

Dr. Bhure Lal

EPCA/01/2010/3

**Chairman
2010**

January 27,

To:

The Registrar General,

Supreme Court of India,

Tilak Marg, New Delhi – 110 001

Sub: Submission of the EPCA report in the matter of I.A. 316 in W.P. C) 13029/1985

Sir,

Kindly refer to the Hon'ble Supreme Court order dated 28.08.2009 in I.A. 316 in Writ Petition (Civil) No. 13029 of 1985 directing 'Environment Pollution (Prevention & Control) Authority for the National Capital Region' (EPCA) 'to give a report as regards the needfulness for fresh permissions for three wheelers (TSRs)' and find enclosed herewith the report of the EPCA in this regard.

Thanking you,

Yours faithfully

(Bhure Lal)

Chairman

EPCA Report Number 34 (January 2010)

Review of existing cap on the number of three-wheelers in Delhi and its implications for pollution and congestion

In response to the Hon'ble Supreme Court dated September 3, 2009
In response to the I. A. number 316 of 2009
(In the matter of W. P. (C) No. 13029 of 1985; M. C. Mehta v/s UOI & others)

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

1. Background

September 3, 2009: Hon'ble Supreme Court directed:

“This Court had passed some orders on 16.12.1997 and 20.12.2002 regarding TSRs. The main grievance of learned senior counsel for the applicants is against paragraph 9 of the Order of 16.12.1997, which reads as follows:

‘One of the major pollutants identified in the various affidavits as well as the latest status report filed by the government is the TSR (two-seater rickshaw using two-stroke engine). We are further informed that although the existing figure of registered TSRs, as per the records, is approximately 83,000; the actual number in use is far lesser since some of these permits have not been cancelled although the vehicles have been scrapped. It would be in the interest of environment, to freeze the number of TSRs for the present at the level at which are actually in use in the city. We, therefore, direct that there would be no grant of fresh permits in respect of the TSR, save and except by way of replacement of an existing working TSR with a new one’.

Learned senior counsel states that in view of the increase in population and increase in the number of vehicles during the past several years, this matter needs to be examined afresh by the EPCA. We request the EPCA to give a report as regards the needfulness for fresh permissions for three wheelers.”

2. Consultations held by EPCA

To discuss this matter, EPCA held a series of meetings with representatives of all concerned groups (Annex 1: minutes of meetings held on TSR). The groups consulted include:

- a. The Delhi government's transport department
- b. The Delhi police
- c. Associations of 3-wheeler;
- d. Manufacturers of 3-wheelers;
- e. Weights and Measures Department, Government of NCTD
- f. Delhi Finance Corporation (and representatives of private financiers)
- g. ARAI

This report and EPCA's recommendations are based on these discussions and issues raised with the different stakeholders.

3. The current pollution and mobility challenges and role of 3-wheelers

Delhi has in recent years an exponential growth in its motor vehicle population. The city registers over 1000 private vehicles each day, which are contributing to the growth of pollution and congestion. The only way ahead for the city is to greatly increase its public transport capacities, so that people are provided with a feasible, reliable option to

commute. Most importantly, the city needs an integrated and multi-modal public transport system, which combines different modes of mass transit – bus, metro and tram – with intermediate modes – like taxis and 3-wheelers. This is because an effective public transport system requires last-mile connectivity.

It is in this context that the city must re-examine the role of the three-wheeler. The vehicle is relatively cheap to operate, as against a CNG or petrol driven taxi. Even in its earlier report to the Hon'ble Supreme Court (October 2004), EPCA had noted, "*the three-wheeler is vital element the transportation plan of the city, as it transports more people than a private car. Therefore, it needs to be promoted.* But in order to do so, the above mentioned technical and management issues will need to be rectified. In the interim, EPCA would like to reiterate its earlier recommendation that the increase in numbers of three wheelers should be allowed only in the category of zero emission vehicles, namely the battery operated three wheelers."

EPCA has reviewed the matter of 3-wheelers in the context of the mobility, pollution and congestion challenge that the city faces. It has examined the following issues:

1. The regulatory challenges of restricting the numbers of 3-wheelers in the city and what this does to the costs of the service provided
2. The pollution challenge of 3-wheeler technology and its future options
3. The management challenge to ensure quality service and options to mitigate pollution

4. Regulatory challenge of capping numbers

According to the Transport Department, government of NCT of Delhi, the number of registered 3-wheelers in the city is: 55,236, while 72,429 have been replaced after 1997. In other words, in these cases new permit against the old scrapped vehicle has been issued.

