

CENTRAL POLLUTION CONTROL BOARD



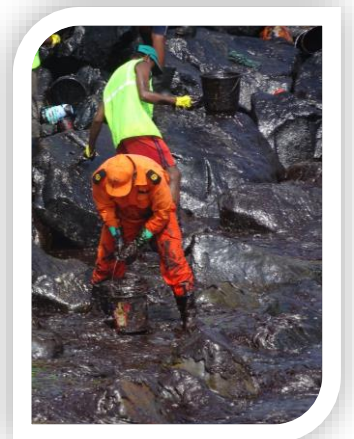
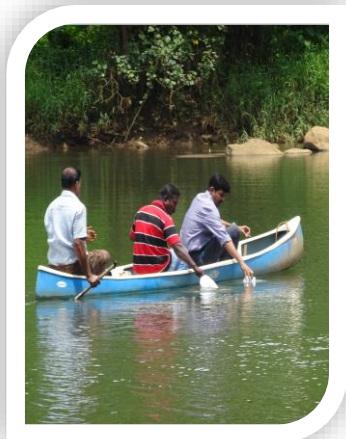
ANNUAL REPORT

2016-17



REGIONAL DIRECTORATE

BENGALURU





Annual Report

2016-17

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TABLE OF CONTENTS

Particulars	Page No.
Introduction	6
Project heads	6
Pollution assessment (Survey and monitoring)	7
Scheme 1	7
Surveillance of NAMP and NWMP stations including review meeting	7
Monitoring of inter-state river water quality in Southern Zone	8
Study of Total PAH in ambient air	8
Study of pesticides from agricultural runoff in major interstate rivers	8
Scientific & Technical Activities and R & D	9
Scheme 2	9
Management of CAAQM stations at Bengaluru and Chennai.	9
Scheme 3	10
Regional Laboratory	10
Industrial Pollution Control (Standards, Technologies & Enforcement)	11
Scheme 4	11
Building maintenance	11
Accounts	11
Administration	12
Comprehensive insurance of assets.	12
Chairman's visit to Regional Directorate, Bengaluru.	12
Scheme 5	13
Report on ambient air quality and noise levels in Bengaluru during Deepavali 2016	13
Training programme on RTI & online RTI management system	13
Legal issues & court matters	14
Study on lakes and polluted river stretches	14
Status report on coastal pollution	14
Parliament Committee visit	14
Industry inspections	15
Industry inspections under honourable NGT directions	15
The Periyar report	15
Training programmes	16
Scheme 6	16
Training programmes	16
Scheme 7	16
World Environment Day, 2016	16
One day awareness campaign on Solid waste management	17
Library	18
Scheme 8	18
Library	18
Information (database) management	18
Scheme 9	18
Computerization & digitization	18
Waste management & urban pollution control (Plastic waste, hazardous waste, MSW, biomedical waste, E waste & vehicular pollution)	19
Scheme 10	19
Municipal solid waste (MSW) and plastic waste	19
Scheme 11	19
Monitoring of STPs	19
Scheme 12	19
Monitoring of CETP, CTSDf, CBWTF and waste recycling units	19

INTRODUCTION

Southern Regional Directorate (RD) of Central Pollution Control Board was incepted in October 1988 with a sprawling jurisdiction of Karnataka, Tamil Nadu, Kerala, Andhra Pradesh & Goa and Union Territories of Pondicherry and Lakshadweep covering a total area 639474 km² and a vast coastal stretch of 3025 km. The Regional Directorate (South) office presently has manpower strength of 30 including scientific, technical and administrative support staff. This office has a state of the art laboratory with sophisticated instruments and is certified as per ISO 9001:2008 and IS 18001:2007 quality systems and currently under the process of obtaining NABL accreditation & EPA recognition.

A total amount of Rs.298 lakhs were earmarked and sanctioned to CPCB Regional Directorate (South) office in the financial year 2016-17 to carry out the above activities. The major activities are carried out under the following project heads for implementation of Annual Action Plan for the year 2016-17.

PROJECT HEADS

- I Pollution assessment (Survey and monitoring)
- II Scientific & technical activities and R & D
- III (b) Industrial pollution control (Standards, technologies and enforcement)
- IV (a) Training programmes
- IV (b) Public relations, mass awareness programmes & Hindi
- IV (c) Library
- V Information (database) management
- VI Waste management & urban pollution control (Plastic waste, Hazardous waste, Municipal solid waste, Biomedical waste, Electronic waste & Vehicular pollution).



POLLUTION ASSESSMENT (SURVEY AND MONITORING)

Scheme 1: Surveillance of NAMP & NWMP stations including organizing review meeting, monitoring of inter-state river water quality, pesticide pollution from agricultural runoff along the major rivers, study of total PAH in ambient air and conducting regional conferences on air and water Quality in Southern Zone.

1. Surveillance of NAMP and NWMP stations including review meeting

Regular air and water quality monitoring helps in evaluating the nature and extent of pollution control strategies required and throw light on the effectiveness of pollution control measures already in existence. It also helps in assessing the air/water quality trends and prioritizing pollution control efforts and for dissemination of information. To understand the prevalent air and water quality, the SPCB's/PCC's assess the air & water quality in their jurisdiction through National Ambient Air Quality Monitoring Programme (NAMP) and National Water Quality Monitoring Programme (NWMP) funded by CPCB. The CPCB regional directorate (South) carries out surveillance of NAMP & NWMP stations with an objective to ensure and verify the accuracy/quality of NAMP & NWMP data received from SPCB/ PCC. In Southern zone there are 145 NAMP and 456 NWMP stations and during 2016-17 this office has randomly inspected 22 NAMP stations. The observations and shortcomings are discussed with SPCB/ PCC officials and technical and scientific guidance provided for further improvement in quality of monitoring & reporting. Based on the NAMP data received from the concerned SPCB/ PCC, Air Quality Index (AQI) for the month of May, 2016 was prepared for 6 cities in Karnataka and 2 towns in the Union Territory of Puducherry.

