

Chapter 2: Legislative, policy and institutional framework

Legislations, policies and programmes for water pollution in India

Table 2: Policies, legislations and programmes for water pollution in India

Legislation	Policy	Programmes
<ul style="list-style-type: none"> •Water (Prevention and Control of Pollution) Act, 1974 •Water (Prevention and Control of Pollution) Rules, 1975 •The water (Prevention and Control of Pollution) Cess Act, 1977 •Environment (Protection) Act, 1986 •Environment (Protection) Rules 1986 	<ul style="list-style-type: none"> •National Water Policy, 2002 •National Environment Policy, 2006 	<ul style="list-style-type: none"> •National River Conservation Plan •National Lake Conservation Plan •Jawaharlal Nehru National Urban Renewal Mission** •Urban Infrastructure Development Scheme for Small and Medium Towns**

***Note: Jawaharlal Nehru National Urban Renewal Mission and Urban Infrastructure Development Scheme for Small and Medium Towns are schemes implemented by the Ministry of Urban Development.*

2.1 Legislative framework

The goal of compliance to environmental laws is to assure the average citizen that natural values are protected that specific violators can be identified and that they comply with legal provisions. This is needed in order to safeguard human health and environment and to deter future violations. Legal and institutional frameworks for water quality protection must evolve from the present fractured and often unenforceable, guidelines to a comprehensive approach to pollution prevention and source water protection.

2.1.2 At the Centre

Water (Prevention and Control of Pollution) Act was enacted in 1974 under article 252 of Constitution which provides power to the Parliament to legislate for two or more States by consent and adoption of such legislation by any other State. The Act provides for the prevention and control of water pollution and for the maintaining or restoring of wholesomeness of water in the country.

To achieve this objective, the Act provided for establishing Boards at the Central and State level for the prevention and control of water pollution and conferred and assigned powers and functions relating this to these Boards.

It lays down a system of consent whereby no industry or operator process or any treatment and disposal system can be established without the previous consent of the State Board.

Similarly, no industry or process can discharge sewage or trade effluent into a stream or well or sewer or land in excess of the standards.

Contravention of the provisions of this Act is punishable in monetary as well non-monetary terms.

The Water (Prevention and Control of Pollution) Cess Act, 1977 provides for the levy of cess on use of water by various users of water i.e. industry and local authorities which are entrusted with duty of supplying of water under the law. This cess was meant to augment the funds required by State pollution Boards for their effective functioning in discharge of duties under the Water (Prevention and Control of Pollution) Act, 1974.

The cess is collected by the State Government concerned and paid to the Central Government. The proceeds are credited to the Consolidated Fund of India. After this, the Central Government, after due appropriation made by Parliament by Law, disburses such sums of money as it may think fit to the Central Board and the State Boards, having regard to the amount of cess collected by the State Government concerned.

Environment (Protection) Act, 1986 provides for the protection and improvement of environment and for matters connected there with. The definition of "environment" includes 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.

The Central Government has the power to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing controlling and abating environmental pollution. Thus, MOEF has the responsibility of controlling water pollution under Environment (Protection) Act, 1986.

The Water (Prevention and Control of Pollution) Act foresees a balance of strategies to ensure compliance: education and assistance; monitoring and inspections; communication and outreach. However, it falls short in the vital aspect of developing fair and differentiated responses to non-compliance. There is little evidence of the design of enforcement programmes to deter illegal conduct by creating negative consequences.

Inadequate penalty provisions

The penalty provisions under various Acts relating to control and prevention of water pollution is given in the table below.

Name of the Act/ Provision	The Water (Prevention and Control of Pollution) Act, 1974	The Water (Prevention and Control of Pollution) Cess Act, 1977	The Environment (Protection) Act, 1986
Provision relating to penalty	Failure to comply with provisions or for contravention of the provisions of the act and the rules, orders and directions shall, in respect of each such	Failure to comply with provisions or for contravention of the provisions of the act and the rules, orders and directions shall, in respect of each such	Failure to comply with provisions or for contravention of the provisions of the act and the rules, orders and directions shall, in respect of each such

failure or contravention, punishable with	or be	failure or contravention, punishable with	failure or contravention, punishable with	or be
<ul style="list-style-type: none"> • Imprisonment for a term which may extend to three months to six years • Fine which may extend to ₹ 10 thousand and In case of the failure continues, with an additional fine which may extend to ₹ five thousand for every day during which such failure continues after the conviction for the first such failure. 		<ul style="list-style-type: none"> • Imprisonment which may extend to six months • Fine which may extend to ₹ one thousand • Or with both. 	<ul style="list-style-type: none"> • Imprisonment for a term which may extend to five/seven years • Fine which may extend to ₹ one lakh, continued failure or contravention, with additional fine which may extend to ₹ five thousand for every day during which such failure or contravention continues after the conviction for the first such failure or contravention. • Or with both. 	

