Chapter – 5

Special Central Legislations Re: Hazardous Substances

Besides specific rules, the statutory control of hazardous substances through special central enactments is also an important feature of Indian legal system. These laws comprehensively address environmental pollution in general and the handling, management and control of hazardous substances in particular. This chapter details the salient features of the existing environmental laws in India. The discussion aims at ascertaining how far the provisions contained therein are capable of creating and preserving an environment conducive to healthy living. The judicial attitude has also been examined with the help of some important cases. The special central legislations in India are:

- The Insecticides Act, 1968
- The Water (Prevention and Control of Pollution) Act, 1974
- The Water (Prevention and Control of Pollution) Cess Act, 1977
- The Air (Prevention and Control of Pollution) Act, 1981
- The Environment (Protection) Act, 1986
- The National Environmental Appellate Authority Act, 1997

Besides the above stated central enactments, the problem of noise pollution has also been specifically dealt with since excessive levels of noise constitute a health hazard.

5.1 The Insecticides Act, 1968

The Insecticides Act, 1968 (hereinafter called ‘the Act’) was enacted in response to deaths in Kerala and Madras in 1958 that were caused as a result of

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food poisoning due to the use of 'Parathion' (Falidol). It came into force with effect from 1st August, 1971. The Act regulates import, manufacture, sale, transport, distribution and use of insecticides to prevent risk to human beings or animals.

Under the Act, a Central Insecticides Board has been constituted by the Central Government consisting of twenty members under the Chairmanship of the Director-General of Health Services. It advises the Central and State Governments on technical matters. Besides, the Central Government has to constitute a Registration Committee with a Chairman and not more than five persons who should be members of the Board as well. The Registration Committee has to register insecticides after scrutinising the formulae and verifying claims made by the importer or the manufacturer about the safety and efficacy of pesticides and insecticides. While the Registration Committee constituted by the Central Government is mainly entrusted with the task of registering insecticides, the Central Insecticides Board has advisory functions to perform. Besides the Board has power to appoint other committees also to exercise powers and perform duties under the Act. The Secretary of the Board also functions as Secretary to the Registration Committee.

Any person desiring to import or manufacture any insecticide has to apply for registration in the prescribed form to the Registration Committee. The Committee, after satisfying itself as to the safety and efficacy of the insecticide, may register it and allot a registration number. However, if the Committee is of

2. See Section 4.
3. Section 5.
4. Section 6.
5. Section 8.
the opinion that the precautions claimed by the applicant are not sufficient and
the substance involves serious risk to human beings or animals, it may refuse
registration. The Committee has power to vary the conditions of registration or
register the insecticide only provisionally for a period of two years.\textsuperscript{6} Any person
aggrieved by the decision of the Registration Committee may, within a period of
thirty days, appeal to the Central Government whose decision shall be final.\textsuperscript{7}

As per the Insecticides Act, the Registration Committee registers insecticides
after scrutinising the formulae and verifying claims made by the importer or
manufacturer about the safety to human beings and animals. In practice, it is
the Central Insecticides Board which advises the Central Government and the
State Government on technical matters. There is a provision for two types of
registrations - primary and secondary. When a pesticide is registered in India
for the first time it gets the primary registration. Secondary registration requires
subsequent applications. The essential difference is that primary registration
requires the Registration Committee to make an enquiry into fitness of the
insecticide and satisfy itself with respect to the efficacy and the safety of human
beings and animals. This implies that secondary registration does not require
the satisfaction of the Committee with respect to the above mentioned
criterion. This means that the laboratory tests are merely an entrance procedure
and there is no periodic re-assessment in the light of accumulated scientific
knowledge. Testing facilities can include any government laboratory or
government approved commercial laboratory. This one time procedure can be
easily manipulated and the companies prefer government approved commercial

\textsuperscript{6} Section 9.
\textsuperscript{7} Section 10.
labs as they can generate the desired results through dubious ways. Therefore, the safety precautions can be easily contravened due to lacunae in the legislation itself.\textsuperscript{8}

The State Government has power to appoint licensing officers to grant a licence to any person for manufacturing, selling, stocking or distributing any insecticide within the area of their jurisdiction.\textsuperscript{9} However, the licence so granted may be revoked or suspended if it is obtained by misrepresentation as to any essential fact or if the holder fails to comply with the conditions of licence.\textsuperscript{10} Any person aggrieved by the decision of the licensing officer may appeal to the appellate authority whose decision shall be final.\textsuperscript{11}

The Central Government has power to establish a Central Insecticides Laboratory under the control of a Director.\textsuperscript{12} It prohibits the manufacture, sale, distribution, import or use of any misbranded insecticide, insecticide involving risk to human beings or animals, unregistered insecticide and any insecticide which is in contravention to the provisions of the Act or rules made thereunder.\textsuperscript{13}

The Central or State Government may also appoint Insecticide Analysts\textsuperscript{14} and Insecticide Inspectors\textsuperscript{15} having required qualifications and not having any financial interest in the manufacture, import or sale of any insecticide. The Insecticide Inspectors have power to enter and search any premises, make

\begin{itemize}
\item \textsuperscript{8} Aju Geevarghese John & Abu Mathen George, \textit{Towards Chemical Death: The Issue of Persistent Organic Pollutants, and Endosulfan Pollution in Kerala}, 3 Indian Journal of Environmental Law, 109, 113-114 (June 2002).
\item \textsuperscript{9} Sections 12, 13.
\item \textsuperscript{10} Section 14.
\item \textsuperscript{11} Section 15.
\item \textsuperscript{12} Section 16.
\item \textsuperscript{13} Sections 17, 18.
\item \textsuperscript{14} Section 19.
\item \textsuperscript{15} Section 20.
\end{itemize}
examination and inquiry, stop the distribution, sale or use of an insecticide, take
samples of any insecticide and get it analysed and to seize any record, register
or document subject to the prescribed procedure.\textsuperscript{16}

The provision relating to punishment of the offender has been amended in the
year 2000 so as to provide for a more stringent punishment.\textsuperscript{17} Whoever
imports, manufactures, sells, stocks or exhibits for sale or distributes any
misbranded insecticide; or imports or manufactures any insecticide without
registration; or contravenes Section 27; or obstructs an Insecticide Inspector in
the performance of his duties, is punishable --

(i) for the first offence, with imprisonment for a term which may extend to
two years, or with fine which shall not be less than ten thousand rupees
but which may extend to fifty thousand rupees, or with both;

(ii) for the second and a subsequent offence, with imprisonment for a term
which may extend to three years, or with fine which shall not be less
than fifteen thousand rupees but which may extend to seventy five
thousand rupees, or with both.

Whoever uses an insecticide in contravention of the provisions of the Act or
rules made thereunder, is punishable with fine which shall not be less than five
hundred rupees but which may extend to five thousand rupees, or imprisonment
for a term which may extend to six months, or with both.

Whoever contravenes any other provision of the Act or rules made thereunder or any
condition of a certificate of registration or licence granted thereunder, is punishable -

\textsuperscript{16} Sections 21, 22.
\textsuperscript{17} Section 29.
(i) for the first offence, with imprisonment for a term which may extend to one year, or with fine which shall not be less than five thousand rupees but which may extend to twenty five thousand rupees, or with both,

(ii) for the second or a subsequent offence, with imprisonment for a term which may extend to two years or with fine which shall not be less than ten thousand rupees but which may extend to fifty thousand rupees, or with both.

The penal provisions apply to companies also with the usual exemption in favour of a person proving lack of knowledge or exercising all due diligence to prevent the commission of the offence. However, no prosecution for an offence under the Act can be instituted except with the written consent of the State Government or a person authorised by it in this behalf.

A Metropolitan Magistrate or a Judicial Magistrate of the first class is competent to try the case under the Act. However, it has been observed that trials in the ordinary courts take a long time and conviction for misbranded insecticides is not possible without trial. In the meantime, manufacturers or dealers continue to manufacture or trade in misbranded insecticides. In view of this observation, the State Governments have been empowered to notify Special Courts in any district or metropolitan area for the speedy trial of offences under the Act. This can be done by notification in the Official Gazette and after consultation with the High Court.

18 Section 33.
19 Section 31.
20 Section 31A (inserted by the Amendment Act of 2000).
The Central Government has been empowered to make rules for the purpose of giving effect to the provisions of the Act.\textsuperscript{21} The State Government may also make rules provided they are not inconsistent with the rules made by the Central Government.\textsuperscript{22}

A bare reading of the provisions of the Act clearly establishes that a person who sells, exhibits or distributes any insecticide without obtaining a licence is contravening the provisions of the Act.\textsuperscript{23}

However, in \textit{Dr. Ashok v. Union of India},\textsuperscript{24} the apex Court pointed out that once a substance is specified in the Schedule of the Act, there is no power for canceling the registration certificate issued in respect of the same substance even if on scientific study it appears that the substance in question is grossly detrimental to the human health. This is a lacuna in the legislation itself, and therefore, steps should be taken for appropriate amendment to the legislation.

In view of the observation of the Supreme Court, the lacuna has now been removed by making suitable amendment in the year 2000. In this case, a letter by Dr. Ashok addressed to the Chief Justice of India indicated that several insecticides and listed chemicals are in widespread use in India which have already been banned in several developed countries when found carcinogenic. A prayer was made in the letter for banning the import, production, distribution, sale and use of listed chemicals and insecticides. The Court, while treating the letter as a writ petition, held:

\begin{itemize}
\item \textsuperscript{21} Section 36. \textit{See Insecticides Rules, 1971.}
\item \textsuperscript{22} Section 37.
\item \textsuperscript{23} \textit{M/s Jayalakshmi Enterprises v. Government of A.P.}, 1987 Cr.L.J. 880.
\item \textsuperscript{24} (1997) 5 SCC 10.
\end{itemize}
It is a fact that pesticides considered hazardous in rich countries remain in use in the developing countries. Many of the developing countries lack scientific facilities for toxicological scrutiny as also for making proper cost assessment. It is true that different countries may have different requirements but it is difficult and dangerous to assume that pesticides banned or restricted in USA or other European countries will be acceptable in the Third World Countries. In India, pesticides have been used over the past four decades for crop protection and control of diseases like malaria. There has been much debate over the use of pesticides at the cost of environment and public health. One will have to weigh the benefits of the use of pesticides and the adverse effect that is produced on human health on account of such use of pesticides.

The Court further observed that though sufficient steps have been taken in India to either ban or to allow restrictive use of the insecticides but there is no coordinated effort among the different ministries of the Government of India which are involved. There has been no continuous effort to have research conducted or to have minimum information about the adverse effects of the use of such pesticides and other chemicals as a result of which people at large of this country suffer to a great extent. As it is on account of lack of capacity of the people of the country to afford good and nutritious food, the average standard of human health is much below the level prevailing in developed countries. If insecticides and chemicals are permitted to be freely used in protecting foodgrains and in enhancing agricultural production grave hazards may arise. To check these maladies the Government of India needs to make coordinated and sustained efforts. In this age of computerisation and interlinking of the countries through Internet, gathering necessary information in respect of any particular insecticide or pesticide and the manner in which such commodities have been dealt with in other advanced countries is easy.

There is need of a genuine will on the part of the administrative machinery and
a conjoint effort of all the ministries concerned. The Court, in fact, directed the
Cabinet Secretary to constitute a Committee of four senior officers from four
different ministries involved to take suitable measures in future in respect of any
other insecticides and chemicals which are found to be hazardous for health.

Therefore, in conclusion it may be said that looking at the disastrous
consequences and alarming incidents of cancer deaths, mental retardation,
infertility, thyroid deficiency and physical deformity etc. the provision for more
stringent punishment in case of violation of the provisions of Insecticides Act is
a step in the right direction. The Government ought to adopt even more
stringent measures to check the growth of unlicensed insecticide industries in
the country. Farmers may also be educated regarding the consequences of
using spurious insecticides and the significance of factors like weather and
timing of spray to ensure judicious use. Today, farmers in India do not take up
even basic precautionary measures due to lack of knowledge.

There is a need to amend the Insecticides Act. It should be amended to provide
for mandatory hiring of an agricultural scientist by every pesticide dealer in the
country. The scientist can suggest the farmers about the type and quantity of
pesticides to be used for a particular crop. This is in line with buying drugs
from a pharmacist on doctor's prescription. Since majority of the farmers can
not read English to understand the applications of the pesticides, they have to
be told about it. The move will not only bring the farmers closer to agricultural
scientists but will also bridge the gap between laboratory findings and their
practical use.²⁶

²⁶. Centre Contemplating Changes to Pesticide Act, Deccan Herald (Bangalore) dated 29-
As our understanding of the impacts of insecticides deepens, there is a growth in the demand of 'safer' materials. The challenge of industry is to provide new compounds that satisfy environmental concerns as well as provide cost-effective insect control. However, each state has its own norms governing the pesticide sector regardless of the provisions of Insecticides Act and the rules made thereunder. Moreover, the registration procedure under the existing legislation can be easily manipulated.

Besides the requirement of registration of insecticides by the Central Insecticides Board and Registration Committee, the industry has to obtain separate permission from state agricultural department for selling them in the respective states. This causes delay in the use of new insecticides. On the other hand, necessary action is not taken against the culprits for selling spurious insecticides. The Act should be suitably amended to ensure that the sale of spurious insecticides and pesticides is controlled and speedy registration of genuine ones is facilitated. ‘Inspector Raj’ should be curbed since Inspectors have enormous powers under the Act over introduction of new insecticides in the market.

5.2 The Water (Prevention and Control of Pollution) Act, 1974

Water is the oldest heritage of human race. It is the basic ingredient to sustain life on this planet. The living cell is mostly water. Blood and sap are about 90 percent water. An adult’s body is about 65 percent water. A loss of 15 percent of this liquid usually proves fatal through dehydration. Humans beings require 2 to 3 litres of water a day just to maintain the crucial liquid balance within the body. More than 4 litres may be required when the person is active. Our food
intake also contains water. Tomatoes contain 90 percent water, potatoes 80 percent and meat about 60 percent. It is estimated that an average person eats about 50 tons of food and drinks about 40,000 litres of water in a lifetime. This is subject to variations from country to country.\textsuperscript{27}

Water is formed by combining two molecules of Hydrogen with one molecule of Oxygen in the presence of heat energy. The total amount of water on the earth is about 1.35 billion cubic kilometres ($3.5 \times 10^{20}$ gallons). Over 97 percent of this quantity is in the oceans as salt water. The earth's fresh water amounts to only 37 million cu km. of which 80 percent occurs in polar ice caps and glaciers. The water we use comes from 50 cu. km. per day run-off in the rivers, streams and lakes and 70 cu. km. per day flow through underground reservoirs. This supply has been constant over tens of thousands of years. Only the demand has shown a steep increase over the last century.\textsuperscript{28} Due to this increase, in India the average annual availability of water per capita has declined from 5,236 cubic metres in 1951 to only 2,227 cubic metres in 1991. As per estimates, this will further decline to only 1,555 cubic metres by the year 2013.\textsuperscript{29} The population of India, which is now one billion, is expected to reach a figure between 1.5 billion and 1.8 billion in the year 2050. There shall then be a requirement of 2788 billion cubic metre of water annually in India to be above water stress zone and 1650 billion cubic metre to avoid being water scarce country.\textsuperscript{30}

\textsuperscript{27} ENVIRONMENTAL PROBLEMS, PROTECTION AND CONTROL, 2 INSTITUTE FOR SUSTAINABLE DEVELOPMENT, 115 (1st ed. 1999).

\textsuperscript{28} Id. at 115-116.

\textsuperscript{29} J. Mohan Rao, Whither India's Environment?, Economic and Political Weekly, 679 (April 1, 1995).

\textsuperscript{30} Narmada Bachao Andolan v. Union of India, AIR 2000 SC 3751, 3786.
Apart from availability itself, over exploitation of ground water and pollution of surface sources such as rivers, lakes, ponds and open wells are the key problems. About 80 percent of the population of India does not have access to safe drinking water. 70 percent of surface water is seriously polluted primarily because industrial effluents and domestic sewage remain largely untreated before being discharged into water courses.

Water is colourless and transparent substance. The polluted water means such water which contains foreign substances in it, which alters physical, chemical or biological properties of water rendering it unfit for use. Water pollution is caused due to the dumping into water courses of various hazardous chemicals, trade effluents and other toxic material beyond the assimilative capacity of water bodies. Polluted water is the leading cause of serious diseases in human beings like cholera, jaundice, typhoid, dysentery, hookworm, tapeworm and guineaworm. Polluted water is injurious for domestic, commercial, industrial, agricultural or other legitimate uses and also to the health of animals and aquatic life.

Many factors cause water pollution. The major factor is community wastes. City sewage is the major source of water pollution. Industry contributes to 6 to 10 percent of total wastes. The remaining 90 to 94 percent wastes are domestic sewage flowing primarily from major cities and towns. The pollution of water by community wastes is growing due to urbanisation and population explosion.

In most of the cities and towns the sewage system is not able to cope with the increase in the flow and volume of community wastes.

Regarding world wide urbanisation, it is estimated that by the year 2025, the number of cities with populations exceeding one million inhabitants will be 639 while those with populations exceeding four million will be 135 as against the present numbers of 222 and 35 respectively. By 1987, some 43 percent of the world’s people were living in cities. This number is expected to double by 2015.\(^\text{33}\)

Over a third of India’s urban population lives in slums. About three quarters of urban households are without adequate sanitation. Only 15 percent of them have private toilets and 60 percent resort to open defecation. Less than half of waste water is collected of which less than half is treated. Garbage collection varies between 20 percent and 96 percent. Water and sanitation related diseases such as cholera, dysentery and gastroenteritis accounted for about 60 percent of all urban deaths.\(^\text{34}\) About 4 million children die every year due to water borne diseases.

However, domestic wastes are less toxic than industrial wastes. The Supreme Court in Kanpur tanneries case\(^\text{35}\) observed that “it should be remembered that the effluent discharged from a tannery is ten times more noxious when compared with the domestic sewage water which flows into the river from any urban area on its banks”. Industries discharge poisonous, noxious and harmful

\(^{33}\) supranote 27, at 125.

