महाराष्ट्र प्रदूषण नियंत्रण मंडळ

MAHARASHTRA POLLUTION CONTROL BOARD

ANNUAL REPORT
2009-10

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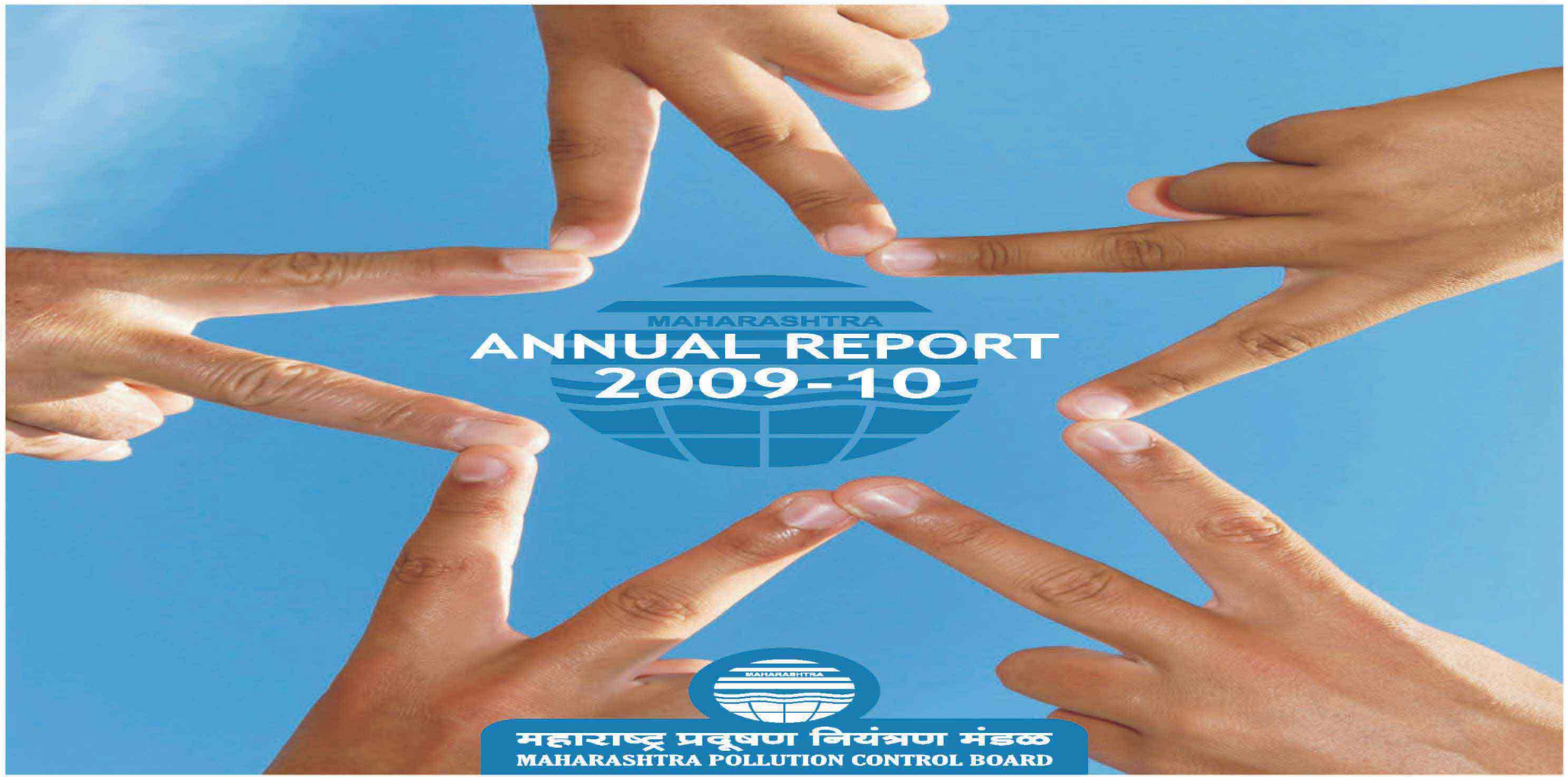

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MUNICIPALIKA 2010
Making Cities Work
28 - 30 Jan '10 • Ahmedabad, India

AWARD FOR EXCELLENCE GIVEN TO

MAHARASHTRA POLLUTION CONTROL BOARD
(DISPLAY – MUNICIPAL CORPORATION / GOVERNMENT)

IN APPRECIATION OF PARTICIPATION IN

MUNICIPALIKA 2010,

8TH INTERNATIONAL EXHIBITION ON

"MUNICIPAL SERVICES,

URBAN DEVELOPMENT AND

PUBLIC WORKS"

FAIRFEST MEDIA LIMITED

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1. Introduction

The Maharashtra Water (Prevention and Control of Pollution) Board was established in 1970, under the provisions of Maharashtra (Prevention of Water Pollution) Act, 1969, which was enacted by the State Legislature. Subsequently, in 1974, the Parliament passed Water (Prevention and Control of Pollution) Act 1974.This was adopted by the State in 1981 and the Board was constituted under the new Act.

The Parliament enacted Air (Prevention and Control of Pollution) Act in 1981 and, the Environment (Protection) Act in 1986. Subsequently Rules regarding the management of hazardous chemicals, hazardous wastes, Biomedical wastes, Municipal Solid Wastes, emergency planning preparedness and response for chemical accidents, recycled plastics manufacture and environment impact assessment, coastal zone regulation, Batteries management, ozone depleting substances Rules, fly ash utilization, Noise Pollution Rules etc. were notified by the Central Government in the Ministry of Environment and Forests. State Pollution Control Boards have been entrusted with a responsibility of enforcement of these various environmental protection legislations and rules notified there under.

The scope of the Board being science and technology based and considering over the years the Board has strengthened itself in terms of capacity building, infrastructure development for laboratories and offices, e-governance, engaging services of Professionals, environmental Scientists and Engineers for specific projects and studies.

MPCB continued its efforts to ensure effective information of environmental logistics, policies in the State of Maharashtra. Monitoring network for assessing ambient air quality, water quality is strengthened. The data is being compiled and hosted a website regularly. Noise levels in festival are regularly monitored and data collected is hosted on website for awareness of the people.

With the implementation of the Integrated Management Information System (IMIS) The Board is computerizing its various processes, operations which will increase the overall efficiency of the Board and will also have transparency with its constituents. The system mainly includes Consent management, waste management, cess collection, laboratory management, Human Resource and financial management. Board has developed software for submission of Environmental Statement (Form 5) and Industries concerned are now submitting the same online. Software is also developed for tracking Hazardous waste.

For control of air pollution cities like Pune, Solapur and Chandrapur were identified and action plans were prepared and being implemented.

As a part of Common Environmental Infrastructure for Environment protection, Common Effluent Treatment Plants (CETP) common facilities for treatment and disposal of Hazardous Waste and common facilities for treatment and disposal of Bio-Medical Waste have been established. To motivate the local bodies for treatment and disposal of Municipal Solid Waste, the Board had undertaken demonstration projects at 5 places in the State.

Various policies have been framed for quick disposal of consent/Authorization. Online Consent registry is already started on MPCB Website. Therefore incomplete

2. Constitution of the Board

The Maharashtra Pollution Control Board consists of Chairman, Members and a full time Member- Secretary, who is the chief executive officer as per the Rules under Water (P.&C.P) Act, 1974 notified by the State Government in 1983. The composition of the Board is as under:

- **Chairman:** (Part time or full time)
- **Representatives of the State Govt.** (not exceeding five)
- **Representatives of local bodies** (not exceeding five)
- **Representatives of companies or corporations of the State Govt.** (two)
- **Members representing interests of agriculture, fishery or industry or trade etc.** (not exceeding three)
- **Member Secretary**

Government of Maharashtra has the powers under section 4 of the Water (Prevention and Control of Pollution) Act, 1974 to constitute State Pollution Control Board,(MPCB). However, during the year under report, the Board is not constituted as per the composition given under the Act.

Mrs.Valsa R.Nair Singh has joined in as Secretary Environment Department, Govt. of Maharashtra and Chairperson Maharashtra Pollution Control Board from 29th August 2008. Shri Mahesh Pathak has joined in as Member-Secretary

Present Constitution of M. P. C. Board

Smt. Valsa R. Nair Singh	Chairperson, M. P. C. Board, Mumbai.
Smt. Valsa R. Nair Singh	Secretary, Environment Dept. Government of Maharashtra, Mumbai.
Principal Secretary	Urban Development Dept. Government of Maharashtra, Mumbai.
Principal Secretary	Home (Transport) Dept. Government of Maharashtra, Mantralaya, Mumbai.
Principal Secretary	Public Health Dept. Government of Maharashtra, Mantralaya, Mumbai.
Principal Secretary	Water supply and Sanitation. Government of Maharashtra, Mantralaya, Mumbai.
Chief Executive Officer	M.I.D.C., Mahakali Caves Road, Andheri (E), Mumbai.
Member-Secretary (Technical)	Maharashtra Jeevan Pradhikaran Express Towers, Nariman Point, Mumbai.
Shri. Mahesh Pathak	Member Secretary, M. P. C. Board, Mumbai.

3. Meetings of the Board

During the reporting year 2 meetings were held. The major decisions taken are as below

149th meeting (15/10/2009 and 16/10/2009)

1. Delegation of powers under Section of Environment (Protection) Act, 1986 read with Noise Pollution (Regulation and Control) Rules, 2000.

It was decided to consider delegation of powers for the purpose of monitoring of the noise levels at the source, to the police officers above the rank of the Sub-Inspector of the Police, pending the amendment to the Noise Pollution (Regulation and Control) Rules, 2000, empowering them. It was also decided to forward the proposal to the Ministry of Environment and Forests, Govt. of India, pointing out practical difficulties of the Police Department in respect of delegation of powers for monitoring and taking cognizance of offences pertaining to the Noise Regulations. The powers to file complaint for violation of the community noise are also delegated to the police officers not below the rank of the Sub-Inspector of Police, pending the amendment in the Noise Regulations. In respect of the offences punishable under the provisions of the Environment (Protection) Act, 1986, the Board authorized following Board Officers for taking cognizance of offences punishable under the provisions of the Air (Prevention and Control of Pollution) Act, 1981 read with the Noise Pollution (Regulation and Control) Rules, 2000.

i) Water Pollution Abatement Engineer, Air Pollution Abatement Engineer, Principal Scientific Officer/ Joint Director,

ii) All Senior Scientific Officers / Regional Officers

iii) All Sub Regional Officers / All Scientific Officers

2. Status and proposed plan of implementation of IMIS Project (e-Governance)

The Board decided to implement the IMIS Project effectively by imparting training to all its officials and by utilizing the services of the Field Officers having the prescribed qualification in the Computer Science and IT subject

3. Re-installation of continuous Ambient Air Quality Monitoring Station (CAAQMS) At Solapur

The Board accorded its approval for the re-installation of CAAQMS at Solapur at the cost of Rs.58.79 Lakhs (excluding taxes and duties etc.)

4. Implementation of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, amended on 2000 (MSHC) Rules

To frame the rules, prescribe the process fee and format for NOC in respect of isolated storages of hazardous chemicals and to charge Rs.2, 000/- fees for import clearance per consignment of the importer of the hazardous chemicals, it was decided to forward a proposal to the MoEF, GoI for necessary approval.

5. Submission of Status of the Project "Sanitation and Sewage Management at Pandharpur and adjoining Areas" under the programme "Environmental Improvement Programme at Religious Places in Maharashtra"

The Board accorded its approval for the report and also recommended implementation of the projects identified in consultation with High Level Project Monitoring Committee. It was decided that further implementation should be done by the Water Supply and Sanitation Deptt., Govt. of Maharashtra with the aid and assistance of the State Government and Central Government.

6. Preparation of Detailed Project Reports for select sub-projects under "Sanitation and Sewage Management at Pandharpur and adjoining areas"

Since, the project is mainly concerned with institutionalizing and capacity building, pilgrim management system and sanitation etc., the Board decided to fund only for the preparation of DPR and the Water Supply and Sanitation Deptt., Govt. of Maharashtra should be asked for further implementation of the project with the aid and assistance of the State Government and Central Government.

7. Proposal for revision of Consent fees to the minor and major mining activity

The Board has approved the revision in the consent fees subject to the approval of State Govt. and the condition that the charging of the fees will be on the basis of consented capacity only for major minerals and not for minor minerals.

8. Vasundhara Award, 2009

The Board has decided to honor NGO / Industry / CETP / CHWTSDF / CBMWTSDF / School / Educational Institutions / Local bodies / Hospital out of deserving organizations. The Board had already made budgetary provision of Rs.1 Crore in the year 2009 – 2010. It was also decided that the voluntary sponsorship from the renowned institutes can be accepted in due course of time.

9. Mechanical composting project at Mahabaleshwar

The Board accorded its approval for the financial assistance of Rs.53 lakhs for installation of mechanical composting project at Mahabaleshwar.

150th meeting (17/03/2010 and 18/03/2010)

1. Environmental enforcement and Compliance for Electroplating Industries

The Board approved certain conditions like discouraging the cyanide plating as it generates toxic cyanide containing effluent, providing technical support for Cr, Zn and

Cd plating industries to reduce their effluent and also provide metal recovery systems if industrial effluent is more. In the consent for electroplating sector procurement of electroplated material only from authorized vendors is also prescribed.

2. To approve the Annual Report for the year 2008-09

The Board approved its annual report for the financial year 2008-09

3. Activities proposed under Zoning Atlas Division for the year 2010-2011

The Board approved the proposed activities under Zoning Atlas for the year 2010-11 and approved continuation of the existing activities for the year 2010-2011 The funds required for the same shall be borne by the Board from the Cess Funds.

4 Financial Assistance to Sangli_Miraj_Kupwad Municipal Corporation for preparation of Eco-city Policy & Action Plan".

The Board agreed for one time financial assistance of Rs.15.00 Lakh (Rupees Fifteen Lakh only) which will be released to Sangli_Miraj_Kupwad Municipal Corporation from Cess funds of the Board under the project entitled 'Preparation of Eco-city Policy and Action Plan for Sangli-Miraj-Kupwad Municipal Corporation (SMKMC)'. The Board decided to extend the technical assistance through Zoning Atlas Division in preparation/finalization of Eco-city Policy and Action Plan for SMKMC as required.

5 Revision of Consent fees

The Board has approved revision in fees subject to approval of the State Govt.

6 Revision of Sampling and Analysis Charges

The Board accorded its approval to revise scheduled rates of analysis of various parameters and sampling charges for the water, wastewater, soil, hazardous waste, air / fugitive emissions, source emissions, noise monitoring, etc. as per MoEF, GoI Notification No.Legal/42(3)/ 87, dated 15th June, 2008 and Amendments / Revisions thereof time to time. The revised rates are made applicable w.e.f. 1st April, 2010 onwards.

7. Stack monitoring activities for strengthening enforcement and compliance

The Board approved the implementation of structured outsourcing of stack monitoring activities and authorized M.S. and Chairperson MPCB for finalizing the tender document conditions and floating tender in this regard and allocation of work.

8. Report on Comprehensive Environmental Assessment of Industrial Clusters prepared by Central Pollution Control Board in association with Indian Institute of Technology (IIT), New Delhi and subsequent restrictions Imposed by Ministry of Environment & Forests, Govt. of India and preparation of action plans for these areas.

The Board noted the different factors, which have been taken into consideration for the purpose of the CEPI (Comprehensive Environmental Pollution Index) scores of industrial clusters such as air, water and land as well as other factors such as densely

populated areas nearby industrial clusters etc. and decided to formulate proper industrial location policy in order to avoid exceeding the CEPI scoring in industrial cluster areas in future.

