

The imperative of restricting vehicle numbers in Delhi: Designing a parking policy to manage travel demand in the city

In Response to the Hon'ble Supreme Court Order Dated January 23, 2004
(In the matter of W.P.(C) No.13029 of 1985; M.C. Mehta v/s UOI & others)

July 2004

**Environment Pollution (Prevention & Control) Authority
for the National Capital Region**

1. Background: Parking policy for Delhi

Amicus Curiae filed an Interim Application on January 23, 2004, (I.A. 226) in the Hon'ble Court seeking an action plan from the Delhi government to control car numbers and augment public transport. The Hon'ble Court in its order of January 23, 2004 served notice to the Delhi government. In response, the Department of Transport, Government of National Capital Territory of Delhi filed a counter affidavit on behalf of the Government of Delhi in March 2004.

The Environment Pollution (Prevention and Control) Authority (EPCA) has studied the affidavit filed by the transport department. The affidavit lists out measures with regard to public transport augmentation plans that are expected to help to wean away people from personal transport. These plans include: the implementation of mass transportation systems namely, High Capacity Bus System (HCBS), Electric Trolley Bus System (ETBs), Delhi Metro and Integrated Rail Cum Bus Transit System (IRBT). Introduction of modernised luxurious CNG buses, and augmentation of radio cabs have also been planned.

EPCA has reviewed the public transport projects in a separate report and has given a set of recommendations with regard to its implementation and monitoring.

In this report, EPCA would like to point out that in the overall context, Delhi government needs to design specific measures in addition to improving public transportation system as levers to restrain traffic and their usage with the help of a phase-in time bound plan. After having reviewed various strategies that are implemented worldwide EPCA has selected parking policy as the first step towards travel demand management strategy. International experience shows that parking control and pricing is the most commonly applied demand management measure. Delhi as yet has not used parking policy as a strategy to reduce congestion and restrict vehicle numbers.

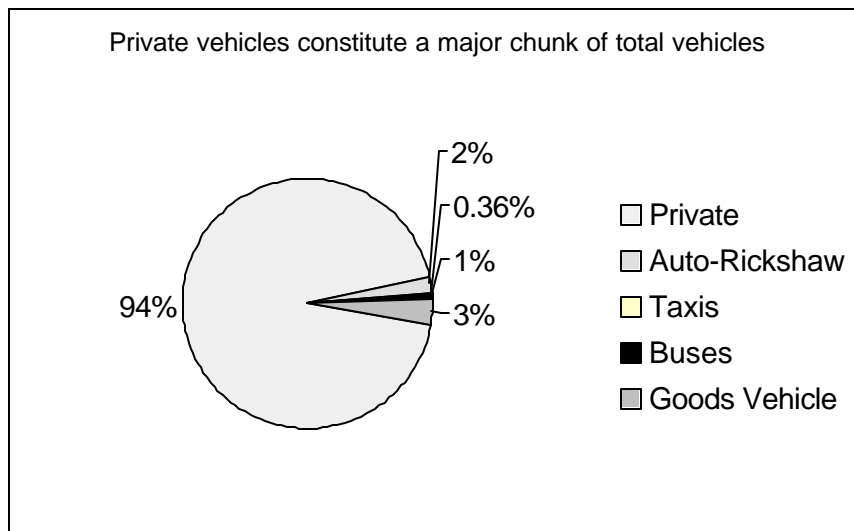
To deliberate on the challenges in addressing the key issues, EPCA called a meeting on June 26, 2004, and discussed the matter with the Municipal Corporation of Delhi (MCD), New Delhi Municipal Council (NDMC), and Delhi Development Authority (DDA). These agencies are responsible for parking management in the city. EPCA also invited Delhi Metro Rail Corporation (DMRC), and Institute of Road Traffic Education (IRTE).

Key elements of parking demand in the city were discussed and so also were the problems being faced currently. Members from local civic agencies admitted that currently the parking situation is ad hoc without a clear focus. The supply of parking lags far behind the increasing demand for parking. Parking is not adequately priced. Composite view of the residential and commercial parking and their regulations are very inadequate. Discussions brought out two key challenges that are exacerbating the problem:

i) ***Growing number of vehicles is adding to the congestion and creating acute shortage of parking space in the city.*** Ad hoc and unplanned parking and inappropriate parking pricing is leading to misuse and congestion of available public places. Delhi has witnessed rapid motorisation, much faster than the rest of the big cities. There has been an increase of about 90 per cent in overall growth of registered vehicles during 1991-2001 at an average annual compound growth rate of about 6.7 per

cent. Though buses constitute only 1.2 per cent of the total number of vehicles, cater to 60 per cent of the total traffic load. Personal vehicles – cars and scooters -- though more than 93 per cent of the total number of vehicles, cater to only around 30 per cent of the travel demand.

It is not surprising that the current parking crisis is blamed on the increasing number of private vehicles in the city. Private vehicles constitute a whopping 94 per cent of the total registered vehicles in Delhi as on March 31, 2004. Percentage share of other categories of vehicles are insignificant.



Note: Private vehicles include, cars, jeeps/station wagons and two-wheelers
Source: Department of Transport, Government of Delhi

Such a huge share of private vehicles in the total registered vehicular fleet of Delhi obviously exerts tremendous pressure on the limited parking space available in the city.

ii) *Misuse of the mixed land-use policy is leading to densification of residential sites and compounding the problem.*

The Central ministry of urban development has gone to the extent of modifying the Master Plan of Delhi (2001), and vide Gazette Notification dated 11.03.2003, making norms for mixed land-use lax. It allowed the following:

Nursing Homes, Guest Houses and Banks have been permitted in residential plots having more than 209 square meters (250 square yards) size and facing minimum 18 meter wide roads (13.5 meter wide in rehabilitation colonies and 9 meter wide roads in walled city/ Special Area).