\(^{34}\) SIVARAMAKRISHNAN, K.C., MANAGING URBAN ENVIRONMENT IN INDIA: TOWARDS AN AGENDA FOR ACTION (The Times Research Foundation, Calcutta, 1993).

substances in streams and wells. Industrial effluents are carried away through the pipes which often leak and overflow. Use of insecticides, pesticides and chemical fertilizers also contribute to water pollution. It is estimated that about 60,000 synthetic chemicals are in daily use and their number increases by 1000 to 1,500 every year. Industrial effluents and chemicals, because of their toxic properties, contaminate the water to such an extent that treatment of water becomes very difficult.

Another major source of water pollution is the reckless storage of different kinds of materials on land. Things like garbage, pesticides and industrial and human wastes etc. are stored or left on the open land. With rains, this finds its way into sewerage system and nallahs. These things on the open land also contaminate the ground water through leaching and seepage.

Air borne pollutants are another source of water pollution. They fly from distant places and fall down in the lakes and other water reservoirs. Smoke from chimneys of factories finally settle down on the surface water. In developing countries, protected water supply and sanitation facilities are inadequate. According to estimates, sanitation facilities are not available to 47 percent of the urban population and 86 percent of the rural population. Of the 3,119 towns and cities in India, only 209 have partial and just 8 have full sewage treatment facility.

Thermal power plants and industrial processes produce large amounts of waste heat which is released into waterways causing thermal pollution. This heat has

36. supra note 27, at 123.
37. Id. at 126.
several physical effects on water. It reduces the solubility of oxygen which can adversely affect fish and other marine organism. Elevated temperatures and sudden changes in temperature even by a few degree Celsius have been found to be lethal to fish. 38

With the industrialisation and increase in population, the ecological balance has been severely disturbed. In our country, where the population is without an adequate and safe water supply, water pollution has to be considered in terms of health more than any thing else. Rising population, rapid industrialisation and the general tendency of our people to consider our rivers and streams to have an infinite capacity to absorb all kinds of impurities, demand urgent action - scientific and legal, to prevent and control water pollution.

In India, the problem of water pollution was officially recognised in early sixties. A committee was set up in 1962 by the Ministry of Health to draft a legislation for the prevention of water pollution. The report of the Committee was circulated to the State Governments and was also considered by the Central Council of Local Self Government in September, 1963. The Council resolved that a single law regarding measures to deal with water pollution control may be enacted by the Union Parliament. A draft Bill was accordingly prepared and put up for consideration at a joint session of the Central Council of Local Self Government and the Fifth Conference of the State Ministers of Town and Country Planning held in 1965. In pursuance of the decision of the joint session, the draft Bill was considered in detail by a Committee of

38. Id. at 128.
Ministers of Local Self Government from the State of Bihar, Madras, Maharashtra, Rajasthan, Haryana and West Bengal.

After considering the relevant local provisions existing in the country and recommendations of the aforesaid committees, the government came to the conclusion that existing local provisions are neither adequate nor satisfactory. Therefore, an urgent need was felt for introducing a comprehensive legislation which would establish unitary agencies in the Centre and State to provide for the prevention, abatement and control of pollution of rivers and streams, for maintaining or restoring wholesomeness of such water courses and for controlling the existing and new discharges of domestic and industrial wastes.

The Bill sought to establish at the Centre as well as in the States Water Pollution Prevention Boards equipped with technical and administrative staff and to confer on them such powers as are necessary to deal with the problem of water pollution in the country effectively; provide penalties for contravention of the provisions of the Bill; and establish Central and State water testing laboratories to enable the Boards to assess the extent of pollution, lay down standards and establish guilt or default.

In the objects and reasons of the Bill, it was stated that ‘the problem of pollution of rivers and streams has assumed considerable importance and urgency in recent years as a result of the growth of industries and the increasing tendency to urbanisation. It is, therefore, essential to ensure that the domestic and industrial effluents are not allowed to be discharged into the water courses without adequate treatment as such discharges would render the water
unsuitable as source of drinking water as well as for supporting fish life and for use in irrigation. Pollution of rivers and streams also causes increasing damage to the country's economy'.

Water is a State subject under the Constitution. However, Article 252 of the Constitution empowers the Union Government to legislate on a State subject provided two or more State legislatures consent to a Central law. The Central Government introduced the 'Water (Prevention and Control of Pollution) Bill, 1969 in the Rajya Sabha after 6 States had passed enabling resolutions authorising the Parliament to enact the law on their behalf. In August, 1970 Rajya Sabha decided to refer the Bill to a joint committee of both the Houses. The joint committee, after detailed examination, presented its report alongwith the modified Bill to the Parliament on November 13, 1972. The Parliament passed the Bill in early 1974. It received assent of the President on March 23, 1974 and became Act No. 6 of 1974. By then, 6 more States had passed enabling resolutions.

The object of the Water (Prevention and Control of Pollution) Act, 1974 (hereinafter 'the Water Act' or 'the Act') as set out in the Preamble is:

An Act to provide for the prevention and control of water pollution and the maintaining or restoring of wholesomeness of water, for the establishment, with a view to carrying out the purposes aforesaid, of Boards for the prevention and control of water pollution, for conferring on and assigning to such Boards powers and functions relating thereto and for matters connected therewith.

The Act came into force at once in the States of Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh.

Pradesh, Tripura and West Bengal (the legislatures of these States passed enabling resolutions) and all Union Territories. Any other State could also adopt this Act under clause (1) of Article 252 of the Constitution and it would come into force in that State from the date of adoption.40

The Water Act was amended in 1978 and was revised in 1988 so as to make its provisions more effective. Sections 63 and 64 empower the Central Government and State Governments respectively to make rules to carry out the purposes of the Act. These rules are to be so made as to avoid inconsistency.

Section 2(e) of the Water Act defines 'pollution' as "such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety; or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms". This definition of water pollution is quite wide and exhaustive.

Water Act authorises the Central Government and State Government to constitute a Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCB) respectively.41 In relation to a Union Territory, the Central Board exercises powers.42 Central Board and State Boards are the legal

40. Section 1(3).
41. Sections 3, 4.
42. Section 4(4).
corporate entities and are equipped with sufficient number of staff members.

The Board may temporarily associate with itself certain persons to carry out particular purposes and may also appoint any qualified person as consulting engineer to the Board. The terms and conditions of service of the officers, employees, committee members and other persons associated with the Board have been specified. All members, officers and servants of the Board shall be deemed to be public servants within the meaning of Section 21 of the Indian Penal Code, 1860.

The Act also permits the Constitution of Joint Boards so that a concerted effort can be made to carry out the purposes of the Act. A Joint Board should be equipped with sufficient staff members.

5.2.1 Functions of the Boards

The Act confers powers and assigns various functions to Central as well as State Pollution Control Boards. The functions CPCB are as follows:

- promote cleanliness of streams and wells in general in different areas of states,
- advice the Central Government on any matter concerning the prevention and control of water pollution;

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43. Sections 3(3), 4(3).
44. Sections 3(2), 4(2)
45. Section 10.
46. Section 12(4).
47. Sections 5-12; See also Rules 4,5 & 10 of Water (Prevention and Control of Pollution) Rules, 1975 and Rule 11 of Water Pollution (Procedure for Transaction of Business) Rules, 1975.
48. Section 50.
49. Section 13.
50. Section 14.
51. Section 16.
• coordinate the activities of State Boards, resolve disputes among them and provide technical assistance and guidance to them;

• carry out and sponsor investigations and research relating to problems, prevention, control or abatement of water pollution;

• plan and organise the training of persons engaged or to be engaged;

• organise through mass media a comprehensive programme regarding prevention and control of water pollution;

• perform such functions of any State Board as may be specified in an order made under sub-section (2) of section 18;\(^{52}\)

• collect, compile and publish data relating to water pollution and prepare manuals, codes or guides relating to treatment and disposal of sewage and trade effluents;

• lay down, modify or annul the standards for a stream or well;

• planning and execution of a nation-wide programme for the prevention, control or abatement of water pollution; and

• establish or recognise a laboratory or laboratories to analyse the samples of water, sewage or trade effluents.

For the prevention, control or abatement of water pollution, the Act assigns following functions to the SPCB:\(^{53}\)

• to plan a comprehensive programme and secure its execution;

\(^{52}\) Sub-section (2) of Section 18 reads “where the Central Government is of the opinion that any State Board has defaulted in complying with any directions given by the Central Board under sub-section (1) and as a result of such default a grave emergency has arisen and it is necessary or expedient so to do in the public interest, it may, by order, direct the Central Board to perform any of the functions of the State Board in relation to such area, for such period and for such purposes, as may be specified in the order”.

\(^{53}\) Section 17.
• to advise the State Government on water pollution issues; to collect and disseminate information; to encourage, conduct and participate in investigations and research; to collaborate with the Central Board in organising the training of persons engaged or to be engaged in programmes and to organise mass education programmes,

• to inspect sewage or trade effluents, their disposal system and setting up of treatment plants;

• to lay down, modify or annul effluent standards for the sewage and trade effluents,

• to evolve economic and reliable methods of treatment of sewage and trade effluents,

• to evolve methods of utilisation of sewage and suitable trade effluents in agriculture,

• to evolve efficient methods of disposal of sewage and trade effluents on land,

• to lay down standards of treatment of sewage and trade effluents,

• to make, vary or revoke any order regarding discharge of waste, construction of new systems for the disposal of sewage and trade effluents and to lay down, modify or annul effluent standards for the sewage and trade effluents,

• to advise the State Government with respect to the location of any industry which is likely to pollute stream or well,

• to perform such other functions as may be prescribed or entrusted to it by the Central Board or the State Government; and

• to establish or recognise a laboratory or laboratories to analyse the samples of water or any sewage or trade effluent.
5.2.2 Powers of Boards

Besides the above mentioned functions, the Act confers wide powers on Central Board and State Boards to be exercised within the area of their jurisdiction for effective implementation of the provisions. These powers may be summarised as under:

- Power to obtain information 54
- Power to take samples of effluents 55
- Power of entry and inspection 56
- Power to lay down standards 57
- Power to grant or withhold consent 58
- Power to review or withdraw consent 59
- Power to carry out certain works 60
- Power to take immediate action in case of emergency 61
- Power to make application to the court for restraining the polluter 62
- Power to give directions 63
- Power to make a complaint to the court 64
- Power to appoint Board analysts 65
- Power to seek assistance from local authorities 66

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54 Section 20
55 Section 21
56 Section 23
57 Section 24
58 Sections 25, 26
59 Section 27.
60 Section 30
61 Section 32.
62 Section 33
63 Section 33A
64 Section 49
65 Section 53(3)
66 Section 55
- Power to acquire land for public purposes.\textsuperscript{67}

The State Board or any officer empowered by it may make surveys of any stream or well and obtain necessary information regarding the position of such stream or well. Directions may be given with respect to abstraction of water from and discharge of sewage or trade effluent into such streams or wells. The Board may also obtain information regarding any disposal system.

A State Board or any officer empowered by it has power to take samples of water or of any sewage or trade effluent for the purpose of analysis. The result of analysis of sewage or trade effluent is not admissible in evidence in any legal proceeding unless the prescribed procedure is followed.\textsuperscript{68} The procedure is that the person taking the sample of sewage or trade effluent has to serve on the occupier or his agent a notice in the prescribed form of his intention to have it analysed. The sample is divided into two parts in the presence of occupier or his agent. Each part of the sample is placed in a container which is marked, sealed and signed by the person taking the sample as well as the occupier or his agent. One container is sent to the laboratory recognised by the Central Board\textsuperscript{69} (in case of Union Territory) or the State Board\textsuperscript{70} and on request of the occupier or his agent is sent to the laboratory recognised by the Central Government\textsuperscript{71} (in case of Union Territory) or the State Government.\textsuperscript{72} If the occupier or his agent does not make a request for division of sample into two parts, the sample is placed in one container which is marked, sealed and signed by

\textsuperscript{67} Section 56.
\textsuperscript{68} Section 21(2).
\textsuperscript{69} Section 16.
\textsuperscript{70} Section 17.
\textsuperscript{71} Section 51.
\textsuperscript{72} Section 52.
the person taking the sample and it is sent for analysis to the laboratory recognised by the Central Board (in case of Union Territory) or the State Board.

If the occupier or his agent, after service of notice, wilfully absents himself, the sample is placed in one container which is marked, sealed and signed by the person taking the sample and it is sent to the laboratory recognised by the Central Government (in case of Union Territory) or the State Government, as the case may be. In such a situation, the person taking the sample has to inform the government analyst in writing about the willful absence of the occupier or his agent.

The sample so collected is analysed by the Board analyst who submits a report in prescribed form in triplicate to the Central Board (in case of Union Territory) or the State Board. Likewise, where a sample has been sent for analysis by the Government analyst, the analyst submits his report in triplicate to the Central Board (in case of Union Territory) or the State Board. In case of inconsistency between the two reports, the report of the Government analyst prevails.

On receipt of the report, the Board sends one copy to the occupier or his agent, second copy is preserved for production before the court in case of legal proceedings and the third copy is kept by the concerned Board. The procedure for lifting the sample of water, sewage or trade effluent has been given such an importance that the result of analysis is not admissible in evidence unless the prescribed procedure is followed.

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73 Appointed under section 53(1) by the Central Government or Section 53(2) by the State Government, as the case may be.
74 Appointed under section 53(3).
75 Section 21(1).
76 Section 22(3).
77 Section 22(4).
78 Section 22(2).
79 See M/s Delhi Bottling Co Pvt Ltd v Central Board for the Prevention and Control of Water Pollution, AIR 1986 Delhi 152.
Any person empowered by a State Board has a right to enter and inspect any place for the purpose of performing any of the functions of the Board.

The Act empowers a State Board to prescribe standards for the discharge of effluents into any stream, well or sewer or on land. Discharge of polluting substances into streams, wells or sewers or on land in excess of the standards laid down by the State Board is generally prohibited. However, in actual practice, the State Boards have not laid down their own standards and are following, with minor variations, the standards laid down by the Indian Standards Institute (ISI). ISI has developed standards for industrial effluents, sewage effluents and streams. Making of standards is a difficult matter and requires consultations with experts and affected parties.

In *World Saviors v. Union of India*,\(^8^0\) U.P. Pollution Control Board reported that M/s Doon Valley Distillers were discharging effluent beyond the prescribed pollution control standard and that effluent was being pumped by it to nearby fields belonging to it as well as to farmers for irrigation. The water pollution caused by the discharge of effluents was likely to cause harm to the subsoil water since the same was beyond the tolerance level. In these circumstances, the Supreme Court directed the total closure of the industry and asked the U.P. Pollution Control Board to ensure closure, if necessary, with police force.

Before establishing any industry, operation or process, or any disposal system, which is likely to discharge sewage or trade effluent into a stream, well or

\(^8^0\) (1998) 9SCC 247.
sewage or on land, a person is required to obtain consent of the State Board. Consent is also required in case a person brings into use any new or altered outlet for the discharge of sewage or begins to make any new discharge of sewage. The application for consent of the State Board is submitted in the prescribed form accompanied with prescribed fee.

Under Section 25(1) of the Water Act, as amended in 1988, the prohibition now extends even to “establishment” of the industry or taking of steps for that process. Till the consent of the Board is obtained, neither can the industry be established nor can any steps be taken to establish it.

The Board, while granting consent, may impose conditions like specifying the location, construction and use of outlet as well as the composition, temperature, volume or rate of new discharge. These conditions are binding on the applicant. The Board is also empowered to refuse consent but for that reasons are to be recorded in writing.

The Board maintains a register containing the particulars of the conditions subject to which the consent is granted. This register is open to all the affected interests for inspection and shall be a conclusive proof that consent was granted subject to such conditions. If the consent is neither given nor refused, on the expiry of four months from the date of application it is deemed to have been given unconditionally. Consent is required to be obtained by those persons also who have been discharging any sewage or trade effluent before the commencement of the Act.

81 A P Pollution Control Board v Prof M V Nayudu (Retd) (2001) 2 SCC 62
The Board may, at any time, review the consent order and may vary or revoke any of the conditions imposed under it. Obtaining consent from the State Board is so important that the Supreme Court in *M.C. Mehta (Calcutta Tanneries' Matter) v. Union of India*,\(^8^2\) observed that:

In terms of Section 26, the Calcutta tanneries are under an obligation to obtain consent from the Board before they are permitted to discharge the trade effluent into a stream or on land. According to the affidavits filed by the Board very large number of Calcutta tanneries have not obtained the consent required under the Water Act. Such tanneries are liable to be prosecuted under the Water Act.

If the consent has been granted subject to certain conditions but the person concerned did not execute the work as per the conditions imposed and within the specified time, the State Board may serve on the person concerned a notice requiring him to execute the work accordingly within the specified time (not being less than thirty days). If he still fails, the State Board may itself execute the work and recover the cost of execution from him as arrears of land revenue, or of public demand.

If it appears to the State Board that any poisonous, noxious or polluting matter is present or is being discharged into any stream or well or on land and as a result of which an emergency has arisen, the Board may, for reasons to be recorded in writing, carry out any works of a temporary character, as it may consider necessary for the purpose of removing, remedying or mitigating such pollution. It may also issue orders restraining or prohibiting the person concerned from discharging such substances.

\(^{82}\) (1997) 2 SCC 411.
The normal policy of the Board is to persuade the person causing water pollution to carry out pollution control measures as stipulated in the consent order. If persuasion fails, the Board is empowered to use the alternative of making an application to a Court of Metropolitan Magistrate or a Judicial Magistrate of the first class, for restraining the person from causing such pollution. On receipt of application by the Board, the court may make any such order as it deems fit.

The direction or order of the court may require the person causing pollution to desist from causing such pollution or to remove the polluting matter from such stream or well. If the person fails, the court may authorise the Board to remove or dispose of such polluting matter. All expenses incurred by the Board in carrying out the order of the court are recoverable from the person concerned as arrears of land revenue or of public demand.

The proceedings under Section 33 of the Act are intended to check the public nuisance of water pollution and these provisions are akin and analogous to Section 133, Cr.P.C. and are maintainable in the Court of a Metropolitan Magistrate or a Judicial Magistrate of the first class. The Section intends to arrest the damage and repair it and to take preventive measures to check the pollution of our water resources. The non-compliance of the injunction issued under Section 33 entails criminal prosecution and conviction.83

The Board or any of its authorised officer has power to lodge a complaint to the court and only then the court shall take cognizance of any offence under the

Act. After the Amendment Act of 1988, cognizance may also be taken by the court on a complaint made by a person who has given notice of not less than sixty days of his intention to make a complaint to the Board.

