

ANNUAL REPORT 2020-21



CENTRAL POLLUTION CONTROL BOARD
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EXECUTIVE SUMMARY

INTRODUCTION

The Central Pollution Control Board (CPCB) was constituted on September 23, 1974 under the provisions of the Water (Prevention & Control of Pollution) Act, 1974. Since its inception, over the past 47 years, CPCB has been tirelessly working towards environmental protection in the country.

In the year 2020-21, COVID-19 presented myriad challenges to the day-to-day functioning of the organization such as exponential rise in bio-medical waste and lockdown related challenges to surveillance. However, CPCB rose above these challenges to achieve its goals, as delineated in this Annual Report of 2020-21. The report consists of fourteen chapters, with detailed information on the working of CPCB in 2020-21.

HIGHLIGHTS

1. BOARD MEETINGS OF CPCB:

During 2020-21, CPCB conducted 3 Board Meetings (190th, 191st, 192nd) via Virtual Conferencing due to pandemic related challenges. The Board took various major decisions to help CPCB achieve its intended goals in management and pollution control through revamping monitoring & analysis system, action planning guided by scientific methodologies, capacity building including strengthening research and development department, and enhancing the use of IT tools.

Some of the major decisions taken include:

- i. **Annual Action Plan** for the Financial Year 2020-21 was approved by the Central Board for utilization of Grant-in- Aid amount of Rs. 100.00 Crore with priority focus on Delhi air quality management, overseeing implementation of Action Plans in 122 non-attainment cities and 61 high-concern polluted river stretches with focus on River Ganga, R&D solutions to COVID-19 challenges, establishing E-office system, implementation of waste management rules.
 - ii. **Capacity Building:** The proposal to allow Research Associate (RA), Junior Research Fellow (JRF), and Senior Research Fellow (SRF) at CPCB to pursue Ph.D at reputed academic institutes was approved. The Central Board has approved engagement of retired CPCB personnel through hiring from outsourcing agencies on requirement basis with certain terms and conditions.
 - iii. **Revenue Generation:** The Central Board gave in-principle approval to the proposal for levying charges for revenue generation
2. CPCB has been tasked to tackle multiple pollution challenges. Tapping on its **highly skilled workforce and external experts, Expert Groups were constituted** on thematic areas such as Health Aspects of Air pollution, Vehicular Pollution Control, Satellite Based Air Quality Monitoring System, Management of Sewage & Sewerage System, Water Quality Management, Treatment, Storage & Disposal Facilities (TSDFs) - Captive & Common, E-Waste Management, Implementation of Hazardous and other Wastes (Management and Transboundary Movement), Rules, 2016, Environmental Damage Assessment.

3. CPCB has pioneered the approach of '**what gets measured, gets addressed**'. In this quest, CPCB has built an **extensive monitoring network** for air, water, noise etc over the years. CPCB has expanded the real time monitoring network of Continuous Ambient Air Quality Monitoring (CAAQM) stations to 296 stations till June 2021 from 232 in June 2020 located in 148 cities in 22 States and 4 Union Territories. The manual ambient air quality monitoring network has expanded to 818 stations in 2020-21 from 779 stations in 2019-20 covering 352 cities/towns in 29 States and 6 Union Territories. The Water quality monitoring network has expanded to 4,294 locations across the country covering 28 States and 07 Union Territories. Whereas, National Ambient Noise Monitoring Network now covers 7 metro cities consisting of 70 stations.
4. Over the years, CPCB has developed a **comprehensive approach for Air Quality Management in Delhi – NCR**; a combination of technological, regulatory and citizen centric approach. CPCB has initiated issuance of a daily report comprising of AQI of Delhi and NCR towns, comparative AQI status, year-wise trends of PM concentration, hotspots for the day, AFE counts, contribution of stubble burning and meteorological forecast. Other measures such as shifting of brick kilns to zig-zag technology, shifting of industries to cleaner fuels, along with R&D projects using Environment Protection Charge Fund (EPC), have been initiated. As a result of these efforts, the number of 'Good', 'Satisfactory' and 'Moderate' days increased to 197 in 2021 against 159 in 2018 and PM₁₀ and PM_{2.5} levels reduced by 13% and 9% respectively from 2018 to 2021. On the directions of Hon'ble Supreme Court, CPCB, in partnership with IIT Bombay and IIT Delhi, has also installed the first operational smog tower of country at Anand Vihar, an air pollution hotspot in Delhi.
5. On the water quality front, during **Maha Kumbh**, monitoring was done between January-April, 2021 twice a day at six locations Rishikesh and Haridwar for Temperature, pH, Dissolved Oxygen and Colour. A dedicated laboratory was established for analysis of samples at Bharat Heavy Electricals Limited (BHEL), Haridwar. Special monitoring was also done pre & post major bathing days at eight locations for various parameters. Additionally, CPCB conducted Assessment of Water Quality of 19 Major Rivers during Lockdown due to COVID. Improvement in water quality w.r.t. Primary Water Quality Criteria for Outdoor Bathing was noticed in case of 7 rivers. Similarly, a specific study for Yamuna was also initiated, which showed mixed results.
6. On the Waste Management front, CPCB led the efforts in scientific management of Bio-medical waste. Common Bio-Medical Waste Treatment Facility (CBMWTF) operators were directed to use **COVID-19 Bio-Medical Waste Tracking App for effective Bio- Medical Waste Management**. CPCB also prepared the Handling, Treatment and Disposal of Waste Generated during Treatment / Diagnosis / Quarantine of COVID-19 patients so as to eliminate the risk of spread of infection through COVID-19 related Bio-Medical Waste. Additionally, guidelines were issued for Phasing out all plastic bags irrespective of size and thickness, plastic cutlery (plates, cups, glass, straw, stirrers etc), Styrofoam cutlery and decorative items.
7. As a regulator, CPCB has developed multiple guidelines, either at the direction of Courts or because of its mandate, to ensure environmental standards are met. For

example, Guidelines for Producer Responsibility Organizations (PRO), and Environmental Compensation Charges (ECC) under E-Waste rules, Environmental Audit of Common/Captive Treatment, Storage and Disposal Facilities (TSDFs) and Standard Operating Procedures (SoPs) for utilization of hazardous waste in environmentally-sound manner were developed in 2020-21. Additionally, a Standard Protocol for Conducting Inspections, Report Preparation and Action was developed.

8. CPCB lays a **special focus on capacity building programmes**. By quickly moving online, during the financial year 2020-21, seventeen online training programmes were organized in various priority areas related to environment for technical & scientific officials of CPCB / SPCBs / PCCs/ others. More than 400 officials from SPCBs / PCCs / Environment Departments been participated in the CPCB-sponsored training programmes.
9. A major administrative goal achieved was the initiation of transition of the day-to-day working of CPCB and its Regional Directorates to **e-Office**, for effective and efficient administration and reduction in paper use.
10. With the increasing environmental challenges, mounting public & judicial expectations, CPCB planned to transform existing Work Plans to meet growing complexities of pollution control through comprehensive planning and prudent action plan.

CONCLUSION

Thus, the year 2020-21 was challenging yet fruitful for CPCB. The Annual Report 2020-21 documents CPCB's efforts as the apex organization working towards pollution control in the country.

Chapter I

INTRODUCTION

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 Board was amended to **Central Pollution Control Board (CPCB)** under the Water (Prevention & Control of Pollution) Amendment Act, 1988 (No. 53 of 1988). The Central Pollution Control Board has been entrusted with the added responsibilities of Air Pollution Control since May, 1981 under the provisions of the Air (Prevention and Control of Pollution) Act, 1981. The enactment of the Environment (Protection) Act, 1986, which is the umbrella legislation for enforcement of measures for protection of environment, and several notifications of Rules under the Act widened the scope of activities of the Central Board.

Central Pollution Control Board has been playing a key role in abatement and control of pollution in the country by generating, compiling and collating 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.

1.1 Functions of the Central Pollution Control Board

The main functions of CPCB, as spelt out in the Water (Prevention and Control of Pollution) Act, 1974, and the Air (Prevention and Control of Pollution) Act, 1981, are:

- (i) To promote cleanliness of streams and wells in different areas of the States through prevention, control and abatement of water pollution; and,
- (ii) To improve the quality of air and to prevent, control or abate air pollution in the country.
- (iii) To give directions, in the performance of its functions under these Acts: The Central Board shall be bound by such directions in writing as the Central Government may give to it.

In particular and without prejudice to the generality of the foregoing function, the Central Pollution Control Board may perform all or any of the following functions, namely:

- (a) Advise the Central Government on any matter concerning prevention and control of water and air pollution;
- (b) Co-ordinate the activities of the State Boards in compliance of the rules and regulations under the above referred Acts, and resolve disputes among them;

- (c) 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;
- (d) Plan and organise training of persons engaged in programmes for prevention, control or abatement of water and air pollution;
- (e) Organise through mass media, a comprehensive mass awareness programme on prevention, control or abatement of water and air pollution;
- (f) Collect, compile and publish technical and statistical data relating to water and air pollution and the measures devised for their effective prevention and control and prepare manuals, codes or guides relating to treatment and disposal of sewage and trade effluents as well as for stack gas cleaning devices, stacks and ducts and disseminate information;
- (g) Lay down, modify or annul, in consultation with the State Governments concerned, the standards for stream or well, and lay down standards for the quality of air;
- (h) Plan and cause to be executed a nation-wide programme for the prevention, control or abatement of water and air pollution;
- (i) Perform such other functions as may be prescribed.

1.2 Annual Report

According to Section 39 of the Water (Prevention & Control of Pollution) Act, 1974, the Central Pollution Control Board shall submit the Annual Report, during each financial year giving its activities undertaken in the previous financial year, and copies thereof to the Central Government within four months from the last date of the previous financial year, and the Government shall cause every such report to be laid before both Houses of Parliament within nine months from the last date of the previous year.

1.3 Delegation of Powers by Central Pollution Control Board

As per the policy decision of the Government of India, the Central Pollution Control Board, delegated its powers and functions from time to time under Section 4, Sub-section 4 of The Water (Prevention and Control of Pollution) Act, 1974 and Section 6 of the Air (Prevention and Control of Pollution) Act, 1981 with respect to various State Boards and Union Territories (**Annexure-I**) to respective State Pollution Control Boards / Committees.

Chapter II

Constitution of the Central Board

2.1 Constitution of the Central Board

According to the provisions of The Water (Prevention & Control of Pollution) Act, 1974, the Central Board consists of the following members:

- A full-time Chairman, being a person having special knowledge or practical experience in respect of matters relating to environmental protection or a person having knowledge and experience in administering institutions dealing with the matters aforesaid, to be nominated by the Central Government;
- Such number of officials, not exceeding five, to be nominated by the Central Government to represent Government;
- Such number of persons, not exceeding five, to be nominated by the Central Government, from amongst the members of the State Boards, of whom not exceeding two shall be from amongst the members of the local authorities;
- Such number of non-officials, not exceeding three to be nominated by the Central Government, to represent the interest of agriculture, fishery or industry or trade or any other interest which, in the opinion of the Central Government, ought to be represented;
- Two persons to represent the companies or corporations owned, controlled or managed by the Central Government, to be nominated by the Government; and
- A full-time Member Secretary, possessing qualifications, knowledge and experience of scientific, engineering or management aspects of pollution control, to be appointed by the Central Government.

2.2 Board Members of the Central Board

The list of Board Members of CPCB during the year 2020-21 is provided at **Annexure-II**. The organisation structure of the Central Pollution Control Board is provided at **Annexure-III**. Staff strength of CPCB as on March 31, 2021 is furnished in **Annexure-IV**.

Chapter III

MEETINGS OF THE CENTRAL POLLUTION CONTROL BOARD

3.1 Meetings of the Central Board

During the financial year April 1, 2020 to March 31, 2021, the following meetings of the Board were held:

S No	Meeting No	Date	Place
1	190 th Board Meeting	June 9, 2020	CPCB, Delhi via Virtual Conference
2	191 st Board Meeting	August 18, 2020	CPCB, Delhi via Virtual Conference
3	192 nd Board Meeting	January 20, 2021	CPCB, Delhi via Virtual Conference

3.2 Major Decisions taken by the Central Board

- Annual Action Plan for the Financial Year 2020-21 was approved by the Central Board for utilization of Grant-in- Aid amount of Rs. 100.00 Crore with priority focus on Delhi air quality management, overseeing implementation of Action Plans in 122 non-attainment cities and 61 high-concern polluted river stretches with focus on River Ganga, R&D solutions to COVID-19 challenges, establishing E-office system, implementation of waste management rules etc. The Annual Report 2019-20 was approved for submitting before the Parliament.
- CPCB has been delegated powers for recognizing environmental laboratories and government analysts under Section 12 and 13 of the Environment (Protection) Act, 1986 for the Government & Semi-Government Organizations and Public Sector Undertakings. The recommendations of the Expert Committee, the Board approved environmental laboratories of Kerala Pollution Control Board, Project & Development India Limited, Noida, Environment Management & Policy Research Institute, Karnataka, Maharashtra Pollution Control Board, and 12 government analysts for analysis of specified parameters.
- Based on the recommendations of the Expert Committee, substitution of the following government analysts of Central Laboratory, Telangana State Pollution Control Board, superannuated & transferred was approved by the Central Board.

- The Central Board has given in-principle approval to the proposal for levying charges for revenue generation.
- The proposal to allow Research Associate (RA), Junior Research Fellow (JRF), and Senior Research Fellow (SRF) at CPCB to pursue Ph.D at reputed academic institutes was approved.
- The Central Board has approved engagement of retired CPCB personnel through hiring from outsourcing agencies on requirement basis with certain terms and conditions.

3.3 Technical Reports and Activities of Central Board

- The Hon^{ble} National Green Tribunal (NGT) order, dated 19th March, 2020 in the matter of O.A. No. 462/2018, has directed that “The CPCB may coordinate with the concerned authorities, including the State Administration, for undertaking “Carrying Capacity Assessment” of at least one eco-sensitive area in a State, which may be thereafter replicated for all eco-sensitive areas in the next three months”. In compliance with the order, the report on “Assessment of Environmental Carrying Capacity of Eco-Sensitive Zone: Sanjay Gandhi National Park, Mumbai, Maharashtra” conducted by CSIR-NEERI was submitted.
- With the increasing environmental challenges, mounting public & judicial expectations, CPCB planned to transform existing Work Plans to meet growing complexities of pollution control through comprehensive planning and prudent action plan. With this objective, CPCB prepared „**Vision 2030**“ considering present capacities, strengthening needs and desired transformation goals.
- CPCB has formulated a standard procedure to perform all inspections, report preparation and actions delineate the inspection procedure, steps to be followed before, during and post-inspection, and report submission.
- Common Bio-Medical Waste Treatment Facility (CBMWTF) operators were directed to use COVID-19 Bio-Medical Waste Tracking App for effective Bio-Medical Waste Management.
- Smog tower is being constructed at Anand Vihar, an air pollution hotspot in Delhi, in compliance of the directions of the Hon^{ble} Supreme Court. This is a pilot project being executed for the first time in the country wherein Indian Institute of Technology (IIT), Bombay is the lead partner responsible for formulation, co-ordination and performance evaluation. IIT, Delhi has been associated with IIT, Bombay for co-ordination and performance evaluation of the smog tower.

- National Water Informatics Centre (NWIC), also termed as India Water Resources Information System, is a GIS-enabled centralized platform for water resources information including surface and groundwater data. CPCB has shared details of 4,294 monitoring locations under the National Water Quality Monitoring Programme and a working level team is planned to meet for devising mechanism for data transfer.
- An in-house App has been developed to track operational status, treatment of waste water quantity and quality of STPs. Communications have been sent to States to ensure up-linking to STP App and weekly uploading the dynamic information related to quantity and quality of sewage treated. Directions are also being issued to States and concerned agencies for mandatory installation of STP App and up-linking monitored data.
- During Maha Kumbh, monitoring was done between January-April, 2021 twice a day at six locations Rishikesh and Haridwar for Temperature, pH, Dissolved Oxygen and Colour. A dedicated laboratory has been established for analysis of samples at Bharat Heavy Electricals Limited (BHEL), Haridwar. Special monitoring was also done pre & post major bathing days at eight locations for various parameters.
- E-Office has been implemented in CPCB for paperless, effective and transparent working.

Chapter IV

COMMITTEES CONSTITUED BY THE BOARD & THEIR ACTIVITIES

4.1 Constitution of Expert Group in Central Board

Environmental degradation is a matter of serious concern. In view of emerging concerns, technical advancements and increased awareness, need was felt time and again for dedicated Expert Groups to advise on environmental management efforts, needed for providing Technical expertise. As a multi-dimensional approach and to broaden technical expertise of CPCB, Expert Groups have been constituted for the period from April, 2019 to March, 2021 comprising eminent experts from different thematic areas, which were given below:

1. Health Aspects of Air pollution
2. Vehicular Pollution Control
3. Satellite Based Air Quality Monitoring System
4. Management of Sewage & Sewerage System
5. Water Quality Management
6. Treatment, Storage & Disposal Facilities (TSDFs) - Captive & Common
7. E-Waste Management
8. Implementation of Hazardous and other Wastes (Management and Transboundary Movement), Rules, 2016
9. Environmental Damage Assessment

The members of these Experts Groups examine, advise and assist by way of technical inputs to CPCB on concerned issues.

Chapter V

WATER, AIR AND NOISE MONITORING NETWORK

5.1 National Water Quality Monitoring Network

Central Pollution Control Board (CPCB) in association with the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) have established water quality monitoring network under National Water Quality Monitoring Programme (NWMP). A Water quality monitoring network has been established at 4,294 locations across the country covering 28 States and 07 Union Territories (UTs). The State-wise water quality network under NWMP has been presented in **Table 5.1**.

Table 5.1
Status of Water Quality Monitoring Network State-wise under NWMP

S No	STATE/UT	RIVER	LAKE	TANK	POND	CREEK/ SEA/ COASTAL	CANAL	DRAIN	STP	GROUND- WATER	TOTAL
1	ANDHRA PRADESH	42	3	1	-	11	6	4	1	33	123
2	ARUNACHAL PRADESH	29	-	-	-	-	-	-	-	-	29
3	ASSAM	100	6	1	27	-	-	-	-	64	198
4	BIHAR	96	3	-	2	-	-	-	-	70	171
5	CHANDIGARH	-	1	-	-	-	-	3	-	7	11
6	CHHATTISGARH	29	1	-	1	-	-	-	-	8	39
7	DAMAN & DIU, DADRA & NAGAR HAVELI	13	-	-	-	-	-	-	-	12	24
8	DELHI	9	4	-	-	-	2	9	-	45	75
9	GOA	32	9	-	-	11	3	-	2	10	67
10	GUJARAT	67	20	1	2	3	3	-	2	89	187
11	HARYANA	22	3	-	1	-	14	1	-	29	73
12	HIMACHAL PRADESH	143	5	-	-	-	-	23	-	49	220
13	JAMMU & KASHMIR AND LADAKH	64	36	-	-	-	-	1	-	23	124
14	JHARKHAND	65	4	-	4	-	-	-	-	3	76
15	KARNATAKA	109	80	95	-	-	-	1	-	2	287
16	KERALA	75	16	-	2	-	3	-	1	34	131
17	LAKSHADWEEP	-	-	-	3	-	-	-	-	42	45
18	MADHYA PRADESH	158	22	1	12	-	-	-	-	54	247
19	MAHARASHTRA	162	-	-	-	34	-	10	-	50	256
20	MANIPUR	41	5	-	13	-	1	-	-	10	70
21	MEGHALAYA	64	7	-	-	-	-	-	-	13	84
22	MIZORAM	46	1	1	2	-	-	-	-	26	76

S No	STATE/UT	RIVER	LAKE	TANK	POND	CREEK/ SEA/ COASTAL	CANAL	DRAIN	STP	GROUND- WATER	TOTAL
23	NAGALAND	19	2	-	-	-	-	-	-	10	31
24	ODISHA	128	7	-	8	95	9	4	3	90	344
25	PUDUCHERRY	6	3	-	-	-	-	-	-	22	31
26	PUNJAB	59	3	-	3	-	-	10	8	46	129
27	RAJASTHAN	35	17	-	1	-	5	-	-	139	199
28	SIKKIM	16	-	-	-	-	-	-	3	-	19
29	TAMIL NADU	86	8	1	-	34	5	5	16	22	177
30	TELANGANA	55	85	37	13	-	-	13	11	45	259
31	TRIPURA	38	8	-	10	-	7	-	-	57	120
32	UTTAR PRADESH	115	2	-	2	-	1	-	-	40	160
33	UTTARAKHAND	39	2	-	-	-	4	-	3	19	69
34	WEST BENGAL	59	13	-	-	1	2	-	-	68	143
TOTAL		2021	376	138	106	189	65	84	50	1231	4294

5.2 Assessment of Water Quality of Major Rivers during Lockdown due to COVID

Government of India (GoI) had imposed a nation-wide lockdown since midnight of 24th March, 2020 as a preventive measure to restrict contagion's spread against the Coronavirus (COVID-19) infections and thereafter extended further. During the lockdown period, human activities were restricted and most of the activities came to a standstill. In view of the restrictions on industrial operations and industrial discharges reduced to the minimum in most of the areas, Central Pollution Control Board (CPCB) and SPCBs / PCCs has carried out a study on the water quality of 19 major rivers (namely the Beas, Brahmaputra, Baitani & Brahmani, Cauvery, Chambal, Ganga, Ghaggar, Godavari, Krishna, Mahanadi, Mahi, Narmada, Pennar, Sabarmati, Sutlej, Subarnarekha, Tapi and Yamuna) at the existing monitoring locations under National Water Quality Monitoring Programme (NWMP). However, all the existing monitoring locations under NWMP could not be monitored due to movement restrictions during lockdown which is a major constraint while carrying out sampling by the SPCBs / PCCs.

During the pre-lockdown period (March, 2020), 20 SPCBs have collected samples from 19 major rivers at 387 monitoring locations and 365 number of samples from the monitoring locations during lockdown (April, 2020). The collected samples were analyzed for the critical parameters viz. pH, Dissolved Oxygen (DO), Bio-chemical Oxygen Demand (BOD), Fecal Coliform (FC) and the results were compared with the Primary Water Quality Criteria for Outdoor Bathing notified under the Environment (Protection) Rules, 1986. The analysis results are presented in **Table 5.2**.

Table 5.2
Analysis Result of Water Samples (19 major Rivers) during March & April, 2020
(pre-lockdown & lockdown period)

S No	Parameter	No. of Water Samples complied with primary water quality criteria during March, 2020	No. of Water Samples complied with primary water quality criteria during April, 2020
1	pH	375 out of 387	355 out of 365
2	DO	351 out of 387	331 out of 365
3	BOD	315 out of 387	298 out of 365
4	FC	324 out of 387	299 out of 365
Analysis Results of Water Quality		299 out of 387 monitored locations complied (77.26%) complied with primary water quality criteria for outdoor bathing	277 out of 365 monitored locations complied (75.89%) complied with primary water quality criteria for outdoor bathing

Report on “Assessment of Impact of Lockdown on Water Quality of Major Rivers” has been released on the occasion of 46th Foundation Day of CPCB. Copy of the report has been uploaded in CPCB website at <https://cpcb.nic.in/upload/Assessment-of-Impact-Lockdown-WQ-Major-Rivers.pdf>. The overall observations of 19 major rivers monitored during Pre-lockdown (March, 2020) and Lockdown Period (April, 2020) are given below:

- Four rivers viz., Baitaani, Mahanadi, Narmada and Pennar showed 100% compliance with the Primary Water Quality Criteria for Outdoor Bathing during Pre-lockdown and lockdown period.
- River Ghaggar failed to comply with the Primary Water Quality Criteria for Outdoor Bathing during Pre-lockdown and lockdown periods.
- Water quality of two rivers viz. Sabarmati (55.6%) and Mahi (92.9%) remains unchanged in terms of compliance to Primary Water Quality Criteria for Outdoor Bathing during pre-lockdown and lockdown.
- Improvement in water quality w.r.t. Primary Water Quality Criteria for Outdoor Bathing was noticed in case of 7 rivers, given in **Table 5.3**.

Table 5.3
Improvement in Water Quality of Rivers w.r.t. Primary Water Quality for Outdoor Bathing

S No.	Name of River	Improvement in Water Quality in compliance with bathing criteria limits (%)
1	Brahmani	85 to 100
2	Brahmaputra	87.5 to 100
3	Cauvery	90.5 to 96.97
4	Godavari	65.8 to 78.4
5	Krishna	84.6 to 94.4
6	Tapi	77.8 to 87.5
7	Yamuna	42.8 to 66.67

- It has been observed from the above Table that improvement in compliance with the bathing criteria limits may be attributed to: (i) minimal industrial effluent discharges in view of closure of almost all industries. (ii) no human activities involving disposal of worshipped pooja materials and garbage (iii) no anthropogenic activities, such as outdoor bathing, washing of clothes, vehicle washing and cattle washing, no pilgrimage activities etc. during lockdown phase and (iv) the cattle movement also reduced considerably lowering biological contamination of surface water bodies.
- Water quality was deteriorated during the lock-down period in case of following five rivers which may be attributed to (i) discharge of untreated or partially-treated sewage; (ii) pollutant concentrations are usually at their highest levels due to negligible dry season flow; and (iii) no fresh water discharges from the upstream.

Table 5.4
Deterioration of Water Quality of Rivers w.r.t. Primary Water Quality for Outdoor Bathing

S No.	Name of River	Deterioration of Water Quality in compliance with bathing criteria (%)
1	Beas	100 to 95.45
2	Chambal	75 to 46.15
3	Ganga	64.6 to 46.2
4	Sutlej	87.1 to 78.3
5	Swarnarekha	80 to 53.33

- Complete compliance in Water Quality was observed during lockdown w.r.t. Primary Water Quality Criteria for Outdoor Bathing in case of 6 rivers (Baitaani, Brahmani, Brahmaputra, Mahanadi, Narmada and Pennar) which may be attributed to availability of adequate infrastructure for management of sewage in the catchment of the respective river bodies and might had adequate dilution.

Table 5.5
Complete Compliance in Water Quality of Rivers w.r.t. Primary Water Quality for Outdoor Bathing

S No.	Name of River	Complete compliance of Water Quality with bathing criteria limits (%)
1	Baitaani	100
2	Brahmani	100
3	Brahmaputra	100
4	Mahanadi	100
5	Narmada	100
6	Pennar	100

5.3 Impact of Lockdown on Water Quality of Yamuna River within Delhi Stretch

Impact of lockdown on water quality of river Yamuna (Delhi stretch) was also carried out during lockdown in March, 2020. Detailed report is available on the link at <https://cpcb.nic.in/openpdffile.php?id=TGF0ZXN0RmlsZS9fMTU4ODMzNzk1OF9tZWRpYXBob3RvODg4LnBkZg>. Water quality of river Yamuna and Drains within Delhi stretch are given in the Tables 5.6 & 5.7.

Table 5.6
Water Quality of River Yamuna

(March, 2020 (Pre-lockdown) and April, 2020 (Lock down))

Parameters	Primary Water Quality Criteria for Outdoor Bathing Notified Under E(P) Rules, 1986	Water quality of Yamuna	
		Pre-Lockdown	Lockdown
Location : Palla			
pH	6.5-8.5	8.7	7.8
Conductivity (µs/cm)	-	668	273 (-59.18 %)
DO (mg/l)	5	17.1	8.3 (-51.46 %)
BOD (mg/l)	3	7.9	2 (-74.60 %)
COD (mg/l)	-	28	6 (-78.57 %)
Location: Nizamuddin Bridge			
pH	6.5-8.5	7.3	7.2
Conductivity (µs/cm)	-	1369	460 (-66.40 %)
DO (mg/l)	5	Not Detectable	2.4
BOD (mg/l)	3	57	5.6 (-90.18%)
COD (mg/l)	-	90	16(-82.22%)
Location: Okhla Barrage u/s			
pH	6.5-8.5	7.2	7.1
Conductivity (µs/cm)	-	861	488 (-43.32 %)
DO (mg/l)	5	ND	1.2 (Increase)
BOD (mg/l)	3	27	6.1 (-77.41 %)
COD (mg/l)	-	95	18 (81.05 %)
Note: **Pre lockdown (March 04, 2020)		***Lockdown (April 06, 2020)	

Table 5.7

Water Quality of Drains
March, 2020 (Pre-lockdown) and April, 2020 (Lockdown)

Parameters	Water Quality of Drains	
	Pre-Lockdown	Lockdown
Location: Najafgarh Drain		
pH	7.3	7.3
SS (mg/l)	152	106 (-30.26 %)
BOD (mg/l)	78	55 (-29.49 %)
COD (mg/l)	271	150 (-44.65%)
Conductivity (µs/cm)	-	1501
Location: Shahdara Drain		
pH	7.1	7.2
SS (mg/l)	464	305 (-34.27 %)
BOD (mg/l)	163	89 (-45.4 %)
COD (mg/l)	574	383 (-33.28%)
Conductivity (µs/cm)	-	1,657
Note: **Pre lockdown (March 04, 2020) 06,.2020)		
***Lockdown (April		

Water samples were collected from river Yamuna during lockdown and water quality of major drains contributing to pollution within Delhi. It reveals that:-

- (i) Water sample collected at Palla complied with Primary Water Quality Criteria for Outdoor Bathing, whereas the other two locations (Nizamuddin Bridge & Okhla Barage u/s) were not complied with Primary Water Quality Criteria for Bathing.
- (ii) Decreasing trend was observed w.r.t. BOD & COD and increasing trend was observed w.r.t. DO at the monitored locations (except Palla).
- (iii) Decreasing trend in water quality (w.r.t. Suspended Solids, BOD and COD) of two drains (Nazafgarh and Shahdara drains) was observed during April, 2020.

Main reasons for change in water quality of river Yamuna was due to

- (i) Release of fresh water from Wazirabad Barrage helped in dilution of drain water;
- (ii) Availability of dilution helped in self-purification at d/s of river Yamuna;
- (iii) No industrial effluent discharge (about 35.9 MLD in Delhi) both in u/s & d/s and in Delhi due to lockdown;

- (iv) Improvement in physical visibility due to good penetration of solar light, and
- (v) No human activity such as throwing of Pooja materials, Solid Waste disposal, bathing, washing of clothes etc. apart from closure of industries (both in u/s, and in Delhi) due to the on-going lockdown due to COVID-19 pandemic.

5.3.1 Investigation on Foam Formation in River Yamuna downstream of Okhla Barrage

Phenomena of foam formation in river Yamuna is observed occasionally due to discharge of improperly treated or untreated sewage or industrial effluents containing detergents or surfactants, such as laundry chemicals & cleaning or washing agents. Generally, detergents contain phosphates (Sodium tri-poly-phosphate) released from households or laundry or other industrial operations. The phosphoric compounds get settled in the form of sludge on the river bed. During monsoon or when there is a sudden change in gradient of a water body, due to agitation and turbulence, the phosphoric compounds present in the water body get agitated forming piles of foam.

Samples for water quality were collected (**Fig. 5.1**) at four locations viz Wazirabad Barrage (u/s), ITO Bridge, Nizamuddin Bridge and Okhla Barrage (d/s) to ascertain the causes for formation of foam in the river Yamuna.



Fig 5.1
Foam observed on d/s Okhla Barrage on 25th July, 2020

The river samples were analysed for the physico-chemical parameters viz., pH, DO, Conductivity, COD, BOD, Chloride, PO₄-P, Anionic Surfactant- Methylene Blue Active Substances (MBAS), Ammonical Nitrogen and bacteriological parameters of Total and Faecal Coliform are given in **Table 5.8**.

Table 5.8

Water Quality of River Yamuna during July, 2020 (25.07.2020)

Location → Parameters ↓	Wazirabad (u/s)	ITO	Nizamuddin Bridge	Okhla Barrage (d/s)
pH	7.7	7.2	7.2	7.4
DO (mg/l)	8.0	Nil	Nil	5.6
Conductivity (µmho/cm)	483	1070	1069	967
COD (mg/l)	27	45	52	37
BOD (mg/l)	4.9	12	15	11
Chloride (mg/l)	53	155	157	132
PO ₄ -P (mg/l)	BDL	0.4	0.4	0.8
Anionic Surfactant- MBAS (mg/l)	BDL	1.28	1.23	1.37
Ammonical Nitrogen-N (mg/l)	2.6	4.6	9.7	9.8
Total Coliform (MPN/100 ml)	13 X10 ²	54X10 ⁵	24 X10 ⁵	14 X10 ⁵
Faecal Coliform (MPN/100 ml)	45	33X10 ⁴	41 X10 ⁴	26 X10 ⁴

Analysis results of the samples from river Yamuna reveal the following:

- At the four monitored locations, the analyzed parameters were in the order of pH (7.2 to 7.4), DO (Nil to 8 mg/l), Conductivity (483 to 1070 µmho/cm), COD (27 to 52 mg/l), BOD (4.9 to 15 mg/l), Chloride (53 to 157 mg/l), PO₄-P (BDL to 0.8 mg/l), Anionic Surfactant-MBAS (BDL to 1.37 mg/l) (Methylene Blue Active Substances) and Ammonical Nitrogen (2.6 to 9.8 mg/l)
- Maximum concentrations of BOD (15 mg/l), COD (52 mg/l) and Chloride (157 mg/l) were observed at Nizamuddin Bridge.
- There was depletion of dissolved oxygen level in river Yamuna till Okhla barrage due to demand for DO from organic matter or discharge of untreated sewage or other effluents into the Yamuna waters. However, improvement in DO level was observed at d/s Okhla Barrage and this location was complying to parameter DO prescribed under bathing criteria notified under Environment (Protection) Rules, 1986.

- Anionic Surfactant- MBAS concentration was observed as 1.28 mg/l at ITO, 1.23 mg/l at Nizamuddin Bridge and 1.37 mg/l at Okhla Barrage. Presence of Phosphates and Anionic Surfactants was observed in the order of 0.4 to 0.8 mg/l and 1.23 to 1.37 mg/l, respectively between ITO and downstream side of Okhla Barrage.
- Water quality for biological parameter, i.e. FC, was observed as 45 MPN/100ml at Wazirabad u/s, 33×10^4 MPN/100ml at ITO, 41×10^4 MPN/100ml at Nizamuddin and 26×10^4 MPN/100ml at Okhla d/s. Maximum FC was observed at Nizamuddin Bridge which clearly indicates discharge of untreated sewage, within Delhi stretch of river Yamuna.

Consumption of detergents or foaming agents has been increased due to awareness of public to maintain cleanliness by an individual as a safety measure to protect from COVID-19 infection. Also, there has been sharp increase in consumption of detergents by the general public apart from commercial activity (dry cleaners) for the purpose of washing of clothes.

Based on the analysis results, it can be concluded that presence of surfactants and phosphates was observed at three monitored locations between d/s Wazirabad and d/s Okhla Barrage which indicates discharge of untreated sewage or partially treated sewage or industrial effluent containing laundry chemicals. Also, due to sudden fall of water from Okhla barrage, the surfactants and foaming agents present in the wastewater or in the sludge on the river bed get agitated and thereby forming piles of foam especially at Okhla Barrage downstream.

Entire sewage generated from the stretch of Delhi is still to be provided with adequate treatment. Surfactants released from households or commercial establishments get biodegraded in Sewage Treatment Plants and thus foam formation in river Yamuna is expected to be negligible.

5.3.2 Monitoring of Ammonical Nitrogen in river Yamuna

Main sources of pollution in river Yamuna (till Wazirabad) include: (i) discharge of untreated / partially-treated sewage from towns located in Haryana viz. Yamunanagar, Jagadhari, Karnal, Panipat & Sonapat, mainly from Dhanurea Escape (from Yamuna Nagar), Drain No.2 (from Panipat), Drain No. 6 (from Sonapat) and Drain No. 8 as well as discharges from unsewered colonies between Palla and Wazirabad (ii) Discharge from industrial units-Fertiliser, Dyeing and Tannery units located at Panipat, Sonapat, Kundli and Karnal Industrial area, (iii) STPs and CETPs not complying to the discharge norms, (iv) lean flow in the river except during monsoon and the accumulated sludge in the river bed.

Assessment of water quality of River Yamuna at 7 locations and major drains in u/s of Wazirabad carried out during 7-13th January, 2021 revealed that (i) Dhanurea Escape, Panipat Drain, and Drain No. 2 are discharging Ammonical Nitrogen ($\text{NH}_3\text{-N}$) between 13-42 mg/l, (ii) Impact of Dhanurea Escape and Panipat Drain gets assimilated at Sonapat, (iii) Ammonical Nitrogen ($\text{NH}_3\text{-N}$) again rises from 1.5 mg/l at Palla to 3.0 mg/l at Wazirabad.

Water Quality Assessment of river Yamuna by CPCB under NWMP also reveals that (i) There is occasional rise in ammonia levels in river Yamuna at Wazirabad barrage especially in the months of January, October and December; (ii) Water Treatment Plants (WTPs) stop water intake from Wazirabad barrage when Ammonical Nitrogen reaches the level of 0.9 mg/l, as the Water Treatment Plants operated by Delhi Jal Board are not having adequate preliminary treatment facilities to handle such raw water.

Haryana, Delhi and UP are presently implementing the action plans approved by CPCB task team for rejuvenation of river Yamuna in compliance to Hon^{ble} NGT directions passed in O.A. No. 673 of 2018 and O.A. No. 6 of 2012. There is a need to take short term and long term measures both by Haryana and Delhi States to resolve the issue of Ammonical Nitrogen in river Yamuna.

5.4 National Ganga River Basin Authority

The Central Government has set up the „National Ganga River Basin Authority“ (NGRBA) vide gazette notification dated 20th Feb, 2009 as a collaborative institution of Central and State Governments under the Environment (Protection) Act (EPA) of 1986 for abatement of pollution of River Ganga. National Mission for Clean Ganga (NMCG) was registered as a society on 12th August, 2011 under the Societies Registration Act 1860. It acted as implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the EPA, 1986.

Further, NGRBA has been reconstituted in September, 2014 and again same has been dissolved with effect from the 7th October, 2016, consequent to constitution of National Council for River Ganga (Rejuvenation, Protection and Management) (referred as NCRG), vide notification no. S.O. 3187(E), dated 7th October, 2016 under EPA 1986. There are three projects being carried out under the Namami Gange Programme (NGP), which are given in **Table 5.9**.

