

# A Federal Legislative History of Control of Water Pollution in India

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## I

### **Introduction**

The pollution problem is as old as the human civilization itself. The early man, though living gregariously, was the unmindful perpetrator of environmental pollution. The waste disposals were simply dumped around his dwellings. With the growth of cities the municipal wastes received improved forms of planned disposals like depositing of garbage on the outskirts of city, throwing it into trenches and wells or consigning it to fire. At times the disposal of wastes was brought about through sending it down the rivers and streams causing serious water pollution. The lack of sanitary environment often contributed to widespread prevalence of dreadful diseases, sometimes in the form of epidemic. As urbanisation increased so did the pollution. With the advance of industrialisation the problems of pollution grew more acute. During the medieval ages many cities had passed laws and ordinances against throwing of garbage into streets and water ways though not always with success. With the devising of the water-carriage system of sewage disposal an attempt was made to purify the local environment but that introduced a more serious problem of final disposal. It was thought expedient to discharge the sullage either in vast wastelands or directly into the outlet river, stream or lake. This not only created unseemly landscape but caused a serious hazard to life, health and to the neighbouring vegetation and aquatic organisms. The advent of industrial revolution produced its staggering environmental effects in urban and industrial centres. The resulting effluent and waste from factories caused such air, water, land and noise pollution that was beyond the technological remedies of the time.

### **English statutes**

In relatively modern times efforts to ameliorate the grave danger to the

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ecological balance were undertaken through statutory measures all over the world. In Great Britain starting from Smoke Nuisance laws in 1273, attempts were made from time to time to control pollution to a bare minimum. A comprehensive legislation was passed regarding control of water pollution in 1923 by enacting Salmon and Fresh Water Fisheries Act. The Public Health Act, 1936, the Public Health (Drainage of Trade Premises) Act, 1937, the Rivers (Prevention of Pollution) Act, 1951 and 1961, the Clean Rivers (Estuaries and Tidal Waters) Act, 1960, and Rivers (Prevention of Pollution) (Scotland) Act, 1951 and 1965 and the Water Resources Act, 1963 were passed to check pollution.

#### **American federal legislation**

The oldest federal statute of United States is the Rivers and Harbors Act of 1899 for the abatement of water pollution. It prohibited the discharge of refuse other than liquids from streets and sewers, into the navigable waters of the United States. Violation of this law is subject to Criminal prosecution resulting in imprisonment for 30 days to one year or a fine of \$500 to \$2500 or both. Enforcement activity under this law was relatively rare until 1969 but now it is vigorously utilized by the United States Government as one of its most powerful regulatory instrument to control pollution.

The Public Health Service Act of 1912 required an organization to conduct research concerning the health aspects of water pollution. In 1924 Congress passed the Oil Pollution Control Act which prohibited the dumping of oil into navigable waters except in life-threatening emergencies or unavoidable accidents. The Water Pollution Control Act of 1948 is a bold experiment in dealing with aquatic pollutions. This statute was a temporary measure designed to expire after five years. The Act specifically recognized the primacy of the States regarding Control of Water pollution. The Surgeon-General of United States was authorised to assist in encouraging States to formulate studies and plans to grapple with the problem and to bring about uniform State laws to control water pollution. It authorised the Justice Department to bring suits against individuals or organisations not conforming to pollution regulations. The life of the above statute was extended through Water Pollution Control Act (Extension) of 1952, increasing the life to three more years until June 30, 1956. Congress, then, passed the Water Pollution Control Act of 1956 which was amended in 1961, '65, '66 and '70. It is at present the backbone of their national water cleaning campaign. This statute provides funds for sewage construction, enforcement proceedings and research programmes in the field of Control of Water Pollution. The Water Pollution Control Act of 1961 made available fresh and extensive funds for realising the objectives of the 1956 statute.

Following the International Convention for the Prevention of the Pollution of the Sea by Oil, 1954, the Oil Pollution Act of 1961 was passed. This Act declared unlawful any discharge of oil or oily mixture by a tanker into defined prohibited zones. Violation of the provisions of the Act is a misdemeanour punishable by a fine of \$500 to \$2500 or by imprisonment upto one year, or by both. The coast guards are responsible for administering and enforcing the provisions of the Act.