The Board is empowered to issue directions in writing to any person, officer or authority including directions to close, prohibit or regulate any industry, operation or process or to stop or regulate the supply of electricity, water or any other service. This power has been given to the Board by the Amendment Act of 1988.

In *Re: Havana River - Sati Sugars Ltd.*, in exercise of the powers conferred under Section 33A of the Water Act, Tamil Nadu Pollution Control Board issued certain directions to the respondent company including direction to ensure proper storage of effluent in lagoons and treatment and disposal of treated effluent. The industry was discharging effluents into river Havana thereby polluting the river water. Despite enough time given to the industry for remedial steps, the directions were found not to have been complied with. A show cause notice was issued by the Board to the industry calling upon it to state why penal action for offences punishable under Section 44 read with Section 45(a) of the Act should not be initiated for violating the conditions imposed by the Board. The Court held:

This is a serious matter and shows that pollution is continuing because of actions of the industry and remedial steps have not been taken to prevent pollution and contamination of the river water... which has become a health hazard and environmental enemy. Enough time has been given to the industry to take remedial steps. It has failed to do so. We are, therefore, left with no other option but to direct the closure of the operation of the industry... The Tamil Nadu Pollution Control Board shall submit...
a report regarding compliance of this direction by the industry within ten days.

The industry was, however, allowed to approach the Court for appropriate orders regarding restarting the operations after pollution control devices have been fixed and proper steps taken to control pollution.

When the conduct of the industry was far from bona fide and being one of continuing to flout orders passed by the Court and violating its own undertakings filed before the Court, the industry continued to run without any enabling power or order in its favour polluting the environment by discharging contaminated water, the Court declined to interfere with the order of the Board under Section 33A for the closure of the industry.85

For the purpose of discharging any of its functions, the Board may require all the local authorities to render such help and assistance and furnish such information as may be necessary. In D.K. Joshi v. Chief Secretary, State of U.P.86, in 1992, a PIL was filed complaining that despite existence of legislation conferring powers and duties on various agencies, no action was taken in respect of the drinking water of Agra city which was unfit for human consumption.

The Supreme Court issued notices to different agencies like Nagar Mahapalika, State of U.P., U.P. Pollution Control Board and National Environmental Engineering Research Institute (NEERI) was also called upon to submit a report. Report was submitted by NEERI indicating long-term measures which

can be taken in relation to supply of drinking water as well as sewerage and drainage system and disposal of solid waste in the city of Agra. The Court held

Although the State Government has taken some definite steps in all the three aspects, namely supply of drinking water, providing adequate sewerage and drainage system and providing measures for disposal of solid waste in the city of Agra but by no stretch of imagination, can it be said that the measures taken by the State Government are adequate in relation to the necessity of the city.

The Court directed the State to appoint a Monitoring Committee to be headed by the Commissioner of Agra which can look into the effective functioning of the several public authorities, who are responsible for the supply of drinking water, providing sewerage and providing adequate measures for disposal of solid waste. The Committee was directed to be set up within three months from the date of order in order to implement the reports submitted by NEERI expeditiously. The State Board was allowed to acquire land under the provisions of Land Acquisition Act, 1894 or under any other law for the effective performance of its functions.

The Central Board as well as the State Board have their own funds. Besides this the Central Government and the State Government are under a duty to make contribution to their respective Boards in each financial year. Money can also be borrowed by way of loans, issue of bonds, debentures or any other instrument with the consent of Central Government or the State Government, as the case may be. Accounts are audited by an appointed auditor and audit report is to be laid before both the Houses of Parliament or as the case may be, the State Legislature. 87

87. Sections 34-40.
5.2.3 Powers of the Central and State Governments

Besides assigning different functions and conferring various powers on Central and State Pollution Control Boards, the Act also confers powers on Central and State Governments to ensure effective implementation of its provisions. The powers of Central Government and State Government may be summarised as under:

Exclusive Powers of Central Government

- Power to constitute a Central Pollution Control Board.\textsuperscript{88}
- Power to establish a Central Water Laboratory.\textsuperscript{89}
- Power to appoint Government analysts.\textsuperscript{90}
- Power to supersede the Central Board and Joint Boards.\textsuperscript{91}
- Power to make rules.\textsuperscript{92}

Exclusive Powers of State Government

- Power to constitute a State Pollution Control Board.\textsuperscript{93}
- Power to restrict the application of the Act to only certain areas.\textsuperscript{94}
- Power to issue notification regarding prohibition on use of stream or well for disposal of polluting matter etc.\textsuperscript{95}
- Power to issue notification regarding the date of application for consent of the State Board in case of discharge of sewage or trade effluent prior to the commencement of Water Act.\textsuperscript{96}

\textsuperscript{88} Section 3.
\textsuperscript{89} Section 51.
\textsuperscript{90} Section 53(1).
\textsuperscript{91} Section 61.
\textsuperscript{93} Section 4.
\textsuperscript{94} Section 19.
\textsuperscript{95} Section 24(3).
\textsuperscript{96} Section 26.
• Power to constitute Appellate Authority 97
• Power to revise the order of the Board 98
• Power to determine the rate of interest of the expenses incurred by the State Board which are to be recovered from the defaulter 99
• Power to establish a State Water Laboratory 100
• Power to appoint Government analysts 101
• Power to supersede State Board 102
• Power to make rules 103

Concurrent Powers of Central Government and State Government

• Power to remove any member of the Board 104
• Power to receive resignation of the Chairman of the Board 105
• Power to form an opinion as to the disqualification of a member in cases involving moral turpitude or abuse of position and order removal of the member 106
• Power to make rules for the appointment of officers and employees of the Board 107

97. Section 28. In the matter of pollution control, all the affected persons can file an appeal under Section 28, see Gujarat Pollution Control Board v Parmar Devasinh Shersinh, AIR 2001 Gujarat 11.
98. Section 29
99. Section 30(3)
100. Section 52
101. Section 53(2)
102. Section 62. See R.A. Goel v Union of India, AIR 2000 Punjab & Haryana 320
104. Section 5(3)
105. Section 5(4)(a)
106. Section 6(1) sub-clause (c) and (g) & Section 6(2).
107. Section 12(3)
• Power to approve their terms and conditions of service. 108

• Power to constitute Joint Boards. 109

• Power to give directions to the Joint Board. 110

• Power to give directions to the Boards. 111

• Power to authorise the Board to borrow money from any source. 112

• Power to receive copies of the budget and annual report of the Board. 113

• Power to prescribe a form for the maintenance of proper accounts and records. 114

• Power to appoint an auditor to audit the accounts of the Board and to receive audited copy of these accounts. 115

• Power to receive returns, reports, statistics, accounts and other information regarding Board’s activities. 116

• Protection against legal proceedings for actions taken in good faith. 117

5.2.4 Penalties under the Act

The Act provides for stiff penalties for violations of Sections 24, 25 and 26. The violation is punishable with imprisonment for term which shall not be less than one year and six months but which may extend to six years and with fine. 118 If the non compliance is repeated again after conviction, the minimum

108. Section 12(3A).
110. Section 15.
111. Section 18.
112. Section 37A.
113. Sections 38, 39.
114. Section 40(1).
115. Section 40(3-7).
116. Section 57.
117. Section 59.
118. Sections 43, 44.
punishment of two years imprisonment which can be extended upto seven years and with fine has been provided.\textsuperscript{119}

A failure to comply with the court order under Section 33 or a direction from the Board under Sections 32 and 33A is punished with imprisonment for a term which shall not be less than one year and six months but which may extend to six years and with fine and in case the failure continues with an additional fine which may extend to five thousand rupees for every day during which such failure continues. If the failure continues beyond a period of one year after the date of conviction, the offender is punished with imprisonment for a term which shall not be less than two years but which may extend to seven years and with fine.\textsuperscript{120}

If anyone obstructs the functioning of the Board or fails to furnish information as required or wilfully makes a statement which is false, he is punished with imprisonment which may extend to three months or with fine which may extend to ten thousand rupees or with both.\textsuperscript{121} Same punishment has been provided in case of a person who contravenes any of the provisions of the Act for which no penalty has been elsewhere provided in the Act. In case the contravention continues, an additional fine which may extend to five thousand rupees for every day may be imposed.\textsuperscript{122} The court is empowered to publish the name and address of the offender at his cost if he is convicted a second time for the same offence.\textsuperscript{123}

5.2.5 \textit{Offences by Companies and Government Departments}

If the offence has been committed under the Act by a company, every person who, at the time of commission of offence, is incharge of and is responsible for

\begin{itemize}
\item \textsuperscript{119} Section 45.
\item \textsuperscript{120} Section 41.
\item \textsuperscript{121} Section 42.
\item \textsuperscript{122} Section 45A.
\item \textsuperscript{123} Section 46.
\end{itemize}
the conduct of the business of the company, is deemed to be guilty of the
offence.\footnote{124} Similarly, if the offence is committed by any Department of
Government, the Head of the Department is deemed to be guilty.\footnote{125} However,
if the offence has been committed without their knowledge or if they exercised
all due diligence to prevent the commission of offence, there might be no
liability.

If the offence is committed by a company and it is proved that it has been
committed with the consent or connivance, or is attributable to the neglect of
any director, manager, secretary or other officer of the company, such director,
manager, secretary or other officer is also deemed to be guilty of that
offence.\footnote{126}

In \textit{U.P. Pollution Control Board v. Mohan Makings Ltd.},\footnote{127} in 1983, U.P.
Pollution Control Board initiated proceedings against M/s Mohan Makings Ltd,
a liquor manufacturing company under Sections 47, 24 and 43 of the Water
Act on the ground that it was continuously discharging pollutants into River
Gomuti in Lucknow and thereby raising pollution level beyond permissible
limits. It was alleged that directors and managers of the company were
responsible for the contamination of the river water.

The trial Court issued process at the first instance. The Sessions Court,
however, quashed the trial Court's order on the ground that it was not a
speaking order. The CJM then passed a detailed order again issuing process to

\footnote{124} Section 47(1).
\footnote{125} Section 48.
\footnote{126} Section 47(2).
\footnote{127} (2000) 3 SCC 745.
the accused. In revision, the Sessions Court quashed this order also, holding that no specific role had been assigned in the complaint to the directors and managers in the discharge of the pollutant effluents.

The Board then filed a revision petition before the High Court. The High Court took fifteen long years in confirming the order of the Sessions Court and holding that the directors had not been shown to have been incharge of or responsible to the company for the conduct of its business. Feeling aggrieved, the Board approached the Supreme Court by preferring an appeal. The Supreme Court, while setting aside the judgment of the High Court as well as the order of the Sessions Court, held.

Courts cannot afford to lightly deal with cases involving pollution of air and water. The message must go to all concerned. The Courts will share the parliamentary concern on the escalating pollution level of our environment. Those who discharge noxious polluting effluents into streams may be unconcerned about the enormity of the injury which it inflicts on the public health at large, the irreparable impairment it causes on the aquatic organisms, the deleteriousness it imposes on the life and health of animals. So the courts should not deal with the prosecution for offences under the Act in a casual or routine manner. Parliamentary concern in the matter is adequately reflected in strengthening the measures prescribed by the statute. The Court has no justification for ignoring the seriousness of the subject.

The Supreme Court directed the trial Court to proceed with the case in accordance with law and dispose it of as expeditiously as possible.

The survey of the Water Act reveals that the Act tries to regulate water pollution through a system of ‘command and control’. ‘Water pollution’ has been defined in such a way that almost every aspect of pollution has been covered. Various powers have been given to Central and State Pollution
Control Boards, Central Government and State Governments to ensure effective implementation of the provisions. Deterrent punishments may be imposed in case of violation of the provisions. Mandatory minimum punishment has been provided. The whole object of the enactment is to control the pollution of rivers and streams which has assumed considerable importance and urgency in recent years as a result of increasing industrialisation and urbanisation. The Act is intended to ensure that the domestic and industrial effluents are not allowed to be discharged into water courses without adequate treatment.

So far as judicial approach in India towards prevention and control of water pollution is concerned, a few more examples will further clarify the position. In *MC Mehta (Calcutta Tanneries’ Matter) Case,* Calcutta tanneries (about 550 in number) were discharging untreated noxious and poisonous effluents into River Ganga thereby polluting the land and river. In view of categorical findings of NEERI and several reports of W B Pollution Control Board, the setting up of common effluent treatment plant at the existing location of tanneries was not possible since they were located in thickly populated residential areas, offering little or no scope for future expansion, modernisation or installation of effluent treatment plants. Consequently, the Calcutta tanneries were directed by the Supreme Court to shift or relocate to new leather complex set up by the West Bengal Government.

128 supra note 82. For directions of the Court to the tanneries located in Lajmna near Kanpur restraining them from discharging effluents and sewage into the river Ganga without appropriate treatment, see *MC Mehta v Union of India,* AIR 1988 SC 1037. For directions of the apex Court against pollution caused by enormous discharge of untreated effluent in the river Palar by the tanneries and other industries in the State of Tamil Nadu, see *Vellore Citizens Welfare Forum v Union of India,* AIR 1996 SC 2715.
In spite of all efforts made by Supreme Court and State Government, tanneries did not cooperate in their relocation to new complex even after giving clear undertaking in that behalf to the Supreme Court. The Court observed that the tanneries which decline to relocate should not be permitted to function at the present sites and ordered their unconditional closure on a specified date (i.e. 30.9.1997). The Court also issued directions for their relocation, payment of compensation by them for reversing the damage and for rights and benefits to be made available by them to their workmen. Green Bench of Calcutta High Court was further directed to monitor the manner of compliance.

In News Item "Hindustan Times" A.Q.F.M. Yamuna v. Central Pollution Control Board,\textsuperscript{129} the Supreme Court ordered every industry in Delhi not to discharge their effluent into any drain leading to River Yamuna or to River Yamuna itself which has the effect of polluting the river.

In Ramjet Patel v. Nark Upshot Margi Dashiki Munch,\textsuperscript{130} a public interest litigation was filed contending that the main water pipelines, which supplied water to Jabalpur city, passed through the place where a number of dairy-owners were storing cow/buffalo dung, waste of the dairy products and urine of hundreds of cattle. All this was stored near the pipelines which in turn was likely to contaminate the pure water supplied to the residents of the city for home consumption.

The High Court held that keeping all these dairies around these water supply lines was a great hazard to the lives of the people of Jabalpur and therefore,

\textsuperscript{129} (2000) 9 SCC 440.
\textsuperscript{130} (2000) 3 SCC 29.
ordered the dairy-owners to shift away from the present location. The Court, however, gave certain directions for the rehabilitation of each dairy-owner individually.

On an appeal to the Supreme Court, Saghir Ahmad, J. observed:

Supply of pure drinking water is the statutory duty of the Municipal Corporation and the supply of such water has to be ensured to every citizen. In a situation, where the interest of the community is involved, the individual interest must yield to the interest of the community or the general public... Milk dairies and the keeping of cattle at the place in question... can not be permitted to continue... specially in the proximity of the main pipeline through which drinking water is supplied to the city of Jabalpur.\textsuperscript{131}

The Court however, directed the Municipal Corporation to pay Rs. 5,86,000 to the petitioners at the time of their shifting to the new locations, after deducting the amount of subsidy as may have already been paid by the Government for the expenses they incurred in the setting up of the biogas plant as per the orders of the Court.

In \textit{A.P. Pollution Control Board II case},\textsuperscript{132} the respondent attempted to establish its oil processing plant, a hazardous industry as per the notification issued by MoEF dated 27.9.1988, within a 10 km radius of two major water reservoirs (prohibited area) in Andhra Pradesh, the Osman Sagar and Himayat Sagar, which cater to the needs of over 50 lakhs people of Hyderabad and Secunderabad.

On the basis of exhaustive scientific reports, the Court held that if the said industry is permitted to be established, there is likelihood of serious pollution to

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{131} \textit{Id.} at 38-39.
\item \textsuperscript{132} \textit{supra} note 81.
\end{itemize}
\end{footnotesize}
the drinking water in these lakes. The fundamental objective of the Water Act is to provide clean drinking water to the citizens. If the State grants exemption to a particular industry within the area prohibited for location of polluting industries, exercise of such a power must be treated as arbitrary and contrary to public interest and in violation of the right to clean water under Article 21 of the Constitution of India. 'The Government could not pass such orders of exemption having dangerous potential unmindful of the fate of lakhs of citizens of the twin cities to whom drinking water is supplied from these lakes. Such an order of exemption carelessly passed, ignoring the "precautionary principle", could be catastrophic'.

In *M.P. Rameau v. District Forest Officer*,¹³³ it was submitted that prawn, shrimp or aquaculture are of two types i.e. which are done in the fresh water and/or brackish/saline water. Those who carry on these activities dug borewells which have led to the ground water becoming saline and thereby affecting potable water. It was also submitted that the chemicals are being extensively used which affect to a large extent the neighbouring lands and surrounding agricultural lands have become, for all practical purposes, useless for cultivation of paddy and other crops.

It was held by Andhra Pradesh High Court that the directions issued by the apex Court in *S. Jagannath v. Union of India*,¹³⁴ are not confined only to matters relating to shrimp culture or prawn culture in brackish/saline water within CRZ (Coastal Regulation Zone) but also aqua culture and prawn culture in fresh water. As per these directions an aqua culture authority has been

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¹³³ AIR 2002 Andhra Pradesh 256
¹³⁴ AIR 1997 SC 811
constituted and functioning. Carrying on these activities without obtaining its prior permission must be held to be illegal and in any event, as such activities cause pollution, the same should not be allowed to continue. These activities, if at all, can be carried on only after obtaining the prior permission of the competent authority and upon strict compliance with the directions of the apex Court.