Important studies carried out

- Air quality status (NAMP) of Karnataka state, 2016**
- Air quality status (NAMP) of Kerala state, 2016**
- Air quality status (NAMP) of Coimbatore City, 2016**
- Air quality status (NAMP) of Hyderabad City, Telangana, 2016**
- Air Quality Index (AQI) of selected cities/ towns**



NAMP inspections at Kerala and Hyderabad



Date/Month	SUB INDEX			AQI	
	NO2	SO2	PM10		
02-05-2016	6	3	42	42	GOOD
05-05-2016	6	3	37	37	GOOD
10-05-2016	6	3	32	32	GOOD
12-05-2016	6	3	54	54	SATISFACTORY
16-05-2016	6	3	51	51	SATISFACTORY
19-05-2016	6	3	64	64	SATISFACTORY
23-05-2016	6	3	56	56	SATISFACTORY
26-05-2016	6	3	61	61	SATISFACTORY
31-08-2015	6	3	92	92	SATISFACTORY

AQI of Chitradurga station (SC-680), May 2016

AQI for important cities/ towns:

- Mysuru
- Mandya
- Hassan
- Chitradurga
- Bhadravathi
- Davangere
- Karaikal
- Puducherry

PROJECT HEAD I

2. Monitoring of inter-state river water quality in Southern Zone

The objective of the scheme is to assess the impact of pollution in view of the disputes among states on water quality issues. In the financial year 2016-17 this office has carried out 4 inter-state river water quality monitoring on River Godavari at Baser, River Tungabhadra at Hotchalli, River Krishna at Devadurga, and River Cauvery at Sathyakala Bridge. Monitoring was not carried out in River Manjira, River Bhima and River Pennar as there was no flow in the River. The necessary action plans to prevent and control pollution have been recommended to concerned SPCBs.

River water quality:

The pH is slightly higher in Tungabhadra, Krishna & Godavari rivers. DO is meeting the standards of 5 mg/L in all the rivers. BOD is meeting the standards of 3 mg/L in all the rivers. Total Coliform is exceeding the standards in Krishna river and all other rivers are meeting the standards of 500 MPN/100 mL.



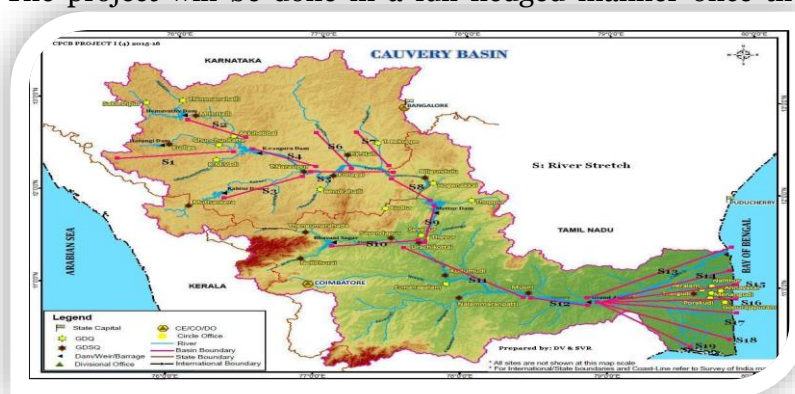
3. Study of Total PAH in ambient air

This is an on-going project, where the samples from the PM10 filter paper will be extracted and analysed for PAH, anions and cations to determine the possible source of pollution which in turn may throw light on the source of pollution and may help to reduce the pollution by adopting suitable strategies. During 2016-17, filter papers from TNPCB, Coimbatore district office and from KSPCB, Bengaluru regional office, collected and the processing & analysis of filter paper is under process.

4. Study of pesticides from agricultural runoff in major interstate rivers

This is an on-going project, with the objective of mapping pesticide pollution from agricultural runoff in the major interstate rivers in Southern zone. River Cauvery has been selected for this study and mapping of the river basin with regard to agricultural activities has been done. Since, the analytical equipment was not ready, pesticide analysis could not be completed. The project will be done in a full-fledged manner once the analytical facility is ready.

Cauvery River basin with sampling stretches and sampling points



SCIENTIFIC & TECHNICAL ACTIVITIES AND R & D

Scheme 2: Operation, Maintenance, Statistical Analysis & Interpretation of CAAQM stations at Bengaluru and Chennai.

**PROJECT
HEAD II**

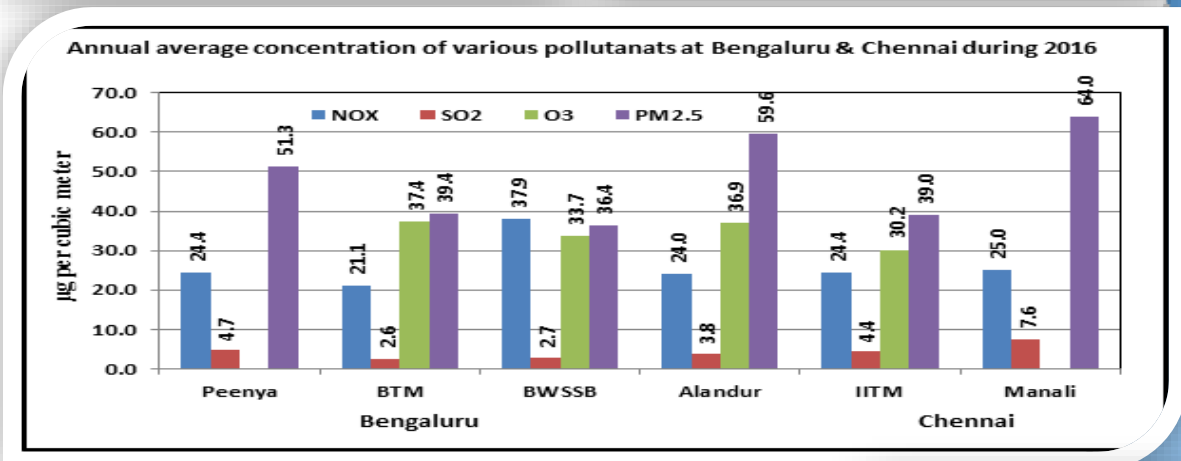
1. Management of CAAQM stations at Bengaluru and Chennai.