In 1965 the Water Quality Act was passed creating the Federal Water Pollution Control Administration (F.W.P.C.A.) in the Department of Health, Education and Welfare. This statute authorised to undertake a research and demonstration programme including a special study of the problems created by combined storm and sanitary sewers. The Act instituted a programme of mandatory water quality standards for inter-state waters.

In 1965 amendments to the Oil Pollution Control Act, 1961 was made through Public Law 89-551 to incorporate the changes made in the International Convention of the Pollution of the Sea by Oil. The Amendment brought under preview smaller tankers as well as those which were not covered under the unamended statute.

The Clean Water Restoration Act, 1966 provided a comprehensive control and abatement plan for the State, municipal and inter-municipal agencies.

The Water Quality Improvement Act, 1970 is a recent amendment to the federal Water Pollution Control Act, 1961. It gives the Federal Government the authority to undertake immediate cleanup actions following an oil spill, with the costs being charged from the offending party. It provides certain defences as well like act of God, negligence of the U.S. Government an act of omission of a third party or pollution caused during war. The Act, further, sets limit to liability.

### **Position in India**

The earliest Act on the statute book concerning control of water pollution in India is the Shore Nuisance (Bombay and Kolaba) Act, 1853<sup>1</sup> which declared it lawful for the Collector of Land Revenue, Bombay to give notice to an offending party, requiring the removal of any nuisance anywhere below high-water mark in the Bombay harbour. If the nuisance was not removed or abated within one month of the notice, the Collector was authorized to get it removed or abated.

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1. Act XI of 1853.

Another old statute is the Orient Gas Company Act of 1857<sup>2</sup> that comprehensively attempts to thwart water pollution such as that which concerned the company. The Oriental Gas Company was registered in England as a joint stock company and was later incorporated in India for the purpose of manufacture and supply of gas for lighting the town of Calcutta and its neighbourhood. It was found expedient to give this company powers and facilities to enable them to carry out their undertaking of lighting with gas the city of Calcutta under statutory provisions. Section 15 of the Act relating to water pollution reads as follows :—

*Penalty for causing water to be corrupted. Daily penalty during the continuance of the offence*

If the said Company shall at any time cause or suffer to be brought, or to flow into any stream, reservoir, aqueduct, pond or place of water, or into any drain communicating therewith, any washing or other substance produced in making or supplying Gas, or shall wilfully do any act connected with the making or supplying of Gas, whereby the water in any such stream, reservoir, aqueduct, pond, or place for water, shall be fouled, the said company shall forfeit for every such offence a sum not exceeding one thousand rupees ; and they shall forfeit an additional sum not exceeding five hundred rupees for each day during which such washing or other substance shall be brought or shall flow, or the act by which such water shall be fouled shall continue, after the expiration of twenty-four hours from the time when notice of the offence shall have been served on the said company, by the person into whose water such washing or other substances shall be brought or shall flow, or whose water shall be fouled, and such penalties shall be paid to such last mentioned person.

Later, section 17 of the same Act provided the following :—

*Penalty if water be fouled by gas*

Whenever any water shall be fouled by the Gas of the said company, they shall forfeit to the person whose water shall be so fouled for every such offence a sum not exceeding two hundred rupees, and a further sum, not exceeding two hundred rupees, and a further sum, not exceeding one hundred rupees, for each day during which the offence shall continue, after the expiration of twenty four hours from the service of notice of such sum.

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2. Act V of 1857.

Section 18 of the said Act authorized a person to dig up the grounds and examine pipes and conduits of the gas company for the purpose of ascertaining any leakage causing water pollution.

Section 277 of the Indian Penal Code<sup>3</sup> of 1860 provided :

Whoever voluntarily corrupts or fouls the water of any public spring or reservoir, so as to render it less fit for the purpose of which it is ordinarily used, shall be punishable with imprisonment of either description for a term which may extend to three months, or with fine which may extend to five hundred rupees, or with both.

Then, section 284, of this Code is drafted in such wide terms as to include any handling of poisonous substance as to endanger human life or likely to cause hurt or injury to any person by poisoning of wells and rivers as well. Causing diminution of water supply has been treated as mischief in section 430 of the Code and the possible direct cause may also be pollution. Adulterating of food or drink so as to make it noxious has also been made punishable<sup>4</sup>.

