EPCA Report (February 2014)

REPORT ON PRIORITY MEASURES TO REDUCE AIR POLLUTION AND PROTECT PUBLIC HEALTH

In the matter of W.P. (C) No.13029 of 1985; M.C. Mehta v/s UOI & others

1. **Delhi was able to arrest and lower air pollution with its first phase of action directed by the Hon'ble Supreme Court. But Delhi could not sustain these gains and air pollution levels are rising again. Growing pollution especially from vehicles and delayed action have enhanced public health risk.**

2. **This report seeks directions from the Hon'ble Court on rapid implementation of priority measures to reduce air pollution, especially vehicular pollution and reverse the slide to protect public health in Delhi and the National Capital Region.**

3. **This report has examined issues and sought directives from the Hon'le Supreme Court to have uniform and stringent emissions standards nationwide to enable all vehicles including trucks to be cleaner and benefit all regions; tax measures to control dieselization; effective differential between diesel and CNG prices; time bound expansion of buses and bus service in Delhi and NCR; lower taxes on buses; city-wide network plan for dedicated pedestrian and cycling lanes; effectively high parking charges and enforcement of legal parking; improved vehicle inspection programme and harmonized vehicle taxes in the NCR; and public information system on daily air quality along with health advisories.**

Environment Pollution (Prevention & Control) Authority

for the National Capital Region

Setting the agenda for rapid implementation of priority action to reduce air pollution and protect public health

Despite being one of the most polluted cities in the country Delhi was able to arrest and even lower air pollution with its first phase of action directed by the Hon'ble Supreme Court. But Delhi has not been able to sustain these gains and air pollution levels are rising again. The deadly combination of growing pollution especially from vehicles and delayed action has enhanced public health risk in the city.

Summary highlights of the air pollution crisis and disturbing trends negating the gains are as follow:

- Particulate pollution, a serious public health threat and key target of air pollution control measures, is rising rapidly after initial stabilization. The annual average PM10 levels were reduced by about 16% between 2002 and 2007. Since then particulate levels have increased dramatically by 75%. During the same decade (2002 to 2012), vehicle numbers have increased by as much as 97%, contributing enormously to pollution load and direct exposure to toxic fume. Studies show that about 55 per cent of Delhi's 17 million people who live within 500 meters from any road side that are directly exposed to toxic vehicular fume.

- This winter Delhi's air pollution levels increased to dangerous levels. Almost throughout this winter, levels of PM2.5, tinier particle that go very deep inside the lungs, have remained 2-3 times reaching upto 4 to 7 times the standards and during high smog episodes even hit 8 to 10 times the standards. This is extremely dangerous for people suffering from asthma, other respiratory and cardiac problems and also for children and elderly.

- The CNG programme, one of the key measures directed by the Hon'ble Supreme Court to curb air pollution and particularly diesel pollution has been under threat from the wrong fuel pricing policy. Over time the price gap between CNG and diesel fuels has narrowed considerably hurting the programme. In 2002-03, CNG was cheaper than diesel by about 46.71%. Between 2004 and 2009 the difference widened further to more than 50% as diesel prices increased. But in December 2013, the price differential plummeted to 7.35%. Only after the most recent intervention to reduce CNG prices by Rs 15 per kg in February 2014 has helped to

increase the differential again to about 35%. High CNG costs hurt public transport and undermine clean fuel programme.

- Rapid motorisation based on poor quality fuel and vehicle technology will make air pollution trend irreversible. Currently, only 38 cities and towns (including different towns in the NCR), get Euro IV (Bharat Stage IV) fuel-vehicles. The rest of India gets Bharat Stage III standard fuel and vehicles, which is very polluting. Limiting improved emissions standards only to a few cities and to a smaller proportion of urban population violates the fundamental right to healthy life for all.

- Immediate introduction of Bharat Stage IV standards nation-wide will give substantial benefits. While Bharat Stage IV particulate standards for cars are 50% cleaner than Bharat Stage III standards and Bharat Stage IV particle standards for trucks and diesel buses are 81% cleaner. Uniform emissions standards will allow trucks and interstate buses to move to cleaner fuel and technology that otherwise pollute cities during transit.

- The gap between diesel fuel and petrol is leading to dieselization of cars. From just 4% of new car sales in 2000 diesel cars are now half of new car sales. The Union Ministry of Petroleum and Natural Gas has reported that of the total diesel use (both bulk and retail), the share of car use (private cars and SUV and taxi) is upto 22.09%. Private cars alone use 13.15% which is higher than buses at 9.55%, agriculture at 13%, railways at 3.24% and mobile towers at 1.54%. Cars are the second highest user after diesel trucks at 28.25%. The WHO has formally reclassified diesel emissions as class I carcinogen for its strong link with lung cancer – putting it in the same class as tobacco smoking.

- When public transport is the urgent need to reduce air pollution, Delhi has suffered serious loss of bus ridership from 60% in 2000 to 40% in 2008. But even today buses carry maximum trips and are expected to play a significant role to help Delhi achieve the Master Plan target of 80% public transport ridership by 2020. In 1998 the Hon'ble Supreme Court had ordered that Delhi should have 10,000 buses. But still only 6251 (DTC 5216 and Cluster buses – 1035) ply in the city. But this target has not been met. Subsequently, the High Court had asked for 11,000 buses.

- Public transport solution cannot work if people cannot walk and cycle safely and comfortably in the city. The road accident data from the Union Ministry of Road Transport Highways for the year 2012 shows that every hour one person is either killed or injured in road accident in Delhi. Yet over 39 % of daily commuters – the majority - walk and cycle in Delhi (RITES survey of 2008: walk share is 35% and cycle share is 4.4%). The absolute number of walk and cycle trips in Delhi are still among the highest in the country. This will have to be protected and scaled up.