To strengthen continuous ambient air quality monitoring network in the country, 16 Continuous Ambient Air Quality Monitoring Stations (CAAQMS) were established. Bengaluru and Chennai have 3 such monitoring stations each and they are constantly monitored by this office to ensure reliability and quality of data. The monitoring stations are equipped with various analysers to measure about fifteen pollutants and seven meteorological parameters. Multipoint calibrators are used to calibrate each analyser as per the schedule.

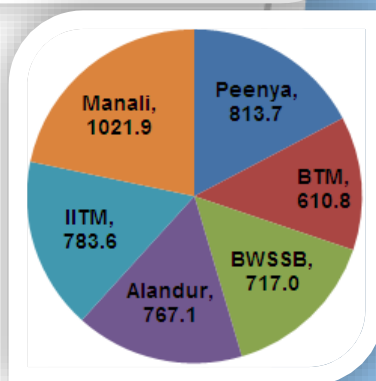
The processed data reveals that the average data capture rate in Bengaluru and in Chennai is 92.3% during the year 2016. The data generated by these monitoring stations are linked with local and central networking stations apart from disseminating online data through digital display board to public at each monitoring site. The disseminated data will help the general public in understanding the pollution levels at any point of time.



Presentation On
“Validation of Ambient Air Quality Data”
(Continuous Ambient Air Quality Monitoring)
 By
K.Karunakaran
 Zonal Office, Bengaluru



The average annual concentration of Carbon Monoxide is ranging from 610.8 to 813.7µg/m³ with an average of 713.8µg/m³ in Bengaluru while in Chennai it is found to be from 767.1 to 1021.9µg/m³ with an average of 857.5µg/m³. The maximum average concentration of 1021.9µg/m³ recorded at Manali industrial area, Chennai and 813.7µg/m³ at Peenya industrial area in Bengaluru where the moments of heavy vehicles and industrial activities are involved.



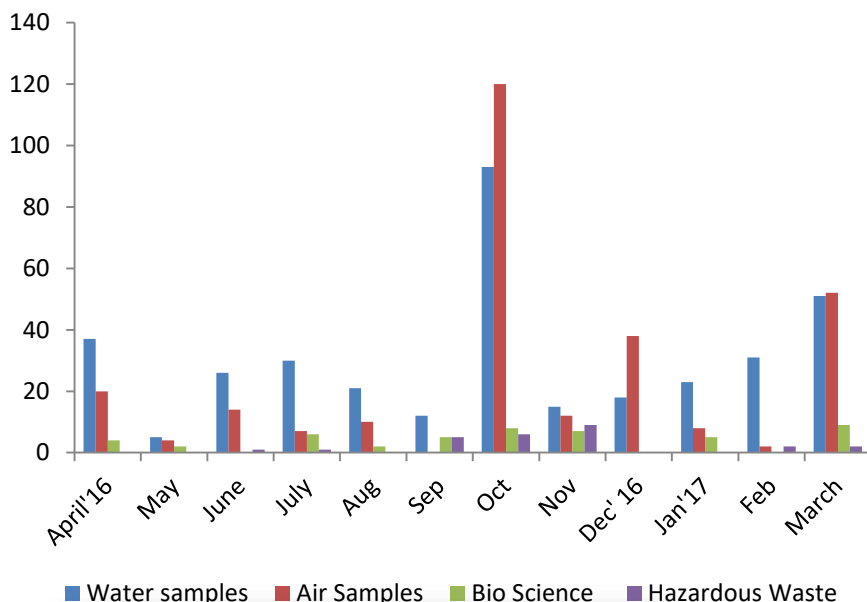
Annual Average Concentration of Carbon Monoxide in Bengaluru & Chennai, 2016

Scheme 3: Infrastructure development of the laboratory, purchase cum O & M, AMC's of instruments /equipment. procurement of lab related items, development of facilities for calibration of air pollution monitoring instruments and equipment (Ring Test Facility), NABL accreditation and E (P) Act recognition of Laboratory.

1. Regional Laboratory

Regional directorate (south) Bengaluru has a full-fledged developed laboratory and is functioning since 2010 with four core divisions for analysis of water/wastewater, Source/Ambient Air, Microbiology and Soil/Hazardous waste. Each division is headed by supervisor at the level of Scientist 'B'. For the financial year 2016-17, laboratory have analysed 287 air samples (ambient and source), 362 water/ wastewater samples, 48 microbiology samples along with 10 samples for bioassay tests and 26 soil/ hazardous waste samples for various parameters.

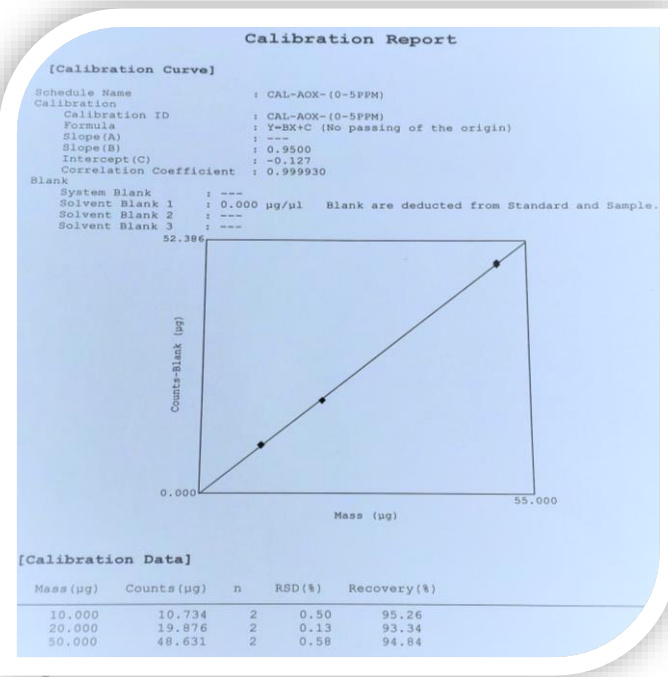
Samples analysed for the year 2016-17



Latest international proficiency testing outcome: ERA, USA Study WS-243



The regional laboratory had applied for EPA recognition under MoEF&CC which was recommended by the board in its 175th meeting. The gazette notification on EPA recognition is awaited. Several students and technical hands from EMPRI, Govt. of Karnataka, were trained in this lab for analysis of various parameters. Laboratory officials also given presentation to KSPCB staffs on various subjects such as monitoring air parameters, uncertainties in analysis and proper analytical instrument selection. The lab also assisted KSPCB in the analysis of various samples collected by KSPCB officials.