EPCA's discussions with different stakeholders revealed that the direction to cap numbers of TSRs has led to a high transaction cost. This in turn is pushing the TSRs into the hands of financiers, culminating in problems on the road of managing this fleet for pollution or customer service. The following facts emerged:

4.1: The capping of numbers has led to a high premium on the costs of a new vehicle in the city. It is estimated that the premium paid to 'transfer' the permit increasing the cost of the vehicle to roughly Rs 4.50 lakh, as against the show-room cost of Rs 1.25 lakh. This high transaction cost of capital has, in turn implications on the ownership of the vehicle, on the cost of running the intermediate public transport vehicle and poor maintenance, which in turn leads to increased pollution.

4.2: The regulatory challenge of restricting the numbers is also onerous. The policy is to grant a new permit against the old permit, after proof of physical scrapping of the old vehicle. The current process is as follows:

- The 'owner' applies for transfer to RTO
- RTO gives P3 certificate as evidence that papers submitted
- With P3 the 'owner' goes to scrap yard – run by 3-wheeler manufacturer, Bajaj. The scrap yard has been oversight team, comprising of a representative of the transport department (MV inspector), insurance agent and Bajaj representative. This team also fixes the scrap value (earlier Rs 7000; now Rs 5000) and issues the certificate.
- The scrap yard gives a P4 certificate that auto has been destroyed
- With P4 certificate the 'owner' goes to the auto dealer to purchase a new vehicle.
- Based on this, the new permit, against the old is granted by RTO
- Currently, there is no restriction on the transfer of permits.

4.3: In spite of all the efforts of the transport department to improve the registration database, the system is in bad shape. The addresses are not clear; ownership information is difficult to transcribe. It is alleged that the ownership is concentrated in the hands of financier mafia. As a result, the bulk of the vehicles on road are owned by a limited number of people who rent these to drivers on a charge of around Rs 250-300 for an 8-hour shift. The driver pays for the CNG fuel; the lube oil and for minor repairs, which adds to the tendency to cut costs.

4.4: The growing congestion is increasing the time taken for each trip, in turn reducing the revenue of drivers (not owners), including the tampering of meters. It is estimated that while the cost of operations (fuel and maintenance) is roughly Rs 3/km, increased congestion and reduced road speed has increased costs. This increased cost combined with lack of incentive to maintain the vehicle results in the use of poor quality lube oil that adds to pollution load.

4.5: The Delhi government issued a policy in 2006 to replace two-stroke vehicles to four stroke. Under the policy, all 10-year old vehicles have to be replaced and new vehicles are granted on submission of proof of physical scrapping of the old vehicle. Under the scheme, if the permit is not transferred in 3 years, then the government provides a sales tax rebate retroactively of Rs 6500/ or 6 per cent of the cost of a new vehicle. It is interesting to note that there have been few takers for this scheme, suggesting once again that there is widespread trading in permits and that the total cost of the vehicle is not reflected in the off show-room costs.

4.6: The Transport Department has started a scheme to link the TSR owner and driver. This is being done through the issuance of smart cars, which include the details of drivers and the owners. However, in spite of repeated advertisements and public announcements, the department has found a very slow response to this scheme.

4.7: It is alleged that there is widespread tampering of the meters in the vehicles. The representatives of the department of weights and measures have explained that only those meters are allowed, which have been certified through the authorized laboratories in the country. For Delhi, the department has also made it mandatory to get an

additional model-approval test conducted. But in spite of this, tampering is possible and easily done. Therefore, new options, using different methods will have to be found.

4.8: The difficulty in procuring the new permit and high costs, which are not reflected in the cost of the off-showroom cost of the vehicle does not allow the introduction of public bank finance. The automobile manufacturers also do not provide bank finance because of this reason.

5. The challenge of technology and emissions

The existing TSR fleet is entirely from one manufacturer namely Bajaj Auto, which was the first company to introduce the CNG 3-wheeler. EPCA in its earlier report has detailed the technology and emission challenge of these vehicles. In this report, it has reviewed the issues, based on the new technologies and market imperatives. It has found that over the period of years more manufacturers have started commercial productions of three wheeler auto rickshaws. The prominent players in the market are Scooters India, TVS Motors, Mahindra and Mahindra, Piaggio. However, Bajaj Auto dominates with roughly 41 per cent of the market share.