- Clean air and mobility solutions will not work in isolation in Delhi. The entire NCR region desperately needs a public inter-city transport plan. According to a 2005 RITES Report, surveys conducted at 15 locations of Delhi border in 2001 revealed an average of 1.53 million daily inter city trips are made to Delhi. During the last 7-8 years, traffic volumes have increased well over this. But mass transportation – bus and rail – has not kept pace with this growth. This has driven the growth to private and personal transport modes, which in turn, has added to pollution and congestion.

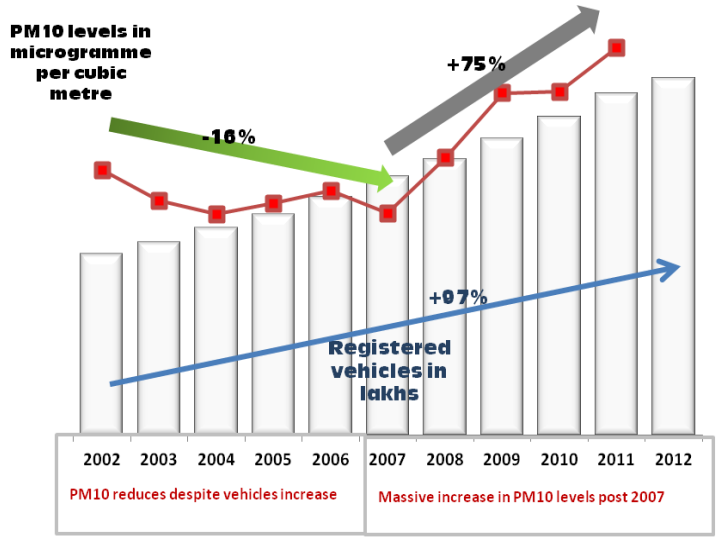
- Wrong fiscal policies are hurting public transport. It is ironical that buses that meet 40% of travel requirement in the city are taxed higher than cars. For example, a car costing around Rs.4 lakh-Rs.6 lakh pays onetime lifetime road tax in the range of Rs.16, 000- Rs.24, 000. This on an annualized basis for the useful life of the car (annualized over 15 years) works out to be a mere Rs.1,000-Rs.1,600 per annum. But a bus carrying 50-60 passengers pays a tax in the range of Rs.15, 915 – Rs.18, 715 every year. This adds to the cost of bus operations.

- Car growth is explosive also because of hidden subsidies. It is ironical car users pay nothing or pay a miniscule amount for using valuable public space to park their personal vehicles. Delhi and other Indian cities have the lowest parking charges in the world. While developed cities like London, Oslo, Paris etc have daily charges ranging from 40 US $ (Rs. 2400) to 89 US dollars (Rs. 5340) to manage demand – about 40-80 times higher than Indian cities, even developing cities like Cape town, Beijing have rates ranging from 8 US$ (Rs 480) to 4 US$ (Rs 240) - 4 to 8 times higher than Delhi.

1. Delhi has lost CNG gains: Need urgent action

The Supreme Court directives did help to arrest air pollution trend in Delhi. The annual average PM10 levels were reduced by about 16% between 2002 and 2007. But thereafter, with rapid motorization, particulate levels – key target of policy action, increased dramatically by 75%. Between 2002 and 2012, vehicle numbers increased by as much as 97%, contributing enormously to pollution load. (See graph 1.1: Particulate pollution decline and rise again due to rapid increase in vehicle numbers). Moreover, between 2002 and 2011 the nitrogen oxide levels have also increased 30% indicating Delhi is in grip of multi-pollutant crisis.

Graph 1.1: Particulate pollution decline and rise again due to rapid increase in vehicle numbers



Source: Based on air quality data of Department of Environment, Delhi and motor vehicle registration data in Delhi Statistical Handbooks of different years

Supreme Court directives in the first phase (**July 28, 1998 order**) helped improve emissions standards, implement largest ever public transport strategy on CNG; cap age of commercial vehicles; improve vehicle inspection programme; and divert substantial truck traffic. Delhi government has also relocated polluting industry, cut power plant pollution and banned open burning. But after 2007 only a few steps were taken – expansion of metro, moderate increase in bus numbers; Euro IV emissions standards; and small network of cycle tracks and footpaths around

Commonwealth games venues. This is too little too late. Delhi has about 7.5 million vehicles and is adding 1400 vehicles a day.

Though globally and nationally large number of studies have already proven the severe health risk from air pollution, several studies are also available in Delhi to provide local evidences. Most extensive scary evidences have come from the epidemiological study on children in Delhi carried out by the CPCB and the Chittaranjan National Cancer Institute of Kolkata. This study published in 2012 had covered 11,628 school-going children from 36 schools in different parts of Delhi and in different seasons. It found that every third child has reduced lung function. Sputum of Delhi's children contains four times more iron-laden macrophages than those from cleaner environs, indicating pulmonary hemorrhage. The levels of these biomarkers in children have been found to be higher in areas with high PM10 levels. Also 2010 study of Health Effect Institute, Boston, estimates at least 3000 premature deaths annually due to air pollution related diseases. University of California Berkeley study indicates the extent of exposure to vehicular pollution in Delhi.

Delhi has already exhausted all soft options. EPCA has been working with government of Delhi to implement the public transport agenda and to enforce numerous measures including steps to restrain personal vehicles, through taxation and parking policy, control dieselization, promote walking and cycling but implementation of these steps is extremely slow.

However, limiting action only to Delhi will not help. Air quality targets and benefits will have to be on a NCR wide basis with harmonized laws and fiscal policies. EPCA is coordinating with the state governments to frame NCR-wide action plan. Delhi and the NCR need emergency level action to reduce the growing load of pollution in its air. But implementation is extremely slow. Moreover, substantially improved emissions standards for vehicles and fuel quality will have to be implemented nation-wide to address regional concerns as vehicles especially trucks and inter-state buses move across boundaries and add to the pollution load in cities during transit.