Calibration report of newly inducted AOX analyser

INDUSTRIAL POLLUTION CONTROL

(STANDARDS, TECHNOLOGIES & ENFORCEMENT)

Scheme 4: Building maintenance, payment of salary, rents, seventh pay commission arrears, TTA, medical reimbursements, children education allowance, LTC, telephone, fax, data card, EPABX, housekeeping, postal & courier charges, purchase of stationery, water and electricity charges, running & maintenance of office vehicles, local conveyance for official duties, procurement of furniture and fixtures, hospitality, etc.

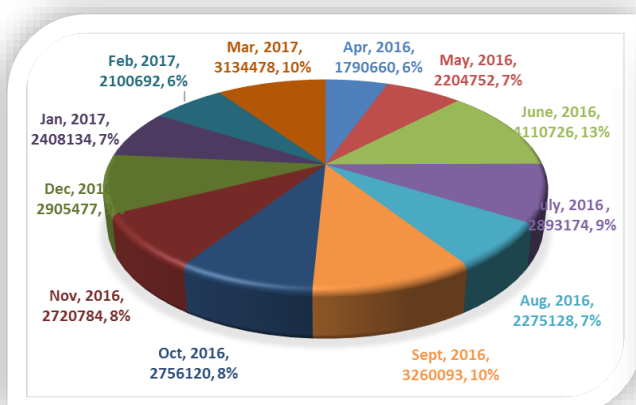
**PROJECT
HEAD III B**

1. Building Maintenance

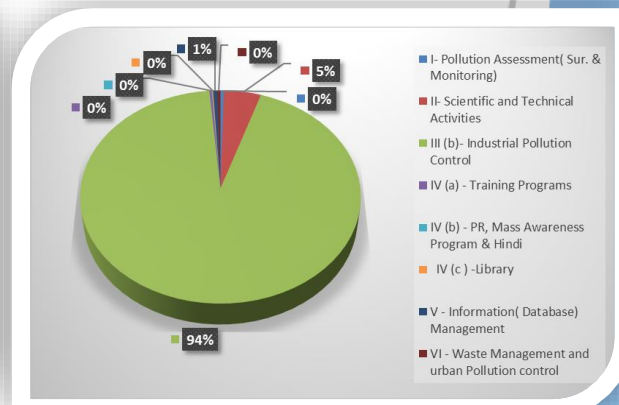
The office is functioning from a rented building, Nisarga Bhavan ('A' wing of I & II floors) owned by Karnataka State Pollution Control Board and has occupied a total space of 19,000 sq ft. Office is equipped with 30 KVA UPS system in I floor and 60 KVA in II floor, smoke detectors & fire alarm system, centralized air conditioning & ventilation system in both I & II floors. This office is having comprehensive annual maintenance contract with M/s Power One Microsystem for UPS system, M/s Intek Security System for fire alarm system and M/s LG Electronics India for AC and ventilation system. The biometric attendance system is fully established and all staff register the attendance in biometric system. Further, to improve efficiency, better surveillance and security purpose CCTV cameras in first and second floors have been installed and are in good working condition. MoEF & CC has proposed for construction of common office complex for all associate regional offices of MoEF&CC at Doresanipalya RF, JP Nagar, Bengaluru. This office has proposed to join in the common building complex project.

2. Accounts

CPCB Regional Directorate (South), Bengaluru was allotted ₹2.98 crores (Rupees two crores, ninety-eight lakhs only) for 2016-17 and total amount spend during this F.Y. is ₹325, 60, 218 (Rupees three crores twenty-five lakhs sixty thousand two hundred and eighteen rupees only) under plan budget and ₹91,575 (Rupees ninety-one thousand five hundred and seventy-five rupees) was utilized under non-plan budget. The increased amount is due to the salary payment, rent of the office building, telephone bills payment etc. the figure below shows the amount spent under project head and monthly break up in percentage. During 2016-17, 94% of the amount was spent under P III (b).



Monthly expenditure for 2016-17

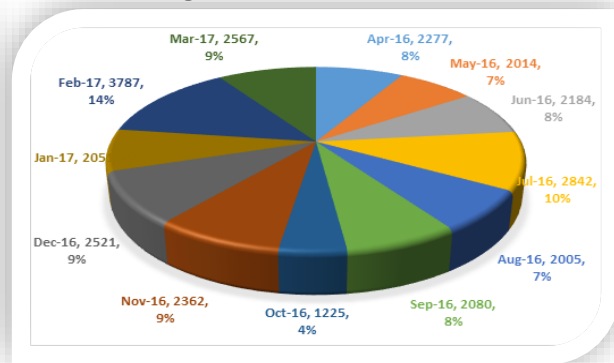
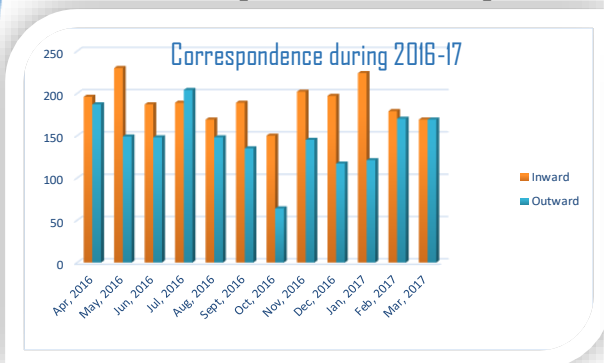


Project head expenditure for 2016-17

PROJECT HEAD III B **3. Administration**

As a part of the operation & maintenance inspection of subordinate offices/autonomous institutions by the MoEF & CC, an inspection of this office was carried out by the Deputy Secretary and Under Secretary officials of MoEF & CC, GOI on February 14, 2017. The officials from Administration, Accounts, Scientific & Technical sections had brief interaction meeting with the officials of MoEF & CC and explained the activities being performed in this office. A brief report on the inspection was forwarded to head office, along with the filled in inspection format and the findings/suggestions recommended by the inspecting officials of MoEF&CC.

