

Legal Control of Water Pollution : A Study of the Act

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The human civilization has revolved around the increased understanding of man of his environment. The greater understanding achieved through science and technology has enabled him to produce a variety of new goods and materials to raise his standard of living and to get a measure of control over disease and hunger and over hostile elements and vagaries of weather.

The increase in standard of living, as a result of industrialisation, has however been accompanied by decrease in the purity of environment. In the past, with the lower density of population, availability of vast land and water resources and absence of high temperature chemical transformations, the environment had not to content with anything of the kind it had not known for millions of years. Plants and animals depended on one another for their living and by natural process every waste could be regenerated to sustain existing life systems and to evolve new ones. With the industrialisation and population increase, the ecological balance is severely disturbed and the regenerating properties in land, water and air have been eroded.

However, the growth of scientific knowledge and its application to industries has also been accompanied by the ability to reduce the waste and to lower the load on the environment within acceptable limits. During the last century, water-borne diseases, such as typhoid, fever and dysentery were common in the Western countries, but now due to water treatment and distribution methods, these diseases have been eradicated there. The conditions in the developing countries are far from satisfactory and demand urgent attention—scientific and legal—so as to combat the problems resulting from water pollution.

Legislative history

In recent years, there has been an increasing recognition of this problem.

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The Royal commission on Environmental Pollution in Britain entrusted with the task of monitoring Britain's environment and examining growing threats to it submitted highly disconcerting report. The United Nations also has focussed attention on this question at the Stockholm Conference on human Environment in 1972.

In India, the problem of water pollution was officially recognised in early sixties and the Ministry of Health appointed an Expert Committee in October, 1962 to study the question and also to prepare a draft legislation to deal with water pollution resulting from domestic and industrial wastes. The Committee, after a comprehensive study of all aspects of the problem, recommended that Central as well as State legislations should be enacted in this field. The Central Council of Local Self Government which considered the recommendations of the Expert Committee on 7th September, 1963 resolved to recommend the enactment of a single law by Parliament, so that there may be uniform measures throughout the country to control water pollution. The recommendations of the Expert Committee and the resolution of the Central Council were considered by the Government of India and it was decided to have a central legislation on water pollution. Accordingly, a draft Bill was prepared and circulated to all the State Governments in December, 1965, with a request to pass resolutions, in State Legislatures, authorising Parliament to enact the law on their behalf as required in Art. 252(1) of the Constitution of India, the matters connected with the water pollution being included in the State List.

After 6 States had passed enabling resolutions, the Government of India introduced The Water (Prevention and control of pollution) Bill, 1969 in the Rajya Sabha in December, 1969. In August, 1970, the Rajya Sabha decided to refer the Bill to a Joint Committee of both the Houses. The Joint Committee, after comprehensive examination, modified the Bill in several respects and presented its Report along with the modified Bill to Parliament on November 13, 1972. The Parliament passed the Bill in early 1974, which received the assent of the President on March 13, 1974. By then, 6 more States had passed enabling resolutions. The Act came into force, on receiving the assent of the President, in all 12 States, namely, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Rajasthan, Tripura and West Bengal and all Union Territories.

The intention of the Government of India was to extend the Act to the whole country and hence a provision was made in the Act—(Sec. 1(3) of the Act)—that any State can adopt the Act and then the Act would come into force in that State from the date of adoption. The States of Andhra Pradesh,

Punjab and Uttar Pradesh have adopted this Act and the remaining States are being persuaded to adopt it, so as to bring about uniformity in the matter of water pollution control in the whole country.

Prevention and control

The objective of the Act is to prevent and control water pollution and also to maintain and restore the wholesomeness of water; prevention refers to the new sources of pollution, while control refers to the existing sources of pollution. It may be appreciated that an existing industry cannot be asked all of a sudden to stop its discharge of effluents into a water course, which the industry might have been doing for years, without seriously dislocating the industrial activity. Such a drastic action would affect industrial production and may give rise to several social problems. Therefore, in respect of the existing sources of pollution, the remedy lies in a gradual control of pollution without causing serious dislocation. With this end in view, a special provision has been made in Section 26 of the Act, that the existing industries, discharging effluents in the water course, should apply for consent within three months of the constitution of the respective State Boards.