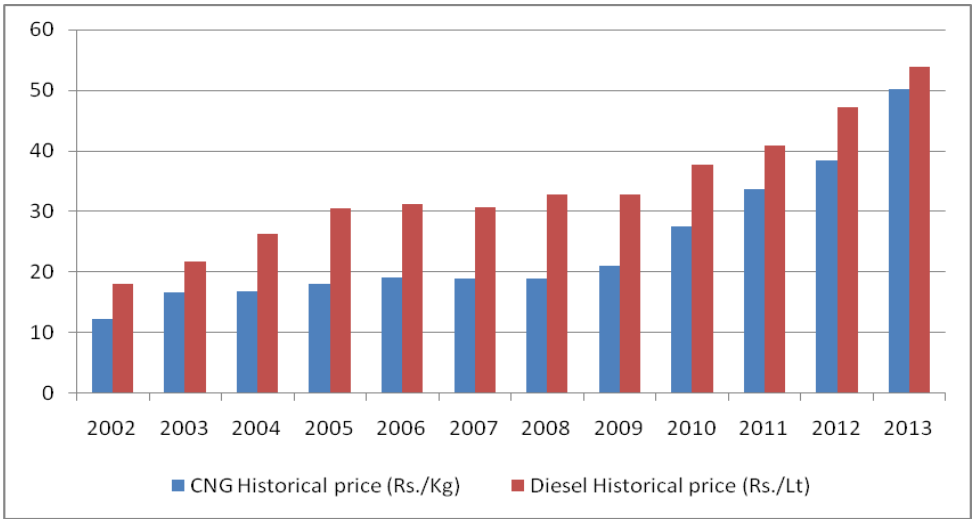
This report presents some of the priority action that is needed to push forward and scale up immediate action.

2. CNG pricing is a risk to CNG programme

CNG programme was introduced in Delhi to reduce particulate pollution especially toxic diesel emissions. To support this programme the EPCA had recommended to the Hon'ble Supreme Court that favourable taxation policy be adopted to keep CNG prices 30% below diesel. (**EPCA Report of July 2002 - Getting the pricing right)** Moreover, the Supreme Court order of April 5, 2002 had also directed the Union of India to accord priority to transportation sector while allocating natural gas.(**April 5, 2002 order**)

Over time price gap has narrowed considerably hurting the programme. In 2002-03, CNG was cheaper than diesel by about 46.71%. Between 2004 and 2009 the difference widened further more than 50% as diesel prices increased. But, in 2011, for the first time, the differential fell to 21.21%. In December 2013, the price differential plummeted to 7.35%. This is not acceptable. High fuel costs hurt public transport and undermine clean fuel programme.

Graph 2.1: Prices of diesel and CNG, 2002-2013



Sources: Market sources, media reports Indian Oil - products/diesel domestic prices

Recently, in February 2014, national government has reduced CNG prices by Rs 15 per kg. This has helped to widen the differential once again to about 35%. But in April prices will be raised again. The current differential – after lowering of the CNG prices, will have to be maintained as a policy.

Directive sought from Hon'ble Supreme Court: Government of India and the Union Ministry of Petroleum and Natural Gas be directed to come up with a long term favourable taxation policy to maintain at least 30-35% price differential between diesel and CNG and also accord priority to transport sector for gas allocation in cities to address public health concerns in polluted cities.

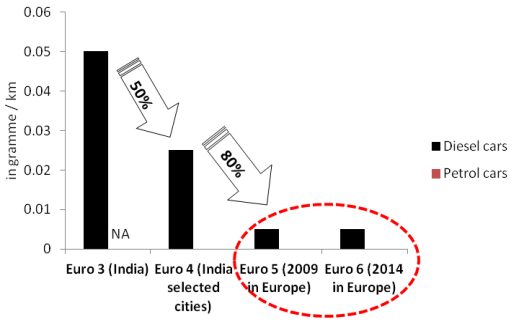
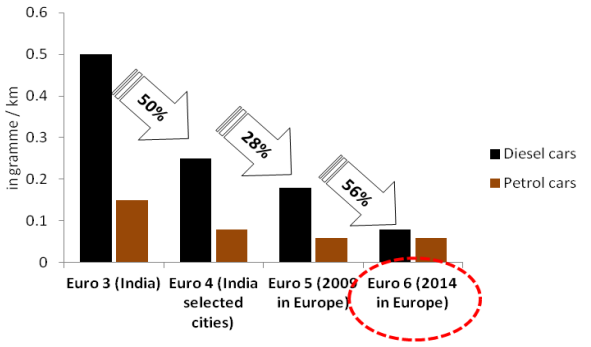
3. Leapfrog emissions standards

Rapid motorisation based on poor quality fuel and vehicle technology will make air pollution trend irreversible. Currently, only 38 cities and towns (including different towns in the NCR), get Euro IV (Bharat Stage IV) fuel-vehicles. The rest of India gets Bharat Stage III standard fuel and vehicles, which is very polluting. First of all, this practice of limiting improved emissions standards only to a few cities and to a smaller proportion of urban population violates the fundamental right to healthy life of all. About 50% of cities monitored under the National Ambient Air Quality Monitoring Programme in the country have particulate levels officially classified as critical. The Global Burden of Disease estimates released in 2013 ranks air pollution as the fifth largest killer in India.

Secondly, two levels of emissions standards in the country do not allow trucks to move to cleaner fuel and technology and they heavily pollute cities during transit and aggravate pollution in Delhi and NCR as well. Immediate introduction of Bharat Stage IV standards nation-wide will give substantial benefits. The Bharat Stage IV standards for cars especially particulates are 50% cleaner than Bharat Stage III standards. Bharat Stage IV particle standards for trucks are 81% cleaner (see Graph 3.1: Comparison of norms for petrol and diesel cars and Graph 3.2: Emission norm for heavy duty vehicles). This will have dramatic impact on truck that causes very serious pollution.