9. Expenditure for inventorization of Health Care Establishments in the State of Maharashtra

The Board accorded its approval for the total expenditure of Rs. 58, 22,516/- and also the post facto approval for the payment already done in this regard.

10. Delegation of powers for grant /renewal of Authorization to Regional officers under BMW (M&H) Rules1998

It was decided to empower the Sub-Regional Officers to grant / renew Authorization to Health Care Establishments having capacity upto 50 beds under Bio-medical waste (M.& H) Rules 1998 as amended to date.

Regional Officers are empowered to grant / renew Authorization to the Health Care Establishment with bed capacity above 50 and upto 100 beds and Health Care Establishment such as clinic, dispensary, Blood Bank, Pathological Laboratory, treating thousand and more patients per month under Bio-medical waste (M.& H) Rules 1998 as amended to date.

11. Restriction on burning of petcoke as a fuel in the State of Maharashtra

Board considered and approved the proposal in this regard and authorized the Member Secretary for sending suitable proposal to the Environment Deptt., Govt. of Maharashtra and also writing to GPCB, as well as the Central Pollution Control Board and the Ministry of Environment and Forests, Govt. of India and others accordingly.

12. Project on Determination of back ground concentration of heavy metals and other pollutants in the coastal water of Maharashtra.

The Board approved the proposal to undertake the said project through Central Laboratory of the Board at an estimated expenditure of Rs. 56.67 Lakh. Board also authorized the Member Secretary of the Board to finalize the tenders and association of other institutes as may be required to ensure the success of the project.

13. Status and proposed plan of implementation of IMIS Project (e-Governance)

The Board noted the progress and the proposals and approved additional payment to M/s Microline India Pvt.Ltd.,the project management consultant for the project . Member Secretary / Chairperson are authorized to take further necessary action.

4. Committees Constituted by the Board

With a view to have smooth functioning of the Board as provided under section 9 of the Water (Prevention and Control of Pollution) Act 1974 and section 11 of the Air (Prevention and Control of Pollution) Act 1981 the Board has constituted various committees for efficient and effective implementation of the Acts and Rules.

During the year under report, the following committees constituted to conduct specific work

4.1 Consent Appraisal Committee:

As provided under section 9 of the Water Act 1974 and section 11 of Air Act 1981 the Board has constituted the Consent Appraisal Committee on 27/06/07. In exercise of the powers conferred on the Chairman of the Board the Consent Appraisal Committee is constituted as under:

- Chairman

  Maharashtra Pollution Control Board — Chairman
- Secretary

  Urban Development Deptt. — Member
- The Technical Advisor

  Maharashtra Industrial Development Corporation — Member
- Member-Secretary

  Maharashtra Pollution Control Board — Member-Secretary

This committee considers applications for Consents/Authorizations under Water (P& CP) Act, 1974, Air (P&CP) Act, 1981 and Hazardous Wastes (M & H) Rules, 1989 as under

"RED" category : Projects with capital investment above Rs. 15 crores.

"ORANGE" category : Projects with capital investment above Rs. 100 crores.

"GREEN" category : All Projects beyond Rs.500 crores All A & B Class Municipal Councils and Corporations

Board has taken initiatives to take construction projects under Water Act, 1974 and granting consent to establish by imposing the conditions of 80% recycle of effluent. The inline projects are commissioned who have provided full-fledged STP and recycle arrangement, resulted in to water conservation and reduction in discharge i.e. pollution

reduction at source. The Board has generated revenue Rs.2, 61, 52,942 from these construction projects.

The revised and amended power delegation in respect of consent management from 18/02/2008, resulted in increase of Board's functional efficiency. The maximum applications were from Construction Industries. Projects having investment of Rs.25Cr. & above are discussed and disposed as below :

a) Total 12 meetings of Consent Appraisal committee were conducted and 284 consent applications were discussed and disposed off.

b) Total 28 meetings of Consent Committee were conducted and 541 consent applications were discussed and disposed off.

4.2 Tank Farm Committee:

To discuss the consent applications for the storage of petroleum products as well as other products in tanks for isolated storages as defined in Maharashtra Storage & Import of Hazardous Chemicals Rules 1989 amended in 2000, a Tank Farm committee is formed.

The convener of the committee is Regional Officer (HQ), Regional Officer of concerned region where industry is located is the member, and WPAE is also a member.

There were 6 meetings held during the year and discussed on 20 cases and the decisions taken in the meeting were communicated to Member Secretary for further discussion before Consent Committee/Consent Appraisal Committee.

5. Air and Water Quality Monitoring Network

In order to understand the trend in water quality, Air quality and risk to human health, it is essential to monitor the pollution level of water sources, seawater and ambient air. As per the provisions under section 17 of water (P&CP) Act, 1974 & Air (P&CP) Act, 1981, one of the important functions of the Board is to collect & disseminate information regarding water & air pollution.

To observe the concentration of pollutants in water and air, stations are fixed through which regular monitoring is carried out by the Board. Discharge of industrial effluent & sewage are the main causes of water pollution, therefore the quality of sewage & effluent is also monitored regularly. Industrial emission; vehicular exhaust & burning of solid wastes, being the main causes of air pollution, the level of air pollutants present in the air, is monitored through a monitoring network is established across the State. Air quality monitoring is done with the help of (High Volume air Samplers) HVS and mobile air monitoring vans.

The laboratories of the Board are strengthened with sophisticated instruments / equipments for the analysis of Air, Water, and Hazardous Waste sample. Around 3000 samples are analyzed per month in these laboratories. Apart from this, 7 nos. of Mobile Monitoring Vans have been procured for Monitoring of ambient air quality at various places. These vans have facilities to monitor major air pollutants as well as meteorological parameters like temperature, humidity, wind direction; wind speed etc. The data is computerized and printed on hourly basis. Two fixed automatic monitoring stations received under World Bank Project have also been installed at Thane Belapur in Navi Mumbai and at Chandrapur.

For effective implementation of these monitoring programmes, there was a necessity to have separate working group which would look after data collection, collation and dissemination activities. Therefore In order to streamline the monitoring and surveillance activities, MPCB had formed Pollution Assessment Monitoring and Surveillance (PAMS) division, on 3rd August, 2005 under the supervision of I/c PAMS and have expertise in air and water monitoring - one Senior Scientific Officer (Air), Two Scientific Officers, One Junior Scientific officer, one Junior Scientific Assistant along with two Junior Research Fellows.

Various responsibilities were assigned to this division. Viz.

a) Implementations of NAMP / NWMP in the state.
b) Implementation of SAMP/SWMP in the state.
c) Operation and maintenance of MMV and CAAQMS.

d) All other activities related to air and water monitoring.
e) Data collection, collation and compilation of air and water quality including updating CPCB & MPCB web-sites, informing media with approval of I/c PAMS/MS.
f) Special surveys like noise monitoring during Diwali & Ganesh festivals.
g) Other projects like Status of Riverine Fisheries and VOC monitoring
h) Calibration and audit of the sampling programs
i) Coastal water monitoring survey in collaboration with NIO,

MPCB is conducting environmental monitoring for ambient Air and Water in the state under National and State Monitoring Programmes. In recent past, Board has augmented the water & Air monitoring network in the State and presently having about 250 Water quality monitoring stations & 65 Air quality monitoring stations in the state. MPCB is also operating 7 CAAQM Stations. Presently data generated through these monitoring programs is collected at the Pollution Assessment Monitoring Surveillance (PAMS) Division in HQ. Soft data is compiled and up loaded to Environment Data Bank (EDB) of Central Pollution Control Board (CPCB) and hosted on MPCB website. Daily Ambient Air Monitoring data of 5 major cities i.e. Mumbai, Pune Aurangabad, Nashik & Nagpur are sent to ZEE TV & ETV for display in public interest.

5.1 Water Quality Monitoring Network

For planning a water pollution control program, it is imperative to understand the nature, extent of pollution and control measures required. Water Quality Monitoring is an important exercise, which helps in evaluating the nature and extent of pollution control required, and effectiveness of pollution control measures already in existence. It also helps in assessing the water quality trends and prioritizing pollution control efforts. To understand the prevalent water quality in Maharashtra, MPCB has taken up the task of assessing the water quality through programs such as Global Environmental Monitoring System (GEMS) and Monitoring of Indian National Aquatic Resources System (MINARS) under National Water Quality Monitoring Program (NWMP), funded and guided by CPCB. It started in the year 1978 with 3 stations and increased to 38 stations by 1992. In 2004, 10 more surface water stations and in April, 2006, 25 Ground water stations were added to the project, taking the total to 73. Water (Prevention and Control of Pollution) Act, 1974, covers both surface water as well as ground water pollution. To tackle the hazards of faster deterioration of surface and ground water quality due to uncontrolled urbanization, industrialization and agricultural activities, Board has decided to expand the existing water quality monitoring network in Maharashtra, covering all stretches such as drains, river basins, sea water etc. Accordingly, a Project Implementation Plan was prepared and expanded the existing water quality network of surface water to 200, and ground water network to 50 locations. This is done by identifying and commissioning additional 152 surface water and 25 ground water locations under State Water Quality Monitoring Program (SWMP). Monitoring of all

these stations are being carried out as per the Uniform Protocol for water quality monitoring issued by MoEF and CPCB. In February, 2008, CPCB has sanctioned 50 new stations under NWMP from existing SWMP stations - 45 surface water stations with monthly monitoring frequency & 5 ground water stations with half yearly monitoring frequency. Presently, WQM network consists of 123 stations under NWMP and 127 stations under SWMP. (Total= 250).

Water Quality Monitoring Stations: Operated during years

Stations	2006-07	2007-08	2008-09	2009-10
Surface water monitoring stations under NWMP	48	93	93	166
Ground water monitoring stations under NWMP	25	30	30	30
Surface water monitoring stations under SWMP	152	107	107	34
Ground water monitoring stations under SWMP	25	20	20	20
Coastal Monitoring Survey through NIO, Mumbai	114	114	–	--
TOTAL	**364**	**364**	**250**	**250**

5.2 Air Quality Monitoring Network

MPCB, as the regulatory agency in the state, require the information of air quality levels at different locations for planning the pollution control strategy, for dissemination of information & other related matters. Considering the urbanization and industrialization in the state and also public awareness towards the subject, it is necessary for MPCB to collect air quality data at important locations across the state. MPCB is monitoring the air quality at various locations all over Maharashtra under National Ambient Air Quality Monitoring Programme (NAMP) and State Ambient Air Quality Monitoring Programme (SAMP). MPCB had taken over 28 air monitoring stations under National Ambient Air Quality Monitoring programme (NAMP) in Maharashtra w.e.f.01.07.2005 from CPCB and further strengthened the air quality monitoring network in Maharashtra. The strengthening also included developing a systematic State Air Monitoring Program (SAMP) to support the NAMP. In this direction, MPCB has started NAMP stations at Kolhapur, Tarapur, Lote, Amravati and Navi Mumbai. In the same way SAMP stations are also initiated in different industrial cities. In May 2008, three SAMP stations were started at Latur and in June, 2008 three SAMP stations were initiated at Sangli. 3 SAMP stations at Mahad & 2 SAMP stations at Roha were commissioned on 25.09.2008 & 3 stations at Jalgaon started operation in Jan. 2009. In March, 2009 CPCB has sanctioned 8 new NAMP stations, by converting the already operational SAMP stations at Roha, Mahad & Sangli. Presently, there are 53 NAMP stations (47 operated by MPCB and 6 operated by NEERI), 15 SAMP stations and 8 Continuous Ambient Air Quality Monitoring Stations (CAAQMS) are in operation in Maharashtra (Total= 76). Apart from this 3 stations at Akola, are under initial stages of operation process.

Monitoring stations under NAMP

Name of City	no. of Stations	Operated by	Remarks
Mumbai	3	NEERI	Managed by CPCB
Thane	3	Thane Municipal Corporation	In Operation since July,2005
Pune	3	University of Pune	In Operation since July,2005
Nagpur	3	Vishveshrayya National Institute of Technology	In Operation since July,2005
	3	NEERI	Managed by CPCB
Chandrapur	6	Rajiv Gandhi College of Engg.	In Operation since July,2005
Aurangabad	3	Saraswati Bhuvan College, Aurangabad	In Operation since July,2005
Dombivali-Ambarnath	2	MPCB	Operational since Oct. 2004
Nashik	3	K T H M College, Nashik.	In Operation since July,2005
Solapur	2	Walchand Institute of Technology.	In Operation since July,2005
Kolhapur	3	Shivaji University, Kolhapur	In operation since Dec. 2005
Tarapur MIDC	3	MPCB	In operation since Jan - 2006
Lote MIDC	2	MPCB	In operation since March - 2006
Taloja MIDC	3	K.B.P.College, Vashi	In operation since April – 2006
Navi Mumbai (TTC)	3	K.B.P.College, Vashi	In operation since April – 2006
Amravati	3	Govt. Engg. College, Amravati	In operation since Nov. – 2006
Ulhasnagar	3	CHM College,Ulhas Nagar	In operation since Nov. – 2009
Jalgaon	3	School of Environmental &Earth Science, North Maharashtra University	In operation since Nov. – 2009
Latur	3	Dayanand Education Society	In operation since Nov. – 2009
Sangli	3	Walchand College of Engineering.	In operation since Nov. – 2009
Mahad	3	Dr. Babasaheb Ambedkar Technological Institute, Lonere	In operation since Nov. – 2009
Roha	2	Dr. Babasaheb Ambedkar Technological Institute, Lonere	In operation since Nov. – 2009
Total	**65**		

6. Present Status of Environment, Problems and Control Measures

6.1 Domestic Pollution

6.1.1 Sewage Waste Management:

Due to rapid urbanization, the Municipal bodies nowadays are facing problems of collection, treatment and disposal of wastewater, solid wastes, Bio-medical waste and plastic waste etc. The waste water generated by local bodies is disposed off either on land or into the surface water. The land disposal causes ground water pollution whereas the disposal into surface water affects the aquatic life. There is no adequate sewerage system in any of the Municipal bodies in Maharashtra State. To control such pollution, actions are initiated under the provision of Water Act, EP Act and the Rules made there under. There are now 23 Municipal Corporations, 219 Municipal Councils and 7 Cantonment Boards in the State. The volume of effluent generated from Municipal Corporations is 5399 MLD. Whereas the volume of effluent generated in Municipal councils is 837 MLD as on March 10.

Due to paucity of funds most of the local bodies discharge their domestic effluent in nearby river through /local nalla without any treatment and it is a major source of surface water pollution. In some Regions large-scale industries also contribute to domestic pollution.

To observe the concentration of pollutants present in the sewage, samples are also collected and analyzed regularly in the Board's laboratory. The Status of STPs in some Regions is illustrated below

Kalyan

Kalyan Dombivali Municipal Corporation (KDMC) generating sewage @ 204 MLD has provided two STPs, one at Aadharwadi & other at Motagaon having capacity of 16 MLD & 14 MLD respectively. Both these STPs are in operation & found meeting prescribed standards for disposal of sewage & rest of the sewage is disposed without any treatment in to Ulhas creek. Now K.D.M.C. has proposed new 6 STP of 123MLD capacity, which was sanctioned under JNNURM scheme of central Govt. for the same KDMC has submitted application for Consent to establish to the Board.

Bhiwandi Nizampur City Municipal Corporation generates 84 MLD of sewage however STP of 17 MLD capacity is provided which is not in operation. Now a project will be undertaken under the JNNURM Scheme for laying of underground drainage system and also providing additional STP in their City Development Plan (CDP)

Ulhasnagar Municipal Corporation generating 86 MLD of sewage has provided STP of 28 MLD capacity; but same is not in operation. Ambernath Municipal Council has provided STP of 24 MLD capacity; however, same is not in operation. From Badlapur Municipal Council 14 MLD sewage is generated, but there is no STP.