The vehicle manufacturers confirmed that their products have been upgraded to meet the new Bharat III norms, which will be introduced by April 2010. These norms will substantially improve the emission profile as against the existing vehicle: [CO – 1.25 g/km, (NO_x + HC) – 0.5 g/km] The improvements in technology include improvement in the engine cylinder size, fuel-air mixture intake system, use of better materials, incorporation of oxidation cat-converter etc.

However, EPCA has noted that the existing PUC system for on road emission testing will need to be upgraded before April 1 2010 to ensure on road compliance.

6. Management challenges for improved mobility service and pollution management

6.1: The Transport Department's scheme to introduce biometric smart card based permits must be made mandatory. The biometric smart card, which is machine-readable will greatly improve management on road. The Delhi police in its submission have also suggested that the PSV badge-cum-biometric cards should be issued to TSR drivers. The Delhi Motor Vehicle Rules 1993 stipulate that the driver of a public service vehicle must display the metal or plastic badge. The Transport Department has therefore, introduced the smart card, which links the TSR owner with the driver of the vehicle. The smart cards include biometrics of the permit holder as well as the badge numbers of six drivers, who would be authorized to drive the vehicle.

6.2: It has been suggested that three-wheeler should also be fitted with a GPS with a built in metering device. Such a device would receive location co-ordinates continuously, compute the distance traveled continuously and compute the fare. Since the fare is calculated based on location co-ordinate received by the GPS receiver, over charging/misuse would be curtailed.

6.3: To control pollution, it will be important to upgrade the existing PUC centres and the annual test and certification done at the Burari Automobile Test Centre to meet the tightened emission norms coming in force from 1st April 2010.

7. Recommendations and directions sought from the Hon'ble Supreme Court

Based on the above discussions, EPCA would recommend the following:

1. **The existing restriction on the number of TSRs imposed by the Hon'ble Supreme Court vide its order dated December 16, 1997 be lifted as of April 2010, when the Bharat III norms come into force.** The direction to cap numbers of 3-wheelers has played a critical role in controlling pollution. However, since then the challenge of pollution has shifted from the control of individual vehicle pollution to the control of pollution because of the growth of the number of vehicles on the road. EPCA has noted that the current crisis of pollution in the city and its adjoining areas is largely because of the exponential growth of private vehicles. The only option for the city in the future is to provide a viable and reliable public transport system, which will restrain the use of private vehicles on the roads. The 3-wheeler plays an important role in providing an intermediate public transport facility. It remains cheaper to operate as compared to any four-wheeled vehicle and removal of the cap and the high transaction costs associated with it will bring down the cost of capital drastically and provide space for improvement of the service on road. Removal of cap will also help in eliminating the dominating hold of "financier's mafia" who are exploiting not only the drivers but also general public by pushing up artificially the capital cost of 3-wheelers and hence the operational cost.
2. **The removal of the restriction on numbers must be accompanied with mandatory biometric smart cards for owners and drivers.** The Transport Department must be directed to complete the process of issuing these smart cards by March 31, 2010. No vehicle without a biometric smart card should be allowed to ply as of April 1, 2010.
3. **All drivers of the 3-wheeler must be mandated to carry their public service vehicle badge, which will also be included in the smart card.** The Transport Department and Delhi Police must have procured machine readers so that on-road enforcement is both possible and strengthened. This will also help in controlling crime.
4. The Transport Department must examine technology options like GPS to improve the meters on the vehicles and improve compliance.
5. **The in-use vehicle fitness and emission testing systems must be improved at Burari.** The Transport Department must provide a plan for this upgradation and its implementation to EPCA at the earliest.
6. **The Delhi government must examine the further improvements in the scheme so that intermediate public transport vehicles can be integrated to the mass transit system.** For instance, EPCA has noted that the parking is not

provided for intermediate transport vehicles at bus/metro stations. It is important to integrate these vehicles as they provide the last-mile connectivity and can reduce the use of private vehicles.

7. **The removal of cap on numbers of TSRs must be carefully monitored in terms of its impacts on congestion and pollution.** EPCA will report on this matter to the Hon'ble Supreme Court, so that review or remedial actions can be taken.