However, inspire of all this, the position is far from satisfactory. Take for instance, the example of the extent of water pollution of a few major Indian rivers. Faith may or may not be able to move mountains, but only faith can continue to draw devotees to the country’s holiest river. The coli form test for bathing standards stipulates a safety limit of 10,000 per 100 ml, but Ganga in Bananas has revealed counts of as much as 4 million. This is the situation 16 years after the ambitious Ganga Action Plan (GAP) was launched in this holy city to clean the river. The first phase of the plan envisaged the treatment of 873 MLD (Million Litres per day) of waste water flowing into the river along 25 towns in Uttar Pradesh, Bihar and West Bengal. This was only roughly 65 percent of the total 1,340 MLD of waste water in the river. The original dead line for the completion of GAP-I was March, 1990, but it was extended upto March 2000. Even so, the plan could meet only 35 percent of the target, or 305 MLD, at a cost of Rs. 452 crore. The extension of GAP-I notwithstanding, GAP-II was also launched in 1993 and was scheduled to be completed by December 2001. But now GAP-II has also been extended to 2005.\(^\text{135}\)

This reflects the story of poor planning and poor implementation. Most of the sewage treatment plants (Steps) are either non-functional or operating below satisfactory levels. In May and June, 2001, the CPCB inspected 35 Steps - 10

in U.P., 3 in Uttarakhand, 15 in West Bengal and 7 in Bihar - and found serious lapses. CPCB has reminded that STPs were originally planned for just about 65 percent of the total in 1985 while the volume of sewage has increased significantly since then. There have been some other changes also during this period. The Central Ganga Authority (CGA), constituted to oversee the implementation of GAP in February 1985, was renamed as the National River Conservation Authority (NRCA) in September, 1995. The renaming did not help, for NRCA - the apex body headed by the Prime Minister - has met only twice, in 1994 and 1997. Similarly, the Ganga Project Directorate (GPD) which was constituted in June 1985, was renamed as the National River Conservation Directorate (NRCD) in June 1994. More significantly, the authorities are now talking in terms of a National River Conservation Plan (NRCP) rather than GAP. The change means that other rivers have been brought into the ambit of the new, even more ambitious plan. While GAP would need Rs. 1,200 crore for completion, NRCP is estimated to cost Rs. 3,300 crore and would be spread over 25 rivers across 150 towns in 16 States. All new projects are being sanctioned under NRCP rather than GAP-II. The key change is that from now on the Central Government would bear 70 percent of the cost while the rest would come from the States concerned. By contrast, GAP was fully funded by the Centre. M.C. Mehta feels that GAP-II should not have been launched at all when it was clear that the first phase had failed to yield results.\(^{136}\)

Every day 2,500 MLD of sewage is flowing into River Yamuna and only 1,270 MLD is being treated presently. The remaining sewage is pouring into the Yamuna as it is, said Dr. R.C. Trivedi, a senior scientist associated with the

\(^{136}\) Ibid.
water monitoring unit of the CPCB. He remarked that “what we think is the Yamuna flowing through Delhi is in fact nothing but sewage”.

The River Yamuna that flows through the Indian Capital faces a serious threat of contamination with about 1.3 billion litres of untreated sewage being discharged into it every day. This was stated in the Lok Sabha by the Minister of Environment and Forests. It has been confirmed by a joint inspection by the CPCB and a public health organisation associated with the urban development ministry. The Minister said that changing operations had been taken up in 21 towns along the Yamuna river as part of Rs. 5 billion Yamuna Action Plan (YAP), conceived six years ago. The Plan included such works as interception and diversion of sewage as well as creation of sewage treatment plants, low cost toilets and crematoria, as also river front development. Already Rs. 4.4 billion had been spent on the plan.

The Supreme Court had set March 31, 2003 as the deadline for clearing up the river but not much has happened. According to CPCB Chairman, D.K. Biswas, ‘the river urgently needs some fresh water to survive’. By the time the Yamuna nears Delhi, it loses nearly 90 percent of its water. Most of the water is taken out of the river at the Wazirabad barrage for irrigation and drinking purposes. The left out mixes with sewage from over two dozen drains.

Gomti river, the lifeline of Lucknow city is shrinking and stinking. The city gulps down millions of litres of water from the river every day and throws back tons of chemical and faecal waste. A workshop on “Rejuvenating Gomti” to

understand the Gomti Action Plan reported that the State Capital, at present, is facing its worst ever water crisis and parts of the city are on the verge of water-riots. Course of the river as it passes through Lucknow was the most polluted patch with the oxygen level dipping to zero at certain points and posing a serious threat to aquatic life. An earstwhile minister admitted that the Gomti Action Plan was moving at a sluggish pace.  

It has been said in religious books that Narmada river is best among all rivers and all sins are washed out by the mere sight of Mother Narmada. Although thousands of devotees take holy dip in this sacred river each day but due to indifference the holy-water of the river is being polluted gradually. The nala of Kori Ghat in Hoshangabad is bringing filth from the entire city and draining into Narmada river. The flow of dirty water can be seen mixing with the water of the river. The devotees are very unhappy on account of increasing pollution of Narmada river.  

River Palaar (river of milk) that once nursed the fertile farmlands of Vellore district in Tamil Nadu, has now turned into a river of poison due to discharge of untreated effluents by numerous leather tanneries in the district. Thousands of hectares of farmlands had been rendered uncultivable, ground water had been irreversibly poisoned with the populace deprived of access to safe drinking water, according to Pasumai Thayagam (green motherland), an environmental action group headed by Dr. P. Anbumani, who is the son of PMK founder leader Dr. Ramadoss. The Supreme Court directive on reversing

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the pollution and stoppage of further contamination had not been implemented in spirit and was violated in content, he alleged. He also alleged that there was a nexus between the tannery owners, politicians, bureaucracy and even the press. Of the total number of leather tanneries in India, over 53 percent are in Tamil Nadu, with most of these concentrating in the Palaar River basin. He said that a number of scientific studies revealed that about 40,000 farming families in 300 villages of Vellore district were deprived of their livelihood due to the devastation of the land and water resources.\footnote{The North Karanpura coalfields in Jharkhand are facing threat of pollution following detection of alarming levels of lead and other heavy metals in the sediments of local rivulets, the Damodar and Safi rivers. A study by Nitish Priyadarshi, Principal Investigator, Department of Science & Technology, has found threatening levels of lead, arsenic, iron, chromium and manganese in the sediments and surface water of these rivers which might cause major health problems to mining population. The study warned that long term exposure to lead present in water might result in general weakness, dyspepsia, headache, perpetual drowsiness, high blood pressure and anemia.\footnote{From the coal mines in Jharkhand, the Damodar carries arsenic to West Bengal and finally to the Bay of Bengal. Slow and steady arsenic poisoning causes dermatitis, eczema, ulceration and pigmentation of skin and cancer.}

\footnote{142. \textit{Palaar turns into a poisonous river}, Central Chronicle (Bhopal), dated 14.12.2000: CSE India Green File, December 2000, No. 156 at 41.}

\footnote{143. \textit{Alarming level of lead detected in Damodar, Safi rivers}, Times of India (Bombay) dated 16.05.2001: CSE - India Green File, May 2001, No. 161 at 49.}

\footnote{144. Manoj Prasad, \textit{Arsenic contaminating waters of Damodar river}, Indian Express (New Delhi), dated 28.05.2001: \textit{Id.} at 51.}
Water Act is no doubt a comprehensive legislation aimed at prevention and control of water pollution. The CPCB and SPCBs, created under the Act, should develop a comprehensive plan to ensure that hazardous substances are not discharged into the water courses and prescribed standards are strictly complied with. The Boards have enormous powers under the Act including the power to close, prohibit or regulate any industry, operation or process. Proper and timely use of these powers with determination is the need of the hour and the matters should not always be left with the courts to decide.

5.3 Water (Prevention and Control of Pollution) Cess Act, 1977

The Water Act contemplates the creation of CPCB at the national level and SPCBs at State level. The Central Government and the State Governments have to provide funds to their Boards for carrying out the purposes of the Act. However, due to limited resources, the respective governments may not be able to provide adequate funds. Therefore, the Water (Prevention and Control of Pollution) Cess Act, 1977145 (hereinafter 'the Water Cess Act') was passed “to provide for the levy and collection of cess on water consumed by persons carrying on certain industries and by local authorities, with a view to augment the resources of the Central Board and the State Boards for the prevention and control of water pollution constituted under the Water Act, 1974”146.

The only purpose of the Water Cess Act is to provide for levy and collection of cess on water consumed by persons carrying on certain industries with a view

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146. The Preamble.
to augment the resources of the Central Board and the State Boards.\textsuperscript{147} The cess is payable by every local authority and every person carrying on any industry\textsuperscript{148} and is to be calculated on the basis of water consumed.\textsuperscript{149} Whoever knowingly furnishes any false return or wilfully or intentionally evades or attempts to evade the payment of cess, is punishable with imprisonment which may extend to six months or with fine which may extend to one thousand rupees or with both.\textsuperscript{150}

The Central Government has power to exempt any industry from the levy of water cess\textsuperscript{151} and also has the power to make rules for carrying out the purposes of the Act.\textsuperscript{152}

Where the amount of water cess was paid under protest and the very collection of water cess was clearly illegal and without authority of law, the claim of the respondents for refund can not be denied merely on the ground that the petitioners passed on the money to the State Government, which in turn gave it to the Central Government and later the Central Government appropriated the same by passing it back to the various SPCBs.\textsuperscript{153}

The object of Water Act is to control the water pollution and to ensure that industrial effluents are not discharged into the water courses without adequate treatment. The Water Cess Act is not an enactment to regulate and control

\textsuperscript{147} Member Secretary, Andhra Pradesh State Board for Prevention and Control of Water Pollution v. Andhra Pradesh Rayons Ltd., (1989) I SCC 44: AIR 1989 SC 611.

\textsuperscript{148} "Industry" includes any operation or process, or treatment and disposal system, which consumes water or gives rise to sewage effluent or trade effluent, but does not include any hydel power unit. [Section 2(c)].

\textsuperscript{149} Section 3.

\textsuperscript{150} Section 14.

\textsuperscript{151} Section 16.

\textsuperscript{152} Section 17. See Water (Prevention and Control of Pollution) Cess Rules, 1978.

\textsuperscript{153} U.P. Pollution Control Board v. M/s Kanoria Industrial Ltd., AIR 2001 SC 787.
pollution but a fiscal measure to raise revenue for augmenting the resources of the Pollution Control Boards. The Water Cess Act was promulgated with a view to levy and collect cess from the units which were thought to cause pollution and the funds so realised were to be entrusted to appropriate authorities, inter alia, for remedial measures. Pollution Act may be a regulating Act but Cess Act is a fiscal enactment. Therefore, we have to look merely at what is clearly said. There is no room for any intendment and there is no room for bringing within the provision of the Act anything by implication.

A rebate of seventy percent of the cess is given to the person or local authority if any plant for the treatment of sewage or trade effluent has been installed.

5.4 Air (Prevention and Control of Pollution) Act, 1981

An average person requires over thirty pounds of air a day or about six pints every minute and he has to take it as it comes. He would not readily stand in sewage or drink dirty water. Yet daily the individual draw 26,000 breaths, between 18 and 22 each minute, many of which - if not in some cases - are of filthy air.

Air is the mixture of various gases and it constitutes earth's atmosphere. Fresh air may be defined as that air in which various constituents are present in the scientifically accepted proportion and no such other element is present in it which renders it unfit for use. According to scientifically accepted norm, one unit of unpolluted or fresh air consists of 78.09% nitrogen, 20.94% oxygen, 0.93% argon, 0.03% carbon dioxide and 0.01% gases like hydrogen, helium, neon, krypton, xenon and oxides of nitrogen sulphur and carbon which are the

154 Saraswat Sugar Mills v Haryana State Board AIR 1992 SC 224
156 Rajasthan State Electricity Board v Cess Appellate Committee, AIR 1991 SC 597, see also The A P Gas Power Corporation Ltd v The Appellate Committee Water (P & C P) Cess Act, AIR 2001 Andhra Pradesh 523
157 Section 7
158 R. ARVILL, MAN AND ENVIRONMENT, 97 (1st ed 1967)
products of natural processes like volcanic eruptions, decay of vegetation, forest fires and dust storms. If this ratio is disturbed due to presence of any foreign substance in it, the air will be deemed to be polluted or contaminated air, unfit for use.

Pollution of air is more widespread in its effects than other forms of pollution. Atmosphere is boundary free and pollution of air may cause adverse effects hundreds of miles away in other areas. If water is polluted, one can avoid at least for some time to drink it or he may drink it after purification. But one cannot avoid breathing polluted air, he has to take it as it comes.

The nexus between air pollution and health of human beings as well as ecology has been established beyond doubt. 'Cause and effect' relationship has been proved between air pollution and diseases. The U.S. air strikes may be limited to Afghanistan, but their effects on environment could well reach India, experts warned. Dilip Biswas, CPCB Chairman, warned that 'if the bombing continues at this pace, it would lead to major increase in air pollution levels over Afghanistan and these pollutants could automatically reach Indian skies also. This happened during the Gulf war, when the Suspended Particulate Matter (SPM) levels went high even in neighbouring countries and it could happen now'.

The chemicals which these bombs contain, besides polluting the environment can cause a number of diseases. The kind of explosives being used release many hydrocarbons which are not naturally present in the environment. According to

a report by Coghill Research Laboratories, a UK based organisation, some one million bullets still lie in the deserts of Gulf region after the Gulf war where subsequently the incidence of leukemia, cancer and birth defects have risen sharply as a result of environmental pollution. Emissions into the air cause changes in weather also. Global temperature as a whole has increased. Concern has been expressed over the depletion of ozone layer enclosing the earth.

Common air pollutants, their sources and pathological effects on man may be understood with the help of the following table:

<table>
<thead>
<tr>
<th>Sl.</th>
<th>Pollutants</th>
<th>Source</th>
<th>Pathological Effects on man</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aldehydes</td>
<td>Thermal decomposition of fats, oils, glycerol</td>
<td>Irritate nasal and respiratory tracts</td>
</tr>
<tr>
<td>2</td>
<td>Ammonia</td>
<td>Chemical Processes - dyemaking, explosives, fertilizers</td>
<td>Inflame upper respiratory passage</td>
</tr>
<tr>
<td>3</td>
<td>Arsenic</td>
<td>Coal and oil furnaces, glass manufacturing</td>
<td>Damage kidneys, cause jaundice, lung and skin cancer</td>
</tr>
<tr>
<td>4</td>
<td>Benzene</td>
<td>Refineries, motor vehicles, smelters</td>
<td>Long-term exposure may cause leukemia</td>
</tr>
<tr>
<td>5</td>
<td>Cadmium</td>
<td>Coal and oil furnaces</td>
<td>Long-term exposure damages kidneys</td>
</tr>
<tr>
<td>6</td>
<td>Carbon monoxide</td>
<td>Gasoline motor exhausts, steel plants, smelters, oil and coal furnaces</td>
<td>Damages lungs, weakens bones, starves body of oxygen, damages heart</td>
</tr>
<tr>
<td>7</td>
<td>Chlorine</td>
<td>Chemical industries</td>
<td>Attacks respiratory tract, mucous membranes</td>
</tr>
<tr>
<td>8</td>
<td>Fluoride Ions</td>
<td>Smelters, steel plants</td>
<td>Affects teeth</td>
</tr>
<tr>
<td>9</td>
<td>Hydrocarbons</td>
<td>Unburned gasoline vapour</td>
<td>Fog formed with combination of oxide of nitrogen affect respiratory system</td>
</tr>
<tr>
<td>10</td>
<td>Hydrogen cyanide</td>
<td>Fumigation, blast furnaces, chemical manufacturing</td>
<td>Interferes with nerve cells, produce dry throat, affect vision, headache, irritates eyes, lungs</td>
</tr>
</tbody>
</table>

160 Ibid
<table>
<thead>
<tr>
<th>No.</th>
<th>Compound</th>
<th>Source</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Hydrogen Chloride</td>
<td>From incinerators</td>
<td>Irritates eyes, lungs</td>
</tr>
<tr>
<td>13.</td>
<td>Hydrogen Sulfide</td>
<td>Refineries, sewage treatment, pulp mills, chemical industries</td>
<td>Irritate eyes, causes nausea, bad smells.</td>
</tr>
<tr>
<td>17.</td>
<td>Ozone</td>
<td>Formed in sunlight from oxides of nitrogen and hydrocarbons</td>
<td>Irritates eyes, aggravates asthma</td>
</tr>
<tr>
<td>18.</td>
<td>Phosgene</td>
<td>Chemical and dye manufacturing.</td>
<td>Induce cough, irritation and fatal pulmonary oedema</td>
</tr>
<tr>
<td>20.</td>
<td>Sulphur dioxide</td>
<td>Smelters, coal and oil combustion</td>
<td>Obstructs breathing, irritates eyes</td>
</tr>
<tr>
<td>21.</td>
<td>Suspended solids (as soot, smoke)</td>
<td>Manufacturing process, incinerators</td>
<td>Cause Emphysema, eye irritation and possibly cancer</td>
</tr>
</tbody>
</table>

The air we breathe is a mixture of nitrogen and oxygen with minor constituents like carbon dioxide and trap gases. Pollutants in the form of dust, smoke, industrial and automobile exhaust, gaseous and particulate matters are found in the air. Nature and amount of such pollutants vary from place to place depending upon population, vehicular density and location of industrial units etc. Lungs are the major organs affected by air pollution. Chronic bronchitis and airways obstruction are the result of long term exposure to air pollution. Organic matters including dust can cause allergic reactions producing allergic alveolitis. Inorganic dust may get deposited in the lungs and produce fibrosis. This produces respiratory disability and decreased work efficiency. Exposure to dust may lower lung defences and clearing mechanism, resulting in rise of
infections particularly tuberculosis. Such occupational exposures may lead to lung cancer as well.\textsuperscript{162}

Like human beings, air pollution adversely affects animals also. The loss of appetite, reduced milk, joint stiffness have been common symptoms. Plants are more sensitive to air pollution than animals. Plants show reduced photosynthesis in the presence of pollutants and so the air purifying action of plants \textit{i.e. absorbing carbon dioxide and releasing oxygen} is reduced, resulting in a vicious circle of increased pollution. Air pollution creates problems not only for the animates but also for the inanimates. World’s wonder Taj Mahal at Agra is the worst example of stone cancer. Therefore, air pollution has a detrimental effect not only on the health of the people but also animal life, vegetation and property.

