

Battling for Clean Environment Supreme Court, Technocrats and Populist Politics in Delhi

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BATTLING FOR CLEAN ENVIRONMENT

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During the early nineties, Delhi had been declared one of the most polluted cities in the world. The hazardous industries were located in those areas where people lived; the river Yamuna on the banks of which the city stood was full of toxic industrial effluents making the water unfit for use; the air heavily laden with particulate matter and poisonous gases made people vulnerable to many respiratory diseases and open to many kinds of cancer and heart diseases. Motor vehicles had multiplied phenomenally and were using fuel that did not adhere to emission norms. Many environmental groups launched campaigns for ‘Clean Delhi’ but the government showed little interest.

In September 1986, in response to an appeal from concerned citizens, the Supreme Court directed Delhi administration to file an affidavit specifying the steps taken to implement laws concerned with control and prevention of water and air pollution in Delhi. From this year begins the saga of the Court passing various orders for enforcing measures for clean air and seeing that its orders are implemented. The ultimate triumph of the Supreme Court came

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in introducing Compressed Natural Gas (CNG) as a single mode of fuel for public transport in April 2002 in the midst of considerable social and political conflict. Technocrats were not unanimous about accepting CNG as the cleanest fuel. Commuters wanted an efficient transport system and were not much concerned about the dispute on choice of fuel and its impact on health. The purpose of this paper is to narrate the role of the Supreme Court in controlling air pollution in Delhi in the face of political contestation and government reluctance in implementing what had already long been on the statute books. This narrative focuses attention on transport vehicles and their contribution to air pollution and will not refer to pollution caused by hazardous industries and government's performance in shifting them out from congested areas of Delhi.

NATURE OF ENVIRONMENTAL POLITICS

When environmental protection and conservation arrived on the global agenda, environmentalists mostly in Europe and elsewhere in the West, took the route of electoral politics to bring about changes in the social and economic order that will be conducive to a healthy living, free from the polluting technologies. The primary efforts of advocates of such strategies were devoted to political debate over issues, influencing legislative processes through electoral contests, development of policy, and the shaping of policy implementation. The principal assumption underlying such activities was that liberal democratic decision-making processes were sufficiently open to allow for environmental agenda carried out through them (Fischer, 1995:194). However, they were disappointed at the pace that this happened. Legislative acts were not always implemented but allowed to languish on statute books. In such cases, democratic processes stalled the translation of policy into action. Laws became symbols of intention and not of action. They acted to enhance a government's prestige among those who pushed an agenda of sustainable development.

In the field of environment, the gap between policy and implementation was especially noticeable. The political leadership may agree to enactment of laws but block their implementation. When activist environmentalist groups do not see enough action in enactment of laws, they search for ways that can force the government into implementing laws. Realizing that it is futile to work through political leadership that has already demonstrated its resistance, they began to search for state institutions outside the electoral arena that enforce implementation.

In a way this impasse has sought to depoliticise environmental conflict. In elaborating the concept of 'ecological modernization', Hajer (1995:24-41), points out that the 1980s saw the emergence of a new policy discourse that portrayed environmental protection as a 'positive-sum game' where economic growth could be reconciled with ecological problems. Environmental protection was possible within the existing socio-political structures and the obstacles related to problems of collective action because environmental pollution reflected inefficiency in the choice of technologies and their use. What was needed was to upgrade the technologies. Hajer (1995:32) emphasises that 'ecological modernization does not call for any structural change but is, in this respect, basically a modernist and technocratic approach to the environment that suggest that there is a techno-institutional fix for the present problems.' This means that ecological modernization set off the environmental movements of 1970s that called for alternative social arrangements and economic policies for development. The move away from electoral politics and reliance on legislative action, thus, signifies a move towards a new role for science and technology in political decision making stressing that the goals of economic growth and that of environmental protection are compatible.

Within the realm of politics, another event signalled a move towards a technocratic solution of environmental problems in the West. Termed as 'professionalization of reform' by Moynihan while referring to the scientifically oriented policy discourse during the

Great Society period (quoted in Fischer, 1993:25), it is widely believed that technocratic discourse in policy process dominated that time. The idea that political issues can be transformed into technically defined ends that can be pursued through administrative means was very influential. Technically trained elites took upon the role of influencing policies most enthusiastically and there arose a new technocratic class striving for political power. Technocratic experts were portrayed as social engineers who were also changing the policy process by transferring power from the corrupt and self-serving politicians to virtuous and the technically trained experts. (Fischer, 1993:22-27)

The United States was not alone in seeing the growth of policy institutes that sought to influence public policy. Expert advice began to be offered on an institutionalised basis in several countries (Weaver and Stares, 2001). However, the proliferation of such institutes contributed to the emergence a new kind of policy discourses, where differing and conflicting advice was offered and the government had to make a choice. The policy discourse took 'an argumentative turn' (Fischer and Forrester, 1993) where technical advice was not necessarily unanimous. There were many dimensions to this lack of unanimity. One was the quality of research and its validity. The other was the political orientation of the experts and their institutes whose advice was cloaked in a political garb that supported or opposed the government of the day. In both the US and Britain policy institutes represent diverse ideologies and compete for political influence (Fischer, 1993; Stone, 2001). They also tend to set the public agenda even before political parties take up an issue.

