

State of Inspection and Maintenance Policy for Vehicles in India and Citizen Involvement

Paper presented by Kisan Mehta and Priya Salvi
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Activities of Save Bombay Committee

The Save Bombay Committee (SBC) is a 'not for profit' public trust and a registered society of members set up in the year 1972. The objects are agitating for protection of the environment, conservation of the finite natural resources, civil rights and equitable access to all living beings to the natural resources of the region, country and the earth.

The SBC takes up issues of regional and urban planning and development, gender equity, appropriate management of solid and liquid waste through wise use of limited resources to ensure minimum standard of public health and to reduce waste. It collaborates with other national and international voluntary organisations in opposing mega-projects that affect the environment and local people. It works for elimination and reduction of toxic substances in private and public life so as to reduce air pollution. Activities include promotion of chemical free sustainable agriculture.

The SBC campaigns from time to time for containing pollution caused by motorised transport for moving the man as well as of goods and services. It firmly believes in guaranteeing a minimum quality of life by reducing reliance on petroleum based vehicles than subsequent correcting of degraded environment brought about by motorised vehicles.

Air quality in a region can be maintained by managing solid and liquid wastes in environmentally friendly manner for reducing emissions to air as well as by controlling the use of equipment relying on petroleum based products. The SBC campaigns for elimination of Persistent Organic Pollutants (POPs). It has developed and promotes Integrated Solid Waste Management Programme (ISWMP) aimed at 100% reutilisation of solid waste as well as lobbies with the authorities for adopting environmentally safe treatment and discharge of waste water. It agitates for pedestrian oriented sustainable public transport.

We shall restrict our submissions to the need for reducing emissions to air as well as to the development of a policy on inspection and maintenance of vehicles and to its implementation. Vehicle emissions and exhausts have become a major contributor of pollution to air.

Evolution of Environmental protection policies

Though India was amongst the few nations represented by the Prime Minister in the 1972 Stockholm Conference, it was only in 1978 that the Prime Minister Mrs Indira Gandhi, conceding to the citizen pressure, constituted an independent Ministry for Environment at the national level. This single action brought a sea change in approach to deteriorating environment. The Ministry has constituted the Central Pollution Control Board. Practically all the states of India have their own Minister for Environment as well as State Pollution Control Board.

The Central (Federal) Ministry for Environment and Forests (MoEF) and the Central Pollution Control Board (CPCB) lay down standards and norms for maintaining environment quality however they are brought into being much later than their right time. Relaxations galore making a mockery of pollution control. Many a norms do not meet with the citizen expectations. Implementation is half hearted and erratic so even where a policy exists, it remains on paper. State ministries and administration have not yet come to grips with the need for protecting the environment.

Voluntary organisations and concerned citizens, often, take recourse to the Federal and State apex judiciary in the form of Public Interest Litigation for obtaining policy implementation or for issuance of directives to the federal and/or state governments on issues not clearly settled. While the highest courts have, admitting the PILs, issued specific directives upholding the citizen demand, implementation thereof has not been encouraging.

Transport situation in the urban centres

Burgeoning urban centres of the developing countries raise peculiar problems not amenable to set drawing board solutions. Every large urban centre, rushing to becoming megalopolis, has typical problems that cannot be solved in an environmentally satisfactory manner without looking into and managing fringe aspects that affect the growth of urban centres. Encouraging success achieved at one centre is not replicable pari passu to another centre except that it may provide clues on methods to be tried. One factor, though, is common to cities of the developing countries that they are, unlike cities in the western world, growing at a fast pace with basic infrastructure disappointingly lagging far behind.

Transport scenario in Mumbai

Though many of the SBC campaigns have a regional, state and national significance, we wish to dwell on issues that face Mumbai which recorded a population of 11.91 million in March 2001 staying on 466.35 sq km of landmass. This gives an average density of 25,538 persons per sq km, unheard of anywhere else in the world. Average built- up space per capita is 2.5 sq m with about 0.4 ha of open space for 1,000 population. We shall then place these experiences in the global context and present lessons that we can learn for obtaining a better globe.

About 65% of Mumbai residents are condemned to staying in slums with no or inadequate sanitary and washing facilities. Many of the slum colonies are located in areas abutting major roads and lanes as well as on pavements themselves. Being so close to movement of vehicles and men, slum dwellers are the first to suffer the consequences of vehicular emissions and noise.