However, in respect of new industries, standards can be laid down and enforced strictly, so that arrangements can be made systematically for the treatment of effluents according to the required standards before they are discharged in the water course. Section 25(1) of the Act lays down that no person shall, without the previous consent of the State Board bring into use any new or altered outlet for the discharge of sewage or trade effluent into a stream or well etc.

Enforcement machinery under the Act

The Government of India and the State Governments are required to constitute the Central Board and the State Boards for the purposes of advising the respective governments in matters relating to the prevention and control of water pollution.

The Central Board will consist of a full-time Chairman, a full-time Member-Secretary and not more than 15 members, to be nominated by the Government of India. These members will include those representing the interests of agriculture, fishery, industry or trade.

The State Boards will also be constituted along similar lines and will have representatives of local authorities on the Board, among other members.

The main functions of the State Boards as stipulated in the Act are :

- a) to plan comprehensive programme for the prevention, control or abatement of pollution of rivers, streams, inland water courses, wells, tidal waters of sea etc., and to secure the execution thereof;
- b) to advise the State Government on any matter concerning this subject;
- c) to collect and disseminate information relating to this matter;
- d) to encourage, conduct and participate in investigations and research relating to this matter;
- e) to inspect sewage or trade effluents and works and plants for treatment of sewage or effluents, and to review the plans, specifications etc., and to check the quality of sewage as well as trade effluents;
- f) to lay down, modify or annul effluent standards for sewage and trade effluents and for the quality of receiving waters resulting from the discharge of effluents;
- g) to periodically monitor the effluents to know their quality and to check up whether it is upto the prescribed standards;
- h) to evolve economical and reliable methods of treatment of sewage or trade effluents having regard to peculiar conditions of soil, climate or water resources of different regions;
- i) to evolve methods of utilization of sewage and suitable trade effluent in agriculture;
- j) to collaborate with the Central Water Pollution Board in organizing the training of persons engaged or to be engaged in the programme relating to pollution control and to organize mass education programme relating thereto;
- k) to advise the State Government in respect of the location of an industry, which is likely to pollute the environment;
- l) to collaborate with the Central Government in evolving standards for streams or rivers which are inter-state.

The Central Boards also has been assigned these functions and in addition, advises the Central Government on matters concerning prevention and control of water pollution, co-ordinates the activities of the State Boards and provides them with technical assistance and guidance. The Central Board

also acts like the State Board for all the Union Territories. The Board has also been authorised to establish or recognise laboratories to enable it to perform its functions efficiently including the analysis of samples of water from any stream or well or of sewage or trade effluents. The Board accords consent to the intending industries for discharge of sewage or trade effluents into a stream or well.

Sec. 24 lays down that no person shall knowingly cause or permit any poisoning, noxious or polluting matter to enter into the river, stream or well nor will he allow entry of polluting matter directly or in combination with other matters so as to impede the normal flow of the water of the stream, aggravating the pollution. All industries which are discharging or intend to discharge their effluents into any river or stream shall not do so without the prior consent of the Board. Under Sec. 25, every industry is required to seek the consent of the Board for opening a new, or bring into use an altered, outlet for discharge of sewage and trade effluents. Under Sec. 26, the existing industries, local bodies and other public sector undertakings, which are already discharging sewage or trade effluents have also to seek the consent of the Board for continuing the discharge of the effluents into stream or well.

In view of the comprehensive functions, entrusted to the Boards, they are faced with immense problems. The various Boards are endeavouring to identify the sources of pollution and also the extent of pollution. For this purpose, detailed inventories of domestic and industrial pollutants are being made. Several polluting industries have been inspected and numerous effluent samples have been analysed.

The Boards have also issued notice to the industries for applying for consent under the relevant sections of the Act. While giving consents, the Boards evolve effluent standards for each factory, taking the quality of the receiving waters and all other relevant factors into consideration. The field staff of the Board have also inspected the existing effluent treatment and disposal systems in connection with the grant of consent.

The Boards have accepted the standards prepared by the Indian standards Institution to be used as a guideline for (a) discharge of industrial effluents or sewage into water;

- (b) discharge of industrial effluents into public sewer;
- (c) discharge of industrial effluents or sewage on land for irrigation;
- (d) discharge of effluents or sewage into estuary or sea.