We observed that the maximum penalty prescribed under **The Water (Prevention and Control of Pollution) Cess Act, 1977** was only ₹ one thousand, while the same under **The Water (Prevention and Control of Pollution) Act, 1974** was ₹ 10 thousand rupees. The maximum penalty under the **Environment (Protection) Act, 1986** was ₹ one lakh. However, in the case of water pollution, the fine or penalty prescribed under **The Water (Prevention and Control of Pollution) Act, 1974** would be applicable as per sub section 2 of section 24 of the **Environment Protection Act 1986**. Thus, the maximum penalty/fine is limited to ₹ 10 thousand for case relating to water pollution.

We observed that powers relating to filing of cases of violations are exercised by the SPCBs, While CPCB conducts random checks of Industries or other stake holders contributing to water pollutions and cases of violations are reported to the respective SPCBs for their action and in cases of serious violations are dealt with for notice of closure or closure under section 5 of the Environment Protection Act 1986. The CPCB/MOEF did not compile any information on cases of violations relating to water pollution filed by the SPCBs and amount of penalty/fine realized. The information relating to the cases, where the closure notices or final closure were ordered by CPCB was awaited. In absence of information on the extent of violations of provisions of Acts relating to water pollution in various States, it was not clear

how the effectiveness of implementation of these Acts were analyzed and monitored by the CPCB/MOEF in relation to water pollution. Thus, CPCB/MOEF was not aware of how the provisions, particularly provision of the levy of penalty under **The Water (Prevention and Control of Pollution) Cess Act, 1977** and **The Water (Prevention and Control of Pollution) Act, 1974** were being enforced, extent of violations compared to total users and extent of enforcement etc . We felt that the low quantum of penalty of ₹ 10 thousand as also the failure of the State in enforcing the provisions of the Act strictly to secure prevention and control of water pollution, has led to the situation where the cost of non compliance became significantly lower than the cost of compliance with the provisions of rules and orders under the Acts. Thus, there was need to strictly enforce the provisions of the Acts , while reviewing the quantum of penalty as also the wide disparity prevailing under the various Acts which ranged from ₹ 10 thousand to ₹ one lakh prescribed in **Environment Protection Act 1986**.

While the responsibility of management and development of ground water rests with CGWB, the prevention of water pollution comes under the purview of MOEF.

While the Act envisages both monetary and non-monetary penalties, ultimately, a highly tolerant inspection regime of the SPCBs ensures that the costs of defiance, non-adherence and violations are lower than the costs of compliance.

MoEF stated in its reply of June 2011 that it had enacted legislations like Water (Prevention and Control of Pollution) Act and the Environment Protection Act for control of water pollution in India. It further stated that as per sections 25/26 of the Water Act, 1974 no industry or operator process or any treatment and disposal system can be established (which is likely to discharge sewage or effluents) without the previous consent of the State Board and no industry or process can discharge sewage or trade effluent into a stream, well, sewer or land in excess of the standards and without the consent of the Board.

MoEF has not framed any legislation which specifically identifies pollution as an environmental offence and restoration of water bodies as a priority action.

2.1.2 In the States

- Of the 25 States test checked, **Water (Prevention and Control of Pollution) Act 1974** was adopted by all the 25 States and States pollution Control Board/ committee were framed in all these States.

2.2 International Best practices

Several international conferences have been held to address the issue of water pollution world-wide. The following are particularly notable as they set the global agenda for management of water bodies. India also participated in these deliberations and concurred with their findings.

Table 3: International conferences on water quality

International Conferences	Main issue
UN Conference on Human Environment, Stockholm, 1972	Preservation and enhancement of human environment
UN Conference on Water, Mar del Plata, 1977	Assessment of water resources, water use and efficiency
International Conference on Water and Environment, Dublin, 1992	Water and sustainable development
UN Conference on Environment and Development (UNCED, Earth Summit), Rio de Janeiro, 1992	Agenda 21, holistic management of freshwater and integration of sectoral water plans programmes within the framework of national economic and social policy
First World Water Forum, Marrakech, 1997	Water and sanitation, management of shared waters, preserving ecosystems, to encourage the efficient use of water
International Conference on Water and Sustainable Development Paris, 1998	Management, protection and equitable use of freshwater resources
Second World Water Forum, The Hague, 2000	World Water Vision: Making Water Everybody's Business
International Conference on Freshwater, Bonn, 2001	Water – key to sustainable development
Third World Water Forum, Kyoto, 2003; Fourth World Water Forum, Mexico, 2006; 5th World Water Forum Istanbul, 2009.	Raise the importance of water on the political agenda, support the deepening of discussions towards the solution of international water issues in the 21st century, formulate concrete proposals and bring their importance to the world's attention and generate political commitment.

