A Case Study for Parking

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Mumbaikars were known to be disciplined people compared to other cities in India. They were known to respect the queues, traffic lights, pedestrian crossings etc.- at least better than most other Indian cities. This has gone down over the years perhaps due to humongous increase in the traffic. The number of cars have doubled over eight to nine years, and the number of two-wheelers have doubled over six years. This is both the reason and the symptom of rapidly growing traffic volumes and a decrease in maintaining road discipline. We are the accident capital of the world! But beyond lamenting the traffic congestion and a high rate of accidents, we are not doing anything substantial to contain this growing menace.

In fact, parking of vehicles on the road has increased by more than four times during the last decade! The effects of all this are very obvious. It is recognised that providing Metros will improve mobility but it does not materially improve traffic congestion. This is the experience of Delhi which achieved a daily ridership of 28 lakh from a network of 213 km – same as the bus system in Mumbai.

Metros will improve mobility but will not necessarily address traffic jams in large areas of the city. This can be achieved to a greater extent, by reducing the parking and reducing the use of roads by limiting the space-inefficient private vehicles, and simultaneously increasing the modal share of space-efficient buses (it has reached a new low of 2% in space and 8% in passengers on WEH!).

What can disciplined, regulated and paid parking do for Mumbai?

It is time we give serious attention to reducing and regulating parking on the roads in Mumbai (including mapping, administration and compliance). Parking needs to be contained through serious
traffic management and parking discipline. It requires a lot of work such as mapping, it is not an easy task, but it needs to be taken up seriously and urgently. It has been ignored or treated quite superficially. Road widening is important for the municipality requiring huge funds but reducing or containing parking as the most effective and revenue positive item is never considered. It needs a clear understanding of the problem, its magnitude and political will, besides a strong IT backbone. According to estimates, while the number of cars on the roads in Mumbai has increased from four lakh cars to ten lakh in the last decade, parking on the road has increased by about six times! Today, about 20% of road space is used by parking, both anarchic and free! A lot of people believe that ‘parking is infrastructure’ and it needs to be provided based on the growing needs.

In all developed countries, it is accepted that parking is private use of public land. But we are busy planning car parking provision either as overhead or underground at highly subsidised rates, as a key element of parking solution. So far, out of more than 300,000 cars parked on roads, in addition to thousands of auto-rickshaws, taxis, Light Commercial Vehicles (LCVs) and trucks, as well as private and inter-city buses, there are only 12,000 spaces under pay and park areas. Municipal revenue from parking is a paltry INR 12 crore per annum. We estimate that a reasonable parking policy should, in fact, yield a revenue of over INR 1000 cr per annum from parking. It is quite possible to bring this up to a level of 150,000 vehicles of all kinds. Average cost to the user would be about INR 30 per hour with net earnings of INR 20 per hour to the municipal corporation. The balance amount should be the given to the service provider, out of which, half should be the given to the parking attendants as earnings.

We must also aim at regulating the lakhs of vehicles, parked for free on roads and lanes! This needs to be converted to a
monthly or quarterly parking under a regulated and fee-based system. Needless to say, this must be also based on road and lane width and traffic volumes. This should help in reducing the overall number of cars and improving the throughput and volumes of bus passengers. Long term night/day parking coverage can also be up to 200,000 vehicles which can fetch INR 100 crore as net revenue at an average tariff of INR 1000 per month for night and more than INR 2000 for night and day where full day parking can be allowed in a limited way.

On the other hand, the most important element is hourly parking in commercial and other high volume areas. This kind of parking at a flat rate of around INR 15 to INR 25 per hour should be acceptable. There should be a surcharge for cars longer than 4 m of INR 10 per hour which will apply to SUVs and imported high-priced cars. We need to have a little tolerant regime for auto-rickshaws and taxies as well as trucks and private buses, providing lower rates for night and day parking. More than pricing, making permissible and available spaces which will not affect buses as well as making turns smoother at all turns and traffic lights to distinctly improve traffic throughput.