It is interesting to note that under the provisions of the Act, it is the responsibility of the industry to put up the required treatment plant. The Board is only a policing authority. It can only lay down standards to reduce pollution. It is for the industry to devise ways to ensure that the effluents discharged by them are at the required level.

Under the existing provisions, the Board does not have the power to order the closure of an industry, even though the industry has persistently flouted the Board's directions and has otherwise violated the provisions of the Act. The Board has to make an application to the Court of Law, whenever there are infringements of the provisions of the Act. The Board, obviously, could not be both the prosecutor and the judge.

Comparative study : American and Australian laws

It may be interesting to examine the control machinery provided in the American and Australian enactments in this field. In the U.S.A. there are two enforcement procedures :

- i) Direct equitable relief from the courts when waste discharges violate approved state stream standard;
- ii) The Secretary of the Interior, upon a complaint by a qualified party may institute a series of meetings and public hearings to reach a mutually satisfactory abatement programme with the offending firm. If these persuasive measures fail, the Secretary can still have recourse to the court action to obtain the adequate abatement.

The U.S. Federal Government, with a view to increase business responsiveness to the pollution problem, has initiated a variety of financial assistance programmes to help cities and the States to tackle this problem. It has also made available municipal construction grants, research projects, training grants, technical assistance programme and planning grants. These programmes and grants help the industries and municipal authorities towards the development of new techniques, supply of trained personnel and specific assistance regarding specific problems. There is a Federal Water Pollution Control Administration for an over-all supervision of the pollution problem.

The Victorian Environment Protection Act 1970 also deserves a special mention and careful study in relation to the pollution problem. It is a very comprehensive legislation and includes in its purview controls intended to ensure clean air, clean water, control of solid wastes and soil pollution and also control of noise pollution.

The Act provides for three bodies :

- 1) Environment Protection Council
- 2) Environment Protection Authority
- 3) Environment Protection Appeal Board.

The Environment Protection Council (EPC) can advise the Environment Protection Authority (EPA) on matters relating to its powers, functions and responsibilities, though EPA is not bound by the advice of the EPC.

The EPA is the effective executive administrator of the Act. It consists of three members, two of whom shall be experts with adequate qualifications in environment control and one member will have suitable administrative ability and experience.

The EPA controls the volume, types, constituents, effects of waste discharges, emissions likely to affect the environment adversely—by the issue of licenses and by specifying standards and criteria for the protection of beneficial uses of the quality of environment. The discharge of wastes into the environment is forbidden without a license from the EPA.

Appeals would be against the decisions of the EPA to the Environment Protection Appeal Board, which is authorised to regulate its own procedure subject to requirements of justice.

It is submitted that an Administrative Tribunal for Environment Protection—on the lines of the Environment Protection Appeal Board—should be established in India to hear appeals against the actions of the Board in the matter of prevention and control of water pollution. This Tribunal should have qualified ecologists as members and should observe principles of natural justice.

Sample study—pollution problems in industrial areas—Baroda region

With increasing industrialisation, several socio-economic and environmental problems, challenging the very existence of human society itself have arisen. Environmental problems are manifested in the formation of wastes in the form of solids, liquids or gases present in varying concentrations. Environmental pollution is a natural and inevitable phenomenon emerging out of the present industrial and agricultural activities. An attempt is made here to examine as to what extent a growing industrial complex, such as Baroda, is a potential source of pollution and how pollutants can be brought

down to minimum acceptable levels, especially through the impact of pollution control measures.

Industrial area in Baroda comprises of three distinct categories :

1. Large industrial undertakings—including the Chemical Works and Textile Mills;
2. Industrial Units, situated in industrial estates;
3. Industries in the Petro-Chemical complex.

Large industrial units have made their own arrangement for effluent treatment. For example, the Oxidation ditches, constructed by the Alembic Chemical Works Ltd., have a total turnover of 3.50 lakh gallons in 24 hours. The creating of this facility involved an investment of Rs. 20 lakhs and a recurring operating cost of Rs. 65,000/- app. per month. Similarly, Sarabhai Chemicals and associated firms have also jointly set up an exhaustive effluent treatment system.