2.3 Policy framework

Strong policy framework is an essential first step in effectively regulating water quality. Lack of a comprehensive approach has often led to costly and ineffective water policies. Good and enforceable regulations must follow creation of an overall water quality policy. With respect to **policy formulation** by the government, we observed the following at the Central and State levels.

2.3.1 At the Centre

The National Water Policy was adopted in 1987 and was reviewed and updated by National Water Policy 2002 by the Ministry of Water Resources in 2002. This policy aimed at meeting the challenges that have emerged in the development and management of water resources including water pollution. The following are the salient features of National Water Policy relating to water pollution:

- Both surface water and ground water should be regularly monitored for quality. A phased programme should be undertaken for improvements in water quality.
- Effluents should be treated to acceptable levels and standards before discharging them into natural streams.
- Minimum flow should be ensured in the perennial streams for maintaining ecology and social considerations.
- Principle of 'polluter pays' should be followed in management of polluted water.
- Necessary legislation is to be made for preservation of existing water bodies by preventing encroachment and deterioration of water quality.
- As maintenance of water resource schemes is under non-plan budget, it is generally being neglected. The institutional arrangements should be such that this vital aspect is given importance equal or even more than that of new constructions.
- Improvements in existing strategies, innovation of new techniques resting on a strong science and technology base are needed to eliminate the pollution of surface and ground water resources, to improve water quality. Science and technology and training have to play important roles in water resources development and management in general. It emphasises on water quality and recycling and re-use of water.

“National Conservation Strategy and Policy Statement on Environment” and “National Environment Policy” were enacted in 1992 and 2006 respectively which are broad policy frameworks on environmental issues.

National Environment Policy 2006 has outlined following elements of an action plan to address the water pollution.

- Develop and implement, initially on a pilot scale, public-private partnership models for setting up and operating effluent and sewage treatment plants. Once the models are validated, progressively use public resources, including external assistance, to catalyze such partnerships. Enhance the capacities of municipalities for recovery of user charges for water and sewage systems.
- Prepare and implement action plans for major cities for addressing water pollution, comprising regulatory systems relying on a appropriate combination of fiats and incentive based instruments, projects implemented through public agencies as well as public-private partnerships for treatment, reuse, and recycle where applicable, of sewage and wastewater from municipal and industrial sources, before final discharge to water bodies.
- Take measures to prevent pollution of water bodies from other sources, especially waste disposal on lands.
- Enhance capacities for spatial planning among the State and Local Governments, with adequate participation by local communities, to ensure clustering of polluting industries to facilitate setting up of common effluent treatment plants, to be operated on cost recovery basis. Ensure that legal entity status is available for common effluent treatment plants to facilitate investments, and enable enforcement of standards.

- Promote R&D in development of low cost technologies for sewage treatment at different scales, in particular, replication of the East Kolkata wetlands and other bio-processing based models for sewage treatment, to yield multiple benefits.
- Take explicit account of ground water pollution in pricing policies of agricultural inputs, especially pesticides, and dissemination of agronomy practices.

The 2006 policy deals with water quality pointing out that improvement in existing strategies and innovations are needed to eliminate pollution of surface and ground water resources. It also States that resources should be conserved and availability augmented by maximising retention, eliminating pollution and minimising losses. Thus, addressing water pollution is one of the thrust areas of National Water and Environment Policy.

In June 2011, MoEF stated that the National Environment Policy declared by MoEF in 2006 briefly describes the key environmental challenges currently and prospectively facing the country, the objectives of environment policy, normative principles underlying policy action, strategic themes for intervention, broad indications of the legislative and institutional development needed to accomplish the strategic themes, and mechanisms for implementation and review.

Any policy is only as good as its implementation. The National Environment Policy outlines a significant number of new and continuing initiatives for enhancing environmental conservation. A formal, periodic high level review of implementation of the different elements of the National Environment Policy is essential at least once a year. The findings of the review should be publicly disclosed, so that stakeholders are assured of the seriousness of the Government in ensuring implementation of the Policy. However, no such review has taken place.