During this financial year 2016-17, Regional Directorate Bengaluru received 2281 letters and dispatched 1757 letters through hand, ordinary post, speed post and courier services. An amount of ₹27,915 (Rupees twenty-seven thousand nine hundred and fifteen only) was spend for the dispatch. The figure below shows the month wise details of total no. of letters received & dispatched and the expenditure made in this regard.



4. Comprehensive insurance of assets.

This exercise was necessitated after the incident happened to a CPCB staff while analysing the samples in Kerala Pollution Control Board (KSPCB), Ernakulam. While performing analytical work in connection with the NGT case of River Periyar Pollution at Central Environmental Laboratory of KSPCB, Cochin, Shri S. Seenivel Raj, JLA of this office met with an accident on 20th October, 2016 as a result he lost a part of his left hand thumb and got multiple fractures in ring finger apart from injuring his left hand very badly. Subsequent to this incident and as per the directions of Competent Authority in CPCB, this office has implemented comprehensive insurance of assets and personnel life through National Insurance Company Ltd.

Expenditure incurred towards correspondence during 2016-17



5. Chairman's visit to CPCB, Regional Directorate, Bengaluru.

Sh. Surya Pratap Singh Parihar, IAS, Chairman and Sh. Nalin Kumar Gupta, Additional Director, CPCB, Delhi visited Chennai on February 12, 2017 for assessing the clean-up operations carried out in connection with oil spillage at Kamarajar Port, Ennore. The Chairman visited Regional Directorate, Bengaluru on February 13, 2017 and convened a meeting with all the officials above the rank of Scientist-B. Chairman reviewed the progress made under each project and suggested various measures for effective implementation of action plans in time bound manner.

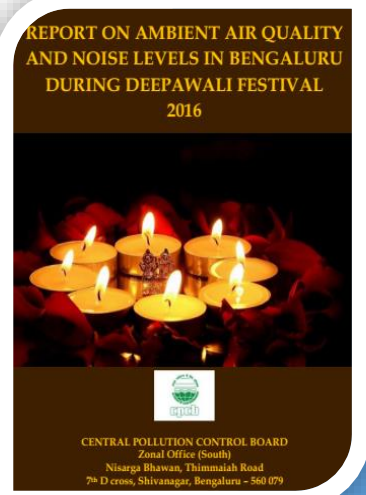
Scheme 5: Compliance verification of industries, review of Comprehensive Environmental Pollution Index (CEPI) status, legal issues, national awards, Diwali monitoring, co-ordination of Parliamentary Committee visits and related activities, RTI, public/ VIP complaints, BSNL charges, stationery, study of co-incineration in industries, monitoring allowance, inspection & monitoring of online monitoring systems, polluted river stretches and lakes in the zone, etc.

1. Report on ambient air quality and noise levels in Bengaluru during Deepavali 2016

In Bengaluru, the noise level monitoring in two locations shows that the ambient noise level was 9 to 11 dB higher on Deepavali day compare to the normal day. However, at both the monitoring locations on pre Deepavali day and Deepavali day, the noise level has exceeded the stipulated standard (55 dB) by 23 to 26 % and 42 % respectively. Compared to ambient air quality on Deepavali day in 2015, PM10 has slightly increased and NO2 concentrations have decreased in both the locations. However, PM 2.5 and SO2 concentrations has increased in one location and decreased in the other.

Parameter	Standard	Pre Deepavali		Deepavali		Trend	
		2015	2016	2015	2016	Over 2015	Compare to Pre Deepavali
PM _{2.5} (µg/m ³)	60	29.8	35.26	21.8	32.33	↑	↓
SO ₂ (µg/m ³)	80	1.9	3.79	2.3	4.04	↑	↑
NO ₂ (µg/m ³)	80	33.7	41.76	15.1	39.14	↑	↓
NO (µg/m ³)	-	9.5	6.49	5.8	5.49	↓	↓
O ₃ (µg/m ³)	100	11.4	31.03	18.5	26.51	↑	↓

CAAQM data from Kaadubeesanahalli, Bengaluru



2. Training programme on RTI & online RTI management system

An educative programme on “RTI Act – 2005” was organized on August 05, 2016 for creating awareness among officials on RTI. Dr. Bhat Sairam Gopalkrishna, Associate Professor of Law, National Law School of India University, Bengaluru delivered a lecture on “RTI- Rules 2005. The online RTI management system in CPCB started from July 01, 2016 and nominated the Member Secretary as First Appellate Authority (FAA) & all divisional heads and regional directors as CPIOs.



PROJECT HEAD III B **3. Legal issues and court matters**

The overall summary (as on March 30, 2017) of the cases handled by CPCB Regional Directorate (South) during financial year 2016-17 in various courts/tribunals in the zone are given below:

Court/ Tribunal		Ongoing cases
NGT, Chennai	A. P. & Telangana	61
	Karnataka	02
	Kerala	09
	Tamil Nadu	18
NGT, Kochi	Kerala	02
High Court of Madras		04
High Court of Kerala		09
High Court of Andhra Pradesh		01
High Court of Karnataka		09
Court of Chief Judicial Magistrate at Puducherry		01
Total		117

During 2016-17, as per NGT directions inspection & monitoring of 85 industries, three rivers, one natural spring (water source), two contaminated sites, one oil spill accident site, three CETPs & two STPs were carried out. One report on ambient air quality status in six cities of Kerala was prepared based on data available and filed in NGT, Kochi.