The Serais Act of 1867<sup>5</sup> enjoined upon a keeper of a *serai* or an inn to keep a certain quality of water fit for consumption by 'persons and animals using it' to the satisfaction of the District Magistrate or his nominees<sup>6</sup>. Failure for maintaining the standard entailed a liability of rupees twenty.

The Northern India Canal and Drainage Act<sup>7</sup> was passed in 1873 which listed certain offences under the Act contained in section 70. Sub-clause (3) of section 70 provides that any interference with or alteration in the flow of water in any river or stream, so as to endanger, damage or render less useful any canal or drainage-work would be an offence. Sub-clause (5) later provides that whoever 'corrupts or fouls' the water of any canal so as to render it less fit for the purposes for which it is ordinarily used would be an offence. The penalty for the breach of this provision would be imprisonment not exceeding one month or a fine not exceeding fifty rupees or both.

Section 8 of the Obstruction in Fairways Act<sup>8</sup> of 1881 empowered the Central Government to make Rules to regulate or prohibit the throwing of rubbish in any fairway leading to a port causing or likely to give rise to a

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3. Act XLV of 1860
  4. S. 272 of the I.P.C.
  5. Act XXII of 1867.
  6. S. 7.
  7. Act VIII of 1873.
  8. Act XVI of 1881.

bank or shoal. Failure to comply with this requirement was visited with fine of not more than rupees five hundred, or imprisonment of a maximum term of six months or with both.

The Indian Fisheries Act<sup>9</sup>, 1897 provides in section 5 thus :—

*Destruction of fish by poisoning water*

i) If any person puts any poison, lime or noxious material into any water with intent thereby to catch or destroy any fish, he shall be punishable with imprisonment which may extend to two months, or with fine which may extend to two hundred rupees.

In similar terms, destruction of fish by explosives in inland waters and on coasts are prohibited<sup>10</sup>. Use of dynamite or any other explosive substance in water is not allowed.

Water pollution by oil has been regulated by the Indian Ports Act, 1908<sup>11</sup>. By virtue of section 6 the Government is empowered to make necessary rules for the purpose of 'regulating the manner in which oil or water mixed with oil shall be discharged in any such port and for the disposal of the same'<sup>12</sup>. Section 21 prohibits throwing of ballast or rubbish or any other thing likely to form a bank or shoal detrimental to navigation into either the port or upon any place likely to be washed into the port by tides, storm or land floods. It further prohibited discharge of oil or water mixed with oil in or into such ports the rules of which the Government was empowered to make. Any violation of the above provisions entailed a fine extending to Rs. 500/- and reasonable expenses which may be incurred in removing the same. In the event of receiving notice from the conservator of Port to desist from casting or throwing of ballast, rubbish, oil, or oil mixed with water, or any other such material, and the latter continues so to cast or throw or discharge, he is liable to a maximum of two months' imprisonment.

The Inland Steam Vessels Act, 1917<sup>13</sup> lays down a mandatory rule of 'fresh' water for the use of passengers.

Section 26 (i) of the Indian Forest Act, 1927<sup>14</sup> makes it punishable if any

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9. Act IV of 1897.

10. S. 4.

11. Act XV of 1908.

12. S. 6 (ee).

13. Act I of 1917.

14. Act XVI of 1927.

person, who, in contravention of the rules made by the State Government, poisons water of a forest area. The State Government has been empowered under section 32 (f) to make rules relating to poisoning of water in forests.

The Factories Act of 1948<sup>15</sup> directs every factory to keep the premises clean and free from effluvia arising from any drain, privy or other nuisance<sup>16</sup>. It further enjoins upon them to make effective arrangements for the disposal of wastes and effluents due to the manufacturing process carried on therein<sup>17</sup>. All arrangements for disposal of effluents are required to be approved by the State Government.

Chapter V of the Mines Act of 1952<sup>18</sup> deals with provisions regarding health and safety of the employees. Section 19 (i) emphasises upon arrangement for the quality of water described as "cool and wholesome" for drinking purposes.

In 1974, the Parliament came out for the first time with a comprehensive legislation for controlling water pollution by enacting the Water (Prevention and Control of Pollution) Act<sup>19</sup>. The Act was passed with the avowed aim of prevention and control of water pollution and of restoring the wholesomeness of water quality. The Act provides for the constitution of a Central Board for the prevention and control of water pollution. It envisages State Boards as well in states.