Nagpur

Nagpur Municipal Corporation and 22 nos. of Municipal Councils generate 426 MLD of domestic effluent. Nagpur Municipal Corporation generating 380 MLD of sewage has provided Sewage Treatment Plant of100 MLD Capacity located at Bhandewadi. The performance of STP is given in the following table

Parameters	Unit	Results	
		Avg. Inlet	Avg. Outlet
pH	-	7.85	7.98
SS	mg/l	108.40	28.0
COD	mg/l	114.40	61.60
BOD	mg/l	61.80	18.40
Oil & Grease	mg/l	--	--

The STP treats 90% of the waste water and from above table it is clear that STP performs well. Looking into the quality and quantity of the sewage that remains untreated and goes into the river the additional STPs are necessary in this area. In this regard a prosecution proposal against Nagpur Municipal Corporation is under consideration of the Board. During a personal hearing Board has issued conditional direction and directed Nagpur Municipal Corporation to submit a Bank guarantee of Rs.2.0 lacs. The Nagpur Municipal Corporation has submitted action plan for constructing of sewage treatment plant at 3 locations i.e. North Nagpur-100 MLD, East Nagpur-80 MLD and South Nagpur-100 MLD.

Thane

Thane municipal corporation & municipal councils of Vasai, Virar, Mira Bhayander are having STP's for treating partial quantity of domestic effluent generated (additional treatment facility is proposed) whereas the Palghar, Dahanu and Jawahar Municipal councils do not have any treatment facility for domestic effluent.

Nashik

In Nashik city 05 nos. of STP's of Nashik Municipal Corporation are in operation & 01 no. of STP of Trimbakeshwar Municipal Council is in operation. The performance of the same is as below.

Name of the STP	pH		BOD		COD		O & G		S. S	
	Avg.Inlet	Avg.Outlet	Avg.Inlet	Avg.Outlet	Avg.Inlet	Avg.Outlet	Avg.Inlet	Avg.Outlet	Avg.Inlet	Avg.Outlet
Chehedi	7.30	7.47	34.60	14.00	100.00	46.66	1.00	BDL	99.66	93.00
Tapovan	7.00	7.26	41.80	16.16	116.00	44.66	2.43	1.20	189.60	53.83
Panchak	7.06	7.21	56.50	14.00	157.33	38.00	2.16	1.00	220.00	44.16
Bhujbal Farm	6.85	7.52	55.00	29.00	172.00	60.00	1.00	BDL	81.00	92.66
Morwadi	6.82	6.86	83.00	36.50	186.00	87.00	1.40	BDL	86.50	68.00
Trimbak STP	7.12	7.34	187.1	56.85	510.28	128.57	2.53	1.76	234.3	115.85

Aurangabad

In the Marathwada Region there are three Sewage Treatment Plants installed in Corporation area only, these are as follows:

1) Aurangabad Municipal Corporation area
   At CIDCO Aurangabad a plant having capacity of 5.4 MLD is installed, which covers only CIDCO area. i.e. only one part of the city. The said plant was not in operation for last one year and now it is recommissioned.
2) Nanded Municipal Corporation
   a) CIDCO Nanded having capacity of 2 MLD.
   b) Nanded Waghala Corporation provided STP having 26 MLD capacity under NRAP. The analysis report of samples collected from the STP's shows that the effluent is not meeting the consented standards.

Mumbai

Mumbai is a metropolitan City having mainly industrial and local habitation very near to each other. Domestic sewage from residential area is discharged in sewer line provided by local body (MCGM) which is collected and treated into 07 Nos. of STP's and finally discharged in to the Arabian Sea. An unauthorized settlement, some societies, slum areas, small service industries and Cow and buffalo Tabela owners are also discharging their sewage as well as solid waste directly into nearby gutter line, nullah, river, etc. and it results in chock-up of natural nullah, drains, etc. In this regard follow up is being taken with concerned authorities to have control over the problem

The performance of STP seems to be satisfactory after looking at the analysis reports of STP.

Navi-Mumbai

The total domestic effluent generated from the residential area of Navi Mumbai Municipal Corporation (NMMC) is about 245 MLD. NMMC has provided 7 STP's at various places for treatment of domestic effluent .out of these, three STP's achieve the quality of the treated effluent as per the MPCB standards. Three STPs having C-Tech technology are already provided.

The total sewage generated from Uran Municipal Council is @ 2.5 MLD. There is no treatment facility provided by the local body and untreated sewage is being discharged into creek through nallah. The proposal of underground drainage system & STP is under consideration of Maharastara Jeevan Pradhikaran.

Pune

Pune Municipal Corporation is having STP of around 382 MLD capacitiy to treat its waste water. Pune division has carried out extensive survey of Mula-Mutha River during the period of April 2009 to March 2010. Samples were collected from nine monitoring stations. No municipal councils other than PMC have provided Sewage Treatment Plants for treating domestic waste. Whatever domestic effluent is generated is flowing into nearby nalla which meets the river directly/indirectly. Due to lack of proper drainage systems for treatment of domestic waste, episodes of jaundice epidemic was noticed in Baramati Municipal Council, due to contamination of sewage into water supply line. To curb pollution of Bhima & Indrayani River State Committee "The Indrayani Bachav Kruti Samiti" has been put forth. In Satara Sub division Mahabaleshwar Municipal Council & Panchgani Municipal Council has started construction of STP. Panchgani has completed one STP and it is ready for commissioning. Karad has an STP in poor conditions. In Pimpri-Chinchwad Municipal Corporation (PCMC) total water consumption is 350 MLD and out of which 255 MLD of sewage is generated. The Corporation has provided 09 number of STP's at various locations in phase manner & same are in operation having capacity 207 MLD and after treatment it is disposed off into the river except treated sewage from STP of Chikali (partly for irrigation & partly in river), And the remaining 69 MLD is presently discharged into river Pawana/Indrayani without any treatment. However, Corporation has started the work of additional four number of STP's having capacity of 111 MLD.

6.1.2 Steps taken for control of domestic pollution

Board is pursuing the matter with municipal council authorities actively. Meetings were conducted on sewage treatment plant and MSW management issues with municipal authorities. Municipal authorities have been asked to make budgetary provisions for STP. Municipal authorities have also been asked to explore assistance in terms of financial aid from concerned government agencies. Notices/directions were issued to the non-complied municipal councils so as to have the improvement upon the existing situation. Bank Guarantee is also taken from some of the Local Bodies.

For discharge of effluent into the river, for non operation of STPs and for non provision of STPs cases have been filed against Kolhapur Municipal Corporation, Ichalkaranji Municipal council, Sangli-Miraj-Kupwad Municipal Corporation, Ulhasnagar Municipal Corporation, Bhiwandi-Nizampur Municipal Corporation and Khopoli Municipal council in the court of law. The Hon. Court ordered to Khopoli Municipal council to complete and commission STP within one year (order dated 24/06/08).

6.2 Water quality status

Water is the essence of life which has been greatly affected by Urbanization and Industrialization today. High amounts of untreated residential and industrial waste are coming to the rivers everyday which might proved to be detrimental not only to the aquatic life but also the human life because of inadequate STP and ETP facilities in various regions. The physicochemical, biological and ecological characteristics of water bodies changes adversely due to these discharges into them. Extinction of fresh water species might take place promoting the growth of weeds and conditions of bioaccumulation. So it is required to keep an update of water quality by analyzing the various physicochemical and biological parameters from various water bodies in the regions. To attain the same various monitoring stations have been set up at different points through which the rivers flows.

Biological Oxygen Demand (BOD) is one of the best indicators of water conditions. BOD is a measure of oxygen used by microorganisms to decompose the waste. If the amount of organic matter is large, the number of bacteria working on waste will be more. When organic matter such as dead plants, leaves, grasses, manure, sewage, or even food waste is present in the water, the bacteria work on it for which it uses the dissolved oxygen robbing the aquatic life of oxygen they need. The standard for BOD is 100 mg/l which if exceeded the aquatic life suffers. Chemical oxygen demand (COD) test is commonly used to indirectly measure the amount of organic compounds in water. Most applications of COD determine the amount of organic pollutants found in surface water (e.g. lakes and rivers), making COD a useful measure of water quality. It is expressed in milligrams per liter (mg/L), which indicates the mass of oxygen consumed per liter of solution and it should not exceed 250mg/l. Dissolved Oxygen (DO) is a relative measure of the amount of oxygen that is dissolved or carried in a given medium. The limit for DO is 3mg/l. pH limits should obey both upper and lower limits i.e. 5.5-9.0.

In order to maintain the water quality in its best designated use, Board is monitoring river water regularly.

6.2.1 River Water Quality status

Under National Water Quality Monitoring Programme MINARS (Monitoring of Indian National Aquatic Resource Sampling) and GEMS (Global Environmental Monitoring System) sponsored by C.P.C.B. the river water quality is assessed through a network of 123 stations including main rivers like Godavari, Krishna, Bhima, and Tapi and 30 ground water locations. Under State Water Quality Monitoring Programme the other rivers with tributaries have also been monitored through 127 locations set up on the rivers. It has been observed that at 56% of the locations water quality is deteriorated due to excess of BOD levels indicating organic pollution in the water. The DO levels were not conforming to the standard at 27 locations which covers part of Godavari River and Pravara river in Ahmednagar District, Mula-Mutha and Pawna river in Pune Region, Erai river in Chandrapur, Sukna and Kham river in Aurangabad, Manjra river inLatur. Higher

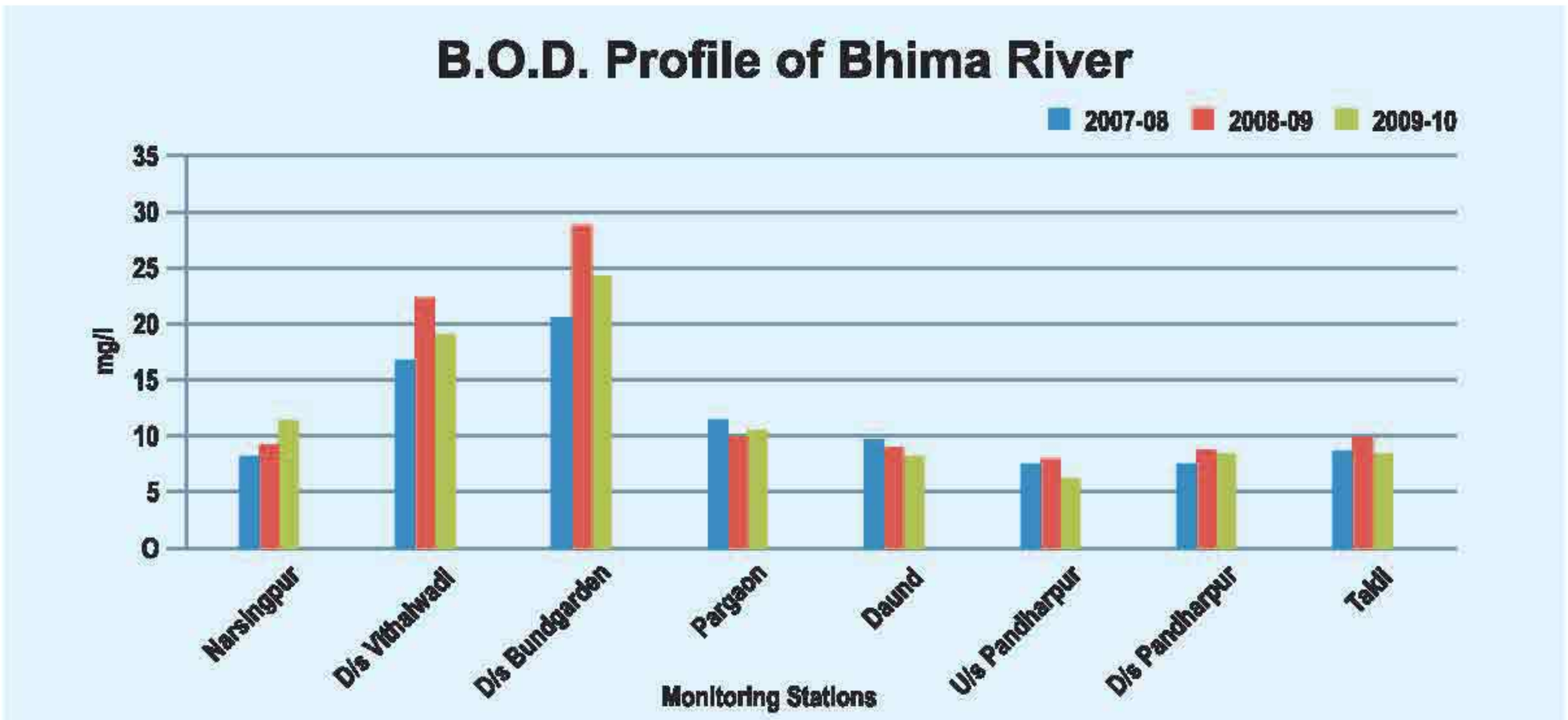
concentrations of Total coliform have been recorded in the rivers Bhima, Mula-Mutha and Indrayani flowing through Pune Region which was in the range 1000-1800 MPN/100ml.

River water quality in Pune Region

The main sources of water pollution are the discharges of domestic untreated sewage from the Pimpri-Chinchwad Municipal Corporation area and part of seepages of treated / partially treated industrial effluent. A part of these effluents is used for gardening purposes and partly disposed into the nallas. As there is no flow in the river except monsoon season, the quality of river gets deteriorated due to the discharges in the summer season. Analysis was done taking various parameters into account the pH which should be from 5.5 -9.0, has met an average of 7.51. BOD and COD have exceeded in most of the stations except at Ravet Weir. The highest COD concentration observed in Sangvi reaching 65g/l and BOD is 49g/l. This indicates that to improve water quality, treatment facilities in this region will have to be modified.

The area of Pimpri-Chinchwad is highly polluted and requires more attention. Out of 296 MLD sewage generated, 227 MLD is treated and remaining 69 MLD is discharged without treatment. MPCB is regularly monitoring the compliances made by various industries and corporations, and accordingly actions are initiated against defaulters. The Corporation has started the work of additional four number of STP's having capacity of 111 MLD.

In the remaining area of Pune region the domestic consumption of water is more than the industrial consumption so as the effluents. Samples were collected from nine monitoring stations. This area have 7 STP's which are running in good conditions. But still the BOD and COD of this area are exceeding the limits, the highest BOD recorded is 15g/l and COD as 45g/l at Mula Mutha River. Dissolved Oxygen (DO) which should be within 30mg/l (3g/l) has reached beyond 50mg/l (5g/l). it can be concluded as the facilities that have been provided are less as compared to the waste generated.



Various rivers that flow through Satara sub-region are Veena, Krishna, Urmodi, Nira and Koyana. Satara area is having 10 monitoring stations at different points of the rivers. The COD levels recorded out here are also exceeding the limits in most of the cases. The highest COD recorded is in Nira River at Sangvi station nearly 26.7 g/l against the limit of 25 g/l. The BOD levels have not yet exceeded in this region.

River water quality in Nagpur

In Nagpur region, river water quality has been assessed at 19 stations set up along the rivers Wainganga, Wardha, Nag, Pili, Kanhan, Bagh and Erai. The results have shown that BOD value exceeded the limit at all locations having A-II and A-IV class of water. The highest BOD concentration was found at " Asoli bridge" on Nag river and at "Koradi Road" on Pilli river. Compared to last year, BOD and COD levels are much increased in A-IV class of water of Nag and Pili rivers. However significant reduction in Total coliform has been noticed in wainganga river at " Ellora paper mill"but after confluence with the Kanhan river at "Ambhora" the Total coliform increased 6 times than in the last year. The DO level remained satisfactory at all stations during the year.