United Nations Conference on Human Environment held at Stockholm in June, 1972, resolved to take appropriate steps for the preservation of the natural resources of the earth which, among other things, include the preservation of the quality of air and control of air pollution. Since India participated in the Conference, the Government of India decided to implement the decisions of the said Conference in so far as they relate to the preservation of the quality of air and control of air pollution. The Government enacted the Air (Prevention and Control of Pollution) Act, 1981 (hereinafter to be referred to as ‘the Act’ or ‘the Air Act’) under Article 253 of the Constitution which empowers the Central Government to make laws for implementing decisions taken at international Conferences. This became Act NO. 14 of 1981 and came into

\textsuperscript{162} Obayya Pujary v. Member Secretary, K.S.P.C.B. Bangalore, AIR 1999 Karnataka 157.
force on 29th March, 1981. Since in the effective implementation of its provisions, some administrative and practical difficulties were felt by the implementing agencies, the Act was amended in the year 1987.\textsuperscript{163}

The object of the Act as set out in the Preamble is 'to provide for the prevention, control and abatement of air pollution, for the establishment, with a view to carrying out the aforesaid purposes, of Boards, for conferring on and assigning to such Boards powers and functions relating thereto and for matters connected therewith'. The Act defines 'air pollution'\textsuperscript{164} as presence in the atmosphere of any 'air pollutant'\textsuperscript{165} which in turn means 'any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment'. This definition of air pollution under the Act is considered to be quite satisfactory.

The basic framework of the Act is similar to that of Water Act, 1974. Central and State Pollution Control Boards constituted under Water Act have powers to issue and revoke licences of polluting industries, enforce emission standards and to frame rules and regulations for the prevention, control and abatement of air pollution also. In any State in which Water Act is not in force, the State Government is empowered to constitute a State Board for the prevention and control of air pollution by notification in the Official Gazette. The provisions of the Act relating to powers and functions of the Central and State Pollution Control Boards are similar to those under the Water Act.

\begin{footnotes}
\item[163] Air (Prevention and Control of Pollution) Amendment Act, 1987, i.e. Act 47 of 1987.
\item[164] Section 2(b).
\item[165] Section 2(a).
\end{footnotes}
In a significant provision, the Act authorises the State Government to declare, after consultation with the State Board, any area or areas within the State as 'air pollution control area or areas' by notification in the Official Gazette. It may also alter, extend, reduce an area or merge one or more existing air pollution control areas. It may prohibit the use of any fuel or burning of any material (not being fuel) and may also direct that only approved appliances should be used in an air pollution control area.\(^{166}\)

For the establishment or operation of any industrial plant in an air pollution control area, previous consent of the State Board is needed. Previous consent of the State Board was made necessary in 1987 by way of amendment in the Air Act. If a person was operating any industrial plant in an air pollution control area before the introduction of consent provision, he was to file an application for obtaining the consent of the State Board within a period of three months from the date of introduction and might continue to operate the plant till the disposal of his application by the Board.\(^{167}\)

The application for the grant of consent has to be filed in the prescribed form accompanied with prescribed fee.\(^{168}\) The Board may, while granting consent, impose certain conditions and if these conditions are not complied with, the Board may cancel the consent after giving the person concerned, a reasonable opportunity of being heard. The Act imposes a duty on the State Board either to give or refuse consent within four months from the date of the receipt of consent application.

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166. Section 19.
167. Section 21(1).
168. Section 21(2).
The Act empowers the State Board to lay down emission standards for automobiles and State Government has to ensure compliance of such standards. Like Water Act, under the Air Act also, the State Board has power to obtain information regarding the types of air pollutants emitted into the atmosphere,\(^{169}\) power to take samples of air or emission,\(^{170}\) power of entry and inspection,\(^{171}\) power to lay down standards,\(^{172}\) power to take remedial measures,\(^{173}\) power to make application to court for restraining persons from causing air pollution,\(^{174}\) power to give directions,\(^{175}\) power to make a complaint to the court,\(^{176}\) and power to appoint Board analyst.\(^{177}\)

The other provisions of the Air Act regarding powers of Central Government, powers of State Government, and their respective powers to make rules,\(^{178}\) analysis of samples in the laboratory, fund, account and audit, offences by companies and government departments, citizens' suit, appeal to the Appellate Authority and punishments and penalties are also similar to those under the Water Act.

The recent judicial trends towards prevention, control and abatement of air pollution may be determined with the help of a few examples of decisions of

\(^{169}\) Section 25

\(^{170}\) Section 26

\(^{171}\) Section 24

\(^{172}\) Section 22

\(^{173}\) Section 23

\(^{174}\) Section 22A

\(^{175}\) Section 31A

\(^{176}\) Section 43

\(^{177}\) Section 29(2)

\(^{178}\) Central Rules Air (Prevention and Control of Pollution) Rules, 1982, Air (Prevention & Control of Pollution) (Union Territories) Rules, 1983

the courts in India. In *Obayya Pujary's case*, the Court was called upon to decide the effect of unplanned stone crushing being carried out in the State of Karnataka upon the health of the people of the State. The Court held that the dust, smoke and gases emitted from the conduct of the business are surely affecting the lungs and other major organs of the people involved in the business and living in the surrounding areas. Besides human beings, the animals and the vegetation including crops are likely to be affected unless protected. The inaction of the State and lapses of the Board to take effective measures has cast a duty upon us to issue appropriate directions for protecting the life of the people and ecology of the area. The Court directed the State Government to identify 'safer zones' to be certified by the Karnataka State Pollution Control Board within a period of six months and take steps for shifting of all existing stone crusher units in the State into those safer zones within a period of one year. It held

All stone crushing units located at present locations shall be deemed to be closed after a period of one year, unless their units fall in the declared 'safer zones' and shall not be permitted to carry on their business of stone crushing on any ground or pretext whatsoever.

In *Smt. Ved Kaur Chandel v. State of H.P.*, on the question of setting up of a rubber industry, the High Court held that heavy responsibility is on the SPCB to ensure that the respondent commences production after fulfilling all the conditions laid down in the consent letter and continues strict observance of all the laws pertaining to environment.


180. * Id. at 166.

In *M.C. Mehta (Taj Trapezium Matter) v. Union of India*[^1] a public interest litigation was filed alleging degradation of Taj Mahal at Agra due to atmospheric environmental pollution. The petitioner contended that the foundries, chemical/hazardous industries and the refinery at Mathura are the major sources of damage to the Taj. The Sulphur Dioxide emitted by the Mathura Refinery and the industries when combined with Oxygen and moisture in the atmosphere results in “acid rain” which has a corroding effect on the gleaming white marble. Industrial/refinery emissions, brick kilns, vehicular traffic and generator sets are primarily responsible for polluting the ambient air around Taj Trapezium (TTZ). He further stated that white marble has yellowed and blackened. It is inside the Taj that the decay is more apparent by ugly brown and black spots. Fungal deterioration is worst in the inner chamber where the original graves of Shah Jahan and Mumtaz Mahal lie. The Taj - a monument of international repute - is on its way to degradation due to atmospheric pollution and it is imperative that preventive steps are soon taken.

The petitioner sought appropriate directions to the authorities concerned to take immediate steps to stop air pollution in the TTZ and save the Taj.

The Supreme Court monitored this petition for over three years and while deciding the case acted on the opinions of different expert committees like four NEERI reports, two Vardharajan reports and several reports by the Board. The Court held:

> It can not be disputed that the use of coke / coal by the industries emits pollution in the ambient air. The objective

behind this litigation is to stop the pollution while encouraging development of industry. The old concept that development and ecology can not go together is no longer acceptable. Sustainable development is the answer. The development of industry is essential for the economy of the country, but at the same time the environment and the ecosystems have to be protected...

After examining all the reports and taking into consideration other material on the record, we have no hesitation in holding that the industries in the TTZ are active contributors to the air pollution in the said area. NEERI and Vardharajan reports have specifically recommended the relocation of industries from the TTZ. Although the Board has placed on record a list of 510 industries which are responsible for air pollution but in view of our order dated 11.04.1994,\(^\text{183}\) we are confining this order only to 292 industries located and operating in Agra.

In *M.C. Mehta v. Union of India*,\(^\text{184}\) the Expert Committee of the Central Pollution Control Board came to the conclusion that emissions from hot mix plants located in Delhi contain particulate matter and sulphur dioxide beyond prescribed limit and therefore, they are categorised as hazardous industry (Ha Category). As per Master Plan 2001, all hazardous/noxious industries should be shifted out of Delhi. Since most of these plants are located near residential areas, they pose severe health risks to inhabitants. The Committee expressed the opinion that even if hot mix plants are located outside Delhi, except during severe winter, the quality of mix is not expected to fall if the desired temperature of the hot mix containers are maintained. Therefore, relocation of hot mix plants will not pose any serious problem. The Court held:

> It is obvious from the analysis report that the emission of particulate matters in respect of these hot mix plants is 679 mg and 829 mg respectively. The permissible limit under the

\(^{183}\) **Order of the Court on 11.04.1994:** "... We are of the view that the shifting of industries from the Taj Trapezium has to be made in a phased manner. NEERI’s report indicates that the maximum pollution to the ambient air around Taj Mahal is caused by the industries located in Agra. We, therefore, as a first phase, take up the industries situated in Agra for the purpose of the proposed shifting outside Taj Trapezium”.

Environment Protection Rules is 150 mg. The hot mix plants having been categorised as hazardous industries (Ha) under Master Plan 2001, have to be relocated.

The Supreme Court directed that hot mix plants (43 in number) should stop functioning and operating in the city of Delhi and may relocate / shift themselves to any other industrial estate in NCR (National Capital Region). The Deputy Commissioner of Police concerned was directed to ensure closure and file compliance report within 15 days.

In *M.C. Mehta v. Union of India (Matter Regarding Brick Kilns)*, the Delhi Pollution Control Committee came to the conclusion that 246 brick kilns operating in Delhi fall in ‘H’ category. The CPCB also reported that moving chimney brick kiln should not be permitted in Delhi as it is highly polluting in nature and hence classified as ‘Ha’ category. However, the Board pointed out that only fixed chimney claybrick kilns may be allowed to be operated provided they switch over to flyash-sand-lime bricks manufacturing, which does not require firing. Dr. B. Sen Gupta, Senior Scientist of the CPCB submitted before the Court that various technologies have been developed for making bricks from flyash-sand-lime mixture. In the flyash technology, the pollution is almost negligible since there would be no kiln and no firing to cure the bricks. The bricks are only to be steamed with electricity or by the process of autoplates. The Court held:

> Keeping in view the report of the Delhi Pollution Control Committee and also of the Board, we have no hesitation in holding that the 246 brick kilns operating in the various zones of Union Territory of Delhi are ‘H’ category industries and as such

cannot operate in the said territory... These brick kilns may relocate / shift themselves to any other industrial estate in the National Capital Region (NCR).

There are three cases in a row in which the Supreme Court dealt with the problem of vehicular pollution and gave certain directions. These are:

1. *M.C. Mehta v. Union of India*, (Matter regarding diesel emissions).\(^{186}\)
2. *M.C. Mehta v. Union of India*, (Matter regarding emission standards for vehicles).\(^ {187}\)
3. *M.C. Mehta v. Union of India*, (Matter regarding emission standards for vehicles).\(^ {188}\)

In first *M.C. Mehta*, the Supreme Court observed that Bhure Lal Committee report reveals that private (non-commercial) vehicles comprise 90% of the vehicles plying in Delhi. More than 90% of the nitrogen oxide (NOx) and respirable particulate matter (RSPM) from vehicular exhaust over Delhi is due to diesel emissions. Impairment of visibility and haze-like conditions are also attributed to tiny suspended particulate matter in the air. Based on the report of its scientific panel, the California Air Resource Board formally designated diesel particulate as a toxic air contaminant and declared that it had potential to cause cancer. It was estimated that chronic exposure to such toxic air contaminant would lead to 300 additional cases of lung cancer per million people. In these circumstances, the Court held:

> It is indeed a matter of serious concern - the very right to life of the citizens is at stake. Considering the gravity of the situation and taking note of effects of diesel exhaust on the health of citizens which are of extremely serious nature, we direct the

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\(^{188}\) (1999) 6 SCC 14.
learned Additional Solicitor General to inform the Court, on an affidavit of a responsible officer about the number of diesel and petrol driven private vehicles registered in NCR in 1997 and in 1998... and from 1.1.1999 to 31.3.1999.

This information was held necessary in order to decide whether registration of diesel vehicles should be suspended forth with as prayed in the application.

In second *M.C. Mehta*, the Court held the information furnished by Additional Solicitor General about the number of diesel and petrol driven private vehicles registered in NCR in 1997, 1998 and 1.1.1999 to 31.3.1999 as ‘totally incomplete’.

On the basis of suggestions made by Bhure Lal Committee and the applicant and hearing counsels for various parties (automobile manufacturers), the Court issued certain directions. Important of them are -

- All private (non-commercial) vehicles which conform to Euro II norms may be registered in NCR without any restriction.
- All private (non-commercial) vehicles should conform to Euro I norms by 1.6.1999. All private (non-commercial) vehicles should conform to Euro II norms by 1.4.2000. Till 1.4.2000, 250 diesel driven vehicles per month and 1250 petrol-driven vehicles per month may be registered in NCR provided they conform to Euro I norms. From 1.4.2000 no vehicle should be registered unless it conforms to Euro II norms.
- The ban on the registration of diesel driven taxis should be strictly enforced unless the taxis also conform to Euro II norms.
- The registering authority may register the vehicle on a certificate of the manufacturer, duly authenticated by the authorised officer certifying that the vehicle concerned conforms to Euro I / Euro II norms.
The Court requested Bhure Lal Committee to further examine the matter and submit its report after giving opportunity to automobile manufacturers likely to be affected by the above stated directions.

In third *M.C. Mehta*, the Court clarified that restrictions on registration imposed by the order of the Court in second *M.C. Mehta* do not apply to the registration of vehicles which are fitted with Compressed Natural Gas (CNG) kits and ply on CNG only.

In *M.C. Mehta v. Union of India*, applications were filed seeking extension of the dead line fixed by the Court in its earlier order directing that the entire city bus fleet (Delhi) should be steadily converted to a single fuel mode of CNG by 31.3.2001. The Court held:

...We are of the opinion that a blanket extension of dead line can not be given as that would amount to putting premium on the lapses and inaction of the administration and the private transport operators. Orders of this Court cannot be treated lightly. They are meant to be complied with in letter and in spirit...

The Court, however, in public interest gave extension till 30th September, 2001 in case of certain specified buses to mitigate the sufferings of the general public and particularly school children. The Court directed the transport department to ensure that there is no misuse or abuse of the given relaxations.

In *M.C. Mehta v. Union of India*, the Court held that even after passing various orders regarding conversion of government / commercial vehicles to CNG, it is unfortunate that the efforts of governmental authorities have not...

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189. AIR 2001 SC 1948.
190. See AIR 1998 SC 2963.
191. AIR 2002 SC 1696.
kept pace with the orders and under one pretext or the other, the NCT of Delhi and the Union of India have been seeking extension of time. The plea of the government that CNG is in short supply, and that it is unable to supply adequate quantity is incorrect, and this is clearly a deliberate attempt to frustrate the orders passed by the Court. Particulars filed in Court show that as of today no CNG is being imported. The indigenous produce is far in excess of what is supplied to the transport sector. There is no shortage of CNG so far as the transport sector is concerned. Moreover, there is no reason why CNG can not be imported so as to ensure less pollution. In these circumstances, the Court held:

Even though the time for phasing out diesel buses had expired but in view of the situation created by the Government or not cooperating or complying with the Courts order, a different formula has to be worked out so as to cause as little inconvenience to the travelling public as possible, while at the same time punishing the wrong doer. Directions are, therefore, to be issued regarding the lifting of 1500 buses plus phasing out of 800 buses per month. The permits to be given are to be time bound and the continued operation of the diesel buses till they are replaced would require them to pay Rs. 500 per bus per day for 30 days of operation and thereafter Rs. 1000 per day and the same is to be deposited with the Director of Transport, Delhi.¹⁹²

The application of the Union of India for further extension of time to run diesel buses was dismissed by the Court with costs of Rs. 20,000. The Court clarified that in our constitutional set up, orders and directions of the Court can not be nullified or modified or in any way altered by any administrative decision of the Central or the State Governments.

As regards this land-mark judgment, the newspaper reported that the Supreme Court on 5.4.2002 imposed an exemplary fine of Rs. 500 a day from February

¹⁹². *Id.* at 1705.
1, 2002 on 8,000 diesel buses in Delhi for failing to convert to CNG. If the fines are added up, it means that transporters altogether will have to pay Rs. 25 crore. The diesel bus operators will have to pay a fine of Rs. 1000 for each day if they continue to ply after this judgment. The Court also criticised the Central Government for ignoring the common man’s health and being more interested in protecting the ‘health of the polluters’. 193

However, whether the use of CNG will reduce the pollution level or not, has become a subject of debate. A study conducted by the Indian Institute of Technology (IIT) has revealed that CNG vehicles emit more carbon monoxide compared to 0.05 percent ultra low sulphur diesel (ULSD) run Euro II vehicles. Conversion to CNG reduces suspended particulate matter (SPM) emissions, but increases carbon monoxide emission from buses. 194 In fact, the Supreme Court also directed the Bhure Lal Committee to examine whether ULSD should be regarded as a clean fuel and buses be permitted to run on that. 195

The Director General of Tata Energy Research Institute (TERI) believed ULSD to be a superior option compared to CNG. A truly fair comparison between CNG and an alternative would be with ULSD which, at 0.05 percent sulphur, is hundred times cleaner. TERI informed that ‘many European countries, particularly those in Northern and Western Europe are already

195. supra note 189.
committed to ULSD. In the U.S., ULSD was introduced in late 1999 and has since achieved significant success as an alternative to CNG.196

In *M.C. Mehta v. Union of India*,197 Shri D.S. Negi, Secretary (Environment), Government of Delhi pointed out that the population of Delhi which was about 17 lakhs in 1951 has gone up to more than 95 lakhs as per the 1991 census. In fact, more than 4 lakh people are being added to the population of Delhi every year out of which about 3 lakh are migrants. Delhi has been categorised as the fourth most polluted city in the world with respect to concentration of Suspended Particulate Matter (SPM) in the ambient atmosphere as per World Health Organisation Report, 1989. From NEERI's annual report (1991), it is obvious that the major contribution, so far as air pollution is concerned, is of the vehicular traffic but the industries in the city are also contributing about 30% of the air pollution.