Table 5.9
Details of Projects under NGRBA

S No.	Project	Funding Agency	Project Duration	Total Budget (Rs. Crore)
1	Pollution Inventorization, Assessment and Surveillance on River Ganga (PIAS)	MoEF & CC	5 years	34.77
			3 months	NIL
		MoWR, RD & GR	1 year (Revised)	3.8
		MoWR, RD & GR	3 months	NIL
		NMCG, MoWR, RD & GR	3 years (29.09.2017-28.09.2020)	83.25
		NMCG, MoWR, RD & GR	6 months (up to 25 th March, 2021)	
		NMCG, Department of WR, RD & GR, Ministry of Jal Shakti	1 Year (up to 25 th March, 2022)	
	PIAS (Revised)		Proposed for 3 years	-
2	Water Quality Monitoring (WQM) System for River Ganga-Phase I	The World Bank (through NMCG)	7 years (19.06.2013-18.06.2020)	94.45
	WQM Phase-II		6 years (20.06.2020-19.06.2026)	126.17
3	Strengthening of Environmental Regulators (SER)	The World Bank (through NMCG)	8 years (19.06.2013-18.06.2021)	69.26
	SER (Revised)		Proposed for 5 years	-

5.4.1 Pollution Inventorization, Assessment & Surveillance on River Ganga (PIAS)

The “Pollution, Inventorization, Assessment & Surveillance on River Ganga (PIAS)” project was sanctioned by the MoEF&CC at a cost of Rs 34.77 crores during year 2011 for 5 years. Further, Pollution, Inventorization, Assessment & Surveillance on River Ganga (PIAS) project was extended for one year up to 28.09.2017. The project was completed and the completion report was submitted to NMCG. Recently “Pollution Inventorization Assessment and Surveillance on River Ganga (PIAS)” project was extended for one year by NMCG with additional cost for inspection of GPIs in Yamuna basin up to March, 2022.

A new project entitled “Pollution, Inventorization, Assessment & Surveillance on River Ganga under Namami Gange” was sanctioned during year 2017 at a cost of Rs. 42.9 Crore for four years by the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD & GR).

Under these projects, different activities have been carried out under monitoring, surveillance of water quality of river Ganga from its origin to confluence with Bay of Bengal, such as in-depth inspection of Grossly Polluting Industries (GPIs), monitoring of Sewage Treatment Plants (STPs), Common Effluent Treatment Plants (CETPs), Ground water monitoring to assess the impact of CETPs/STPs and major drains falling into the river Ganga and its tributaries, like river Banganga, Ramganga, river Kali East, river Pandu & Hindon sub-basin (river Hindon, Kali–West and Krishna).

The objective of the project is to inventorize the pollution sources (both point and non-point) and to assess the pollution load being discharged into the river Ganga directly or indirectly through tributaries, namely Banganga, Ramganga, Kali-East and Pandu. The activities carried out under the project during April, 2020-March, 2021 are given in **Table 5.10**.

Table 5.10**Inspections / Monitoring under PIAS Project during 2020-21**

S. No.	Activities	No. of inspections/ monitoring	Frequency of monitoring
1.	Compliance verification of Grossly Polluting Industries (GPIs) (by CPCB)	26*	Yearly
2.	Compliance verification of Grossly Polluting Industries (GPIs) (through Third party technical institutes)	2,357 (Ganga basin including Yamuna) + 258 [#] (Hindon sub-basin)	Yearly
3.	Adequacy Assessment of Common Effluent Treatment Plants (CETPs) & Common Chrome Recovery Unit (CCRU)	20 ^{##}	Quarterly
4.	Performance evaluation of Sewage Treatment Plants (STPs)	256	Quarterly
5.	Periodic Pollution assessment of major drains falling into the river Ganga	401	Half-yearly
Note: * All GPIs were inspected under NGT direction # Out of 383 inventorized GPIs in Hindon Sub-basin in 2019, 258 GPIs were during 2020-21, whereas rests were already inspected during 2019-20. ## due to nation-wide lockdown cause of Covid-19, some of the inspection/monitoring could not performed during 1 st and 2 nd quarter of the year 2020-21.			

The detail of inspections / monitoring of the above activities are presented below point-wise:

5.4.2 Compliance Verification of Grossly Polluting Industries (GPIs)

Inspection of GPIs through Third Party Technical Institutes (TPIs) is being carried out every year since 2017. The inventory of GPIs operating in river Ganga main stream States, river Yamuna & its tributaries and Hindon sub-basin are presented in **Table 5.11**.

Table 5.11**Inventory of GPIs in River Ganga Basin, Yamuna and Hindon Sub-basin**

No. of GPIs in river Ganga main stream States	No. of GPIs in river Yamuna & its tributaries	No. of GPIs in Hindon sub-basin	Total No. of GPIs (Ganga, Yamuna & Hindon)
1,080	1,277	383	2, 740

The State and sector-wise lists of GPIs are attached at **Tables 5.12, 5.13 & 5.14.**

Table 5.12

Inventory of 1,080 GPIs in river Ganga main stem State & Sector-wise during 2020

Sector	Bihar	Jharkhand	Uttar Pradesh	Uttarakhand	West Bengal	Grand Total
Chemical	0	1	10	2	2	15
Distillery	9	1	55	3	3	71
Fertilizer	0	0	6	0	1	7
Food & Beverages	16	1	46	5	8	76
Oil & Refinery	1	0	0	0	1	2
Others	1	2	28	7	10	48
Pesticide	0	0	2	0	1	3
Petrochemical	0	0	0	0	3	3
Pharmaceuticals	0	0	2	1	1	4
Pulp & Paper	6	0	46	29	19	100
Slaughter House	4	0	23	0	0	27
Sugar	11	0	107	5	2	125
Tannery	2	0	400	0	0	402
Textile	3	0	188	3	3	197
Grand Total	53	5	913	55	54	1,080

Table 5.13

Inventory of 1,277 GPIs in river Yamuna basin (State & Sector- wise) during 2020

Sector	Delhi	Haryana	Uttar Pradesh	Uttarakhand	Grand Total
Chemical	0	5	0	0	5
Distillery	0	12	3	0	15
Fertilizer	0	1	0	0	1
Food & Beverages	3	51	30	0	84
Oil & Refinery		1	1	0	2
Pesticides	0	0	0	1	1
Petrochemical	0	1	1	0	2
Pharmaceutical	0	7		0	7
Pulp & Paper	0	5	10	0	15
Slaughter House	2	0	20	0	22
Sugar	0	6	5	0	11
Tannery	1	18	7	0	26
Textile	50	319	85	0	454
Others	211	406	15	0	632
Grand Total	267	832	177	1	1,277

Table 5.14**Inventory of 383 GPIs in river Hindon sub-basin (State & Sector-wise) during 2020**

Sector	Uttar Pradesh	Uttarakhand	Total
Distillery	8	0	8
Food, Dairy & Beverages	6	2	8
Pharmaceuticals	1	0	1
Pulp & Paper	47	5	52
Slaughter House	13	0	13
Sugar	13	2	15
Tannery	8	0	8
Textile	274	0	274
Others	4	0	4
Total	374	09	383

5.4.3 Compliance Verification of Grossly Polluting Industries (GPIs) through Third Party Institute

Fourth round of inspections of GPIs were carried out by 18 Third Party Institutes (TPIs) during October, 2020 to March, 2021 and actions were taken by seven respective SPCBs / PCC (Uttarakhand, Uttar Pradesh, Haryana, Delhi, Jharkhand, Bihar & West Bengal). During the inspections, it was observed that out of 2,740 GPIs (Ganga+Yamuna+Hindon), the status is as follows:

- 1515 GPIs were found complying
- 595 GPIs were found non-complying
- 409 GPIs were found temporary closed
- 221 GPIs were found permanently closed.
- Among 595 non-complying GPIs, concerned SPCBs/PCC issued closure directions to 36 GPIs and show-cause notices to 559 GPIs. State-wise action taken status on GPIs (river Ganga and Yamuna basin including Hindon sub basin) is depicted in **Table 5.15**.

Table 5.15**Status of action taken by SPCBs for GPIs (Ganga Basin, Yamuna basin and Hindon sub-basin)**

S. No.	State	Total No. of GPIs	GPIs on which Action Completed	Complying GPIs	Temporary Closed GPIs	Permanent Closed GPIs	Non Complying GPIs	
							Show Cause Notice issued	Closure Direction issued
1	Bihar	53	53	42	5	0	6	0
2	Uttar Pradesh	1464	1464	856	261	51	262	34
3	Uttarakhand	65	65	54	6	1	4	0
4	West Bengal	54	54	31	8	0	15	0
5	Jharkhand	5	5	4	0	0	1	0
6	Haryana	832	832	391	104	117	219	1
7	Delhi	267	267	137	25	52	52	1
Total		2,740	2,740	1,515	409	221	559	36

5.4.4 Status of Adequacy Assessment of Common Effluent Treatment Plants (CETPs)

There are 8 Common Effluent Treatment Plants (CETPs) inventorized which are located on the bank of river Ganga or its tributaries affecting the water quality of river Ganga directly or indirectly. The list of CETPs is given below:

1. CETP Leather Technology Park, Banthar, Unnao, Uttar Pradesh
2. CETP at UPSIDC Industrial Area, Site – II, Unnao, Uttar Pradesh
3. CETP at Jajmau, Kanpur, Uttar Pradesh
4. CETP Rooma Industrial Area, Kanpur, Uttar Pradesh
5. CETP Textile Center, Pilkhuwa, Uttar Pradesh
6. CETP Sitarganj, Uttarakhand
7. IIE SIDCUL CETP, Pant Nagar, Uttarakhand
8. CETP SIDCUL, Haridwar, Uttarakhand

Monitoring has been done in 08 CETPs during April, 2020 to March, 2021. Out of 08 CETPs, 01 CETP was found complying and 07 CETPs were non-complying. Overall status of inspection of CETPs is mentioned in **Table 5.16**.

Table 5.16

Updated Status of CETPs in Ganga Main stream (2020-21)

CETP Name/ District	Coordinates (Lat/Long)	Installed Capacity (Mld)	Utilized capacity (Mld)	Type of Units (Operational member Units)*	Technology	Compliance status/ date of monitoring
CETP Jajmau Kanpur, UP	26.417256, 80.421362	36 (09 industrial + 27 sewage)	34.35	Tannery (345)	UASB	Latest inspection: 12.03.2021 Compliance status: Non-complying w.r.t. TSS (135 mg/l against norm-100 mg/l), BOD (160 mg/l against norm-30 mg/l), COD (672 mg/l against norm-250 mg/l) and sulphide (37.76 mg/l against norm-2 mg/l)
CETP, Site-II, Unnao Unnao City, UP	26.559445, 80.513877	2.15	0.56-0.998 (February, 2021) and 0.64-0.997 (March, 2021)	Tannery (15)	ASP with Extended aeration	Latest inspection: 15.03.2021 Compliance status: Non-complying w.r.t. Sulphide (11.52 mg/l against norm-2 mg/l) and Oil & Grease (18.5 mg/l against norm-10 mg/l)
CETP, Banthar Unnao, UP	26.483555, 80.460844	4.5	22.06-30.67 (01.03.2021 to 14.03.2021)	Tannery (27)	ASP with Extended aeration	Latest inspection: 15.03.2021 Compliance status: Non-complying w.r.t. chloride (3200 mg/l against norm-1000 mg/l), sulphide (30.08 mg/l against norm-2 mg/l), COD (560 mg/l against norm-250 mg/l) and BOD (950 mg/l against 140 mg/l)
CETP, Pantnagar (SIDCUL) US Nagar, UK	28.994201, 79.412901	4.0	1.3-2.1	Mixed type industries (300)	ASP	Latest inspection: 23.03.2021 Compliance status: Complying
CETP SIDCUL, Haridwar, UK	29.947136, 78.080008	5.2	4.5	Mixed type industries (511)	MBBR & extended aeration system	Latest inspection: 17.03.2021 Compliance status: Non-complying w.r.t. BOD (64 mg/l against norm-30 mg/l)
CETP, Sitarganj US Nagar, UK	29.026727, 79.693992	3.8 (as per consent)	1.3-1.9	Mixed type industries (agro based and engineering) (67)	ASP	Latest inspection: 22.03.2021 Compliance status: Non-complying w.r.t. Ammoniacal Nitrogen-66 mg/l (against norm-50 mg/l) and Cyanide-0.28mg/l (against norm-0.2 mg/l)
CETP, Rooma Kanpur, UP	26.366985, 80.425640	1.55	0.489 (February, 2021)	Textile (11 operational)	ASP	Latest inspection: 04.03.2021 Compliance status: Non-complying w.r.t. BOD (88 mg/l against norm-30 mg/l), COD (352 mg/l against norm-250 mg/l), FDS (5388 mg/l against norm-2100 mg/l) and sulphide (124 mg/l against

CETP Name/ District	Coordinates (Lat/Long)	Installed Capacity (Mld)	Utilized capacity (Mld)	Type of Units (Operational member Units)*	Technology	Compliance status/ date of monitoring
						norm-2 mg/l)
CETP, Pilakhuwa Hapur, UP	28.700674, 77.672084	2.1	1	Textile (30 operational)	ASP	Latest inspection: 22.03.2021 Compliance status: Non- complying w.r.t. TSS-108 mg/l (against norm-100 mg/l), BOD-107 mg/l (against norm- 30 mg/l), COD (382 mg/l (against norm-250 mg/l), FDS-2616 mg/l (against norm-2100 mg/l), Nitrate- 19.3 mg/l (against norm-10 mg/l), Ammoniacal Nitrogen- 95 mg/l (against norm-50 mg/l), and Iron-3.63 mg/l (against norm-3 mg/l)

*Operational numbers may vary. Action on non-complying CETPs are under process.

5.4.5 Status of Performance Evaluation of Sewage Treatment Plants (STPs)

There are 120 Sewage Treatment Plants (STPs) inventorized which are located at the bank of river Ganga or its tributaries affecting the water quality of river Ganga directly or indirectly.

A total of 256 monitoring were conducted during 2020-21. The latest status of STPs monitored is given in **Tables 5.17** and **5.18**.

Table 5.17

State-wise STP Status and Sewage generation in front towns of Ganga

State	Approx. sewage Generation in Ganga front towns (Mld)	Towns covered	Total STPs installed monitored	Installed capacity of monitored STP (Mld)	Operational Capacity (Mld)	Utilized Capacity (Mld)	Non- operational Capacity (Mld)
Uttarakhand	239.8	16	49	344.64	336.32	226.62	8.3
Uttar Pradesh	1,255.2	10	30	1,137.76	1,080.1	814.67	57.7
Bihar	480.0	01	05	205	160	64	45
Jharkhand	12.0	01	02	12	12	07	00
West Bengal	1,571.5	22	34	535.67	226.99	185.22	308.68
Total	3,558.5	50	120	2,235.07	1,815.41	1,297.51	419.68

Table 5.18

State-wise Compliance Status of STPs in Ganga front Towns

State	Total STPs monitored	Operational	Non-operational	Complying	Non-complying
	(A=B+C)	(B=D+E)	(C)	(D)	(E)
Uttarakhand	49	44	05	08	36
Uttar Pradesh	30	27	03	01	26
Bihar	05	04	01	00	04
Jharkhand	02	02	00	00	02
West Bengal	34	14	20	00	14
Total	120	91	29	09	82
Note: Status update based on latest reports received. Compliance status based on new standards as per NGT order dated 30.04.2019. (pH: 5.5- 9.0; BOD: 10 mg/l; TSS: 20 mg/L; COD: 50 mg/L; Total Nitrogen: 10 mg/L; Total Phosphorus (for discharge into ponds and lakes): 01 mg/L; Faecal Coliform: Desirable limit 100 MPN/100 ml, Permissible limit 230 MPN/100ml)					

5.4.6 Major Observations of Sewage Treatment Plants

- Presently one STP in Rajmahal town of Jharkhand is under construction with 3.5 Mld designed capacity. Two STPs in Sahibganj town with total capacity of 12 Mld have been commissioned and operational.
- As reported, 52 STPs are to be installed in Bihar wherein four STPs are reported operational in Patna, Bihar with total designed capacity of 160 Mld, one STP is non-operational and to be demolished/decommissioned whereas 47 STPs are at different stages of construction/under tendering/ proposed in Bihar.
- The highest number of non-operational STPs are reported from West Bengal, where 20 STPs were found non-operational with treatment capacity of 308.7 Mld out of the 34 STPs having total installed capacity of 535.67 Mld.
- In Bihar and West Bengal most of the STPs are either under upgradation or under construction as part of Namami Gange Programme.
- The rehabilitation/construction work of STPs under Namami Gange Programme is undertaken by NMCG in coordination with State Program Management Group (SPMG) & Local Authorities in respective states.

- The total utilized capacity of STPs, is reported to be around 58% i.e. 1,297.51 Mld which being utilised against installed capacity of 2,235.07 Mld. During recent inspection, the utilized capacity w.r.t. 91 operational STPs having 1815.4 Mld treatment capacity, is reported to be around 71 %.
- However, actual utilized capacity reported may vary as the utilized capacity of many STPs is not available because of non-maintenance of logbook or absence of flow meter at inlet / outlet. The optimum utilized capacity of all the installed capacities could only be achieved after achieving the 100% targeted connection of household sewerage line in the area covered by the STPs as well as proper pumping of sewage to reach the STPs.
- The Hon^{ble} NGT in its order, dated 21.12.2018 in the matter of O.A. no. 1069/2018 order, granted stay on notified discharge standard for Sewage Treatment Plants, and directed that pre-revised standard will prevail, Vide order, dated 30th April, 2019, NGT accepted the standards recommended by Expert Committee with the modification that the standard recommended for Mega and Metropolitan Cities will also apply to the rest of the country, and shall be restricted not only to the new STPs but also for existing / under construction STPs without any delay where standard proposed for faecal coliform for Mega and Metropolitan Cities is less than 100 MPN/ml.
- On the basis of new standards notified as per NGT order, dated 30.04.2019, out of 91 operational STPs, 82 STPs were found non-complying and 09 STPs were complying.

5.5 Action taken for Ganga Basin

Besides carrying out extensive monitoring of STPs and increasing the frequency of monitoring, CPCB has recommended „Environmental Compensation” for the direct discharge from drains into river Ganga in the 5 Ganga States were calculated from 1st November, 2019 to 31st January, 2020. Directions were issued under Section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 to the State Pollution Control Boards (SPCBs) of the five Ganga basin states (Uttarakhand, Uttar Pradesh, Bihar, Jharkhand & West Bengal) that no Authority shall allow the discharge of polluted sewage or polluted effluents directly into a water channel or stream even during monsoon season.

)) "%`Status of Pollution Assessment of Major Drains falling into River Ganga

Drains which are discharging directly into main stream of river Ganga and its tributaries (Banganga, Ramganga, Kali East & Pandu) and having flow rate ≥ 1 MLD is considered as priority drain. Total 235 drains were identified and total 212 drains were considered as priority drains. Out of 235 identified drains, 173 drains were in river Ganga and 62 drains in tributaries, like Banganga, Ramganga, Kali East and Pandu river. While out of 212 priority drains, 154 drains were in river Ganga and 58 drains were found discharge into tributaries, like in Banganga, Ramganga, Kali East and Pandu river.

During 2020-21, monitoring of 401 drains was conducted. Additional inspections were also carried out under PMO direction on weekly basis & during Magh Mela 2020 programme.

Joint monitoring of 212 priority drains discharging into the river Ganga has been carried out and its tributaries (Banganga, Ramganga, Kali East & Pandu) from Gangotri to Bay of Bengal during Post-Monsoon in 2020 under PIAS project. The status of monitored drains is mentioned in **Table 5.19**.

Table 5.19
State-wise status of monitored drains discharging into river Ganga & its tributaries in 2020-21

Ganga Basin State	No. of Monitored Priority Drain	Pre-Monsoon, 2021	Status of priority drains of post-monsoon monitoring, 2020							
		Not monitored due to nationwide lockdown	Flow (Mld)	BOD Load (TPD)	Tapped Drain	Untapped Drain	Dry Drain	STP Outlet Drain	Interim Measures Adopted drain	Eutrophication
Uttarakhand	16		129.28	0.81	09	02	02	03	-	Nil
Uttar Pradesh	60		1445.71	40.34	23	30	01	02	04	Nil
Bihar	19		609.48	9.09	Nil	11	01	Nil	07	Nil
Jharkhand	02		1.96	0.42	01	01	Nil	Nil	Nil	Nil
West Bengal	56		6625.95	169.78	03	52	Nil	Nil	01	Nil
Total-A	153				36	96	04	05	12	Nil
States (Tributaries)										
Uttarakhand (Sukhi & Banganga)	02	Not monitored due to nationwide lockdown	169.17	0.50	Nil	01	Nil	Nil	Nil	01
Uttar Pradesh (Ramganga)	25		497.37	32.00	01	22	01	Nil	Nil	Nil
Uttar Pradesh (Kali East)	26		1334.16	193.68	Nil	25	01	Nil	Nil	Nil
Uttar Pradesh (Pandu)	06		180.07	14.50	01	05	Nil	Nil	Nil	Nil
Total-B	59		2180.77	240.68	02	52	02	Nil	Nil	01
Grand Total (A+B)	212		10993.15	461.12	38	148	6	5	12	01
Mid-Million Litre Per Day										

5.* Strengthening of Environmental Regulators

A project entitled “Strengthening of Environmental Regulators” was sanctioned by the World Bank on 19th June, 2013 at a cost of Rs. 69.26 crore for eight years to improve the capacity of CPCB to support the NGRBA programme. Water quality of River Ganga has been monitored at 97 locations in five States viz. Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal under National Water Quality Monitoring Programme (NWMP) in association with State Pollution Control Boards to fulfil the mandate of Water (Prevention & Control of Pollution) Act, 1974 for water quality criteria parameters following the Standard Operating Procedure (SOP) of CPCB. Water samples are analysed for 07 field parameters, 09 core parameters, 19 general parameters, 09 trace metals, 03 bio-monitoring and set of pesticides with a frequency of monthly, quarterly & yearly basis for a few locations. SPCBs are conducting monitoring as per Guidelines for Water Quality Monitoring (GWQM, 2017). The water quality data are compared with the primary water quality criteria for outdoor bathing notified under Environment (Protection) Act, 1986. The samples were collected on monthly basis for 90 stations, 06 stations of Uttarakhand and one station of Bhagirathi, at Gangotri. Fortnightly monitoring has been initiated since August, 2020 on manual monitoring stations which were previously monitored on monthly basis. In addition, fortnightly monitoring of core (09) and general parameters (19) along with two additional parameters faecal Streptococci and E. Coli has been initiated by SPCBs since August, 2020.

After analysis of water samples, river water quality is compared with primary water quality criteria notified for outdoor bathing criteria as given in **Table 5.20** in terms of pH (6.5-8.5), DO (≥ 5 mg/l), Bio-chemical Oxygen Demand (BOD (≤ 3 mg/l) and Faecal Coliform (FC) ($\leq 2,500$ MPN/100ml). Sampling was carried out on bi-monthly basis using statistical tool median which is simply a measure of central tendency.

Table 5.20
Primary Water Quality Criteria for Outdoor Bathing as per the Environment (Protection) Amendment Rules, 2000

Criteria			Rationale
Faecal Coliform, MPN/100 ml	500 (desirable) 2,500 (maximum permissible)		To ensure low sewage contamination. Faecal coliform and faecal streptococci are considered as they reflect the bacterial pathogenicity.
Faecal Streptococci, MPN/100 ml	100 (desirable) 500 (maximum Permissible)		The desirable and permissible limits are suggested to allow for fluctuation in environmental conditions, such as seasonal change, changes in flow conditions etc.
pH	Between 6.5-8.5		The range provides protection to the skin and delicate organs like eyes, nose, ears etc. which are directly exposed during outdoor bathing.
Dissolved Oxygen	5 mg/l or more		The minimum dissolved oxygen concentration of 5 mg/l ensures reasonable freedom from oxygen consuming organic pollution immediately upstream which is necessary for preventing production of anaerobic gases (obnoxious gases) from sediment.
Biochemical Oxygen Demand @ 3 day, 27°C	3 mg/l or less		The Biochemical Oxygen Demand of 3 mg/l or less of the water ensures reasonable freedom from oxygen demanding pollutants and prevent production of obnoxious gases".

) "% River Water Quality of River Ganga in 2020 (January-December, 2020)

The analysis of water quality for the year 2020 indicates that the river water quality is meeting the bathing criteria as following:

- Water Quality of River Ganga w.r.t. DO & pH (Median) is presented in **Figs 5.2 & 5.3** at all the locations of river Ganga.
- Water quality of river Ganga w.r.t BOD is presented in **Fig 5.4**. Origin to Bithoor (Kanpur,UP), Prayagraj (Rasoolabad) to u/s Vindhyachal (Mirzapur) and u/s Varanasi (Assighat, UP), entire stretch from Buxar (Bihar) to Sangidalan (Jharkhand) and Baharampore (WB) to Tribeni near burning ghat, Palta, Serampore and Howrah (Sibpur) to Ganga at Patikali near Durga Chak (WB).
- Water quality of river Ganga w.r.t. FC is presented in **Fig 5.5**. Origin to Bithoor (Kanpur, UP), Bathing Ghat (Bharaoghat), Dalmau (Rai Bareilly) to u/s Vindhyachal (Mirzapur, UP) and u/s Varanasi (Assighat, UP).

The water quality of river Ganga was also monitored manually and stations/ locations State-wise are given in **Table 5.21**.

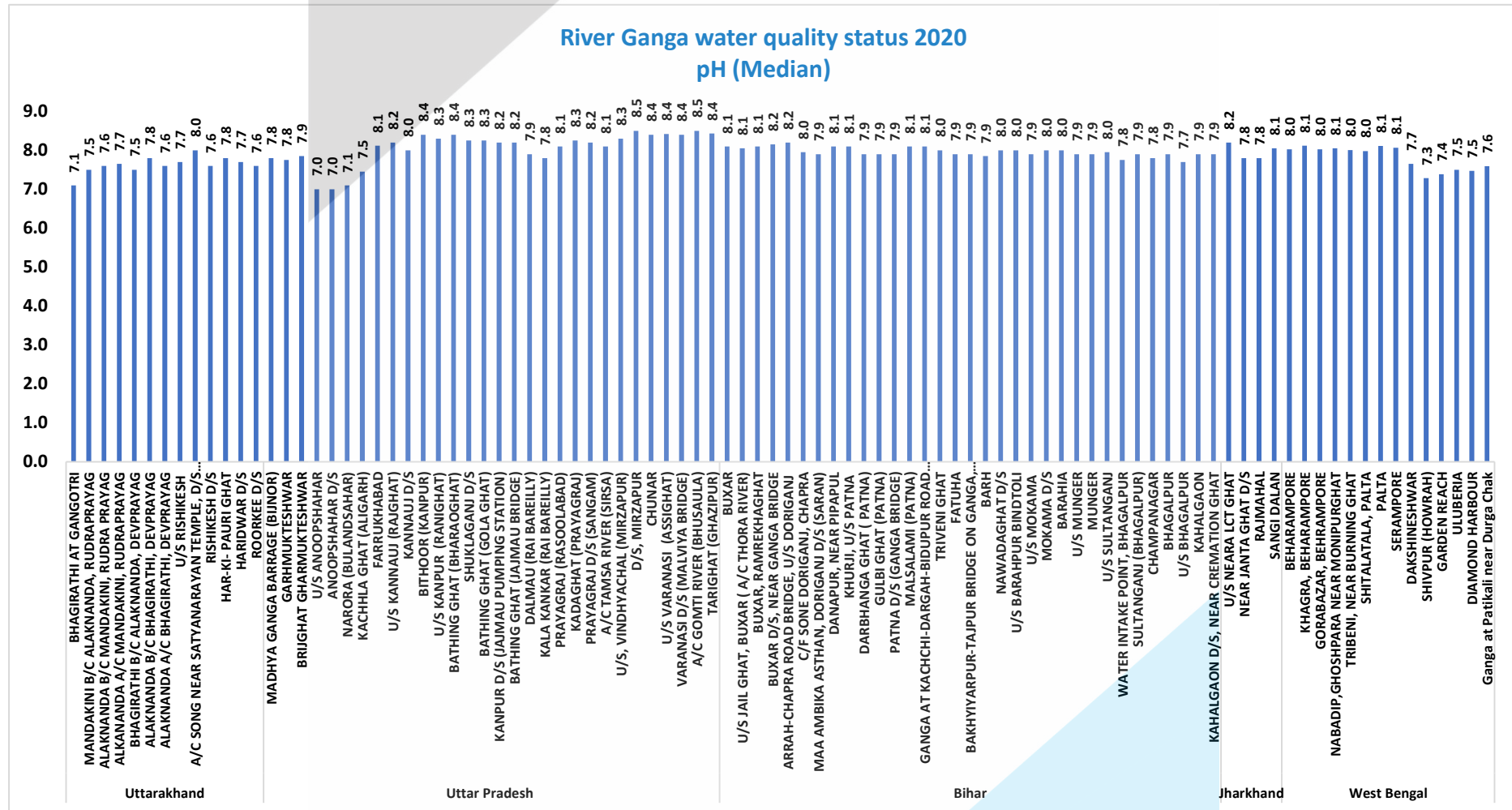


Fig 5.2- Water quality of River Ganga w.r.t. pH during 2020 (Total locations- 94; Complying- All locations)

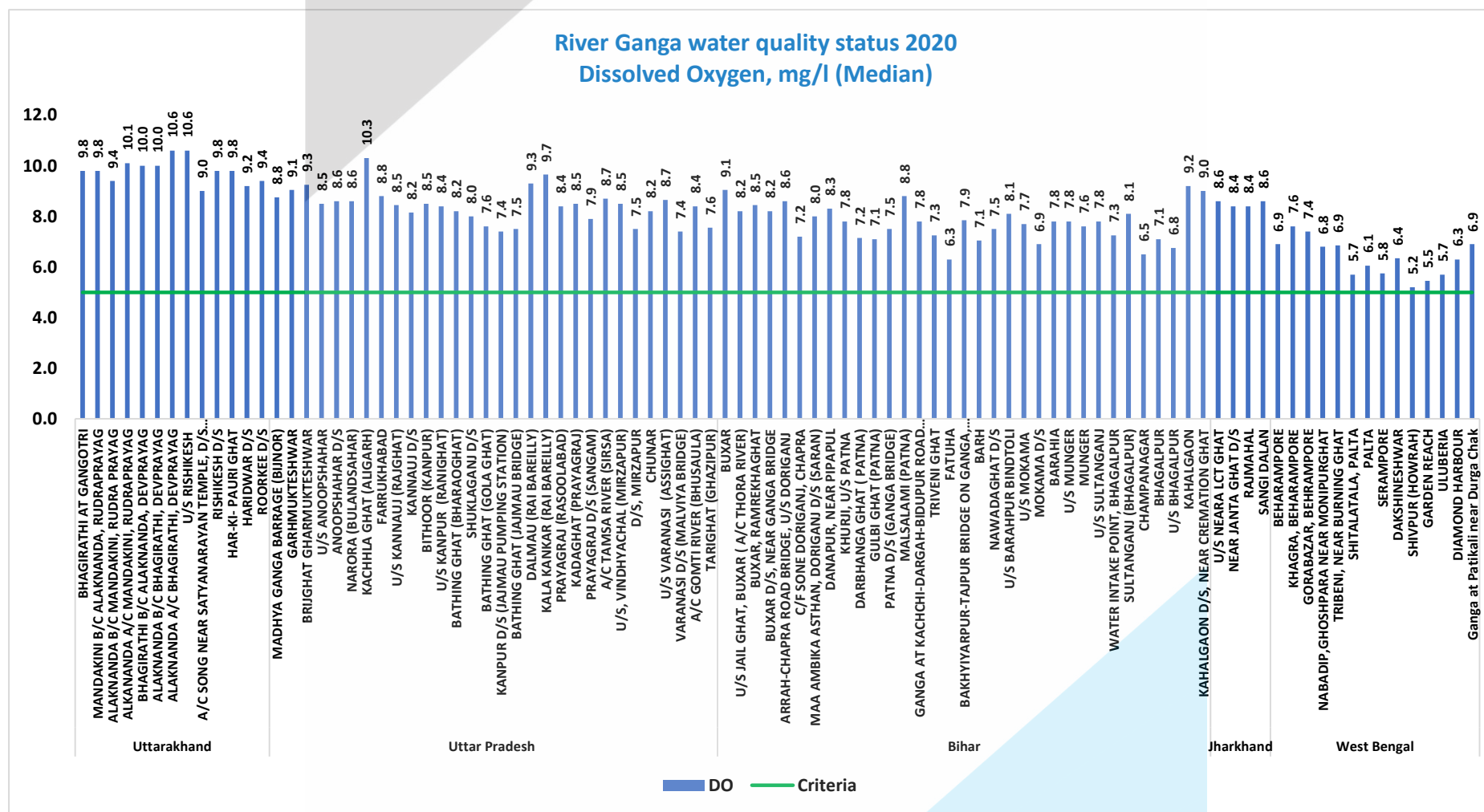


Fig 5.3- Water quality of River Ganga w.r.t. Dissolved Oxygen (DO) during 2020 (Total locations- 94; Complying- All locations)

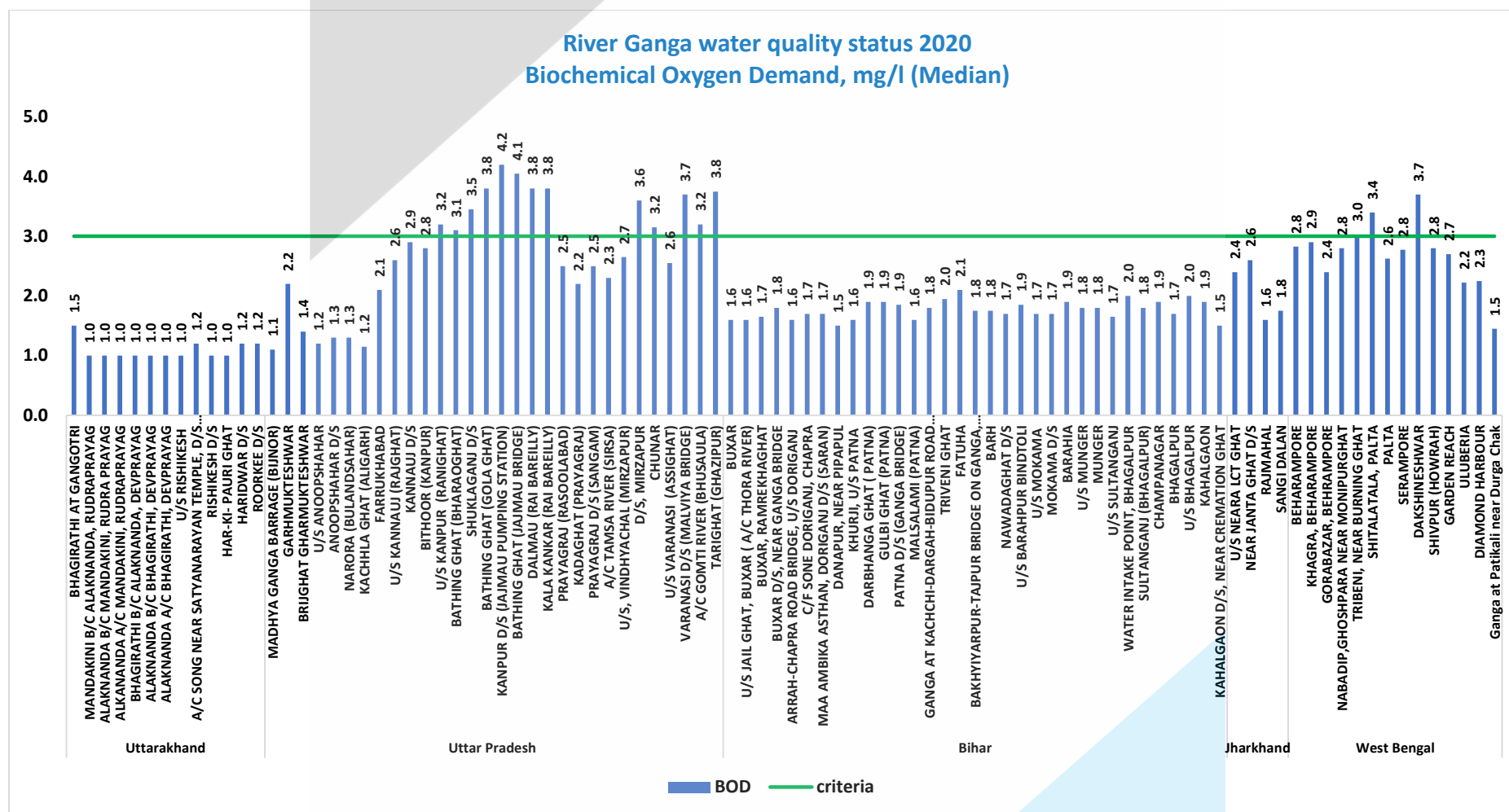


Figure 5.4: Water quality of River Ganga w.r.t. Biochemical Oxygen Demand (BOD) during 2020 (Total locations- 94; Complying- 79 locations; Non-complying- 15 locations)

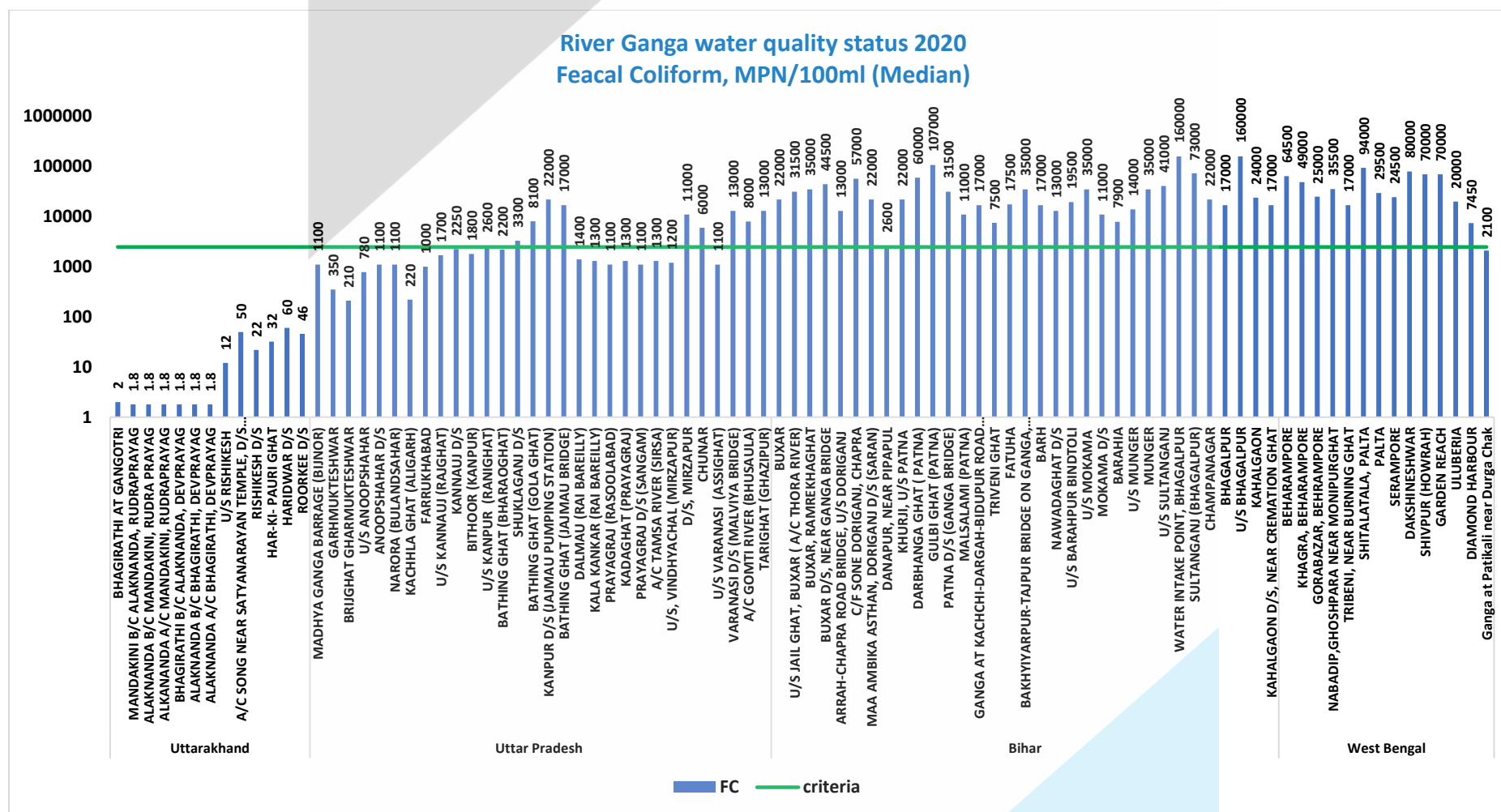


Fig 5.5- Water quality of River Ganga w.r.t. Faecal Coliform (FC) during 2020 (Total locations- 90; Complying- 34 locations; Non-complying- 56 locations)