The earlier Auto Fuel Policy roadmap recommended by Mashelkar Committee has ended in the year 2010. It is shocking that when the country is motorizing very rapidly the next stage of roadmap is not in place. The central Ministry of Petroleum and Natural gas has set up a committee on auto-fuel policy to suggest roadmap until 2025. But there is no urgency or a public health based guiding principles to accelerate matters in the timeframe suggested to the committee and that gives considerable leeway to delay introduction of better standards fast.

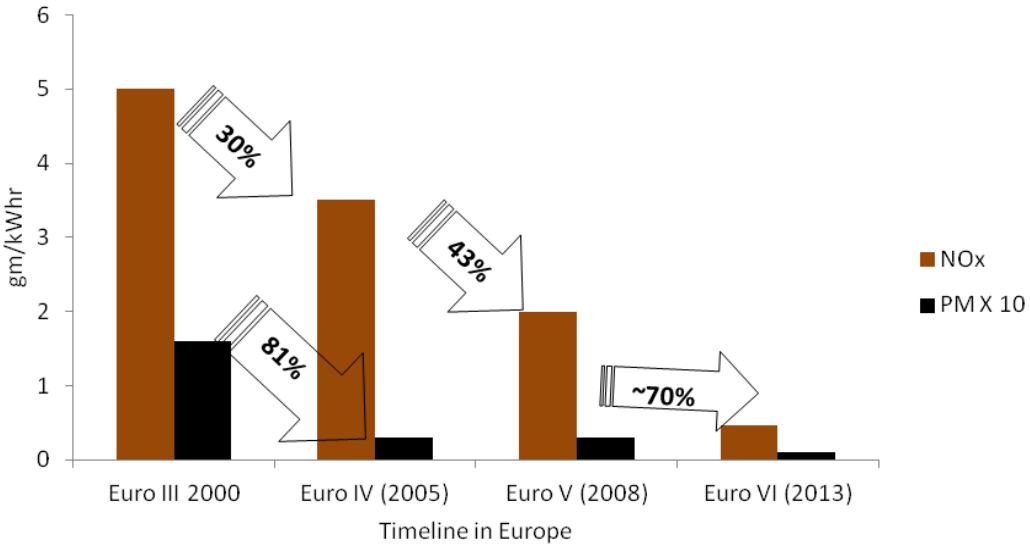
Graph 3.1: Comparison of norms for petrol and diesel cars

Particulate norms for diesel car	NOx norms for petrol and diesel cars. (Diesel emissions equalize with petrol only at Euro VI level)
	

Note: PM emissions from petrol vehicles are so negligible that these are not regulated in petrol vehicles

Source: Based on data available in www.dieselnet.com

Graph 3.2.: Emission norm for heavy duty vehicles



Note: PM values to be multiplied by 10 to show the values of PM emissions norms in the graph.

Source: Based on data available in www.dieselnet.com

It is recommended that the entire country move to Bharat Stage IV by 2015. Additionally, standards for cars should be revised to meet Bharat Stage V by 2016. The country should be prepared to leapfrog to Euro VI standards by 2021. Quick implementation of Euro V and Euro VI emissions standards is needed because diesel emissions close gap with petrol emissions only at Euro VI stage to address the toxic risk. Also truck traffic that is languishing will meet clean benchmark. In its April 5, 2002 order the Hon'ble Supreme Court had upheld the principle that "....profit at the cost of public health is not a sign of good governance and this is contrary to the Constitutional mandate of Article 99(e), 47 and 48A."

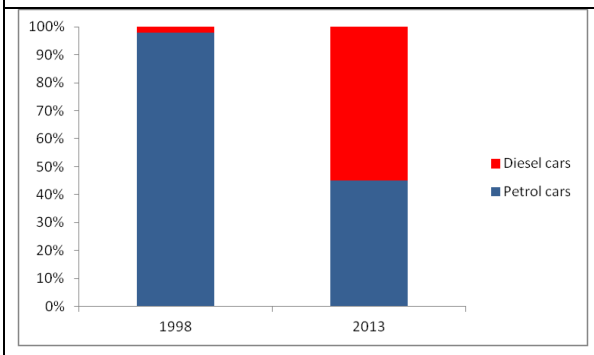
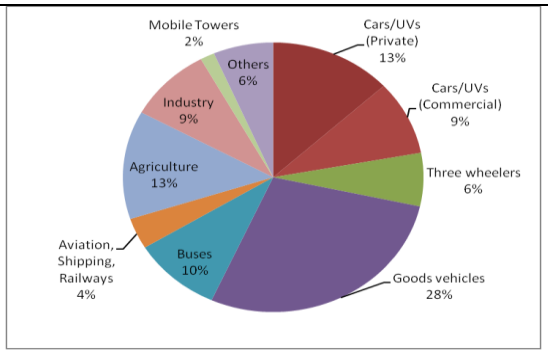
Directive sought from Hon'ble Supreme Court: The Union Ministry of Petroleum and Natural Gas and the Union Ministry of Road Transport and Highways be directed to ensure:

- **Bharat Stage IV emissions standards be introduce nation-wide by 2015. Cars should meet Euro V by 2016. Stringent timeline for introduction of Euro VI by 2021. This rapid improvement in fuel quality-vehicle technology is needed across the country to reduce direct exposure to toxic vehicular fume. This nation-wide action will benefit Delhi and NCR that has emerged as a pollution hotspot.**
- **If there are concerns over costs of improving quality of fuels then the government may also be directed to frame fiscal measures to meet the refinery upgrade costs to produce clean fuels for rapid introduction of clean diesel and technology.**

4. Diesel price equalization with petrol or tax on diesel cars

The gap between diesel fuel and petrol is still huge and leading to dieselization of cars. From just 4% of new car sales in 2000 diesel cars are now half of new car sales. The Union Ministry of Petroleum and Natural Gas has reported that of the total diesel use (both bulk and retail), the share of car use (private cars and SUV taxi) is upto 22.09%. Private cars alone use 13.15% which is higher than buses at 9.55%, agriculture at 13%, railways at 3.24% and mobile towers at 1.54%. Cars are the second highest user after diesel trucks at 28.25%. (Graph 4.1: Trend in diesel cars and diesel use)