4. Study on lakes and polluted river stretches

During 2016-17, two major studies were carried out to study the status of lakes in Bengaluru and status of Ashtamudi lake, Kollam in Kerala. Frothing of Bengaluru lakes were detailed in the report along with the inventory of lakes. Short and long term remedial measures to revive the lakes of Bengaluru were also discussed in the report.

The Honourable High Court of Kerala in matter WP (C) No.1085/2009 *suo moto* impleaded the MoEF&CC and Central Wetland Regulatory Authority (CWRA) as respondents in a matter related to the pollution of Ashtamudi lake, Kollam. In compliance of the order of High Court directions, a team of officials and experts was constituted by the Ministry to assess the status of pollution. The team involving CPCB officials submitted a detailed report on the pollution in Ashtamudi lake.

5. Status on coastal pollution

A detailed status on coastal pollution was compiled using the information provided by the state boards. Information related to sewage disposal, coastal industrial clusters, red category industries, coastal water quality details, common treatment facilities, etc. were collected and compiled.

6. Parliament Committee visit

The Committee on Subordinate Legislation, Rajya Sabha under the chairmanship of Dr. T. Subbarami Reddy, Honourable Member of Parliament, visited Bengaluru & Hyderabad during May, 2016. CPCB, Bengaluru co-ordinated with MoEF & CC, state boards and other concerned departments for the meeting. This office prepared the bilingual technical material for distribution to committee members which was approved by the competent authority.

7. Industry inspections

During 2016-17 this office has carried out several industrial inspections under various programmes. A total of 37 industries were inspected for the verification Online Continuous Emission/ Effluent Monitoring Systems (OCEMS). Apart from this several industries were inspected/ monitored under NGT, ESS verification, co-processing, episodal pollution/ accidents, VIP references & public complaints.

8. Industry inspections under honourable NGT directions

During 2016-17 this office has carried out several inspections & studies as per the directives of NGT. Inspections were conducted at Eloor contaminated site in Kerala, lake pollution at Karaikudi, STP in Coimbatore, Manali petrochemicals in Chennai, contaminated site in Thondiarpur, Chennai and 71 industries along the banks of River Periyar in Kerala.

The Periyar report:

The honorable NGT, Circuit bench – Kochi, in its order dated 5th August, 2016 on application no. 409 of 2016 had directed to inspect all industries situated on the banks of River Periyar. Accordingly, CPCB inspected 71 industries located along the banks of River Periyar in Eloor-Edayar industrial belt, Kalamassery industrial estates, Aluva and Perumbavoor area during September to October 2016 in three phases. Apart from this the River Periyar stretch (122 Km) from Panamkutti (Idukki district) to Eloor ferry (Ernakulam district) was monitored at 16 points along with nine major drains joining into river.

S.No.	Industry/ unit inspected	Category	State
Inspections under OCEMS verification			
1	M/s. The Andhra Sugars, Sugar Unit-III, Surappagudem, W Godavari.	Sugar	Andhra Pradesh
2	M/s. The Andhra Sugars, Sugar Unit-II, Jonnavarigudem, W. Godavari.	Sugar	Andhra Pradesh
3	M/s. Dr. Narla Tata Rao Thermal Power Station, Ibrahimpatnam, Krishna.	Thermal Power	Andhra Pradesh
4	M/s. Divis Laboratories, Chippada, Vishakapatnam.	Pharma	Andhra Pradesh
5	M/s. Dr. Narla Tata Rao Thermal Power Station, Ibrahimpatnam, Krishna.	Thermal Power	Andhra Pradesh
6	M/s. International Paper APPM Ltd., Unit Kadlyam, E. Godavari.	Pulp & paper	Andhra Pradesh
7	M/s. Pearl Distillery, Old Singarayakonda, Prakasham.	Distillery	Andhra Pradesh
8	M/s. Andhra Petrochemicals, Vishakapatnam.	Petrochemical	Andhra Pradesh
9	M/s. EID Parry (India) Ltd., Sankili, Srikakulam.	Distillery	Andhra Pradesh
10	M/s. South India Krishna Oils & Fats Ltd., Nellore.	Edible oil	Andhra Pradesh
11	M/s. Karthik Agro Industries, Navanagar, Bagalkot.	Distillery	Karnataka
12	M/s. Bellary Thermal Power Station (BTPS), Kudritini, Bellary.	Thermal Power	Karnataka
13	M/s. ONGC Mangalore Petrochemicals, Permude, Mangalore.	Petrochemical	Karnataka
14	M/s. Hindalco Industries, Belagavi works, Belagavi.	Aluminium	Karnataka
15	M/s. Glaxo Smith Kline Pharmaceuticals, Bangalore.	Pharma	Karnataka
16	M/s. Glaxo Smith Kline Pharmaceuticals, Metagalii, Mysore.	Pharma	Karnataka
17	M/s. Indian Cane Power Ltd., Uttur, Bagalkhot.	Sugar	Karnataka
18	M/s. Hindustan Newsprint Ltd. (HNL), Velloor, Kottayam.	Pulp & paper	Kerala
19	M/s. FACT, Petrochemical Div., Udyogamandal, Kochi.	Petrochemical	Kerala
20	M/s. Shree Sakthi Paper Mills, Pariyaram, Chalakudy.	Pulp & paper	Kerala
21	M/s. Victory Papers & Boards, Elappully, Palakkad.	Pulp & paper	Kerala
22	M/s. Cochin Kagas, Karukutti, Angamaly.	Pulp & paper	Kerala
23	M/s. Gramox Paper & Boards, Puthupady, Muvattupuzha.	Pulp & paper	Kerala
24	M/s. Chemfab Alkalies, Kalapet, Pudukcherry.	Chlor-alkali	Puducherry
25	M/s. Chemplast, Plant III, Mettur.	Chlor-alkali	Tamil Nadu
26	M/s. Trichy Distilleries & Chemicals, Senthannirpuram, Tirucharpalli.	Distillery	Tamil Nadu
27	M/s. Cetex petrochemicals, Manali, Chennai.	Petrochemical	Tamil Nadu
28	M/s. Kawman Pharma, Sipcot, Cuddalore.	Pharma	Tamil Nadu
29	M/s. Vedanta Ltd. Copper smelter, Sipcot, Thoothukudi.	Smelter	Tamil Nadu
30	M/s. Coromandel International, Pesticide Division, Ranipet.	Pesticide	Tamil Nadu
31	M/s. EID Parry (India) Ltd., (Bioproduct), Thyagavalli, Cuddalore.	Pesticide	Tamil Nadu
32	M/s. Southern Agrifurane Industries, Mundiampakkam, Villupuram.	Distillery	Tamil Nadu
33	M/s. Tagros Chemicals, Unit I, Sipcot, Pachayankuppam, Cuddalore.	Pesticide	Tamil Nadu
34	M/s. My Home Industries, Srinagar, Mellardheruvu.	Cement	Telangana
35	M/s. NSL Krishnaveni Sugars, Ramakrishnapur, Wanaparthy.	Distillery	Telangana
36	M/s. Rain Cements Ltd., Ramapuram, Suryapet.	Cement	Telangana
37	M/s. Sirpur paper Mills, Kagaj Nagar, Adilabad.	Pulp & paper	Telangana
Inspections under ESS verification			
38	M/s. Empee Sugars & Chemicals Ltd., Nellore.	Distillery	Andhra Pradesh
39	M/s. Tamil Nadu Cement Corporation Ltd., Ariyalur Cement works.	Cement	Tamil Nadu
Inspections under co-processing of waste			
40	M/s. Dalmia Cements (Bharath) Ltd, Ariyalur.	Cement	Tamil Nadu
Inspections under episodal pollution & accidents			
41	M/s. Kamarajar Port, Chennai (Oil spill due ship collision)	Port	Tamil Nadu
42	M/s. Gujarat Enviro Protection & Infrastructure Ltd. (GEPII), Ranipet.	Waste processing	Tamil Nadu
Inspections under Rajiv Gandhi Clean Technology Award			
43	M/s. Tamil Nadu Newsprint Ltd.	Pulp & paper	Tamil Nadu
Inspections under VIP reference			
44	M/s. Charoen Pokphand Foods (India) Ltd., Yerravaram, E. Godavari	Aquaculture feed	Andhra Pradesh
45	M/s. Bhagiradha Chemicals & Industries, Cheruvu Kommupalem, Ongole.	Pesticide	Andhra Pradesh
Inspections under public complaints			
46	M/s. Nelcast Ltd., Gudur, Nellore.	Iron casting	Andhra Pradesh
47	M/s. Shasun Pharmaceuticals Ltd., Pudukcherry.	Pharma	Puducherry
48	M/s. Manali Petrochemicals Ltd., Unit I, Manali, Chennai.	Petrochemical	Tamil Nadu