Table 5.21

**Water Quality of River Ganga at Manual Monitoring Locations in 2020
(January-December, 2020)**

S No	Station code	State name	Station name	DO	BOD	FC	pH
			Criteria	≥5.0 mg/l	≤3.0 mg/l	≤2500 MPN/100ml	6.5-8.5
1	1491	Uttarakhand Upper Gange Canal, Roorkee d/s	Bhagirathi at Gangotri	9.8	1.5	2	7.1
2	1485		Mandakini b/c Alaknanda, Rudraprayag	9.8	1	1.8	7.5
3	1484		Alkananda b/c Mandakini, Rudraprayag	9.4	1	1.8	7.6
4	1486		Alkananda a/c Mandakini, Rudraprayag	10.1	1	1.8	7.65
5	1488		Bhagirathi b/c Alaknanda, Devprayag	10	1	1.8	7.5
6	1487		Alaknanda b/c bhagirathi, devprayag	10	1	1.8	7.8
7	1489		Alaknanda a/c bhagirathi, devprayag	10.6	1	1.8	7.6
8	20048		Ganga at swarg ashram-1	9.3	1.0	27	7.6
9	1060		Rishikesh u/s	10.6	1.0	12	7.7
10	20049		Ganga at lakkar ghat - oxidation ponds	9	1.2	26	7.5
11	2725		Satyanarayan temple, d/s Raiwala	9	1.2	50	8
12	10147		Rishikesh d/s	9.8	1	22	7.6
13	10148		Har-ki- pauri ghat	9.8	1	32	7.8
14	1061		Haridwar d/s	9.2	1.2	60	7.7
15	20050		Ganga at Jagjitpur	9.6	1.2	46.5	7.9
16	2727		Roorkee d/s	9.4	1.2	46	7.6
17	10150	Uttar Pradesh	Madhya Ganga Barrage (Bijnor)	8.75	1.1	1100	7.8
18	1062		Garhmukteshwar	9.05	2.2	350	7.75
19	10149		Brijghat gharmukteshwar	9.25	1.4	210	7.85
20	2488		Anoopshahar /us	8.5	1.2	780	7
21	2489		Anoopshahar d/s	8.6	1.3	1100	7
22	1145		Narora Bulandsahar)	8.6	1.3	1100	7.1
23	2490		Kachhla ghat (Aligarh)	10.3	1.15	220	7.45
24	10151		Farrukhabad	8.8	2.1	1000	8.12
25	1063		Kannauj (rajghat) u/s	8.45	2.6	1700	8.2
26	1066		Kannauj d/s	8.15	2.9	2250	8
27	1146		Bithoor (Kanpur)	8.5	2.8	1800	8.4
28	1067		Kanpur (Ranighat) u/s	8.4	3.2	2600	8.3
29	10154		Bathing ghat (Bharaoghat)	8.2	3.1	2200	8.4
30	10155		Shuklaganj d/s	8	3.45	3300	8.25
31	10156		Bathing ghat (gola ghat)	7.6	3.8	8100	8.25
32	1068		Kanpur d/s (Jajmau pumping station)	7.4	4.2	22000	8.2
33	10157		Bathing ghat (Jajmau bridge)	7.5	4.05	17000	8.2
34	1147		Dalmau (Rai bareilly)	9.3	3.8	1400	7.9
35	2498		Kala kankar (Rai bareilly)	9.65	3.8	1300	7.8
36	1046		Prayagraj (Rasoolabad)	8.4	2.5	1100	8.1
37	2487		Kadaghat (Prayagraj)	8.5	2.2	1300	8.25
38	1049		Prayagraj d/s (Sangam)	7.9	2.5	1100	8.2
39	10158		Lamsa river (Sirsa)	8.7	2.3	1300	8.1
40	2485		Vindhyachal (Mirzapur) u/s	8.5	2.65	1200	8.3
41	2486		Mirzapur d/s	7.5	3.6	11000	8.5
42	10153		Chunar	8.2	3.15	6000	8.4
43	1070		Varanasi (assighat) u/s	8.65	2.55	1100	8.42
44	1071		Varanasi d/s (Malviya bridge)	7.4	3.7	13000	8.4
45	10152		Gomti river (Bhusaula)	8.4	3.2	8000	8.5
46	1073		Tarighat (Ghazipur)	7.55	3.75	13000	8.43
47	1074	Bihar	Buxar	9.05	1.6	22000	8.1
48	10113		Jail ghat, Buxar u/s	8.2	1.6	31500	8.05

S No	Station code	State name	Station name	DO	BOD	FC	pH
			Criteria	≥5.0 mg/l	≤3.0 mg/l	≤2500 MPN/100ml	6.5-8.5
49	2551	Jharkhand	Buxar, Rāmrekhaghat	8.45	1.65	35000	8.1
50	3113		Buxar d/s, near Ganga bridge	8.2	1.8	44500	8.15
51	10162		Arrah-chapra road bridge, u/s Doriganj	8.6	1.6	13000	8.2
52	2564		Sone doriganj, Chapra	7.2	1.7	57000	7.95
53	10114		Maa ambika asthan, doriganj d/s (saran)	8	1.7	22000	7.9
54	3114		Danapur, near Pipapul	8.3	1.5	2600	8.1
55	1077		Khurji, u/s Patna	7.8	1.6	22000	8.1
56	2552		Darbhanga ghat (Patna)	7.15	1.9	60000	7.9
57	10115		Gulbi ghat (Patna)	7.1	1.9	107000	7.9
58	1079		Patna d/s (Ganga bridge)	7.5	1.85	31500	7.9
59	3122		Malsalami (Patna)	8.8	1.6	11000	8.1
60	4297		Ganga at kachchi-dargah-bidupur road bridge, patna	7.8	1.8	17000	8.1
61	10122		Triveni ghat	7.25	1.95	7500	8
62	2553		Fatuha	6.3	2.1	17500	7.9
63	4301		Bakhyiarpur-tajpur bridge on ganga, athmagola, patna	7.85	1.75	35000	7.9
64	3115		Barh	7.05	1.75	17000	7.85
65	10130		Nawadaghat d/s	7.5	1.7	13000	8
66	10131		Barahpur bindtoli u/s	8.1	1.85	19500	8
67	1817		Mmokama u/s	7.7	1.7	35000	7.9
68	1815		Mokama d/s	6.9	1.7	11000	8
69	3123		Barahia	7.8	1.9	7900	8
70	3116		Munger u/s	7.8	1.8	14000	7.9
71	1818		Munger	7.6	1.8	35000	7.9
72	3117		Sultanganj u/s	7.8	1.65	41000	7.95
73	4398		Water intake point, Bhagalpur	7.25	2	160000	7.75
74	2554		Sultanganj (Bhagalpur)	8.1	1.8	73000	7.9
75	10138		Champanagar	6.5	1.9	22000	7.8
76	1819		Bhagalpur	7.1	1.7	17000	7.9
77	3118		Bhagalpur u/s	6.75	2	160000	7.7
78	1816		Kahalgaon	9.2	1.9	24000	7.9
79	10143		Kahalgaon d/s, near cremation ghat	9	1.5	17000	7.9
80	10144	Jharkhand	Near Ict ghat u/s	8.6	2.4	0	8.2
81	10145		Near janta ghat d/s	8.4	2.6	0	7.8
82	1059		Rajmahal	8.4	1.6	0	7.8
83	10146		Sangi dalan	8.6	1.75	0	8.05
84	1080	West Bengal	Baharampore	6.9	2.825	64500	8.025
85	10159		Khagra, beharampore	7.6	2.9	49000	8.12
86	10160		Gorabazar, beharampore	7.4	2.4	25000	8.025
87	2511		Nabadip, ghoshpara near monipurghat	6.8	2.8	35500	8.055
88	2506		Tribeni, near burning ghat	6.85	3.03	17000	8.005
89	10161		Shitalatala, palta	5.7	3.4	94000	7.98
90	1054		Palta	6.05	2.625	29500	8.11
91	1472		Serampore	5.75	2.775	24500	8.065
92	1053		Dakshineswar	6.35	3.7	80000	7.65
93	1471		Sibpur (howrah)	5.2	2.8	70000	7.285
94	1470		Garden reach	5.45	2.7	70000	7.385
95	1052		Uluberia	5.7	2.225	20000	7.5
96	1469		Diamond harbour	6.3	2.25	7450	7.47
97	1335		Ganga at Patikali near Durgachak	6.9	1.45	2100	7.59

5.7 Ambient Air Quality Status under National Ambient Air Quality Monitoring Programme (NAAQMP) and Continuous Ambient Air Quality Stations (CAAQMS)

Under Sub-section 2 (h) of Section 16 of the Air (Prevention and Control of Pollution) Act, 1981 National Ambient Air Quality Standard (NAAQS) has been notified on November 18, 2009 as a policy guideline that regulates the effect of human activity on the environment.

Ambient air quality was monitored across the country through manual monitoring under National Ambient Air Quality Monitoring Programme (NAMP) and real-time monitoring under Continuous Ambient Air Quality Monitoring System (CAAQMS).

5.7.1 National Ambient Air Quality Monitoring Programme

National Ambient Air Quality Monitoring Programme (NAMP) was started in 1984 with 7 stations in Agra and Anpara. The growth of operating Ambient Air Quality Monitoring Stations in the country is given in **Fig. 5.6**. The manual ambient air quality monitoring network has 818 operating stations covering 352 cities/towns in 29 States and 6 Union Territories.

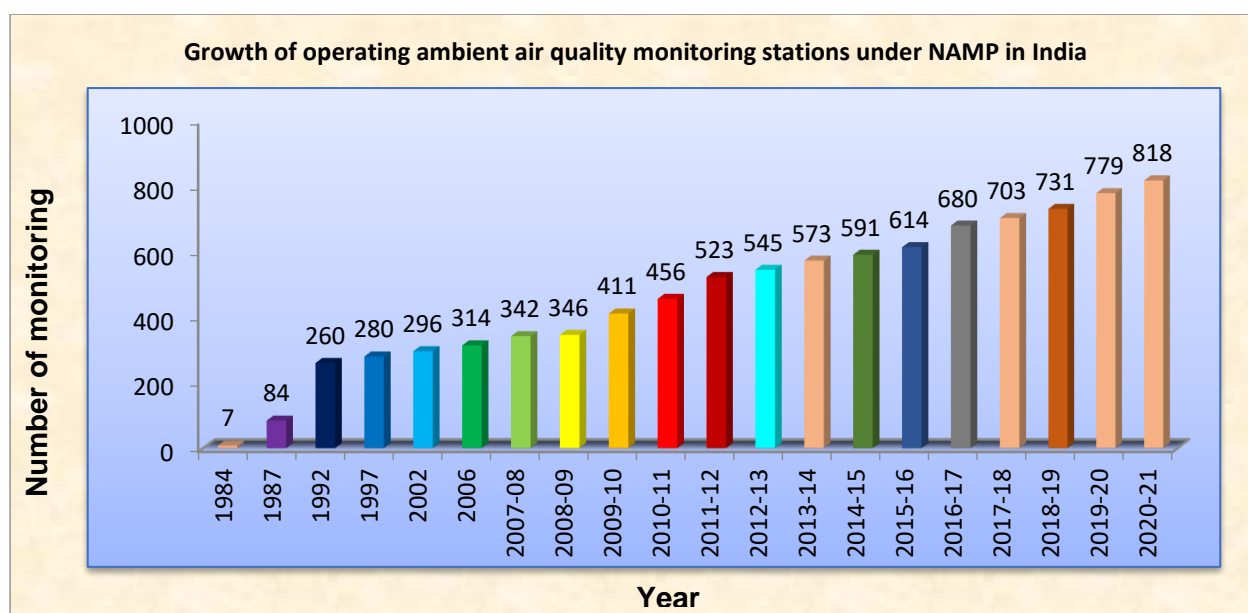


Fig. 5.6 Ambient Air Quality Monitoring Stations in the Country

The State Pollution Control Boards (SPCBs), Pollution Control Committees (PCCs), National Environmental Engineering Research Institute (NEERI), Nagpur and Central Pollution Control Board (CPCB) are carrying out ambient air quality monitoring at monitoring stations.

Under NAMP, three criteria pollutants Particulate Matter (PM₁₀), Sulphur Dioxide (SO₂) and Nitrogen Dioxide (NO₂), along with Carbon Monoxide (CO), Ammonia (NH₃), Ozone (O₃), PM_{2.5}, Benzo(a)pyrene {B(a)P}, Lead (Pb) and Nickel (Ni) are being monitored at selected locations.

Objectives of National Ambient Air Quality Monitoring Programme

- To determine the status and trends of ambient air quality;
- To ascertain whether the prescribed ambient air quality standards are violated;
- To identify non-attainment cities with respect to national standards and;
- To obtain the knowledge and understanding necessary for developing preventive and corrective measures.

5.7.2 Continuous Ambient Air Quality Monitoring System

Continuous Ambient Air Quality Monitoring System is a specialized system that is housed in a temperature controlled container/room and is equipped for monitoring of ambient air pollutants using different analyzers. The real time data generated through this system is transferred to Central Server and also to digital display board for public viewing. The data of these CAAQMS are being used for generating the daily National Air Quality Index (NAQI) of the cities. The network of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) is expanding in the country and at present, 296 CAAQM stations covering 148 cities in 22 States and 4 UTs are existing across the country. The Continuous Ambient Air Quality Monitoring Stations in the Country is given in **Fig. 5.8**.

Under CAAQMS the Particulate Matter (PM₁₀ & PM_{2.5}), Sulphur Dioxide (SO₂), Nitrogen Dioxide (NO₂), Ammonia (NH₃), Carbon Monoxide (CO), Ozone (O₃) and Benzene (C₆H₆) are being monitored at all locations. The CAAQM stations are also equipped with sensors to measure meteorological parameters such as Wind Speed, Wind Direction, Ambient Temperature, Relative Humidity, Solar Radiation and Rainfall.

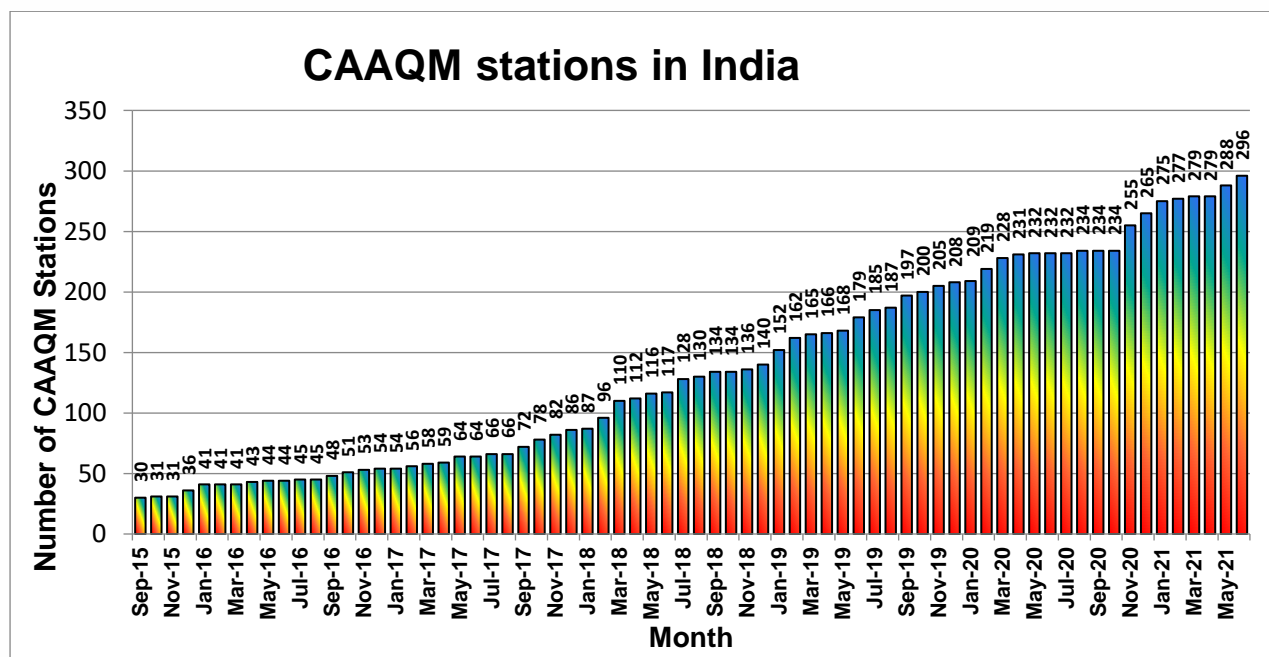


Fig. 5.8 - Continuous Ambient Air Quality Monitoring Stations in the Country

5.7.3 Clean Air City Action Plan:

- Clean Air City Action Plans have been prepared and approved for 132 identified cities in 24 States/UTs. Out of these, 82 cities are Non-Attainment Cities (NACs) and 50 cities are part of million plus urban agglomerations.
- 132 city plans have been rolled out for implementation targeting city specific air polluting sources such as Soil & Road Dust, Vehicles, Domestic Fuel, Municipal Solid Waste Burning, Construction Material and Industries, etc. Actions have been prepared for short, medium and longer time frame along with identification of responsible agencies.
- Under National Clean Air Programme (NCAP), ₹375.44 crore have been released during Financial Years 2019-20 & 2020-21 for implementing actions under city action plan including expansion of monitoring network, source apportionment studies, construction and demolition waste management facilities, non-motorized transport infrastructure, green buffers, mechanical street sweepers, mobile enforcement units, composting units etc.
- Air Quality in Million Plus Cities of India under NAMP (Manual Stations) reveals that air quality has improved gradually since 2018 in most of the cities. Despite increased in number of vehicles, growing population, increased industries activities and adverse meteorology, able to achieve 13% reduction in PM₁₀ and 09% in PM_{2.5} in Year 2021 w.r.t 2018 in Delhi and there is also reduction in other parameters of air quality in most for other Million Plus Cities of India.

The comparison of air quality (Manual Stations) in Million Plus Cities of India in terms of SO₂, NO₂, PM₁₀ & PM_{2.5} is given in Table 5.22.

Table 5.22: Air Quality in Million Plus Cities of India under NAMP
(Manual Stations)

State	S.No	City/Town/Village	2018				2019				2020			
			SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
Andhra Pradesh	1	Vijaywada	5	21	77	29	5	19	73	27	5	17	56	22
	2	Vishakhapatnam	10	20	77	49	8	19	76	33	8	19	78	32
	3	Patna	5	51	207		3	51	237		3	29	146	
Chandigarh	4	Chandigarh	2	17	102	50	2	19	97	63	2	15	92	60
Chhattisgarh	5	Bilaspur	6	12	42	20	6	12	47	27	5	12	55	30
	6	Durg-Bhillainagar	8	19	84	-	7	17	79	42	6	10	60	31
	7	Raipur	14	20	65	-	16	30	69		13	23	53	
Delhi	8	Delhi	6	73	223	121	5	70	199	141	4	68	210	116
Gujarat	9	Ahmedabad	16	29	236	73	20	25	135	37	14	18	102	28
	10	Rajkot	19	23	203	64	20	25	127	35	14	17	97	27
	11	Surat	22	29	176	57	23	27	128	40	20	25	100	37
Jharkhand	12	Vadodara	20	25	188	60	20	26	131	37	15	18	91	26
	13	Dhanbad	14	37	264	-	14	35	237	-	14	35	182	-
	14	Jamshedpur	37	46	128	-	38	47	138	-	30	37	104	-
Karnataka	15	Bangalore	2	30	90	47	3	25	74	32	2	24	66	29
Kerala	16	Kochi	3	16	57	-	3	14	46	32	2	11	43	29
	17	Kollam	3	5	47	-	3	6	45	-	3	6	45	-
	18	Kottayam	3	13	44	-	3	13	35	-	2	12	37	-
	19	Kozhikode	2	10	54	6	2	5	44	14	2	5	30	15
	20	Malapuram	2	26	31	-	2	15	35	-	2	13	28	22
	21	Thiruvananthapuram	9	24	49	-	9	16	42	-	7	11	37	35
Madhya Pradesh	22	Thissur	3	9	41		3	5	38		2	5	35	
	23	Bhopal	7	14	135	59	8	17	161	69	8	19	172	64
	24	Gwalior	13	21	134	62	13	24	139	58	18	24	142	65
	25	Indore	10	19	88	41	9	18	77	37	11	20	75	33
	26	Jabalpur	7	17	119	43	7	16	84	-	7	16	77	31
	27	Aurangabad	13	35	70	-	13	36	74	-	18	43	74	-
Maharashtra	28	Badlapur	24	67	144	-	27	60	108	-	18	38	64	-
	29	Mumbai	2	21	166	46	2	27	125	40	2	32	216	86

State	S.No	City/Town/Village	2018			2019			2020		
			SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	PM _{2.5}
	30	Nagpur	10	28	103	44	10	32	101	39	78
	31	Nashik	12	21	85	-	10	22	63	-	38
	32	Pune	37	75	106	-	37	87	143	-	106
	33	Thane	17	44	108	-	20	37	128	-	83
Punjab	34	Amritsar	13	34	177	-	13	34	170	-	166
	35	Ludhiana	9	32	162	-	12	26	153	-	161
Rajasthan	36	Jaipur	8	32	165	-	7	27	141	-	132
	37	Jodhpur	7	24	223	-	7	26	240	-	160
Tamilnadu	38	Kota	7	28	152	-	7	24	129	-	102
	39	Chennai	9	16	78	34	9	19	73	36	55
	40	Coimbatore	6	23	54	32	7	18	57	37	52
	41	Madurai	12	20	84	34	13	18	79	26	57
Telangana	42	Hyderabad	5	30	105	55	5	37	99	40	80
Uttar Pradesh	43	Agra	4	22	209	106	4	24	186	110	174
	44	Allahabad	4	45	231	-	5	42	222	-	180
	45	Ghaziabad	21	43	245	103	13	35	208	102	203
	46	Kanpur	7	43	210	83	6	40	198	66	201
	47	Lucknow	7	30	217	108	7	31	208	-	187
	48	Meerut	7	58	177	-	9	63	213	-	190
	49	Varanasi	9	34	189	-	9	35	184	-	145
West Bengal	50	Asansol	13	35	146	58	15	44	184	81	114
	51	Kolkata	6	44	148	86	8	42	104	56	116

Note: 'National Ambient Air Quality Standard (NAAQS) for Residential, Industrial, Rural and others Areas (Annual average) for SO₂ = 50 µg/m³, NO₂ = 40 µg/m³, PM₁₀ = 60 µg/m³ & PM_{2.5} = 40 µg/m³ and SO₂ = 20 µg/m³, NO₂ = 30 µg/m³, PM₁₀ = 60 µg/m³ and PM_{2.5} = 40 µg/m³ for Ecologically sensitive area.

5.7.4 Contribution of CPCB for air quality management in Delhi – NCR

Air Quality Monitoring Network

1. Air Quality Monitoring network has been strengthened in NCR towns as well as in India.
2. A Central Control Room is operated by Central Pollution Control Board wherein, hour to hour tracking of various information such as PM concentrations, Live Air Quality Data of Monitoring stations, Live Air Quality Index, Air Quality Forecast in Delhi-NCR (Source: SAFAR, IITM, Pune) is available. AQI is monitored along with other parameters and is published on the website in the form of AQI Bulletin after analysis. The links for the same have for control of pollution in Delhi-NCR.
3. CPCB has initiated issuance of a daily report comprising of AQI of Delhi and NCR towns, comparative AQI status, year-wise trends of PM concentration, hotspots for the day in terms of AQI, contribution of stubble burning and meteorological forecast. This report is prepared based on the inputs available from various sources such as IMD, SAFAR, State Remote Sensing Centers etc., and disseminated through CPCB website.
4. Bio-mining of three dumpsites at Bhalswa, Okhla and Ghazipur is being carried out and is under progress.
5. Notifications regarding dust mitigation measures for construction and demolition activities have been issued.
6. Development of Guidelines on/for
 - Dust mitigation measures in handling Construction material and C & D wastes
 - Environmental Management of Construction & Demolition (C&D) wastes.
 - Provision of buffer zone around waste processing and disposal facilities.
 - Disposal of Legacy Waste (Old Municipal Solid Waste)
 - Deployment of anti-smog guns at construction projects of more than 20,000 sq. m. built-up area.
7. Development of Selection Criteria for Waste Processing Technologies
8. Application of dust suppressant was explored and advisory has been issued to SPCBs for using dust suppressants in high emission zones.

Measures for Control of Industrial Pollution

1. Industry-specific emission standards have been developed or revised for different sectors. Criteria for categorizing industries in red/orange/green/white categories have been adopted by SPCBs/PCCs for strengthening enforcement mechanism of environmental norms.
2. Implementation of new emission norms in Thermal Power Plants.
3. Ban on use of pet coke and furnace oil as fuel in NCR states since October 24, 2017 and ban on use of imported pet coke in the country since July 26, 2018, with exception for use in permitted processes.
4. Shifting of industries to PNG and installation of OCEMS in red category industries in Delhi-NCR is in progress.
5. Development of low carbon strategies across sectors such as phasing out older coal based power plants, compliance of standards, City Gas

Distribution (CGD) network, emphasis on improved power reliability in urban areas, etc.

6. Shifting of all Conventional brick kilns to zig-zag technology in Delhi and NCR.

Technical Interventions

1. Research projects are being carried out by CPCB in collaboration with premier institutions like IIT, NEERI, etc. under Environment Protection Charge (EPC) funds which provide scientific inputs for taking focused action towards improvement in air quality of Delhi NCR.
2. Study titled “Does air quality from crop residue burning in close proximity to residential areas adversely affect respiratory health?” to assess impact of poor air quality due to crop residue burning on respiratory health has been carried out by CPCB through TERI.

Others

1. Installation of Vapour Recovery Systems in more than 3000 petrol pumps in NCR
2. Implementation of Graded Response Action Plan along with development of Comprehensive Action Plan (CAP) identifying timelines and implementing agency for actions identified for prevention, control and mitigation of air pollution in Delhi and NCR.
3. Daily monitoring of Active Fire Events (AFE) is undertaken during the stubble burning period.
4. Deployment of CPCB teams in the field for strict vigilance and for evaluation of actions taken by various concerned agencies for mitigation of air pollution during winters since 2017 in Delhi-NCR towns.

Interactions

1. Interactions with government bodies, public agencies, urban local bodies and Task Force on Graded Action Plan Delhi NCR for assessment of mitigation measures and to combat air pollution. 38 Review Meetings held till date.
2. Task Force, headed by CPCB and comprising of members from Delhi Pollution Control Committee (DPCC), State Pollution Control Boards (SPCBs) of Haryana, Uttar Pradesh & Rajasthan, India Meteorology Department (IMD) and Health Expert was constituted for recommending measures under GRAP to EPCA. 68 meetings of the Task Force were held until EPCA was dissolved on promulgation of Commission for Air Quality Management in NCR and Adjoining Areas (CAQM).
3. CAQM constituted a sub-committee for operationalization of GRAP and issuing necessary orders to the effect with MS, CPCB as the chairperson, under which regular meetings are held, and Orders are issued under GRAP for mitigation of air pollution in Delhi-NCR.
4. CPCB has issued directions to implementing agencies (SPCBs, Construction agencies, Municipal bodies, Traffic police and Transport department and Agriculture department of Delhi and NCR) for strict enforcement against air polluting activities.

5. CPCB had requested MoEF&CC for revision of GRAP and further, CPCB has prepared revised action plan which was forwarded to the Commission for Air Quality Management in NCR and Adjoining Areas for taking it further
6. Public Complaints regarding air pollution issues in Delhi NCR (Noida, Gurugram, Greater Noida, Faridabad and Ghaziabad) are taken through 'Sameer App', 'Emails'(aircomplaints.cpcb@gov.in) and 'Social Media Networks' (Facebook and Twitter) and are being forwarded to enforcement agencies for redressal.

Installation of Smog Tower:

The Hon'ble Supreme Court in its order dated 13.01.2020 in W.P. (C) 13029/1985 had directed the installation of two smog towers, one by Central Government at Anand Vihar and another by Delhi Government at Connaught Place.

Subsequently, a proposal submitted by Indian Institute of Technology- Bombay (IITB), Mumbai was approved by the Project Appraisal and Approval Committee (PAAC-EPC), headed by Chairman, CPCB, under Environment Protection Charge (EPC) funds. A tripartite MoU was signed among CPCB, IIT Bombay (IITB) and Tata Projects Ltd. (TPL) for implementation of the pilot Smog Tower Project at Anand Vihar, with NBCC appointed as the Project Management Consultant.

Weekly review meetings were conducted by CPCB to monitor the progress of the project. Further, an Advisory Committee, headed by Chairman, CPCB, was constituted to oversee the progress, review the performance and guide on improvement and optimization.

The smog tower at Anand Vihar is the first functional smog tower in India. The pilot smog tower is of downdraft type, i.e. polluted air enters from the top of the tower, gets filtered and is released from the bottom. The filtration system used in the tower has been designed by University of Minnesota. 40 fan units have been installed to provide a design airflow rate of 1000 m³/sec.

A tripartite agreement has been signed between CPCB, NBCC and TPL for operation & maintenance of the smog tower. Tata Projects Limited is performing the O&M of the tower for an initial period of 02 years with NBCC as the project management consultant. The performance of the smog tower is being monitored and evaluated by IIT Bombay and IIT Delhi. The performance reports are also being periodically reviewed by the advisory committee.

The above measures have shown positive results. The annual PM₁₀ and PM_{2.5} concentration have come down and number of Good, Satisfactory and Moderate days have increased.

Improvement of Air Quality Index in Delhi:

Improvement was noted in the year 2021 in comparison to 2018 with the number of 'Good', 'Satisfactory' and 'Moderate' days increasing to 197 against 159 since 2018, and number of 'Poor', 'Very Poor' and 'Severe' days decreasing to 168 against 206 since 2018.

Year (no. of days) Category	2018 (365)	2019 (365)	2020 (366)	2021 (365)	2018	2019	2020	2021
Good (0-50)	0	2	5	1	159	182	227	197
Satisfactory (51-100)	53	59	95	72				
Moderate (101-200)	106	121	127	124				
Poor (201-300)	113	103	75	80	206	183	139	168
Very Poor (301-400)	73	56	49	64				
Severe (>401)	20	24	15	24				

5.8 National Ambient Noise Monitoring Network in India

The National Ambient Air Quality in respect of Noise for day & night has been notified in Schedule III under Rule 3 of The Environment (Protection) Rules, 1986. The Central Pollution Control Board in association with State Pollution Control Boards has established National Ambient Noise Monitoring Network (NANMN) in 7 Metro-cities (Bengaluru, Chennai, Delhi, Hyderabad, Kolkata, Lucknow and Mumbai). A total of 70 Noise Monitoring Stations are operational in these Metro-cities (10 Stations in each metro-city). Station-wise average ambient noise levels of 07 Metro-cities are given in **Table 5.23**.

Table 5.23- Annual Average Ambient Noise Monitoring Data during 2020

S.No.	City	Station Name	Day Time dB(A)	Night Time dB(A)
1	Bengaluru	Parisara Bhawan (C)	64.3	58.7
2		Peeniya (I)	62.6	60.9
3		Nisarga Bhawan (R)	80.2	77.4
4		Marathahalli (C)	71.8	71.4
5		BTM (R)	62.5	62.5
6		Yeshwantpur (C)	70.2	64.0
7		R.V.C.E. (S)	80.9	80.9
8		Whitefield (I)	63.9	58.6
9		TERI Domlur (R)	62.9	58.1
10		Nihmans (S)	70.1	74.9
11	Chennai	Eye Hospital (S)	72.8	69.7
12		T.Nagar(C)	80.3	75.9
13		Perambur (C)	63.1	59.4
14		Guindy (I)	82.8	83.6
15		Triplicane (R)	70.0	68.9
16		Pallikarnai (C)	72.0	72.6
17		Velachery (R)	64.4	67.6

S.No.	City	Station Name	Day Time dB(A)	Night Time dB(A)
18		Washermanpet (C)	74.0	74.1
19		Anna Nagar (S)	73.4	72.8
20		Sowcarpet (R)	65.1	60.7
21	Delhi	Dilshad Garden (S)	70.4	70.6
22		CPCB HQ.(C)	64.5	67.4
23		DCE(S)	57.2	54.8
24		ITO (C)	79.8	75.6
25		NSIT (S)	57.4	54.3
26		Civil Lines (C)	60.6	57.3
27		RK Puram(R)	63.3	59.2
28		Anand Vihar (C)	65.5	60.6
29		Mandir Marg (S)	58.3	56.6
30		Punjabi Bagh (R)	57.3	51.7
31	Hyderabad	Abids (C)	72.7	67.4
32		TSPCB(C)	68.2	61.8
33		Jeedimetla(I)	71.7	70.0
34		Zoo (S)	69.0	68.1
35		Jubilee Hills (R)	74.4	69.1
36		Tarnaka(R)	76.6	70.0
37		Gaddapothram(I)	77.3	75.2
38		Gachibowli(S)	60.9	71.7
39		Paradise (C)	78.0	73.9
40		Kukatpalli (C)	68.2	65.4
41	Kolkata	SSKM Hospital (S)	64.7	63.0
42		Gole Park (I)	69.5	66.5
43		Head Quarter (C)	66.4	65.8
44		Patauli (R)	70.6	74.4
45		New Market (C)	68.8	67.6
46		Birati N. (R)	66.9	63.3
47		RG Kaur (S)	68.7	71.8
48		Tollygunge (C)	65.5	61.6
49		Bag Bazar (R)	77.1	74.6
50		Kolkata, Tartala (I)	68.1	64.4
51	Lucknow	Talkatora (I)	67.1	68.9
52		Hazrat Gunj (C)	68.0	70.5
53		P.G.I. (S)	81.7	80.1
54		Indira Nagar (R)	76.5	75.8
55		Gomti Nagar (S)	64.5	70.9
56		Chinhat (I)	67.1	56.5
57		IT College (S)	64.7	71.5
58		CSS Airport (C)	62.7	58.3

S.No.	City	Station Name	Day Time dB(A)	Night Time dB(A)
59		RSC Aligunj (C)	73.6	65.0
60		UPPCB HQ. (R)	62.7	57.5
61	Mumbai	Thane (C)	67.9	68.6
62		Vashi Hospital (S)	69.4	69.1
63		Acworth Hospital (S)	71.7	69.8
64		Bandra (C)	74.7	74.4
65		MPCB, Head Quarter (C)	72.9	64.1
66		M&M Kandivali (I)	60.8	53.8
67		CST (C)	74.2	69.6
68		L&T Powai (I)	62.2	60.0
69		Pepsico Chembur (R)	76.5	75.4
70		Andheri (I)	80.1	79.6
Note: The ambient air quality standards in respect of Noise for Day and Night are: (i) Industrial area 75 dB(A) & 70 dB(A), (ii) Commercial area 65 dB(A) & 55 dB(A) (iii) Residential area 55 dB(A) & 45 dB(A) (iv) Silence area 50 dB(A) & 40 dB(A).				

Chapter VI

PRESENT STATE OF ENVIRONMENT; ENVIRONMENTAL PROBLEMS AND COUNTER MEASURES

6.1 Sewage Treatment Plants

Inventorization of Sewage Treatment Plants (STPs) has been carried out during the year 2020. Assessment of quantities of sewage generation and its treatment has been done in association with State Pollution Control Boards / Pollution Control Committees and Local Bodies through questionnaires survey from the concerned stakeholders. Comparative statistics and capacity of STPs in the country during the years 2014 and 2020 is given in **Table 6.1**.

Table 6.1
Number of Sewage Treatment Plants in the Country

S. No	STP Status	2014		2020	
		No of STPs	Capacity (Mld)	No of STPs	Capacity (Mld)
1.	Operational	522	18,883	1,093	26,869
2.	Actual Utilization	-	-	1,093	20,235
3.	Compliance	-	-	578	12,197
4.	Non-operational	79	1,237	102	1,406
5.	Under Construction	145	2,528	274	3,566
Total (S No 1+4+5)		746	22,648	1,469	31,841
6.	Proposed	70	628	162	4,827

Out of 522 STPs, 490 STPs are designed on Sequencing Batch Reactor (SBR) technology followed by 321 STPs designed on Activated Sludge Process (ASP). Apart from conventional treatment technologies, STPs based on natural treatment systems are also established all over the country. 67 STPs are based on Waste Stabilization Pond system and 61 STPs belong to the category of Oxidation Ponds.

States of Maharashtra, Gujarat, Uttar Pradesh, NCT of Delhi and Karnataka are the top 5 States which have installed significant sewage treatment facilities. These 5 States jointly contribute to 19,250 Mld i.e. 60.5 % of the total installed treatment capacity of the country. These 5 States and the States of Haryana, Madhya Pradesh, Punjab, Tamil Nadu and Rajasthan, i.e. these 10 States, contribute to the tune of 86 % towards total installed treatment capacity.

Arunachal Pradesh, Andaman & Nicobar Islands, Lakshadweep, Manipur, Meghalaya and Nagaland have not installed Sewage Treatment Plants.

Comparison with previous inventory of STPs (2014) reveals that sewage treatment capacity has been enhanced by 50 % whereas, sewage generation increased from 62,000 MLD to 72,368 MLD (16 %). State-wise sewage generation and treatment capacity for the year 2014 and 2020 is given in **Table 6.2**.