Graph 4.1: Trend in diesel cars and diesel use

Trend in share of diesel and petrol cars in new car sales: Today half of all cars are on diesel	**Use of diesel in different sectors: Cars are the second highest users**
	
Source: Based on market data	Source: Press Information Bureau, Government of India, Ministry of Petroleum & Natural Gas, 28-January-2014

Government of India has started to phase out diesel subsidy with small monthly increase. The under recovery (or the market price of the fuel that is not recovered from the consumers) has been about Rs 10/litre. The slow increase in diesel prices – about 50 paise per month per litre - will take at least two years to get rid of under recovery. But even after that if taxes on both the fuels are not rationalized to reduce the differential between petrol and diesel prices, it will continue to promote toxic dieselization. For instance, the central excise on diesel is Rs 3.56 per litre as opposed to Rs 9.48 per litre on petrol – 60% lower than petrol. The WHO has officially declared diesel emissions as class I carcinogen for its strong link with lung cancer, putting it in the same class as tobacco smoking.

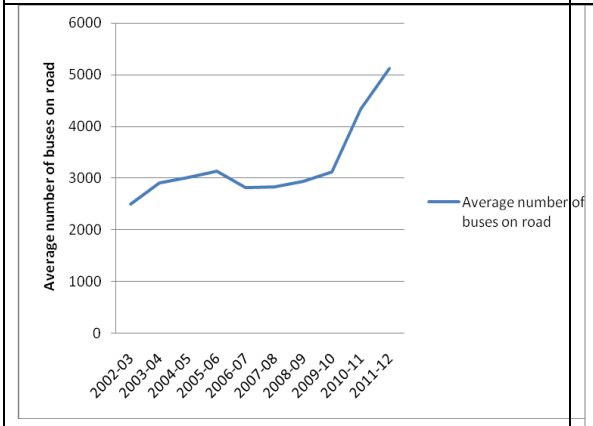
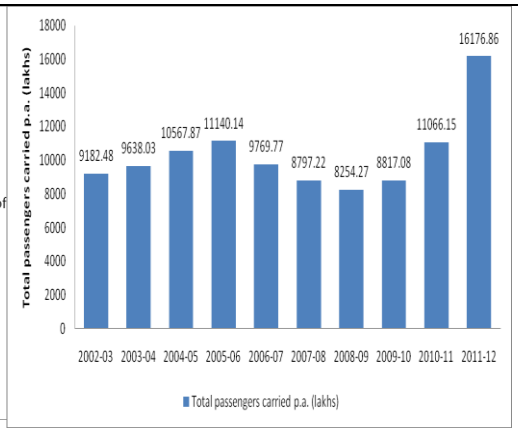
In the IA filed in 2012, EPCA had asked for environment compensation charge of 25% on sale of each private diesel car. After this, in the 2013-14 budget, government increased excise duty on SUVs from 27% to 30%. But this is not good enough. The current price difference between petrol and diesel version of the same car model that varies between 16% and 24% has not deterred dieselisation because of the promise of the cheaper running costs.

Directive sought from Hon'ble Supreme Court: Union of India to be directed to impose additional 30% environment compensation charge on private diesel cars. The Union of India and Ministry of Petroleum and Natural Gas be directed to invest revenue from this source to produce clean diesel (10 ppm sulphur) to enable introduction of Euro V and Euro VI nation-wide and also in scale up public transport.

5. Need improvement of public transport and last mile connectivity

In 1998 the Hon'ble Supreme Court had directed to augment the CNG bus fleet to 10,000 **(July 28, 1998).** Subsequently, Delhi High Court had ordered that Delhi should have 11,000 buses. Still only 6251 (DTC 5216 and Cluster buses – 1035) ply in the city. Due to slow improvement Delhi has already suffered serious loss of bus ridership from 60% in 2000 to 40% in 2008. This will have to be reversed as buses still carry maximum trips and are expected to play a significant role to help Delhi achieve the Master Plan target of 80% public transport ridership by 2020.

Graphs 5.1: Signs of improvement

Bus numbers have increased slowly in Delhi. Have not met the target yet.	DTC reports increase in bus ridership. Still long way to go
	
Source: DTC- Operational Statistics, April 2011 page no. 39	

Government has phased out blue-line buses, introduced cluster scheme. Even this has shown promising results in rising ridership of DTC buses and improved efficiency of cluster buses. This change needs to gather momentum with rapid expansion of bus numbers and improved bus service

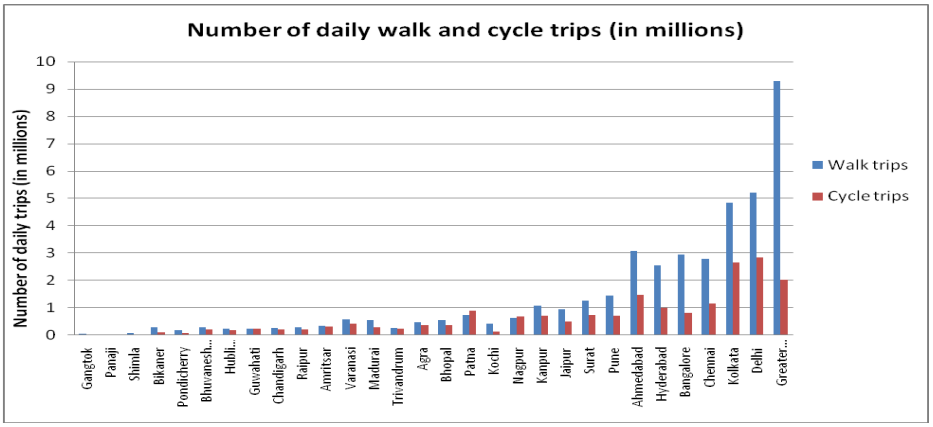
in terms of reliability, frequency, comfort and access. City needs fast augmentation and bottlenecks removed. This includes terminal and parking facilities for the new buses and efficient deployment strategy.