Scheme 6: Capacity building and imparting training programme to staff sponsored by head office and other organizations, sponsoring officials to premiere institutes for acquiring higher knowledge and evaluation of effectiveness of training imparted to officials.

1. Training programmes

Sh. A. Gnanavelu, Scientist B, attend a five days international training on “Operation & maintenance of AOX analyzer” during March 13-18, 2017 held at Mitsubishi, Chikasaki, Japan. Smt. Anjana Kumari V, Scientist C was deputed to participate in workshop cum training on new waste management rules organized by PPCC during 6-8th July, 2016. She was also deputed to attend regional conference on environment 2016 organized by NGT at Chennai during October 22-23, 2016.

Regional Directorate (South) arranged various training programmes during 2016-17. Training programme on analysis of water, wastewater, air, soil etc. was organized by the office during 5 to 6th May, 2016. Laboratory staffs have given the presentation on SOP for analyzing the parameters and testing of accuracy. Training was imparted to all staffs for analyzing the core parameters such as pH, BOD, COD, TSS, TDS, TS, TOC, EC in water and particulate matter, NO₂ and SO₂ in air. One-day training programme on auditing as a part of the accreditation was given by Sh. Hoover, NABL consultant for this office. The presentation on “Online monitoring system and its working” was given by Sh. A Sudhakar, Additional Director, Delhi on 9th November, 2016. The officials from State Board and RD attended the presentation and clarified the issues pertaining to OCEMS. An interactive presentation was convened on ‘Guidance on online pollution Monitoring’ by S. Suresh Kumar, Vice President, SMS labs on 24th March 2017.

Apart from these activities, the officials of the RD (south) delivered presentations in various institutes and organisation on “National Scenario on Waste Water and Trade Effluent Management”, “Management of Municipal Solid Waste Dumpsite and Mitigation

Scheme 7: Exhibitions/ workshops/ mass awareness activities, NGO activities, printing of pamphlets, booklets, collection and dissemination of information and conducting Rajbhasha Hindi Diwas event.

1. World Environment Day, 2016

To start with World Environment Day, which is a symbolic celebration to save our planet was celebrated on June 5th, 2016. The World Environment Day theme for 2016 was Go Wild for Life - Zero Tolerance for the illegal wildlife trade. A power point presentation was delivered by Smt. Mahima T, Scientist C, which mainly focussed on the measures to be adopted to prevent illegal wildlife crime and also to safeguard the environment. It was stressed to change our habits and lifestyles so as to reduce demand for wildlife products. An interactive session was also convened on this occasion during which all the officials shared their views for the betterment of the environment.

2. One-day awareness campaign on solid waste management

Deputy Inspector General of Forests (WL) MoEF&CC, GOI requested the different chief wildlife wardens and CPCB to organize a one-day awareness campaign on Solid Waste Management, particularly for creating awareness amongst the visitors in the specified National Sanctuary/ National Park/ Reserve such as Coringa Wildlife Sanctuary, Andhra Pradesh, Nagarhole Tiger Reserve, Karnataka, Periyar Tiger Reserve in Kerala and Madumalai Tiger Reserve, Tamil Nadu. CPCB Regional Office Bengaluru along with the respective State Board conducted one-day awareness programmes during June 17 – 20, 2017. During the programmes Workshops & presentations on solid waste management were delivered, banners were displayed, Swachh Pledge were administered to the audiences, pamphlets about “No Plastic bags”, solid waste management and environmental duties to be followed were distributed to the tourists, publics & students. The programme ended with cleaning the part of the tiger reserves.