Table 6.2- State-wise STPs, Sewage Generation and Treatment Capacity

States / UTs	Sewage Generation (Mld)	Total Treatment Capacity (Mld)	Total No. of STPs	Sewage Generation (Mld)	Total Treatment Capacity (Mld)	Total No. of STPs
	Year 2014			Year 2020		
Andaman & Nicobar Islands	22	0	0	23	0	0
Andhra Pradesh	2,871	247.27	12	2,882	853	67
Arunachal Pradesh	50	0	0	62	0	0
Assam	703	0.21	1	809	0	0
Bihar	1,879	124.55	6	2,276	631	25
Chandigarh	164	314.5	5	188	293	7
Chhattisgarh	951	0	0	1,203	73	3
Dadra & Nagar Haveli	26	0	0	67	24	3
Goa	145	74.58	7	176	104	14
Gujarat	4,119	3,062.92	51	5,013	3,378	70
Haryana	1,413	852.7	41	1,816	1,880	153
Himachal Pradesh	110	114.72	66	116	155	86
Jammu & Kashmir	547	264.74	19	665	222	26
Jharkhand	1,270	117.24	15	1,510	639	12
Karnataka	3,777	1,304.16	57	4,458	2,712	140
Kerala	2,552	152.97	10	4,256	120	7
Lakshadweep	8	0	0	13	0	0
Madhya Pradesh	3,214	482.23	17	3,646	1,924	142
Maharashtra	8,143	5,160.36	76	9,107	9,819	195
Manipur	132	0	0	168	0	0
Meghalaya	95	1	1	112	0	0
Mizoram	90	10	1	103	10	1
Nagaland	92	0	0	135	0	0
NCT of Delhi	4,155	2,693.7	35	3,330	2,896	38
Odisha	1,121	385.54	13	1,282	378	14
Pondicherry	136	68.5	6	161	59	4
Punjab	1,664	1,245.45	86	1,889	1,781	119
Rajasthan	2,736	865.92	63	3,185	1,195	140
Sikkim	24	31.88	11	52	30	11
Tamil Nadu	5,599	1,799.72	73	6,421	1,492	63
Telangana	1,671	685.8	18	2,660	901	37
Tripura	154	0.05	1	237	8	1
Uttar Pradesh	7,124	2,646.84	73	8,263	3,374	107
Uttarakhand	495	152.9	24	627	515	81
West Bengal	4,667	416.9	28	5457	1,202	65
Total	61,948	23,277.36	816	72,368	36,668	1,631

6.1.1 Development of Sewage Treatment Plant Monitoring App

Domestic wastewater is an important factor contributing to pollution of water-bodies. At present, there is no centralized system for monitoring of Sewage Treatment Plants (STPs). To address the issue, a mobile based “STP Monitoring Application” has been developed and the same has been launched by Hon^{ble} Union Minister of State, Shri Babul Supriyo on 23.09.2020.

This App will facilitate information flow from STPs to Urban Local Bodies, States and Central Agencies and 1600+ STPs will be linked. This App can be downloaded from the Mobile App Store. Information on capacity and qualitative parameters, like pH, TSS, COD, BOD and Faecal Coliform, will be reported and the same will be updated on weekly basis. It will help in close monitoring of STP performance. So far, 400 users were connected to STP Monitoring App.

6.2 Construction and Demolition Waste Management

The Construction and Demolition (C&D) Waste Management Rules, 2016 have been notified by Central Government Vide G.S.R 317 (E), dated 29th March, 2016. In compliance with Rule 10, sub-rule 1(a), of “The C&D Waste Management Rules, 2016”, Central Pollution Control Board already issued „Guidelines on Environmental Management of C&D Wastes (*March, 2017*)’ and „Guidelines on dust mitigation measures in handling construction material and C&D wastes (*November, 2017*)”. Following activities have been carried out for implementation of the C&D Waste Management Rules, 2016:

- Guidelines on the Anti–Smog Guns in Construction and Demolition sites having areas more than 20,000 sq metres have been finalised. The same has been communicated to the Commission for Air Quality Management in National Capital Region and adjoining areas.
- MoEF&CC has recommended for incorporation of suitable clause in Environmental Clearances granted to infrastructure Projects by MoEF&CC and State EIA Authorities as per EIA Notification, 2006 regarding use of materials made from processing of construction and demolition wastes all over the country.
- As per information submitted by SPCBs/PCCs for the year 2019-20; total no. of operational and proposed plants in the country are 16 and 25 respectively. The details of C&D waste processing facilities, State-wise, are given in **Table 6.3**.

Table 6.3- Details of C&D Waste Processing Facilities

S. No.	State/UTs	Waste Processing Facility		Remarks
		Name and Location	Capacity (TDP)	
1.	Andhra Pradesh	By MA&UD Dept., Vijayawada	480	Operational
		By MA&UD Dept., Visakhapatnam		
		By MA&UD Dept., Tirupati		
2.	Chandigarh	Municipal Corporation Chandigarh at industrial area, Phase-I, Chandigarh	160	Operational
3.	Delhi	M/s IL&FS Environmental Infrastructure & Services Ltd., Jahangirpuri	2000	Operational
		M/s IL&FS, Shastri Park	500	Operational and proposed for 500 TPD additional capacity
		M/s IL&FS, Ranikhera	150	Operational
		M/s Garg & Company, Bakkarwala (South DMC)	1,000	Operational
		Maidangarhi (South DMC)	1,000	Proposed facilities are planned to process from December, 2020.
		Ranikhera (North DMC)	1,000	
		Libaspur (PWD)	500	
4.	Goa	By Goa Waste Management Corporation (GWMC) in village Curchirem of Bicholim Taluka	500	Proposed
5.	Gujarat	Ahmedabad Enviro Projects Pvt Ltd., Block no. 115, Shahwadi, Narol, Dist.: Ahmedabad	1,000	Operational
		Surat Green Precast Pvt. Ltd., Plot No. H-29, Kosad, Dist. Surat	300	
		Vadodara Municipal Corporation DNP Infrastructure Pvt. Ltd.	250	Proposed
		Rajkot Municipal Corporation, S No 352, Near Kothariya Khan, Dist.: Rajkot	100	
6.	Haryana	Operated by Municipal Corporation, Gurugram at Village Basai	300	Operational
		Faridabad	100 – 250	Proposed
		Sonepat	100 – 250	
7.	Madhya Pradesh	Indore Municipal Corporation	-	Operational
		Ujjain Municipal Corporation	-	Operational
		Bhopal Municipal Corporation	-	Operational
		Jabalpur Municipal Corporation	-	Operational
8.	Puducherry	By Oulgaret Municipality at Truck terminal, Mettupalayam.	50	Proposed

S No.	State/UTs	Waste Processing Facility		Remarks
		Name and address	Capacity (TPD)	
9.	Telangana	Jeedimetla	750	Operational
		Fathulaguda	-	Proposed (Obtained CFE)
		Kothwalguda	-	Proposed
		Warangal	-	Proposed
		Nizamabad	-	Proposed
		Karimnagar	-	Proposed
10.	Uttar Pradesh	Sector - 81, Noida	300	Proposed
		Hindon Vihar, Ghaziabad	400	
		Ghaziabad	150	
		Ghaziabad	-	
		Noida	-	
		Agra	-	
		Kanpur	-	
		Varanasi	-	
		Prayagraj	-	
		Meerut	-	
		Lucknow	-	

6.3 E- Waste Management

The management of E-Waste is being carried out under the frame work of E-Waste (Management) Rules, 2016 and amendments thereof. The Rules are effective from 01-10-2016 and have the following specific objectives:

- Extended Producer Responsibility (EPR) that extend responsibility of Producers beyond consumer stage for collection, storage, transportation and environmentally sound dismantling and recycling of E-Waste, and creating awareness among consumers through the instrument of EPR Authorization (EPRA);
- To promote and encourage establishment of an efficient E-waste collection mechanism;
- To promote Environmentally Safe & Sound Collection, Transportation, Storage and Dismantling and Recycling only through authorized dismantlers and recyclers thereby minimize illegal recycling / recovery operations; and
- Limit of hazardous substances in Electrical and Electronic Components

The management of E-Waste is based on the principle of Extended Producer Responsibility (EPR). Under EPR, the producers of electrical and electronic equipment (EEE-21 numbers in two categories) listed in the Schedule-I of rules have been given responsibility of management of their products once they have attained end of life. Under EPR regime producers of EEE, have been given annual E-waste collection targets based

on the generation from the previously sold EEE. After collection producers have to get the E-waste dismantled and recycled in an environmentally-sound manner. Under EPR regime producers of EEE, have been given annual E-waste collection targets based on the generation from the previously sold EEE or based on sales of EEE as the case may be.

6.3.1 Monitoring Mechanism for Compliance of E-waste Rules, 2016

- Annual and Quarterly returns from EPR authorized Producers.
- Annual Returns from PROs
- Annual returns from authorized Manufacturers, Dismantlers, Recyclers, Refurbishers, Bulk Consumers to concerned SPCBs/PCCs
- Annual Report from SPCBs / PCCs to CPCB.
- Annual Review Report from CPCB to MoEF & CC
- Random verifications of dismantler / recyclers to ensure compliance of CPCB guidelines
- Random inspection EPRA producers (collection centres) to ensure compliance of EPR conditions.
- Implementation of Action Plan - CPCB in association with SPCBs / PCCs has established a system of continuous verification of the producer's system of collection and verification of their compliance including collection target. The SPCBs / PCCs has to continuously verify the dismantlers and recyclers of E-waste. The SPCBs / PCCs are required to submit their quarterly progress report through a web portal to CPCB.

6.3.2 Status of Implementation of E-Waste (Management) Rules, 2016

- Total 151 EPR Authorizations (EPRA) have been granted under E-Waste (Management) Rules, 2016 during year 2020-21. Upto March, 2021, 1,704 EPR Authorisation has been granted since 2016.
- Total 16 PRO registrations have been granted under E-Waste (Management) Rules, 2016 during the year 2020-21. Upto March 31, 2021, 51 PRO registrations has been granted since 2016.
- Number of Authorised dismantlers/recyclers is 400 having processing capacity of 10,68,542.72 tonnes (based on information received from SPCBs/PCCs).
- Quantity of E-Waste dismantled and recycled during the year 2017-18, 2018-19 & 2019-20 is 69,413.619 tonnes, 1,64,663.00 tonnes and 2,22,436.34 tonnes respectively.
- There are around 2,759 E-Waste collection centres of EPR Authorized producer in the country for collection of E-Waste.

- The estimated quantum of E-waste generated from 21 types of notified EEE is given below:
 - During year 2017-18, the estimated generation is 7,08,445.0 tonnes.
 - During year 2018-19, the estimated generation is 7,71,215.0 tonnes.
 - During year 2019-20, the estimated generation is 10,14,961.2 tonnes.

6.3.3 Actions for Implementation of E-Waste (Management) Rules, 2016

For implementation of E-Waste (Management) Rules, 2016 following specific efforts have been made:

- Implementation of guidelines for E-Waste (Management) Rules, 2016 comprising nine (9) specific guidelines have been prepared and uploaded on the CPCB web site.
- Guidelines for Producer Responsibility Organizations (PRO) have been prepared and uploaded on the CPCB web site.
- The guidelines for Environmental Compensation Charges (ECC) under E-Waste rules have been prepared in December, 2020 and submitted before the Hon^{ble} NGT (PB).
- An Action Plan is in place for enforcement of the E-Waste (Management) Rules, 2016 in the country, and is being implemented through SPCBs / PCCs. The Action Plan has 11 action points for implementation of the said Rules. The SPCBs / PCCs are regularly carrying out activities as per the Action Plan and being uploaded their verification reports on the web portal on quarterly basis.
- Show Cause notices have been issued to 1,001 Producers during year 2020-21 for non-compliance (186 for not meeting collection target, 292 for non-functional collection centre and 523 for non-submission of Annual Report) under the E-Waste rules. Also in the past EPRA of 10 EPRA producers was suspended due to non-functioning of its collection mechanism. The suspension was, however, revoked later based on corrective measures taken by the producers.
- Direction issued under Section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 and under the Air (Prevention and Control of Pollution) Act, 1986 to UPPCB on 05-05-2020 for taking action against three dismantlers and recyclers for violation of E-waste rules and guidelines of CPCB. Accordingly, UPPCB ordered for closure of these units. According to the report of UPPCB, the three units are now complying.

- 400 dismantlers / recyclers of E-Waste are operating in 20 States namely Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Uttarakhand and West Bengal. These authorised dismantlers / recyclers have annual processing capacity of 10,68,542.72 tonnes.
- For ensuring compliance of E-waste rules, a system of quarterly verification of quantity of E-waste collected by producers and systems for collection and channelization of E-waste by SPCBs / PCCs is in place. System of annual verification of facilities of dismantlers and recyclers for their infrastructure and records by SPCBs / PCCs is also in place. A software has been developed by CPCB where SPCBs / PCCs are required to upload their quarterly verification report. The portal has been functioning since October, 2019. The portal is available at CPCB's website.
- An online E-Waste management system has been developed by C-DAC with technical input from CPCB. The system is under second stage of testing. The system, when fully implemented, will have capabilities of on-line Material tracing through QR Code / Bar Code, vehicle tracking system, video tracking system for checking the flow of E-waste from one destination to another destination. Followings are the salient features:
 - On-line EPR Authorisation application processing
 - Tracking, tracing and movement of E-waste
 - Reports generation on real-time basis for all stakeholders.

6.4 Hazardous Waste Management

Standard Operating Procedures (SoPs) have been developed for utilization of hazardous waste in environmentally-sound manner. During 2020-21, 14 SoPs have been developed as given below:

1. Utilization of Spent TiO_2 -NaCl cake generated from process residue / waste containing chloride from the catalyst manufacturing industries for recovery of Titanium Dioxide (TiO_2).
2. Utilization of Spent Sodium Hypo-chlorite along with Fresh / Spent Caustic Solution for manufacturing of Sodium Hypochlorite.
3. Utilization of ETP sludge generated from Textile Industry to use as a Supplementary fuel along with coal in Thermic Fluid Heater (TFH) / Boiler.
4. Utilization of Sludge generated from spent acid neutralization facility of CETP for manufacturing of bricks.
5. Utilization of ETP Sludge generated from secondary clarifier as fuel in recovery boiler.

6. Utilization of Magnesium Chloride Salts generated from DEMP (Diethyl Methyl Phosphonite reaction) in the MAP (Magnesium Ammonium Phosphate) Process in CETP.
7. Utilization of Brine Sludge (generated from Caustic Soda Unit for manufacturing of bricks.
8. Utilization of ETP Sludge generated from pickling process for manufacturing of Red Oxide & Gypsum to manufacture Paver Blocks.
9. Utilization / Distillation of Dilute Acetic Acid generated from Pharmaceutical / Pesticide / Chemical Sector as resource material for manufacturing of Acetic Anhydride or Glacial Acetic Acid.
10. Utilization of metal and metal-bearing wastes (Tin/Tungsten, Cobalt/Tantalum/Vanadium/Niobium scrap) for recovery of metal salts / alloys.
11. Utilization of Spent Sulphuric Acid generated during manufacturing of Hydrobromic acid (HBr) as resource material for manufacturing of Bromine (liquid) through bittern route.
12. Utilization of Spent Hydrochloric Acid (generated from manufacturing of Chlorinated Paraffin Wax) for manufacturing of Calcium Chloride.
13. Utilization of spent hydrochloric acid generated from Trichloro / Perchloroethylene (or) Chlorinated Paraffin Wax (CPW) in manufacturing of ADCA.
14. Utilization of waste salts from CETPs / ETPs of textile manufacturing / processing industries for recovery of salts for industrial use.

All SoPs are placed in public domain at <https://cpcb.nic.in/sop-for-hw-specific/>

Further, SoP for disposal of Bio-Medical Waste, including medical waste generated during COVID-19 pandemic through incineration in common hazardous waste treatment, storage and disposal facility has been prepared.

CPCB has also developed “Guidance Document for conducting Environmental Audit of Common/Captive Treatment, Storage and Disposal Facilities (TSDFs)”. The objective of Environmental Audit of TSDFs is to standardize the evaluation process to assess the infrastructure facilities, existing practices/procedures adopted to comply with statutory/performance requirement, environmental compliances and to identify gaps in management alongwith related corrective measures. This document is available at CPCB website <https://cpcb.nic.in/technical-guidelines/>

6.4.1 National Inventory Report on Hazardous and other Wastes Generation and its Management

Based on information provided by 31 SPCBs / PCCs (except from Arunachal Pradesh, Karnataka, Lakshadweep and Tripura), the national inventory of Hazardous and other Waste has been prepared during year 2019-20 and following are the findings with respect to generation, recycling, utilization, disposal and storage of hazardous and other wastes:

- There are 69,308 number of Hazardous Wastes generating units in the country and about 8.78 million tonne of hazardous waste generated during 2019-20.
- Top 10 Hazardous Waste generating States are Gujarat (28.30%), Maharashtra (11.38%), Tamil Nadu (10.99%), Odisha (7.74%), Andhra Pradesh (7.07%), Rajasthan (6.69%), Jharkhand (4.67%), Uttar Pradesh (4.12%), Telangana (3.61%) and Kerala (3.54%), which together contribute about 88% of total hazardous waste generated.
- At present, there are 1,857 recyclers having authorized capacity of 75,25,637 tonne. Maharashtra with 345 authorised recyclers has largest number of units followed by Haryana (228), Gujarat (223) and Uttar Pradesh (180).
- Apart from recyclers, there are 512 units utilising the hazardous waste having authorized capacity of 37,48,813 tonne. Gujarat leads with 140 utilizers followed by Maharashtra (94) and Uttar Pradesh (41).
- Hazardous waste is also being co-processed in Cement Plant for energy recovery. In India, there are about 90 Cement Plants utilizing hazardous waste in Cement kilns. The quantity authorized for co-processing is 1,87,79,127 tonne and about 17,87,042 tonne hazardous waste has been co-processed during 2019-20.
- There are 45 common TSDFs operating in 18 States / UT. Of 45 common facilities, 17 are with integrated facilities having both secured landfills and incinerators. Standalone incinerators are provided in 12 TSDFs and 16 TSDFs have secured landfills facilities. The quantity of Hazardous waste generation & management during year 2019-20 is given in **Table 6.4**.

Table 6.4 - Hazardous Waste Generation (Million Tonne) & Management

1.	Quantity of hazardous waste generated during the financial year 2019-20	:	8.78
2.	Quantity of hazardous waste imported	:	0.42
3.	Quantity of hazardous waste stored at occupiers' premises at the beginning of financial year	:	1.47
4.	Quantity of HW Recycled/ Utilized	:	5.26
	(i) Recycling of commonly recyclable Hazardous wastes (Schedule IV listed wastes under the HOWM Rules, 2016)	:	1.23
	(ii) Co-processing in Cement Kilns	:	1.79
	(iii) Captive utilization	:	1.33
	(iv) Non-captive utilization (other than (ii) above) under Rule 9 of the HOWM Rules, 2016	:	0.93
5.	Quantity of HW disposed	:	3.23
	(i) Common SLF	:	2.24
	(ii) Common Incinerator	:	0.17
	(iii) Captive SLF	:	0.64
	(iv) Captive Incinerator	:	0.18
6.	Quantity of hazardous waste exported	:	0.01
7.	Quantity of hazardous waste stored at occupiers' premises at the end of financial year	:	1.58

- Apart from hazardous waste recyclers / utilizers, there are 382 other waste recyclers / utilizers having authorized capacity of 36,11,362 tonne. During 2019-20, about 8,65,394 tonne of imported other waste and 6,81,962 tonne of domestically generated waste has been recycled / utilized.

The copy of the National Inventory report on Hazardous and other Waste Generation and its Management (2019-20) is available at CPCB website at https://cpcb.nic.in/uploads/hwmd/Annual_Inventory2019-20.pdf.

6.5 Contaminated Sites in the Country

Contaminated sites are areas polluted by toxic and hazardous substances that pose a risk to human health and the environment. Contaminated sites may include production areas, landfills, dumps, waste storage and treatment sites, mine tailings sites, spill sites, chemical waste handling and storage sites. Dumping or spillage of hazardous wastes or chemicals would adversely impact / affect the

surrounding environment, particularly soil, surface water and ground-water and as result, people in impact zone are knowingly or unknowingly exposed to toxic substances. These sites may be located in residential, commercial, agricultural, recreational, industrial, rural, urban or wilderness areas.

Contaminated sites need to be investigated in detail and thereafter remediation activity should be carried out to reduce human health risks and environmental impacts by adopting appropriate remediation technologies. Remediation of contaminated sites should be based on detailed scientific assessment examining Source-Pathway-Receptor (SPR) scenario. Standard for remediation needs to be based on human health risks consideration. Status for action taken for remediation of contaminated area under National Clean Energy Fund (NCEF) project is given in **Table 6.5**.

Table 6.5 - Status for Remediation of Contaminated Area under National Clean Energy Fund (NCEF)

S No	Name of the Site	Status
Kerala		
1.	Pesticides contaminated sites at Kuzhikandom Thodu (Creek), Eloor, Kochi, Kerala	<ul style="list-style-type: none"> Tendering process is underway for execution of remediation work. State Govt. is executing the remediation project.
Madhya Pradesh		
2.	H-Acid contaminated sites at Dosigoan Industrial Area, Ratlam, Madhya Pradesh: (i) Sajjan Chemicals a) Plot No. 54 E b) Plot No. 61 B (ii) M/s Jayant Vitamin Ltd	<ul style="list-style-type: none"> Detailed site investigation completed and it is revealed that the site is contaminated with color, TDS, Chloride and Sulphate. Hazardous waste is still lying at Plot No. 54E. In this regard, MPPCB has issued necessary directions to responsible party to lift and dispose of hazardous waste through TSDF. Hazardous waste had been lifted from Plot No-61B, and disposed through TSDF. At JVL-plot, no historical waste dump was found, except old industrial equipment and chemical storage tanks.
Odisha		
3.	Mercury contaminated sites: (i) Dumpsite JCL-I (Outside the Premises of M/s Jayshree Chemicals Ltd Near Rushikulya River)	Remediation work has been initiated by the Responsible party (M/s Grasim Industries Ltd.) and the Progress is as below: - Unit had constructed new guard pond for storage of treated effluent.

	(ii) Dumpsite JCL-III (Outside the Premises of M/s Jayashree Chemicals Ltd Near Rushikulya River) (iii) Dumpsite JCL-II (Jayashree Chemicals, Ganjam)	<ul style="list-style-type: none"> - NOC had been obtained from Central Ground Water Board (CGWB) for installation of abstraction wells to remediate groundwater as per the DPR. - As per the DPR, Odisha SPCB has been directed the unit to construct New Secured Land Fill (NSLF) to dispose of hazardous waste as a part of remediation activity. In this regard, tendering process has been initiated by the Unit. - Contaminated material has been excavated from old guard pond and stored in HDPE lined facility. In this regard, photographs are given at Annexure-I.
Uttar Pradesh		
4.	Hexavalent Chromium contaminated sites: (i) Khanchandrapuri, Rania Kanpur Dehat (ii) Shivnathpura, Rania, (Kanpur Dehat) Ramabai Nagar, Kanpur, UP	Re-tendering process is underway for execution of remediation works by UPSIDA and UPPCB.

6.5.1 State-wise Status of Contaminated Sites

There are 280 sites based on the preliminary investigation upto January, 2021. In compliance to the Hon^{ble} NGT order in Original Application No. 804/2017 in the matter of Rajiv Narayan & Anr. Vs Union of India & Ors, the list of contaminated sites provided by SPCBs / PCCs is given in **Table 6.6**. Out of 280 probable contaminated sites, **112 sites** have been identified as contaminated with various contaminants.

Table 6.6 - Details of the Contaminated Sites State-wise

S. No.	States / UTs	Status as on January, 2021		HW lying at site	Preliminary Assessment	Identified site for remediation	
		Probable Sites	Contaminated Sites			Detailed Investigation and DPRs	Remediation Works
1	Andhra Pradesh	4	-		2		
2	Assam	2	2				
3	Chhattisgarh	3	2				
4	Delhi (NCR)	12	11				
5	Goa	1	1				
6	Gujarat	15	8				2
7	Haryana	10	4				
8	Himachal Pradesh	3	1				
9	Jharkhand	12	2				1

S. No.	States / UTs	Status as on January, 2021		HW lying at site	Preliminary Assessment	Identified site for remediation	
		Probable Sites	Contaminated Sites			Detailed Investigation and DPRs	Remediation Works
10	Karnataka	19	6				
11	Kerala	5	4	1		2	1
12	Madhya Pradesh	14	6	1		3	
13	Maharashtra	3	3		5		1
14	Odisha	9	23	4(3)		1	3
15	Punjab	3	6				
16	Rajasthan	8	2				
17	Tamil Nadu	5	6	1		1	2
18	Telangana	7	2			1	
19	Uttar Pradesh	22	21	1		5	2+(2)
20	Uttarakhand	5	1				
21	West Bengal	6	1			1	
Total		168	112	8	7	14	12+2 = 14

Out of 112 contaminated sites identified so far, 28 sites have been investigated in detail and identified for remediation works, the details are given below:

- Detailed Project Reports (DPRs) have been prepared for 16 sites and construction is under way for 3 sites (Madhya Pradesh) under National Clean Energy Fund (NCEF) Project. Out of 19 sites, remediation works initiated at 3 sites (Odisha) and other 3 sites (1 in Kerala and 2 in Uttar Pradesh), tendering process is underway.
- DPR prepared for 1 site (Telangana) under the World Bank assisted Capacity Building for Industrial Pollution Management Project (CBIPMP) of MoEF&CC, GoI and Telangana SPCB. However, remediation works could not be taken-up due to the status quo orders issued by the Hon'ble High Court of Telangana in WP No. 39864 of 2014.
- Remediation works underway at 11 sites and details are given in **Table 6.7**.
- Detailed investigation is underway for the remaining 84 contaminated sites by SPCBs / PCCs.
- Preliminary investigation is underway for the remaining 168 probable contaminated sites by SPCBs / PCCs.

Table 6.7 - Remediation Work at Contaminated Sites

S. No.	Name of the Site	Types of Contaminants & Responsible Party for execution of Remediation work
Gujarat (02)		
1.	Effluent Channel Project Limited (ECPL), Baroda Effluent Canal, Vadodara and Bharuch	Color, Phenolic compound, Sulphate, Chloride, & TDS Huntsman International (India) P. Ltd.
2.	Swastik Organic, survey No. 93 Paiki, Sabar Dairy Road, Piplodi, Gujarat	Organic compounds, Color M/s Swastik Organic
Jharkhand (01)		
3.	Roro hills, Jharkhand -833201	Asbestos and chromite Deptt. of Mines, Govt. of Jharkhand
Maharashtra (01)		
4.	M/s Godavari Bio-Refineries, Ahmed Nagar District, Maharashtra	Color, Sulphate (SO ₄), Chlorides and volatile fatty acids Godavari Bio-Refineries
Odisha (03)		
5.	Dumpsite JCL-I (Outside the Premises of M/s Jayshree Chemicals Ltd, near Rushikulya River)	Mercury M/s Grasim Industries Ltd (GIL)
6.	Dumpsite JCL-III (Outside the Premises of M/s Jayshree Chemicals Ltd, near Rushikulya River)	
7.	Dumpsite JCL-II (Jayashree Chemicals, Ganjam)	
Tamil Nadu (02)		
8.	M/s Hindustan Unilever Limited (HUL), Kodaikanal, Tamil Nadu	Mercury M/s Hindustan Unilever Ltd
9.	M/s BPCL Oil contaminated site, Tondairpet, Chennai, TN	Petroleum Hydrocarbons (Diesel range organics (DRO) & Gasoline range organics (GRO)) M/s BPCL
Uttar Pradesh (02)		
10.	Industrial Area Meerut Road, Ghaziabad, UP	Hexavalent Chromium
11.	Lohia Nagar C Block, Ghaziabad, UP	M/s Shriram Piston Ltd & Ors

6.6 Solid Waste Management

Overview of Solid Waste Management in the country is given below:

Total Solid Waste Generation	:	1,50,847 tpd
Solid Waste Collected	:	1,46,053 tpd (96.8%)
Solid Waste Treated	:	70,973 tpd (47%)
Solid Waste landfilled	:	40,863 tpd (27.08%)
Solid Waste Unaccounted	:	39,010 tpd (25.8%)

6.6.1 Status of Solid Waste Management

- Source segregation of Solid Waste has been initiated in 34 States / UTs (100% compliance in 4 States).
- Total 1,359 Solid Waste landfill sites have been identified and 379 sites are operational in 21 States.
- There are 3,075 dumpsites in the country, 91 dumpsites have been capped and 14 dumpsites have been converted into sanitary landfills.
- CPCB has issued directions under Section 5 of EPA, 1986 for enforcement of provision of Solid Waste Management (Rule), 2016 regarding Bio-Mining waste in January, 2020.
- Presently, there are 12 „Wastes to Energy“ plants are operational in the country. As per the directions of Hon“ble NGT, joint monitoring was conducted by CPCB & DPCC. The three „Wastes to Energy“ plants have been found to be non-complied and Show Cause Notice has been issued to the three plants.

6.7 Plastic Waste Management

The status of Plastic Waste Management in the country is given in **Table 6.8**.

Table 6.8 - Status of Plastic Waste Management in the Country			
S. No	Item	Quantity	Remarks
1	Estimated Plastic Waste Generation	34,69,780 tpa	Based on data provided by 35 States in Annual Report
2	Recycling Capacity (20 States)-	15.62 Lakhs tpa	Based on data provided by 20 States in O.A. No. 247/2017
3	Co-processing	1.67 Lakhs tpa	Based on data provided by 20 States in O.A. No. 247/2017
4	Major three States generating Plastic Waste	Maharashtra (13%), Tamil Nadu (12%) & Gujarat (12%)	Based on data provided by 35 States in Annual Report

6.7.1 Implementation of Plastic Waste Management Rules

- Standard Operating Procedure (SOP) as well as the online portal for registration of Producers, Importers & Brand Owners (PIBOs) has been developed. 307 Brand-Owners (BO) and 04 Producers have been issued registration till date having Extended Producer's Responsibility (EPR) target of 8 Lakh tpa.
- CPCB has framed the Standard Operating Procedure (SOP) and developed the online portal for certification of compostable Manufacturers/Sellers.
- As per provision 4 (h) of PWM Rules, 2016, certificates have been issued to 163 compostable Manufacturers / Sellers till date. The certified capacity has increased substantially, from nil in 2016 to 2,80,000 tpa which addresses approximately 8% of the total Plastic Waste generated in the country.

6.7.2 Direction Issued for Enforcement of Plastic Waste Management Rules, 2016

The direction issued under Plastic Waste Management (PWM) Rules, 2016 are given in **Table 6.9**.

Table 6.9 - Direction Issued under Plastic Waste Management Rules, 2016

S. No.	Direction issued	Date of direction issued	Directions issued to
1.	Directions issued to SPCBs/PCCs regarding registration of plastic brand owners / producers and fulfilment of EPR as per provision of PWM Rules	06-10-2020	All SPCBs / PCCs
2.	Directions issued to All SPCBs / PCCs / secretary UD under section 5 of EPA for setting up of Institutional Mechanism for enforcement of provisions of PWM Rules	09-10-2020	<ul style="list-style-type: none"> • All SPCBs / PCCs • Secretary, UD of all States/ UTs
3.	Directions issued to Secretary UD of all States under section 5 of EPA for non-submission of information / submission on incomplete information on PWM to CPCB in the matter of OA no. 247/2017	09-10-2020	Secretary, UD of all States / UTs
4.	Directions issued to SPCBs / PCCs for Enforcement of provisions of PWM Rules for storing, packing or selling cigarettes, gutka, tobacco and pan masala in all forms.	22-10-2020	All SPCBs / PCCs
5.	Directions u/s 5 of EPA issued to SPCBs / PCCs for Enforcement of Rule 4 (h) of PWM Rules regarding issue of Certificates to compostable plastic manufacturers	04.03.2021	All SPCBs / PCCs

6.7.3 Direction Issued under the Hon^{ble}NGT

- In compliance to the Hon^{ble} NGT in O.A. No. 247/2017, Guidelines have been framed for assessment of Environmental Compensation (EC) for violation of Plastic Waste Management Rules, 2016. Guidelines have provisions for penal action including seizure of goods and levying Environmental Compensation for violation of Section 4 (c) & 4 (d) of the PWM Rules, restricting thickness of carry bags / plastic sheet to 50 microns.
- Following the Hon^{ble} NGT order in the matter of Saloni Singh Vs Uoi & Others (OA No. 141/2014), environmental performance of 36 railways stations has been assessed.

Chapter VII

ENVIRONMENTAL RESEARCH

7.1 Revision of Environmental Standards and Comprehensive Document for Dairy Industry

A project on revision of environmental standards and development of comprehensive industry document (COINDS) for Dairy Industry has been taken up. The project includes the inventorization of Dairy Industries in the country.

7.2 Study of Waterless Chrome Tanning Technology in Tannery Units

There are more than two thousand Tannery units in India. More than 90% of global leather production is through chrome-tanning process currently. The conventional methods employed for tanning lead to significant material loss and serious environmental concern. Chrome wastes have strong impact on the environment due to the negative effects on ecosystems and public health, and the high cost involved in treatment process.

The Central Leather Research Institute (CLRI) patented “Water-less Chrome Tanning Technology” (WCTT). In this process, the tanning chemical basic chrome sulphate is charged in dry form without addition of water and any chemicals. The advantage of this technology is that (during tanning operation, all the charged Chromium Sulphate is fully absorbed in the hides leaving) no discharge of Chrome bearing waste during tanning operation. CLRI transferred WCTT to 76 Tannery units located in different States.

CPCB has initiated the study of these units with CLRI, Chennai, focusing on the technology and its impact on chrome-bearing waste generation as well as TDS control.

7.3 Development and Promotion of Non-POP Alternatives to DDT

The UN project “Development and Promotion of non-POPs alternatives to DDT” has been initiated to reduce production, use and consumption of DDT and promote alternative chemicals like Neem oil, Neem-based IRS, long-lasting insecticidal nets (LLIN). CPCB has awarded this project to NEERI. Four specific Training Modules on IVPM-based on alternatives to DDT has prepared based on the project components and also approved by National Vector Borne Diseases Control Programme (NVBDCP) on January 22, 2021. The first phase of online training of Trainers (TOT) and pilot testing of modules to promote non-POPs alternatives-based Integrated Vector Pest Management with officials (Malaria officers, Entomologist). UNEP has extended the time limit of the project upto December 31, 2022.

7.4 Review of Environmental Standards for Caustic Soda Industry (Membrane Cell) and Preparation of COINDS on Caustic Soda

Membrane Cell technology is a relatively recent development after phasing out of Mercury Cell process in Chlor Alkali sector. The standard for the sector was 30- year old. In view of this, project has been initiated to revise and review the standards for Membrane cell with M/s CP Consultants Pvt in November, 2019 and study is under process.

7.5 Review of the Norms related to Deep Sea Discharge

Central Pollution Control Board has prepared a report of the Technical Committee to review the deep sea discharge norms, and the report has been submitted to MoEF&CC on June 02, 2021.

7.6 Protocol for Enhanced Monitoring of Pesticides

In the matter of O.A. No. 46/2020, the Hon^{ble} NGT constituted the Committee consisting of representatives of Central Pollution Control Board, State Pollution Control Boards and Directorate of Plant Protection Quarantine & Storage to finalize the Protocol for Enhanced Monitoring of Pesticides, and the same was circulated among all SPCBs / PCCs.

7.7 Zero Liquid Discharge

The Guidelines for “Water Conservation and Safe Treated Water Reuse” has been finalized for 14 sectors and industries would adopt /explore cascading Safe Treated Water Reuse (STWR) approach and reduce 50% fresh water consumption in the next five years.