River water quality in Amravati

BOD exceeded the limit at all locations on the rivers flowing through Amravati region. Compared to last year, no significant difference has been noticed in BOD concentration in river water quality. Except 'Dadhi-Pedhi' the other locations on Pedhi River, have shown reduction in BOD level The DO levels remained satisfactory at all locations. Purna and Pedhi rivers remained polluted at most of the locations during the year.

River water quality in Thane

There are two major rivers Vaitarna and Tansa in Thane Region which are observed to be dry for most of the period in the year. Surya river flows from Palghar and provides water to MIDC area of Tarapur and towns of Virar, Palghar and Vasai. The effluent discharges are not permitted into the river water and source of water supply is protected. The Analysis reports of river water indicate that BOD is exceeded the limit in A-I stretch of water of Pelhar and Surya rivers during the year.

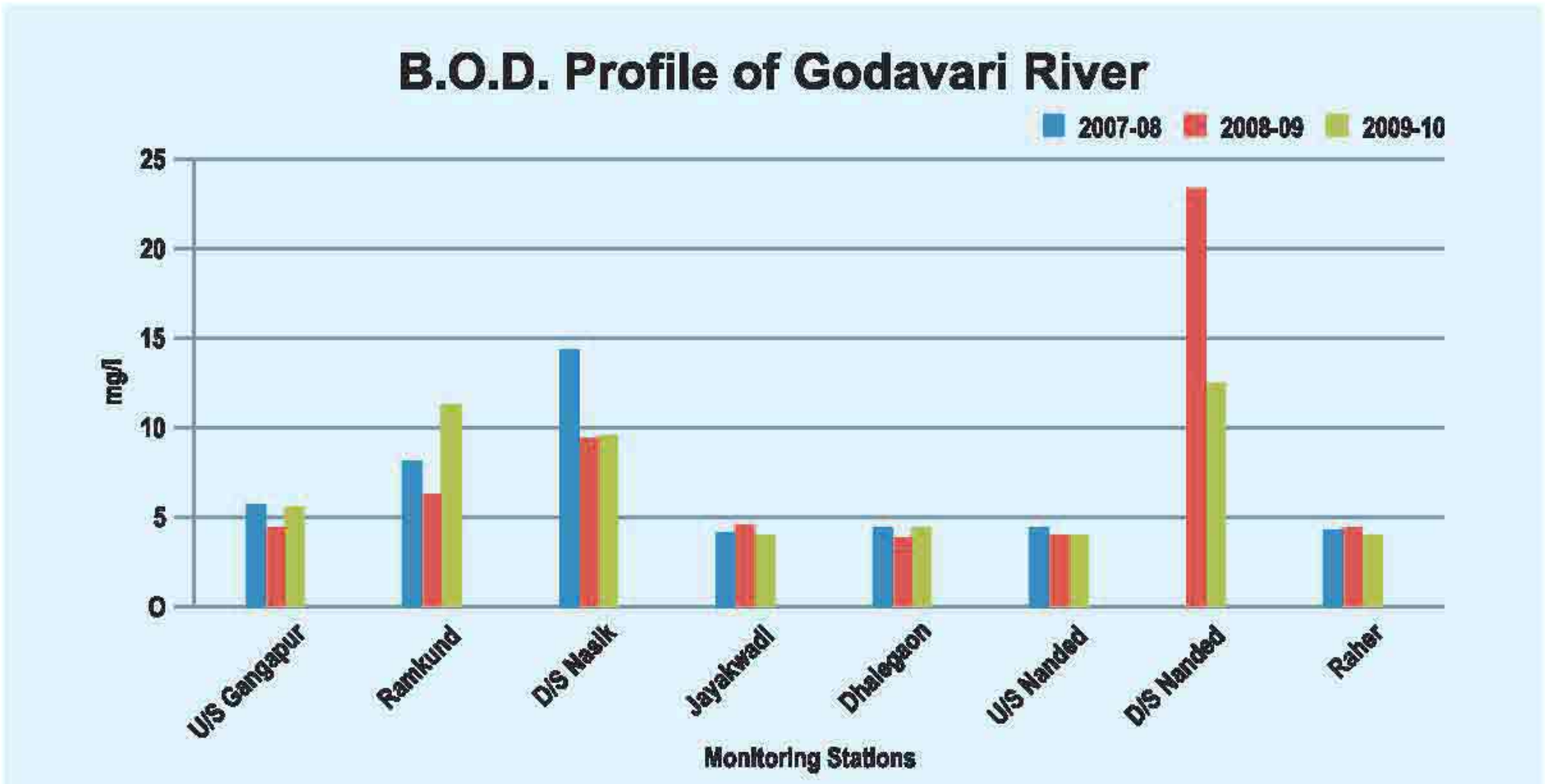
River water quality in Kalyan

In Kalyan Region there are many jean wash units in Ulhasnagar & Ambernath located in industrial cum residential area. These units have not provided any facility for treatment of industrial effluent and are identified source of water pollution. Besides this, The power looms, Yarn sizing, Yarn dyeing & textile processing industries developed in Bhiwandi area are also the source of water pollution.

Tansa river, Vaitarana river, Ulhas river, Kalu river, Bhatsa river are notified as per RRZ policy & Bhatsa Notification respectively. The Industrial development is subject to RRZ policy & Bhatsa Notification. The treated effluent from industries in these area is allowed to reuse for maximum extent & remaining is disposed off at CETP /on land for gardening within own premises.

being discharged in to river through local nalla or river. The water purification system of water supply of these villages, towns etc are not proper and adequate. Due to this the resident of human habitation cannot get required quantity of potable water for drinking purpose.

Under National River Action Plan (NRAP) two major cities Paithan in Aurangabad district and Nanded located on the bank of river Godavari are covered. Under the said plan, major drains collecting domestic waste from Paithan city are diverted at down stream of the city. It is also proposed to provide underground closed gutter system and sewage water treatment plant. Sewage treatment plant of capacity 26 MLD is installed for Nanded city and also major drainage line diverted to downstream of the said city.



The water quality assessment for part of Godavari river under Aurangabad Region, is done through 23 locations including tributaries like Sukna,kham and Manjara. The analysis results indicate that BOD level not exceeded the limit at most of the locations. Compared to last year reduction in B.O.D. level has been seen at most of the locations. The maximum deterioration has been noticed at D/s Nanded on Godavari river at Chikalthana and Chitepimpalgaon on Sukana river and at Holy cross school and Patoda village on Kham river. At these points D.O. was also not confirming to the standards. Manjara river remained pollution free during the year.

Water quality of Krishna River

The rivers flowing through Kolhapur region are Krishna, Panchganga, Vashishti, Gad and Muchkundi . Out of these Gad and Muchkundi rivers in Ratnagiri district do not have any deterioration because there are no polluting industries on the bank of these rivers.

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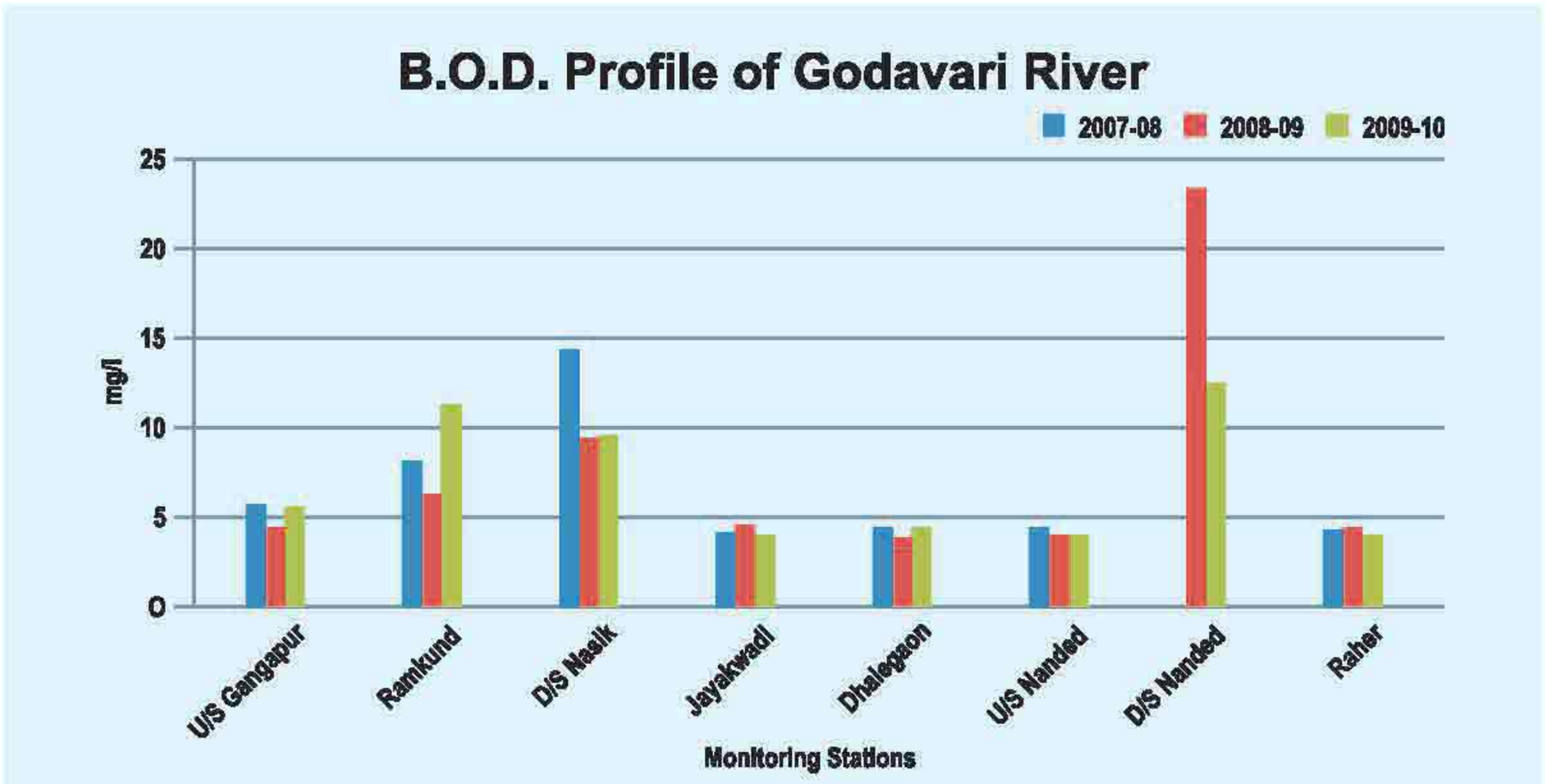

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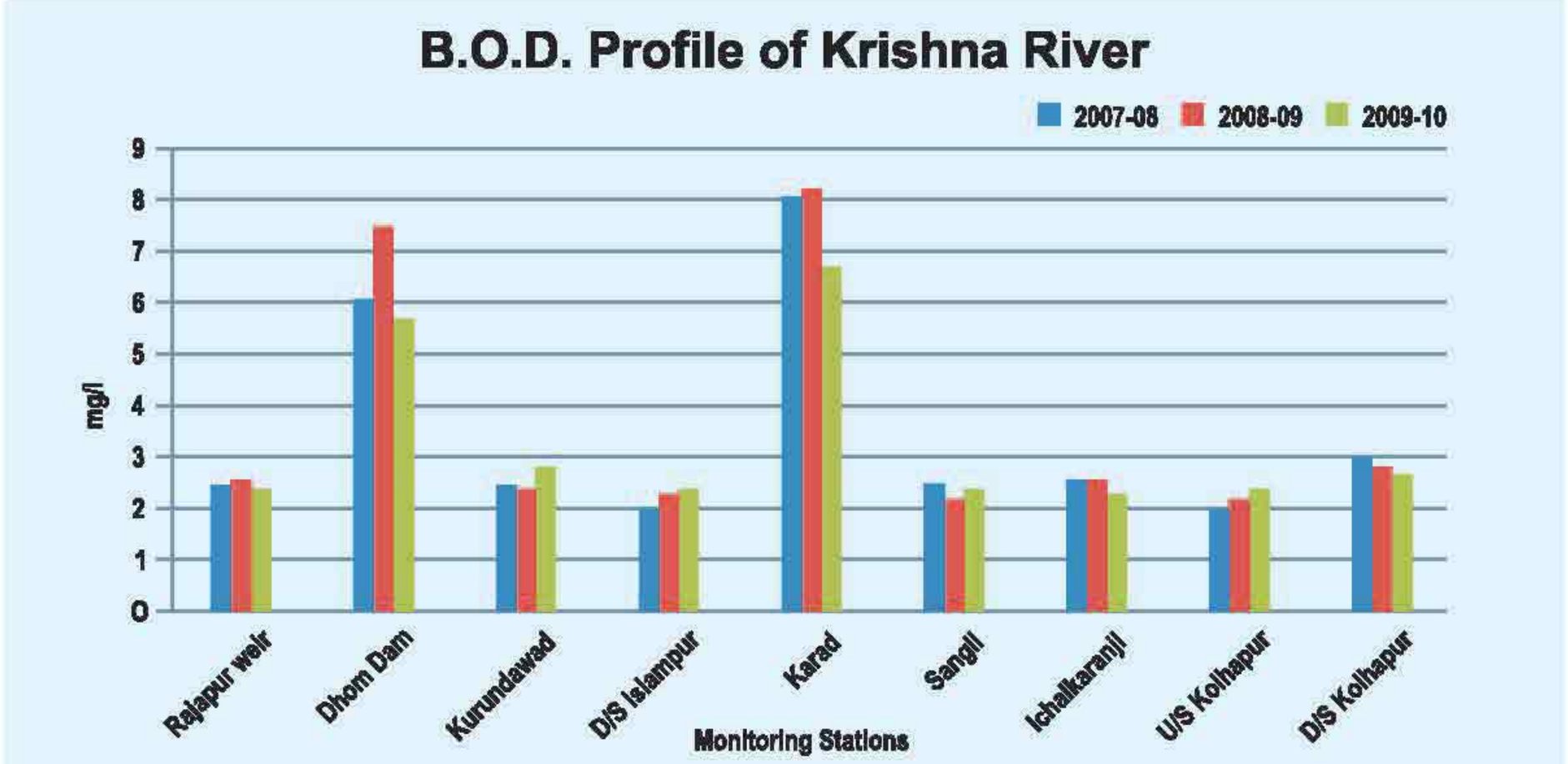
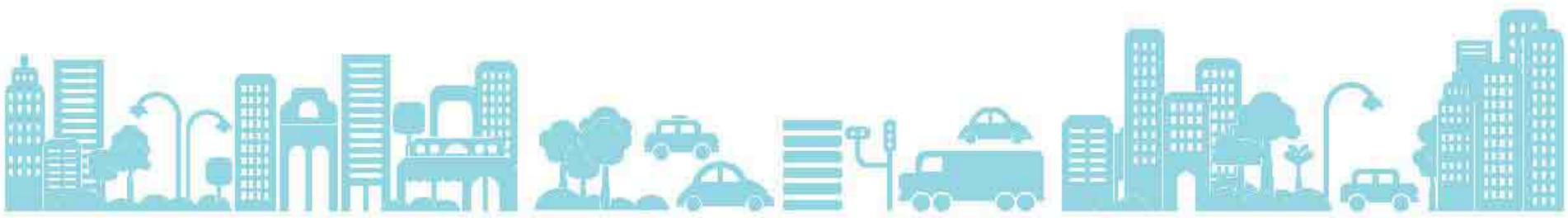
The analysis results of water quality reveal that water quality of these rivers remained satisfactory during the year. Compared to last year no significant difference in the levels of B.O.D. has been observed in these rivers. Except Kurundwad on Krishna river and Samdoli on Warna river the concentration of TC is slightly increased at other locations on Krishna and Panchganga River. The overall water quality in the Kolhapur region remained more or less within the standard.