POLICY DISCOURSE IN INDIA

The policy discourse in India bears heavy technocratic influence from the time the country embarked upon its strategy of planned economic development. The leadership that took over the reins of government when the country became independent identified its future with the

development performance of the West. Of particular significance in this view was the perception of the significant role that science and technology played in transforming society. Nehru was further impressed by the strides Soviet Russia had made through judicious planning and the rational use of resources, and he envisioned India quickly attaining the levels of economic development achieved by Western nations through industrialization and modernization. To pursue such goals, services and advice of experts and technocrats was very necessary. As Khilnani (1997:81) points out, Nehru's intention was to establish the superior rationality of scientists and economists in policy making. Very soon, the Planning Commission became the exclusive theatre where economic policy was formulated.

The result was that public and its representatives had little say in wider deliberations about India's future. This lack of participation was justified by the argument that the economic strategy demanded "technical evaluation of alternative policies and determination of choices on scientific grounds" (Chatterjee, 1997:274). Participation in policy deliberations would also have opened up the whole debate about the directions that India should take—a debate symbolised by the widely known different views of Gandhi and Nehru. Committees of experts became an important instrument of resolving a political debate and, even though Planning Commission did not have a long life in this powerful role, the idea of technical conceptualization and resolution of problems of social conflict has come to stay (Bjorkman and Mathur, 2002)

As policy and research institutes multiplied in the last two decades, research based arguments to shape public policy began to emerge. Policies began to be contested on technical grounds. Apart from other reasons, diverse sources of funding and sponsorship also led to different policy recommendations. Government, earlier restricted to its own institutions for research inputs, now had varied and alternative sources of policy advice. Alternatives also provided opportunities to experts with different political orientations to influence policy. Technocrats competed with each other for 'expert' political space and

research findings were not necessarily neutral. The garb of expertise helped in offering policy advice that had political overtones. But the debates were confined to the 'knowledgeable' and the technicality of arguments restricted widespread participation.

ENVIRONMENTALISTS AND THE SUPREME COURT

In spite of this technocratic orientation, environmental politics in India did not follow the route that it took in the West. Initially, it was concerned with the use and control of renewable natural resources where the issues revolved around communities dependent on nature. The struggles were centred on control of common property resources and revolved around critical issues of equity and justice. Environmentalism began as an integral part of local level activism for social justice (Bandyopadhyay, 2002). The early years were dominated by forests, dams, degradation of land by mining, indiscriminate use of pesticides, the unsustainable extraction of groundwater, etc. Only in the last decade or so attention has turned to the urban environment (Sethi, 2002). Different waves of environmentalism brought in different actors with varying social projects. If the earlier movements were akin to social movements, the concern about urban environment was expressed by more technically-oriented individuals searching for alternative answers in modern science and technology.

Urban environment policies were framed within the technocratic discourse of economic planning. The issue was not so much the shaping policies but that of implementing those that had already been enacted. For, since the time of the Stockholm Conference, the government began to enact a series of laws for environmental protection. The problem was that most of the time they just remained on statute books. This happened in spite of the fact that the number of administrative and institutional structures bearing environmental responsibility within the government grew from less than a dozen to more than 120 after the Stockholm Conference.

(Singh, 2000:77-108). Under the Acts passed in 1974 several Pollution Control agencies were set up. The Bhopal gas tragedy, 1984 provided further impetus to such legislation and setting up of institutions. But as stressed by Singh (2000:83), the implementation structures were so fragmented and sectoral that the administrative commitment and accountability became extremely compromised. Institutions also lack teeth by design and not ignorance alone.

Such a situation highlights one other important characteristic of Indian policy discourse that has made environmental politics follow a different route to the West. And this is as true of environment protection as any other policy area where state intervention tends to upset the prevailing relationships of power and pelf. There is vast evidence to show that wherever administration is involved in the implementation of redistributive policies the operational process is left ineffective. Little linkage is established between policy objectives and capacity to implement these objectives. During the Plan era the political leadership and those representing specific interests did not bother to wield influence to shape policy for they knew that they could scuttle its implementation. Policy planners went on to frame policies that won accolades at international forums or pleased the intellectual constituencies within the country. When these policies did not show results, alibis were found in poor implementation (see Mathur, 1995; Myrdal, 1968). The result is that the government does not hesitate to formulate most forward looking policies; the opposition, confident of scuttling them if implemented, allows them on the statute books and thus little debate takes place at the policy formulating stage. Much less attention is paid to strengthening the capacity of the implementing system. The poor record of administrative reform shows how urge for change remains more in government documents than in reality. Water and Air Pollution Control Acts were passed in 1974 soon after the Stockholm Conference in 1972 but there was little to show on the ground.

In this situation, environmentalists were more concerned about implementation than in enactment of laws. They began to turn

towards the Courts to direct the government to enforce laws. This reliance on Courts has increased substantially after the Supreme Court allowed petitions made on behalf of affected parties to enforce Constitutional obligations of the State. In the last two decades particularly, the judiciary has taken upon itself a more activist role. The way the Supreme Court emerged as a protector of the interests of those who could not approach the Court because of high cost or lack of legal support is a story of the growth of what has popularly come to be known as judicial activism. The Court started its activism by insisting that the executive implement the laws that it had initiated through legislation. The government accepted this insistence because it was merely asked to do what it promised to do through legislation.