Directive sought from Hon'ble Supreme Court: Government of NCT be directed to bring all the 11,000 buses within a year, or face contempt. A detailed phase-in schedule for introduction of the buses to be submitted to court.

6. Right to safe walk and cycling on all roads

Even today, over 39 % of daily commuters walk and cycle in Delhi (RITES survey of 2008: walk share is 35% and cycle share is 4.4%). Despite odds, the absolute number of walk and cycle trips in Delhi are among the highest in the country (See graph 6.1: Number of walk and cycle trips in 30 major cities). This will have to be protected and scaled up. A serious barrier to scaling up of walking and cycling is lack of safety. The road accident data from the Union Ministry of Road Transport Highways for the year 2012 shows that every hour one person is either killed or injured in road accident in Delhi.

Graph 6.1: Number of walk and cycle trips in 30 major cities



Source: Wilbur Smith Associates for the Ministry of Urban Development, 2008

Metro and buses are only part of the public transport solution. People need to walk or cycle for convenient commute and to access public transport, jobs, services and recreation. If walk and cycling is compromised it will also

undermine public transport usage and last mile connectivity. Right to clean air/walk/cycle will have to be made non-negotiable.

Directive sought from Hon'ble Supreme Court: Government of NCT, Transport Department of Delhi, Public Works Department, Delhi, UTTIPEC - DDA and traffic police be directed to submit a time bound plan on implementation of appropriate network of dedicated pedestrian and cycling lanes with high degree of safety for pedestrians and cyclists. This should be based on equity of use and need of the road users including walkers, cyclists and public transport users. All road projects should be subject to this plan.

7. Public transport connectivity in NCR region

There is explosion of traffic from and to NCR towns and there is virtually no public transport to take off the pressure. EPCA in 2007 had apprised the Supreme Court about the growing traffic between Delhi and its neighbouring areas (**EPCA in its report no, 33 of 2007 on 'Interstate public transport needs')**. This report had sought directions to reverse the slide of public mass transport in the National Capital Region. The Supreme Court had then taken cognizance of insufficient public transport system in NCR.

According to a 2005 RITES Report, surveys conducted at 15 locations of Delhi border in 2001 revealed an average of 1.53 million daily inter city trips are made to Delhi. During the last 7-8 years, traffic volumes have increased in the region. But mass transportation – bus and rail – has not kept pace with this growth. This has driven the growth to private and personal transport modes, which in turn, has added to pollution and congestion. The region desperately needs a public inter-city transport plan.

EPCA has already proposed seamless public transport for the entire NCR region and reciprocal transportation agreement to eliminate barriers like tolls and taxes on public transport and para-transit across borders. The state governments in the NCR tax public transport vehicles coming in and out of their respective borders and do not tax private vehicles. Delhi Municipal Corporation taxes all public transport and commercial vehicles while entering Delhi. Other governments charge when vehicles go out of Delhi. This also makes bus transport expensive for the daily commuters in

NCR. Ironically, while car owners protest against the imposition of toll tax on cars, there is no protest when entry taxes increase bus fares for the public transport users.

Directive sought from Hon'ble Supreme Court: The concerned state governments of Delhi, Haryana, Uttar Pradesh and Rajasthan be directed to submit a time bound action plan for augmentation of public transport services and necessary action to remove entry taxes on public transport buses across borders under reciprocal agreement.

8. Tax on buses is higher than on cars

For bus service to be successful it is important to keep both capital and operational costs affordable. Public policy needs to reduce tax burden on public transport and offset the revenue loss from higher taxes on personal vehicles.

It is ironical that buses that meet 40% of travel requirement in the city are taxed higher than cars. For example, a car costing around Rs.4 lakh-Rs.6 lakh pays onetime lifetime road tax in the range of Rs.16, 000- Rs.24, 000. This on an annualized basis for the useful life of the car works out to be a mere Rs.1,000-Rs.1,600 per annum. But a bus carrying 50-60 passengers pays a tax in the range of Rs.15, 915 – Rs.18, 715 every year. This adds to the cost of bus operations. This is the practice across India.

But Delhi metro which is also a public transport system enjoys a wide range of tax exemption that include property tax, sales tax, capital gains tax, custom, excise, income tax etc. But buses pay property tax, octroi, excise, entry tax, VAT, central excise, custom duty, excise duty on consumption, excise and VAT on spare parts, motor vehicle tax, advertisement tax etc. High tax burden increases both capital and operational costs and creates pressure for higher bus fare. Unaffordable bus fares will further erode ridership and push up two-wheeler use that is much cheaper to run than using a bus.

Table 8.1: Higher tax burden on bus than cars and two-wheelers in Delhi

Time period	Tax on car	Tax on bus
Annual tax on buses		Rs.15,915-Rs.18,715
Onetime road tax on cars (annualised for the useful life of 15 years)	Car costing Rs.4 Lakh-Rs.6 lakh: Rs.1000 - Rs.1,600 Car costing Rs.6 Lakh-Rs.10 lakh: Rs.2,800-Rs.4,666	

Directive sought from Hon'ble Supreme Court: The Government of NCT be directed to reverse this practice and to impose higher taxes on cars and to drastically reduce taxes on buses and public transport vehicles. Other concerned state governments Haryana, Uttar Pradesh and Rajasthan in the NCR may also be directed to take similar measures.