This office actively participated in an Interaction Meeting organised by Andhra Pradesh State Pollution Control Board in Kadapa on 30th April, 2016 with all barium manufacturing industries to resolve the pollution issues during manufacturing of barium compounds.

A presentation on “Current scenario of wastewater management in India” was delivered by Sh. G. Thirumurthy, Scientist D in the first Indo – French Workshop / Start –Off meeting at IISc Bengaluru during July 5-7, 2016. Apart from these awareness programmes, CPCB, Bengaluru has also delivered presentations on new waste management rules in cities like Vijayawada. To assess the progress achieved in the use of official language Hindi, a physical verification was conducted in this office by Assistant Director-Hindi & Administration Officer (P) CPCB, Delhi during October 24-26, 2016. The inspecting officials verified records and documents related to Hindi implementation and also a brief presentation of the activities being carried out in Hindi was made by this office.

CPCB, Bengaluru participated in the 104th Indian Science Congress which was held in Shri Venkateshwara University, Tirupathi, Andhra Pradesh during 3 to 07th January, 2017. A stall was engaged to exhibit the publications of CPCB, banners, posters of environmental statutes. Demonstration of instruments such as noise level meter, PM_{2.5} and PM₁₀ was made available and explained to visitors.

LIBRARY

Scheme 8: Development of library & infrastructure, procurement of books including scientific, technical, administrative, accounts, Hindi etc., newspapers, magazines, journals, e-subscription of journals, peer reviewed papers and periodicals, rules books etc.

1. Library

Regional Directorate Bengaluru has subscribed for 10 newspapers covering all regional languages of South-India and two weekly magazines for the benefit of the staff. The magazines are widely circulated among the staff to make them aware of the current environmental issues. During 2016-17, this office procured e-book on “State of India’s Urban Water Bodies” through online and circulated among all staff. To motivate the staff and induce positive thinking, a soft copy of the book by Dr. Pal, “Tit for Tat and Tat for Treat” was circulated among all staffs.

INFORMATION (DATABASE) MANAGEMENT

Scheme 9: Computerization and digitization of CPCB Activities, & e-governance of office, procurement of related items, operation, maintenance and AMC of computers and its peripherals, cartridges, LAN, procurement of computers, software other items, payment for providing internet facilities, anti-virus facility, upgradation of operating system.

1. Computerization & Digitization

Computer, LAN and internet connectivity is provided to all officials for official purposes. Presently, drafting & communications such as letters, reports, circulars, office orders etc. are being done through networking. In order to maintain centralized data storage, this office has successfully implemented centralized back up system through the existing server. The backup of important files & records from each individual system is done automatically on daily basis through server. The activities carried out from 2013-16 is compiled in digital format for each year.

There are 32 desktop computers, three laptops, 28 printers, three scanners and 2 MBPS leased line connectivity from NIC, Bangalore. Network security, bandwidth management and monitoring of Internet Traffic in the network is carried out with assistance from NIC. Free antivirus software is provided by NIC and is installed in all systems. This office has entered into a one-year agreement with M/s CiTO infotech Pvt. Ltd., Bengaluru for comprehensive annual maintenance contract for computers, scanners, printers and laptop from March 30, 2017 to Mar 29, 2018.

WASTE MANAGEMENT & URBAN POLLUTION CONTROL (PLASTIC WASTE, HAZARDOUS WASTE, MSW, BIOMEDICAL WASTE, E-WASTE & VEHICULAR POLLUTION)

PROJECT HEAD VI

Scheme 10: Monitoring of MSW management facilities and assessment of plastic waste management including domestic sanitary waste management.

1. Municipal solid waste (MSW) and plastic waste.

Regular follow-up letters are being sent to concerned stakeholders to submit point wise compliance status report and action plans for implementation of relevant rules and action plans for treatment and utilization of MSW. KSPCB has initiated a Drive on MSW management in Bengaluru in association with CPCB. Accordingly, BBMP wards 57, 58 & 79 were inspected along with KSPCB official for the implementation of MSW Rules in Bangalore. As per the Note from Chairman regarding “meeting with Public Accounts Committee dated 03.11. 2016 to review the scheme of model project on Municipal Solid Waste Management in 10 states”, this office inspected Suryapet municipality, Telangana and Udumalpet municipality, Tamil Nadu on 5.11.2016 and 7.11.2016 respectively and submitted the present status report. Smt. Mahima T, EE visited Vijayawada Municipality was on March 15, 2017. The arrangements made for collection of waste from households, transport mechanism and disposal was checked. It is observed that currently, there is 100% waste collection from the households but the collected waste is being dumped on land in unscientific manner.

Scheme 11: Monitoring of Sewage Treatment Plants (STPs), sewage drains, assessment of sewage characteristics in receiving water bodies.

1. Monitoring of STPs

Five STPs operated by Bengaluru Water Supply and Sewerage Board situated at Lalbagh (1.5 MLD), Cubbon Park (1.5 MLD), Kadebeesanhalli (50 MLD), Nagasandara (20 MLD) and Mysandra (75 MLD) were inspected. Two STPs namely Kampabudhi 1 MLD & Nayandahalli 180 MLD were inspected on 2.08.2016 for performance evaluation.

Scheme 12: Monitoring of CETP, CTSDf, CBWTF, E-waste recycling units, hazardous waste units in the Zone.

1. Monitoring of CETP, CTSDf, CBWTF and waste recycling units.

IMAGE-Indian Medical Association Goes Eco-friendly (CBMWTF) at Palakkad was jointly monitored by the officials of CPCB, Head office, Regional Directorate (S) and Kerala SPCB. Follow-up letters have been sent to SPCBs on CPCB's modified direction to SPCBs regarding monitoring of CETPs as per new notified standards. The CBMWTF operated by Ramky Energy and Environment Ltd., Mangalore was inspected on June 02, 2016. Accordingly based on the analysis results received the inspection report is