The Supreme Court acting on the mandatory provisions of first Master Plan for Delhi, 1962 and second Master Plan, 2001; reports of Delhi Pollution Control Committee and CPCB; submissions of Secretary, Department of Urban Development, Government of India and Secretary (Environment), Government of Delhi, came to the conclusion that 168 listed industries being ‘H’ category (highly polluting) industries cannot be permitted to operate and function in Delhi. These industries may relocate / shift themselves to any other industrial estate in the NCR and should stop functioning and operating in the city of


197. AIR 1996 SC 2231. *See also* under the same title AIR 1996 SC 3311; AIR 2000 SC 2701; and AIR 2001 SC 1544.
Delhi with effect from November 30, 1996. The closure order with effect from November 30, 1996 shall be unconditional.

In *Pollution Control Board, Assam v. Mahabir Coke Industry,* the Supreme Court ordered closure of 2 units of respondent Coke Industry for non-compliance with stipulated standard of suspended particulate matter. The Court, significantly, issued show-cause notices to the authorities of CPCB and Pollution Control Board, Assam for 'dereliction of their duties' in reporting that emission level of particulate matter from units of respondent industry conformed to the stipulated standard. The Court observed:

> Parliament has chosen to repose confidence in the authorities under the Pollution Control Board, so that human beings, who are to survive by breathing air while living in thickly-habituated places located near to industries, can have a reasonably healthy life. When such authorities themselves have shown *prima facie* such dereliction of their duties, they must be made answerable for it.

However, the Court granted relief at some cost of ecology in cases involving developmental works of important nature. For example, in *M.C. Mehta v. Union of India, Re: Airports Authority of India Ltd.*, the Supreme Court balanced the competing claims of running international airport in Capital of India and of preventing environmental pollution.

Airports Authority of India at the Indira Gandhi International Airport, New Delhi filed an application to install hot mix plants in the vicinity of IGI Airport for a period of one year for resurfacing of the runways for the safe landing and take-off of domestic and international aircrafts and for smooth handling of

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aircraft traffic. It was indicated that due to constant use of these runways by ever increasing traffic, both domestic and international, cracks had developed in the runways which required immediate resurfacing, otherwise it might become impossible to receive and handle any aircraft traffic. The petitioner contended that in these extraordinary, exceptional and special circumstances, an exception be made in favour of the petitioner and the Honourable Court be pleased to permit the petitioner to set up hot mix plants within the vicinity of IGI Airport or at a nearby site. The petitioner further submitted that the hot mix plants shall operate only for a period of one year from the date of installation, shall be at least 2 kilometres away from the populated and residential areas, shall be fitted with pollution control devices of international standards and shall not emit pollutants beyond the limits prescribed by the CPCB. The Court held:

Having regard to the facts set out in various affidavits filed before us..., we are of the view that the applicant has to be allowed to set up hot mix plants for resurfacing of the runways at IGI Airport, New Delhi. We have already allowed the setting up of hot mix plants and their operation for a period of three months to CPWD for repairing the Delhi roads...

The Court allowed the application of Airports Authority of India subject to following directions:

- Hot mix plants should be set up in the safe vicinity of IGI Airport at least at a distance of 3 km from a populated area.
- The company whose tender is accepted would ensure that the particulate matter emission does not exceed the prescribed limit of 150 mg.
- The vehicles on which the resurfacing material is transported should be loaded and unloaded in the presence of the security staff of IGI Airport.
who should constantly escort these vehicles to rule out the possibility of any security risk.

- The hot mix plants should be operated for a period of one year from the date on which these are installed or till the resurfacing of the runways is done and completed, whichever is earlier.

However, here again, despite a specific legislation dealing with the problem in India and concern of the Court regarding prevention and control of air pollution, the situation is not satisfactory. Recent reports indicate a grim situation.

Experts say that air pollution in Mumbai now accounts for a mind blowing hike of 500 percent in cases of asthma and allergy. ‘From a mere 1.5 percent in the 1970s, the incidence in Delhi has now jumped to 8 percent’, says allergy specialist Pramod Niphadkar. Mumbai has an identical figure, according to a recent Bombay Hospital study. Mr. Pramod expressed his concern by saying that this is ‘sadly the way we are “developing”, with extensive use of auto-rickshaws and cars, carpeted and air conditioned premises. I am afraid, this will land us at par with the United States which has a whopping 12 percent incidence of asthma and allergies.’

The Delhi Traffic Police joined hands with the NGO ‘Better Breathers Club of India’ (BBCI) to observe ‘World Asthma Day’ (WAD) and embarked on a continual programme of check-ups, diagnosis and treatment for traffic policemen with likely to contact respiratory and other ailments while performing duty at high-pollution traffic junctions.

Of the 150 million asthma afflicted people worldwide, India accounts for nearly 50 million - "A Nation of Bad Lungs", as a national daily puts it. Genetic factors do influence the incidence of asthma, but adverse environmental conditions due to pollution also contribute to this growing malady. Of the three million premature deaths in the world due to outdoor and indoor air pollution, the highest number occurs in India.\textsuperscript{202}

The worst affected age group of respiratory ailments is the one to four year. The report compiled by TERI indicates that the most number of deaths in Delhi have occurred in this age group since 1997. In 1989, deaths due to respiratory diseases in this age group accounted for seven percent, while in 1997, thirteen percent. This indicates that air pollution in the city has increased over a period of time. In fact the report states, 'increasing levels of air pollution are responsible for higher incidence rate of respiratory diseases, cancer and heart diseases in the city. Delhi's polluted air (both outdoor and indoor) is blamed for 40 percent of the emergency admissions of patients with breathing and heart complaints to hospitals'.\textsuperscript{203}

In 1999, the High Court in response to a petition on vehicular pollution, ordered a better monitoring of pollution levels in Mumbai. However, the latest data shows an overall increase in air pollution levels in the city. Suspended particulate matter (SPM) has risen sharply at three of the five mobile monitoring units in the city. This rise has rendered Mumbai as the most polluted city in the country. The study places Mumbai at number one, Kolkata in the second and Delhi in the third position.\textsuperscript{204}

\textsuperscript{202} Ibid.
\textsuperscript{203} Increase in respiratory ailments, by Staff Reporter, New Delhi, The Pioneer (New Delhi) dated 20.06.2001: CSE - India Green File, June 2001, No. 162 at 95.
\textsuperscript{204} Vaishnavi C. Sekhar, Mumbai smokes out Delhi, tops pollution chart, Times of India (Bombay) dated 22.04.2001: CSE - India Green File, April 2001, No. 160 at 32.
However, according to another report, Delhi continues to remain the most polluted metropolis in the country, followed by Kolkata, Mumbai and Chennai.

An erstwhile Minister of Environment and Forest informed the Lok Sabha that the level of sulphur dioxide in Delhi was recorded at 17 micrograms per cubic metre while the corresponding figure of Kolkata, Chennai and Mumbai were 14.0, 8.5 and 9.7 respectively. Oxides of nitrogen in Delhi stood at 31 micrograms per cubic metre and suspended particulate matter in the Capital city was recorded at 370 micrograms per cubic metre, the Minister said.205

Vehicular pollution in Delhi has risen from a mere 23 percent of the total air pollution to a staggering 72 percent now. ‘Not a single pollution control decision has been taken by the Government. All have been thrust upon them by the judiciary’, says CSE’s (Centre for Science and Environment) air pollution control unit coordinator, Anoumita Roy Choudhury. ‘Delhi will have to go on Euro III by April 2005’, says CPCB chairman, Dilip Biswas. ‘Even then we are short of global standards as Europe goes on Euro IV by April 2005’, says Roy.206

According to a study conducted by TERI, the total vehicular pollution load in tons per day (tpd) in Delhi is as high as 1046.30 compared to 226.25 in Chennai, 293.71 in Kolkata and 659.30 in Mumbai.207

The data collected by the CPCB at the ITO crossing, Delhi on Diwali day in 1997 showed that the air, already quite bad, had become an even more noxious cocktail of harmful pollutants. Sulphur dioxide concentration which was about

half the permissible level a day before Diwali went up to 1.5 times the permissible level. In other words, there was a three-fold increase of the noxious gas in the air. Total particulate matter level went up about 2.5 times, nitrogen dioxide about 2 times and carbon monoxide about 1.5 times.

Nobody really knows the health effects of this cocktail because scientists can tell us about the effects of individual pollutants but little about the effects of such a deadly cocktail. The high levels of sulphur dioxide are very worrying. The worst recorded episode of air pollution in the world was due to high sulphur dioxide pollution in the mid 1950s in London. Several hundred people died within a few days. The gas slowly turns into sulphate particles which are extremely tiny and, therefore, go very deep into the lungs and stay there for a long time. In addition, they are acidic and cause a lot of damage. WHO studies show that of all particles, sulphates are the worst. These particles also stay in the air for a long time.

According to the data collected by Madhya Pradesh Pollution Control Board, there has been an alarming increase in the suspended particulate matter (SPM) level in the air which reached 700 micro grams per cubic metre against the standard 200 micro grams level in the residential areas during the Diwali festival in Bhopal. The sulphur dioxide level reached 67 micro grams per cubic metre and the level of oxides of nitrogen reached 40 micro grams per cubic metre. The level of sulphur dioxide ranges from 30 to 35 micro grams under

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normal circumstances, while the level of oxides of nitrogen ranges from 25 to 30 micro grams in the city under normal days.\textsuperscript{209}

The ‘Garden City’ (Bangalore) is also witnessing increasing levels of air pollution. The city is now competing with Chennai for the third position, Calcutta and Mumbai being on the top. Government vehicles including Karnataka Road Transport Corporation (KSRTC) buses, Bangalore Metropolitan Transport Corporation (BMTC), Regional Transport Office and Police department vehicles contribute to 15 percent of the total air pollution. Lack of proper maintenance of government vehicles, use of old vehicles, sale of adulterated fuel and lack of coordination among officials of transport and police departments and SPCB are some of the causes of this worsening situation.\textsuperscript{210}

Studies have revealed that the levels of pollutants at the traffic intersections in Bangalore was between 30 and 40 ppm (parts per million) as against the permissible level of 8 ppm, former Environment Secretary, A N Yellappa Reddy reported.\textsuperscript{211}

In Calcutta, seven tons of particulate material is released by the chimneys of small factories. A recent SPCB sponsored survey has revealed that Calcutta is the “only megacity” in the country which allows small industries with coal-fired boilers. It has identified about 10,000 industrial units in the city with a turnover

\textsuperscript{209} Anurag Joshi, \textit{SPM level in air alarming}, Bhopal, Nov. 16, Central Chronicle (Bhopal) dated 17.11.2001: \textit{supra} note 205, at 49.

\textsuperscript{210} Ramu Patil, \textit{Most polluted: Bangalore competes with Chennai}, Indian Express (New Delhi) dated 22.10.2000: \textit{supra} note 200, at 44.

\textsuperscript{211} \textit{Eco laws have not been implemented}, Bangalore, June 5 (DHNS), Deccan Herald (Bangalore) dated 06.06.2001: \textit{supra} note 203, at 3.4.
of more than Rs. 5000. They contribute nearly 30 percent of the particulate matter in the atmosphere by burning about 85 tons of coal.

The State Government has now directed the units to shift from solid to liquid fuel to fire their boilers. 'Once this is done, the small units will emit a mere .14 tonnes of particulate matter into the atmosphere daily', a SPCB engineer said. 'The Government is thinking in terms of extending a 50 percent subsidy for the units to upgrade the boilers, upto a maximum of Rs. 5 lakhs', a senior SPCB official said.\(^{212}\)

A pollution haze of size five times more than India, that has the potential to change the climatic pattern in the subcontinent drastically, has been discovered by an international team comprising scientists from India, USA and Europe. Dr. A.P. Mitra, former director general of Council of Scientific and Industrial Research (CSIR) told reporters that the thick and extensive haze layer, extending over some ten million square kilometre over northern Indian Ocean and southern part of the country, can affect the monsoon cycle and consequently overall climate and may have an adverse impact on marine life. It may affect agricultural productivity by 10-30 percent and have a deleterious impact on human and animal health too.\(^{213}\)

The layer contains an appreciable amount of soot carbon showing that air pollution has more than local implications. Burning of fossil fuel and biomass, emission from automobile and aircraft and forest fire contributed significantly in


the formation of haze. Scientists indicate that it may have as grave an impact as
green house gases on global climate.\footnote{Ibid}

Home heating and cooking fires in India and south-east Asia based on wood,
dung and farming wastes, pump tons of pollution into air, a study shows
Researchers found that although Europe and North America still lead the world
in per capita release of carbon dioxide into the atmosphere, Asia is catching up
The nature of pollution differs. Instead of fossil fuels as the major source of
pollution, as is the case in Europe and North America, much of the pollution
from India and South-east Asia comes from biofuels like firewood, animal dung
and agricultural wastes, such as straw. Pollution from such fuels causes greater
carbon monoxide concentration in the atmosphere, the study found.\footnote{Pollution staining Indian Ocean atmosphere, Associated Press. Washington, Feb. 9.
Central Chronicle (Bhopal) dated 10.02.2001: supra note 212, at 17.}

An estimated 5.9 lakh Indians die each year from indoor air pollution, possibly
the biggest danger being the use of traditional fuel in villages. Air pollution kills
an estimated 84,000 people each year. India is spending about Rs. 4,600 crore
a year to make up for health damages caused solely by air pollution.\footnote{The air we breathe, the water we drink... The Times of India News Service. Times of India
(New Delhi) dated 01.01.2001: CSE - India Green File, January 2001, No. 157 at 34.}

According to an estimate by the World Bank study using 1992 data, the annual
health cost to India was up to about Rs 5,550 crore to combat air pollution
Out of this, the health cost of air pollution in Delhi alone was found to be about
Rs 1000 crore.\footnote{supra note 191, at 1700.}
The increase in respiratory diseases specially amongst the children should normally be a cause of concern for any responsible government. The precautionary principle enshrined in the concept of sustainable development would have expected the government and the health authorities to take appropriate action and arrest air pollution... It is due to the lack of proper concern on the part of the governmental authorities that people are suffering from respiratory and other diseases. The Bhopal gas tragedy was a one time event which, hopefully, will not be repeated, but here, with not enough concern or action being undertaken by the Union of India, far greater tragedies in the form of degradation of public health are taking place every day.218

However, environment and development are not always opposed to each other. Rather, they are complementary to each other. Advancements in science and technology may benefit the environment also. For example, the Government has finally decided to introduce gasohol as an alternative clean automobile fuel in a big way. Gasohol is a blend of ethanol and petrol. Ethanol is extracted from molasses, and the use of gasohol is expected to be a boon to the sugarcane farmers and a value addition to the molasses industry.219

Vehicles using conventional petrol emanate toxic gas like carbon monoxide as auto emissions because of unburnt hydrocarbons. Doping of ethanol with petrol supplies extra oxygen required for the complete combustion in the engine and, therefore, results in considerable reduction of carbon monoxide in auto emissions. As per Bureau of Indian Standards, upto five percent doping of

218. Ibid.
petrol is allowed. Currently, about 60 lakh tons (85 lakh kilo litre approx.) of petrol is consumed in the country every year. The Government has already set up three pilot projects two in Maharashtra and one in U.P., for the production of gasohol 220

Thus, air is the most vital component of biosphere without which no living organism can survive. Polluted air causes serious problems not only for the human beings, animals and plants but also inanimates. Domestic fire and incineration, vehicular emissions and release of toxic substances from industries are the major sources of air pollution Air Act is a comprehensive legislation which contains important provisions for the control of air pollution Contravention of the provisions may be visited with criminal liability. The attitude of the courts has also been very positive to enforce the provisions of the Act in spirit. However, independent functioning of the enforcement agencies without any political interference and vested pecuniary interests is necessary to ensure effective implementation An aware and informed citizen, like Mr M C Mehta, can also play a lead role in curbing the menace of air pollution

5.5 The Environment (Protection) Act, 1986

Industrial growth, yes, but by exposing a large segment of society to the risk of losing lives, no. This apprehension is not imaginary. Bhopal disaster brought to the knowledge of all what a tragedy can be caused by chemical industries... 221

In the wake of Bhopal Gas Tragedy, the Government of India enacted the Environment (Protection) Act, 1986 222 (hereinafter to be referred to as ‘EPA’

220. Ibid.
or 'the Act') under Article 253 of the Constitution to implement the decisions taken at the United Nations Conference on Human Environment held at Stockholm in June, 1972. The purpose of the Act as set out in the Preamble is 'the protection and improvement of environment and matters connected therewith and the prevention of hazards to human beings, other living creatures, plants and property'.

The scope of EPA is wider than the previous legislations, namely, Water Act, 1974 and Air Act, 1981. Water Act and Air Act deal with the prevention and control of specific types of pollution while EPA is aimed at not only prevention and control of pollution in general, but also the protection and improvement of environment. Water Act and Air Act entrust the task of prevention and control of pollution on agencies created under the statutes, namely, Central and State Pollution Control Boards while EPA confers wide powers on the Central Government. The Act has 26 Sections divided into four chapters and extends to the whole of India.

Under EPA, 'environment' is defined to include water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property'.