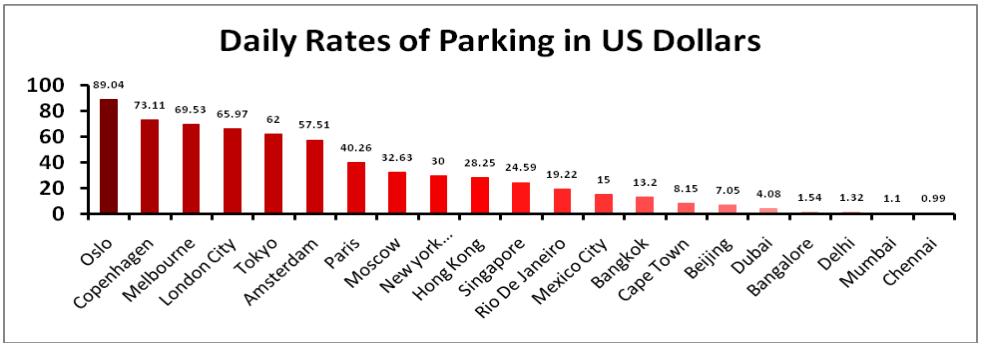
9. Restraints on growth of private cars

9.1 Parking policy as a restraint measure: In 2006 Supreme Court had taken on board the EPCA Report that recommended that parking policy should be implemented as a decongestion and car restraint measure and sought necessary direction to the concerned agencies to frame parking policy along these principles **(EPCA Report No. 25: Implementation of parking policy)**. But so far the key issues of parking pricing to restrain demand for parking and enforcement and management of parking have remained unresolved.

Parking charges: It is ironical that car users pay nothing or pay a miniscule amount for using valuable public space to park their personal vehicles. International studies show that Delhi and other Indian cities have the lowest parking charges in the world (see Graph 9.1: Comparative parking charges in different countries). While developed cities like London,

Oslo, Paris etc have daily charges ranging from 40 US $ (Rs. 2400) to 89 US dollars (Rs. 5340) to manage demand – about 40-80 times higher than Indian cities, even developing cities like Cape town, Beijing have rates ranging from 8 US$ (Rs 480) to 4 US$ (Rs 240) - 4 to 8 times higher than Delhi.

Graph 9.1: Comparative parking charges in different countries. Lowest in Indian cities



Source: Colliers International, 2011

EPCA has proposed a policy based on consultation with concerned departments and taken it forward with the last government and the Lt Governor to issue orders to MCD to raise parking rates. But this has not happened. There is too much opposition from car lobby and political representatives. This needs directives to ensure that the policy is enforced urgently and prices are increased.

9.2. Need strong enforcement of legal parking and deterrent for illegal parking: Parking chaos and congestion on roads can be controlled if along with effective pricing stringent measures are taken to enforce legal parking and impose high penalty for illegal parking. This requires demarcation of legal parking areas on ground and stringent penalty for illegal parking. But such enforcement has become difficult because of weak policy mandate.

The current penalty permissible under law is Rs 100. The motor vehicles act requires Parliament to approve the enhancement of fines. An amendment is pending in the Parliament to increase illegal parking fine to Rs 500 (for first offence) and up to Rs 1500, which would be a better deterrent. But there is no hope that this will get passed in the near future and so there is no enforcement and illegal parking continues. The policy also needs better equipment and methods for effective enforcement.

Directive sought from Hon'ble Supreme Court: Government of NCT, Delhi, Municipal Corporation of Delhi, New Delhi Municipal Council be directed to increase parking charges effectively; demarcate legal parking areas and impose higher penalty for illegal parking to cut congestion from on-street parking, and free up public spaces and walkways from parking.

10. Annual fitness and road tax on private vehicles in the NCR

Emissions from the on-road vehicle fleet pose a serious pollution challenge. Ageing fleet and poor maintenance can increase emissions much more than the vehicles are designed to emit. Sometimes even inherent technical defect that go unnoticed can escalate emissions. There are close to 7.5 million vehicles in Delhi and growing aggressively. Keeping the emission low during their useful life on road requires stringent emissions inspection.

Pollution under control certification programme (PUC) is the key strategy currently for periodic emissions testing of vehicles to ensure maintenance and monitoring. In addition to this elaborate roadworthiness and safety inspections are carried out for commercial vehicles.

But globally, the trend is towards introducing roadworthiness tests, along with improved in-use emissions tests including on board diagnostic application for personal vehicles inspection as well. Delhi transport department will have to assess the additional infrastructure requirements for such an upgrade. These tests will also have to be prescribed under the Central Motor Vehicle Act and Rules.

A serious barrier to such improvement only in Delhi is different tax structure across NCR where cars pay different road and other taxes and fitness fees. Delhi has one of the lowest road tax; Haryana is even lower. First we need uniformity of tax so that people do not buy from neighboring towns to avoid higher charges. Second, tax has to be increased; third it should be made annual – tied to insurance payments – so that registration is kept up to date and vehicles are well maintained.

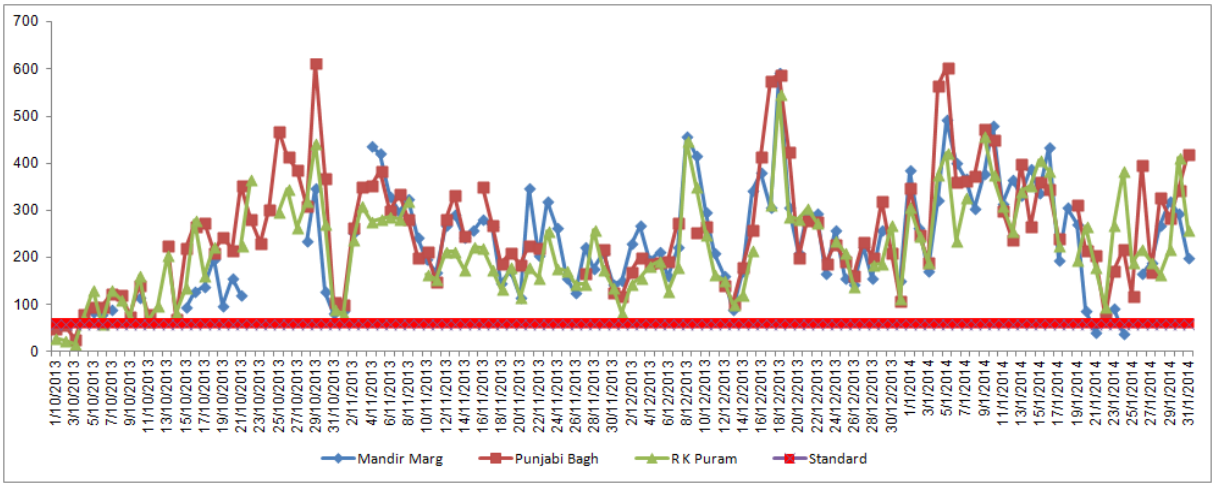
Directive sought from Hon'ble Supreme Court: The concerned state governments of Delhi, Haryana, Uttar Pradesh and Rajasthan, be directed to harmonize vehicle related taxes and improved vehicle testing for in-use emissions and roadworthiness in the NCR.