7.8 Study of Lead Concentration in Lead Processing Units of Central Region

The Central Pollution Control Board has carried out a study to assess the lead concentration in the Lead processing units of the central region. The analysis result of lead recyclers units is given in **Table 7.1, 7.2 and 7.3.**

Table 7.1- Analysis Result of Source Emission of Lead Recyclers unit of the Central Zone

S. No.	Name of industry	Date of monitoring	Location	Result	
				PM (mg/Nm ³)	Lead (mg/Nm ³)
1.	M/s Pilot Industries Pvt Limited, Bhiwadi, Rajasthan	06.10.2020	Refining pot	12.67	0.91
2.		06.10.2020	Rotary Furnace 3&4	16.99	1.76
3.		07.10.2020	Rotary Furnace 1&2	22.10	2.49
4.	M/s Mittal Pigments Pvt Limited, Kota, Rajasthan	09.10.2020	Refining pot	14.89	1.05
5.	M/s Shivshakti Iron & Metals Industries, Gwalior, MP	25.12.2020	Conventional Furnace-1	18.00	4.92
6.	M/s Manoj Industries, Indore, MP	01.02.2021	Conventional furnace	19.00	4.58
7.		01.02.2021	Rotary Furnace	24.00	3.85
8.	M/s Aman Enterprises, Indore, MP	02.02.2021	Conventional Furnace-2	21.00	3.51
9.		02.02.2021	Conventional Furnace-2	26.00	3.97
10.	M/s Accumulator Industries, Raipur, Chhattisgarh	11.02.2021	Conventional Furnace 1&2	32.00	6.15

Table 7.2 - Analysis Result of Lead in Ambient Air at Recyclers unit of the Central Zone

S. No.	Name of industry	Date of monitoring	Location	Result	
				PM ₁₀ 24-Hour Avg. (µg/m ³)	Pb 24-Hour Avg. (µg/m ³)
1.	M/s Pilot Industries Pvt Limited, Bhiwadi, Rajasthan	06.10.2020 - 07.10.2020	Factory Main gate	75	0.580
2.	M/s Mittal Pigments Pvt Limited, Kota, Rajasthan	9.10.2020 – 10.10.2020		87	0.743
3.	M/s Shivshakti Iron & Metals Industries, Gwalior, MP	25.12.2020- 26.12.2020		75	0.574
4.	M/s Manoj Industries, Indore, MP	1.02.2021- 02.02.2021		86	0.713
5.	M/s Aman Enterprises, Indore, MP	02.02.2021- 03.02.2021		78	0.629
6.	M/s Accumulator Industries, Raipur, Chhattisgarh	10.02.2021- 11.02.2021		89	0.849

Table 7.3- Analysis Result of Lead in work zone at Recyclers Units of Central Zone

S No.	Name of industry	Date of monitoring	Location	PM ₁₀ (µg/m ³)	Pb (µg/m ³)
1.	M/s Pilot Industries Pvt Limited, Bhiwadi, Rajasthan	06.10.2020	Rotary furnace area	712	20.700
2.			Refining area	619	14.300
3.	M/s Mittal Pigments Pvt Limited, Kota, Rajasthan	09.10.2020	Rotary Furnace Area	824	23.700
4.			Refining area	718	11.200
5.	M/s Shivshakti Iron & Metals Industries, Gwalior, MP	25.12.2020	Conventional furnace-1 area	315	8.207
6.			Conventional furnace-2 area	349	10.481
7.	M/s Manoj Industries, Indore, MP	01.02.2021	Rotary furnace area	562	15.074
8.			Conventional furnace area	292	10.116
9.	M/s Aman Enterprises, Indore, MP	02.02.2021	Conventional furnace-1& 2 area	517	14.560
10.			Conventional furnace-2& 3 area	446	13.172
11.	M/s Accumulator Industries, Raipur, Chhattisgarh	10.02.2021	Furnace Area	849	32.125
12.			Battery Manufacturing area	498	19.068

Chapter VIII

ENVIRONMENTAL TRAINING

During the financial year 2020-21, seventeen online training programmes were organized by Environmental Training Unit (ETU) through reputed training / R&D institutes in various priority areas related to environment for technical & scientific officials of CPCB / SPCBs / PCCs / others. More than 400 officials from SPCBs / PCCs / Environment Depts. has been participated in the CPCB-sponsored training programmes. The details are as under:

1. Air Pollution Control Devices & OCEMS for various sectors
2. Detailed insight into Management of Various Waste, like Hazardous Waste E-Waste, Construction and Demolition Waste, Municipal Solid Waste and Bio-medical Waste
3. Analysis of Pesticides and other Organic Chemicals in Environmental Samples
4. Advance Instrumental Analytical Techniques and Preventive Maintenance
5. Operating Mechanism and Performance Evaluation of Common Bio-medical Waste Treatment Facility (CBWTF)
6. Environmental Legislations, Interpretation, Enforcement, Legal and Statutory Requirements - Case Studies
7. Environmental Data Interpretation, Compilation, Analysis, Presentation and Reporting – Hands-on-Training and Case Study
8. Performance Evaluation of Effluent Treatment Plants / Sewage Treatment Plants / Common Effluent Treatment Plants
9. Occupational Health & Safety Management System- 45001: 2018
10. Environmental Monitoring – Sample collection of Effluent, Ambient Air Quality Monitoring, Stack and testing of various environmental parameters for air, water & noise.
11. Environmental Sustainability of Sugarcane Ethanol Industries
12. Aspects of Hazardous Waste TSDF from Initiation till Commissioning and Issues Pertaining to Compliance Monitoring
13. Advanced Oxidation Treatment Technology–A Futuristic Way forward for Treatment of Pollutants
14. Monitoring of Implementation Status of Extended Producer Responsibility under the E-Waste & Plastic Waste Management Rules

15. Sophisticated Instruments for Analysis of Toxic Heavy Metals in Environmental Samples and GC/MS Operation
 16. Control of Air Pollution, Source Apportionment Studies and Preparation of Emission Inventory
 17. Urban Air Quality Management
- One hundred seventeen (117) CPCB officials participated in inland training programmes organized by other organizations.
 - During 2020-21, two-week in-house induction training programme was organized for the newly recruited Admin Cadre Staff of CPCB.
 - One-day online training programme on “**Right to Information Act, 2005**” was also organized by Indian Institute of Public Administration (IIPA), Delhi for FAA / CPIO"s of CPCB, Head Office /Regional Directorates / Project Office.
 - Three CPCB officials from Head Office / Regional Directorate, Bengaluru participated in online training programme on “**Establishment Rules**” organized by Institute of Secretariat Training and Management (ISTM), Delhi during March 01-05, 2021.
 - Six CPCB officials from Head Office / Regional Directorates participated in on-line training programme on “**Public Procurement**” organized by Arun Jaitley National Institute of Financial Management (AJNIFM), Faridabad during March 15-18, 2021.

Chapter IX

ENVIRONMENTAL AWARENESS AND PUBLIC PARTICIPATION

9.1 Publications of Reports / Technical Documents

The following reports have been published during 2020-21:

- A Ready Reckoner for Personnel engaged in Environment Management in Small and Medium Scale Industries;
- Impact of Lockdown on Water Quality of Major Rivers;
- Impact of Lockdown on Ambient Air Quality;
- National Ambient Air Quality Status & Trends - 2019;
- Updated and compiled 7th Edition of Pollution Control Acts, Rules & Notification issued thereunder in 2020- 2021;
- Annual Report of CPCB for Financial Year 2019-20 in Hindi & English

9.2 Redressal of Public Grievances through CPGRAM Portal

Centralized Public Grievances Redress and Monitoring System (CPGRAMS) has been launched for prompt and effective redress of grievances of citizens. The system is a single window grievance portal for the Ministries / Departments / Organisations to record and receive the grievances online and redresses them indicating actions at different levels. Complaints related to Pollution are forwarded to CPCB, and public complaints taken up with concerned divisions / States and replies placed on portal.

During the financial year 2019-20, 2070 of public grievances were successfully redressed through CPGRAMS Portal with disposal period less than 15 days and disposal rate close to 100%.

9.3 Development of Portals / Mobile Applications

During the year 2020-21, CPCB has taken the following portals:

- **Industrial E-Portal**

Industrial stations were set-up by various government agencies such as CPCB, SPCB, IMD etc. There are a number of similar CAAQMS stations installed by industries also to meet regulatory requirements, such as EC conditions. Most of the stations installed by industries are similar to the analysers installed for national air quality monitoring network and meets CPCB guidelines. CPCB has, therefore, taken an initiative to collect data from industrial CAAQMS stations, especially from those stations, which may represent air quality of recipient environment close to

- **Environmental Air Quality Data Entry System (EAQDES) for NAMP**

IT Division has developed the EAQDES for collecting manual ambient air quality data from NAMP Stations. The system is collecting air quality data from around 850 NAMP Stations being operated by various SPCBs. The portal can be accessed at: <https://namp.cpcbcr.com/>



- **Sameer App for Awareness and Public Complaint Redressal**

Sameer App was created by CPCB to create public awareness about air quality and provide a platform for grievances redressal. Since its launch, it has been downloaded by more than 1,00,000 users on Android and iOS platforms.

The App provides hourly updated information on AQI for more than 154 cities using real time data from 307 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 CPCB is uploaded on the App at 4 PM. The App also issues advisories through push notifications to the public as per prevailing air quality levels. This CAAQMS data is made available to public and various agencies through the CPCB CCR Portal (<https://app.cpcbcr.com>).



Sameer App provides a facility for lodging grievances related to air pollution. The complainant can upload photographs along with complaint, 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

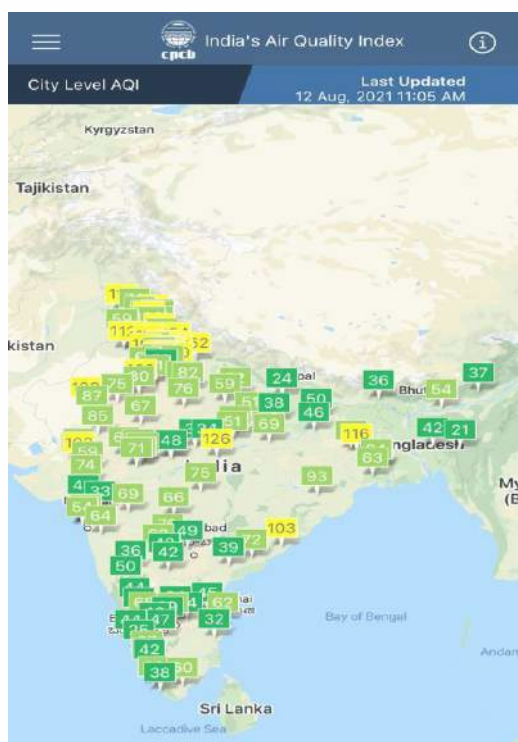
on the App which is well integrated with complaint management system of implementing agencies.

The complaints are monitored on a daily basis and agencies are required to resolve the complaint in a time bound manner and submit Action Taken Report (ATR) to CPCB. Once the complaint is resolved by the agencies, it is marked as closed. However, if the complainant is not satisfied with the response of the agency, the same can be reopened. Daily reports are prepared evaluating performance of agencies in resolving grievances and submitted to their higher authorities for perusal. The App was also used by CPCB field teams during Clean Air Campaign in winter season to lodge their field observations.

Since November 2018, so far around 30K+ public complaints were received on Sameer App. Out of these about 80% complaints (27K+) were resolved through coordination with more than 42 implementing agencies which also have Zonal or Regional office sums up to more than 100 agencies in Delhi NCR.

Snapshot of AQI

Map View: It shows the Average AQI for a City on map display



List View: It Shows the Avg. AQI values in list view

India's Air Quality Index	
City Level AQI	Last Updated
12 Aug, 2021 11:05 AM	
Total number of City : 128	
Agartala	42
Agra	73
Ahmedabad	80
Aizawl	21
Ajmer	75
Alwar	81
Amaravati	39
Ambala	87
Amritsar	115
Ankleshwar	74
Asansol	55
Aurangabad	69
Bagalkot	36
Baghpat	131
Bahadurgarh	69

- **Pollutant wise 24 - Hour Trend:** Provides detailed view for different ambient air quality pollutants monitored at a selected station



- **AQI Calendar:** - It shows Monthly Station-wise AQI overview.



- **Public Forum helps in submitting suggestions or complaints related to air pollution along with photographs.**

The screenshot shows the 'Public Complaints' form. It includes a header with the CPCB logo and a menu icon. The form fields are: 'Please Select Category of Pollution *' with a 'Select' dropdown; 'Please enter a description about the issue *' with a text input; 'Take Photo' and 'Gallery' buttons; 'Swami Dayanand Marg' as the location; 'Delhi' as the city; 'Please Select Zone' with 'Unknown' selected; 'Please Select Ward' with 'Unknown' selected; and 'East Delhi' as the district.

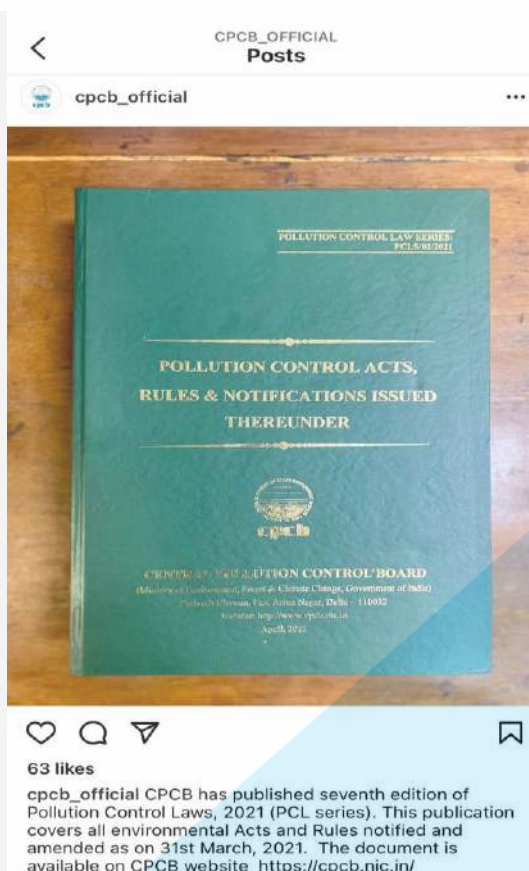
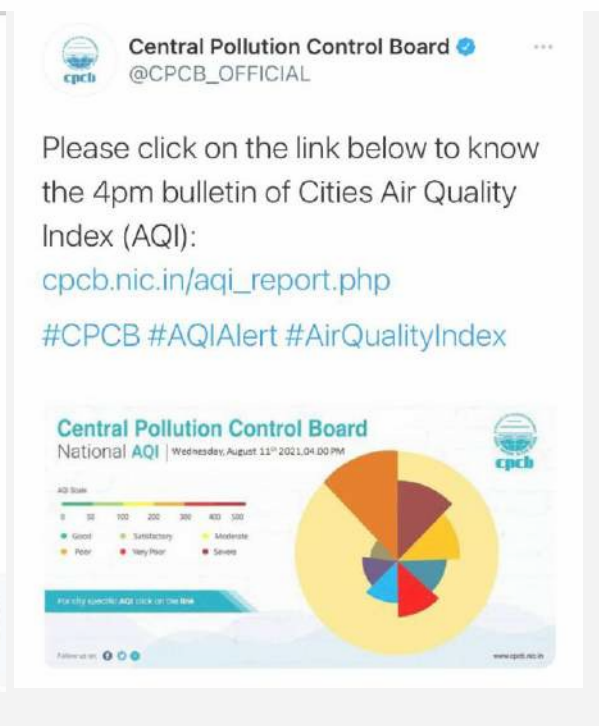
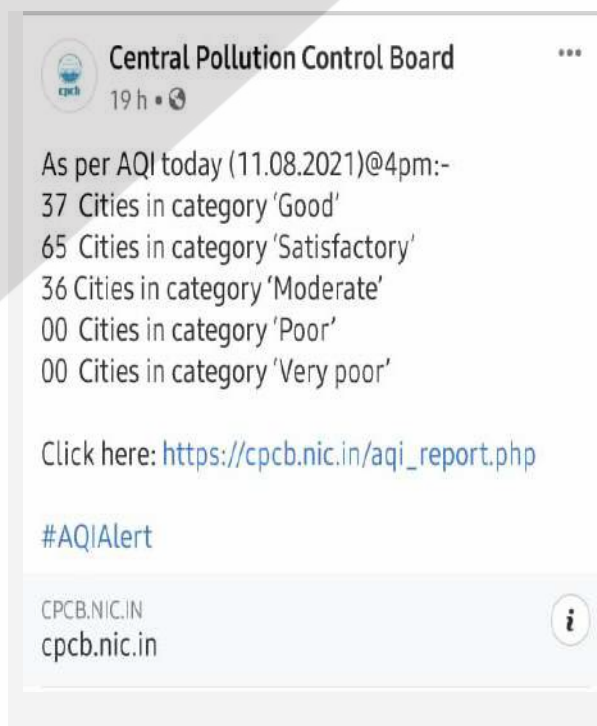
The screenshot shows the 'Track Complaints' interface. It has a header with the CPCB logo and a menu icon. Below the header are three colored boxes: 'Open' (red, 2), 'Under Investigation' (yellow, 3), and 'Resolved' (green, 17). There is a search bar labeled 'Enter Complaint ID' with a 'Submit' button. The main content area shows details for a complaint: 'Wazir pur industrial area..! Clicked from road near', 'Complaint ID: complaint_22432704', 'Category: Pollution from Illegal Industry', 'Assigned To: DC_KPZ, kpzdc1@gmail.com, North_DMC_Keshavpuram', 'Issue Logged On: 14-Jul-2021', 'Expected Resolution Date: 15-Jul-2021', and 'Remarks: May kindly take necessary action and upload ATR with photo.'

• **CPCB Social Media Platforms**

As Social Media is now the dominant digital avenue for two-way communication. Hence, Central Pollution Control Board created Social Media Handles on different Social Media Platforms to use them for dissemination of information on pollution related issues, creating awareness on functions, schemes and activities of CPCB and giving citizens the facility to reach out CPCB for raising air pollution related queries. Presently, CPCB is reachable at Twitter, Facebook and Instagram. More than 10K complaints have been received on different social media platforms out of which 60% complaints are resolved.

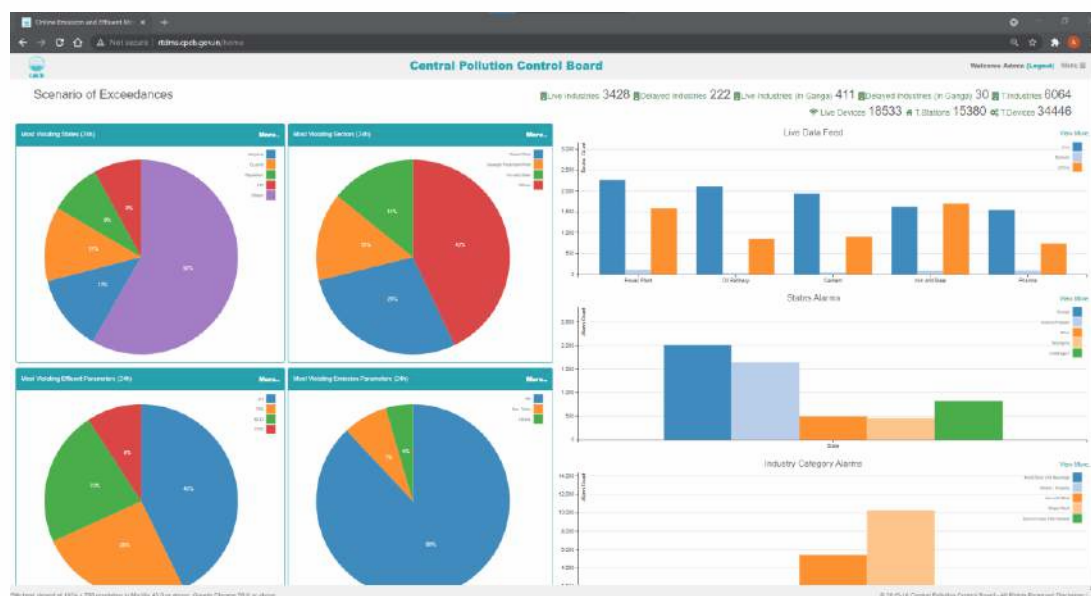
Social media accounts are being used effectively for redressal of air pollution related complaints in NCR region.

Some glimpses of Social Media posts



- **Online Continuous Emission and Effluent Monitoring System (OCEMS)**

Online Continuous Emission and Effluent Monitoring Systems have been installed in highly polluting industries in the country and data generated is being transferred to CPCB/SPCB on 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 SPCB and CPCB, for taking immediate corrective actions for controlling pollution from industries. As of now, under self-regulation program, more than 6000 industrial units are sending their real-time emission and effluent data to CPCB through OCEMS, on the basis of which physical inspections of polluting units are being done. In addition, IT Division has also carried out a technical audit of protocol followed for calibration of OCEMS installed at CETPs/STPs.



A working group has been constituted to review the present status of OCEMS based monitoring and regulation of industries, need for revision of CPCB guidelines, data analysis, quality assurance in CEMS etc. This Working Group on OCEMS has been constituted with experts from diverse fields representing environment, instrumentation, Information Technology, industry and regulatory agencies.

- **Laboratory Information Management System Project**

Laboratory Information Management System (LIMS) is software-based solution with features that support a modern laboratory's operations. Key features include implementing daily workflow, such as sample receipt, allocation, verification of analysis, generation of reports etc. Apart from this LIMS will also support inventory management in labs, data tracking, data management, data analysis and data exchange interfaces. Currently, the project is in initial stage where the RFP has been prepared.

• Portal for Conversion of Nitrogen Plant to Medical Oxygen Plant

Considering the COVID-19 pandemic situation and to further augment availability of oxygen for medical purposes in the country, Central Government had asked Central Pollution Control Board (CPCB), to identify the industries having spare nitrogen plants and explore the feasibility of converting of existing Nitrogen plants to produce oxygen. A portal was developed for submission of data by the Industries interested to offer services by conversion of their Nitrogen Plants to Medical Oxygen Plants.

Conversion of Nitrogen Gas Plants to Produce Medical Grade Oxygen

Considering the COVID-19 pandemic situation and to further augment availability of oxygen for medical purposes in the country, the Central Government had asked Central Pollution Control Board (CPCB), which has comprehensive database of industrial units, to identify the industries having spare nitrogen plants and explore the feasibility of converting of existing Nitrogen plants to produce oxygen. CPCB in coordination with State Pollution Control Boards (SPCBs) identified such potential industries, wherein existing nitrogen plants may be spared for production of oxygen. CPCB has discussed with nearly 500 industries having nitrogen plants and as on 10.05.2021, has identified about 60 industries, wherein existing nitrogen plants may be spared for producing oxygen, without affecting their normal operation.

It is possible to convert existing Pressure Swing Adsorption (PSA) based nitrogen plants to produce oxygen by replacing Carbon Molecular Sieve (CMS) used production of nitrogen with Zeolite Molecular Sieve (ZMS) and few other changes such as oxygen analysers, control panel system, flow valves etc. existing nitrogen plants can be modified to produce oxygen. With the availability of ZMS, such modified plant can be set-up in 4-5 days while installation of new oxygen plant may take minimum 3-4 weeks. M/s UPL initiated the conversion and commissioned 1st plant at L.G. Rotary Hospital, Vapi, which was made operational since 27/04/2021.

A nitrogen plant modified for the production of oxygen can be either shifted to a nearby hospital or, in case it is not feasible to shift the plant, it can be used for on-site production of oxygen, which can be transported to hospital through cylinders.

Download Important Information

Technical Information and Resources

Portal For Conversion of Nitrogen Plant to Medical Oxygen Plant

Username:

Password:

Sign In **Click here to view dashboard**

Industries interested to offer services by conversion of their Nitrogen Plants may please enter this portal and provide details:

Login credentials may please be obtained from following scientists of CPCB:

Sh. Ajay Aggarwal, Scientist-E CPCB -
Email Id : ajayaggarwalcpcb@nic.in Mob. No. 9868210860

Sh. Saubhagya Dixit, Scientist-C, CPCB -
Email Id : dixit.cpcb@gov.in Mob. No. 9716685665

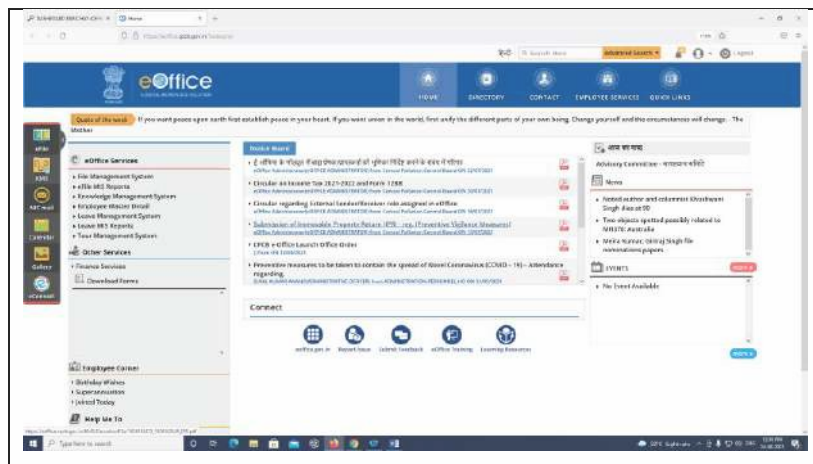
• STP Mobile Application

This App will facilitate information flow from STPs to Urban Local Bodies, States and Central level and 1600+ STPs will be linked. This App can be downloaded from the Mobile App Store. Information on capacity and qualitative parameters like pH, TSS, COD, BOD and Faecal Coliform will be reported and the same will be updated on weekly basis.



• Implementation of E-Office

E-office File Management System has been successfully in CPCB Head Office and its Regional Directorates. Physical movement or handling of files has now been eliminated to large extent and processing of files become easier, efficient and transparent. Implementation of (E-Leave Management System (e-LMS) and tour management system are in progress.



9.5 CPCB Website

Website plays an important role to disseminate information in respect of matters relating to pollution and its prevention and control in various areas/ sectors among public. CPCB's Website shares upto date data. It contains information about nation-wide data on manual as well as real time Air Quality, Water quality, Noise Pollution, Industrial Pollution etc. In addition to this, website provides information about various Standards, Air Quality index, Waste Management Data, Guidelines for Comments / Suggestions, Technical Reports, Publications, Tenders, Recruitments, Directions issued to various Industries / Authorities / SPCBs / PCCs etc. Website can be viewed in Hindi and English languages both. Website has a Query/Feedback form and Air quality complaint form for public. Links of all in-house developed E-governance portals are provided in Website. CPCB has obtained Standardisation Testing and Quality Certification from STQC directorate, MeitY, Govt.

9.6 केंद्रीय प्रदूषण नियंत्रण बोर्ड में संघ की राजभाषा नीति का कार्यान्वयन

राजभाषा प्रभाग संविधान के राजभाषा संबंधी प्रावधानों, यथा अनुच्छेद 343 से 351 एवं अन्य राजभाषा से जुड़े संवैधानिक उपबंधों, राजभाषा अधिनियम, 1963, राजभाषा संकल्प, 1968, राजभाषा नियम, 1976 एवं राजभाषा विभाग, गृह मंत्रालय द्वारा जारी वार्षिक कार्यक्रम, माननीय संसदीय राजभाषा समिति के निरीक्षण एवं तत्संबंधी अनुवर्ती कार्रवाइयों, राजभाषा विभाग, गृह मंत्रालय के निरीक्षण एवं तत्संबंधी अनुवर्ती कार्रवाइयों, मंत्रालय के निरीक्षण एवं तत्संबंधी

अनुवर्ती कार्रवाईयों, राजभाषा विभाग के विभिन्न आदेशों के अनुपालन के संबंध में यथा-अपेक्षित कार्रवाई करने, कार्यशालाओं का आयोजन, हिंदी दिवस का आयोजन, प्रभागों एवं क्षेत्रीय कार्यालयों का राजभाषा निरीक्षण जैसे महत्वपूर्ण कार्यों का निष्पादन कर रहा है। राजभाषा प्रभाग के विविध प्रकृति के कार्यों के मुख्यतः दो आयाम हैं; राजभाषा कार्यान्वयन एवं अनुवाद कार्य।

9.6.1 राजभाषा कार्यान्वयन

राजभाषा प्रभाग राजभाषा कार्यान्वयन के क्रम में अत्यधिक प्रयासरत है कि केंद्रीय प्रदूषण नियंत्रण बोर्ड में राजभाषा कार्यान्वयन से संबन्धित सभी दिशा-निर्देशों का समुचित पालन किया जाए। इस क्रम में राजभाषा प्रभाग द्वारा मुख्य रूप से निम्न कार्यों का निष्पादन किया गया है:-

- **माननीय संसदीय राजभाषा समिति के निरीक्षण से संबंधित कार्य एवं समन्वय:** दिनांक 26.10.2020 को माननीय संसदीय राजभाषा समिति द्वारा निरीक्षण किया गया। इस निरीक्षण के लिए सभी आवश्यक कार्रवाई नियत समय में पूर्ण की गई। माननीय समिति के दिशानिर्देशों के अनुपालन में अनुवर्ती कार्रवाई की गई।
- **कार्यशालाओं का आयोजन :** हिंदी में कामकाज को बढ़ाने, इस संबंध में आने वाली समस्याओं को दूर करने तथा अधिकारियों/कर्मचारियों को हिंदी में कामकाज करने के लिए प्रेरित करने के लिए केंद्रीय प्रदूषण नियंत्रण बोर्ड में हर तिमाही में एक कार्यशाला का आयोजन किया जा रहा है। कोविड-19 के प्रसार को रोकने के दिशानिर्देशों को देखते हुए, वर्ष 2020-21 के दौरान 05 कार्यशालाएं ऑनलाइन माध्यम से आयोजित की गई हैं।
- **हिंदी प्रोत्साहन योजना लागू करना:** संगठन में राजभाषा विभाग, गृह मंत्रालय के दिशा-निर्देशों के अनुपालन में हिंदी प्रोत्साहन योजना लागू की गई है। हिंदी में अधिक कार्य कराने वाले पात्र प्रतिभागियों को नकद पुरस्कार प्रदान किए गए हैं।
- **राजभाषा विभाग (गृह मंत्रालय) से हिन्दी भाषा, आशुलिपि एवं टंकण प्रशिक्षण के लिए अधिकारियों कर्मचारियों को नामित करना:** हिंदी ज्ञान, हिन्दी आशुलिपि एवं टंकण प्रशिक्षण के लिए पात्र अधिकारियों/ कर्मचारियों को चरणबद्ध रूप से राजभाषा विभाग द्वारा संचालित पाठ्यक्रमों के लिए नामित किया गया।
- **व्यक्तिशः आदेश जारी करना:** राजभाषा नियम, 1976 के 8(4) के अधीन अध्यक्ष महोदय के हस्ताक्षराधीन कुल 196 अधिकारियों/कर्मचारियों को व्यक्तिशः आदेश जारी किए गए।
- **क्षेत्रीय निदेशालयों और प्रभागों के राजभाषा कामकाज का निरीक्षण:** राजभाषा विभाग के दिशानिर्देशों के अनुपालन में कुल 9 प्रभागों और कुल 3 क्षेत्रीय निदेशालयों का राजभाषा निरीक्षण किया गया।
- **हिन्दी दिवस का आयोजन:** कोविड-19 के प्रसार को रोकने के दिशानिर्देशों का अनुपालन करते हुए वर्ष 2020-21 के दौरान, ऑनलाइन माध्यम से हिंदी दिवस का आयोजन किया गया। हिंदी दिवस

से पूर्व हिंदी पखवाड़े के दौरान विभिन्न प्रतियोगिताओं का आयोजन किया गया तथा विजित प्रतिभागियों को नकद पुरस्कार प्रदान किए गए।

- **जांच बिन्दु स्थापित किया जाना:** राजभाषा विभाग, गृह मंत्रालय के निदेशों के अनुपालन में जांच बिन्दु स्थापित किए गए।
- **अनुभागों/प्रभागों को हिंदी में कामकाज करने के लिए विनिर्दिष्ट करना:** राजभाषा विभाग के निदेशों के अनुसार, कुल 20 प्रभागों को समस्त कार्य हिन्दी में करने हेतु विनिर्दिष्ट किया जा चुका है।
- **हिंदी की पुस्तकों की खरीद:** पुस्तकालय से समन्वय स्थापित करके राजभाषा विभाग एवं संसदीय राजभाषा समिति के निदेशों के अनुसार, वर्ष 2020-21 के दौरान, हिन्दी पुस्तकों की खरीद की गई है तथा इस संबंध में निर्धारित लक्ष्य की प्राप्ति की गई है।
- **कम्प्यूटरों में हिन्दी यूनिकोड की व्यवस्था:** विभिन्न प्रभागों और अधिकारियों के कंप्यूटर में यूनिकोड स्थापित करने तथा हिन्दी यूनिकोड के माध्यम से हिन्दी टंकण करने में सहायता उपलब्ध कराई गई है।
- **विभागीय राजभाषा कार्यान्वयन समिति की बैठक का आयोजन:** प्रत्येक तिमाही में विभागीय राजभाषा समिति की बैठक आयोजित की जा रही है।
- **क्षेत्रीय निदेशालयों के राजभाषा कार्यान्वयन से संबंधित विषय:** क्षेत्रीय निदेशालयों के राजभाषा संबंधित विषयों पर भी कार्रवाई की गई है। इस क्रम में सभी क्षेत्रीय निदेशालयों में विभागीय राजभाषा समिति के गठन हेतु निदेश जारी करने, हिन्दी दिवस के आयोजन, प्रशिक्षण आदि विषयों पर कार्रवाई की गई है।
- **मंत्रालय की विभागीय राजभाषा कार्यान्वयन समिति की बैठक में केंद्रीय प्रदूषण नियंत्रण बोर्ड का प्रतिनिधित्व:** मंत्रालय के द्वारा विभागीय राजभाषा कार्यान्वयन समिति का पुनर्गठन किया गया है तथा इसमें केंद्रीय प्रदूषण नियंत्रण बोर्ड भी शामिल है। तदनुसार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय की विभागीय राजभाषा कार्यान्वयन समिति की बैठक में केंद्रीय प्रदूषण नियंत्रण बोर्ड का प्रतिनिधित्व किया गया है।

9.6.2 अनुवाद कार्य

- **केंद्रीय प्रदूषण नियंत्रण बोर्ड मुख्यतः** एक वैज्ञानिक/तकनीकी संगठन है। राजभाषा प्रभाग नियमित रूप से प्राप्त होने वाले काफी संख्या में आदेशों, परिपत्रों, पत्रों, अधिसूचना, विज्ञापनों आदि का हिंदी अनुवाद किया गया।
- इसके अतिरिक्त, संसदीय प्रश्नों का हिंदी अनुवाद, वार्षिक रिपोर्ट का अनुवाद, लेखापरीक्षा रिपोर्ट का हिंदी अनुवाद जैसे महत्वपूर्ण अनुवाद कार्य संपादित किए गए।
- साथ ही सूक्ष्म, लघु और मध्यम उद्यमों के लिए रेडी रेकनर का अनुवाद भी वर्ष 2020-21 की अवधि के दौरान किया गया है।

Chapter X

ENVIRONMENTAL STANDARDS

Development of Environmental Standards

The Ministry of Environment, Forest and Climate Change (MoEF&CC) formulates and notifies standards for emission and discharge of environmental pollutants viz. air pollutants, water pollutants and noise limits, from industries, operations or processes with an aim to protect and improve the quality of the environment and abate environmental pollution. The standards are framed in consultation with all concerned stakeholders. The process of development of standards is based on the best practices and techno-economic viability. The notification of standards also involves formulation of load-based standards, i.e. emission / discharge limits of pollutants per unit of product obtained / processes performed to encourage and improve resource utilization efficiency and resource conservation.

The draft standards for any industrial process / operation are recommended by Central Pollution Control Board (CPCB) in the form of „Draft Notification“. The „Draft Notification“ is subjected to stakeholder consultation including general public. The comments are compiled and technically examined by CPCB and modifications if any, are carried out in the Draft Notification. The modified Draft Notification is placed before the „Expert Committee (EC) of MoEF&CC for approval. Besides the MoEF&CC and CPCB officials, the Expert Committee of MoEF&CC comprises representatives from industry associations, subject experts and concerned ministries. The EC recommended Draft Notification is placed for approval of Hon^{ble} MoEF&CC. after carrying out due legal vetting of the proposal and the final notification is published in Gazette of India.

Status of environmental standards development during 2020-21 is summarized below:

- Updated and compiled 7th Edition of Pollution Control Acts, Rules & Notification issued thereunder in 2020- 2021.
- Continuous follow-up with SPCBs / PCCs for Notification of Recruitment Rules and their appointments for Chairmen & Member Secretaries of SPCBs / PCCs as per directions of the Hon'ble Supreme Court and NGT.
- Notification for the constitution of Jammu & Kashmir and Ladakh Pollution Control Committees notified in the Gazette of India.

- Standards for Hot Mix Plant has been proposed and given below:

S.No.	Type of hot mix plant	Proposed Emission Standards (mg/Nm ³)
1.	Batch hot mix plant	150
2.	Drum hot mix plant	300

- Designing of “National Environmental Law Portal” for public convenience is in progress.
- Introduction of SO₂ and NO_x standards for industrial boilers and five Industrial Sectors (Ceramic, Foundry, Glass, Lime Kiln & Reheating Furnace);
- Notification of amendment to Primary Water Quality Criteria for Sea Water SW – III & SW-V waters under the Environment (Protection) Rules, 1986 is under consideration.
- The review of standards and preparation of COINDS of Pesticide Industry, Pulp & Paper and Distilleries are in process;
- Draft standards for following sectors are under the process of finalization:
 - Diesel Locomotive
 - Emission norms for Genset Engines
 - Iron and Steel industry
- Environmental standard of Pharmaceutical industry including VOCs standards is under process of notification.
- COINDS & Environmental Standards for Caustic Soda industry (Membrane Cell) is under preparation.
- Notification of Recruitment Rules and their appointments for Chairmen & Member Secretaries of SPCBs / PCCs as per directions of Hon'ble Supreme Court and NGT is under process with SPCBs / PCCs.

Chapter XI

PROSECUTIONS LAUNCHED, CONVICTIONS SECURED AND DIRECTIONS

11.1 Status of the Court / Tribunal Cases

The status of Court / Tribunal cases filed by the individuals, entity, organizations etc. before all Courts of India where CPCB is a party Respondent, handled during year 2020-21 are given in **Table 11.1**.

Table 11 - Status of Court / Tribunal Cases during year 2020-21

Particulars	Supreme Court	High Courts	NGT Principal Bench	NGT Zonal Benches
As on March, 2020	93	226	235	234
New cases during 2020-21	48	53	58	47
Disposed of during 2020-21	10	10	123	41
As on March 2021	131	269	170	240

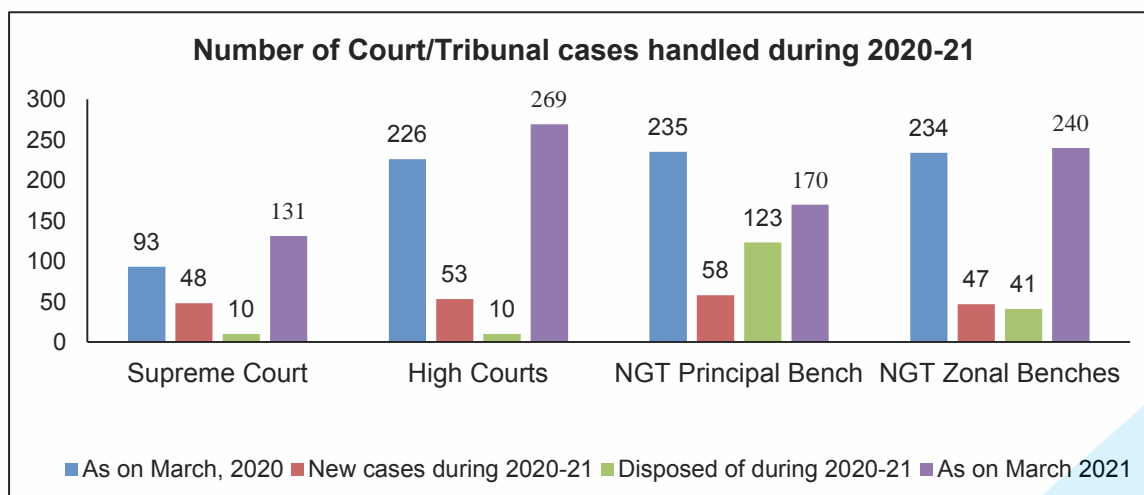


Fig 11.1- Number of Court / Tribunal Cases handled during year 2020-21

Following cases have been dealt during 2020-21 in the Hon^{ble} NGT court:

- In the matter of O.A. No. 106/2020 (PB) regarding “Another Gas Leakage at Vizag Factory killed two, critically injured four” regarding Benzimidazole gas leakage at Sainor Life Sciences factory at Parawada industrial area, on the outskirts of Visakhapatnam on 30.06.2020 resulting in damage to the environment and human health.

- In the matter of O.A. No. 107/2020 (PB), regarding Ammonia gas leakage accident at Nandyal in Kurnool District, Andhra Pradesh.
- In the matter of O.A. No.134/2020/PB regarding massive fire engulfed the chemical plant of Visakha Solvents Ltd, Vizag on 13.07.2020 at Ramky CETP Solvents building in Pharma City.

In the above cases, Hon^{ble} NGT in its orders constituted an individual Committee (CPCB, State PCB, District Magistrate (Visakhapatnam), Andhra University, Vizag) to assess final compensation to the victims and for restoration of the environment and suggestions for precautions in future.