The cases of environmental degradation that have been filed before the Court were really speaking cases against inaction of the State or wrong action of the State. Where issues of environmental pollution caused by industrial units were raised, the Court made it clear that they were failures of State in protecting the rights of the residents to life and liberty as guaranteed by Article 21 of the Indian Constitution (Sathe, 2000:224). Together with this interpretation, the Court also expanded on the concept of 'locus standi'. Traditionally, a person who petitions the Court should show that she has been affected adversely by State action and that the conflict is justiciable. But the Court took the view that persons with sufficient interest could challenge government action or inaction. If public duties are to be enforced and public interest served by their enforcement, then public spirited persons and organizations must be allowed to move the Court in furtherance of group interest even though they may not be directly injured in their own rights and interests (Sathe, 2002:202). It is this reinterpretation of its role that has allowed the Court to accept petitions that are made on behalf of the poor, the underprivileged or those who cannot mobilize themselves. In doing so, the Court has emerged today as redresser of public grievances and in the eyes of many as an agent of social change.

However, by its very nature, the Court is unable to resolve a political dispute and so in environmental cases it has relied on experts and research institutes to help it to take decisions. As the Court sought advice from experts, those involved in the movement for environmental protection also began to seek their support. In this way the interests of experts defining pollution problems as those of inappropriate or out dated technology converged with those of the environmental activists in their search for alternative technologies to resolve environmental problems. However, the problem of the Court became complex when there was no unanimity on technological advice. In choosing a particular advice, the issue of law or its interpretation is not under consideration. The choice becomes dependent on its own understanding of the problem and its conviction and may reflect its political or technological orientation.

AIR AND WATER POLLUTION IN DELHI

Environmental concern for air and water pollution began to be expressed in India in legislative terms after the Stockholm Conference in 1972. Water (Prevention and Control of Pollution) Act was passed in 1974 and Air (Prevention and Control of Pollution) Act in 1981. A Central Board for the Prevention and Control of Water Pollution was constituted in 1974 for the purpose of implementing this Act. This Board was also given the powers to exercise and perform the functions of the Central Board for the Prevention and Control of Air Pollution Act. In 1988, the Board was renamed as Central Pollution Control Board and noise pollution was also brought under the ambit of its activities. Among its many functions, it was enjoined a research function of collecting, compiling and publishing technical and statistical data relating to water and air pollution. The Board is a technical body entrusted with the task of setting standards and advising the government on technical matters. It does not have a statutory function of enforcing standards and depends on its advisory role to the Ministry of Environment to see that its standards are met.

The Environment Protection Act, an umbrella legislation, was also passed by the Government of India in 1986. This Act empowered the Government of India to 'take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution.' It also authorised the Central government to constitute an authority with powers to perform such functions as laid down in the Act.

At this point of time, various studies were showing that water and air pollution was increasing at rapid pace in Delhi and in all other metropolitan towns and there was growing frustration with the fact that the government was doing little to check and control the situation.

A public interest appeal was filed in the Supreme Court in 1985 by an environmental lawyer Mr. MC Mehta in his capacity as chairman of a non-governmental organization 'Environment Protection Cell' of Hindustani Andolan, an NGO that he helps run. The Bhopal tragedy had taken place in 1984 and there was growing concern about hazardous industries that emitted toxic gases which were located in densely populated areas of Delhi. On December 5, 1985 gas leaked from Shriram Foods and Fertilizers Ltd. Thousands of people fled for safety, a large number was hospitalised and one person died. A chlorine based industry, Hindustan Insecticides, was located right in the middle of densely populated area. The factory used about 70 tonnes of chlorine every day for the manufacture of DDT. According to a survey conducted by another NGO at that time, around 110 factories in Delhi lacked minimum safety measures and were hazardous to health. The appeal also pointed out the impact of innumerable transport vehicles that ply in and through Delhi. Taking support from many studies, the appeals contended that the emissions are above dangerous limits and were responsible for increasing illness and death from respiratory and other diseases. The appellants requested the Supreme Court to issue a writ, order or direction to the Government of India and Delhi administration, Delhi Electric Supply Undertaking and Delhi Transport Corporation

- a. to close down the hazardous industries/units located in the densely populated areas of Delhi or shift such hazardous units far away from the population
- b. to shift its most hazardous units which emit smoke/ash or toxic substances into the air
- c. to take action against those vehicle owners who emit noxious carbon monoxide, oxides of nitrogen, lead and smoke from their vehicles. The vehicles plying in the capital be checked periodically for emission of smoke and pollutants and standards be fixed to control the exhaust especially of commercial vehicles and register only such vehicles that are found in order.
- d. to close down the thermal power plant or fix electrostatic precipitators

What the appeal, filed by Mehta and his group, demanded of the Supreme Court was to issue a writ of mandamus to the various authorities to implement the laws enacted to prevent and control pollution of air and water in Delhi. The laws already existed but the Government of India or the Delhi administration were not making sufficient efforts to implement them. It pointed out that the pollution was taking place because of hazardous industries emitting dangerous gases into air and effluents into the Yamuna River and due to emissions from the motor vehicles owned by government as well private individuals. The basic argument was that the state was not fulfilling its constitutional obligations. Articles 39(e), 47 and 48(a) of the Constitution cast a duty on the state to secure the health of the people, improve public health and protect and improve the environment. The appeal demanded that the Court direct the state to fulfil its constitutional obligation of environmental protection to the people.