2.3.2 In the States

National Water Policy 2002 envisaged that within a time bound manner, say a period of two years, States would frame and adopt State Water Policy. With respect to State water policy formulations, it was observed that 18 States have framed water policy and in the remaining seven States, water policy was yet to be finalised. Only Kerala formulated a separate policy to deal with water pollution. Further water policy of most of the States also does not give adequate emphasis on prevention and control of water pollution.

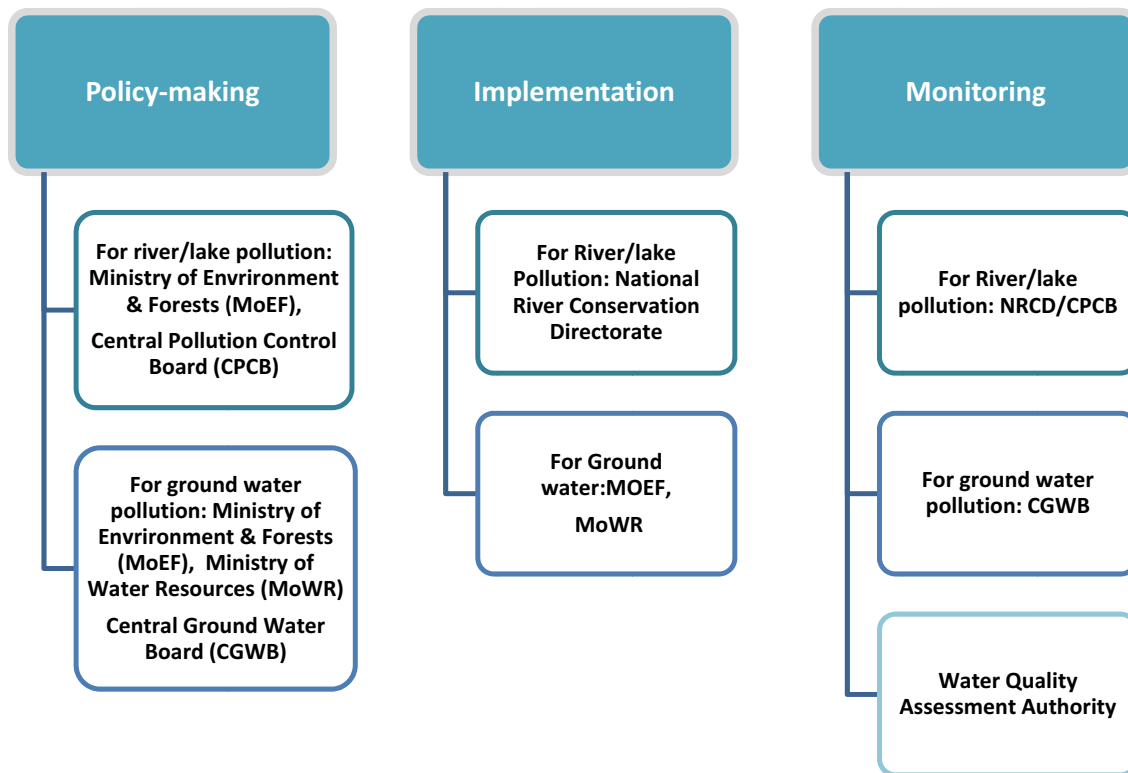
The State government of Kerala has formulated a separate policy for addressing water pollution.

The policy addresses pollution issues by stating "There shall be specific plan of action for implementing location specific sewerage in all urban areas and appropriate sanitation system in all rural areas. Appropriate sanitation sub policy and action plan shall be formulated and implemented. The potential for recycling and reuse of water shall be recognized and all water users shall be directed to adopt measure to recycle for incremental reduction in water extraction."

2.4 Institutional arrangements for managing water pollution in India

2.4.1 At the Centre:

Table 4: Institutional arrangements for water pollution in India



2.4.2 In the States:

Specific programmes for river or lake pollution control, abatement or restoration of quality through NRCP/NLCP are executed through different State government departments. These vary from State to State.

In most States, the responsibility of control of water pollution is assigned to State Pollution Control Boards, and not specifically to State government departments.

2.4.3 Central Pollution Control Board (CPCB):

Water (Prevention and Control of Pollution) Act, 1974 lays down the following functions for **CPCB**:

- Plan and cause to be executed, a nation-wide programme for the prevention, control or abatement of water;
- Collect, compile and publish technical and statistical data relating to water and the measures devised for their effective prevention, control or abatement;
- Disseminate information in respect of matters relating to water and their prevention and control; and,
- Lay down, modify or annul, in consultation with the State Governments concerned, the standards for stream or well

- Provide technical assistance and guidance to State Boards, carry out and sponsor investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution.