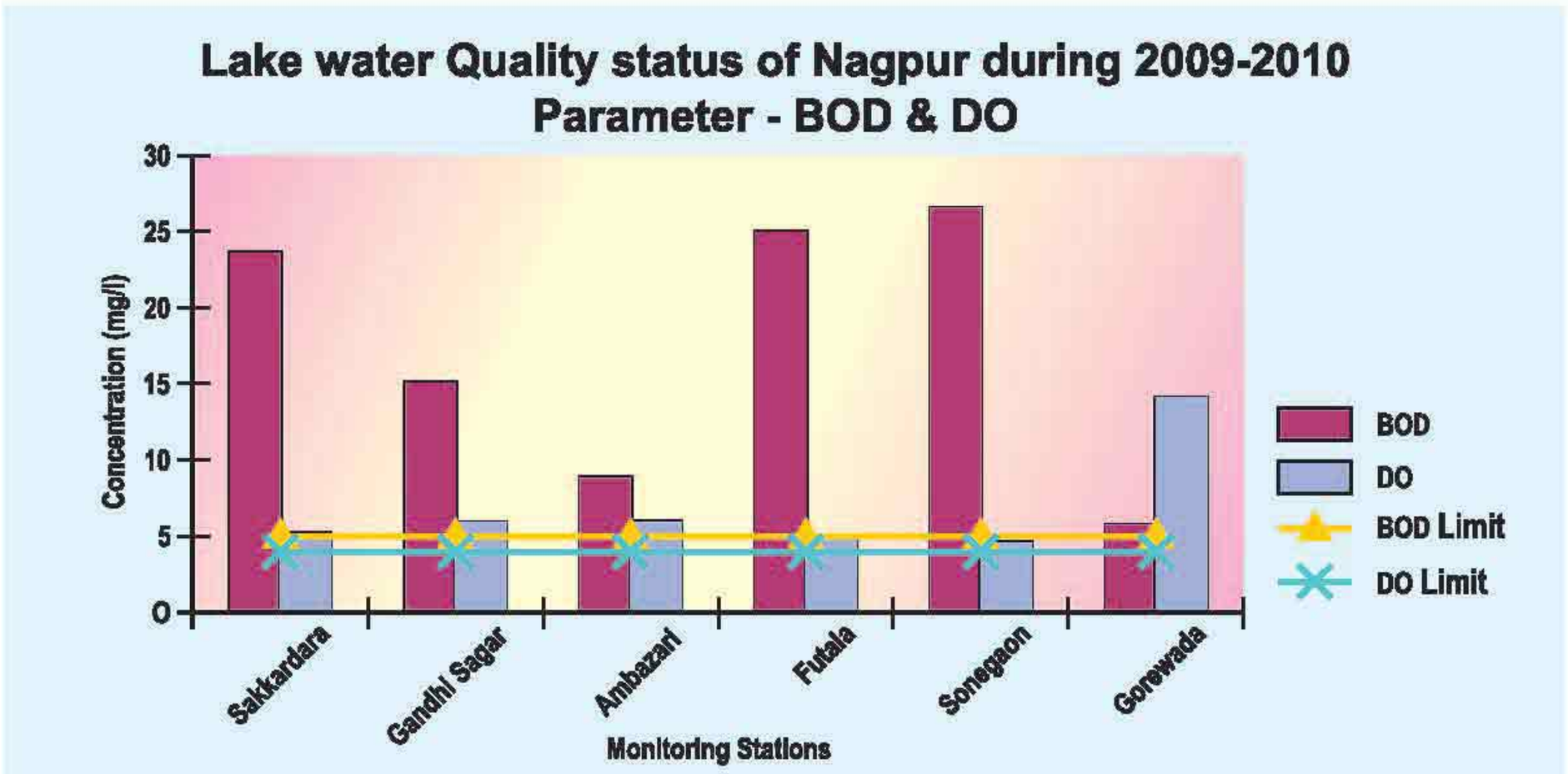


To control water pollution Kolhapur Municipal Corporation has proposed to provide STP at Kolhapur. Three no of CETP has been proposed at Ichalkaranji, Hatkanangale & Yadrav respectively, under the Textile Cluster Development Scheme. Court cases have been filed against Kolhapur Municipal Corporation and Ichalkaranji Municipal Council.

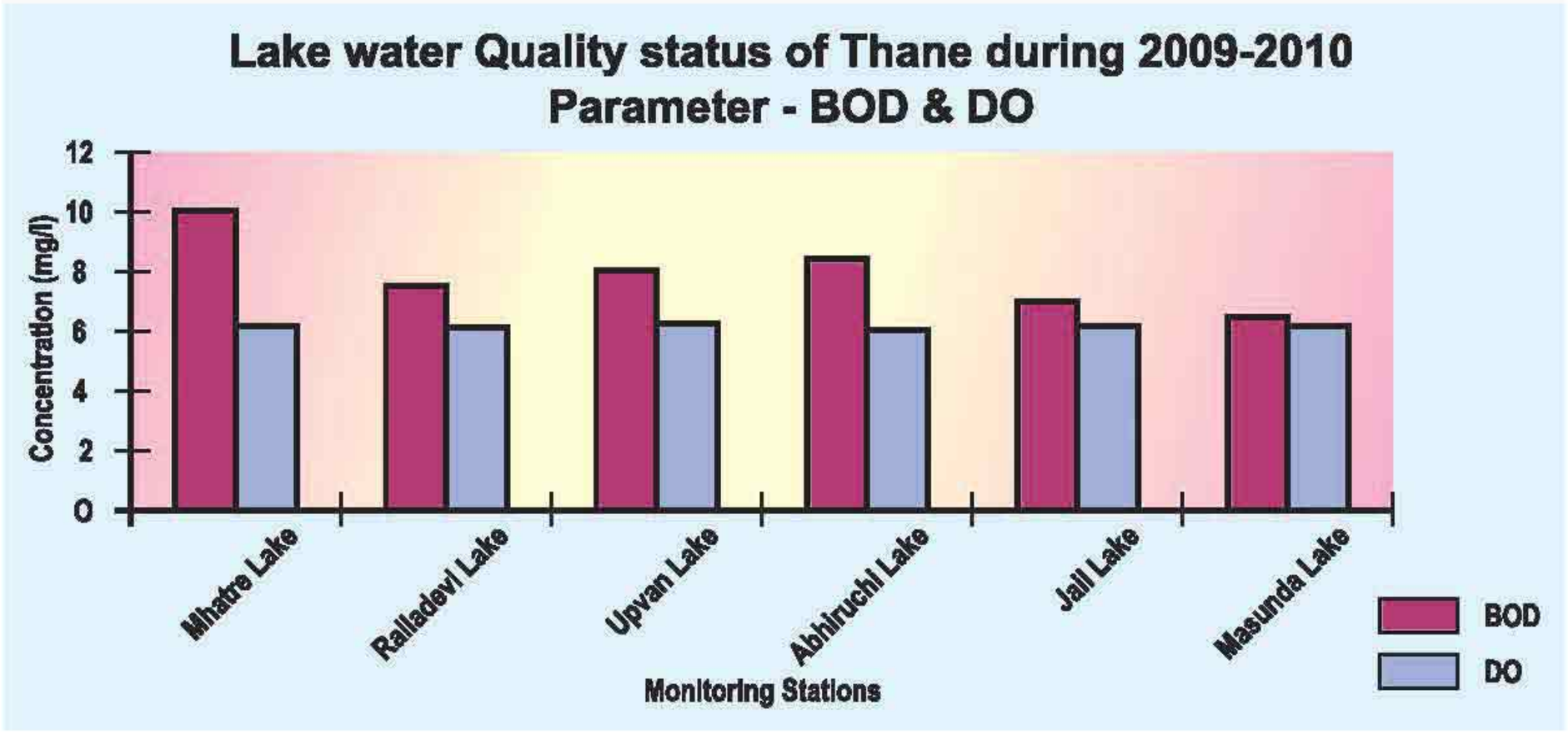
6.2.2 Lake Water Pollution:

The Board has monitored 12 lakes during the year for assessing Lake Water quality. Out of these lakes, 6 lakes are from Nagpur Region. From the results obtained, it is seen that the parameter DO was confirming to the standard at all lakes, whereas the BOD concentrations far exceeded the limit at Sakkardara lake, Futala lake and Sonegaon lake. The COD concentration was observed in the range 18 – 64 mg/l. The Maximum COD was found in Sonegaon Lake and minimum COD was found in Gorewada lake.





6 lakes from Thane Region were also monitored to observe the water quality of lakes. Here also, the DO values were found well within limit. However, the BOD concentration exceeded the limit at all the lakes. COD concentration was found in the range of 28-52 mg/l.



6.2.3 Ground Water Quality:

Ground water quality has been monitored at 52 locations in different regions of the state such as Pune, Amravati, Thane, Raigad, Nagpur, Aurangabad, Nashik, Kolhapur etc. There is no fixed monitoring network for ground water. 25 ground water locations have been sanctioned under MINARS project.

From the analysis results it is observed that though pH, DO and nitrate values are within the prescribed limits, the parameters like Total Hardness, Chlorides and Sulphates were

exceeding the limits at 25% of the locations. Compared to last year there is improvement in ground water during the reporting year. The water quality deterioration was noticed in Aurangabad, Pune, Thane and Kolhapur Region. The ground water remained non polluted in Nagpur, Amravati and Chandrapur Region.

Region	No. of Locations Monitored	No. of Locations where parameters exceeded the limit
Thane	9	4
Aurangabad	7	2
Nagpur	4	0
Raigad	2	1
Nashik	7	1
Amravati	4	0
Kolhapur	10	3
Pune	8	2
Chandrapur	1	0
Total	**52**	**13**

From the analysis results obtained during the year the maximum water quality deterioration is observed at one location Savali in Sangli Dist.under MINARS program where concentration of Total Hardness and chlorides was found 1890mg/l and 882mg/l respectively.

In Aurangabad Region at one location in Aurangabad and one location in Nanded the ground water showed very high concentration of sulphate i.e. 1609mg/l and 2392mg/l resp.

The concentration of Total Hardness was found beyond the limit in the ground water monitored in Thane Region at 4 places. The highest concentration (1218 mg/l)was found at Gharatwadi Palghar.

In Kolhapur Region the ground water monitored at 3 places in Sangli under MINARS program found deteriorated due to higher concentration of Total Hardness and chloride.

Ground water quality assessment in Pune Region showed deterioration at two places where concentrations of Total Hardness, chloride and sulphate were found much beyond the limit

6.2.4 Coastal Water Pollution:

The Maharashtra coast that stretches between Dahanu in the North and Terekhol in the South is about 720 km long and 30-50 km wide. There are about 18 prominent estuaries along the coast harbouring many mangrove floral and faunal species in varying densities. Of these Ulhas in the North is the biggest estuary.

Maharashtra is the most industrialised state in India with many industrial clusters established in the coastal belt. This is because the primary considerations for such developments in the past had been the availability of water, electricity and transport, while, environment received the lowest priority.

The inshore waters of Maharashtra particularly around cities and towns also receive domestic wastewater – often untreated, that has severely deteriorated the ecological quality of these water bodies.

The major source of sea / creek water pollution is the discharge of untreated domestic effluent from local bodies and accidental discharge of industrial effluent into local nallah, which ultimately meets the creek. Secondly disposal of offerings (garlands /flowers etc.) wrapped in plastic bags in to the water bodies has been a major nuisance to the aesthetic of the water body and becoming a major environmental problem.

During the year, Board monitored sea water quality at 40 locations including all coastal Regions. Analysis report reveals that except the coastal area of Ratnagiri & Chiplun of Kolhapur Region, BOD values exceeded the limit at 90% of the locations. Compared to last year, the coastal water quality is deteriorated during the year in coastal areas of Mumbai,Raigad, Navi-Mumbai and Kalyan

In Mumbai, sea water assessment indicates that except at Haji-Ali and Shivaji Park Dadar the DO values were confirming to the standards at all other locations. The BOD values exceeded the limit at all locations. The concentration of Total coliform observed in coastal water of Mumbai was in the range 87-985 MPN/100ml.

Sea water quality monitored at 3 locations in Navi-Mumbai indicates that BOD level was not adhering to the standard of SW-II class of water. The D.O. level was also not confirming to the standard at Vashi Creek. BOD level monitored at Retibunder in Ulhas Creek and at Kamawari Creek was also found beyond the limit, where the observed COD level was in the range 82-176 mg/l.

The monitoring results obtained from 15 stations fixed on the coastal water pertaining to Thane Region has shown deterioration in water quality where BOD exceeded the limit at all locations. The Total coliform level found in coastal water was in the range of 103-621MPN/100ml.

Coastal area pertaining to Raigad Region was monitored at 6 locations, where DO was confirming to the standard at two locations Murud and Kasid on Arabian Sea but BOD level was found beyond the limit at all locations. Compared to last year, rise in COD level is also seen in Arabian Sea and observed in the range of 76-296 mg/l.

Following table gives the range of BOD and COD concentration observed in coastal water for last two years.

Coastal Region	BOD mg/l 2008-09	BOD mg/l 2009-10	COD mg/l 2008-09	COD mg/l 2009-10
Mumbai	6.0-15.0	11.0-31.0	52-184	44-296
Raigad	3.0-9.9	4.05-15.66	68-187	77.6-266
Navi-Mumbai	7.0-18.0	10.5-20.0	43-135	111-160
Kalyan	3.6-16.0	8.8-65.0	20-184	82-176
Kolhapur	2.2-5.9	2.4-2.5	28-96	36- 48
Thane	7.2-217.0	8.5-16.0	70-548	71-160

6.3 Air quality status

The immediate environment of man comprises of air on which depends all forms of life. Main sources of air pollution are automobiles, industries, domestic sources etc. Ambient air pollution in an increasingly urbanized world directly threatens the health of a large fraction of the world's population. There is growing recognition that air-borne emissions from major urban and industrial areas influence both air quality and climate change on scales ranging from regional up to continental and global.

In the urban area, the vehicular pollution contributing major contamination of air quality and in rural area bio-mass burning is a major factor causing air pollution.

6.3.1 Status

Ambient air quality has been assessed through 33 locations under NAMP, 29 locations under SAMP and 7 locations under CAAQM. It reveals from the analysis results of last 2 year's ambient air quality monitored at different locations under NAMP, SAMP Project & CAAQM Stations that there is rise in level of SO_2 in few commercial and residential areas. Compared to last year not much difference is seen in the level of NOx in residential and industrial areas. However considerable reduction has been seen in commercial locations. The level of RSPM is increased during the year in residential areas. Compared to last year reduction in RSPM level has been noticed in industrial and commercial areas. Out of 69 locations RSPM exceeded the limit at 24 locations; NOx exceeded the limit at 6 locations. The maximum air quality deterioration has been noticed in residential areas.

Ambient air quality monitored during past two years under NAMP, SAMP project and CAAQM stations is presented below. From which it is clear that air pollution is increased in 2009-10 at all the residential locations as compared to 2008-09. The air quality in industrial and commercial locations is improved during the year.