CONTROL AND PREVENTION OF AIR POLLUTION

The campaign against vehicular pollution gained momentum only after the Government of India constituted the Environment

Pollution (Prevention and Control) Authority for the National Capital Region under the Environment Protection Act, 1986 in 1998. This is popularly known as the Bhure Lal Committee, named after its chairman who was then a member of the Central Vigilance Commission. Among others, members of the Committee included Anil Agarwal from Centre of Science and Environment which was spearheading a campaign for cleaner Delhi; Jagdish Khattar from Maruti Udyog (car manufacturer) representing the automobile industry; DK Biswas, chairman of the Central Pollution Control Board; and Delhi’s Transport Commissioner, K Dhingra. This Committee was a statutory body and the Court enjoined that its directions were final and binding on all persons and organizations concerned. With reference to vehicular pollution, the Government in its notification (The Gazette of India, 1998:4) enjoined that the Authority ‘shall take all necessary steps to ensure compliance of specified emission standards by vehicles including proper calibration of the equipment for testing of vehicular pollution, ensuring compliance of fuel quality standards, monitoring, coordinating action for traffic management and planning’.

In its First Report (1998), the Committee drew attention to the fact that several steps had been taken by the government to control and prevent pollution but their impact has been limited because of old vehicles in use and quantum increase in new vehicles. Therefore, the Committee proposed a priority of measures that needed to be completed on a previously laid time schedule. This schedule was as follows:

<i>Priority Measures</i>	<i>Deadline for Completion</i>
Augmentation of public transport to 10,000 Buses from existing 6000	01.04.2001
Elimination of unleaded petrol from Delhi	01.09.1998

<i>Priority Measures</i>	<i>Deadline for Completion</i>
Installation of pre-mix dispensers for the supply of only pre-mix petrol in all petrol stations to two Stroke engines	31.12.1998
Replacement of all pre-1990 autos and taxis with new vehicles using clean fuel	31.3.2000
Replacement, with financial incentives, of post-1990 autos and taxis with new vehicles on clean fuel	31.03.2001
Ban on plying of buses more than 8 years old except on clean fuels	01.04.2000
Entire city bus fleet (DTC and private) to be steadily converted to single fuel mode on CNG	31.03.2001
New Inter State Bus Terminus to be built at North and South West borders of National Capital Territory Delhi to avoid pollution due to entry of inter-state buses	31.03.2000
Gas Authority of India to ensure availability of CNG by increasing CNG supply outlets in the city from 9 to 80	31.3.2000
Two autonomous fuel testing laboratories to be established for monitoring fuel quality specifications and adulterations	01.06.1999

The critical part of these measures was concerned with the conversion of public and private transport vehicles to single fuel mode of CNG (Compressed Natural Gas) and phasing out of vehicles that were more than 8 years old. Deadlines were set for implementing these measures. This Report was accepted by the Supreme Court which passed orders to implement it according to the deadlines set. These orders were passed in July 1998. The Court also directed that the number of buses should be increased from the 6,600 to 10,000. The critical deadlines that raised political storm were for the replacement of old vehicles with those that ran on clean fuel, the adoption of single fuel mode of CNG and augmentation of public transport buses. These measures were to be implemented by 31st March 2001.

Public transport in Delhi is provided by both the public and the private sector; hence the costs of conversions would fall on both. Increase in the number of buses would lead to greater competition among the private operators. In the public sector, Delhi Transport Corporation (DTC), has been sustaining continuous losses which climbed from Rs.2.02 billion in 1996 to Rs.8.5 billion in 2001. Besides, the Corporation has borrowed about Rs.7.2 billion from the State government but had defaulted on repayment, not having paid even a single instalment in five years (Times of India, May 30, 2002). The court orders were an additional burden on such a loss—making corporation which could implement them only if the State or Central government bails it out. The private operators of buses were not inclined to make the necessary heavy investment or allow more operators to enter the market; rather they looked to avenues that could at least postpone the implementation of the order. Thus, the public and the private sector found common cause in making attempts to delay the implementation of the orders of the Supreme Court.

As the time approached for phasing out of publicly or privately owned old diesel buses and the adoption of single mode of fuel of CNG, the Supreme Court began to be approached by the Government of India and the Delhi administration to give them more time to meet the requirements of deadlines. Time was first extended to 30th September 2001 and then to 31st January 2002 and finally till 31st March, 2002.

Postponement was argued on the plea that the preparations for the switch-over were taking time and the commuters would be put to great difficulty for there would not be enough buses on the streets. There may be virtual anarchy on the Delhi roads. The plea was also taken that bussing of school-children will be affected if all diesel buses are taken off the roads because of lack of replacement. Delhi administration began to announce how the school vacations may have to be staggered. The private operators threatened to go on strike unless Delhi administration provided them financial incentives through low interest loans and higher fares. The Central government

responsible for the supply of CNG argued for more time to establish dispensing and feeder stations and divert the supply from other uses to public transport in Delhi.