State Pollution Control Board (SPCB)

The Act laid down important functions that the SPCB would perform. Some of the important ones are as follows:

- To plan and execute programmes for prevention, control and abatement of pollution of streams and wells in the State.
- To collect and disseminate information on pollution;
- To conduct investigations relating to problems of pollution;
- To inspect sewage or industrial effluents and review the systems for the disposal of the same;
- To lay down, modify or annul effluent standards for sewage and trade effluents;
- To evolve economical methods of sewage and effluent disposal and treatment.
- SPCBs are empowered by the Act to obtain information, to take samples of water for the purpose of analysing effluent discharge from any stream or well and to enter and inspect any place in relation to the duties entrusted to the SPCB.

We observed that CPCB and SPCBs are autonomous of each other. While CPCB is under the administrative control of the MoEF and responsible for overall policy, planning and coordination, the SPCBs are under their respective State governments and are expected to work under the overall policy framework of CPCB, MoEF and responsible for implementation of provisions of various environmental Acts relating to Water pollution at the ground level. This dichotomy of control finds its source in the Water (Prevention and Control of Pollution) Act, 1974, which further entrusts the SPCB with the critical functions of compliance to and enforcement of pollution control related activities, whereas CPCB is given an advisory and coordination role. SPCBs are not empowered to generate adequate financial resources of its own to effectively discharge its mandate and are dependent on Central Government and State Government for grants even for expenditure on normal monitoring of pollution levels.

Thus, while the outputs of the actions of CPCB and SPCBs are co-related, there is no functional co-relation between them at the input stage. This dichotomy of control causes a situation whereby there is no single agency to take charge of the issue of control of water pollution on a nation-wide basis.

2.4.4 Water Quality Assessment Authority (WQAA):

The Water Quality Assessment Authority (WQAA) was set up at the central level in May, 2001 for exercising powers under the Environment Protection Act, 1986 relating to issuing directions for protection and conservation of the environment and preventing, controlling

and abating pollution and to direct agencies (government/ local bodies/non-governmental) in the field of water pollution.

The mandate of this Authority is to direct agencies to standardize water quality monitoring methods, ensure proper treatment of wastewater to restore the water quality of surface and ground waters, take up R&D activity related to water quality management and promote recycling and reuse of treated wastewater.

Since 2001 only seven meetings of Water Quality Assessment Authority have taken place.

Till date WQAA had issued only Uniform Monitoring Protocol (UMP) in 2005 for uniform procedure for sampling, analysis, data storage and reporting amongst the agencies operating Water Quality monitoring networks in the country. It also set up a Task Force which has made recommendations for development of Water Quality data information system and recommends steps for co-ordination in collection, use and dissemination of data; to review of Water Quality Monitoring network and recommend optimum network for the country and a system for accreditation of water quality laboratories in the country.

Apart from this, it had not taken any action towards promoting recycling/re-use of sewage/trade effluents, drawing up action plans for quality improvements in water bodies, schemes for restriction of water abstraction, reviewing the status of national water resources, identifying hotspots etc.

The **Water Quality Review Committees** were constituted in some States with an objective to improve coordination amongst the Central and State agencies. They were to review/assess schemes launched/to be launched, to improve quality of water resources, review water quality data analysis and interpretation in order to identify problem areas. Their remit also included developing action plans for improving quality on a sustainable basis, identify hot spots for surveillance monitoring.

Water Quality Review Committees have been set up in Assam, Bihar, Goa, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Odisha, Punjab, Sikkim, Tripura, UP and West Bengal.

But the Committee has met regularly only in Maharashtra and Himachal Pradesh.

Conclusion

While India has the Water (Prevention and Control of Pollution) Act 1974 in place, the law does not address the issue of restoration of the polluted water bodies. It also does not define stricter financial and non-financial penalties to environmental offenders.

Although the concerns related to water pollution have been adequately addressed in National Water Policy and National Environment policy in India, both at the central and the State level, provisions for generation of resources for prevention of pollution, treatment of polluted water and ecological restoration of polluted water bodies are not adequate.

Recommendation 1

MoEF/States, in the policy on water pollution, need to specifically take into account prevention and control of water pollution as well as ecological restoration of degraded water bodies. There is a need to strictly enforce the provisions of the Acts, and review the existing levels of penalty in various Acts relating to control and prevention of water pollution.

Recommendation 2

Legislations should be introduced by MoEF/States to specifically prevent water pollution. Further, it needs to craft a well thought out legislation for control of pollution which takes into account pollution from both point and non-point sources. It should also introduce legislations for restoration of degraded water bodies so that these degraded water bodies do not pose risks to ecological environment and human health.