'Environmental pollution' means 'the presence in the environment of any environmental pollutant'. 'Environmental pollutant' means any solid, liquid or gaseous substance present in such concentration as may be, or tend to be injurious to environment'. 'Hazardous substance' means any substance or
preparation which, by reason of its chemical or physico-chemical properties or handling, is liable to cause harm to human beings, other living creatures, plants, micro-organism, property or the environment.\textsuperscript{226}

A Meeting of Experts to consider the ways in which the EPA may be effectively implemented was convened by the Consumer Education and Research Centre (CERC) and the Indian Law Institute (ILI) on August 22-24, 1986. The Meeting of Experts welcomed the definition of ‘environment’ holding that the definition is inclusive, not exhaustive. However, it noted that EPA itself focuses on environmental pollution and hazardous substances and processes, which are, or tend to be, injurious to environment. This would indicate that major threats to environment, other than those covered by the EPA, lie outside regulation and legislation e.g. adverse environmental impact of large irrigation programmes, soil degradation and erosion, flood and drought and anti-desertification. Clearly, a more wide focus is needed, given the entirely justified comprehensive notion of ‘environment’ under the EPA.\textsuperscript{227}

As regards the definitions of ‘environmental pollutant’, ‘environmental pollution’ and ‘hazardous substance’, the Meeting of Experts noted that these definitions are exhaustive, not inclusive. In other words, the meanings are determined and fixed by the Act. The Meeting recommended that the word “means” be substituted by the word “includes”. An inclusive definition will have distinct advantage for the exercise of vast rule-making powers under the Act and for a more effective enforcement of the Act. Exhaustive definitions, in

\textsuperscript{226} Section 2(e).
an evolving field like environmental control, are likely to lead to recourse to judicial interpretation of highly complex scientific and technological matters, whose complexion is ever changing as knowledge accumulates dynamically.\(^{228}\)

In the definition of ‘environmental pollutant’ and ‘hazardous substance’ at first sight, it may appear that a “pollutant” is different from a “substance”. An environmental pollutant need not be a hazardous substance, as defined. The latter may include radioactive substance or preparation; the former may or may not, depending on the interpretation which may eventually be placed on the definition of “pollutant” and distinct from “substance”. The Meeting recommended that even if these expressions are to be retained, the words “in any form” be suitably added to subsections (b) and (e) to provide for more effective administration of the Act. Perhaps, the same result can be achieved by making these definitions inclusive.\(^{229}\)

The Act empowers the Central Government to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of environment and preventing, controlling and abating environmental pollution.\(^ {230}\) The measures include:\(^ {231}\)

- co-ordination of actions by the state governments, officers and other authorities;
- planning and execution of a nation-wide programme;

\(^{228}\) The concept of “Hazardous Substance” and “Environmental Pollutant” under the 1986 Act, The Indian Law Institute, Edition, 6 (1987).

\(^{229}\) Id. at 6, 7.

\(^{230}\) Section 3(1).

\(^{231}\) Section 3(2).
• laying down standards for the quality of environment and for emission or discharge of pollutants;
• restricting areas of industrial operations;
• laying down procedures and safeguards for the prevention of accidents and remedial measures for such accidents;
• laying down procedures and safeguards for the handling of hazardous substances;
• examination of such manufacturing processes, materials and substances as are likely to cause environmental pollution;
• carrying out and sponsoring investigations and research;
• inspection of any premises, plant, equipment, machinery, manufacturing or other processes, materials or substances and giving directions to authorities, officers or persons;
• establishment or recognition of environmental laboratories;
• collection and dissemination of information and preparation of manuals, codes or guides;
• such other matters as the Central Government deems necessary or expedient for effective implementation of the Act.

The Central Government may also constitute an authority or authorities and may appoint officers for the purpose of exercising and performing powers and functions under the Act. EPA is the first environmental statute to confer authority on the Central Government to issue direct written orders to any person, officer or authority including orders to close, prohibit, or regulate any

232. Section 3(3).
233. Section 4.
industry, operation or process or to stop or regulate the supply of electricity, water or any other service.\footnote{234}{Section 5.}

The Central Government may, by notification in the Official Gazette, make rules in respect of the matters referred to in Section 3.\footnote{235}{See The Environment (Protection) Rules, 1986, vide S.O. 844(E) dated the 19th November, 1986 as amended from time to time. The Department of Environment, Forests and Wildlife of the Central MoEF has been entrusted with the task of making rules for effective implementation of the Act.}

EPA prohibits the discharge of environmental pollutants in excess of prescribed standards.\footnote{236}{Section 7.} Hazardous substances are to be handled in accordance with the prescribed procedure and safeguards.\footnote{237}{Section 8.} In case any accident or other unforeseen act or event occurs or is apprehended to occur, the person responsible is bound to prevent or mitigate it and he has also to intimate and render all assistance to prescribed authorities or agencies so that remedial measures may be taken. The expenses incurred by the authority or agency may be recovered from the person concerned as arrears of land revenue or of public demand.\footnote{238}{Section 9.}

Any person empowered by the Central Government shall have a right to enter any place for the purpose of ensuring that provisions of the Act are being complied with. He may search any building and seize any equipment, industrial plant, record, register, document or other material object as per the provisions of the Code of Criminal Procedure, 1973. If a person, without any reasonable cause or excuse, fails to render all assistance or wilfully delays or obstructs any
person empowered by the Central Government, he is guilty of an offence under the Act.\textsuperscript{239}

The Central Government or any officer empowered by it has power to take samples of air, water, soil or other substance for analysis.\textsuperscript{240} The sample so taken has to be sent to the environmental laboratory\textsuperscript{241} for analysis by the Government analyst.\textsuperscript{242} However, the result of analysis of a sample is not admissible in evidence in any legal proceeding unless the prescribed procedure is complied with.\textsuperscript{243}

The Act prescribes stiff penalties for offences under the Act. Whoever fails to comply with or contravenes any of the provisions of the Act, or the rules made or orders or directions issued thereunder shall, in respect of each such failure or contravention, be punishable with imprisonment for a term which may extend to five years or with fine which may extend to one lakh rupees, or with both, and in case the failure or contravention continues, with an additional fine which may extend to five thousand rupees for every day during which such failure or contravention continues after the conviction for the first such failure or contravention. If the failure or contravention continues beyond a period of one year after the date of conviction, the offender is punishable with imprisonment for a term which may extend to seven years.\textsuperscript{244} However, there is no provision for a minimum mandatory punishment.

\textsuperscript{239} Section 10.
\textsuperscript{240} Section 11(1).
\textsuperscript{241} Established or recognised under Section 12.
\textsuperscript{242} Appointed or recognised under Section 13.
\textsuperscript{243} Section 11(2). The procedure is provided under sub-sections (3) and (4) of Section 11.
\textsuperscript{244} Section 15.
If an offence under the Act is committed by a company, every person who is in charge of and is responsible to the company for the conduct of its business is deemed to be guilty of the offence. Similarly, if an offence is committed by any department of government, the Head of the Department is deemed to be guilty of the offence and punished accordingly. However, they may be exonerated from liability if it can be proved that the offence was committed without their knowledge or that they exercised all due diligence to prevent the commission of such offence. For offence by any department of government, the creation of liability of its Head is indeed a very singular innovation (despite the proviso). Usually, the administration is not thus made accountable. The Meeting of Experts welcomed this innovative provision.

So far as criminal sanctions are concerned, on the one hand, the Act provides for deterrent punishment and on the other hand, it makes a strange provision. According to this controversial provision, where an offence under EPA is also an offence under any other Act, the offender is to be punished only under the other Act. There are environmental legislations covering almost every aspect of environmental protection. Prevention and control of noise pollution is without any specific legislation, but it is regulated under law of torts or criminal law. So, practically there is hardly any instance for the operation of penal provisions under EPA. This has led the critics to make interesting observations like the Act is a toothless tiger or the Act is a cobra that is seemingly fierce but has no venom in its fangs.

245. Section 16.
246. Section 17.
248. Section 24.
Prior to the enactment of EPA, the power to prosecute environmental offenders belonged to the government. Common man had no locus standi. EPA gives 'any person' in addition to authorised government officials, the right to make a complaint to the court alleging an offence under the Act. For this, the person has to give a notice of not less than sixty days to the government of his intention to make a complaint. Subsequently, similar provisions were incorporated in the Water Act and Air Act also.

EPA protects the officers and employees of the government or any authority constituted under the Act from prosecution or other legal proceedings for the acts done or intended to be done in good faith. It empowers the Central Government to require any person, officer, State Government or other authority to furnish information, reports or returns etc. The Central Government may delegate all or any of its powers under the Act to any officer, State Government or authority. EPA also bars the jurisdiction of the Civil Court in respect of anything done or action taken under the Act in good-faith.

So far as the judicial attitude towards implementation of the provisions of EPA is concerned a few examples of the decisions of the courts will suffice. In State of H.P. v. Ganesh Wood Products, while interpreting Sections 3 and 6 of the Act, the Court observed:

These provisions establish and emphasise the power of the Central Government to regulate the location of industries which
also includes the power to prohibit their establishment as well. Having regard to the objectives underlying the Act and the alarming diminution of forest cover in the country, the said provisions should be understood not so much as conferring powers on the Central Government but as creating an obligation upon it to exercise those powers for achieving the objectives underlying the Act.

In *Vellore citizens Welfare Forum v. Union of India*,\(^\text{255}\) the Supreme Court while dealing with the matter relating to tanneries operating in five districts of Tamil Nadu, highlighted the relevance of Sections 3, 4, 5, 7 and 8 of EPA and Rules 3(1), 3(2) and 5(1) of the Environment (Protection) Rules, 1986 and observed:

> Environment Act contains useful provisions for controlling pollution. It is, therefore, necessary for this Court to direct the Central Government to take immediate action under the provisions of the Environment Act.

In *Indian Council for Enviro-Legal Action v. Union of India*,\(^\text{256}\) the Supreme Court dealt with a matter relating to chemical industries in village Bichhri in Udaipur (Rajasthan). It was alleged that these industries were spreading diseases, death and disaster in the village and the surrounding areas. The Court held:

> Section 3 of the EPA, 1986 expressly empowers the Central Government (or its delegate, as the case may be) to 'take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of environment.' Section 5 clothes the Central Government (or its delegate) with the power to issue directions for achieving the objects of the Act. Read with the wide definition of 'environment' in Section 2(a), Sections 3 and 5 clothe the Central Government with all such powers as are 'necessary or expedient for the purpose of protecting and improving the quality of the environment.' The Central Government is

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\(^{255}\) AIR 1996 SC 2715

\(^{256}\) (1996)3 SCC 212
empowered to take all measures and issue all such directions as are called for the above purpose...\textsuperscript{257}

In \textit{M.C. Mehta v. Union of India},\textsuperscript{258} the Supreme Court observed:

Even a cursory perusal of the provisions of the enactment reveal the emphasis on the need for not mere protection but also improvement of the environmental quality. The definitions including that of 'environment' in Section 2 of the Act, the extent of the powers of the Central Government in Section 3 and the further power to give directions in Section 5 are alone sufficient to indicate the high degree of duty imposed on the State for which large powers are given to enable discharge of that duty... It is undoubtedly a matter of universal concern that the quality of the environment continues to deteriorate even now. Any further delay in the performance of its duty by the Central Government can not, therefore, be permitted.

Regarding the creation of an authority or authorities under Section 3(3) of EPA, the decisions of the apex Court are self-speaking. In \textit{Vellore Citizens Welfare Forum's case},\textsuperscript{259} the Supreme Court observed:

The main purpose of the Act is to create an authority or authorities under Section 3(3) of the Act with adequate powers to control pollution and protect the environment. It is a pity that till date no authority has been constituted by the Central Government. The work which is required to be done by an authority in terms of Section 3(3) read with other provisions of the Act is being done by this Court and the other courts in the country. It is high time that the Central Government realises its responsibility and statutory duty to protect the degrading environment in the country....

The Supreme Court, in this case, even suggested the constitution of the authority by proposing that it should be headed by a retired Judge of the High Court and it may have other members, preferably with expertise in the field of pollution control and environmental protection.

\textsuperscript{257} \textit{Id.} at 243.
\textsuperscript{258} (1998) 9 SCC 589.
\textsuperscript{259} \textit{supra} note 255. See also \textit{Bittu Sehgal v. Union of India}, (2001) 9 SCC 181.
In *F.B. Taraporawala*, while dealing with the matter of relocation of chemical industries located in populated areas in Thane, Mumbai, the Supreme Court observed:

... It has been felt by us that we have neither the expertise nor are we in possession of various information, which shall be required to decide one way or the other so far as the question of relocation is concerned. In such a situation what has appealed to us is to leave this matter to be examined by an authority which we would require the Central Government to constitute, as visualised by Section 3(3) of the Environment (Protection) Act, 1986... We, therefore, direct the constitution of an authority under Section 3(3) of the Act by the Central Government, who shall confer all the necessary powers under the Act on the authority, which shall be constituted within one month from the receipt of this order. The authority shall submit its report to the Central Government within three months after examining and deciding all the relevant issues including those mentioned by us. This would be done by affording reasonable opportunity of hearing to the parties concerned. Follow-up actions shall be taken by all concerned as per the recommendations of the authority within reasonable time.

The Central Government vide Notification S.O. 93(E) dated 29.1.1998 constituted the Environment Pollution (Prevention and Control) Authority for the National Capital Region (NCR). The Authority is headed by Shri Bhure Lal, Secretary to the Government of India with three other members and Chairman, CPCB as the Convenor. The Authority is empowered to exercise powers under Section 5 of the EPA for issuing directions for compliance relating to violation of standards for quality of environment, emission or discharge of pollutants and to take all necessary steps to control vehicular pollution, restriction of industries causing environmental pollution and monitor the progress of action plan drawn up by the MoEF on pollution in Delhi. The

260. *supra* note 221.
261. *Members of the Authority:* (1) Shri Bhure Lal; (2) Shri D.K. Biswas, Chairman, Central Pollution Control Board; (3) Shri Anil Aggarwal; (4) Shri Jagdish Khattar; and (5) Smt. Kiran Dhirgra.
tenure of the Authority has now been extended upto January, 2006 with inclusion of two additional members.

In *M.C. Mehta v. Union of India*\(^{262}\) the Supreme Court approved the constitution of the Committee headed by Shri Bhure Lal as an Authority under Section 3(3) of the EPA to be known as the Environment Pollution (Prevention and Control) Authority for the NCR to deal with the entire matter relating to environmental pollution. The Court observed that 'we are satisfied that this step being taken by the Government is appropriate and timely'.

In *T.N. Godavarman Thirumulpad v. Union of India*\(^{263}\) while dealing with a public interest litigation concerning large-scale deforestation in the State of Arunachal Pradesh, the Supreme Court held:

> The Central Government has, in exercise of the powers conferred by sub-section (3) of Section 3 of the Environment (Protection) Act, 1986, constituted an authority to be known as Arunachal Pradesh Forest Protection Authority... It, therefore, now appears appropriate for us to refer all pending interim applications, seeking various directions in so far as the State of Arunachal Pradesh is concerned to the said Authority. It shall also be open to any party, whose application is not pending before us, who wishes to seek some directions in the matter, to approach the Authority directly. The Authority shall consider the applications, both, referred by this Court and filed directly before it, and give appropriate directions, subject, however, to the condition that no direction, which is inconsistent with any of the orders or directions made by this Court, shall be made... With a view to enable the Authority... to function effectively and discharge its duties properly, we expect all the parties, including the State Government and the Forest Corporation, to extend their full and proper cooperation to it.

The apex Court has been continuously monitoring the constitution of authority established under the Act. For example, in *Indian Council for Enviro-Legal...*


Action v. Union of India,\textsuperscript{264} the Supreme Court objected to the induction of three persons from the State of Maharashtra, though not specialists, in the National Costal Management Authority which was set up by the Government of India in pursuance of the judgment of the Court in Indian Council for Enviro-Legal Action v. Union of India.\textsuperscript{265} The Court held:

One from the State of Maharashtra is understandable, but why the other two persons have been inducted in the national authority is not understandable, as in their place some other States could have been represented. The learned Additional Solicitor General shall obtain instructions within two weeks as to whether it would be possible to induct people from other coastal States in the national authority in place of at least two persons from the State of Maharashtra.

The analysis of the key provisions of the Act reveals that the enactment of EPA, wide in scope, is certainly a bold step of the Government so far as prevention and control of environmental pollution is concerned. However, there is excessive centralisation of power in the hands of Central Government. Even the authority or authorities constituted under the Act are subject to supervision and control of Central Government. Since the authorities are constituted for the basic purpose of implementing the provisions of the Act, they should be given a more free hand.

The penalties, particularly fines, for violation of the provisions of the Act are stringent, but in case of big industries, these fines, as compared to the cost of compliance of environmental standards, are negligible. A penalty equivalent to the amount saved in not installing the treatment plants should be imposed. Moreover, there will be no liability if a person proves that the offence was

\textsuperscript{264} (2000) 2 SCC 293.
\textsuperscript{265} (1996) 5 SCC 281.
committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence. Because of this technicality, anyone may evade the responsibility easily.

The right of ‘any person’ to prosecute offenders has been incorporated under the Act but for that he is required to give a notice of not less than 60 days to the Government of his intention to make a complaint to the court. He can go to the court only if the Government does not act on the notice during this period. There are at least two disadvantages of this rule. One, immediate remedial action can not be taken. Second, this period of sixty days can be utilised by the offender in destroying the evidence of the offence.

5.6 National Environment Appellate Authority Act, 1997

The National Environment Appellate Authority Act, 1997\(^{266}\) (hereinafter called NEAA) came into force on 30th January, 1997. It provides for the establishment of a National Environment Appellate Authority by the Central Government to hear appeals with respect to restriction of areas in which any industry, operation or process is not carried out or is carried out subject to certain safeguards under the EPA. It consists of a Chairperson, a Vice-Chairperson and not more than three members.

5.6.1 Qualifications for appointment\(^{267}\)

(i) **Chairperson:**
   a. should have been a Judge of the Supreme Court, or
   b. the Chief Justice of a High Court.

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\(^{266}\) Act No. 22 of 1997.
\(^{267}\) Section 5.
(ii) **Vice-Chairperson:**

a. should have held the post of a Secretary to the Government of India or an equivalent post under Central or State Government for at least two years; and

b. should have expertise or experience in administrative, legal, managerial or technical aspects of environment.

(iii) **Member:**

Should have professional knowledge or practical experience in the areas of conservation, environmental management, law or planning and development.