- Hon^{ble} NGT, in O.A. No. 804/2017 (PB) in the matter of Rajiv Narayan and Ors. Vs Union of India and Ors. has taken the matter regarding compliance of the Hazardous and other Waste (Management and Transboundary Movement Rules, 2019 (HWM Rules) and assessment and remediation of contaminated sites. The Hon^{ble} NGT, vide order dated 30.07.2018, Monitoring Committee was constituted by the CPCB to compile information about the status of compliance of the HWM, Rules and status on contaminated sites. Accordingly, status report on compliance of HWM, Rules & contaminated sites was filed by CPCB and SPCBs / PCCs.

11.2 Status of NGT Cases by Regional Directorates

Regional Directorate of CPCB has carried out the following court cases:

- In the matter of O.A. No. 111/2020, for restoring the quality of River Thenpennai of Karnataka as per the directions of Hon^{ble} tribuna. Joint committee was directed to investigate the matter to ascertain the cause and sources of pollution of River Thenpennai and submit Action Plan. It has been ascertained that, the water quality of River Thenpennai falls under the Category E (Irrigation, Industrial Cooling, and Controlled Waste Disposal) of the Designated- Best-Use Criteria.
- In the matter of O.A. No. 125/2017, where Court on its own Motion Vs State of Karnataka, the Hon^{ble} NGT passed an order, dated 13.08.2020, to carry out sampling with regard to de-silted debris / sludge at appropriate representative locations in Bellandur & Varthur Lakes for comprehensive database and to finalize the disposal protocol in consultation with the CPCB.

- In the matter of O.A. 71/2017, Karnataka, the Hon^{ble} NGT directed to assess the environmental damage at River Sita caused by illegal sand mining and restoration cost. The committee assessed the following:
 - i. Environmental compensation for dredging carried out in 535 m length in Sita river without obtaining necessary clearances under the CRZ Notification, 2011 and EIA Notification 2006
 - ii. Environmental compensation for dumping of 47,155 m³ of dredged materials to fill up part of the Sita river and reclaiming about 5.9 acres of land in the CRZ (ecologically sensitive Mangrove buffer zone and fish breeding) area.
 - iii. Restoration cost of the 5.9 acres of reclaimed land
 - a. Removal of dredged materials stored at 5.9 acres
 - b. Removal of bund constructed around stored dredged material
 - c. Cost of restoration of mangrove

The total cost of environmental compensation of Rs. 2,00,65,165/- was estimated and submitted to NGT.

- In the matter of O.A. 395/2013, O.A. 396/2013, O.A. 262/2017 & O.A. No. 242/2016, the Hon^{ble} NGT considered the report regarding pollution of Periyar river. Based on the discussions, the joint committee has decided to conduct monitoring of River Periyar in three phases as follows:
 - i. In phase 1, monitoring/ inspection of Periyar River and establishments in the banks of the river were completed in Idukki district.
 - ii. In phase 2, monitoring of Periyar River, tributaries and adjoining drains were completed in Ernakulum District.
 - iii. Phase 3 inspections were planned for industries/ establishments in Ernakulum district, but due to COVID-19 restrictions, the monitoring yet to be carried out.
- In the matter of O.A. 76/2019, the Hon^{ble} NGT directed to assess the environmental damages due to un-sustainable mining in the coastal stretches in Kollam district of Kerala. Kerala SPCB issued Show-Cause Notice to industries.
- In the matter of O.A. No. 104/2020, the Hon^{ble} NGT directed to verify the compliance of M/s Mother Earth Enviro Pvt. Ltd (MEEPL), TSDF w.r.t EC conditions, CTO & Authorization under HWM Rules, 2016 and assess the damage caused to environment. The Committee assessed Environmental Compensation of Rs. 3,13,50,000/-
- In the matter of O.A. No. 26/2013, the Hon^{ble} NGT directed to assess the environmental damages on account of the environmental violations in the area of fly ash management, ash pond, ambient air quality, fugitive emissions etc. which undoubtedly has caused severe damage to the environment and the ecology of the area. The Committee assessed the environmental compensation of Rs. 15,57,26,392/- considering cost of illness for air borne diseases.

- In the matter of O.A. 34/2019, the Hon^{ble} NGT directed to assess the environmental compensation for the damage caused to the Environment by industries located in Kolhar Industrial Area, Bidar, Karnataka.
- In the matter of O.A. 229/2020 regarding gas turbine explosion which happened at a power plant operated by M/s. Karnataka Power Corporation Limited at Yelahanka, Bengaluru. The Committee has made estimation of the environmental damages of Rs 10.1178 lacs due to the incident.
- In the matter of O.A. no. 60/2021 regarding the fire accident occurred at M/s UPL, Jhagadia, Bharuch. The joint committee has submitted a comprehensive report incorporating the probable cause for the accident, details of lives and property losses, environmental damage, carrying capacity assessment and compensation to victims to the Hon^{ble} NGT through nodal agency GPCB in the matter.
- In the matter of O.A. no. 07/2020 (IA no. 94/2020) related with non-compliance of CETP Naroda (Ahmedabad) and member industries & pollution in River Sabarmati. The joint committee (GPCB, CPCB & IIT Gandhinagar) has submitted report to the Hon^{ble} NGT. Further, as directed a report was submitted to suggest remedial measures and environmental compensation by joint committee comprising of members from CPCB and GPCB.

The following court cases were also handled by Regional Directorates and a comprehensive report submitted to the Hon^{ble} NGT:

- In the matter of O.A. no. 22/2020 regarding fatal accident at M/s Yashashvi Rasayan Pvt. Ltd., Dahej;
- In the matter of O.A. 197/2019 regarding sewage / waste management in Mumbai metropolitan area;
- In the matter of O.A. 07/2014 regarding pollution by M/s Jubilant Life Sciences, Nira;
- In the matter of O.A. 909/2019 regarding pollution caused by M/s Devesh Paper Mill, Pandesara (Surat);.
- In the matter of O.A. no. 258/2020 regarding fatal accident at M/s Sahil Enterprise, Narol, Ahmedabad;
- In the matter of O.A. no. 74/2020 regarding pollution caused by M/s Chandrapur Super Thermal Power Station (CSTPS), Chandrapur, Maharashtra;
- In the matter of 669/2018 regarding violation of pollution laws by M/s Ashapura Group of Companies in district Kutch, Gujarat;

- In the matter of the Hon^{ble} Supreme Court (SC) Order Civil Appeal No. 10582 / 2017 and IA No. 53816 / 2020 regarding pollution in Ulhas and Waldhuni rivers in Kalyan - Dombivali area;
- In the matter of O.A. No. 555/2019 regarding pollution in River Nira due to unauthorized discharge of effluent from 06 industrial units in Pune and Satara region;
- In the matter of O.A. No. 616/2019 regarding pollution in river bhadar caused by Dyeing and Printing units in Jetpur Taluka;
- In the matter of O.A. No. 628/2019 regarding preparing norms for measuring water quality standards for Estuaries.

Chapter-XII

FINANCE & ACCOUNTS

NANGIA & CO LLP

CHARTERED ACCOUNTANTS

INDEPENDENT AUDITOR'S REPORT

To the Members of Central Pollution Control Board, Ministry of Environment, Forests & Climate Change, Government of India- Delhi

Report on the Audit of the Financial Statements

Qualified Opinion

1. We have audited the accompanying financial statements of **Central Pollution Control Board, Ministry of Environment, Forests & Climate Change, Government of India** ("the Board"), which comprise of the Balance Sheet as at 31 March 2021, the Income & Expenditure Account and Receipt & Payment Account of the Board for the year ended and notes to financial statements, including a summary of significant accounting policies and other explanatory information.
2. In our opinion and to the best of our information and according to the explanations given to us, except for the effect of the matter described in basis for qualified opinion paragraph, the Balance Sheet, Income & Expenditure Account and Receipt & Payment read together with the accounting policies and notes to accounts thereon, give the information so required and give a true and fair view in conformity with the accounting principles generally accepted in India:
 - i. In the case of Balance Sheet of the state of Affairs of the Board as at 31 March 2021;
 - ii. In the case of Income & Expenditure Account of the excess of Expenditure over Income for the year ended on that date; and
 - iii. In the case of Receipt & Payment Account of the Receipts & Payments for the year ended on that date.

Basis for Qualified Opinion

3. We conducted our audit of the financial statements in accordance with the Standards on Auditing (SAs) issued by the Institute of Chartered Accountants of India. Our responsibilities under those Standards are further described in the 'Auditor's Responsibilities for the Audit of the Financial Statements' section of our report. We are independent of the Board in accordance with the 'Code of Ethics' issued by the Institute of Chartered Accountants of India (ICAI) together with the ethical requirements that are relevant to our audit of the financial statements. We have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

We further draw attention to the following(s):

- i. Grants received as grant in aid for capital assets related to earmarked/endowment projects has been taken in Income & Expenditure account on receipt basis rather than recognizing it in Income & expenditure account over useful life of assets which is not in accordance with the Accounting Standard 12 (AS-12).



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- ii. Depreciation is charged on assets as per rates prescribed by Income-tax Act, 1961. Depreciation has been charged on closing gross block irrespective of date of purchase/ sale of assets. Furthermore, depreciation computation is not consistent across different Regional Directorates. This is not in accordance with Accounting Standard 10 (AS-10) and has resulted in depreciation being undercharged/overcharged the effect of which is not ascertainable at this stage.
- iii. Note number 26.4 and 26.5 of schedule 26 as regards advances/recoverable aggregating to INR 7,020,690,458 and payables/ liabilities aggregating to INR 16,311,380 (including balances related to sponsored/earmarked projects) are subject to reconciliation/confirmation. These balances are subject to reconciliation/confirmation with State Pollution Control Boards/Respective Parties, as said accounts have not been reconciled and we are not aware of adjustments, if any, are required to these accounts as at the Balance Sheet date.
- iv. The value of closing inventory amounting to INR 12,975,024 has been considered as certified by the Board and the Board is not in the possession of sufficient documents in relation to movement/valuation of inventory during the year. Consequently, we are unable to determine whether adjustments, if any, are required to the aforesaid amount.
- v. Note 26.7(d) of schedule 26 as regards liability on account of Leave Travel Concession has neither been ascertained nor provided and in absence of adequate information, we are unable to determine the value of provision in respect to liability on account of Leave Travel Concession.
- vi. Note number 26.8(b) of schedule 26 as regards capital work-in-progress includes a sum of INR 2,010,655 being advance paid to suppliers (Delhi Zone), which is being carried forward from earlier years. Necessary adjustment entries will be passed once the supporting details including details of installation etc. are approved by the appropriate authority.
- vii. As per the provisions of Section 24 read with Section 51 of the Central Goods and Services Tax Act, 2017 ('GST Act') with effect from 1 October 2018, the Head Office and the Regional Directorates of the Board are required to obtain registration, deduct and deposit TDS @2% under the GST Act in respect to taxable goods or services or both, where the total value of such supply, under a contract, exceeds INR 250,000. The registrations by Regional Directorate of Chandigarh, Pune and Chennai haven't been obtained during the year. Accordingly, we are not able to ascertain the impact, if any, on account of non-compliance under GST Act.
- viii. Note number 26.8(c) of schedule 26 indicates that during the year ended 31 March 2021, the construction of building at Regional Directorate of Bhopal was completed; the management is yet to capitalize INR 21,340,864 in financial statements.

The consequential impact of all the matters specified above on the financial statement could not be ascertained at this stage.



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Emphasis of Matter(s)

4. We draw attention to the following matters:

- i. National Ganga River Basin Authority (NGRBA) being a separate project governed under National Mission for Clean Ganga Scheme, has not obtained separate PAN, TAN and GSTIN and all the statutory returns in relation to this project are being filed with the returns of the Lucknow and Kolkata Regional Directorates to the extent of operations at these particular locations. Further, National Mission for Clean Ganga Scheme, has not obtained separate GSTIN and all the related statutory returns in relation to this project are being filed with the returns of the Head Office to the extent of operations at this particular location.
- ii. Note number 26.7(a) of schedule 26 which states, the shortfall in CPF fund balance amounting to INR 35,846,078 as at 31 March 2020 which is to be borne by the Board. Further, the accounts of CPF Fund are audited up to 31 March 2020 only, the shortfall in Provident Fund liability as at 31 March 2021, if any, will be ascertained at the time of completion of audit for the year ended 31 March 2021, which will be borne by the Board.
- iii. The internal control system of the Board needs to be significantly strengthened to make it commensurate with the size and nature of activities of the Board, particularly with respect to monitoring/adjustment of advances given for various expenses including advances for earmarked/sponsored projects and obtaining utilization certificates, maintenance of fixed asset register, deduction of tax, booking of expense invoices based on invoice receipt basis, provisioning for expenses etc.
- iv. Note number 26.10(e) of schedule 26 which indicates that there are few sponsored projects that are either closed or non-operating. Funds amounting to INR 1,144,017,145 are lying idle in respective project's bank accounts.
- v. Note number 26.10(f) of schedule 26 which indicates that as per the terms and conditions of project sanction agreement, the unspent funds at closure of the project are required to be transferred directly from the account where the funds are granted. The balance funds lying at the DTS project amounting to INR 565,126 (including interest amounting to INR 25,342) was transferred by the Regional Directorate of Bangalore to their account. These funds are yet to be refunded to the concerned agencies.
- vi. Note number 26.8(a) of schedule 26 as regards the fixed asset register has not been properly maintained at the Head office, its Regional Directorates, with respect to depreciation charged, location and identification number. Further as explained to us by the management, the physical verification of the fixed assets is carried out during the year. Accordingly, obsolete/unused/lost items identified will be adjusted once the reconciliation process is complete.

Our opinion is not qualified in respect of the above matters.

Responsibilities of management for the Financial Statements

5. Management of the Board is responsible for the preparation of these Financial Statements in accordance with the accounting principles accepted in India and in accordance with 'Form of Financial Statement for the Central Autonomous Bodies' as per the directions of Ministry of Environment and Forest, Government of India vide their letter no.- G25012/1/2010CPW dated 10 February 2010 as circulated by Comptroller General of Accounts, Ministry of Finance.

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This responsibility also includes maintenance of adequate accounting records for safeguarding the assets of the Board and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgements and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the financial statements that give a true and fair view of the financial position, financial performance and receipts & payments and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Financial Statements

6. Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on whether the Board has in place an adequate internal financial controls system over financial reporting and the operating effectiveness of such controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Board's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Board to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.



NANGIA & CO LLP

CHARTERED ACCOUNTANTS

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Other Matter

The valuation of provisions in respect to Gratuity and Leave Encashment as at 31 March 2021 is based on Actuarial valuation done by the Independent Actuary appointed by the Board. We have relied upon the Independent Actuary's certificate in this regard for amounts recorded in the financial statements of the Board.

For Nangia & Co LLP
Chartered Accountants
FRN# 002391C/N500069



Vikas Gupta
F.C.A Partner
Membership # 076879
UDIN: 22076879AAAABW3895



Signed at Noida on 24/Jan/2022

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LLP Registration NO. AAJ-1379
Noida - New Delhi - Gurugram - Mumbai - Bengaluru - Chennai - Pune - Dehradun



CENTRAL POLLUTION CONTROL BOARD, DELHI-110032
BALANCE SHEET AS AT 31ST MARCH 2021

CORPUS/CAPITAL FUND AND LIABILITIES	SCHD.	CURRENT YEAR	PREVIOUS YEAR
CORPUS/CAPITAL FUND			
RESERVE AND SURPLUS	1	7,70,35,221	(8,97,48,640)
EARMARKED/ ENDOWMENT FUND	2	-	-
SECURED LOANS AND BORROWINGS	3	15,50,55,66,149	10,47,90,06,043
UNSECURED LOANS AND BORROWINGS	4	-	-
DEFERRED CREDIT LIABILITIES	5	-	-
CURRENT LIABILITIES AND PROVISIONS	6	-	-
	7	96,17,83,882	3,31,86,58,184
TOTAL		16,54,43,85,252	13,70,79,15,587
ASSETS			
FIXED ASSETS			
INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS	8	9,45,17,125	10,20,44,134
INVESTMENTS-OTHERS	9	-	-
CURRENT ASSETS, LOANS, ADVANCES ETC	10	6,24,000	-
MISCELLANEOUS EXPENDITURE	11	16,44,92,44,127	13,60,58,71,453
(to the extent not written off or adjusted)		-	-
TOTAL		16,54,43,85,252	13,70,79,15,587

Schedules 1 to 26 forming part of accounts are annexed

For Central Pollution Control Board

As per our report of even date

For Nangia & Co. LLP
Chartered Accountants
Firm Reg. No. 002391C/N500069

(Vikas Gupta)
(Vikas Gupta)
M.NO. 076879
Partner



Signed at Noida on 24 JAN 2022

(Prashant Gargava)
(Prashant Gargava)
Member Secretary

(Tanmay Kumar, IAS)
(Tanmay Kumar, IAS)
Chairman

(Diganta Kalita)
(Diganta Kalita)
Accounts Officer

(Ajay Sirsikar)
(Ajay Sirsikar)
Accounts Officer



CENTRAL POLLUTION CONTROL BOARD
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2021

INCOME	SCHD.	CURRENT YEAR	PREVIOUS YEAR
INCOME FROM SALES/ SERVICES	12	-	-
GRANTS/SUBSIDIES	13	99,50,00,000	1,00,00,00,000
FEES/ SUBSCRIPTIONS	14	-	-
INCOME FROM INVESTMENTS	15	-	-
(Income on investments from earmarked/endowment funds transferred to Funds)			
INCOME FROM ROYALTY, PUBLICATIONS ETC.	16	7,675	13,865
INTEREST EARNED	17	1,22,71,720	77,62,446
OTHER INCOME	18	37,70,876	18,85,522
INCREASE/ DECREASE IN STOCK OF Consumables, Stores/ Spares	19	(77,594)	(23,31,681)
TOTAL(A)		1,01,09,72,677	1,00,73,30,152
EXPENDITURE			
ESTABLISHMENT EXPENSES	20	52,44,47,318	73,00,52,724
OTHER ADMINISTRATIVE EXPENSES ETC	21	25,28,36,799	29,15,35,607
EXPENDITURE ON GRANTS, SUBSIDIES ETC	22	-	-
INTEREST	23	34,913	19,211
MONITORING EXPENSES	24	3,73,76,835	4,68,47,744
DEPRECIATION	8	2,34,94,163	4,27,46,193
TOTAL(B)		83,81,90,028	1,11,12,01,478
BALANCE BEING EXCESS OF INCOME OVER EXPENDITURE (A-B)		17,27,82,649	(10,38,71,326)
TRANSFERRED TO /FROM SPECIAL RESERVE		-	-
TRANSFERRED TO /FROM GENERAL RESERVE		-	-
PRIOR PERIOD EXPS.	26.12	59,98,787	5,26,48,511
BALANCE BEING SURPLUS/ DEFICIT CARRIED TO CORPUS /		-	-
CAPITAL FUND		16,67,83,862	(15,65,19,837)

Schedules 1 to 26 forming part of accounts are annexed

For Central Pollution Control Board

As per our report of even date

For Nangia & Co. LLP
Chartered Accountants
Firm Reg. No. 002391C/N500069

(Vikas Gupta)
(Vikas Gupta)
M.NO. 076879
Partner

Signed at Noida on

24 JAN 2022



(Tanmay Kumar, IAS)
(Tanmay Kumar, IAS)
Chairman

(Prashant Gargava)
(Prashant Gargava)
Member Secretary

(Diganta Kalita)
(Diganta Kalita)
Accounts Officer

(Ajay Sirsikar)
(Ajay Sirsikar)
Accounts Officer



CENTRAL POLLUTION CONTROL BOARD , DELHI-110032
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH 2021

SCHEDULE 1 - CORPUS / CAPITAL FUND		CURRENT YEAR	PREVIOUS YEAR
BALANCE AS AT BEGINNING OF THE YEAR		(8,97,48,640)	6,67,71,198
Less:- DUE TO RECTIFICATION OF FIXED ASSETS			
LESS : REFUND OF CAPITAL (Adjustment)		-	-
Add:- OPENING BALANCE OF INCOME AND EXPENDITURE			
Add/LESS:- EXCESS OF INCOME OVER EXPENDITURE / EXCESS OF EXPENDITURE OVER INCOME		16,67,83,862	(15,65,19,837)
BALANCE AS AT YEAR END		7,70,35,221	(8,97,48,640)
		7,70,35,221	-8,97,48,640
SCHEDULE 2 - RESERVE & SURPLUS		CURRENT YEAR	PREVIOUS YEAR
1. CAPITAL RESERVE			
AS PER LAST ACCOUNT		-	-
ADDITION DURING THE YEAR		-	-
Less:- DEDUCTION DURING THE YEAR		-	-
2. REVALUATION RESERVE			
AS PER LAST ACCOUNT		-	-
ADDITION DURING THE YEAR		-	-
Less:- DEDUCTION DURING THE YEAR		-	-
3. SPECIAL RESERVE			
AS PER LAST ACCOUNT		-	-
ADDITION DURING THE YEAR		-	-
Less:- DEDUCTION DURING THE YEAR		-	-
4. GENERAL RESERVE			
AS PER LAST ACCOUNT		-	-
ADDITION DURING THE YEAR		-	-
Less:- DEDUCTION DURING THE YEAR		-	-





CENTRAL POLLUTION CONTROL BOARD , DELHI-110032
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 3 - EARMARKED / ENDOWMENT FUNDS	FUND WISE BREAKUP					TOTAL	
	SPONSORED PROJECTS	FUND XX	FUND YY	FUND ZZ	CUURENT YEAR	PREVIOUS YEAR	
A) OPENING BALANCE OF THE FUND Add : Prior Period adjustment	10,47,89,80,702	-	-	-	10,47,89,80,702	4,95,47,22,136	
B) ADDITION TO THE FUNDS	-	-	-	-	-	2,975	
I. DONATION / GRANTS (NET OF REFUND)	4,29,08,66,196	-	-	-	4,29,08,66,196	5,65,92,58,650	
II. INCOME FROM INVESTMENTS MADE ON ACCOUNT OF FUNDS	42,01,69,630	-	-	-	42,01,69,630	50,72,08,869	
III. OTHER ADDITIONS (Bank guarantee, EPC, NGT 25, NGT 75)	1,07,64,95,491	-	-	-	1,07,64,95,491	23,73,00,804	
TOTAL (A+B)	16,26,65,12,019	-	-	-	16,26,65,12,019	11,35,84,93,434	
C) UTILISATION / EXPENDITURE TOWARDS OBJECTIVES OF FUND							
I. CAPITAL EXPENDITURE	-	-	-	-	-	-	
- FIXED ASSETS (including Prior Period Adjustment)	-	-	-	-	-	-	
- OTHERS	-	-	-	-	-	-	
TOTAL	-	-	-	-	-	-	
II. REVENUE EXPENDITURE							
- SALARIES, WAGES AND ALLOWANCES ETC.	-	-	-	-	-	-	
- RENT	-	-	-	-	-	-	
- OTHER ADMINSTRATIVE EXPENSES	73,68,08,200	-	-	-	73,68,08,200	84,61,93,532	
TOTAL	73,68,08,200	-	-	-	73,68,08,200	84,61,93,532	
TOTA (C)	73,68,08,200	-	-	-	73,68,08,200	84,61,93,532	
D) Refund to MoEF	2,41,37,670	-	-	-	2,41,37,670	3,32,93,859	
NET BALANCE AS AT THE YEAR END (A+B-C-D)	15,50,55,66,149	-	-	-	15,50,55,66,149	10,47,90,06,043	





CENTRAL POLLUTION CONTROL BOARD, DELHI-110032
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 4 - SECURED LOANS AND BORROWINGS	CURRENT YEAR		PREVIOUS YEAR	
1.CENTRAL GOVERNMENT		-		-
2.STATE GOVERNMENT (Specify)		-		-
3.FINANCIAL INSTITUTION				
a) Term Loans	-		-	
b) Interest accrued and due	-	-	-	-
4.BANKS:				
a) Term Loans				
-Interest accrued and due	-		-	
b) Other Loans (specify)				
-Interest accrued and due	-	-	-	-
5.OTHER INSTITUTION AND AGENCIES		-		-
6.DEBENTURES AND BONDS		-		-
7.OTHERS (Specify)		-		-
TOTAL		-		-





CENTRAL POLLUTION CONTROL BOARD , DELHI-110032
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 5 - UNSECURED LOANS AND BORROWINGS		CURRENT YEAR		PREVIOUS YEAR
1. CENTRAL GOVERNMENT				-
2. STATE GOVERNMENT (Specify)				-
3. FINANCIAL INSTITUTION				-
4. BANKS:				
a) Term Loans		-		-
b) Other Loans (specify)		-		-
5. OTHER INSTITUTION AND AGENCIES		-		-
6. DEBENTURES AND BONDS				-
7. FIXED DEPOSITS				-
8. OTHERS (Specify)				-
TOTAL				-
SCHEDULE 6 - DEFERRED CREDIT LIABILITIES		CURRENT YEAR		PREVIOUS YEAR
a) Acceptance secured by hypothecation of capital equipment and other assets				-
b) Others				-
TOTAL				-





CENTRAL POLLUTION CONTROL BOARD , DELHI-110032
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 7 - CURRENT LIABILITIES AND PROVISIONS		CURRENT YEAR		PREVIOUS YEAR	
A. CURRENT LIABILITIES					
1. Acceptances					
2. Sundry Creditors:					
a) For goods					
b) Others		2,52,64,360	2,52,64,360	3,52,49,520	3,52,49,520
3. Advances Received			92,50,927		11,12,580
4. Interest accrued but not due on:					
a) Secured Loans/borrowings		-		-	
b) Unsecured Loans/borrowings		-	-	-	-
5. Statutory Liabilities:					
a) Overdue		-	-	-	-
b) Others		91,404	91,404	15,747	15,747
6. Other current Liabilities			28,95,97,313		2,55,84,14,457
TOTAL (A)			32,42,04,004		2,59,47,92,304
B. PROVISIONS					
1. For Taxation			-		-
2. Gratuity			33,60,97,536		39,69,44,791
3. Superannuation/Pension			-		-
4. Accumulated Leave Encashment			30,14,82,342		32,69,21,089
5. Trade Warranties/Claims			-		-
6. Others (Specify)			-		-
TOTAL (B)			63,75,79,878		72,38,65,880
TOTAL (A+B)			96,17,83,882		3,31,86,58,184





CENTRAL POLLUTION CONTROL BOARD , DELHI-110032
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 8 - FIXED ASSETS	GROSS BLOCK				AMORTISATION/DEPRECIATION				NET BLOCK	
	Cost/valuation as at beginning of the Year (original cost)	Addition during the year	Deductions/Adjustments during the year	Cost/valuation at the year end (original cost)	As at the beginning of the Year	Prior Period Dep.	During the Year	On Deductions during the Year	As at the current Year -end	As at the Previous Year -end
FIXED ASSETS:										
LAND:										
a) Freehold	-									
b) Leasehold	1,25,05,904	-	-	1,25,05,904	17,10,905	-	89,737	-	1,07,05,262	1,07,94,999
BUILDINGS:										
a) On Freehold Land	-									
b) On Leasehold Land	17,58,90,597	-	-	17,02,06,142	12,33,74,878	-	58,72,110	-	4,66,43,609	5,25,15,719
c) Ownership Flats/Premises	-									
d) Superstructures on Land	-									
not belonging to the entity										
PLANT, MACHINERY & EQUIPMENT	48,27,81,015	90,46,513	-	49,27,90,897	45,80,57,238	-	85,46,060	-	2,52,24,230	2,47,23,777
VEHICLES	2,40,83,321	1,85,069	-	2,38,46,363	1,76,52,048	-	29,30,102	-	36,86,240	64,31,273
FURNITURE, FIXTURES,	2,61,15,967	17,36,835	-	2,77,87,574	2,29,18,372	-	16,93,870	-	32,40,560	31,97,595
OFFICE EQUIPMENT	4,17,133	3,84,724	-	8,01,857	1,97,996		1,53,978	-	4,49,883	2,19,137
COMPUTER/PERIPHERALS	4,20,95,306	45,06,715	-	4,63,44,783	3,99,49,978	-	42,34,242	-	24,17,801	21,45,328
ELECTRIC INSTALLATIONS	-	52,544	-	52,544	-	-	7,882	-	44,662	-
LIBRARY BOOKS	17,10,959	54,754	-	17,40,485	17,05,308	-	33,818	-	94,223	5,651
TUBEWELLS & W.SUPPLY	-	-	-	-	-		-	-	-	-
OTHER FIXED ASSETS	-	-	-	-	-		-	-	-	-
TOTAL OF CURRENT YEAR	76,56,00,202	1,59,67,154	-	77,60,76,549	66,55,66,723	-	2,34,94,163	-	9,25,06,470	10,00,33,479
CAPITAL WORK-IN PROGRESS	20,10,655	-	-	20,10,655	-	-	-	-	20,10,655	20,10,655
TOTAL	76,76,10,857	1,59,67,154	-	77,80,87,204	66,55,66,723	-	2,34,94,163	-	9,45,17,125	10,20,44,134



CENTRAL POLLUTION CONTROL BOARD

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 9 - INVESTMENTS FROM EARMARKED/ ENDOWMENT FUNDS		CURRENT YEAR	PREVIOUS YEAR
1. IN GOVERNMENT SECURITIES	-	-	-
2. OTHER APPROVED SECURITIES	-	-	-
3. SHARES	-	-	-
4. DEBENTURES AND NONDS	-	-	-
5. SUBSIDIARIES AND JOINT VENTURES	-	-	-
6. OTHERS (Deposit)	-	-	-
TOTAL			
SCHEDULE-10 INVESTMENTS OTHERS		CURRENT YEAR	PREVIOUS YEAR
1. IN GOVERNMENT SECURITIES	-	-	-
2. OTHER APPROVED SECURITIES	-	-	-
3. SHARES	-	-	-
4. DEBENTURES AND NONDS	-	-	-
5. SUBSIDIARIES AND JOINT VENTURES	-	-	-
6. OTHERS(Fixed Deposits)	6,24,000.00	6,24,000.00	-
TOTAL		6,24,000.00	-



CENTRAL POLLUTION CONTROL BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 11- CURRENT ASSETS, LOANS, AND ADVANCES		CURRENT YEAR	PREVIOUS YEAR
A) CURRENT ASSETS			
1. INVENTORIES			
a) Stores , Spares and Consumables	1,29,75,024	1,30,52,618	
b) Loose Tools	-	-	
c) Stock-in- trade			
Finished Goods (Consumables, Stores/ Spares)	-	-	
Work -in- progress	-	-	
Raw materials	-	1,29,75,024	1,30,52,618
2. SUNDRY DEBTORS			
a) Debts outstanding for a period exceeding six months	-	-	
b) Others	1,47,289	1,47,289	1,47,289
3. Cash balances in hand	-	-	-
4. Bank Balances			
a) With scheduled banks			
- On current Accounts	2,66,25,871	1,86,23,394	
- On Deposits Accounts (including margine money) (Sponsored Projects)	2,67,56,47,335	2,56,45,86,519	
- On saving Accounts (Sponsored Projects-Including Flexi Fixed Deposit amount)	6,44,70,30,906	9,14,93,04,112	8,11,85,26,072
b) with non- sheduled Banks			
- On current Accounts	-	-	
- On Deposits Accounts (including margine money)	-	-	
- On saving Accounts	-	-	
5. Post office saving Accounts			
TOTAL (A)		9,16,24,26,425	8,13,17,25,979





CENTRAL POLLUTION CONTROL BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 11- CURRENT ASSETS, LOANS, AND ADVANCES		CURRENT YEAR		PREVIOUS YEAR	
B) LOANS, ADVANCES AND OTHER ASSETS					
1. LOANS & ADVANCES					
a) Staff		9,68,323		26,70,031	
b) other entities engaged in activities similar to that entity		5,000		5,000	
c) Other (Sponsored Projects Advances)		6,56,89,99,982	6,56,99,73,305	4,50,92,84,194	4,51,19,59,225
2. Advances and other amounts recoverable in cash or kind					
a) On capital account		-		-	
b) Prepayments		19,16,321		18,34,540	
c) Others		63,69,59,999	63,88,76,320	95,41,30,609	95,59,65,149
3. Income Accrued					
a) on investments from earmarked/endowment funds		-		-	
b) On investments (Sponsored Projects)		7,79,68,077		62,21,100	
c) On loans and advances		-		-	
d) Others		-	7,79,68,077	-	62,21,100
4. CLAIMS RECEIVABLE					
			-	-	-
	TOTAL (B)		7,28,68,17,702		5,47,41,45,474
	TOTAL (A+B)		16,44,92,44,127		13,60,58,71,453

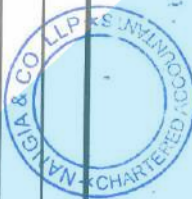




CENTRAL POLLUTION CONTROL BOARD

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

<u>SCHEDULE 12- INCOME FROM SALES/SERVICE</u>			CURRENT YEAR	PREVIOUS YEAR
1.INCOME FROM SALES				
a) Sale of Finished goods			-	-
b) Sale of Raw material			-	-
c) Sale of Scrap			-	-
2. INCOME FROM SERVICES				
a) Labour and processing charges			-	-
b) Professional/ consultancy service			-	-
c) Agency commission and Brokerage			-	-
d) Maintenance Services (Equipment / property)			-	-
e) Others (specify)			-	-
		TOTAL	-	-
<u>SCHEDULE 13- GRANTS/ SUBSIDIES</u>				
1. Central Government				
2. Fund Transfer to ZO'S			99,50,00,000	1,00,00,00,000
3. State Government			-	-
4. Government agencies			-	-
5. Institutions/ welfare Bodies			-	-
6. International Organisations			-	-
7. Others (specify)			-	-
		TOTAL	99,50,00,000	1,14,42,00,000





CENTRAL POLLUTION CONTROL BOARD

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 14- FEES/ SUBSCRIPTIONS		CURRENT YEAR	PREVIOUS YEAR
1. Entrance fees		-	-
2. Annual Fees/ Subscriptions		-	-
3. Seminar/ program Fees		-	-
4. Consultancy Fees		-	-
5. Others		-	-
	TOTAL	-	-
SCHEDULE 15- INCOME FROM INVESTMENTS		CURRENT YEAR	PREVIOUS YEAR
1. INTEREST			
A) ON GOVT. SECURITIES			
B) OTHER BONDS/ DEBENTURES		-	-
2. DIVIDENDS		-	-
A) ON SHARES		-	-
B) ON MUTUAL FUND SECURITIES		-	-
3. RENTS		-	-
4. OTHERS (SPECIFY)		-	-
	TRANSFERRED TO EARMARKED/ ENDOWMENT FUNDS	-	-
SCHEDULE 16 - INCOME FROM ROYALTY, PUBLICATIONS etc.		CURRENT YEAR	PREVIOUS YEAR
1. INCOME FROM ROYALTY		-	-
2. INCOME FROM PUBLICATIONS		7,675	13,865
3. OTHERS (specify)		-	-
	TOTAL	7,675	13,865





CENTRAL POLLUTION CONTROL BOARD
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 17 - INTEREST EARNED		CURRENT YEAR	PREVIOUS YEAR
1. ON TERM DEPOSITS			
a) with scheduled Banks		81,60,949	75,92,066
b) with non scheduled Banks		-	-
c) with institution		-	-
d) others		-	-
2. ON SAVING ACCOUNTS			
a) with scheduled Banks		1,301	-
b) with non scheduled Banks		-	-
c) with institution		-	-
d) others		-	-
3. ON LOANS			
a) Employee/ staff - HBA		1,01,060	1,70,380
b) Others		40,08,410	-
4. INTEREST ON DEBTORS AND OTHERS RECEIVABLES			
		-	-
TOTAL		1,22,71,720	77,62,446
SCHEDULE 18- OTHER INCOME		CURRENT YEAR	PREVIOUS YEAR
1. PROFIT ON SALE/ DISPOSAL OF ASSETS			
a) Owned assets		-	4,46,742
b) Assets acquired out of grants, or received free of cost		-	-
2.EXPORT INCENTIVES REALIZED			
		-	-
3. FEES FOR MISCELLANEOUS SERVICES			
		-	-
4. MISCELLANEOUS INCOME			
		37,70,876	14,38,780
TOTAL		37,70,876	18,85,522





CENTRAL POLLUTION CONTROL BOARD

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 19- INCREASE/DECREASE IN STOCK OF FINISHED GOODS & WORK-IN-PROGRESS		CURRENT YEAR	PREVIOUS YEAR
A. CLOSING STOCK			
- Finished Goods (Consumables, Stores/ Spares)		1,29,75,024	1,30,52,618
- Work in progress		-	-
B. Less:- OPENING STOCK			
- Finished Goods (Consumables, Stores/ Spares)		1,30,52,618	1,53,84,299
- Work in progress		-	-
NET INCREASE/ DECREASE (A-B)		(77,594)	(23,31,681)
SCHEDULE 20- ESTABLISHMENT EXPENSES		CURRENT YEAR	CURRENT YEAR
1. SALARIES & WAGES		47,04,30,241	48,98,80,309
2. ALLOWANCES AND BONUS		1,49,89,912	1,22,01,498
3. CONTRIBUTION TO PROVIDENT FUND		3,36,72,950	4,31,07,871
4. CONTRIBUTION TO OTHER FUND - GIS		97,029	8,559
5. STAFF WELFARE EXPENSES		1,44,54,731	1,42,35,109
6. EXPENSES ON EMPLOYEE RETIREMENT & TERMINAL BENEFIT		-92,23,805	17,05,92,278
7. OTHERS- WELFARE FUND		26,260	27,100
TOTAL		52,44,47,318	73,00,52,724





CENTRAL POLLUTION CONTROL BOARD

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 21 - OTHER ADMINISTRATIVE EXPENSES	CURRENT YEAR	PREVIOUS YEAR
ADVERTISEMENT AND PUBLICITY	51,96,466	15,87,048
AUDITORS REMUNERATION	2,36,000	2,36,000
CARTAGE AND CARIAGE INWARD	-	-
DISTRIBUTION EXPENSES	-	-
ELECTRICITY AND POWER	2,07,47,454	2,39,57,340
EXCISE DUTY	-	-
EXPENSES ON FEES	-	-
EXPENSES ON SEMINAR/WORKSHOP	-	-
FREIGHT AND FORWARDING EXPENSES	41,68,241	1,15,16,014
HOSPITALITY EXPENSES	-	-
INSURANCE	-	-
IRRECOVERABLE BALANCES WRITTEN OFF	14,57,416	9,44,274
LABOUR AND PROCESSING EXPENSES	-	-
OTHERS (specify)	12,27,78,887	14,20,78,367
PACKING CHARGES	-	-
POSTAGE, TELEPHONE AND COMMUNICATIONS	69,00,074	63,55,361
PRINTING AND STATIONARY	40,96,521	44,57,748
PROFESSIONAL CHARGES	24,31,331	48,84,481
PROVISION FOR BAD AND DOUBTFUL DEBTS	-	-
PURCHASES (Consumables, Stores/ Spares)	1,38,34,563	1,13,85,542
RENT, RATES AND TAXES	54,69,560	72,27,896
REPAIR AND MAINTENANCE	5,01,49,864	4,77,23,510
SUBSCRIPTION EXPENSES	-	-
TRAVELLING AND CONVEYANCE EXPENSES	80,68,543	1,76,67,871
VEHICLE RUNNING AND MAINTENANCE	56,94,216	97,02,392
WATER CHARGES	16,07,663	18,11,763
TOTAL	25,28,36,799	29,15,35,607