While we are talking of Mumbai, we cannot avoid using the information given by the Municipal Corporation of Greater Mumbai (MCGM) in its publication 'Environment Status of Greater Mumbai, 1999-2000'. Every large municipality of India is required to publish studies giving the state of environment. Some submissions in this presentation are from this publication while others are collated by the speaker.

"The total length of roads in Mumbai is 1,808.28 km comprising of 572.05 km in the Island City (area 70.27 sq km having 3.16 million residents), and 1,236.23 km in the Suburbs (area 396.08 sq km having 6.75 million residents). For ensuring smooth flow of traffic, a project to construct 55 flyover bridges was undertaken by Maharashtra State Government, out of which majority are completed and the balance expected to be ready by mid 2002. Total number of vehicles in Mumbai is 9,70,674, showing a compound growth rate of 7% per annum over the 12 year period. Air pollution load due to auto exhaust is recorded at 551 Metric Tons Per Day (MTPD) comprising of SO₂, NO₂, CO, SPM and hydrocarbon. Concentration levels of NO₂, RSP and CO have exceeded the National Ambient Air Quality Standards (NAAQS) laid down by the CPCB. Studies carried out by the MCGM during a period when vehicles were off the road following a strike to work indicates over all 25% reduction in air pollution levels.

"The MCGM monitors the ambient air quality. Air quality of certain gaseous pollutants and suspended particulate matter is evaluated and compared with the NAAQS norms. Air quality levels of SO₂ and NO₂ appear to be within the limits whereas SPM levels exceed the standards everywhere. Air pollution index comprising of three air pollutants, SO₂, NO₂ and SPM ranges from 22 to 136 for air monitoring sites. Noise levels measured in decibels (dB) exceed the laid down standards throughout Mumbai, with many areas developing higher decibels at night.

"The Island City and Suburbs have 13,118 and 24,449 industries respectively totaling to 37,567 industries. Total daily air pollution emission is 817.5 MTPD in which emission from the industry is 304.0 MTPD. This goes to show that motorised vehicles are the major polluter of air.

"Urban environmental problems contribute to day to day struggle for existence to the residents of Mumbai. A few population groups like children, women, slum and pavement dwellers, workers in small and large industries, handicapped and senior residents have to bear the brunt of the adverse effects of environmental pollution. It is observed that infants and children are at greater risk of dying due to environment related diseases such as diarrhoea, cholera and respiratory and cardiovascular tract

infections as well as cancer. Some of the most common environment related occupational diseases are silicosis, byssinosis, pesticide poisoning, skin diseases as well as noise induced hearing impairment and loss."

What is not conceded in public is that high pollution levels affect more intensively and directly living beings in congested areas. With extremely high congestion prevailing in Mumbai and extremely limited open space the impact can be more disastrous than what the mere statistics show. Again large number of residents cannot afford expensive medical treatment so their ailments never come on record. Risk to illhealth is decidedly higher than what comes to the notice of the authorities. The State and MCGM recently cut down public health facilities already budgeted on the grounds of escalating health care costs and diversion of funds to flyover and road construction programmes to support consumerism developed following the World Bank insisting on globalisation and free access to markets.

Norms for Inspection of motor vehicles

Motor vehicles were required to be brought before the Motor Vehicle Registration Authority once in a year when payment of annual vehicle registration tax became due. The authority then could refuse to renew the license to a polluting vehicle. The annual payment of tax has since been replaced by one time tax equivalent to the tax amount becoming payable in 17 years. This one time tax has taken away the incidental annual checking of vehicles. There is no provision even for scrapping of a vehicle on the expiry of 17 years. So a vehicle can be on the road polluting the atmosphere till the time the owner decides to do away with that polluting vehicle. Prices of cars being high, they continue to be used by the owner. They go to smaller towns causing more pollution as the authorities have no means to monitor pollution in smaller towns. The common belief is that motorised vehicles have a deathless life and go out of use only when resale value of vehicle components becomes higher than the real cost of a running one.