All the above mentioned officials of the Authority are appointed by the President for a term of three years extendable to another term of three years or until the Chairperson attains the age of seventy years and Vice-Chairperson or Member, the age of sixty five years, whichever is earlier.\(^{268}\) Their salaries, allowances and other terms and conditions of service are prescribed by the Central Government.\(^{269}\) In case of death, resignation, absence or illness of the Chairperson, Vice-Chairperson acts on his behalf.\(^{270}\) The officials of the Authority may be removed from office by the President on the ground of proved misbehaviour or incapacity after an inquiry made by a Judge of the Supreme Court and giving them a reasonable opportunity of being heard.\(^{271}\)

Any person, association of persons, Central Government, State Government or any local authority, aggrieved by the order granting environmental clearance, may prefer an appeal to the Authority, in such form as may be prescribed, within thirty days (extendable to not more than ninety days) from the date of

\(^{268}\) Section 7.
\(^{269}\) Section 9.
\(^{270}\) Section 6.
\(^{271}\) Section 8.
such order. The Authority is required to dispose of the appeal within ninety days (extendable to a further period of thirty days).272

Although the Authority has the same powers as are vested in a Civil Court it is not bound by the procedure laid down under the Code of Civil Procedure, 1908 and is only to be guided by the principles of natural justice.273

The Authority is equipped with sufficient staff.274 The Chairperson exercises financial and administrative powers which he may delegate to any other officer of the Authority.275

After its establishment, no Civil Court or other authority may entertain any appeal in respect of any matter falling within the jurisdiction of the Authority.276 Its proceedings are considered judicial proceedings within the meaning of Sections 193, 219 and 228 of the Indian Penal Code, 1860 and office bearers are deemed to be public servants within the meaning of Section 21 of that Code.277 No suit, prosecution or other legal proceeding can lie against them for anything done in good-faith.278

Whoever fails to comply with any order of the Authority is punished with imprisonment for a term which may extend to seven years, or with fine which may extend to one lakh rupees, or with both.279 There is corporate liability with the exemption in favour of a person proving lack of knowledge or exercising all due diligence to prevent the commission of offence.280

272. Section 11.
273. Section 12.
274. Section 14.
275. Section 13.
276. Section 15.
277. Sections 16, 17.
278. Section 18.
279. Section 19.
280. Section 20.
For the purpose of removing any difficulty in the enforcement of the Act, the Central Government was empowered to make any provision / order within three years from the date on which the Act received the assent of the President. The Central Government has been empowered to make rules for carrying out the provisions of the Act but every rule so made should be laid, as soon as possible, before each House of Parliament for approval.

In A.P. Pollution Control Board v. Prof. M.V. Nayudu (Retd.), the question was whether the Supreme Court while dealing with environmental matters under Article 32 or Article 136 or High Courts under Article 226 can make reference to the National Environmental Appellate Authority established under the Act of 1997 for investigation and opinion.

Answering in the affirmative, the Supreme Court referred the following questions to be decided by the Authority, 'so far as possible within three months':

- Is the respondent-industry a hazardous one and what is its pollution potentiality, taking into account the nature of the product, the effluents and its location?

- Whether the operation of the industry is likely to result in pollution of the Himayat Sagar and Osman Sagar lakes supplying drinking water to the twin cities of Hyderabad and Secunderabad?

The Supreme Court, in this innovative and landmark judgment, observed that environmental concerns arising in the Supreme Court or in the High Courts are of equal importance as human rights concerns. Both are to be traced from

281. Section 21.
283. Section 22.
284. (1999) 2 SCC 718. See also A P. Pollution Control Board II v Prof M V Nayudu (Retd), (2001) 2 SCC 62
Article 21 which deals with the fundamental right to life and liberty. While environmental aspects concern “life”, human rights aspects concern “liberty”. In the context of emerging jurisprudence relating to environmental matters, as is the case in matters relating to human rights, it is the duty of the Supreme Court to render justice by taking all aspects into consideration. The Court held that it ‘can refer scientific and technical aspects for investigation and opinion to expert bodies such as the appellate authority under the NEAA, 1997’.

The Supreme Court approved the constitution of the Appellate Authority established under NEAA and held:

…it comes very near to the ideals set by this Court. Under that statute, the appellate authority is to consist of a sitting or retired Supreme Court Judge or a sitting or retired Chief Justice of a High Court and a Vice-Chairperson who has been an administrator of high rank with expertise in technical aspects of problems relating to the environment; and technical members, not exceeding three, who have professional knowledge or practical experience in the areas pertaining to conservation, environmental management, land or planning and development.  

5.7 Control of Noise Pollution

No right in an organized society can be absolute. Enjoyment of one's rights must be consistent with the enjoyment of rights also by others. Where in a free play of social forces it is not possible to bring about a voluntary harmony, the State has to step in to set right the imbalance between competing interests.

‘Noise’ – a slow agent of death and one of the new killers – is the product of modern age. With the development of science and technology and high speed means of transport, the problem of noise pollution has assumed multifarious dimensions. It has now become a serious threat to the fundamental right to life.

285. Id. at 738.
and personal liberty of an individual. It has the potential of disturbing him not only during normal working hours but also during night sleep. Noise has been recognised as a potentially harmful pollutant and a great nuisance these days, without the prevention and control of which, the enjoyment of life with all human dignity is not possible, specially in urban areas.

‘Noise’ and ‘sound’ are two different things. When the effects of sound become undesirable, it is noise. A sound may be noise if it causes disturbance. Derived from the Latin word ‘nausea’, noise has been defined as unwanted or undesirable sound. It is a mixture of many tones combined in a non-musical manner. It is an unwanted sound that produces unwanted effects, a sound without value. It has also been defined as one or a group of loud, harsh, non-harmonious sounds or vibrations that are unpleasant and irritating. Legally it may be defined as an excessive, offensive, persistent or startling sound.287

However, it is not possible to give a precise and exact definition of the word ‘noise’. It involves the inter play of psychology of the individual. It is a factor that varies from person to person, place to place, time to time, society to society, function to function and from source to source. What may be good music for one person may annoy another.

Noise pollution is ‘unwanted sound which gets dumped into the atmosphere without regarding to the adverse effects it may be having’.288 Like water, soil or air pollution, noise pollution is equally hazardous for the health of human beings, animals and birds. Besides mills and industries using big machines of

287. These definitions have been borrowed by the author from relevant sources.
In these days, the problem of noise pollution has become serious with the increasing trends towards industrialization, urbanization and modernization and is having many evil effects including danger to health. It may cause interruption of sleep, affect communication, loss of efficiency, hearing loss or deafness, high blood pressure, depression, irritability, fatigue, gastrointestinal problems, allergy, distraction, mental stress and annoyance etc. This also affects animals alike. The extent of damage depends upon the duration and the intensity of noise. Sometimes it heads to serious law and order problem. Further, in an organized society, rights are related with duties towards others including neighbours.

The Court also referred to an article in the August 1982 issue of Science Today containing a study on Noise Pollution in South India wherein it is pointed out that noise pollution leads to serious nervous disorders, emotional tension leading to high blood pressure, cardiovascular diseases, increase in cholesterol level resulting in heart attacks and strokes and even damage to the foetus.

A decibel (dB) is the standard unit for measuring noise. 30 dB is the whispering range, 50-55 dB may delay or interfere with sleep, 60 dB is the level of normal talk, 90-95 dB may cause changes in the nervous system and 150-160 dB may prove fatal. Various countries have fixed the maximum decibel limits by enacting laws in this respect. Developed countries of the world like USA, UK and Japan realised the extent of the problem of noise pollution much earlier and


In India, there is no specific Act dealing with the problem of noise pollution. It may be regulated on the basis of motley provisions of the Constitution of India dealing generally with the protection and improvement of environment, law of nuisance under Torts, public nuisance under Indian Penal Code, 1860 and Code of Criminal Procedure, 1973, provisions relating to control of 'horns' and 'silencers' under Motor Vehicles Act, 1988, Factories Act, 1948, Police Act, 1861, Workmen's Compensation Act, 1923 and Air Craft Act, 1934.

So far as specific laws relating to environment in India are concerned, 'noise' has been identified as a pollutant and included in the definition of 'air pollution' under Section 2(a) of the Air Act by the Amendment Act of 1987. EPA empowers the Central Government under Section 6(2)(b) to make rules in respect of the maximum allowable limits of concentration of pollutants including noise. Consequently, the Government has prescribed ambient air quality standards in respect of noise by inserting Schedule III to the Environment (Protection) Rules, 1986. These standards are as follows:

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290 By G.S.R. 1063(E) dated 26th December 1989. For noise limits for generator sets run with diesel, see G.S.R. 371(E) dated 17th May, 2002, and for noise limits for vehicles at manufacturing stage, see G.S.R. 849(E) dated 30th December, 2002.
Ambient Air Quality Standards in respect of Noise

<table>
<thead>
<tr>
<th>Area Code</th>
<th>Category of Area</th>
<th>Limits in dB(A)</th>
<th>Leg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Industrial area</td>
<td>75</td>
<td>70</td>
</tr>
<tr>
<td>B.</td>
<td>Commercial area</td>
<td>65</td>
<td>55</td>
</tr>
<tr>
<td>C.</td>
<td>Residential area</td>
<td>55</td>
<td>45</td>
</tr>
<tr>
<td>D.</td>
<td>Silence Zone</td>
<td>50</td>
<td>40</td>
</tr>
</tbody>
</table>

**Note 1:** Day time is reckoned in between 6 a.m. and 9 p.m.

**Note 2:** Night time is reckoned in between 9 p.m. and 6 a.m.

**Note 3:** Silence zone is defined as areas upto 100 metres around such premises as hospitals, educational institutions and courts. The silence zones are to be declared by the Competent Authority.

Use of vehicular horns, loudspeakers and bursting of crackers shall be banned in these Zones.

In exercise of the powers conferred by the EPA, Central Government has also enacted the Noise Pollution (Regulation and Control) Rules, 2000 for the purpose of regulating and controlling noise producing and generating sources. Ambient air quality standards in respect of noise for different areas and zones have been specified in the Schedule annexed to the rules. The standards are the same as stated / shown above except that here day time includes a period from 6 a.m. to 10 p.m. and night time from 10 p.m. to 6 a.m.

Under the rules, the State Government has to take measures for abatement of noise pollution and ensure that prescribed standards are complied with. While planning developmental activities, all aspects of noise pollution have to be considered. For using a loud speaker or a public address system, written permission from the authority has to be obtained and they are not to be used at night (between 10 p.m. to 6 a.m.) except in closed premises. If noise level

exceeds the standards by 10 dB(A) or more, any person may lodge a complaint
to the authority. In a silence zone or area, whoever plays any music or uses any
sound amplifiers, beats a drum or tom-tom or blows a horn, or trumpet or beats
or sounds any instrument, or exhibits any mimetic, musical or other performance to
attract crowds, is liable to a penalty under the provisions of EPA.

In *Church of God (Full Gospel) in India case*, the Supreme Court held that
'the aforesaid Rules are unambiguous, clear and speak for themselves'. In this
case, it was alleged that the appellant Church was causing noise pollution
during the course of their regular prayer service by beating of drums, use of
voice amplifiers, loud speakers and other instruments. Dismissing the Church's
appeal, the Court held:

Undisputedly, no religion prescribes that prayers should be
performed by disturbing the peace of others nor does it preach
that they should be through voice amplifiers or beating of
drums. In a civilized society in the name of religion, activities
which disturb old or infirm persons, students or children having
their sleep in the early hours or during day time or other persons
carrying on other activities can not be permitted.... Aged, sick
people afflicted with psychic disturbances as well as children
upto 6 years of age are considered to be very sensitive to noise.
Their rights are also required to be honoured.293

However, considering the seriousness and ill effects of noise pollution, the laws
made in India are not adequate to deal with the situation. In this scenario, the
role of the judiciary assumes importance. It is heartening to note that the
Supreme Court of India and various High Courts have played a significant role
in controlling and preventing the malady of noise pollution. In *Moulana Mufti*

292. *supra* note 289.
293. *Id.* at 2774.
Syed Md. Noorur Rehman Barkati v. State of West Bengal, it was contended that Schedule III of the Environment (Protection) Rules, 1986 does not apply in case of Mosques more particularly at the time of call of Azan and is also ultra vires Article 25 of the Constitution. The petitioners also prayed for withdrawal of all conditions and restrictions imposed in the case of Om Birangana Religious Society v. State, reported in 100 CWN 617, wherein similar arguments and prayers were made.

One of the important conditions laid down in Om Birangana's case was that there will be no user of any microphones / loudspeakers between 9 pm to 7 am except by the public authorities for discharging their emergent public duties. The principle laid down in Om Birangana's case was made applicable to all religions, all functions, private or public, public meetings and so on and not confined to some religions only. It was held that Azan is definitely an integral and essential part of the Muslim religion, but use of microphones is certainly not an integral part of Azan. Undoubtedly, one can practice, profess and propagate religion, as guaranteed under Article 25(1) of the Constitution, but that is not an absolute right and is subject to public order, morality and health.

The Court, relying on the decision in Om Birangana's case, held that this Court has heard the matter at length and is of the view that the petition is misconceived and has no merit at all and accordingly dismissed. The Court has not prohibited Azan but had only put a restriction on the use of microphones. Azan is recited 5 times a day. There is no problem when it is recited during day

294. AIR 1999 Calcutta 15. For directions of the Court regarding noise pollution by fire works in the city of Calcutta, see Burrabazar Fire Works Dealers Association v The Commissioner of Police, Calcutta, 1997(2) CLJ 468.
time i.e. 4 times out of five. It is only in the early hours i.e. before 7 O’clock, Azan ought not to be recited on a microphone. This is the main restriction. The Court directed the Police Authorities to immediately seize and confiscate the microphone / loudspeaker in case of violation of restriction and report the matter to the Court for taking drastic action against the willful and deliberate violators. The laxity on the part of administration in implementing this order was to be dealt with severely since noise not only creates pollution but is also a source of annoyance.

In *Sayeed Maqsood Ali v. State of M.P.*\(^{295}\) the house of the petitioner, a cardiac patient, was by the side of Sindhi Dharamshala, Jabalpur. The Dharamshala was providing accommodation to various people and was holding many religious functions throughout the year. In these functions loud-speakers were used for playing music at a very high pitch creating disturbance to the petitioner and other persons residing in the locality. The petitioner pleaded that due to noise pollution his health was getting affected and submitted that various complaints and approaches to the authorities for stopping the nuisance had fallen to deaf ears. The petitioner sought directions of the Court to concerned authorities to take action against the use of loud-speaker and other public address system under the provisions of EPA and the Noise Pollution (Regulation and Control) Rules, 2000 and to restrain the respondent from causing such disturbance. Keeping in view the totality of circumstances, the Court held:

\(^{295}\) AIR 2001 Madhya Pradesh 220.
It can not be forgotten that excessive noise undoubtedly creates pollution. Every citizen is entitled under Article 21 of the Constitution to live in a decent environment and has the right to sleep peacefully at night... Lack of sleep creates lack of concentration, irritability and reduced efficiency... No one has a right to affect the rights of others to have proper sleep, peaceful living atmosphere and undisturbed thought. No citizen can be compelled to suffer annoying effects of noise as that eventually leads to many a malady which includes cardio vascular disturbance, digestive disorders and neuro psychiatric disturbance.

The Court ordered the competent authorities to see that no function is carried out in violation of the Act and the Rules. Proper steps should be taken to book the violators as per law. The Court also directed the Chief Secretary of the State to send a copy of this order to the District Magistrates of all the districts in the State of M.P. within a period of two months. The District Magistrate shall see that the provisions of EPA and the Noise Pollution Rules, 2000 are obeyed in letter and spirit and no citizen's right is affected.

However, it is important to note that owing to various representations received from State Governments, Noise Pollution Rules, 2000 have been amended by the MoEF vide Notification S.O. 1088(E) dated 11th October, 2002 to permit the use of loud-speakers or public address system during night hours (between 10 p.m. to 12 midnight) on or during any cultural or religious festival for a limited duration not exceeding 15 days in all during a calendar year.

In Shobana Ramasubramaniam v. The Member Secretary, Chennai Metropolitan Development Authority,296 the petitioners complained that because of the operation of heavy machinery for digging foundation for multistoried building, noise pollution was caused resulting in lot of

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296. AIR 2002 Madras 125.
inconvenience to the residents of the locality and health hazards and also
damage to their properties. The driven pile foundation work was going on day
and night causing noise pollution, vibration and inconvenience to the residents.

The Court restrained the respondents from proceeding further with the
foundation work by using the driven-pile system and held that they are free to
proceed further with the foundation work with other modes like bore pilling or
any other mode but not with driven-pile machinery. The Court also directed the
competent authorities to see that the above restraint order is strictly complied
with and to take action in case of violation.

The World Health Organisation has fixed 45 decibels as the safe noise level for
a city. But the four Indian metropolitan cities of Bombay, New Delhi, Calcutta
and Madras have usually registered more than 90 decibels. Bombay has been
rated as the third noisiest city in the world. New Delhi is said to be closely
following Bombay in noise pollution and if control measures are not taken to
reduce the sound level, the result would be alarmingly disastrous. Most people
in India do not consider noise as pollution but part of routine and modern life.
In order to curb noise pollution, it is essential that people realise the dangerous
consequences of noise and take some remedial measures.297

Noise pollution can be curbed by adopting certain measures. Environment
friendly technology could be adopted. Machinery might be designed and
manufactured in such a way that it does not create more sound than allowable
noise limits. Roads may be made sound proof, trees should be planted on both

297. Free Legal Aid Cell Shri Sugan Chand Aggarwal alias Bhagatji v. Government of NCT
of Delhi, AIR 2001 Delhi 455.
sides of the roads and outside the big factories and industries. Public awareness among masses should be created through seminars, conferences and the evil effects of noise pollution ought to be highlighted. Houses of God should be kept peaceful and noise free as it is rightly said that God is not deaf. Flights of airoplanes should be so planned to curb noise. Noise Code regulating all aspects of noise pollution may be enacted. As the problem of noise pollution has already crossed the danger point and noise like a smog is threatening as a slow agent of death, immediate measures are needed to be taken in this regard.298

While concluding it may be said that while the countries like USA, UK and Japan have framed and enforced a number of laws and ordinances to curb the problem of noise pollution, it is really unfortunate that in our country, there is limited awareness in this regard. No doubt, 'noise' has been included in the definition of 'air pollution' and certain Rules have been framed within the ambit of EPA but it is evident that serious attention has not been paid to the problem of noise pollution. The law makers ought to realise the gravity and urgency of the situation and frame a truly effective legislation to control and curb the growing menace of noise pollution.

5.8 Conclusion

Special central enactments in India try to ensure that spurious pesticides and insecticides are not manufactured, sold or distributed, the problems associated with hazardous substances, water pollution, air pollution and noise pollution in

298. Id. at 462.
particular and environmental pollution in general are prevented and extensively regulated and also that the appropriate authorities are created / established to monitor that the natural quality of environment and its components is not only protected and preserved but also further improved. The creation of a National Environment Appellate Authority is a welcome step in view of emerging environmental jurisprudence.

The next chapter deals with general central legislations having a direct or indirect bearing on the issue of hazardous substances.