

Chapter 1

Introduction

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1.1 Pollution by Industries in West Bengal

The United Nations Environment Program (UNEP)⁷ defines pollution as introduction of substances into the environment that endanger human health, natural resources and ecosystems. It also impairs the use of the environment for work and recreation. It further threatens the cultural, spiritual and aesthetic values that many people attach to the richness and diversity of both natural and human-made environments. Industrial pollution is a specific kind of pollution, which is the release of wastes and pollutants generated by industrial activities into the natural environment. Emissions from industrial waste impair the quality of air, water and soil. The World Health Organisation estimated in 2012 that 23 *per cent* of all deaths worldwide *i.e.* 12.6 million people was due to environmental causes, which included pollution in all forms. Improper storage, handling, transportation, treatment and disposal of waste results in adverse impact on ecosystems including the human environment. Heavy metals and certain organic compounds are phytotoxic⁸ and can adversely affect soil productivity when discharged on land.

Rapid industrial expansion in West Bengal has given rise to significant pressure on the environment. Industrial units have now become a major point source of pollution. The industrial population in the State has diverse industries⁹, which contribute significantly to pollution. Central Pollution Control Board (CPCB) conducted a comprehensive environmental assessment in August 2010. CPCB identified Haldia, Howrah and Asansol in West Bengal as critically polluted areas. In September 2013, it also identified Durgapur as a severely polluted area. As per the Report of the Ministry of Environment, Forest and Climatic Change (MoEF&CC), submitted to parliament in 2012, West Bengal had the highest number of red category industries¹⁰ (12,810), followed by Maharashtra and Tamil Nadu.

West Bengal Pollution Control Board (WBPCB) under the Department of Environment was entrusted with regulating, controlling and implementing environmental laws and rules including those relating to industrial pollution. Based on the size of the industry and consumption of resources, WBPCB had classified industrial units into Red, Orange, Green and White categories¹¹. Further, the Environment Impact Assessment Act, 2006 identified 37 types¹² of Red Category industries that mandatorily had to obtain Environment Clearance

⁷ “Towards a Pollution Free Planet” Report of the Executive Director, United Nations Environment Assembly dated 15 October 2017.

⁸ Poisonous to plants.

⁹ Mining, iron and steel, metallurgy and engineering, petroleum, chemicals and petro-chemicals, thermal power plants, tanneries, cement, paper etc.

¹⁰ Red category industries have the maximum pollution potential.

¹¹ Red categories have the maximum pollution potential, the Orange have the moderate potential, Green have the least potential while White are non-polluting industries.

¹² Thermal Power Plants, Cement, Leather/skin/hide processing industry, Chemical fertilizers, Pulp & Paper industry, Common hazardous waste treatment, storage and disposal facilities (TSDFs), Common Effluent Treatment Plants (CETPs) etc.

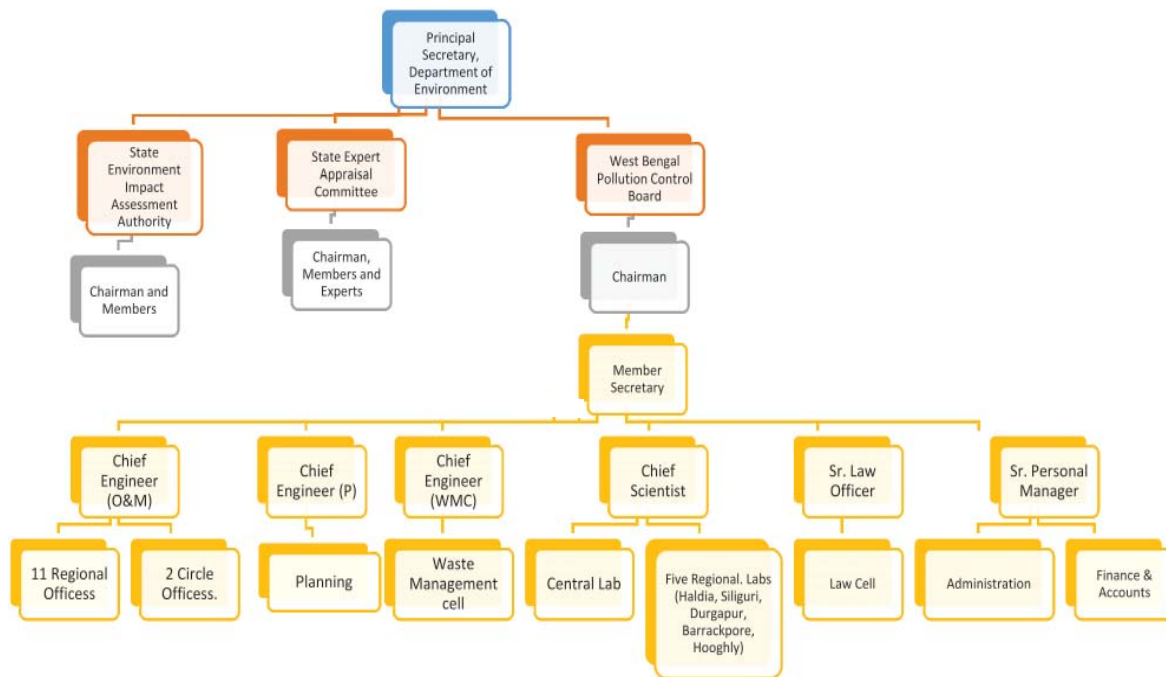
(EC) before setting up. Depending on the quantum of environmental impact, these Red Category industries are further classified as Category ‘A’ and Category ‘B’. Category ‘A’ industries are mandatorily required to obtain EC from MoEF&CC. Category ‘B’ industries had to seek EC at the State level, from the State Environment Impact Assessment Authority (SEIAA). All polluting industries, which receive the EC, had to obtain ‘Consent to Establish’ (CTE) from WBPCB. WBPCB monitors the fulfilment of the conditions stipulated in the CTE before commencement of operations and issues ‘Consent to Operate’ (CTO). On fulfilment of these conditions the industry can commence its operations.

