

Chapter 5

Conclusion

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Industrialization has made immense positive contributions to human life by improving the quality and quantity of the resources and services. Unquestionably, on the global scale, people are living longer and are healthier than earlier times. However, industrialization also had adverse health consequences not only for workforces, but for the general population as well. These effects have been caused either directly by exposure or indirectly through environmental degradation. Environmental health hazards, may be biological, chemical, physical, biomechanical or psychosocial in nature. Industrial processes result in waste that are hazardous in nature, as such, it is imperative that these be reduced or controlled, if not prevented. Audit findings and conclusions against each audit objective is outlined below:

5.1: Audit Objective 1: Steps were taken to prevent industrial pollution, in compliance with applicable laws and rules

Data with regard to extent of pollution being caused by industries in West Bengal was inadequate. There was a mismatch in the basic data regarding sources of pollution. The data was also not updated as per directives of CPCB. Inventory relating to hazardous waste remained incomplete and pollution caused by these industries, as envisaged by CPCB, remained unaddressed. There was no defined policy to prevent and control industrial pollution and the relevant SDGs were also not operationalized. Even though the Vision document of the Department for the period 2013-14 to 2015-16 envisaged various steps in relation to the control of industrial pollution, none of these activities were undertaken till date. Further, WBPCB had not prepared a Zoning Atlas for the State and the Siting Policy (Policy) did not include all the critically polluted areas. It also did not identify ecologically sensitive areas as prohibited zones for setting up of industries, thus disregarding the concept of carrying capacity of the district. Study reports for promoting cleaner technology options were prepared by consultants in 2012-13 and 2013-14 by incurring expenditure of ₹ 0.96 crore. However, recommendations made in the study reports were yet to be implemented.

The Environment Clearance process, which is the main preventive tool to prevent pollution, was also in deviation from the laid down process. Thus, the EIA failed to be used effectively by the State Government as a tool for prevention of industrial pollution in the State. Units were found operating without any valid Consent to Establish (CTE). Many units were seen where CTEs were renewed despite non-compliance of the conditions of EC and CTE. These findings led to the audit conclusion that steps taken to prevent industrial pollution were not adequate.

5.2: Audit Objective 2: Measures undertaken to control industrial pollution achieved the desired objective

After obtaining CTE, every industrial unit had to obtain the 'Consent to Operate' (CTO) from WBPCB. In the CTOs, the operational parameters and conditions for operation of industry were specified. Industries were running without valid CTOs, indicating lax monitoring by WBPCB. Joint Physical verifications showed gross violations of compliance conditions, thus indicating the extent of harm caused to the environment.

Howrah and Asansol were identified as Critically Polluted Area (CPA) in August 2010 and Durgapur as Severely Polluted Area (SPA) in September 2013. Despite preparation of Action Plans, these were not implemented, leading to continued industrial pollution. Source Apportionment Study, Health Impact Assessment (HIA) and Sector Specific Audit of 17 categories of grossly polluted industries in the CPAs and SPA for the purpose to mitigate the environmental pollution problem was not taken up. Due to failure of WBPCB to take control measures effectively, the Environment Quality of CPAs and SPA remained poor with regard to air quality and water quality. Levels of PM_{2.5} and PM₁₀ exceeded permissible limits in all instances of testing of air in the three CPAs.

Further, Monitoring of Seriously Polluting Industries (SPIs) situated along the River Ganga was not taken up, allowing pollution to continue unabated. Drainage maps of industries dumping their effluents in to the river was to be prepared and this data was to be used to construct an ETP at a suitable point. However, this was not yet taken up. There was no control of pollution by Pulp and Paper Industries in Ganga basin despite CPCB directives, control of pollution in five legacy polluted sites was not taken up which resulted in dispersal of pollutants to adjoining areas. Hazardous waste contaminated sites were not rehabilitated and the sites remained susceptible to health risks associated with legacy pollution. Thus, measures taken by the Government and WBPCB with regard to control and abatement of pollution were very inadequate and industries continued to pollute the environment. Environment parameters showed decline in the quality of water and air, which would be deleterious to the ecology and environment.

5.3 Audit objective 3: Monitoring of industrial pollution was effective to prevent and control industrial pollution.

ECs are contingent on environment protection measures to be implemented by the project proponent like installation of sewage treatment plants, air pollution control measures like sprinklers, undertaking plantation *etc.* WBPCB was to monitor the compliance of the conditions on which the EC was given. None of the industries which were granted EC by SEIAA during 2012-17 had ever submitted their compliance reports to it. Audit further observed that the Monitoring Committee had not met even once during 2012-17 to monitor these industries. As such, there was no effective mechanism to check whether pollution control measures were implemented and working as envisaged while giving EC approval. Further, in the absence of monitoring, no penalty for non-compliance could be imposed and the 'law of polluter pays principle' was violated.

The inadequate efforts to prevent and control pollution by industries was compounded by lax monitoring mechanism of WBPCB. Air quality monitoring was found to be deficient as the monitoring stations checked only the levels of three pollutants against the 12 as prescribed by CPCB. Ambient Continuous Ambient Air Quality Monitoring Stations were not established due to failure of WBPCB in selection of suitable sites.

WBPCB did not take any effective steps even though the Grossly Polluting Industries continued to pollute the river Ganga. Effluents of only 33 *per cent* of the Grossly Polluting Industries were monitored. Physical verification of the selected Hazardous Waste Generating Industries revealed effluents being discharged in the drains and rivers indiscriminately.

The fallout of the deficiencies in the preventive, control and monitoring efforts was that West Bengal remained one of the largest contributors of industrial pollution in India.

5.4 Recommendations

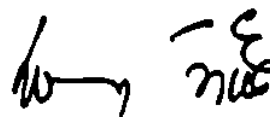
- WBPCB should prepare a comprehensive inventory of industries and pollution caused by them, based on CEPI and ensure its periodical updating.
- WBPCB should prepare a comprehensive siting policy for the State which would ensure that industries established in these areas do not adversely impact the ecology of the area.
- WBPCB should have a centralised system which flags the industries whose CTOs are due or expiring. It should also take stipulated action against the industries operating without consent to encourage deterrence.
- To prevent further pollution by industry, SEIAA should strictly comply with the requirements under EIA Notification 2006, before according environment clearance.
- WBPCB should include all the industries granted EC/Red category industries into the Inspection Schedule of its regional office to ensure that all polluting industries are monitored on a regular basis. It should also ensure that these industries set up online monitoring system that is integrated with the appropriate software at WBPCB HQs.
- WBPCB should set up the required number of monitoring stations, according to defined locations, which would measure all the parameters defined under the National Ambient Air Quality Standards.
- WBPCB needs to ensure that all industrial effluents are treated with ETPs with special emphasis on installation of CETPs with the unorganised small industries within the clusters situated besides the River.
- WBPCB should upgrade its laboratories with latest testing equipment and facilities for proper monitoring.



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KOLKATA
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NEW DELHI
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