The statute is aimed to promote cleanliness of streams and wells in different areas of the states. The Board's function includes advise to Central Government concerning the prevention and control of water pollution through coordination of efforts by state boards, giving of technical assistance and guidance to states, sponsoring of research and training of persons engaged in the field of water pollution.

The Constitution (Forty Second Amendment) Act of 1976, added Part IV-A as a separate chapter laying down a set of Fundamental duties for the citizens of India. In Article 51-A, (g), a citizen is enjoined to protect and improve the natural environment including forests, lakes, rivers and wild life.

Many states in India have enacted legislations in respect of pollution by water but they are too numerous to mention here.

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15. Act LXIII of 1948.

16. S. 11.

17. S. 12 (i).

18. Act XXXV of 1952.

19. Act VI of 1974.

## II

**What is water pollution ?**

The term 'pollution' is used differently in different Acts. Some described it as 'nuisance' and others as 'neglect to carry away rubbish' or 'causing water to be corrupted'. 'Fouling' of water was yet another way of describing water pollution. "Leakage of water" was also thought of bringing home the same idea. In some statutes pollution is described as 'poisoning' of water. Some enactments explained water pollution as rendering it 'less fit' or 'not fit' for consumption by persons and animals. The 'throwing of rubbish' in waterways was similarly taken in as causing pollution. 'Interference with or alteration in flow of water in any river or stream so as to endanger, damage or render less useful' of these waterways was another form of description of 'pollution'. 'Use of dynamite' in water, 'Discharge of oil', 'Casting of ballast or rubbish' in water mean the same. Some enactments required 'fresh' or 'cool and wholesome' quality of water for human consumption. Protection and improvement of 'natural environment' of rivers and lakes is the modern idiom for protection against water pollution.

By and large, such diverse descriptions only emphasised upon the mode of causing pollution rather than explaining 'pollution' itself. Pollution is the introduction into water of substances of such character and quantity that its natural quality is so altered as to impair its usefulness or render it offensive to the senses of sight, taste or smell<sup>20</sup>. It is a change in physical, chemical or biological conditions in the environment which harmfully affect the quality of human life, causing effects on other animals and plants, industries and cultural and aesthetic assets<sup>21</sup>.

Pollution means, according to the Water (Prevention and Control of Pollution) Act, 1974, 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 injuries to public health or safety, or to domestic, industrial or agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.<sup>22</sup>

In scientific sense pollution may be material and non-material. The

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20. Liptak, *Environmental Engineers*, II Handbook, *Water Pollution*, 1956-57, (1974).

21. XIV *Encyclopaedia Britannica* 750 (1974).

22. S. 2 (e).



example of former is the deleterious chemicals or solid wastes. The non-material pollutants may be radiation or noise. Water pollution, as indeed any pollution, is caused by nature as well as living bodies. The composition of wastes in water differ widely, the main inorganic constituents being sodium, potassium, ammonium, Calcium, magnesium, chloride, nitrate, bicarbonate, sulphate and phosphate. There are numerous unidentified organic compounds causing water pollution, the common known examples being pesticides, fertilisers, detergents, phenolic substance, insecticides, carboxylic acids in streams and water courses resulting in threat to life, fauna and flora. Such excess of chemical nutrients stimulate the growth of algae and other plant life to such an extent as to choke waterways and is termed as eutrophication.

In addition to mixture of chemicals, the modern electric power industry uses water for cooling of power generation plants and discharging it back on higher temperature. Such thermal pollution, as it is now termed, accelerates biological and chemical reactions and aggravates the diminution of dissolved oxygen in water.

The problem of pollution is not to slide back the present world to old civilization. It has reached the point of no return. The effort of scientists, lawyers and engineers is to scientifically investigate and find out the levels of tolerance and permissive play with the environment within the safe perimeters of known knowledge. To put it negatively, it is to find out the point beyond which fouling of water would be toxic or in other ways harmful to all kind of life on this planet. The degradable wastes can 'self-purify' through bacterial action. The non-degradable impurities are incapable of self-recovery and cause impairment to environment quality and affect human health, taste and smell. Such a pollution affect the multiple uses of water for human supply, recreation, landscape beauty, aquatic and wild life, agriculture and industry. Human ingenuity requires development of means for treatment of water to re-cycle it for human consumption on relatively low cost.