Considering these factors, a Performance Audit of ‘Pollution by Industries in West Bengal’ was undertaken. The findings have been presented in a standalone report so as to highlight the critical nature of the topic and gravity of the findings. The audit findings have been compiled in three Chapters covering the three aspects viz. Prevention, Control and Monitoring of industrial pollution. Issues related to the system deficiencies have been emphasized.

1.2 Organisational Set Up

West Bengal Pollution Control Board (WBPCB) under the Department of Environment, is headed by a Chairman nominated by the State Government. The Chairman is assisted by a Member Secretary. WBPCB functions through its Head Office located at Kolkata, two Circle Offices and 11 Regional Offices. The scientific wing assists in monitoring and analysing the quality of air, water and soil. The organisational setup of Environment Department is given in **Chart 1.1**.

Chart 1.1: Organisational Structure



1.3 Audit Objectives

Performance audit on ‘Pollution by Industries in West Bengal’ seeks to examine whether:

- Steps were taken to prevent industrial pollution, in compliance with applicable laws and rules;
- Measures undertaken to control industrial pollution achieved the desired objective; and
- Monitoring of industrial pollution was effective to prevent and control industrial pollution.

1.4 Audit Criteria

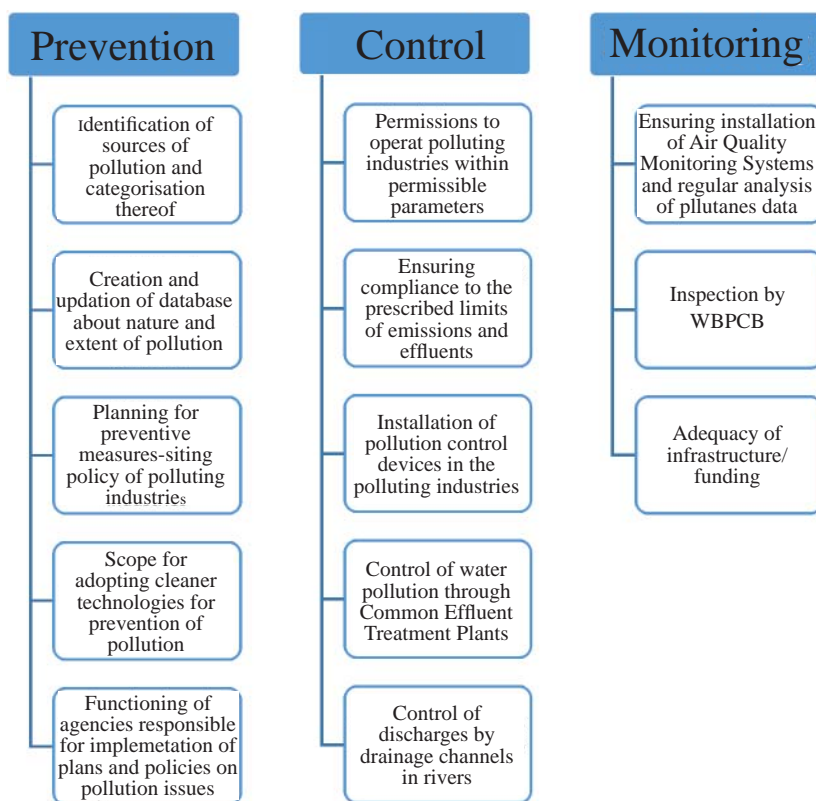
The performance audit was benchmarked against the criteria derived from the following sources:

- The Water (Prevention and Control of Pollution) Act-1974;
- The Air (Prevention and Control of Pollution) Act-1981;
- The Environment (Protection) Act-1986 and various Rules made there under;
- National Environment Policy, 2006;
- Environment Impact Assessment (EIA) Act, 2006;
- Directions issued by CPCB on air and water pollution;
- Action plan of WBPCB regarding Critically Polluted Areas; and
- Specific conditions of the EIA studies.

1.5 Scope, methodology and sample

Performance Audit of ‘**Pollution by Industries in West Bengal**’ was conducted between February and July 2017 covering the period from 2012-13 to 2016-17. The Audit coverage encompassing initiatives taken for prevention, control and monitoring is mapped in **Chart 1.2**.

Chart 1.2: Audit Coverage



Audit methodology comprised of examination of records /documents, analysis of data of the offices of the Environment Department, WBPCB and its seven Regional Offices. Audit examined EC process of all the 64 red category industries (**Appendix 1.1**) which received EC from SEIAA during the five years’ period under Audit. Further, out of total 5,452 red category units as identified by WBPCB regional offices, a sample of 51 industrial units¹³ (**Appendix 1.2**) was examined in detail. Hence, it covered 1.92 per cent of the audit universe. **Joint inspections of all 51 industrial units were also conducted to assess the effectiveness of control and monitoring process.** Audit objectives, criteria and methodology were discussed in an Entry Conference with the Principal Secretary in March 2017. Exit Conference was held in January 2018 wherein Audit findings were discussed. Departmental replies have been incorporated suitably in the report.

Audit observations relating to prevention, control and monitoring of industrial pollution in West Bengal are discussed in the succeeding chapters.

¹³ Including 10 industrial units for which EC process was examined.