Commercial	No. of locations monitored	Range of SO_2 µg / m^3 2008-09	Range of SO_2 µg / m^3 2009-10	Range of NOx µg / m^3 2008-09	Range of NOx µg / m^3 2009-10	Range of RSPM µg / m^3 2008-09	Range of RSPM µg / m^3 2009-10
Industrial	18	8-33	7.5-62.9	13-59	14-54.7	44-240	57-199
Residential	42	8-47	5.5-55.2	10-111	6.8-111	46-172	50-223
Commercial	9	8-56	6.2-23.4	15-136	7.7-39.3	59-294	55-173

The monitoring stations under NAMP and SAMP where air pollutant RSPM exceeded the limit are given in the following table

Sr. No	Monitoring Stations	RSPM (µg/m^3)			Sr. No	Monitoring Stations	RSPM (µg/m^3)		
		Min.	Max.	Avg.			Min.	Max.	Avg.
1	Grampanchayat Ghuggus (R)	14	371	179.9	10	MIDC Water Works Roha (R)	62	209	120.6
2	Institute of Engineers (R) Nagpur	19	262	108.8	11	Siddheshwar S. Bank Latur (R)	37	462	143.6
3	Vanita Samaj Amravati (C)	68	201	125.0	12	Keshavraj vidyalaya Latur (R)	33	327	123.3
4	MIDC Taloja (I)	33	481	199.7	13	Girna Water Tank Jalgaon (R)	24	180	110.4
5	Powai Chowk Ulhasnagar(R)	43	250	119	14	B.J. Market Jalgaon (R)	30	171	108.7
6	BIWA Office Badlapur (R)	40	188	103.3	15	College of Engineering Akola (C)	92	133	116.5
7	Karve Road Pune (R)	121	223	172	16	Rajura Chandrapur (I)	47	213	118.8
8	Bhirwadi Mahad (R)	47	264	136.4	17	Ballarshah Chandrapur (R)	35	238	121.6
9	Mahatma Phule Market Mahad (C)	74	333	173.5	18	Tadali MIDC (I)	27	374	169.2

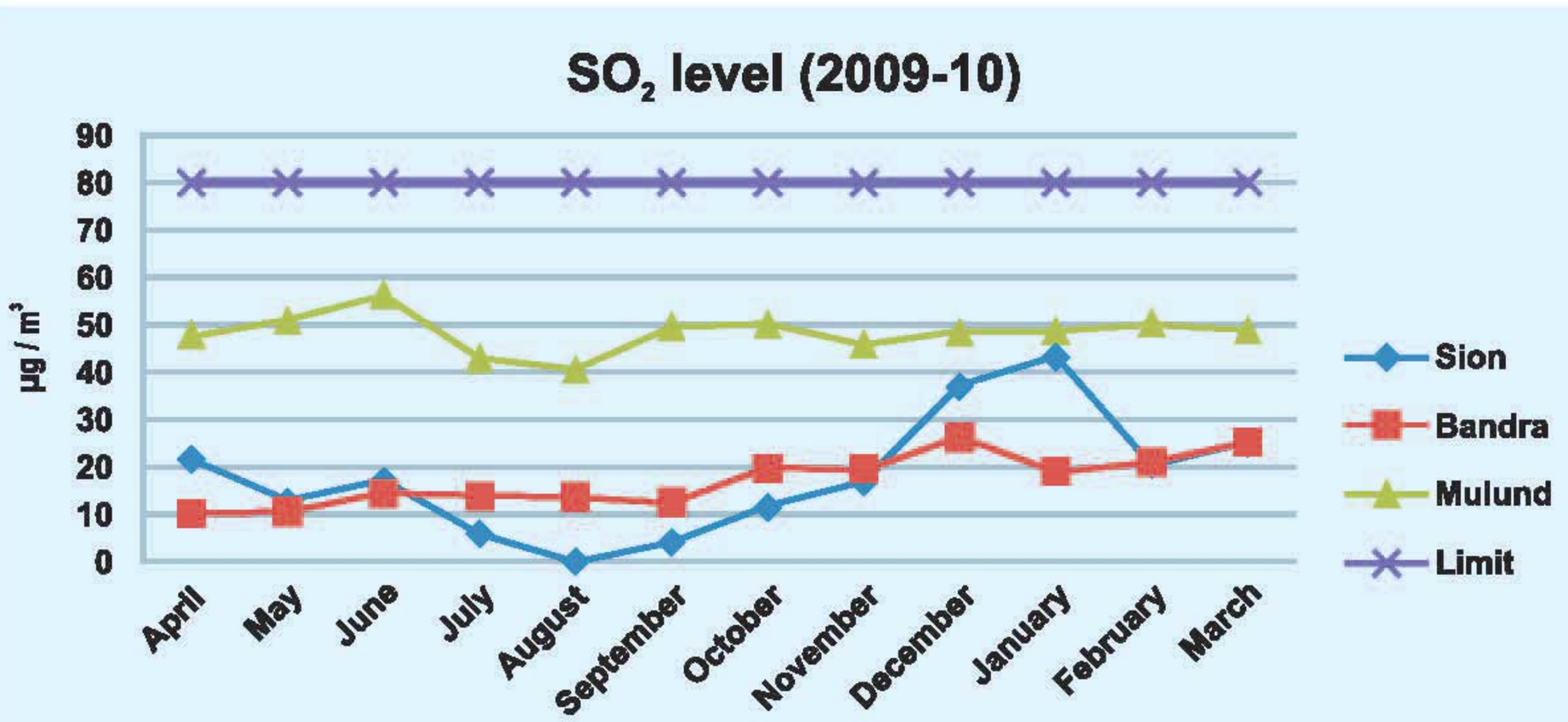
The Air quality status in different Regions of the Board is illustrated below

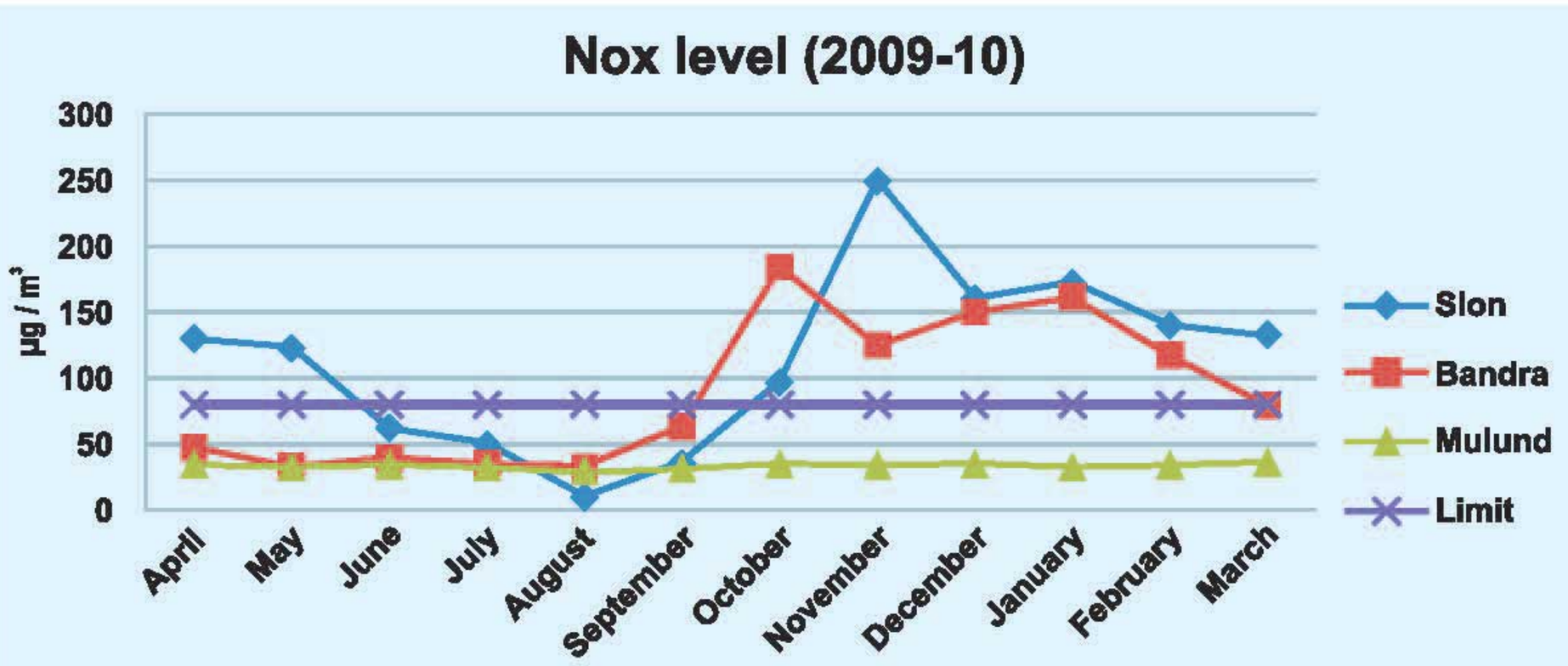
Mumbai Region

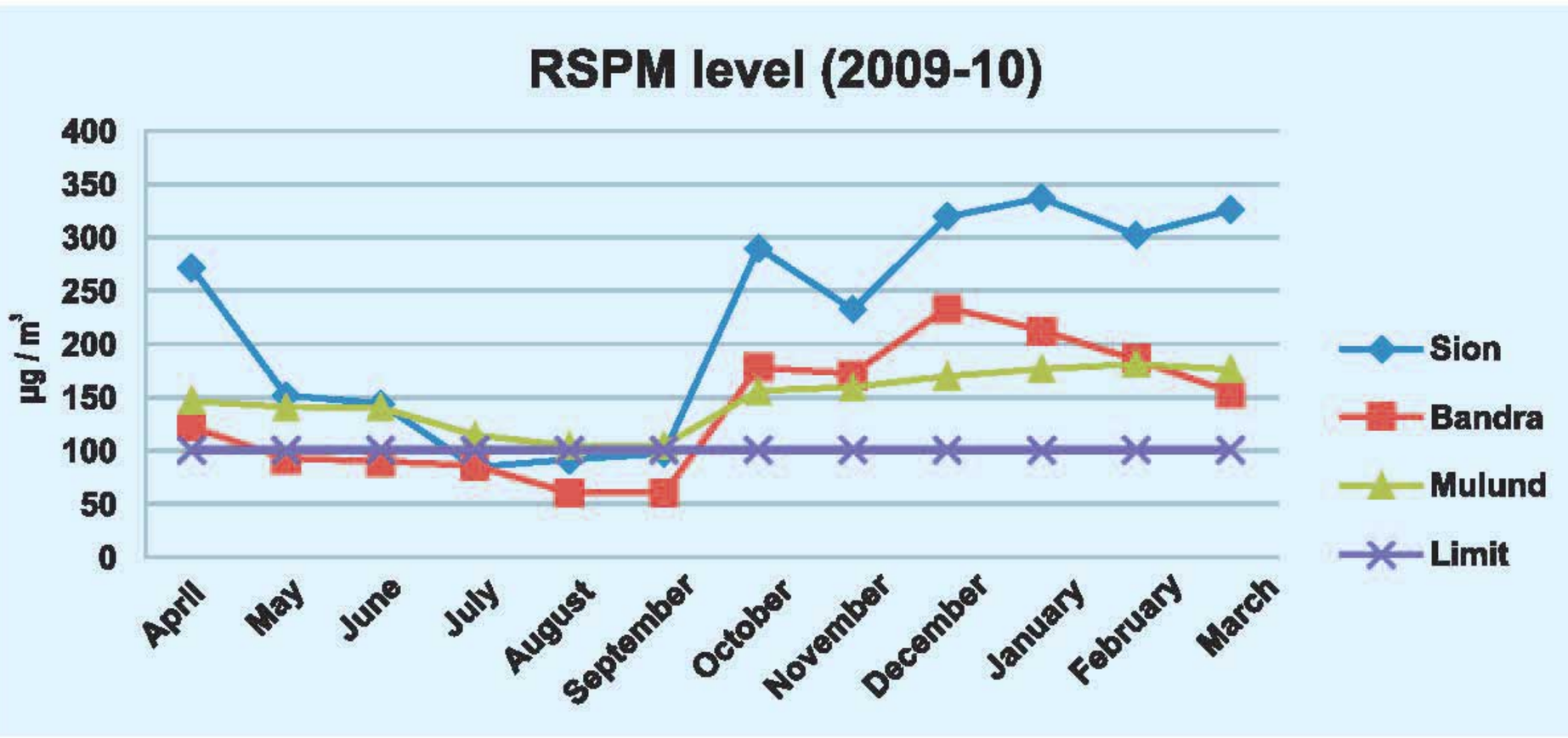
In Mumbai, the Board monitors air quality at two traffic junctions Sion and Mulund and one continuous Ambient Air Quality Monitoring station at Bandra.

From the analytical data it is observed that the SO2 levels during the year were conforming to the prescribed limits at all the 3 locations. The highest concentration of SO_2(56 µg/m^3) was recorded in June 2009 at Mulund. The NOx levels exceeded the limit during October2009-March2010 at Sion and Bandra Junction. However it was well within the limit at Mulund throughout the year. The highest concentration of NOx (249.3µg/m^3) was recorded in November 2009 at Sion. The parameters SO_2 and NOx have shown the increasing trend during the year at Sion and Bandra. As far as the RSPM levels are concerned, the levels were found beyond the prescribed limits from October 2009 onwards at all the three locations. At Bandra the levels were well within limit during May-September 2009. The highest concentration of RSPM (338.56µg/m^3) was recorded in January 2010 at Sion. At all the locations the parameter RSPM has shown increasing trend.

The graphs showing levels of pollutants observed during the year are presented below







The ambient air quality was also assessed in Mumbai at the locations including Jawahar Nagar, Vashi Naka, BPCL sports club and TATA colony in Chembur suburban area and Hazi-bunder, Wadala,Dadar and Kurla where it is seen that except Kurla the levels of RSPM and SPM exceeded the standards.

The highest levels of RSPM and SPM recorded at wadala were 645µg/m³ and 774µg/m³ resp. however compared to last year there is much reduction in concentration of these parameters.

Raigad Region

The ambient air quality was monitored at 7 industrial and two residential locations in Raigad Region where the parameters were found meeting the prescribed standards at all industrial locations except PRIA CETP in MIDC Patalganga where RSPM has crossed the limit. In residential locations like WTP Colony Birwadi, and Municipal building Mahad , the RSPM and SPM level exceeded the limit.

Navi-Mumbai Region

Ambient air quality is monitored by the Board on regular basis at four monitoring stations set up under National ambient monitoring program. Ambient air monitoring is also carried out during complaint investigations and in the vicinity of stone crushing units.

In Navi-Mumbai, 5 locations were monitored for ambient air quality. At 2 locations continuous ambient air quality monitoring stations are in operation and other 3 places are operated under NAMP. From the analysis results it is seen that RSPM level has crossed the limit at Airoli fire station and was recorded 120µg/m³ whereas SPM level crossed the limit at residential places in Nerul and Airoli.

Photographs of Continuous Ambient Air Quality Monitoring Station at Vashi

Kalyan Region

The ambient air quality assessment was done at 4 industrial and 7 residential cum commercial locations in Kalyan region. In all 317 samples were collected and analyzed. At 4 residential cum commercial locations the RSPM level was found beyond the limit. The air quality at industrial locations was within the limit. Compared to last year there is quite improvement in NOx level except the BIWA house in Badlapur. The highest RSPM concentration recorded at Regional office area in Kalyan city was 416 µg/m3. At few mixed areas the RSPM levels are reduced compared to last year.

Kolhapur Region

Ambient air quality in Kolhapur region was monitored at 8 locations. The analysis results reveal that the RSPM level exceeded the standard at 3 commercial / residential locations and was recorded highest i.e. 214µg/m³ at Mahadwar Road Kolhapur.

Amravati Region

There is no large air polluting industries except Paras Thermal Power Station in Amravati Region. To control emissions ESP has been provided. It has been noticed from the stack monitoring result that the old unit having 62.5 MW capacities generates higher emissions.