Till this time, though, the basic order that CNG would be the single fuel was not disputed. However, the Court was provided with a discordant note on this ground after a committee, appointed by the Government of India on September 13, 2001 to reconsider the single fuel decision, submitted its report. A committee of experts drawn from the fields of environment, energy, vehicular technology, etc and headed by Dr. R.A Mashelkar, Director-General, Council of Scientific and Industrial Research, was appointed to recommend an appropriate auto fuel policy to the Government. The Committee set for itself several guidelines for its work. An important one that set parameters for its deliberations was 'rather than a rigid prescriptive policy, a flexible policy which allows multi-fuel and multi-technology option for reaching prescribed emission norms was considered desirable.' The Committee assigned studies on urban road traffic and air quality to specialised institutes like Central Road Research Institute, National Environmental Engineering Research Institute and the Institute of Petroleum.

The interim Report of the Committee (Government of India, 2001) made some major recommendations that in some ways were counter to the Supreme Court directives. It began by acknowledging that public health is of prime concern and air quality is a crucial factor in determining it. It also set itself the task of improving air quality through measures that were cost effective and at the same time practical for reducing pollution from in use vehicles and setting realistic/achievable standards for new vehicles. The Committee emphasised that 'auto fuel policy needs to be guided by evidence based analysis, based on sound scientific principles and should also be based on cost effectiveness'. Then it went on to recommend that 'the government should decide only the vehicular emission standards and the corresponding fuel specifications without specifying vehicle technology and the type of fuel'. The Committee, thus, did not

endorse the idea of a single fuel being clean and that public and private transport should be run only on CNG.

The recommendations of the Mashelkar Committee prompted the Government of India to appeal to the Supreme Court not to insist on CNG as the only clean fuel. As a matter of fact, it made the plea that buses should be permitted to run on low sulphur diesel. It was contended that in some countries ultra low sulphur diesel (having sulphur content of not more than .001 percent) was now available. The battle was being redrawn for up to now neither the Government of India nor the Delhi administration was contesting the Court's insistence on single mode of fuel of CNG but asking for time to implement its decision. Now, the Court's insistence on CNG as single mode of fuel was being questioned. In its order of March 26, 2001, the Court asked the Bhure Lal Committee to examine this question and permit various parties to submit their representation to it. The Court then demanded a report from the Committee indicating which fuel can be regarded as 'clean fuel' that does not cause pollution or is not otherwise injurious to health.

Several organizations and associations made representations to the Bhure Lal Committee. Among these were the Ministry of Petroleum and Natural Gas, Government of India, Society for Automobile Manufacturers, several associations of transporters, two major manufacturers of CNG chassis buses—Tata Engineering and Ashok Leyland, petrol dealers association, etc. The Committee also solicited opinion from Prof. Dinesh Mohan, Professor, Indian Institute of Technology, Delhi (IIT) and Tata Energy Research Institute (TERI).

In terms of the clean fuel controversy, the technical views of TERI, IIT and Centre for Science and Environment were important. In its representation, TERI argued that while the government may continue with its programme of introducing CNG buses, it should not insist on CNG as a single mode fuel. It suggested that there is a need to explore retrofit options of less than eight year old diesel buses with diesel oxidation catalyst with 500 ppm sulphur. More

studies were needed to compare the emissions of Indian buses powered by alternative fuels like ultra low sulphur diesel and CNG. RK Pachauri (2001:6), Director-General of TERI, argued that the decision in favour of CNG was taken without any trials being carried out under operating conditions with this as well as substitute fuels. He underlined the point that there is overwhelming evidence now that CNG is not even the best fuel for reducing pollution, quite apart from its practical problems. Based on the IIT study findings, he supported the ultra low sulphur diesel as an alternative fuel.

IIT's Professor Dinesh Mohan also argued that specific fuels should not be prescribed and that choice should be based on technologies available or expected in the future and on a sound cost benefit analysis. Even for Euro-IV and Euro-V standards in Europe, there is no agreement on the fuels to be used in a widespread manner. He cited the study conducted by IIT which argued that CNG is no better than ultra low sulphur diesel as automotive fuel. 'Contrary to popular perception, CNG vehicles emit more carbon monoxide and nitrogen oxide than those running on .05 per cent ultra low sulphur diesel. Use of CNG does reduce particulate matter (PM) emissions but increases CO and hydrocarbon emissions from buses'(Times of India: 2001). The bus fleet in Delhi should be converted gradually allowing for new technologies to move in. He also raised the issue of costs for the operator of bus services and to the commuter in deciding the maximum subsidy that government should pay for public transport. In accepting 'the polluter pay principle', taxes on car users have to be raised to subsidise the bus fares.

Anil Agarwal of the Centre of Science and Environment disputed the contention that the CNG buses were more expensive. He also contested the view that ultra low sulphur diesel could be considered as an alternative fuel. He cited evidence to show that reduction of sulphur in diesel fuel, even as low as 10ppm, does not make it a clean fuel. On the basis of Swedish experience, he argued that to make diesel somewhat as clean as CNG, a package of fuel and

technologies is needed—very low sulphur and PAH diesel together with good engines, oxidation catalysts, particulate traps and certain kinds of catalysts. The cost of the above package is very high and cannot be recommended.