Conceding to demands of the SBC and voluntary organisations, the authorities directed that every vehicle shall be checked for exhaust emission every three months and shall prominently display an official tag issued by the authorities. This brought some sense of responsibility amongst vehicle owners however it was soon relaxed under the pressure of vehicle manufacturers and car owners. No regular checking exists after the authorities relaxed, while sporadic checking on road carried out cannot track down every delinquent vehicle. The authorities then directed gasoline suppliers to fill the tank only if the owner produces the 'pollution under control'(PUC) certificate. Gasoline dealers do not have the time and mechanism to check up the validity of a certificate. So we are back to square one of granting to vehicle owners an unrestricted license to pollute the environment.

Vehicle owners go to unauthorised roadside garages in case of engine trouble. Garages replace the failed part by a worn out part, most likely pilfered, or duplicated.

After a few days the vehicle starts creating more pollution. There is no check on manufacturer's official garages or roadside garages and mechanics who create confidence in the uninitiated driver by restarting the engine failed on way to work. The need for periodical checking and servicing of the vehicle is largely not accepted by the vehicle users.

Noise from vehicles has a more depressing impact on the community. In addition to continuous rattling caused by old cars, drivers honk continuously whether it is necessary or not. They do not consider it necessary to drive without honking. Quite often vehicles are fitted with electronic horns making the hell of a noise. Many are fitted with shrilling alarm which activates even on accidental touching by a passerby.

Traffic jams and idling at traffic signals is a common occurrence. One statistics indicates that 11% of the fuel is consumed in engine idling. An idling engine relatively throws out higher emission than a vehicle running at the optimum speed. The authorities are not willing to apply concepts of road management and road pricing so vehicles are found parked everywhere.

Promoting car ownership

To promote car ownership, the authorities extend all concessions topped by no charge for driving and parking on roads and public places. In contrast, the authorities take away about 15% out of the fare the public road transport charges to the commuter. Financial institutions extend loan for 100% of the cost for personal cars at practically zero interest. On the other hand, large number of people needing much smaller finance for feeding the family have no hope of securing a loan even at commercial rate of interest.

The acceptance of the World Bank/IMF directives on globalisation and free market access has resulted in making any make or model of personal car freely available. Practically all global car actors have set up their shop in India and are constantly at cut throat competition to woo the citizen with all types of freebees. It is because of this situation, that Mumbai has much larger number of cars than it can conveniently sustain. Road construction and maintenance is an obligatory duty of the Municipality and it tries to meet this obligation without expecting any contribution from car owners. Sealed Mumbai cannot construct enough roads to meet annual 8.5% increase in car population. North-south movement between residence and business district causes serious problems to pedestrians and also to car owners.

Need for curbing vehicle movement

We have constantly represented to the authorities on the need of levying heavy annual charges on vehicles at rates commensurate with the level of congestion to cut down nonessential vehicles from entering into crowded areas but with no success.

Heavy duty commercial vehicles are another menace. There are no restrictions on entry, parking or docking (including carrying out repairs) anywhere. Though wholesale trading activities were shifted long back outside Mumbai's geographical limits, constantly smoking commercial vehicles continue to be in Mumbai, possibly because of the proximity of the port to the business district and location of large warehousing space near to the port and business district. We have proposed phasing out of warehouses from the Island City now that wholesale markets are shifted but with no success.

Mumbai is connected to urban centres as far away as 1500 km by private and public intercity buses and taxis. Large number of buses visit Mumbai and enter into domestic and ecologically fragile areas causing severe traffic jams and hardship to residents. These buses contribute substantially to pollution as well as congestion in inner areas. The SBC proposal to the authorities to set up intercity bus termini on the periphery of the Island City has not met with any success.

State of Inspection and Maintenance Policy

No comprehensive Inspection and Maintenance Policy exists. Numerous norms and directives issued by diverse authorities create more confusion than order. Mumbai with exceedingly high population density cannot spare space for creating roads and infrastructure facilities. Despite suggestions from the World Bank for creating infrastructure for motorcars, it is not possible to construct enough roads due to physical and financial unviability. Shifting of large section of residents likely to be affected by infrastructure development is not feasible due to gigantic resettlement and rehabilitation costs.

Two sections of the community have to bear the brunt of unrestricted ingress of motorised two, three and four wheelers. Slum dwellers face the pollution from the motorised vehicles while pedestrians and non-owners of vehicles face the threat of being killed or seriously injured on the road by poorly maintained vehicles. Slum dwellers are exposed to cardio-vascular diseases because they inhale toxic gases generated by diesel and gasoline driven vehicles. No wonder that Mumbai alternates between the first or second rank in the world for killing or injuring people on road.

