

Strategies for Prevention and Control of Air Pollution in India at Central Level

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Abstract

Environment pollution has become one of the chief threats to the survival of mankind. India faces severe environmental deterioration. It is a wide reaching problem and it is likely to influenced the great human health. This paper provides the insight view about the affects of air pollution on human beings by diseases, problems and functioning of pollution control board. Various studies found that the every age group is facing life threatening diseases like cancer, asthma etc due to pollution. Various strategies enacted by government from the recent issue of stubble burning to control pollution were to lessen the crop burning which were implemented by government which was not implemented on the serious note. Though the pollution control board plays the successful role to control pollution but still it is increasing day by day.

Keywords: Role of Ministry of Environment, Forest and Climate Change and Central Pollution Control Board.

Strategies for Prevention and Control of Air Pollution in India at Central Level

In the entire world environmental pollution has become one of the chief threats to survival of mankind. India, like many other developing countries, faces severe of environmental deteriorations. India is plagued by the growing monster of pollution which is dangerously spreading its wings. The rapid growth of industrialization and transportation has led lots of environmental issues. The major environmental concern of India is air pollution. Exposure to high level of air pollution can cause a variety of adverse health outcomes. Air pollution is not only dangerous for human beings and animal's life but also seriously affects vegetation on earth. In India, 1.7 million deaths were attributable to air pollution in 2019. According to World Health Organization almost 9 out of 10 people worldwide breathe polluted air. Air pollution is one of the biggest killers, causing almost seven million deaths a year due to exposure to air pollution.

Various laws have been implemented by the Government of India from time to time to protect the human health and environment. The Ministry of Environment, Forest and Climate Change, Pollution Control Boards plays important role to control and prevention of air pollution at central and state level.

Ministry of Environment and Forest and Climate Change

It was formed in 1985 in India and is the nodal agency in the central Government for planning, coordination, promotion and overseeing the implementation of forestry environmental policies and programmes relating to conservation of natural resources of country like lakes and rivers, its biodiversity, forests and wildlife, ensuring the welfare of animals and prevention of pollution. While

implementing these policies and programmes, the Ministry is guided by the principles of sustainable development. It is also nodal agency for United Nations Environment Programme (UNEP), South Asia Co-operative Environment Programme (SACEP), International Centre for Integrated Mountain Development (ICIMOD) and United Nations Conference on Environment and Development (UNCED). The main objectives of ministry are to achieve goals like prevention and control of pollution, regeneration programmes, collection and dissemination of environmental information and creation of environmental awareness among all sectors of society in the country. Six regional offices of the Ministry, located at Bangalore, Bhopal, Bhubaneswar, Lucknow, Shillong and Chandigarh, perform the functions of monitoring and evaluation of on-going forestry development projects and schemes with specific emphasis on conservation of forests and follow up of implementation of conditions and safeguards laid down by the Ministry for project activities where environmental clearance is given.

National Clean Air Programme

Ministry of Environment, Forest and climate change launched the National Clean Air Programme in January, 2019 as the national level strategy advising the actions for reducing the levels of air pollution at city and regional levels of India. It is a flagship program for better air quality in 122 cities. The program is designed to support the government target of 20-30% reducing particulate matter concentration by 2024. It has adopted the integrated approach that focuses on various mitigations and preventive measures to tackle the contributors to air pollution namely vehicular and industrial emissions etc.

National Green Tribunal

National Green Tribunal (NGT) was set up on 18th October, 2010 under the NGT Act, 2010, for the purpose of effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto. During the period from 01.01.2020 up to 30.09.2020, a total of 1657 cases were instituted before the National Green Tribunal, 1906 cases were disposed of and a total of 2716 cases were pending before the various benches of the National Green Tribunal, since its inception till date.

Central Pollution Control Board

Under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Central Government constituted the 'Central Board for the Prevention and Control of Water Pollution' on September 23, 1974. The name of the Central Board was amended to Central Pollution Control Board (CPCB) under the Water (Prevention & Control of Pollution) Amendment Act, 1988. The Central Pollution Control Board has been entrusted with added responsibilities of Air Pollution Control since May, 1981. The Central Pollution Control Board continuously playing a key role in abatement and control of pollution in country by generating, compiling and collecting data, providing scientific information, rendering technical inputs for formation of national policies and programmes, training and development of manpower and through activities for promoting awareness at different levels of the Government and Public at large.

Functions of the Board

The main functions of board are to promote the cleanliness of streams and wells in the states and improve the quality of air in the country. Central Pollution Control Board has been assigned following national level functions:

- Advise the Central Government on any matters concerning prevention, control of water and air pollution and improvement of the quality of air;
- Plan and execute nation-wide programmes for prevention, control or abatement of water and air pollution;
- Co-ordinate the activities of the State Boards and resolve disputes among them;
- Provide technical assistance and guidance to the State Boards, carry out and sponsor investigations and research relating to problems of water and air pollution, and for their prevention, control or abatement;
- Plan and organize training of persons engaged in programmes for prevention, control or abatement of water and air pollution;
- Organize through mass media, a comprehensive mass awareness programme on prevention, control or abatement of water and air pollution;
- Collect, compile and publish technical and statistical data relating to water and air pollution and the measures devised for their effective prevention, control and abatement;
- Disseminate information in respect of matters relating to water and air pollution and their prevention and control;
- To establish laboratories to perform the functions of sample analysis.