The representation of the Ministry of Petroleum and Natural gas, Government of India, made the plea that adequate amount of gas is not available if the entire bus fleet will have to be run on CNG. It contended that there will be a serious crisis when the CNG supply will have to be diverted from other gas based industries like power and fertilisers, etc. It also argued that there can be uncertainties in supply because of breakdowns of the gas processing facilities or the pipelines and therefore, dependence on a single fuel may not be viable. The oil companies as also the Society of Indian Automobile Manufacturers represented that low sulphur diesel may be considered as clean fuel. The chassis manufacturing companies Asok Leyland and Tata Engineering supported the use of low sulphur diesel too. The transporters associations joined the same chorus to argue that CNG is not available in places outside where their transport also plies and therefore, demanded subsidies for buying new buses to ply in Delhi in the shape of raised bus fares, etc.

In its recommendations to the Supreme Court submitted in August 2001, the Bhure Lal Committee (Environment Pollution Authority, 2001) rejected hydro-carbon fuels as clean fuels and accepted CNG, LPG and Propane as environmentally acceptable fuels for Delhi. It then made several recommendations for preparing plans of supplying adequate quantity of gas, providing subsidies to operators for change over etc., supply schedule from bus manufactures and ultimately heavy fines for those operators who continue to ply diesel buses after a stipulated date.

The Supreme Court considered the Bhure Lal Committee Report on Clean Fuels and passed orders on April 5, 2002 which were to be complied with by the transporters, Delhi administration and the Government of India. This was a landmark judgment for the Court chose to comment upon various facets of public life apart

from upholding the case of CNG as single mode of fuel for the National Capital Region of Delhi. A former Chief Justice of India who was in the forefront in leading the judiciary towards activism called it a seminal and historic judgment (Bhagwati, 2002:50). The Court reiterated its concern for the health of people in Delhi and reminded the governments of their constitutional obligations. It quoted World Bank data to show the extent of correlation of air pollution with respiratory and cardio-vascular diseases in India and abroad and felt that the health cost should be taken into account while considering costs of controlling air pollution. It underlined a World Bank estimate that suggested using 1992 data, that the annual health cost to India was to the order of Rs. 55.5 billion due to ambient air pollution while the cost to Delhi alone was to the order of Rs.10,000 million. It justified its intervention by emphasising the lack of effort in controlling pollution and protecting the environment by the enforcement agencies even when adequate laws were in place.

The Court chided the Government of India for not taking effective steps to halt or control this deterioration in air quality. The Court termed it ‘baffling’ that first the Delhi administration and then Government of India was not prepared to implement the Court orders in spite of postponement of deadlines and extension of time given by the Court. It is worthwhile to quote what the Court said in this regard, “...leaves us with no doubt that its (government’s) intention, clearly is to frustrate the orders passed by this Court with regard to conversion of vehicles to CNG. The manner in which it has sought to achieve this object is to try and discredit CNG as the proper fuel and, secondly, to represent to the Court that CNG is in short supply and, thirdly, delay the setting up of adequate dispensing stations.” The Court disapproved the appointment of the Mashelkar Committee and saw it as a ruse to bypass its orders. It thought that the Committee was not serious in its concern for public health for the government had not even appointed a doctor or an expert in public health on the Committee. It further strongly disapproved of this Committee’s recommendations by noting that

norms of emission had been established long ago and choice of the fuel was left to the users but the air of Delhi continued to deteriorate for there was no compliance. The Court used strong words to say that recommending emission norms “is a clear abdication of the constitutional and statutory duty cast upon the government to protect and preserve the environment and is in the teeth of precautionary principle”.

The Court rejected pleas of shortage of CNG or inability to provide adequate number of dispensing stations and saw them as government’s low priority in fulfilling its constitutional obligations regarding public health. This low priority was expressed in the fact that the Government was continuing to supply CNG at low prices to commercial units while denying it to public transport which was willing to pay higher rates. The Court emphasised that “If there is a short supply of an essential commodity, then the priority must be of public health, as opposed to the health of the balance sheet of a private company. To enable industries to cut their losses, or to make more profit at the cost of public health, is not a good sign of good governance, and this is contrary to the constitutional mandate of Articles 39(e), 47 and 48(a).” It also rejected the idea of multiple fuels and did not accept the findings of studies that showed that it was possible to have an alternative in low sulphur diesel. Then the Court went ahead to pass orders regarding the phasing out of buses run on diesel, penalising those that continued to ply on diesel after a particular date, directing the government to frame plans to supply CNG in adequate quantities and also plan financial incentives schemes to encourage the private operators to convert their diesel fleet into that of CNG.

It is clear that the Supreme Court was fighting a battle with government agencies that were either not interested in environmental issues or were prompted by other interests to take up cudgels on behalf of groups that saw the status quo as a profit making enterprise. Research studies were pitted one against the other and torn out of context; none of the specialists tended to integrate and simplify

findings to mobilize opinion or raise public debate. Where were the consumers of public transport and how were they reacting to technical decisions being taken in their (read public) interest? It is this aspect of policy contestation to which we now turn.