Comprehensive Inspection and Maintenance Policy to ensure minimum quality of life is inconceivable in the foreseeable future. Whatever has come as sporadic norms are difficult to implement. Foolproof implementation machinery does not exist and can probably not be forced upon. First time car buyers have not visualised the concurrent responsibility going with the ownership of a vehicle. Creating artificial conditions to meet with the dictats of multilateral agencies cannot take citizens far in assuring environmentally safe conditions. Observance of the Policy cannot be assured from the top. Citizens using personal vehicles are not always aware of the dangers of non-implementation of half hearted regulations.

Lessons from Mumbai

Does a bird's eye view of the situation in Mumbai give lessons for the community? Our observations show that whatever is happening in Mumbai is to be found everywhere in urban centres of the developing countries. Mumbai after all is amongst the large megalopolises of the world. We would now place the situation of Mumbai in the context of human settlements in the developing countries and point out fallacies that confront the globe and attempt to frame a policy for the developing countries in light of the experience in Mumbai.

Recommendations

- I. The experience everywhere has shown that mere increase in the Gross Domestic Product (GDP) or Gross National Product (GNP) does not increase the welfare of the entire population of a nation or reduce the dire poverty in which bulk of the people subsist.
- II. There cannot be sustainable development of the community as long as some of the major maladies continue to persist. The Bruntlandt definition of sustainable development is obviously incomplete and developments subsequent to the Bruntlandt Report has shown that inequalities between citizens in a nation as well as between nations have increased immensely. When would an Indian with an average annual per capita income of less than US \$ 300 be able to face a Swiss national having an average per capita income of US \$ 35,000 or for that matter the poorest subsisting at below US \$ 100 a year be able to look at the richest of his country rated amongst the world's richest? There cannot be any long term solution till the concept of equity becomes the central factor in sustainable development.
- III. Having observed this stark reality, we may accept that the increase in the car ownership would not remove poverty. However the benefits of advancing technology shall have to be made available to the poor. Benefits of transport shall have to be taken to the poor at the level they can afford. Concept of equity, absent in the Bruntlandt definition will have to be brought to the fore so programmes that the poor can afford shall be pursued. Practically all the developing countries have embarked on massive programmes for promoting motorisation and personal ownership of cars following the WB directive. The WB policy is for promoting creation of infrastructure for free movement of motorised vehicles even after observing the significant share of non-motorised transport in keeping the developing countries moving. The WB seems to forget that it is the jobs that human beings need to survive. Promotion of motorised traffic essentially make poor poorer and further more alienated. For instance, Indonesia having a President elevated following people's uprising is now doing everything to remove rickshaws and other cheaper modes of

transport affordable to the poor. Non-motorised and animal drawn modes are being hounded out because they cannot go along with the western idea of globalisation and free market access. The developing countries are trying to implement the WB directive without verifying the environment damage and financial viability. This situation needs to be corrected.

- IV. If the objects are for poverty amelioration and making technology available to the community as a whole, it would be necessary to reduce our dependence on motor cars that pollute beyond redemption while widening the gap between the rich and the poor.
- V. This sustainable approach may mean strengthening public road and railway transport within the city and also intercity so that larger population can benefit from affordable movement.
- VI. It is not enough to lay down an Inspection and Maintenance Policy for a country or region. Strict implementation is the critical aspect of a Policy. Laying down norms conforming to Euro I and II cannot mean total elimination of damage to the environment as it is impossible to scrap existing vehicles not conforming to the Euro norms. One cannot stop at laying down strict I&M norms without ensuring fullproof implementation.
- VII. Multilateral Agencies like the World Bank should support public transport and modes that are affordable to the community as a whole.
- VIII. Traffic policies should be recast to support public road and railway transport. It is easier to lay down I&M policy for public transport and ensure strict observance thereof for public transport than for motor cars.

As the objects are of maintaining the quality of life and reducing pollution, it is essential that the policy makers frame policies that support public transport and eliminate non-essential traffic from the road while discouraging personal transport. After an I&M Policy is laid down, strict observance of the Policy is a must for protecting the environment.

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