Due to use of kerosene in autorikshaws deterioration in air quality is seen at Rajkamal square in Amravati.

One residential, two commercial and one industrial location have been monitored for ambient air quality. The observations indicate that the levels of SPM and RSPM exceeded the standard at commercial locations in Amravati and Akola.

Nagpur Region

Major sources of air pollution in the Nagpur Region are Thermal Power Plant, Iron & Steel Industries specifically using coal as fuel, Sponge Iron Plants, Mineral Processing Plants, Metal Industries, Coal Mines, Stone Crushers and in city vehicles and diesel generator sets.

The air quality observed was within limit except in certain pockets like Thermal Power Plants, Mining areas, Iron & Steel Industries etc. Air quality of the area is monitored under NAMP at 6 stations and at one station under SAMP which is operated at Udyog Bhavan, Nagpur by VNIT, Nagpur. Board has also started monitoring of ambient air quality parameter PM 2.5 at Nagpur City & MIDC Butibori. Some polluting industries have also installed continuous ambient air quality monitoring station to monitor ambient air quality in the area.

Regional Office, Nagpur through its Sub-Regional Offices is regularly monitoring stacks for keeping close vigil on the emissions from the polluting industries.

Thane Region

Due to heavy vehicular traffic & from construction activities air quality is deteriorated in Thane city. Boiler and stone crushers are also the major sources air pollution.

To assess ambient air quality 13 locations were selected in Thane Region which includes Thane city, MIDCTarapur, Bhayander and Dahanu. The analysis results shows that the RSPM and SPM level exceeded the standard at the locations in Thane and one industrial location in Mira-Road and two locations in MIDCTarapur. The highest levels of SPM (630µg/m³) and RSPM (375µg/m³) were recorded at industrial location in Thane city. At M/S Reliance Eenergy in Dahanu the ambient air quality was found within the standard.

Nashik Region

Air polluting industries have already provided dust collection system, scrubbing system, electrostatic precipitator, fumes extraction system & they are instructed to operate the same regularly. Also the industries are insisted for use of cleaner and eco friendly fuels like LPG, White coal etc. Recently some industries have switched over from furnace oil to coal gas (Producer gas), which helps in minimizing air pollution.

The values of SPM & RSPM (µg/m³) are observed on higher sides in industrial zone. This might be due to discharge of smoke/ emissions from the industries & the reasons for higher concentration in residential & in commercial areas are vehicular pollution & dust particles in the surrounding area arising from various activities

Besides 3 NAMP stations and 1 SAMP station, the ambient air quality has been assessed at 3 locations in Jalgaon city, where there is no deterioration in air quality was seen during the year. However the SPM concentration at NMC Nasik was found 169 µg/m3 a commercial place where vehicular traffic is more.

Pune Region

Pune City has always been recognized as a Pensioner's Paradise', due to its salubrious climate and fresh clean air showing a decrease in illness rate which is good but the rate it is showing is higher than any village. With 7000 new vehicles on the road each month, air pollution has reached to such an extent that, this metropolis is choking on its own vehicular exhaust.Besides NAMP stations,1 industrial and 1 commercial location in Pune, one commercial location in Pimpri-Chinchwad, two commercial location in Satara and two commercial locations in Solapur were monitored during the year for assessing ambient air quality. It is seen that except MIDC Ranjangaon a industrial location the SPM concentration exceeded the limit at other locations. The RSPM concentrations exceeded the limit at "Kachra depo in Uruli Devachi" Tq. Haveli Dist Pune and at "ST Stand Satara. The recorded values at these locations are 637.7µg/m³ and 174.7µg/m³ resp.

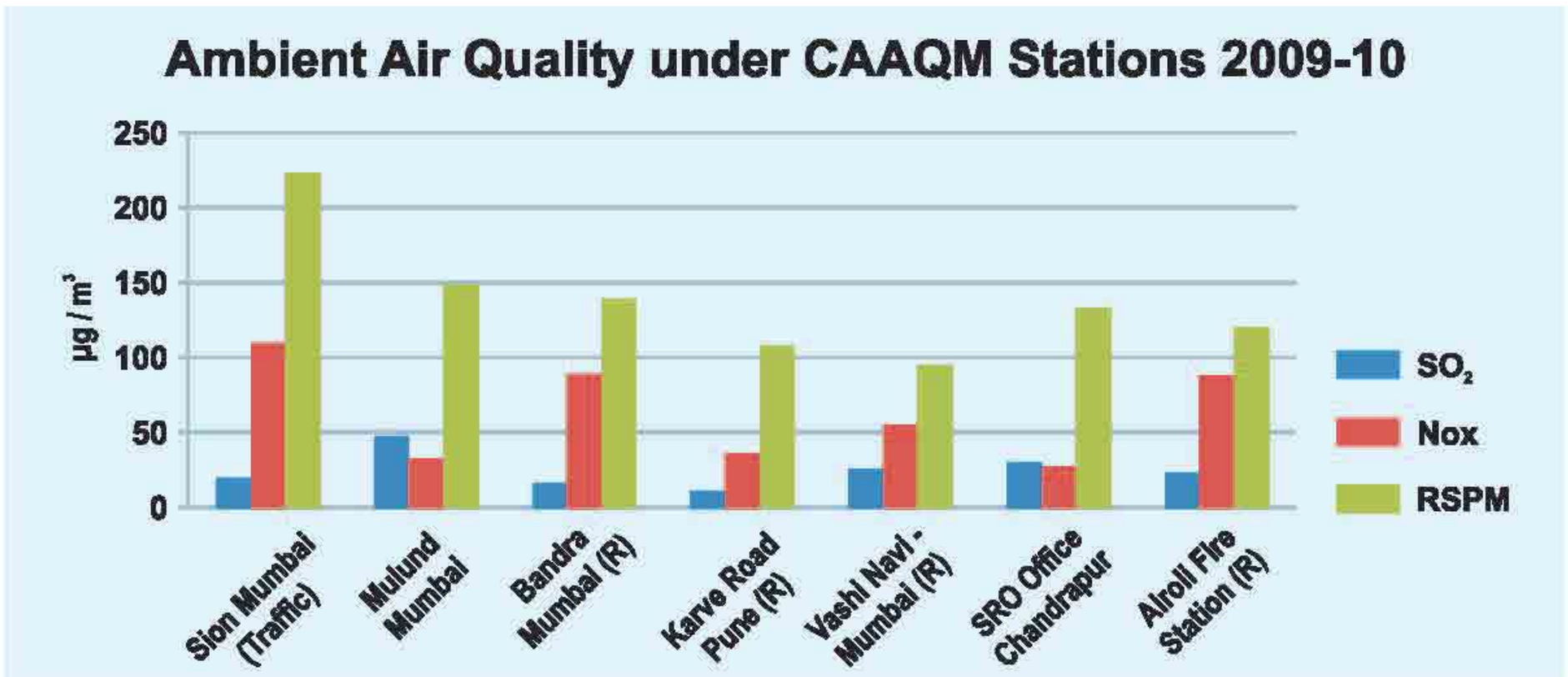
Aurangabad Region

There are number of clusters of stone crushers and brick kilns in all the districts of Marathwada and at these locations ambient air quality gets disturbed due to cumulative effect of stone crushing activity, mining activity carried out near the stone crushers and brick kilns. In the MIDC area Jalna, there are 14 steel plants and 30 rolling mills. Due to inadequate smoke collection system for emissions from these industries, there is rise in

air pollution problem in Jalna area. The Board has issued Directions/Notices to the defaulters and work for improvement is in progress.

From the analysis report of ambient air quality it is seen that the parameters SPM/RSPM are higher than the prescribed limits specifically during the summer season.

In Aurangabad Region besides NAMP stations in Aurangabad and Jalna, 6 other stations in Nanded and Latur cities have been monitored during the year. The Ambient air quality monitored at industrial locations in Nanded and Latur was found within the limits. However at residential and commercial locations the levels of SPM and RSPM were found beyond the limit.



6.3.2 Steps taken to minimize the Air Pollution:

- All the air polluting industries have been enforced to provide adequate measures for control of air pollution i.e. scrubbers on reactor and Hazardous chemical storage, dust collectors for particulate, stacks of sufficient height, ESP and other equipments etc., and accordingly certain conditions are imposed on the industries in the consent order.
- Industry and vehicles are advised to use LSHS/CNG type fuels so as to reduce & avoid air pollution.
- Vigilance is kept by the Board and regular sampling is done to check emissions from stack and also fugitive emissions with the help of HVS & Mobile Van and stack monitoring.
- Regular ambient air monitoring is carried out by the Board and monitoring network is also augmented.
- Legal action has been initiated against 149 industries. Out of these conviction is secured in 114 cases and 32 cases have been dismissed. U/s 33A of the Air (P.&C.P.) Act1981, 142 proposed directions and 207 closure directions were issued to the defaulting units.
- Proposed/Closure directions are issued to industries for the installation /up gradation of

existing Air Pollution Control System and proper operation and maintenance of the same. In some cases Bank guarantees taken are forfeited.

- Industries where Coal is used as fuel were instructed to provide adequate capacity of dust collectors followed by wet scrubber to minimize air pollution.
- Awareness campaign, workshops were also arranged to educate the people.
- Board office at Chandrapur has conducted 196 nos. of stack monitoring & has compelled to install new stack of CBMWTDF since earlier stack was totally corroded.
- AAQM at railway siding Chandrapur & wani carried out and the results were communicated to District Administration Chandrapur, due to which iron ore transportation activities were suspended by railway authority.
- The Board has issued directions to steel plants of MIDC area Jalna and directed them to install ventury scrubber/bag filters in their industries. The Board has also issued show cause notices, directions to all the sugar factories for compliance of CREP guidelines regarding control of air pollution and providing of ESP/Wet Scrubber.
- The Board has also initiated stringent action against the stone crushers for installation of air pollution control system and most of the stone crushing units have provided dust arresting facility as per the directions of the Board.
- The transport authorities have made compulsory for all the taxis to use CNG in place of Diesel or Petrol. In Mumbai now, superior fuel quality is supplied i.e. Euro-IV.
- 28 air polluting industries have been closed in Chiplun area.

6.4 Industrial Pollution:

Industries are monitored regularly to assess the efficacy of pollution control measures. Monitoring norms for industries have been fixed. Monitoring of industries includes checking compliance of consent conditions and environmental standards, collection and analyses of untreated / treated samples of effluents, law evidence samples, and hazardous waste samples to observe the concentration of pollutants. Stack emissions are also monitored. Adequacy of treatment plant and its operation is also monitored. The arrangement made for reuse, recycle of treated effluent / waste is also checked. The industries covered under cess are also monitored for assessing the quantum of water consumption.

The Maharashtra Industrial Development Corporation (MIDC) is responsible for the development of industry in the State. Similarly Co-operative industrial estates are also developed in the State. Mumbai, Thane, Navi-Mumbai, Kalyan, Nasik, Pune and Pimpri-Chinchwad, all have high pollution prone industries.

Most of the industrial activities give rise to substantial pollution of air, water and generate hazardous wastes, noise, etc. These activities are regularly monitored by the Board. Effluent and emission standards for specific industries are notified. These standards are

stipulated in the consent orders. Most of the large and medium industries have installed the necessary effluent treatment plants and emission control systems for control of pollution.

The compiled data for the year 2009-10, indicates that there are 72762 industrial units identified by the Board for implementation of pollution control measures. They include 11463 "Red', 13968 'Orange' and 47331 'Green' categories of industries. Of these 12655 industries have adequate treatment facilities for water pollution and 9740 industries have adequate emission control facilities. There are 4456 industries generating hazardous waste in the state have adequate treatment and disposal facilities.

Under the Central Action Plan, there are 808 industries identified as pollution prone. Out of these, 548 industries identified under the Plan have taken necessary control measures. 125 industries are closed and action is being taken against all defaulting units. The Region wise status of these industries is shown in following table

Status of Industries under Central Action Plan as on 31.3.2010

Sr. No	Region	Total No. of Units	Total No. of Units Closed	Total No. of Units Complying with the Standards	Total No. of Units not Complying with the Standards
1	Mumbai	7	0	6	1
2	Navi - Mumbai	43	7	34	2
3	Thane	97	4	93	0
4	Raigad	81	5	64	12
5	Kalyan	32	5	25	2
6	Pune	126	6	106	14
7	Nashik	105	25	49	31
8	Nagpur	42	4	28	10
9	Amravati	15	7	3	5
10	Aurangabad	103	22	69	12
11	Kolhapur	137	39	59	39
12	Chandrapur	20	1	12	7
	Total	**808**	**125**	**548**	**135**

Common Effluent Treatment Plants (CETP)

Common Effluent Treatment Plants are established at 26 industrial locations. These as a group have the capacity to treat effluent quantity of 209 MLD and cover 7431 industrial units. This scheme is implemented for the clusters of industries in MIDC areas as a part of the common environmental infrastructure for environment protection. Common effluent treatment plants (CETPs) are being promoted by the Central Government for cluster of industries for management of industrial effluents, especially from small and

medium enterprises. Due to one reason or the other most of the CETPs were not complying with the standards in terms of quality of treated wastewater at the outlet. As a result, there were several complaints from various people in the area. The series of actions were taken by the Board against the defaulters, intensive discussions and meetings were held with industry and time-bound action plans were prepared for each CETP. Work of strengthening and up gradation of treatment units at CETPs is now in progress. Primary standards are complied by all CETPs. Board has obtained bank guarantees from most of the CETPs as a proof of their commitment for complying with the standards and completing the work within the agreed time, failing which, bank guarantees are liable to be forfeited. Board is getting very good response from the industries and MIDC in this regard.

Performance of certain CETPs in terms of BOD and COD load is given in the following table

The monitoring results obtained for performance evaluation of CETPs at different places indicate that there is more than 60% reduction in BOD concentration at 10 CETP's outlet. The increase in BOD load is seen at outlet of CETP Lote. From the following table it is clear that the CETPs at ACMA Ambernath, DBESA CETP (Textile), Dombivali, RIA CETP, Mahad CETP and CETP Lote were not operated efficiently. The CETPs at MIDC Kurkumbh Pune , TTC, Butibori, Jaysingpur and PRIA (Patalganga) were operated efficiently.

Region	BOD			COD		
	Inlet (mg/l)	Outlet (mg/l)	%increase/decrease	Inlet (mg/l)	Outlet (mg/l)	%increase/decrease
ACMA CETP*	385	228	(-)41%	1282	196	(-)84%
Chikloli Morivali*	1763	615	(-) 65%	6124	2093	(-)65%
Badlapur CETP*	449	150	(-)66%	1735	524	(-)69%
DBESA CETP (Textile)*	402	180	(-)55%	1181.6	525.5	(-)55%
DCETP Chemical)*	328.33	117	(-)64%	832.44	333.3	(-)60%
RIA CETP*	504	281.13	(-)44%	1726	1028	(-)40%
PRIA CETP*	288	54	(-)81%	792.2	148	(-)81%
MMA CETP*	1250.6	1002.9	(-)19%	2750	2138.7	(-)22%
MIDC Kurkumbh,*	2130	206.8	(-)90%	5600	529.6	(-)90%
Ranjangaon MIDC*	600.25	117.3	(-)80%	1726.4	361.6	(-)79%
Taloja*	299.41	110.64	(-)63%	731.05	286.87	(-)60%
TTC*	327.56	35.06	(-)89%	841.33	132.44	(-)84%
Butibori*	706.78	71.32	(-)90%	1822.67	176.06	(-)90%
Jaysingpur*	376.6	87.3	(-)77%	1139.2	208	(-)81%
Lote *	3523.4	3827.7	(+)8%	10364	6741.3	(-)35%

Note: (-) decrease (+)increase

Status regarding Treatment and disposal of Hazardous Wastes in certain Regions of Maharashtra

TTC Waste Management Association:

In the year 2004 second hazardous waste management facility for Collection, Transport, Storage, Treatment and Disposal of composite hazardous waste was set up in Maharashtra at TTC industrial area. This facility was established by TTCWMA.