In addition to this the Master Plan of 2001 has allowed the following changes:

- Retail shops (except hazardous, nuisance causing) allowed in residential premises up to maximum 25 percent of the ground floor coverage, or 50 square meters of floor area, whichever is less, only on ground floor.

- Professional offices up to 25 percent of floor area ration or 100 square meters, whichever is less, on any floor.
- Non-polluting household industries allowed in residential plots to the extent of 25 percent of floor space, or 30 square meters, whichever is less.

This policy is leading to virtual chaos in large parts of the city as commercial complexes are taking over the residential areas and leading to congestion and parking problems. The representatives from the local civic agencies gave many instances where the mixed land use policy was blatantly misused.

2. Observations and recommendations

1. EPCA observes that mixed land use policy has been consistently misused and has led to increasing commercialisation of residential areas. This mindless commercialisation of the residential area has led to parking mess in the city. The problem of parking is therefore symptomatic and cannot be controlled unless the fundamental constraints of land-use policy are overcome.

The guidelines for parking in mixed land use are very ad hoc and limited. For instance, the Gazette Notification dated 11.03.2003 that allowed nursing homes, guesthouses and banks in residential areas has given the following guidelines for parking only at those sites:

- i) All parking requirements in plot size over 250 sq metres to be provided within the plot.
- ii) In smaller plots land in the vicinity will be identified and common parking areas developed.

No guideline for parking exists for other commercial uses in residential areas even though such uses have been legalised.

2. There is a need for a composite parking policy for the city. Currently the plans of the city agencies to tackle the problems of parking include construction of modern multi level parking systems in various key markets, for which they are issuing tenders for construction and proposals to increase the parking charges for different areas of the city. On review of these initiatives EPCA finds that the critical elements are missing in the parking initiatives of the agencies.

- Inability to make parking facilities commercially viable with effective parking pricing. Municipal and land development agencies pointed out to the EPCA that they were increasingly looking at commercial use of parking space to finance parking infrastructure and make it commercially viable. Currently as much as 30 per cent of the space in multilevel parking sites are allowed for commercial use. Agencies were in fact looking at the possibility of making it more flexible according to the site-specific requirements. EPCA feels that this is not the right approach. With a rational and an effective parking pricing and given the high

volume of parking demand the parking lot operators should be able to generate enough revenue. Allowing such high proportion of limited parking space for other commercial uses will limit the availability of space for parking. This needs to be reviewed immediately. EPCA is of the view that parking itself is a commercial activity, and parking fees should be such that it covers the opportunity cost of land.

- Rationalisation of parking fees therefore is an important factor to be looked at. The provision of parking facilities involves considerable costs that should be legitimately passed on to the users. According to transport experts parking restrictions is one of the most powerful mechanisms to restrict the use of cars, because accessibility is directly affected. The full costs of creating parking lots must be factored in and recovered from the users. The users must be charged for the cost of the land occupied by the cars and the investment made to create them.
- The parking initiative is focused on increasing the supply of parking, in the face of growing demand. It still does not consider the principles of restricting the supply of parking, which eventually would limit the number of vehicles in the city. The parking policy should restrict the demand for parking, and should not try to accommodate the increasing demand.
- The parking initiative assumes that by augmenting public transport, people would shift from private to public mode of transport. Experience in other countries show that an effective taxation policy for personal transport is instrumental in influencing demand for public transport.
- The current initiative fails to address the parking problem in residential areas. Residential parking policy is a critical element in the overall parking policy for the city. In the context of residential parking EPCA would like to draw attention to the fact that while government has failed to come up with a plan to control and regulate residential parking effectively some housing societies at their own initiative have begun to charge parking fee from the residents. EPCA feels that the Government should take initiative to encourage other residential colonies to replicate these models and also develop its own model for residential parking.
- MCD has proposed to levy a parking charge on all commercial (annual basis) and non-commercial vehicles (one time at the time of registration) plying in Delhi. This one-time levy will be counter to the idea of regulating parking as it legalises the misuse of the parking space, with a one-time payment. In other words, reforms that are being initiated to address parking related issues are not adequate, given the crisis we are facing.

In this context EPCA would like to draw attention to the international best practices that have used parking policy effectively to restrict vehicles. Some of these policy initiatives include:

- Reductions in the number of parking lots in the city centres.
- Closing of particular streets or areas for passenger cars (except deliveries and taxis, and buses).

- Restricted parking areas ('Residents only').
- Strict enforcement of land-use policies to ensure against misuse.
- Integration of public transport with parking
- Use of fiscal instruments like pricing and charges through annual parking and road taxes

3. Directions sought from the Hon'ble Court

EPCA would like to point out that the current chaos in parking cannot be sorted out without addressing the fundamental issue of mixed land use policy and integrating a composite parking policy with it. Anything else will be purely cosmetic and will not solve the problem. This should also be supported by strong enforcement to prevent unauthorised and ad hoc parking:

EPCA would recommend the following:

- Key land development and municipal agencies, namely the MCD, NDMC and DDA to be directed to frame a composite and comprehensive parking policy for Delhi and link it with the mixed land use policy. Mixed land use should not be allowed without adequate parking provisions and any spill over should be checked and controlled with stringent parking charges.
- The composite parking policy may be submitted within two months. Pending the finalisation of this policy the government be barred from allowing any further mixed land-use development in city. All commercial development in residential areas must be immediately stopped.