THE POPULAR RESPONSE

As the deadline of April 2001 approached, Delhi administration which was primarily responsible for converting the diesel buses into those of CNG began seeking the alibi of crisis on the roads of Delhi in order to seek postponement of the date for conversion. The diesel buses went off road and the operators went on strike on the streets of Delhi. Three years had passed since the Court's order and Delhi administration had acquired only 400 CNG buses to run on Delhi roads. This number would bear the burden of around 10,000 buses running in Delhi. When diesel buses went off the roads, the commuters became angry, burnt buses and stoned policemen on Delhi streets. In response the Chief Minister dared that she would face any punishment for contempt of Court in the interests of the people of Delhi. And this interest was in their commuting in diesel buses. No reference was made to the health of the people of Delhi. If this were not enough, the Chief Minister went on to add in the Delhi Assembly that the Supreme Court did not understand the ground realities (see Vohra,2001:3). Such a posture of Delhi administration sought to gain popularity for the Chief Minister. The message that emanated from the floor of the House caught the people's imagination and in public perception the stock of the Chief Minister went high. The commuters were in particular all praise for the Chief Minister who not only empathised with them but was also willing to go to jail for their cause (Vohra, op.cit.). Without taking any blame for lack of preparation in three years since the Supreme Court set the deadline, Delhi administration took up cudgels on behalf of transport associations that were demanding postponement of the deadline.

The Central government took a similar stand by arguing that extreme hardships were being caused to the citizens of Delhi because of supply bottlenecks. Dispensing stations had not been placed and public transport vehicles were standing in long queues for long hours to get CNG. The Government of India also pleaded shortage of supply of gas and therefore argued that CNG should not be made mandatory for all public vehicles. The media was full of stories how the inadequate number of dispensing stations was causing harassment to vehicle drivers who had to work during the day, spend nights to fill CNG, had little to eat or sleep, and could not return home to see their children.

Political leaders in opposition came to support the cause of the transporters. The Congress party was the elected government of Delhi while the BJP ruled at the Central level. The Congress party had come to power by defeating the BJP that was now in search of causes to win back popularity. It found one in CNG. Knowing that its party ruled at the Centre, it led transporters demonstrations against the Delhi government for relaxation of the deadline. The Congress party held its own rallies against the BJP and challenged them to debate. After various postponements, when the deadline in April 2002 approached, the local BJP party led the transporters to believe that it could get an Ordinance passed by the Central government declaring diesel as a clean fuel. The Central government refused to do so because that would have brought it in direct conflict with the Supreme Court. But the political parties did not make any effort on educating the people about the aims of Supreme Court's decisions in promoting healthy environment. Health, disease and polluted air did not figure prominently in the public debate and discussion. Public debate carried in media pointed more to the travails of the commuters rather than the need of clean air for the citizens of Delhi. A reader writing in the letter to editor column (*The Hindu*, June 10, 2002:3) says, "The common man who depends on the buses alone will pay the price for 'clean air'. He further adds, "As things stand, it will take a long time to add

more CNG buses and put in place adequate number of CNG-filling stations. In the intervening period, it is the poor who will continue to suffer.” Sentiments expressed in the letter captured the mood of the public debate and discussion.

RESEARCH INSTITUTES AND TECHNOCRATS

As already mentioned, the two leading environmental research groups—TERI and CSE—cited research studies whose findings were pooh-poohed by the other. A Professor of Transport from the IIT also joined the fray. While CSE continued to be the most vocal supporter of CNG and hailed the decisions of the apex Court, TERI adopted a view that was supportive of government’s stand of multiple fuel policy and for allowing ultra low sulphur diesel too. The IIT expert also insisted on greater flexibility and did not want the options of new technology to close by adopting a single mode of fuel. CSE conducted a strong public campaign discrediting the other two opinions and casting doubts on their sincerity in promoting public interest because of one’s affiliations with manufacturers of diesel buses and the sponsorship of the other’s professorial chair by funds from a car manufacturing company. Research findings were used to support one position or the other. Allegations were made that full picture was not emerging.

The most prominent role in the campaign for CNG was played by the Centre for Science and Environment. While Tata Energy Research Institute had been bringing out studies on levels of pollution in Delhi and its findings found place in the petition submitted by Mehta in 1985, the CSE adopted a more active advocacy role. In its series on the State of Environment it brought out a report ‘Slow Murder: The Deadly Story of Vehicular Pollution in India’ in 1996. The Report carried considerable data to show how pollution levels were rising in Indian cities and argued that vehicular pollution is the result of a combination of bad vehicular technology, poor fuel quality, poor vehicular maintenance and non-existent traffic planning. The

Report became the basis of its public campaign. The Director of CSE was appointed to the Bhure Lal Committee, which provided the Centre further opportunity to conduct a more vigorous campaign for adopting a clean fuel for Delhi.

In this campaign CSE's Anil Agarwal did not mince words. He was a spirited and bold advocate of CNG and effectively used his membership of the Environment Pollution Control Authority (Bhure Lal Committee) to press the choice of CNG. Accusing the detractors of CNG of various kinds of ulterior motives, Agarwal (2002) pointed out that the unseemly politicisation of the CNG issue in Delhi, with rival parties busy accusing each other for the ongoing mess and demanding an alternative fuel, shows how little our leaders care about the environment, public health and just plain commitment of purpose. He then hammered on saying, 'the question that we should ask, especially in India where private interests rule over public interests, whose interest is CNG stepping on? Does the answer lie in the fact that CNG, unlike diesel, cannot be adulterated, cannot be siphoned off and there is no money in its spot purchases?' (ibid.)