CENTRAL POLLUTION CONTROL BOARD

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31ST MARCH, 2021

SCHEDULE 22- EXPENDITURE ON GRANTS, SUBSIDIES		CURRENT YEAR	PREVIOUS YEAR
GRANTS GIVEN TO INSTITUTIONS/ ORGANISATION		-	-
SUBSIDIES GIVEN TO INSTITUTIONS/ ORGANISATION		-	-
TOTAL		-	-
SCHEDULE 23- INTEREST		CURRENT YEAR	PREVIOUS YEAR
ON FIXED LOANS		-	-
ON OTHER LOANS (including bank charges)		23,409	19,211
OTHERS		11,504	-
TOTAL		34,913	19,211
SCHEDULE 24- MONITORING EXPENSES		CURRENT YEAR	PREVIOUS YEAR
AIR QUALITY MONITORING EXPENSES		2,64,66,203	3,50,20,839
WATER QUALITY MONITORING EXPENSES		20,338	56,298
ENVIRONMENT PROTECTION AND MONITORING EXP.		1,08,90,294	1,17,70,607
TOTAL		3,73,76,835	4,68,47,744

CENTRAL POLLUTION CONTROL BOARD, DELHI **RECEIPTS & PAYMENT ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2021**

RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
I. Opening Balance			I. Expenses		
a) Cash in hand	-	-	a) Establishment Expenses	58,26,43,846	57,80,68,636
b) Bank Balances			b) Administrative Expenses	27,19,02,829	35,78,19,869
i) In current accounts	53,47,65,603	16,59,46,004	c) Prior Period Exps	6,32,584	5,76,735
ii) In deposit accounts	2,56,45,86,519	2,94,21,46,787	II. Payments made against funds for various projects	-	-
iii) Savings accounts	5,53,81,62,427	1,36,69,99,631	Project Exps	73,68,08,200	83,65,99,730
II. Grants Received					
a) From Government of India - Mains	99,50,00,000	1,00,00,00,000	III. Investments and deposits made		
b) From State Government	-	-	a) Out of Earmarked/Endowment funds	9,52,782	25,342
c) From Government of India - Projects	4,22,70,43,836	5,65,92,58,650	b) Out of Own Funds (Investments-Others)	6,24,000	-
d) Others	1,16,41,72,724	1,35,48,46,929			
			IV. Expenditure on Fixed Assets & Capital Work in progress		
III. Income on Investments from			a) Purchase of Fixed Assets-Own fund	1,56,78,695	2,36,91,977
a) Earmarked/Endow. Funds			b) Purchase of Fixed Assets- Earmarked/Endowment funds	-	-
b) Own Funds	40,46,89,505	38,67,70,697			
			V. Refund of surplus money/Loans		
IV. Interest Received			a) To the Government of India	2,41,37,670	3,32,93,859
a) On Bank deposits	90,565	70,52,248	b) To the State Government	-	-
b) Loans. Advances etc.	81,84,005	36,17,18,084	c) To other providers of funds	16,00,000	3,04,20,000
			d) To the Government of India - Mains	-	-
V. Other Income (Specify)			VI. Finance Charges (Interest & Bank charges Sch 23)	23,674	39,263
a) Income from Royalty, Publications Etc.	10,966	6,72,451			
b) Other Income	1,12,51,034	2,57,96,753	VII. Other Payments (Specify)		
c) Misc Income	16,17,60,784	1,61,18,51,836.00	a) Advances and other payments (Net) - Mains	45,38,96,927	6,54,87,468
VI. Amount Borrowed	5,500	13,26,23,358	b) Advances and other payments (Net) - Projects	4,10,92,80,180	4,46,11,05,750
VII. Any other receipts			VIII. Closing Balances		
a) Other - Mains	96,15,995	60,11,761	a) Cash in hand	-	-
b) Sale of Fixed Assets	-	1,76,450	b) Bank Balances		
c) Advances and other payments (Net)-Mains	12,23,180	27,71,539	i) In current accounts	24,24,45,751	53,47,65,603
			ii) In deposit accounts	2,73,12,27,945	2,56,45,86,519
			iii) In Savings account	6,44,87,07,559	5,53,81,62,427
TOTAL	15,62,05,62,642	15,02,46,43,177	TOTAL	15,62,05,62,642	15,02,46,43,177

For Central Pollution Control Board

(Signature)
(Prashant Gargava)
Member Secretary

(Signature)
(Tanmay Kumar, IAS)
Chairman

(Signature)
(Dipanta Kalita)
Accounts Officer

(Signature)
(Ajay Sirsikar)
Accounts Officer

Schedules 1 to 26 forming part of accounts are annexed
As per our report of even date

For Nangia & Co. LLP
Chartered Accountants
Firm Reg. No. 002391C/N500069
(Signature)
(Vikas Gupta)
M.NO. 076879
Partner
Signed at Noida on



24 JAN 2022

CENTRAL POLLUTION CONTROL BOARD : DELHI - 110032
Closing Balance of capital fund - Other Sponsored Projects: (2020-21)

SL. NO.	Proj. Code	NAME OF THE PROJECT	Closing Balance at Bank	Interest Accrued on Investments	Advances	Total	Less: Liabilities	Closing Balance of capital fund
1		2	3	4	5	6 = (3+4+5)	7	8 = (6-7)
1	PR01	AGRA AAQM UP (Lucknow)	-	-	6,000	6,000	-	6,000
2	PR02	DOD PROJECT (Kolkata)	47,730	-	1,98,294	2,46,024	4,80,000	(2,33,977)
3	PR03	DTS PROJECT (Bangalore)	-	-	5,39,784	5,39,784	-	5,39,784
4	PR04	CAEAI	67,951	-	-	67,951	-	67,951
5	PR06	BANK GUARANTEE	5,20,96,982	-	-	5,20,96,982	1,00,00,000	4,20,96,982
6	PR07	HWMD DUMP SITE	86,56,502	-	-	86,56,502	-	86,56,502
7	PR08	HWMD WASTE OF UCIL, Bhopal	-	-	6,782	6,782	-	6,782
8	PR09	VTT FINLAND	42,281	-	-	42,281	-	42,281
9	PR10	ENVIS PROJECT	9,06,249	-	90	9,06,339	-	9,06,339
10	PR12	ICAIQS (CESS)	17,161	-	1,40,17,509	1,40,34,670	-	1,40,34,670
11	PR13	NSDI(DST)	3,578	-	-	3,578	-	3,578
12	PR14	ORRISA BOARD - MOBILE LAB	95,180	-	20,20,680	21,15,860	-	21,15,860
13	PR15	PARYAVARAN DARSHAN	3,41,77,560	-	14,25,00,000	17,66,77,560	-	17,66,77,560
14	PR16	STRENGTHENING OF NAQM	-	-	4,35,52,310	4,35,52,310	-	4,35,52,310
15	PR17	UNEP Male Project	27,23,103	-	-	27,23,103	-	27,23,103
16	PR18	UNI DO PROJECT	92,07,198	-	-	92,07,198	-	92,07,198
17	PR19	WORKSHOP ON BMWWM	-	-	4,15,263	4,15,263	-	4,15,263
18	PR20	BAKARGANJ NALA PATNA	19,841	-	1,68,00,000	1,68,19,841	-	1,68,19,841
19	PR21	BUDHANALA LUDHIYANA NRCP	88,627	-	-	88,627	-	88,627
20	PR22	CRITICALLY POLLUTED AREA CESS	2,64,989	-	-	2,64,989	6,00,000	(3,35,011)
21	PR23	NAQMP CESS	-	-	6,60,00,000	6,60,00,000	-	6,60,00,000
22	PR24	CPCB NNMS	6,343	-	91,605	97,948	15,71,707	(14,73,759)
23	PR25	BASLINE SURVEY OF INDUSTRIES	34,68,738	-	1,84,519	36,53,257	-	36,53,257
24	PR26	UPGRADATION OF LAB (Cess)	1,57,96,644	-	17,77,860	1,75,74,504	25,872	1,75,48,632
25	PR27	WQM WB INPUT COST OF STAFF	6,98,01,027	-	1,20,96,070	8,18,97,097	-	8,18,97,097
26	PR29	CPCB-Hydrology Project	35,29,763	-	-	35,29,763	-	35,29,763
27	PR30	CPCB-NGT 25	83,58,84,429	83,95,733	48,49,52,122	1,32,92,32,284	4,87,500	1,32,87,44,784
28	PR31	CPCB-NGT 75	2,65,10,40,341	5,91,85,870	10,55,19,761	2,81,57,45,972	25,05,91,860	2,56,51,54,112
29	PR32	Upgradation of Air Lab Project (Cess)	1,38,20,567	-	-	1,38,20,567	-	1,38,20,567
30	PR33	CPCB-PIAS	1,93,403	-	-	1,93,403	-	1,93,403
31	PR35	CPCB-CPSU PROJ	10,96,64,908	-	45,20,000	11,41,84,908	-	11,41,84,908
32	PR36	CPCB-EPC	1,58,63,33,811	1,03,86,474	50,24,12,159	2,09,91,32,444	25,679	2,09,91,06,765
33	PR37	CCBP Proj	1,23,20,173	-	-	1,23,20,173	-	1,23,20,173
34	PR39	AQMM CESS 2017	24,67,478	-	2,16,00,000	2,40,67,478	-	2,40,67,478

SL. NO.	Proj. Code	NAME OF THE PROJECT	Closing Balance at Bank	Interest Accrued on Investments	Advances	Total	Less: Liabilities	Closing Balance of capital fund
1		2	3	4	5	6 = (3+4+5)	7	8 = (6-7)
35	PR40	NWQMN 2017 Cess	21,20,978	-	-	21,20,978	-	21,20,978
36	PR41	EC BY CPCB	37,40,75,205	-	-	37,40,75,205	-	37,40,75,205
37	PR42	CPCB- AQM Strengthening of AAQMS	1,43,680	-	8,01,30,000	8,02,73,680	-	8,02,73,680
38	PR43	CPCB- AQM O&M OF NAQP	4,70,58,533	-	10,21,44,375	14,92,02,908	-	14,92,02,908
39	PR45	CPCB WM DUMP SITE GANJAM ODISHA	1,94,43,227	-	-	1,94,43,227	-	1,94,43,227
40	PR46	CPCB (AL) AIR POLLUTION SOURCES AT TAJ	7,865	-	-	7,865	-	7,865
41	PR47	CPCB WM DUMP SITE TALCHAR ODISHA	77,51,605	-	-	77,51,605	-	77,51,605
42	PR48	CPCB NCAP-2019	1,88,16,116	-	3,27,75,99,274	3,27,75,99,274	-	3,27,75,99,274
43	PR50	CPCB Meghalaya EPR Fund (2019-20)	1,06,43,85,270	-	-	1,06,43,85,270	-	1,06,43,85,270
44	PR51	CPCB CPSU NTPC (2019-20)	39,90,93,070	-	55,00,000	40,45,93,070	-	40,45,93,070
45	PR52	CPCB (PCP) Assistance to SPCBs (1920-20)	1,38,63,314	-	1,69,64,07,857	1,71,02,71,171	-	1,71,02,71,171
46	PR53	CPCB EC Performance Guarantee (2019-20)	10,39,640	-	-	10,39,640	-	10,39,640
47	PR54	CPCB-GEF-UNEP (2019-20)	1,01,79,783	-	67,43,084	1,69,22,867	-	1,69,22,867
48	PR55	CPCB SP BBMP 711.18 IDBI 662	5,00,71,952	-	-	5,00,71,952	-	5,00,71,952
49	PR56	CPCB SP CENTURY PLYWOOD 90.17 IDBI 549	5,00,627	-	-	5,00,627	-	5,00,627
50	PR57	CPCB SP DELHI GOVT 159.13 IDBI 525	15,02,18,185	-	-	15,02,18,185	-	15,02,18,185
51	PR58	CPCB SP DELHI M CORPN 46.18 IDBI 152723	40,05,014	-	-	40,05,014	-	40,05,014
52	PR59	CPCB SP DPCC 56-57.13 IDBI 152679	25,08,65,149	-	-	25,08,65,149	-	25,08,65,149
53	PR60	CPCB SP DPCC 519.16 IDBI 631	5,00,627	-	-	5,00,627	-	5,00,627
54	PR61	CPCB SP DPCC 1039.18 IDBI 532	5,00,699	-	-	5,00,699	-	5,00,699
55	PR62	CPCB SP GAMMON INDIA 295.16	3,00,47,740	-	-	3,00,47,740	-	3,00,47,740
56	PR63	CPCB SP GRASIM INDS 164.18 152709	1,00,15,137	-	-	1,00,15,137	-	1,00,15,137
57	PR64	CPCB SP KARNATAKA GOVT 125.17 IDBI 570	50,07,30,000	-	-	50,07,30,000	-	50,07,30,000
58	PR65	CPCB SP LDA 214.14 IDBI 518	5,00,71,952	-	-	5,00,71,952	-	5,00,71,952
59	PR66	CPCB SP RAJASTHAN GOVT 202.16 IDBI 563	30,04,87,877	-	-	30,04,87,877	-	30,04,87,877
60	PR67	CPCB SP RINL 117.14 IDBI 152693	1,00,13,459	-	-	1,00,13,459	-	1,00,13,459
61	PR68	CPCB SP SCHOOLS 217.16 IDBI 648	80,10,534	-	-	80,10,534	-	80,10,534
62	PR69	CPCB SP SEA I CONTAINERS 234.18 IDBI 587	1,00,13,459	-	-	1,00,13,459	-	1,00,13,459
63	PR70	CPCB SP SL CONTAINERS 40.14 IDBI 152686	5,00,71,952	-	-	5,00,71,952	-	5,00,71,952
64	PR71	CPCB SP UPCL 578.18 IDBI 152716	5,00,80,342	-	-	5,00,80,342	-	5,00,80,342
65	PR72	CPCB SP VAPI GREEN ENVIRO 95.18 IDBI 556	25,24,06,213	-	-	25,24,06,213	-	25,24,06,213
66	PR73	CPCB SP WB GOVT 200.14 IDBI 594	25,03,134	-	-	25,03,134	-	25,03,134
67	PR74	CPCB WM DUMPSITES RANIPET TN IDBI 793	53,180	-	-	53,180	-	53,180
68	PR75	CPCB BAT REFERENCE DOCUMENTS (2020-21)	38,00,312	-	-	38,00,312	-	38,00,312
69	PR76	CPCB SP FARIDABAD MC 627/18 (2020-21)	1,67,73,021	-	-	1,67,73,021	-	1,67,73,021
70	PR77	CPCB CPSU NMDC	-	-	-	-	-	-
71	PR78	CPCB CPSU SAIL	-	-	-	-	-	-
72	PR79	CPCB CPSU PGC	-	-	-	-	-	-



SL. NO.	Proj. Code	NAME OF THE PROJECT	Closing Balance at Bank	Interest Accrued on Investments	Advances	Total	Less: Liabilities	Closing Balance of capital fund
1		2	3	4	5	6 = (3+4+5)	7	8 = (6-7)
73	PR80	CPCB CPSU MOIL	-	-	-	-	-	-
74	PR81	CPCB CPSU RINL	-	-	-	-	-	-
75	PR82	CPCB EPC	-	-	-	-	-	-
76	PR83	CPCB SP WB GOVT 23/17	-	-	-	-	-	-
77	PR84	CPCB SP GOA GOVT 77-86/18	-	-	-	-	-	-
		TOTAL :-	9,12,24,61,408	7,79,68,077	6,56,89,19,282	15,76,93,48,767	26,37,82,618	15,50,55,66,149



CENTRAL POLLUTION CONTROL BOARD : DELHI - 110032
DEPOSITS RECEIVED FOR WORKS FROM OUTSIDE BODIES (OTHER SPONSORED PROJECTS) (2020-21)

SL. NO.	New Code	NAME OF THE PROJECT	OPENING BALANCE	RECEIVED DURING THE YEAR					PAYMENT DURING THE YEAR						
				Grant Received	Grant- Others	Income on Investments	Adjustments	Receipt Total	Expenditure	Refund to Govt.	Refund to Other Fund Provider	Advances and other payments (net)	Project Advance	Total Payment (Excluding Bank Balance) 14=(9+10+11+12+13)	Closing Balance 15 = (3+8-14)
1		2	3	4	5	6	7	8 = (4+5+6+7)	9	10	11	12	13	14	15
1	PR01	AGRA AAQM UP (Lucknow)	-	-	-	-	-	-	-	-	-	-	-	-	-
2	PR02	DOD PROJECT (Kolkata)	47,730	-	-	-	-	-	-	-	-	-	-	-	47,730
3	PR03	DTS PROJECT (Bangalore)	-	-	-	-	-	-	-	-	-	-	-	-	-
4	PR04	CAEAI	66,259	-	-	1,692	-	1,692	-	-	-	-	-	-	67,951
5	PR06	BANK GUARANTEE	4,80,85,820	-	-	40,11,162	-	40,11,162	-	-	-	-	-	-	5,20,96,982
6	PR07	HWMD DUMP SITE	83,00,344	-	-	-	1,80,000	5,22,806	1,66,648	-	-	-	-	1,66,648	86,56,502
7	PR09	VTT FINLAND	41,036	-	-	1,245	-	1,245	-	-	-	-	-	-	42,281
8	PR10	ENVIS PROJECT	25,59,826	-	-	1,47,500	3,31,471	13,70,978	10,91,651	19,32,904	-	-	-	30,24,555	9,06,249
9	PR12	ICAQIS (CESS)	16,655	-	-	506	-	506	-	-	-	-	-	-	17,161
10	PR13	NSDI(DST)	16,455	-	-	296	-	296	13,173	-	-	-	-	13,173	3,578
11	PR14	ORRISA BOARD - MOBILE LAB	95,180	-	-	-	-	-	-	-	-	-	-	-	95,180
12	PR15	PARYAVARAN DARSHAN	3,29,70,156	-	-	12,07,404	-	12,07,404	-	-	-	-	-	-	3,41,77,560
13	PR16	STRENGTHENING OF NAQM	-	-	-	-	-	-	-	-	-	-	-	-	-
14	PR17	UNEP Male PROJECT	27,23,870	-	-	2,27,499	-	2,27,499	767	-	-	-	-	767	27,23,103
15	PR18	UNIDO PROJECT	89,79,699	-	-	2,27,499	-	2,27,499	-	-	-	-	-	-	92,07,198
16	PR19	WORKSHOP ON BMWWM	-	-	-	-	-	-	-	-	-	-	-	-	-
17	PR20	BAKARGANJ NALA PATNA	19,243	-	-	598	-	598	-	-	-	-	-	-	19,841
18	PR21	BUDHANALA LUDHIVANA	85,958	-	-	2,669	-	2,669	-	-	-	-	-	-	88,627
19	PR22	CRITICALLY POLLUTED AREA CESS	2,57,007	-	-	7,982	-	7,982	-	-	-	-	-	-	2,64,989
20	PR23	NAQMP CESS	-	-	-	-	1,10,00,000	1,10,00,000	84,65,124	25,34,876	-	-	-	1,10,00,000	-
21	PR24	CPCB NNIMS	6,152	-	-	191	-	191	-	-	-	-	-	-	6,343
22	PR25	BASELINE SURVEY OF INDUSTRIES	33,52,406	-	-	1,16,332	-	1,16,332	-	-	-	-	-	-	34,68,738
23	PR26	UPGRADATION OF LAB (Cess)	1,53,74,413	-	-	4,22,231	4,49,36,920	4,53,59,151	4,49,36,920	-	-	-	-	4,49,36,920	1,57,96,644
24	PR27	WQM WB INPUT COST OF STAFF	6,81,13,598	1,05,96,750	-	25,97,066	-	1,31,93,816	1,50,744	-	-	-	1,13,55,643	1,15,06,387	6,98,01,027
25	PR29	CPCB-Hydrology Project	80,68,754	-	-	2,43,421	-	2,43,421	45,15,019	2,67,393	-	-	-	47,82,412	35,29,763
26	PR30	CPCB-NGT 25	1,04,35,72,458	1,54,80,125	-	13,51,16,357	-	15,05,96,482	1,50,13,705	-	-	-	33,48,75,073	34,98,88,778	84,42,80,162
27	PR31	CPCB-NGT 75	3,25,30,92,364	-	86,12,65,447	18,00,95,605	61,37,588	1,04,74,98,640	3,15,13,639	-	-	-	1,55,88,51,154	1,59,03,64,793	2,71,02,26,211
28	PR32	Upgradation of Air Lab Project (Cess)	1,32,70,775	-	-	5,49,792	-	5,49,792	-	-	-	-	-	-	1,38,20,567
29	PR33	CPCB-PIAS	17,61,278	-	-	32,125	-	32,125	-	-	16,00,000	-	-	16,00,000	1,93,403
30	PR35	CPCB-CPSU PROJ	11,74,24,658	-	-	40,22,050	-	40,22,050	-	60,61,800	-	57,20,000	-	1,17,81,800	10,96,64,908
31	PR36	CPCB-EPC	1,54,00,11,476	-	22,36,04,792	6,11,28,170	10,300	28,47,43,262	1,32,84,079	-	-	-	23,71,37,841	25,04,21,920	1,57,43,32,818
32	PR37	CCBP Proj	1,18,84,923	-	-	4,35,250	-	4,35,250	-	-	-	-	-	-	1,23,20,173
33	PR39	AAQM CESS 2017	23,71,425	-	-	96,053	-	96,053	-	-	-	-	-	-	24,67,478
34	PR40	NWQMN 2017 Cess	20,40,335	-	-	80,643	-	80,643	-	-	-	-	-	-	21,20,978



SL. NO.	New Code	NAME OF THE PROJECT	OPENING BALANCE	RECEIVED DURING THE YEAR					PAYMENT DURING THE YEAR						Closing Balance
				Grant Received	Grant- Others	Income on Investments	Adjustments	Receipt Total	Expenditure	Refund to Govt.	Refund to Other Fund Provider	Advances and other payments (net)	Project Advance	Total Payment (Excluding Bank Balance)	
1		2	3	4	5	6	7	8 = (4+5+6+7)	9	10	11	12	13	14 = (8+10+11+12+13)	15 = (3+8-14)
35	PR41	EC BY CPCB	28,18,11,643	-	7,93,02,485	1,96,27,567	-	9,89,30,052	-	-	-	-	66,66,490	66,66,490	37,40,75,205
36	PR42	CPCB- AQM Strengthening of AAQMS	1,39,248	-	-	4,432	-	4,432	-	-	-	-	-	-	1,43,680
37	PR43	CPCB- AQM O&M OF NAQP	13,99,70,351	32,20,00,000	-	1,06,83,188	-	33,26,83,188	31,59,43,320	46,27,943	-	-	10,50,23,743	42,55,95,006	4,70,58,533
38	PR44	CPCB WQM NWMP	5,97,085	18,234	-	-	-	18,234	-	1,07,061	-	5,08,258	-	6,15,319	-
39	PR45	CPCB WM DUMP SITE GANJAM ODISHA	2,22,60,372	-	-	7,37,360	-	7,37,360	35,54,505	-	-	-	-	35,54,505	1,94,43,227
40	PR46	CPCB (AL) AIR POLLUTION SOURCES AT TAJ	7,623	-	-	242	-	242	-	-	-	-	-	-	7,865
41	PR47	CPCB WM DUMP SITE TALCHAR ODISHA	1,10,81,339	-	-	3,22,196	-	3,22,196	36,51,930	-	-	-	-	36,51,930	77,51,605
42	PR48	CPCB NCAP-2019	69,03,064	1,52,95,03,840	-	1,46,65,543	-	1,54,41,69,383	28,66,55,714	-	-	-	1,24,56,00,617	1,53,22,56,331	1,88,16,116
43	PR50	CPCB Meghalaya EPR Fund (2019-20)	1,02,64,72,337	-	-	3,79,12,933	-	3,79,12,933	-	-	-	-	-	-	1,06,43,85,270
44	PR51	CPCB CPSU NTPC (2019-20)	39,03,28,285	-	-	1,42,64,785	-	1,42,64,785	-	-	-	55,00,000	-	55,00,000	39,90,93,070
45	PR52	CPCB (PCP) Assistance to SPCBs (1920-20)	1,86,05,693	59,64,07,857	-	38,63,314	-	60,02,71,171	-	86,05,693	-	-	59,64,07,857	60,50,13,550	1,38,63,314
46	PR53	CPCB EC Performance Guarantee (2019-20)	10,07,575	-	-	32,065	-	32,065	-	-	-	-	-	-	10,39,640
47	PR54	CPCB-GEF-UNEP (2019-20)	1,61,07,810	-	-	5,70,522	-	5,70,522	48,65,045	-	-	-	16,33,504	64,98,549	1,01,79,783
48	PR55	CPCB SP B8MP 711.18 IDBI 662	-	5,00,00,000	-	71,952	-	5,00,71,952	-	-	-	-	-	-	5,00,71,952
49	PR56	CPCB SP CENTURY PLYWOOD 90.17 IDBI 549	-	5,00,000	-	627	-	5,00,627	-	-	-	-	-	-	5,00,627
50	PR57	CPCB SP DELHI GOVT 159.13 IDBI 525	-	15,00,00,000	-	2,18,185	-	15,02,18,185	-	-	-	-	-	-	15,02,18,185
51	PR58	CPCB SP DELHI M CORPN 46.18 IDBI 152723	-	40,00,000	-	5,014	-	40,05,014	-	-	-	-	-	-	40,05,014
52	PR59	CPCB SP DPCC 56-57.43 IDBI 152679	-	25,05,00,000	-	3,65,149	-	25,08,65,149	-	-	-	-	-	-	25,08,65,149
53	PR60	CPCB SP DPCC 519.16 IDBI 631	-	5,00,000	-	627	-	5,00,627	-	-	-	-	-	-	5,00,627
54	PR61	CPCB SP DPCC 1039.18 IDBI 532	-	5,00,000	-	699	-	5,00,699	-	-	-	-	-	-	5,00,699
55	PR62	CPCB SP GAMMON INDIA 295.16	-	3,00,00,000	-	47,740	-	3,00,47,740	-	-	-	-	-	-	3,00,47,740
56	PR63	CPCB SP GRASIM INDS 164.18 152709	-	1,00,00,000	-	15,137	-	1,00,15,137	-	-	-	-	-	-	1,00,15,137
57	PR64	CPCB SP KARNATAKA GOVT 125.17 IDBI 570	-	50,00,00,000	-	7,30,000	-	50,07,30,000	-	-	-	-	-	-	50,07,30,000
58	PR65	CPCB SP LDA 214.14 IDBI 518	-	5,00,00,000	-	71,952	-	5,00,71,952	-	-	-	-	-	-	5,00,71,952
59	PR66	CPCB SP RAJASTHAN GOVT 202.16 IDBI 563	-	30,00,00,000	-	4,87,877	-	30,04,87,877	-	-	-	-	-	-	30,04,87,877



SL. NO.	New Code	NAME OF THE PROJECT	OPENING BALANCE	RECEIVED DURING THE YEAR				PAYMENT DURING THE YEAR						Closing Balance	
				Grant Received	Grant- Others	Income on Investments	Adjustments	Receipt Total	Expenditure	Refund to Govt.	Refund to Other Fund Provider	Advances and other payments (net)	Project Advance		Total Payment (Excluding Bank Balance) 14=(9+10+11+12+13)
1		2	3	4	5	6	7	8 = (4+5+6+7)	9	10	11	12	13	14 = (9+10+11+12+13)	15 = (3+8-14)
60	PR67	CPCB SP RINL 117.14 IDBI 152693	-	1,00,00,000	-	13,459	-	1,00,13,459	-	-	-	-	-	-	1,00,13,459
61	PR68	CPCB SP SCHOOLS 217.16 IDBI 648	-	80,00,000	-	10,534	-	80,10,534	-	-	-	-	-	-	80,10,534
62	PR69	CPCB SP SEA L CONTAINERS 234.18 IDBI 587	-	1,00,00,000	-	13,459	-	1,00,13,459	-	-	-	-	-	-	1,00,13,459
63	PR70	CPCB SP SL CONTAINERS 40.14 IDBI 152686	-	5,00,00,000	-	71,952	-	5,00,71,952	-	-	-	-	-	-	5,00,71,952
64	PR71	CPCB SP UPCL 578.18 IDBI 152716	-	5,00,00,000	-	80,342	-	5,00,80,342	-	-	-	-	-	-	5,00,80,342
65	PR72	CPCB SP VAPI GREEN ENVIRO 95.18 IDBI 556	-	25,20,16,000	-	3,90,213	-	25,24,06,213	-	-	-	-	-	-	25,24,06,213
66	PR73	CPCB SP WB GOVT 200.14 IDBI 594	-	25,00,000	-	3,134	-	25,03,134	-	-	-	-	-	-	25,03,134
67	PR74	CPCB WM DUMPSITES RANIPET TN IDBI 793	-	29,86,217	-	53,180	-	30,39,397	29,86,217	-	-	-	-	29,86,217	53,180
68	PR75	CPCB BAT REFERENCE DOCUMENTS (2020-21)	-	38,00,000	-	312	-	38,00,312	-	-	-	-	-	-	38,00,312
69	PR76	CPCB SP FARIDABAD MC 627/18 (2020-21)	-	1,65,00,000	-	2,73,021	-	1,67,73,021	-	-	-	-	-	-	1,67,73,021
70	PR77	CPCB CPSU NMDC	-	-	-	-	-	-	-	-	-	-	-	-	-
71	PR78	CPCB CPSU SAIL	-	-	-	-	-	-	-	-	-	-	-	-	-
72	PR79	CPCB CPSU PGC	-	-	-	-	-	-	-	-	-	-	-	-	-
73	PR80	CPCB CPSU MOIL	-	-	-	-	-	-	-	-	-	-	-	-	-
74	PR81	CPCB CPSU RINL	-	-	-	-	-	-	-	-	-	-	-	-	-
75	PR82	CPCB EPC	-	-	-	-	-	-	-	-	-	-	-	-	-
76	PR83	CPCB SP WB GOVT 23/17	-	-	-	-	-	-	-	-	-	-	-	-	-
77	PR84	CPCB SP GOA GOVT 77-86/18	-	-	-	-	-	-	-	-	-	-	-	-	-
		TOTAL :-	8,09,99,02,678	4,22,70,43,836	1,16,41,72,724	49,61,52,551	6,25,96,279	5,94,99,65,390	73,68,08,200	2,41,37,670	16,00,000	1,17,28,258	4,09,75,51,922	4,87,18,26,050	9,17,80,42,018





CENTRAL POLLUTION CONTROL BOARD

SCHEDULES FORMING PART OF FINANCIAL STATEMENTS AS AT 31ST MARCH, 2021

SCHEDULE 25 - SIGNIFICANT ACCOUNTING POLICIES

1. BACKGROUND

The Central Government constituted the 'Central Board for the Prevention and Control of Water Pollution' on September 23, 1974. Under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the name of the Central Board was amended to Central Pollution Control Board referred as (Board/CPCB) under the Water (Prevention & Control of Pollution) Amendment Act, 1988.

The CPCB has been playing a key role in abatement and control of pollution in the country by generating, compiling and collating data, providing scientific information, rendering technical inputs for formulation of national policies and programmes, training and development of manpower and promoting awareness at different levels of the Government and Public at large.

2. ACCOUNTING CONVENTION

The Financial Statements comprising of Balance Sheet, Income & Expenditure Account & Receipts and Payments Account are prepared on the basis of historical cost convention and on a going concern on accrual basis unless stated otherwise. The Financial statements have been prepared as per 'Form of Financial Statement for the Central Autonomous Bodies' as per the directions of Ministry of Environment and Forest, Govt. of India vide their letter no. - G25012/1/2010CPW dated 10.02.10 as circulated by Controller General of Accounts, Ministry of Finance. The Financial Statement include Financial Statement of Head Office Delhi and its six Regional Directorates located at Bengaluru, Bhopal, Kolkata, Lucknow, Shillong, and Vadodara and sponsored/ earmarked projects.

3. USE OF ESTIMATES

The preparation of the Financial Statements in conformity with generally accepted accounting principles requires the management to make estimates and assumptions that affect the reporting balances of assets and liabilities and disclosures relating to contingent liabilities as at the date of the financial statements and reporting amounts of income and expenditure during the year. Contingencies are recorded when it is probable that a liability will be incurred, and the amount can be reasonably estimated. Actual results could differ from such estimates. Any difference between the actual result and the estimates are recognized in the period in which the results are known/ materialize.



4. INCOME

- a) Grants-in-Aid under heads General and Salary are accounted for on realization basis and credited to income and expenditure account.
- b) Grants for capital assets are recognized in the statement of income and expenditure and utilised for the purpose for which it was received.
- c) Interest is recognized on accrual basis.
- d) Miscellaneous Receipts and other Incomes are recognized on receipts basis.
- e) Grants/ Amount received for sponsored projects/scheme are treated as earmarked/ endowment fund and credited to the fund account which is utilized as per the terms of the grants/ for the purpose for which it was received. Interest earned on these grants is credited to the respective grant account.

5. EXPENDITURE

- a) Monitoring expenses are recognized after the claim/ utilization etc are verified and processed at appropriate level.
- b) Other expenses are accounted for on accrual basis.
- c) The expenditure for **sponsored projects/scheme** are shown as utilization under the endowment/ earmarked fund.

6. FIXED ASSETS

- a) Fixed Assets acquired out of grants received for that purpose are stated at cost of acquisition inclusive of freight inward, duties, taxes, incidental and other direct expenses related to acquisition.
- b) Fixed Assets involving installation/ commissioning are capitalized at 80% of the cost at the time of supply and balance at the time of successful commissioning.
- c) Fixed Assets received by way of non-monetary grants, (other than towards the Corpus Fund), i.e., gifted assets are taken in the financial books at nominal value. The incidental expenses on such assets such as clearing & forwarding charges, duties & taxes and other incidental expenses are capitalized.
- d) Fixed assets procured against special purpose grant/receipt are not capitalized. These are taken to the respective fund account as per terms of the grant and shown as utilization.





- e) The Assets Registers have been maintained as per General Financial Rules (GFR) in respect of Laboratory Equipments, Instruments, Computers, Office Equipments and Furniture and Fixture. The register is in the process of being updated.

7. DEPRECIATION

Depreciation during the year is provided on straight-line method as per rates given below limited to the extent of 95% value of assets.

Category of Assets	Rates (in %)
Free Hold Land	0
Building	10
Plant, Machinery & Equipment	15
Vehicles	15
Furniture & Fixtures	10
Computers	40
Library Books	15

In respect of additions to / deduction from the fixed assets during the year, depreciation is considered on full-year basis. Lease hold land is amortized over the lease period

8. FOREIGN CURRENCY TRANSACTION

Transaction denominated in foreign currency is accounted for at the exchange rate prevailing at the date of transaction.

9. INVENTORY

Stores and Spares including Chemicals, Glassware, Consumables & other Inventories have been valued at cost on FIFO basis and is being followed consistently. The cost includes cost of purchase including value added tax and other taxes wherever applicable.





10. RETIREMENT BENEFITS

For staff members employed prior to 2004, contribution is made to **Contributory Provident Fund (CPF)** scheme and for staff members employed after 2004, contribution is made to **New Pension Scheme (NPS)**. The contribution of **CPF/ NPS** is charged to Income & Expenditure Account. In both the scheme, the employees also contribute an equal amount.

The Board also provides retirement benefit in the form of Gratuity to eligible employees. Liability towards Gratuity payable on death/retirement is accrued at the year-end on the basis of actuarial certificate. The liability is valued at Projected Unit Credit Method.

Provision for accumulated Leave Encashment benefit to employees is accrued and computed on the basis of actuarial valuation as at year end using projected unit credit method on the basis of actuarial certificate.

11. EARMARKED FUNDS – SPONSORED PROJECTS

The Funds Received & utilized for Sponsored Projects have been identified as Earmarked Funds. The funds are utilized towards the objectives of the specific Projects. Income on account of bank interest is added to the Sponsored Projects and not treated as income of the Board.

12. PRIOR PERIOD, EXTRA-ORDINARY ITEMS AND EVENT OCCURRING AFTER THE BALANCE SHEET DATE

These are disclosed.

13. CONTINGENT ASSETS AND CONTINGENT LIABILITIES

Contingent liabilities are disclosed. Contingent assets are not recognized.