Mass Awareness Activities

The Central Pollution Control Board directly undertakes mass awareness activities, through activities, such as exhibitions/workshops/NGO activities, printing of pamphlets, booklets, collection and dissemination of information and conducting Rajbhasha Hindi Diwas event. Environmental events like Earth Hour, Earth Day, World Water Day, World Environmental Day and National Pollution Prevention Day are also celebrated by the board.

National Ambient Air Monitoring Programme (NAMP)

The Central Pollution Control Board has initiated a nation-wide programme of ambient air quality monitoring called National Ambient Air Monitoring Programme. The objectives of programme are:

- To determine the status and trends of ambient air quality.
- To determine whether the ambient air quality standards are violated.
- To identify non-attainment cities.
- To obtain knowledge and understanding for developing preventive and corrective measures.
- To understand the natural cleansing process undergoing in the environment through pollution dilution, dispersion, wind based movement, dry deposition, precipitation and chemical transformation of pollutants generated.

Under this programme four air pollutants Sulphur Dioxide, oxides of Nitrogen, Respirable suspended Particulate Matters and Fine Particulate Matters have been identified for regular monitoring parameters such as wind speed and wind direction, relative humidity and temperature are also integrated with the

monitoring of air quality. The monitoring of pollutants is carried out for 24 hours with a frequency of twice a week, to have one hundred and four observations in a year. The monitoring is being carried out with the help of Central Pollution Control Board, State Pollution Control Board, National Environmental Engineering Research Institute Nagpur. Central Pollution Control Board coordinates as well as provides all technical and financial support to these agencies for ensuring uniformity and consistency of the air quality of data monitored.

Portals Developed By Central Pollution Control Board

1. E- Inspection App for Remote Inspection of Industries

Central Pollution Control Board developed this app to facilitate remote inspection of industries through live streaming of videos and images. The purpose of this system is to reduce the number of subsequent follow up inspections after an initial physical inspection. This app is also used for other verifications like porthole creation, ladder construction and other facility needed to materialize inspection.

2. Reporting & Tracking System for Management of COVID-19 Waste

In extraordinary pandemic situation, Central Pollution Control Board has developed a system for tracking the generation, collection, and disposal of COVID-19 Bio- Medical Waste. This app was developed on urgent basis within a period of 10 days. Users comprising of waste generators, waste handlers, Common Biomedical Waste Material Treatment Facilities, State Pollution Control Boards may use mobile app or web application. This system enables the waste generator to register their waste, waste handlers to pick up the waste, Common Biomedical Waste Treatment facilities to accept waste transported by waste handlers and regulators to track the generation and movement of waste.

3. Sameer App for Awareness and Public Complaints Redressal

Sameer App was created by Central Pollution Control Board to create public awareness about air redressal. Since its launch, it has been downloaded by more than 100,000 users on Android and iOS platforms. This app provided hourly updated information on AQI for more than 120 cities using real time data from 232 stations. It can be readily accessed using the interactive map format. It provides real-time AQI, pollutant-wise sub-index and monthly calendar depicting overview of AQI for each monitoring location. Daily AQI bulletin published by Central Pollution Control Board is uploaded on the app at 4 pm. It provides a facility for lodging grievances related to air pollution. The complainant can upload photographs along with complaints and geo-coordinates are automatically captured for pinpointing exact location of source of air pollution for facilitating prompt action by concerned agencies. The complaints are automatically forwarded to implementing agencies depending on the location of the complaint. Currently, around 40 agencies responsible for mitigation of air pollution are configured on the app and is well integrated with complaint management system of implementing agencies.

4. Online Continuous Emission and Effluent Monitoring System

Online Continuous Emission and Effluent Monitoring System have been installed in highly polluting industries in the country and data generated is being transferred to Central Pollution Control Board/ State Pollution Control Board on the real time basis. Based on data exceedances, alerts are being generated and forwarded on the fly to various stakeholders of this system, including the representatives of industries and officials of State Pollution Control Board and Central Pollution Control Board, for taking immediate corrective actions for controlling pollution from industries.

Conclusion

In the end we can say that India is taking significant steps in responding to air pollution problems. The government of India has laid strong emphasis on promoting electrical vehicles, supplying LPG cooking fuel to millions of households and plays crucial role to spread environment awareness through mass media activities, mobile apps and television programmes etc. The National Clean Air Programme is a very powerful step in a acknowledging and resolving the problem of deteriorating ambient air quality because it has set time bound goals for improving air quality across the country.

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