Moreover, IA of 2012 has recommended 2-4% annual charge on vehicles as environment compensation charge to be collected by insurance agencies. This should be revised upward and enforced.

11. Implementation of daily air quality alert with health advisory

Air pollution levels in the city have increased to dangerous levels. Almost throughout this winter levels of PM25 have remained 2-3 times reaching upto 4 to 7 times the standards and during high smog episodes even hit 8 to 10 times the standards. (see graph 11.1 Daily PM2.5 levels during the winter of 2013-14). This is extremely dangerous for people suffering from respiratory and cardiac problems and also for children and elderly.

Graph 11.1: Daily PM2.5 levels during the winter of 2013-14 (Oct 1, 2013 – 31, January 2014)



Source: Based on realtime data from website of Delhi Pollution Control Committee

Even though Delhi has made exemplary move to generate real time air quality data to track air quality, it is not used to issue public health alert and advisory to people to help them take precaution or enforce pollution emergency measures. In many global cities the pollution level as recorded in Delhi would have led to pollution emergency. On red alert days, Beijing government has contingency plans to close kindergartens, primary and middle schools; take off about 80 per cent of government-owned cars; allow cars on alternate days according to numbers plates; bar freight

vehicles; polluting factories have to cut emissions or shut down etc. Similarly, in US cities industrial units have to reduce emissions by at least 20%, cut vehicle miles by at least 20% of normal weekday operations etc. Paris discourages usage of personal vehicles etc.

Directive sought from Hon'ble Supreme Court: Government of NCT, Delhi, Department of Environment and concerned governments of Haryana, Uttar Pradesh and Rajasthan of NCR region be directed to implement daily air quality index and health advisory for public information immediately.

12. Summary Recommendations

In view of the significant increase in toxic air pollution and loss of air quality gains from the CNG programme and other first generation action directed by the Hon'ble Supreme Court following key directives are sought from the Hon'ble Court to accelerate second generation reforms to protect public health in Delhi and the NCR:

1. Government of India and the Union Ministry of Petroleum and Natural Gas be directed to come up with a long term favourable taxation policy to maintain at least 30-35% price differential between diesel and CNG and also accord priority to transport sector for gas allocation in cities to address public health concerns in polluted cities.

2. The Union Ministry of Petroleum and Natural Gas and the Union Ministry of Road Transport and Highways be directed to introduce Bharat Stage IV emissions standards wide by 2015. Cars should meet Euro V by 2016. Stringent timeline be mandated for introduction of Euro VI by 2021. This rapid improvement in fuel quality-vehicle technology is needed across the country to reduce direct exposure to toxic vehicular fume. This nation-wide action will benefit Delhi and NCR that has emerged as a pollution hotspot

If there are concerns over costs of improving quality of fuels then the government may also be directed to frame fiscal measures to meet the refinery upgrade costs to produce clean fuels for rapid introduction of clean diesel and technology.

3. Union of India to be directed to impose additional 30% environment compensation charge on private diesel cars. The Union of India and

Ministry of Petroleum and Natural Gas be directed to invest revenue from this source to produce clean diesel (10 ppm sulphur) to enable introduction of Euro V and Euro VI nation-wide and also scale up public transport.

4. Government of NCT Delhi be directed to bring all the 10,000 -11,000 buses within a year, or face contempt. A detailed phase-in schedule for introduction of the buses to be submitted to court.

5. Government of NCT, Transport Department of Delhi, Public Works Department, Delhi, UTTIPEC - DDA and traffic police be directed to submit a time bound plan on implementation of appropriate network of dedicated pedestrian and cycling lanes with high degree of safety for pedestrians and cyclists. This should be based on equity of use and need of the road users including walkers, cyclists and public transport users. All road projects should be subject to this plan.

6. The concerned state governments of Delhi, Haryana, Uttar Pradesh and Rajasthan be directed to submit a time bound action plan for augmentation of public transport services and necessary action to remove entry taxes on public transport buses across borders under reciprocal agreement.

7. The Government of NCT be directed to reverse this practice and to impose higher taxes on cars and to drastically reduce taxes on buses and public transport vehicles. Other concerned state governments Haryana, Uttar Pradesh and Rajasthan in the NCR may also be directed to take similar measures.

8. Government of NCT, Delhi, Municipal Corporation of Delhi, New Delhi Municipal Council be directed to increase parking charges effectively; demarcate legal parking areas and impose higher penalty for illegal parking to cut congestion from on-street parking, and free up public spaces and walkways from parking.

9. The concerned state governments of Delhi, Haryana, Uttar Pradesh and Rajasthan, be directed to harmonize vehicle related taxes and improved vehicle testing for in-use emissions and roadworthiness in the NCR. Moreover, IA of 2012 has recommended 2-4% annual charge on vehicles as environment compensation charge to be collected by insurance agencies. This should be revised upward and enforced.

10. Government of NCT, Delhi, Department of Environment and concerned governments of Haryana, Uttar Pradesh and Rajasthan of NCR region be

directed to implement daily air quality index and health advisory for public information immediately.

The Governments may also be directed to submit a time bound comprehensive action plan with short, medium and long term action to meet the clean air standards.