have a positive impact on the environment.

Last, our policymakers must realise that signal-free corridors, wider lanes, underpasses or overheads will lead us nowhere, except into more chaos and choking cities. As Dr Nadeem ul Haque – the vice-chancellor of PIDE – argues, our policymakers still insist on the same archaic brick and mortar model adopted in the 20th century, which heavily relies on development without considering the use or maintenance of assets. In other words, merely creating the hardware is a dead investment on the shoulders of Pakistanis. Times have changed.

Mobility is an important part of any city, and its provision is the core responsibility of city managers. Expanding roads, building overheads or underpasses can reduce congestion for a short period, but, eventually, roads will choke again with cars. Will we then widen the road again or come up with some other solution to the persistent problem of unbridled traffic congestion? On the other hand, if a bus reaches its full capacity, we can add a further fleet of buses to ease traffic movement but will not have to build more roads.

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