CONCLUDING REMARKS

The Court passed its final orders in April 2002 that upheld the recommendations of the Environmental Pollution and Control Authority, popularly known as the Bhure Lal Committee. The committee rejected multiple fuel policy, which would have allowed the use of ultra low sulphur diesel, and chose a single fuel policy by recommending CNG and other gases like LPG or propane. This choice contradicted the recommendations made by the technical committee of the Government of India and various research institutes. The choice was, however, the same as the one advocated by the Centre for Science and Environment. The Director of the Centre, who was a very vociferous advocate of this choice, was also member of the Bhure Lal Committee. It is obvious that the

Committee was effectively persuaded by Agarwal who dissuaded it from considering any other alternative presented by others—research institutes, government committees or associations of transporters or vendors of oil!

The Supreme Court did not hesitate to pass severe comments on the motivation of governments and in effect said that they did not work in public interest. It did not accept the plea that CNG was in short supply. It pointed out that, if so was then the government had wrong priorities for CNG was still being supplied in adequate quantity to private industries which were paying less than what public transport was willing to pay. The motivation for setting up the Mashelkar Committee was questioned and, despite the fact that it was chaired by the top government technocrat, its report was dismissed for echoing the government voice and not reflecting sound technical advice. The Court went on to say that “it is naïve of Mashelkar Committee to expect merely laying down fresh emission norms will be effective or sufficient to check or control vehicular pollution.” Similarly, the Court did not hesitate to say explicitly that the governments were not ready to accept its orders.

The political leadership, whether in government or in opposition, showed limited perspective for short term electoral gains, little mobilization to seek support for policies that would improve environment and make for healthy living took place. Instead the leadership sought support from the people to fight the Supreme Court. Panic spread among the parents of school children when the Delhi administration made an uncalled for announcement that it would close all schools till the issue of choice of fuel was decided.

The advice from technocrats was not unanimous. Different perspectives were articulated. Reference to ‘research’ or ‘knowledge’ does not signify a single body of thinking, data or literature that is commonly recognised and accepted (see the discussion Stone et.al., 2001). The normative dimension of research cannot be ignored. Research agendas can reflect the interests of those who want to influence the way they would like the policy discourse to proceed. In

many ways research legitimises those who commissioned or funded it. Thus the citing of different research findings reflects a struggle between different ‘world views’ or ‘regimes of truth’ (ibid). In bridging research and policy, different ‘knowledges’ compete leading to a techno-political struggle. In this case of adoption of CNG as a single fuel public transport in Delhi, the Supreme Court became the final arbiter rather than the political bargaining process. But the Court’s decision was not an interpretation of law; it was a choice of ‘world views’ that opted for one kind of technology.

Another reason for the rise of techno-political struggles is the indeterminacy of science in finding single solutions or decisive answers to environmental problems. The concept of ‘clean fuel’ had political overtones primarily because scientific evidence was not conclusive. The indeterminate nature of the relevant scientific evidence opened the door for competing interpretations of the same evidence (see Fischer, 2000 especially chapter 5). In addition, in a recent contribution, (Narain, 2002:18), the Director of Centre for Science and Environment, laments the fact that most scientists are employed with government agencies in India and are not ready to speak out. Despite the high levels of particulates in India’s urban air, the Centre has not been able to find a single scientist who has studied the health effects of this pollutant. In such a situation, the easiest technique is to find a problem in every solution. She goes on to plead for the environmental movement to find its own scientists—those that are not influenced by bureaucrats and politicians.

In ushering in a new social order, the environmentalists have been critical of the way technocratic discussions tend to avoid democratic politics with its political parties and interest groups. They were against the way the technocrats are impatient with political problems that block implementation of rationally determined solutions and perceive technocratic policy discourse as antithetical to democratic processes. However, the battle for clean air for Delhi to provide healthy living to its citizens was fought on technocratic grounds. The arena of policy discourse was monopolised by technical findings to prove the

superiority of fuels. In its public campaign, the Centre for Science and Environment labelled all opposition to CNG—whether coming from other technical think tanks or the transporters, governments, political parties or even principals of affected schools—as political obstacles to a rational decision. Various leaders of these groups were termed as ‘saboteurs’ (Down to Earth, 2001 and 2002).

The way the Supreme Court, the technocrats and experts and the political leadership in opposition and in government played their roles in the battle for clean environment has many implications for the functioning of democracy and the emerging system of governance in India. The increasing incidence of judicial activism reflects the growing insensitivity of government to the problems of those who do not have strong political voice. It also reflects the inability of the institutional processes to resolve conflicts in society. More and more groups that do not have organised strength to influence political decisions are taking recourse to judicial processes to get their grievances redressed. The perception that political decision making works on partisan interests and that the judicial process is neutral and transparent has grown over the years. Courts have begun filling policy gaps and stepping in where powerful groups in society cannot be contained through political methods. The land mafia, polluting industries and transport lobby could be ordered only by Courts to adhere to laws and thus work for a clean Delhi. In this process, new policy directions have emerged that encourage the government to legislate appropriate policies. This has in some ways devalued political institutions because people welcome court’s intervention even in areas that strictly fall in the domain of the executive or the legislature.

In the environmental sector, the government probably finds it convenient for the Court to find solutions to social conflicts that it cannot easily handle. If the conflict persists, then it has an alibi to escape responsibility. The risk is that the role of the Court may become devalued if there is accumulation of decisions that find partial implementation or that legitimately belong to the political realm and

have less to do with legal interpretations. Ironically, de-politicization of an issue by the Court may lead to its own politicization.

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