Parking at any place which will affect the carriageway, especially that of buses, should be eliminated. In the process there will be fewer spaces – and most as paid parking – which will reduce the demand for parking at local levels and for the city as a whole. Demand for cars by making a provision for parking before you purchase new car. This will lead to more throughput, higher speeds, fewer traffic jams and lower emissions. And most importantly, it can facilitate faster and more frequent buses to carry more people per hour on most arterials – both through provision of adequate number of buses and through reduced number of cars and other private vehicles. This can make carpooling worthwhile. Traffic can be further improved
with the 20% odd-even rule during peak hours in the mornings and evenings at high volume arteries. In other words, passenger throughput per road lane will increase by 20%. This will lead to fuller buses running more miles in a shift, reducing the losses of the BEST significantly.

**Benefits on traffic through regulated and priced parking**

Typically, traffic in a mixed lane during traffic jams is as low as 700-1000 persons per lane hour, which can increase up to 1200 to 1400 due to above mentioned practices. If one of the three lanes becomes an exclusive bus lane, the passenger throughput in that lane can go up to 6,000 persons and about 1500 to 2000 in other lanes. The speed for all the vehicles can go up by up to 20 to 40%. The fuel consumption through steady state driving of all vehicles can go down to 15% and this would reduce emissions by at least 25%, if we create 150,000 regulated and paid parking spaces (we cannot really create more although this needs to be confirmed by mapping of roads in a systematic manner).

Once we create 100,000 parking spaces on roads, they should yield a potential revenue of more than INR 1200 crore of which, the MCGM share should be two third and one third needs to be for service providers. Further, if we provide night paid and regulated parking for 100,000 spaces, the total fees should be in the region of INR 180 crore, of which, the MCGM’s share would be about INR 120 crore.

**Need for merit and city friendly jobs in parking management requiring change in social behaviour**

While the National GDP has been growing at a satisfactory rate, hardly any jobs are created. To reduce poverty as well as to improve the quality of life, we need a range of services (which cannot be replaced by machines or automation — at least in the
near future of India (and it is desirable that we should provide jobs for a large number of people where their skill level will improve before we go in for appropriate levels of automation. This can be achieved by merit jobs).

Parking in Mumbai can be best managed by a Municipal Parking Authority. We estimate this authority would need 200 managerial and supervisory jobs and over 2000 jobs for compliance. The cost of this staffing would be INR 60 crore per annum, which is quite reasonable in relation to the total net merit revenue of MCGM at INR 920 crore. After providing for painting, maintenance, IT backbone, stationary, follow up, legal expenses etc., the municipal parking authority, as a strategic business unit, should have a surplus of INR 500 crore per annum. The same can be used for other merit uses such as losses from bus operations, contribution to a share in the capital cost of metro system, bicycle infrastructure and footpaths.

To control traffic through parking management is a difficult task as we have become habitual to park anywhere and without any fee. This anarchy has to be stopped. While we should take the help of modern technology based on vehicle number plate database and CCTV cameras, there is still a need for a lot of work for constables to ensure that all vehicle owners have correct mobile number and email ids so that challan/ repeat reminders can be sent continuously and then the physical follow up where we cannot locate the address of the vehicle owner, and ensure that (increased fine + service fee) is collected. There must be a proof of wrong parking which should be possible in the form of whether the vehicle is within the laxmanrekha marked and the system will automatically store address and time. Thus, the violation can be nabbed. Once people realize that every violation will require payment of (increasing fine due to delay), not responding to challans will reduce. Similarly, to bring the correct name, address, email, mobile number will require patient work till the time this become natural practice. Governance will need that there

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must be several such databases which can help discourage anti-social behaviour in areas like parking, littering and many others.

We estimate that parking attendants are required along with good technology. Because, we cannot have controlled access and exit as most parking will be parallel or 90 degree on roads and this will require manual monitoring and collection of fees in an honest and efficient manner. There should be appropriate mechanisms provided by the system, controlled by the service provider and regulated by parking authority through the constables. There must be grievance redressal system. We have to build up a comprehensive system covering various aspects of an important area ignored so far and which has become a phantom!

**Consider merit resources and merit jobs to improve governance and sustainability of city**

The above example of raising merit resources and using them for improving governance and performance should be one of the core issue which should enable a city to be called a smart city. Similar issues are there for waste management, conversion of abused spaces in slums and under flyovers. We need a lot of human effort – properly guided and supervised in maintaining gardens, footpaths, hospitals and schools beyond the normal administrative functions and they should be funded by smart and worthy ideas by smart and city/ environment friendly jobs. We need to identify such needs and people with skills and sources of merit funds (parking fee has been waiting to be discovered till now!) and appropriate management structure.

*Image credit: Amit Devale*