There are several industrial units in industrial estates—GIDC or private—with different characteristics and production patterns having different effluent problems. These units include organic chemicals, Intermediates for dye-stuffs, dyes, pigments, paints, pharmaceuticals, foods, engineering and electrical industries. These units are discharging their effluent in the Municipal sewage system. The Municipal authorities accord the permission to discharge effluents into that system after checking the quality of the effluents.

It is expected that the concerned industry on its part maintains a check on the quality of the effluent at regular intervals in a working day and also the monitoring system of the municipal authorities is vigilant as regards the quality of the effluent discharged into the municipal sewage system. After the effluents are received in the municipal sewage system, it is the responsibility of the municipal authorities to dispose them after treatment in their sewage treatment plant. Periodic review of standards is essential to make them more stringent while keeping in view practical adaptability by the industrial units, particularly in the small sector.

The nature of effluents from the Petro-Chemical complex industries varies widely in their characteristics. The Gujarat Refinery has an exhaustive effluent treatment system. The treated water from the refinery is said to have been consumed by over 70 farmers for the purpose of irrigation of over 800 acres of land for the last 8 years. The refinery discharge constitutes about 20 million gallons per day.

For proper handling system of the effluents from the petro-chemical complex area, the Govt. of Gujarat has prepared a detailed scheme for joint effluent channel. The channel will be 56 Kms. long. All the industries are to treat their effluents to the standards fixed by the State Government before discharging into the channel.

So far, the status of various industrial units in a region—say Baroda—was reviewed along with the existing practices of treating and disposal of the effluents emerging out of these units. It is now expected that the next decade of growth may be more resource-oriented rather than need-oriented. Thus a perspective approach as regards pollution control has to be evolved, so as to anticipate the probable pollutants and their possible treatment. At the stage of planning itself, suitable steps should be taken to see that the quality of the effluents—both gaseous and liquid—originating from an industrial unit are properly treated.

At the level of the Directorate of Industries, care is taken to see that amongst the existing locations, the best suited area is suggested to prospective investors in the overall interest of protecting the environment. Here, it is suggested that the agencies like the Municipal Corporation should also exercise suitable control over the random growth of industrial units, resulting in pollution. According to the Pollution Control Act, the industry is expected to treat the effluents to standards laid down by the Water Pollution Control Board. By and large, these standards are adopted from the Indian Standards Institution for the time being.

In case of new industrial units, which are under planning, depending upon the nature of the industry, its water requirements and the quantity of the effluent, the matter is considered at the level of Gujarat Water Pollution Control Board, before any location is finalised. This practice should not be a hindrance in the planned growth of industry. When there is adequate consciousness amongst the public about the damage done by the industrial units to the environment, it is the responsibility of the concerned agencies to see that every effort is made to minimise the damage.

Some suggestions

It is ventured to offer some suggestions in the matter of making the pollution control programme—a practical success.

As the success largely depends upon the proper functioning of the Boards, the Governments should attract the best ecologists and experts as members of the Boards. The work of the Boards should not be handicapped for lack of financial resources. Some form of a cess may even be levied on

industries so as to accumulate a fund for establishing well equipped laboratories, and for promoting monitoring equipments and sophisticated instruments to control pollution.

The grant and renewal of industrial licenses should be made conditional on the industries satisfying the required standards in the matter of pollution control. The specialised institutions like the Indian Standards Institution and the National Environmental Engineering Research Institute, should be properly utilised to tackle the problems of pollution control.

Due care should be taken also in respect of localisation of industries. Undue concentration of pollution prone industries in the same region should be avoided. At present only the Board is competent to launch prosecution for infringement of pollution control measures. It should be explored whether this facility of initiating prosecution should not be made available to third parties, who are exposed to the risks inherent in pollution.

Adequate fiscal measures may also be devised with a view to promote the pollution measures by offering tax incentives and government subsidies to the parties co-operating with the Boards in the task of pollution control.

Effective pollution control demands devoted and genuine appreciation on the part of all concerned to promote a clean environment. Pollution was earlier regarded as a mere public health problem. It is now increasingly appreciated as a socio-economic problem, affecting the industrialist, the farmer and the consumer—in fact the society at large. The Government, as the custodian of public interests, and the industries should together endeavour to promote a clean environment by developing co-operative programmes of pollution control.