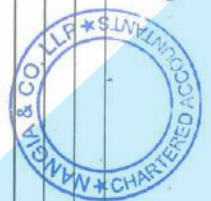


CENTRAL POLLUTION CONTROL BOARD
SCHEDULES FORMING PART OF FINANCIAL STATEMENTS AS AT 31ST MARCH, 2021
SCHEDULE 26 - NOTES TO ACCOUNTS

SCHEDULE 26.1 - CONTINGENT LIABILITIES & LITIGATIVE MATTERS		CURRENT YEAR	PREVIOUS YEAR
Claims against the Entity not acknowledged as debts			
In respect of banks		-	-
- Bank Guarantees given by/on behalf of Board			
- Letter of Credit opened by Bank on behalf of the Board		1,49,96,533	1,39,88,477
In respect of dispute demands		-	-
- Income Tax (TDS)		56,01,340	55,84,150
- Sales Tax		-	-
- Municipal Tax		-	-
In respect of claims from parties for non-execution of orders, but contested by the entity		2,00,000	2,00,000
TOTAL		2,07,97,873	1,97,72,627
In respect of Court cases And Arbitration:			
CPCB employees recruited before 1.1.2004 are covered under Contributory Provident Fund (CPF) scheme. However, the employees' union of CPCB is demanding coverage under Pension (Old) scheme and a court case is under progress in this regard. Contingent liability that may arise in the event of court's verdict goes in favour of employees' union demand, has neither been shown and nor been ascertained.			
SCHEDULE 26.2 - CAPITAL COMMITMENTS		CURRENT YEAR	PREVIOUS YEAR
Estimated value of contracts remaining to be executed on capital accounts and not provided for (net of advances)			
- Sponsored Projects		-	57,70,641
- Head Office & Regional Directorates		22,79,548	15,79,446
TOTAL		22,79,548	73,50,087
SCHEDULE 26.3 - LEASE OBLIGATIONS		CURRENT YEAR	PREVIOUS YEAR
The Board has entered into operating lease arrangements with parties for office. The lease are cancellable on mutual agreements. Lease rent paid has been charged to the statement of income and expenditure to the extent it relates to general fund		54,69,560	72,27,896
Future obligations for rentals under finance lease arrangements for plant and machinery		-	-



SCHEDULE 26.4 - CURRENT ASSETS, LOANS AND ADVANCES			CURRENT YEAR	PREVIOUS YEAR
Staff Advances			3,68,800	17,82,566
Outside Projects Advances			76,63,722	1,00,54,877
State Pollution Control Board's Advances			14,66,53,229	14,66,53,229
Publications Advances			5,51,672	5,51,672
Purchase & other Advances			1,90,97,367	45,80,050
Other Advances – UC Required			26,70,84,276	27,31,16,350
Miscellaneous Advances			77,50,688	7,25,250
Total (A)			44,91,69,754	43,74,63,994
Advances made by Regional Directorates (B)			26,01,422	29,27,934
Project Advances (C)			6,56,89,19,282	4,50,87,19,068
TOTAL(A+B+C)			7,02,06,90,458	4,94,91,10,996
These advances/ recoverable are subject to adjustments with respective agencies. The Board is taking necessary steps to reconcile these balances and certain communications have been initiated for the same.				
SCHEDULE 26.5 - LIABILITIES			CURRENT YEAR	PREVIOUS YEAR
Deposits (Work)				
Earnest Money Deposit			91,46,127	91,46,127
Retention Money			12,22,712	14,81,012
Security Deposit			73,560	73,560
Others – employee related			8,76,628	5,09,663
Others – miscellaneous			-	36,45,79,252
			49,92,353	26,31,965
Total			1,63,11,380	37,84,21,579
These credit balances are subject to adjustments with respective agencies. The Board is taking necessary steps to reconcile these balances and certain communications have been initiated for the same.				
SCHEDULE 26.6 - ADVANCES RECEIVED BY THE REGIONAL DIRECTORATES DURING THE FINANCIAL YEAR AND ARE OUTSTANDING AS UNSPENT AS AT 31ST MARCH, 2021			CURRENT YEAR	PREVIOUS YEAR
NGT 25% - Bhopal			55,46,020	-
NGT 25% - Kolkata			47,35,000	-
NGT 25% - Vadodara			69,75,000	-
MOEF Project (2018-19) - Shillong			-	28,46,534
BMW Training - Shillong			-	9,020
NGT Performance Audit- Shillong			-	46,146
NGT Performance Audit- Vadodara			-	2,27,022
NGT Performance Audit- Lucknow			-	3,18,282
NGT Performance Audit- Kolkata			-	4,24,320
Total			1,72,56,020	38,71,324



SCHEDULE 26.7 - RETIREMENT BENEFITS	
a) CPF SCHEME - For staff members employed prior to 2004, contribution is made to contributory Provident Fund (CPF) scheme and for staff members employed after 2004, contribution is made to New Pension Scheme (NPS). The contribution of CPF/NPS is charged to Income & Expenditure Account. In both the scheme, the employees also contribute an equal amount. The Board has created Contributory Provident Fund (CPF) under guidelines called The Central Board for the Prevention & Control of Water Pollution Employee's contributory Provident Fund since 1977-78 and the employee contribution is deducted from the salary of the employee and transferred to CPF Fund. The accounts of CPF Fund are audited up to 31st March 2020 only and there was shortfall of INR 35,846,078 as at 31st March, 2020 (on account of disparity between interest earned and interest paid to the CPF members) and the Board is in the process to identify alternate sources of investment to mitigate this shortfall. The Board has initiated the process to complete the audit of CPF Fund for the year ended 31st March, 2021. The shortfall in PF liability as at 31st March, 2021 will be ascertained after completion of CPF audit for the year ended 31st March, 2021 which will be borne by the Board (if any).	
b) GRATUITY - The Board also provides retirement benefit in the form of Gratuity to eligible employees. Liability towards Gratuity payable on death/retirement is accrued at the year-end on the basis of actuarial certificate. The liability is valued at Projected Unit Credit Method. During the year the liability has been valued by a qualified actuary and an amount of Rs. (12,859,591) (Previous Year Rs. 76,222,652) has been recorded as (reversal)/provision in the income and expenditure account.	
c) LEAVE ENCASHMENT - Provision for accumulated Leave Encashment benefit to employees is accrued and computed on the basis of actuarial valuation as at year end. During the year, based on the certificate issued by a qualified actuary, an amount of Rs. 3,635,786 (Previous Year Rs. 94,369,626) has been recorded as provision in the income and expenditure account. The liability is valued using Project Unit Credit Method.	
d) LEAVE TRAVEL CONCESSION - The liability for leave travel concession for staff cannot be ascertained in the absence of sufficient details.	
SCHEDULE 26.8 - FIXED ASSETS	
a) The Physical Verification of assets of the board is carried out in the phased manner as per program of verification. Accordingly, certain assets have been verified during the year. Basis the physical verification conducted by the Board, certain obsolete/unused items were identified which will be adjusted once the reconciliation process is complete.	
b) Capital work in progress includes Rs. 2,010,655 being advance given to suppliers (Delhi Zone) paid in previous years. Necessary adjustment entries will be passed once the supporting details including details of installation etc. are approved at the appropriate level.	
c) During the year ended 31st March 2021, the construction of building at Regional Directorate of Bhopal was completed, the Board is yet to be capitalise Rs. 21,340,864 in financial statements.	
SCHEDULE 26.9 - ADVANCES TO STATE POLLUTION CONTROL BOARDS	
Advances amounting to INR 146,653,229/- have been given to the state pollution control boards for implementing various projects/activities. These expenditures are recognised once the utilisation certificate is submitted and approved. Utilisation certificate is pending from certain state pollution boards for which necessary follow up is being made.	
SCHEDULE 26.10 - EARMARKED FUNDS- SPONSORED PROJECTS	
a) During the year 77 Nos. of projects were carried out by Central Pollution Control Board as per details given in schedule 'C' (attached).	
b) During the year the total expenditure Rs. 736,808,200 /- is incurred in sponsored projects.	
c) There are unspent balances amounting to INR 9,178,042,018 Sponsored/ Earmarked Projects. These will be adjusted according to the instructions from Sponsors/Donors once the same are received.	
d) The fixed assets procured under sponsored projects are not capitalized and are being expensed off as per policy stated in Schedule 25- sub-schedule 4(e).	
e) Annexure-1 to schedule C includes few sponsored projects that are either closed or there is no movement in the financial year. Funds amounting to Rs. 1,144,017,145 /- are lying in respective project's bank accounts.	



f) As per the terms and conditions of project sanction agreement, the unspent funds at closure of the project are required to be transferred directly from the account where the funds are granted. The balance funds lying at the DTS project amounting to INR 565,126 (including interest amounting to INR 25,342) was transferred by the Regional Directorate of Bangalore to their account. These funds are yet to be refunded to the concerned agencies.

SCHEDULE 26.11 - DETAILS OF PRIOR PERIOD EXPENSES		CURRENT YEAR	PREVIOUS YEAR
Professional Charges		3,27,519	5,68,710
AMC Expenses		11,11,378	16,78,152
Travelling Expenses		2,25,074	86,561
Repair & Maintenance Expenses		2,04,000	6,55,048
Miscellaneous Expenses		31,66,350	87,41,144
Monitoring Expenses		4,30,601	4,05,39,769
Salary/Stipend		5,33,865	3,79,127
Total		59,98,787	5,26,48,511

SCHEDULE 26.12 - FOREIGN CURRENCY TRANSACTIONS		CURRENT YEAR	PREVIOUS YEAR
a) Value of Imports Calculated on C.I.F Basis:			
--Purchase of finished Goods		-	-
--Raw Materials & Components (Including in transit)		-	-
--Capital Goods, Stores, Spares and Consumables		14,80,559	98,29,427
Total		14,80,559	98,29,427
b) Expenditure in foreign currency:			
--Travel		-	-
--Remittances interest payment to Financial Institution/Banks in foreign Currency		-	-
--Other expenditure:			
--Commission on Sales		-	-
--Legal and Professional Expenses		-	-
--Miscellaneous Expenses		-	-
Total		-	-

SCHEDULE 26.13 - REMUNERATION TO AUDITORS		CURRENT YEAR	PREVIOUS YEAR
--As Auditors*		4,72,000	3,48,100
--Taxation matters		-	-
--For Management services		-	-
--For certification		-	-
--Others		-	-
Total		4,72,000	3,48,100

* This includes provision for audit fee for relevant financial year 2020-21 and audit fee paid to the auditor for previous financial year.



SCHEDULE 26.14 - OTHER NOTES

a) The figures in the Balance Sheet and Income and Expenditure Account have been disclosed in Indian (Rs.) rupees. Corresponding figures for the previous year have been regrouped/ rearranged wherever necessary.

b) Schedules 1 to 26 are annexed to and form an integral parts of the Balance Sheet as at 31st March 2021 and the Income and Expenditure Account for the year ended on that date.

As per our report of even date

For Nangia & Co. LLP
Chartered Accountants
Firm Reg. No. 002391C/N500069

Vikas Gupta

(Vikas Gupta)
M.NO. 076879
Partner

Signed at Noida on

24 JAN 2022



For Central Pollution Control Board

Tanmay Kumar
(Tanmay Kumar, IAS)
Chairman

Prashant Gargava
(Prashant Gargava)
Member Secretary

Diganta Kalita
(Diganta Kalita)
Accounts Officer

Ajay Sirsikar
(Ajay Sirsikar)
Accounts Officer

**Central Pollution Control Board
Finance & Accounts Division**

**ACTION TAKEN NOTES ON THE STATUTORY AUDIT REPORT
FOR THE FINANCIAL YEAR 2020-2021**

M/s. Nangia & Co. LLP, Chartered Accountants, A-109, Sector-136, NOIDA-201304 has been appointed as the Statutory Auditor to Audit the CPCB accounts for the Financial Year 2020-21. The Audit commenced on 20th September, 2021 and was completed on 20th December, 2021. The Auditor's Report along with the Balance Sheet, Income & Expenditure Account, Receipt & Payment Account, Schedules forming part of the Balance Sheet and the Notes on Accounts have been stamped and submitted by the Auditor on 21.12.2021.

The Auditor has observed and defined in its report the points with the para 1 & 2 "Qualified opinion", para 3 "Basis for Qualified Opinion" (8 points), para 4 "Emphasis of Matter(s)" (6 Points), para 5 "Responsibilities of management for the Financial Statements" and para 6 "Auditor's Responsibilities for the Audit of the Financial Statements"

The point-wise Action Taken Notes on the Auditor's Report on Annual Accounts of CPCB, Delhi for the financial Year 2021-22 are as follows:

Point No.	Auditor's Observation	Action Taken
Basis for Qualified Opinion (Para 3)		
i.	Grants received as grant in aid for capital assets related to earmarked/ endowment projects has been taken in Income & Expenditure account on receipt basis rather than recognizing it in Income & expenditure account over useful life of assets which is not in accordance with the Accounting Standard 12 (AS-12).	The capital assets procured out of the funds of the sponsored projects are not owned by CPCB. However, in terms of GFR 233 (ii), the sponsoring agencies shall decide and communicate to CPCB whether the assets so procured should be returned, sold or retained by CPCB on completion of the projects. Hence the same are not taken in Income & Expenditure Account.
ii.	Depreciation is charged on assets as per rates prescribed by Income-tax Act, 1961. Depreciation has been charged on closing gross block irrespective of	The depreciation is charged as per the rates prescribed in the Income Tax Act, 1961 as revised from time to time on the basis of

	<p>date of purchase/ sale of assets. Furthermore, depreciation computation is not consistent across different Regional Directorates. This is not in accordance with Accounting Standard 10 (AS-10) and has resulted in depreciation being undercharged/ overcharged the effect of which is not ascertainable at this stage.</p>	<p>the accounting policy followed consistently as reflected in Schedule 25 (7) (Significant Accounting Policies). However, as pointed out by the audit, action is being taken by the Material Division to streamline the Fixed Assets Register and the depreciation procedure.</p>
iii	<p>Note number 26.4 and 26.5 of schedule 26 as regards advances/recoverable aggregating to INR 7,029,560,544 and payables/ liabilities aggregating to INR 16,311,380 (including balances related to sponsored/ earmarked projects) are subject to reconciliation/confirmation. These balances are subject to reconciliation/ confirmation with State Pollution Control Boards/Respective Parties, as said accounts have not been reconciled and we are not aware of adjustments, if any, are required to these accounts as at the Balance Sheet date.</p>	<p>Out of Rs 702 Crore towards outstanding advances, a sum of Rs 593 Crore pertains to four major projects which have been released during the past 2-3 years which are ongoing activities/schemes as detailed below:</p> <p>NCAP: Rs.326 Cr., Assistance to SPCBs: Rs.169 Crore, EPC: Rs.50 Crore; NGT Rs.48 Crore and Others: Rs 109 Crore.</p> <p>The pending advances pertain to various Government Institutes/ Bodies including state Pollution Control Board (SPCBs). The matter is being followed up for getting bills/ utilization certificate from the concerned project coordinators for settlement of advances.</p> <p>Out of the Current Liabilities of Rs. 1.63 Crore, Rs. 91.46 Lakhs are related to deposits of sponsored agencies and the remaining amounts are related to security deposits/ EMD from work contractors and will be refunded after completion of the work.</p>
iv	<p>The value of closing inventory amounting to INR 12,975,024 has been</p>	<p>Action regarding reconciliation pertaining to movement/</p>

	considered as certified by the Board and the Board is not in the possession of sufficient documents in relation to movement/valuation of inventory during the year. Consequently, we are unable to determine whether adjustments, if any, are required to the aforesaid amount.	valuation of inventory during the year thereof is being taken by Material Division.
v	Note 26.7(d) of schedule 26 as regards liability on account of Leave Travel Concession has neither been ascertained nor provided and in absence of adequate information, we are unable to determine the value of provision in respect to liability on account of Leave Travel Concession.	The Liability on account of LTC could not be ascertained as the expenditure on LTC depends upon availing of LTC by employee(s) and the destination chosen by the concerned official at the time of availing LTC as airfare/train fare varies from place to place. Further, officials may or may not avail this facility.
vi	Note number 26.8(b) of schedule 26 as regards capital work-in-progress includes a sum of INR 2,010,655 being advance paid to suppliers (Delhi Zone), which is being carried forward from earlier years. Necessary adjustment entries will be passed once the supporting details including details of installation etc. are approved by the appropriate authority.	Action is being taken to adjust the amount and compliance will be shown in the next audit.
vii	As per the provisions of Section 24 read with Section 51 of the Central Goods and Services Tax Act, 2017 („GST Act“) with effect from 1 October 2018, the Head Office and the Regional Directorates of the Board are required to obtain registration, deduct and deposit TDS @2% under the GST Act in respect to taxable goods or services or both, where the total value of such supply, under a contract, exceeds INR 250,000. The registrations by Regional Directorate of Chandigarh, Pune and Chennai haven't been obtained during	The newly opened RDs Chandigarh, Pune and Chennai have obtained GST Registration Certificate in the current financial year i.e. 2021-22. Compliance will be shown to the next audit.

	the year. Accordingly, we are not able to ascertain the impact, if any, on account of non-compliance under GST Act.	
viii	Note number 26.8(c) of schedule 26 indicates that during the year ended 31 March 2021, the construction of building at Regional Directorate of Bhopal was completed; the management is yet to capitalize INR 21,340,864 in financial statements.	Necessary entries are being passed in the books of accounts for the current financial year i.e. 2021-22 to capitalize the construction cost of the building at RD-Bhopal and compliance will be shown in the next audit.
Emphasis of Matter(s) (Para 4)		
i	National Ganga River Basin Authority (NGRBA) being a separate project governed under National Mission for Clean Ganga Scheme, has not obtained separate PAN, TAN and GSTIN and all the statutory returns in relation to this project are being filed with the returns of the Lucknow and Kolkata Regional Directorates to the extent of operations at these particular locations. Further, National Mission for Clean Ganga Scheme, has not obtained separate GSTIN and all the related statutory returns in relation to this project are being filed with the returns of the Head Office to the extent of operations at this particular location.	As advised by the audit, separate PAN, TAN and GSTIN for National Ganga River Basin Authority (NGRBA) project are being obtained in the current F.Y. 2021-2022 and compliance will be shown to the next audit.
ii	Note number 26.7(a) of schedule 26 which states, the shortfall in CPF fund balance amounting to INR 3,58,46,078 as at 31 March 2020 which is to be borne by the Board. Further, the accounts of CPF Fund are audited up to 31 March 2020 only, the shortfall in Provident Fund liability as at 31 March 2021, if any, will be ascertained at the time of completion of audit for the year ended 31 March 2021, which will be borne by the Board.	The available amount of Contributory Provident Fund is being invested in FDRs in PSU banks. Presently, the employees are paid interest on their balance amount @7.1% per annum as per the Government guidelines. However, the earning rate of interest on the FDRs has come down to 5.25% per annum over the years. Due to this, there is an accumulated deficit of Rs. 3,58,46,078/- as at

		31 st March 2020. Further, the audit of CPF accounts for the F.Y. 2020-21 has been awarded. The deficit on account of interest is to be charged from the budget head "Salary".
iii	The internal control system of the Board needs to be significantly strengthened to make it commensurate with the size and nature of activities of the Board, particularly with respect to monitoring/adjustment of advances given for various expenses including advances for earmarked/sponsored projects and obtaining utilization certificates, maintenance of fixed asset register, deduction of tax, booking of expense invoices based on invoice receipt basis, provisioning for expenses etc.	Internal control system could not be strengthened due to manpower constraints in Finance & Accounts Division. However, all the rules & regulations prescribed by the Govt. of India are followed by the Board and its accounts are audited every year by the statutory auditors, CAG and Internal Audit Wing of MoEF & CC to point out the short comings, if any.
iv	Note number 26.10(e) of schedule 26 which indicates that there are few sponsored projects that are either closed or non-operating. Funds amounting to INR 1,144,017,145 are lying idle in respective project"s bank accounts.	The amount of Rs.114.40 Cr has been kept as liability, taking into consideration that the same shall be refunded to the sponsoring agencies after completion/closure of the project by the concerned project coordinators.
v	Note number 26.10(f) of schedule 26 which indicates that as per the terms and conditions of project sanction agreement, the unspent funds at closure of the project are required to be transferred directly from the account where the funds are granted. The balance funds lying at the DTS project amounting to INR 565,126 (including interest amounting to INR 25,342) was transferred by the Regional Directorate of Bangalore to their account. These funds are yet to be refunded to the concerned agencies.	Action is being taken by R.D. Bangalore to refund the amount to the sponsoring agency.

vi	<p>Note number 26.8(a) of schedule 26 as regards the fixed asset register has not been properly maintained at the Head office, its Regional Directorates, with respect to depreciation charged, location and identification number. Further as explained to us by the management, the physical verification of the fixed assets is carried out during the year. Accordingly, obsolete/unused/lost items identified will be adjusted once the reconciliation process is complete.</p>	<p>The Asset Registers have been maintained as per General Financial Rules (GFR) in respect of Laboratory Equipment, Instruments, Computers, Office Equipment and Furniture & Fixture on cost basis. Action on reconciliation thereof is being taken by Material Division. The action on Physical Verification Report to identify short/excess of assets, if any, will be taken by Material/ Building Divison/Concerned RDs.</p>
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Responsibilities of management for the Financial Statements

5.	<p>Management of the Board is responsible for the preparation of these Financial Statements in accordance with the accounting principles accepted in India and in accordance with „Form of Financial Statement for the Central Autonomous Bodies” as per the directions of Ministry of Environment and Forest, Government of India vide their letter no.- G25012/1/2010CPW dated 10 February 2010 as circulated by Comptroller General of Accounts, Ministry of Finance.</p> <p>This responsibility also includes maintenance of adequate accounting records for safeguarding the assets of the Board and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgements and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and</p>	<p>Only for information by the statutory Auditors to the Board.</p>
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	presentation of the financial statements that give a true and fair view of the financial position, financial performance and receipts & payments and are free from material misstatement, whether due to fraud or error.	
Auditor's Responsibilities for the Audit of the Financial Statements		
6.	<p>Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.</p> <p>As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:</p> <ul style="list-style-type: none"> Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the 	Only for information by the statutory Auditors to the Board.

	<p>override of internal control.</p> <ul style="list-style-type: none"> • Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on whether the Board has in place an adequate internal financial controls system over financial reporting and the operating effectiveness of such controls. • Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management. • Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Board's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Board to cease to continue as a going concern. • Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation. 	
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Chapter XIII

ANNUAL ACTION PLAN FOR THE YEAR 2021-2022

13.1 Major Achievements during Financial Year 2020-21

Major achievements during financial year 2020-21 are presented below:

- National Water Quality Monitoring Stations have increased from 4,111 to 4,294 under National Water Monitoring Programme (NWMP) in 28 States and 7 Union Territories (UTs).
- National Ambient Air Quality Monitoring Stations have been increased from 800 to 805 under National Ambient Air Monitoring Programme (NAMP) covering 344 cities / towns in 28 States and 6 Union Territories.
- Continuous Ambient Air Quality Monitoring Stations have been increased from 231 to 265 covering 136 cities / towns in 21 States and 2 Union Territories.
- Total 70 National Ambient Noise Monitoring Network (NANMN) stations have been installed spreading over 10 cities.

13.2 Preparation of “CPCB Vision- 2030” Document

With the increasing environmental challenges, mounting public & judicial expectations, CPCB planned to transform existing-working to meet growing complexities of pollution control through comprehensive planning and prudent action plan. With this objective, CPCB prepared a Vision-2030 considering present capacities, strengthening needs and desired transformation goals. It contains various segments such as monitoring network & laboratories, air & water quality management, standard development & enforcement, waste management, capacity building and information management system including in-house data analytics.

13.3 Major Thrust Areas for Year 2021-22

- Strengthening of Ambient Air, Water and Noise monitoring network
- Development / Revision of Standards for industrial sectors
- Rejuvenation of River Ganga
- Action plan for polluted river stretches
- Enhancement of IT infrastructure (E-Office, Hazardous waste tracking system and on line EPR portals)
- Implementation of Action plans for non-attainment areas
- Special attention for Management of Air Quality in Delhi
- Installation of Smog Towers

- Revision of Ambient Air Quality Standards
- Surveillance of Sewage Treatment Plants (STPs), Common Effluent Treatment Plants (CETPs), Common Bio-Medical Waste Treatment Facilities (CBMWTF) and Treatment, Storage and Disposal Facility (TSDF) of Hazardous waste for checking the compliance of norms
- Implementation of various Waste Management Rules
- Strengthening of Laboratory and Development of Laboratory Information System
- Organizing Training programs for the officials of SPCBs/PCCs and CPCB
- Strengthening of infrastructure of three new offices of CPCB (Chennai, Chandigarh and Pune)

13.4 Budget Allocation for Financial Year 2021-22

The total budget of Rs. 100.00 Crore for year 2021-22 is allocated in following three heads.

i) General	:	26.00 Crore
ii) Capital	:	04.00 Crore
iii) Salary	:	70.00 Crore

Project / Head-wise Budget Allocation for 2021-22

Budget Head	Title of the Budget Head	Allocation (₹ in Lakh)		
		Head Office	Regional Directorate	Total
I	Pollution Assessment (Survey and Monitoring)	70.00	59.50	129.50
II	Scientific, Technical and R&D Activities	429.00	372.50	801.50
III	Industrial Pollution Control (Standards, Enforcements and Technologies)			
	a) Standard Development	-	-	-
	b) Enforcement	5,971.00	2,652.50	8,623.50
	c) Technology	-	-	-
IV	Training and Awareness			
	a) Training Programmes	60.00	7.50	67.50
	b) Public Relation, Mass Awareness & Hindi	42.00	5.00	47.00
	c) Library	18.00	6.00	24.00
V	Information (Database) Management	102.00	13.00	115.00
VI	Waste Management and Urban Pollution Control	181.00	11.00	192.00
Total Budget		6,873.00	3,127.00	10,000.00

Chapter XIV

OTHER IMPORTANT ACTIVITIES DEALT BY CPCB

14.1 Development of Guidelines

The following guidelines have been developed:

- Handling, Treatment and Disposal of Waste Generated during Treatment / Diagnosis / Quarantine of COVID-19 patients so as to eliminate the risk of spread of infection through COVID-19 related Bio-Medical Waste.
- Pre-Processing and Co-Processing of Hazardous and Other Wastes in Cement Plant as per Hazardous Waste (Management & Trans-boundary Movement) Rules, 2016
- Environmentally-Sound Facilities for Handling, Processing and Recycling of End-of-Life Vehicles (ELV).
- Environmental Compensation Charges (ECC) under E-waste Rules.
- Implementation of E-Waste (Management) Rules, 2016 includes nine specific guidelines for various stake holders under the rules.
- Guidelines for Producer Responsibility Organizations (PRO) for E-Waste.
- Phasing out all plastic bags irrespective of size and thickness, plastic cutlery (plates, cups, glass, straw, stirrers etc), Styrofoam cutlery and decorative items.
- Guidelines for utilization of Plastic Waste in different areas.
- Protocol for Enhanced Monitoring of Pesticides.
- Guidelines for Pollution Control in Kolhus.
- Environmental Guidelines for Gold Hallmarking Centres involved in the process of Gold Assaying and Hallmarking in Gold Bullion, Gold Alloys and Gold Jewellery/ Artefacts.

- Guidelines for Poultry farms were developed by CPCB in 2015 handling above 1.0 lac birds. As per CPCB classification of industrial sectors, „Poultry, Hatchery and Piggery“ generates obnoxious odour containing H₂S, CH₄, and fugitive emissions, resulting into the pollution index (PI) of 25 and hence categorized „Green“. The major environmental issues associated with the Poultry Farms is handling of Solid Waste (Poultry dropping/litter), causing Odour nuisance. The other issues are related to handling & disposal of dead birds & hatchery waste. The Hon^{ble} NGT, PB vide its order dated 16.09.2020 in O.A. NO. 681 of 2017, directed to formulate the Environmental Guidelines for Poultry Farms by an Expert Committee (Department of Animal Husbandry, Directorate of Poultry Research, Haryana SPCB, Tamil Nadu SPCB). The Guideline is in the process for finalization.
- Revised Guidelines on Idol Immersion in Water Bodies.
- The Guidelines for “Water Conservation and Safe Treated Water Reuse” has been finalized for 14 sectors and Industries would adopt / explore cascading Safe Treated Water Reuse (STWR) approach and reduce 50% fresh water consumption in five years.
- Guidelines for Environmental Management of Dairy Farms and Gaushalas was prepared as per the directives of Hon^{ble} National Green Tribunal (NGT) in O.A. No. 46/2018 (Nuggehalli Jayasimha Vs Government of NCT of Delhi) and circulated to all SPCBs/PCCs for implementation in July, 2020. These Guidelines focus on various environmental issues related to Wastewater, Air Pollution and Solid Waste Management in Dairy Farms & Gaushalas. Solid waste i.e. cattle dung and its handling is a major issue. As per these guidelines dung to be utilised in manufacturing of dung wood/dung cake, composting / vermicomposting, bio-gas / compressed bio-gas (CBG) production, as Solid Waste Management options. It also proposes that adequate infrastructure to ensure proper handling, treatment and disposal of solid wastes & wastewater by setting-up individual or common treatment facilities wherein clusters. It guides about proper ventilation and to follow BIS norms for animal housing in order to mitigate air emissions. Siting criteria has been suggested for setting up new Dairy Farms & Gaushalas.

14.2 Development of “Standard Protocol for Conducting Inspections, Report Preparation and Action”

Standard procedure has been formulated by CPCB to perform the inspection, report preparation and action, delineate the inspection procedure, steps to be followed before, during and post inspection, and report submission.

14.3 Categorization of Industries

Categorization of Industries into red, orange, green & white, has been done on the basis of Pollution Index (PI) which is a function of Water Pollution, Air Pollution, Hazardous Waste generation, fuel consumption and amount of Wastewater generation. During the year 2020-21, CPCB has categorized the following new industrial sectors:

- Scrapping centres (for end-of-life vehicles and other scrap, such as plant and machineries structural material, railway coaches, wagons etc.);
- Used Cooking Oil (UCO) collection centres;
- Compressed / Refined Bio-gas production from Bio-degradable wastes;
- Dairy farms, Gaushalas;
- Building and Construction Projects, having built-up area up to 20,000 m² and wastewater generation \geq 50 kld;
- Gold assaying & Hallmarking centres;
- Construction & Demolition (C&D) waste processing plants.

Annexure-I

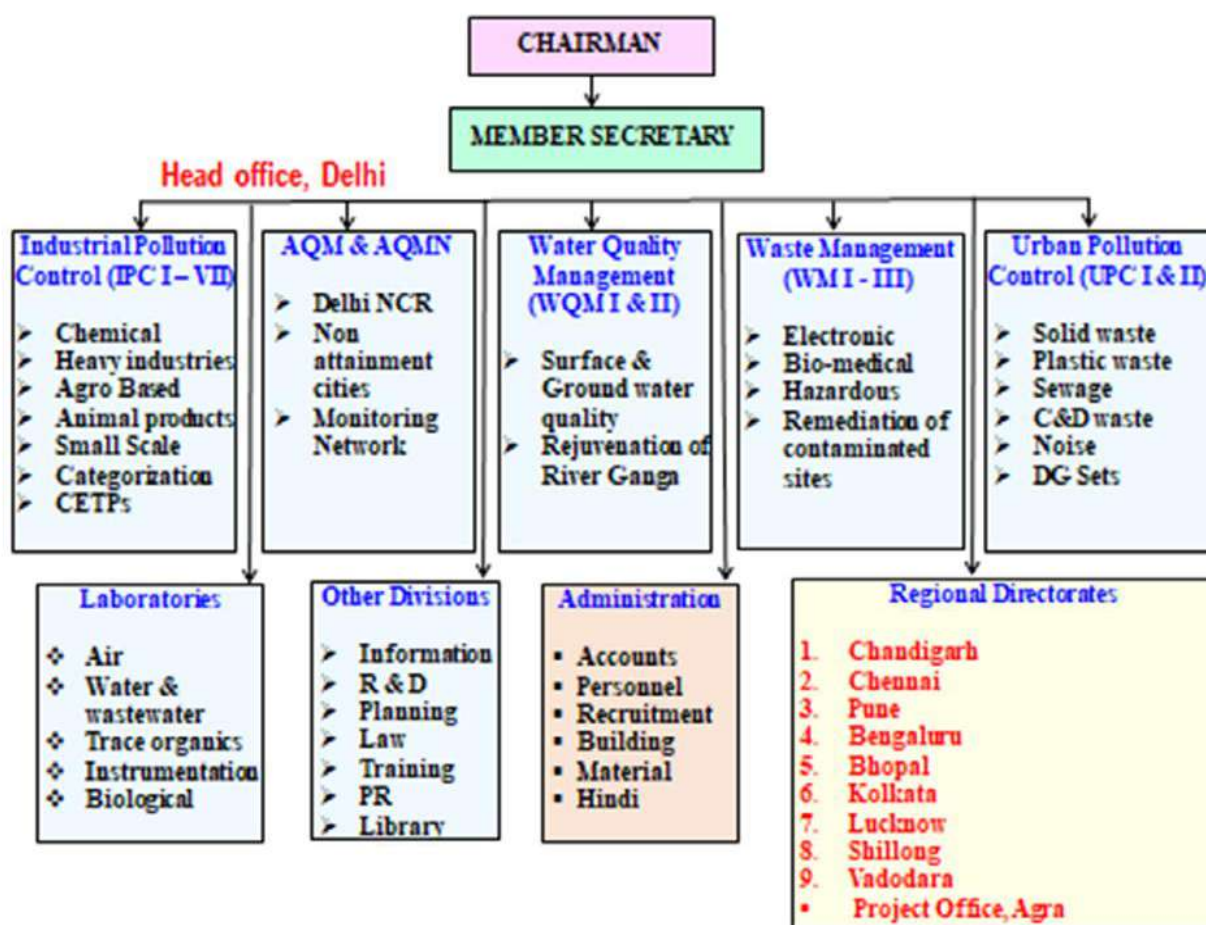
DELEGATION OF POWERS BY CENTRAL POLLUTION CONTROL BOARD TO POLLUTION CONTROL COMMITTEES

S. No	Union Territory	Pollution Control Committee	Gazette Notification No. for Power Delegation	Date of Notification
1.	Andaman & Nicobar Islands	The Pollution Control Committee Andaman & Nicobar Islands	Gazette of India Extraordinary, Part-II, Section-3, Sub-section (ii) S. O. No. 33 Dated 16.01.1992 & Legal /156(4) 1990 dated 3.06.2004	16.01.1992
2.	Chandigarh	Chandigarh Pollution Control Committee	Gazette of India Extraordinary, Part-II, Section-3, Sub-section (ii) S. O. No. 199(E) dated 15.03.1991 & S.O. 1131 (E) dated 23.10.2002	15.03.1991
3.	Daman Diu & Dadra Nagar Haveli	Pollution Control Committee Daman Diu & Dadra Nagar Haveli	Gazette of India Extraordinary, Part-II, Section-3, Sub-section (ii) S. O. No. 862 (E) dated 26.11.1992; amended vide notification No. S.O. 384 (E) dated 19.2.1996 and S.O. 698(E) dated 03.07.1998 File No. B-12015/7/04/AS, dated 17.12.2004	26.11.1992
4.	Delhi	Delhi Pollution Control Committee	Gazette of India Extraordinary, Part-II, Section-3, Sub-section (ii) S. O. No. 198 (E) dated 15.03.1991; amended vide Notification No. S.O. 640 (E) dated 14.06.2002	15.03.1991
5.	Lakshadweep	Lakshadweep Pollution Control Committee	Gazette of India Extraordinary, Part-II, Section-3, Sub-section (ii) S. O. No. 842 (E) dated 31.08.1988 & legal /156(4) 1990 dated 23.03.2006	31.08.1988
6.	Puducherry	Puducherry Pollution Control Committee	Gazette of India Extraordinary, Part-II, Section-3, Sub-section (ii) S. O. No. 787 (E) dated 10.03.1992; amended vide Notification No. F.No.Legal/158/(4)/90 dated 01.05.2011	10.03.1992

LIST OF BOARD MEMBERS

(As on 31.03.2021)

Sl. No.	Name & Address
1.	Shri Shiv Das Meena, IAS Chairman, CPCB
	Members nominated under clause (b) of sub-section (2) of section 3
2.	The Additional Secretary and Financial Adviser, Ministry of Environment, Forest & Climate Change, New Delhi
3.	The Joint Secretary (Swachh Bharat Mission and Public Health Engineering), Ministry of Housing and Urban Affairs, New Delhi
4.	The Joint Secretary (Thermal), Ministry of Power, New Delhi
5.	The Executive Director (Technical), National Mission for Clean Ganga, Ministry of Water Resources, - River Development and Ganga Rejuvenation, New Delhi
6.	The Joint Secretary, CP Division, Ministry of Environment, Forest and Climate Change, New Delhi
	Nominated under clause (c) of sub-section (2) of section 3
7.	The Chairman, Uttar Pradesh Pollution Control Board, Lucknow
8.	The Chairman, Maharashtra Pollution Control Board, Mumbai
9.	The Chairman, Tamil Nadu Pollution Control Board, Chennai
10.	The Chairman, Pollution Control Board of Assam, Guwahati
11.	The Mayor, Indore Municipal Corporation, Madhya Pradesh
	Members nominated under clause (d) of sub-section (2) of section 3
12.	Shri Ashok Agarwal, Director, GridLynk Solar LLP, Haryana
13.	Dr Anil Kumar Gupta Chairman, Jhilmil and Friends Colony Industrial Area, New Delhi
14.	Dr T.K. Joshi, Environmental Health Advisor
	Nominated under clause (e) of sub-section (2) of section 3
15.	The Director (Operations), National Thermal Power Corporation Ltd, New Delhi
16.	The Director (Research and Development), Indian Oil Corporation Limited, Haryana
	Member nominated under clause (f) of sub-section (2) of section 3
17.	Dr. Prashant Gargava, Member-Secretary, Central Pollution Control Board, Delhi



CENTRAL POLLUTION CONTROL BOARD
SANCTIONED STAFF STRENGTH IN CPCB AND NUMBER OF VACANCIES IN EACH CADRE
AS ON 31.03.2021

Sl. No.	Name of the Post	Sanctioned Posts as on date	Deemed Abolished	Filled	Vacant Post
1	Scientist 'F'	167	-	00	-
2	Scientist 'E'			45	01
3	Scientist 'D'			51	-
4	Scientist 'C'			25	-
5	Scientist 'B'			31	14
6	Senior Law Officer	01	-	01	-
7	Sr. Administrative Officer	01	-	01	-
8	Administrative Officer	07	-	07	-
9	Law Officer	02	-	02	-
10	Assistant Law Officer	02	-	02	-
11	Assistant Director (OL)	01	-	01	-
12	Accounts Officer	02	-	01	01
13	Assistant Accounts Officer	05	-	05	-
14	Section Officer*	07	01	04	02
15	Private Secretary*	18	03	07	08
16	Senior Technical Supervisor	09	-	04	05
17	Draughting Supervisor	01	-	01	-
18	Senior Scientific Assistant	32	-	27	05
19	Senior Hindi Translator	01	-	01	-
20	Technical Supervisor*	06	03	03	-
21	Assistant*	20	-	19	01
22	Data Processing Assistant	04	-	04	-
23	Senior Draughtsman	01	-	01	-
24	Personal Assistant *	03	-	03	-
25	Accounts Assistant	08	-	07	01
26	Junior Hindi Translator	01	-	01	-
27	Publication Assistant	01	-	01	-
28	Junior Scientific Assistant	27	01	14	12
29	Senior Technician*	08	-	04	04
30	Junior Technician	07	02	01	04
31	Senior Laboratory Assistant	29	-	28	01

32	Junior Laboratory Assistant	31	05	20	06
33	Field Attendant	07	-	06	01
34	Upper Division Clerk	24	09	13	02
35	Lower Division Clerk	20	11	06	03
36	Senior Attendant	15	-	14	01
37	Driver Special Grade	01	-	01	-
38	Driver Grade-I	06	01	03	02
39	Driver Grade-II*	02	-	02	-
40	Driver (Ordinary Grade)*	10	-	10	-
41	Data Entry Operator Grade-I	02	-	02	-
42	Data Entry Operator Grade-II	06	02	04	-
43	Stenographer	03	-	02	01
44	Pump & Wheel Valve Operator	01	-	01	-
45	Attendant (MTS)	22	01	16	05
	Total	521	39	402	80

— Sanctioned posts shown at SI.No. 1 to 5 are scientific posts under Flexible Complementing Scheme in CPCB (Interchangeable).

* Two posts of PS downgraded to the lower post of PA (SI. No. 15 & 24) , 03 posts of Section Officer downgraded to the lower post of Assistant (SI. No. 14 & 21) 02 posts of Driver Grade-II downgraded to lower post of Driver (Ordinary Grade) (SI. No. 39, and 40) , 01 Post of TS downgraded to lower post of Senior Technician (SI.No. 20 & 29).