The policy of TTCWMA is to maintain highest standards of quality of disposal methods by confirming to environmental friendly, safe, economic methods. There are 1340 members of TTCWMA. Approximately 53000 MT of hazardous waste material was disposed by secured landfill method at this site .The capacity of this secured landfill site is 50000MT of old cell,1,20,000 MT of new cell and 1,00,000 MT for future. This TSDF site is located in TTC industrial area hence it is very convenient for transportation and disposal of hazardous waste from TTC industrial area.

The authority of TTCWMA has provided all technical vigilance system to protect the environment

M/s. MUMBAI WASTE MANAGEMENT LTD. (CHWTSDF), MIDC TALOJA :

M/s. Mumbai Waste Management Ltd., (MWML) has been established at Taloja by MIDC under public-private partnership as part of common infrastructure for environment protection in industrial areas. They provide common services for environmentally sound management for disposal of hazardous wastes (HW) in the State of Maharashtra as envisaged in the hazardous waste management rules, notified under the Environment (Protection)Act, 1986.

MIDC has allotted 100 acres land near MIDC Taloja, approx.10 Kms from Mumbai- Pune Highway near the village Ghot gaon. Land is given for development of CHWTSDF at concession rate on lease for 20 years operation & 30 years environmental & post monitoring. The MIDC, MPCB and the MoEF have given capital subsidy to M/s. MWML as incentives so that the tariff for their services is reduced and operations are techno-economically viable. The total cost of the project is Rs 42.3 Crs. Area of the operation by

M/s. MWML is regulated by MPCB and tariff for their services is regulated by MIDC as per the agreement of MIDC with MWML.

The Common Hazardous Wastes Treatment, Storage and Disposal Facility (CHWTSDF) established by M/s. MWML is first of its kind in India where integrated facilities are available for environmentally sound management of hazardous wastes. MPCB has issued conditional consent to establish u/s 25 of Water (P & CP) Act 1974, u/s 21 of Air (P & CP) Act 1981, And Authorization Under Rule 5 of the Hazardous Waste (M & H) Rules 1989 as amended ,notified under Environment (Protection) Act 1986 to M/s. MWML for operation and maintenance of the CHWTSDF established at Taloja.

Area of Operation:

Initially entire state of Maharashtra was covered by this CHWTSDF. The new facilities are developed in other part of the state. The area of operation is restricted to Mumbai, Thane, Raigad, Kolhapur districts & Goa state.

Treatment & Disposal methods provided at the facility:

The facility has provided following treatment & disposal methods depending on the nature & quality of the waste as per CPCB guidelines.

- Direct Land fill
- Land fill after treatment
- Incineration

Hazardous Waste disposal by incineration:

The paint sludge tarry waste, Waste oil/used oil, oily sludge, Waste solvent, Cotton waste, Carbon waste, spent resin, Pharma products & Waste, Distillation residue, etc hazardous waste is disposed by incineration. Such type of waste is either in solid or liquid form. The liquid waste is stored in drums & solid waste is stored in polythene bags. The first incinerator was commissioned in 2004. The second incinerator was commissioned in October 2008.

The Hazardous waste incinerator installed at MWML, Taloja is based on the design of M/s Alstom Power Inc. U.S.A. The thermal capacity of the plant is 5.5mKcal/hr

The system consists of the following equipments

- PRIMARY CUMBUSTION CHAMBER
- SECONDARY CUMBUSTION CHAMBER
- SPRAY DRYER ASSEMBLY
- CYCLONE SEPARATOR/MULTICYCLONES
- REAGENT SYSTEM FOR DRY SCRUBBING
- BAG FILTERS
- PACKED BED LIQUID SCRUBBER
- ID FAN OF HIGHER CAPACITY
- CHIMNEY

ANALYSIS REPORT- Stack Emission Monitoring of M/s. MWML, Taloja (BMW & H.W. Incinerator)

Parameter	30.05.09 (BMW)	30.05.09 (H.W.)	30.06.09 (BMW)	30.06.09 (H.W.)	01.07.09 (BMW)	30.06.09 (BMW)	30.06.09 (H.W.)
Particulate Emission(mg/Nm3)	344.0	642.0	42.0	122.0	42	42.0	122.0
Sulfur Dioxide	21.0	25.0	11.0	14.0	11.00	11.0	14.0
HCL	6.0	4.0	3.0	3.0	3.0	3.0	3.0

Parameter	01.07.09 (BMW)	31.08.09 (H.W.)	31.08.09 (BMW)	05.10.09 (H.W.)	05.10.09 (BMW)	31.12.09 (H.W.)	31.12.09 (BMW)
Particulate Emission(mg/Nm3)	42	257	21.0	256	237.0	9.0	8.0
Sulfur Dioxide	11.00	32,0	47.0	51.0	53.0	11.0	107.0
HCL	3.0	5.0	6.0	1.2	0.9	BDL	BDL

Treatment and disposal of Hazardous Wastes in Nagpur Region

A Common Hazardous Treatment, Storage & Disposal Facility is developed at Vill. Mandva near MIDC Butibori for secured landfill capacity of 60,000 T/Annum. On an average 800 to 900 MT/Month Hazardous Waste is being land filled at the site. The incinerator with latest technology i.e. plasma incinerator is commissioned. CHWTSF facility is also having shed for storage of Hazardous Waste, which is either incinerable or require treatment before landfill. The effluent generated from wheel wash & vehicle wash, after settling is sent to CETP Butibori for further treatment. The facility has leachate collection well through which effluent is sent to CETP Butibori. Facility is regularly monitoring the ground water and air quality. The Board is also monitoring ground water quality regularly and which is observed within prescribed norms

Industries, which have adopted cleaner technology

- M/s. Esab India, MIDC Kalmeshwar adopted cleaner technology for manufacturing of mig wire. Due to this technology only mechanically disc ailing is done and stops pickling process, which reduces the generation of effluent and ETP sludge (HW) drastically. Rs. 50.0 Lakhs have been incurred for the installation of this new system.
- M/s. Bhaskar Exoil, Bhandara Road has installed bag house as an air pollution control system to boiler, earlier only mechanical dust collection was provided, which was inadequate to control the dust emissions from boiler stack. Due to the bag house there is no complaint of air pollution from nearby villagers.
- M/s. Suryalaxmi Cotton Mill, Vill.Nagardha, Tq.Ramtek, Dist.Nagpur has installed RO plant having capacity 500 CMD for the industrial effluent generated mainly from dying, bleaching sections and the entire treated effluent from RO plant is being reused / recycled in the process. This reduces the pollution load and discharge of industrial effluent outside the premises. Rs. 300 lakhs have been spent for the installation of this new system.

- M/s. Adani Welmer, Saoner Road, Nagpur have installed bag house to boiler, stack due to which there is drastic reduction in particulate matter emission. Also they have installed and commissioned additional ETP for refinery section. The entire floor is made of concrete, to reduce fugitive emissions from transportation of vehicles.
- M/s. FACCOR Steel Ltd., MIDC Hingna Road, Nagpur have installed new scrubber at pickling section for extraction of acidic fumes generated during pickling operation. Earlier they were using fumes inhabitor for suppression of fumes generated from pickling activity. Due to installation of new scrubber system, there is drastic reduction in pollution. The work of installation of secondary fumes extraction system is in progress at steel melting shop. The industry has up-graded air pollution control system at EAF by replacing of earlier bag filters; modification in pulse jet system, modification of AOD heat etc is also done. To reduce the fugitive emissions it has been proposed to plant canopy in SMS. For this Rs. 1200 lakhs have been invested.
- M/s. Morarjee Textiles, MIDC Butibori, Dist.Nagpur has installed RO plant which results in reduction of water consumption and the effluent is recycled into the process, which reduce the pollution load and prevent discharge of industrial effluent outside the premises.The industry has incurred Rs. 200 Lakhs for the installation of new system.
- M/s. Shipha Re-Rollers Pvt. Ltd., MIDC Butibori, Dist.Nagpur is utilizing producer gas, which is a clean fuel which reduces the emission. For this system Rs. 1000 Lakhs are spent.
- M/s. Sanvijay Rolling & Engineering Ltd., MIDC Butibori, Dist.Nagpur has provided full-fledged common air pollution control system for AOD converter and induction furnace i.e. water cooled duct, air cooled duct, air cooled gas cooler and reverse air flow bag house along with top of bag filter assembly. Due to installation of new system the particulate matter emissions are drastically reduced. The expenditure incurred for the installation of new system is Rs. 450 Lakhs.
- M/s. Sunflag Iron & Steel Co. Ltd., Vill. Eklari, Tq.Mohadi, Dist.Bhandara Mini Blast Furnace (MBF) gas is used for burning at ASM & BSM sections which is replacement for furnace oil. The main constituent of MBF gas is CO. As MBF gas is burnt at ASM & BSM sections there is reduction in release of CO from MBF into atmosphere. For preheating of ladle furnace at SMS section, LDO was used. Now LPG is used for the same. The industry has incurred Rs. 1100 Lakhs for the installation of new system.
- M/S Ballarpur industries has installed oxydelignification to minimize odor and installed Bag filters / hybrid filters to cement industries.
- M/s ACC has taken initiatives to install new & modified cement plant with enhanced APC such as 59 bag filters & reverse bag house so as to achieve norms & also three field ESP & is going to generate power on WHRB to see that flue gases of high temperature are not emitted & will be utilized for power generation.

- M/s Lloyd Metal,Ghugus has also enhanced ESP of better quality to 500 TPD kiln. M/s Grace industries,M.I.D.C. Tadali has also installed new APC to raw material handling section,product house etc.
- M/s. Gitanjali Chemicals Pvt. Ltd., MIDC Jalgaon is engaged in mfg. of bulk drugs has installed triple stage evaporation system for the treatment of the trade effluent.
- The following industries in Aurangabad Region have adopted cleaner technology-
  1. M/s Endurance Technology Pvt Ltd, MIDC Waluj.
  2. M/s Jaylaxmi Castings & Alloys Pvt Ltd, Aurangabad.
  3. M/s Krishidhan Seeds Ltd, Jalna.
  4. M/s NRB Bearings, MIDC Jalna & Aurangabad.

Some Initiations of the Board In reducing Industrial pollution

- Frequency of inspection & monitoring of the industries of large, medium and small are fixed by the Board.
- Show Cause notices are issued to 3665 polluting industries. Proposed directions under section 33A of the Water (Prevention & Control of Pollution) Act, 1974 issued to 885 units and under section 31A of the Air (Prevention & Control of Pollution) Act, 1981 issued to 142 polluting industries. The closure orders were issued to 470 units for non compliance. The Region wise break up of directions issued to defaulting industries is shown in the following table.



Regional Offices	No. industries to whom direction are issued			
	u/s 33A of Water Act, 1974		u/s 31A of Air Act 1981	
	Proposed Direction	Final Direction	Proposed Direction	Final Direction
Mumbai	42	8	12	0
Navi Mumbai	26	9	0	1
Raigad	8	5	12	4
Thane	45	8	9	39
Kalyan	43	77	0	51
Pune	67	5	13	27
Nashik	29	8	3	2
Aurangabad	76	9	11	13
Nagpur	79	66	77	66
Amravati	5	11	0	0
Kolhapur	435	50	5	4
Chandrapur	30	7	0	0
Total	**885**	**263**	**142**	**207**

- The Board has taken very serious steps of closing down no. of industries under various sections for non-compliance of various standards; As a result, most of the industries have improved and are in the process of improvement of pollution control facilities. During the year Bank Guarantee amounting Rs.5, 53, 36,000 is obtained from 574 defaulting industries. The Bank Guarantee is forfeited from 25 industries. After due compliance, the Bank Guarantee of Rs.5520000 was released to 18 industries.
- The Board has also issued show cause notices, directions to all the sugar factories for compliance of CREP guidelines regarding control of air pollution and providing of ESP/Wet Scrubber. Most of the distillery units have scrapped their own katcha laggons and provided 30 days storage tanks as per CREP guidelines
- Most of the industries are using their treated effluent for gardening purpose.
- Court Cases have been filed against 2 Textile industries"Ravi Steels and Shanti Processors". in Thane Region
- Central Pollution Control Board has published a report on Comprehensive Environmental Assessment of Industrial Cluster in December 2009. The aggregate CEPI score for the Dombivali is 78.41 it was suggested that areas having aggregate CEPI score of 70 and above should be considered as critically polluted industrial cluster/area. Considering the immediate issue related to these ranking, the Board office conducted survey of Dombivali Industrial Cluster for CEPI report verification

and compliance. It has been also decided to prepare action plan for Dombivali industrial cluster, which will include the present position, proposed action and possible improvement in the environmental setting of the industrial area.

- The Board has also initiated stringent action against the stone crushers for installation of air pollution control system and most of the stone crushing units have provided dust arresting facility as per the directions of the Board.
- Sixteen nos. of industries in Nasik Region have successfully minimized their waste resulting in reduction of pollution load& minimized treatment cost.
- The cement industries in Chandrapur have adopted cleaner technology by installing bag filters in addition to ESP and approached the Board for use of hazardous waste as secondary fuel for waste minimization.
- Chandrapur Action plan is being implemented. As recommended in the plan directions are issued to cement industries, sponge iron, mines and power plants. Accordingly these industries have taken necessary steps for improving pollution control devices and pollution level in general.
- Some polluting industries have also installed continuous ambient air quality monitoring station to monitor ambient air quality of the area.

6.5 Environmental Problems :

6.5.1 Due to inadequate sewage treatment facilities in Nagpur city and discharge of untreated domestic effluent into the Nag & Pili River which finally meets into the kanhan river & then confluence with Wainganga River causing River water pollution at Gosikhurd Dam.There is an urgent need to provide additional sewage treatment plants in Nagpur City to treat entire domestic effluent generated from Nagpur City.

Nagpur Municipal Corporation has submitted an action plan for constructing of sewage treatment plant at 3 locations i.e. North Nagpur-100 MLD, East Nagpur-80 MLD and South Nagpur-100 MLD.

Unscientific treatment and disposal of municipal solid waste generated from Nagpur City causes lot of air & water pollution. Hence Nagpur Municipal Corporation has to install proper treatment and disposal facility for treatment and disposal of Municipal Solid Waste at- Bhandewadi.

Nagpur Municipal Corporation has awarded contract on BOT basis to M/s. Hanzer Bio-Tech. for treatment and disposal of Municipal Solid Waste at Bhandewadi. The plant is going to manufacture bio fuel from Municipal Solid Waste for which the proposed capital investment is about Rs. 30 Crore. The construction of project is already started and which is likely to be commissioned by May-2010. Due to installation of this project the major municipal solid waste of Nagpur city (about 700 MT/day) will be treated.

For inadequate pollution control system at Bhandewadi Slaughter House of Nagpur Municipal Corporation and other 2 slaughter houses in NMC area, the Board has issued closure directions

6.5.2 Chandrapur district is having natural minerals due to which numbers of mineral based industries are located such as coal mines, cement, sponge iron, power plant and agro based industries such as paper mills are in existence. Due to Air pollution caused by such type of industries, the Board has prepared Chandrapur Action plan in year 2006 under which actions were recommended and same is revised in year 2009. As per recommendation of Chandrapur action plan for cement industries, sponge iron, mines and power plants the directions have been issued. Accordingly industries have taken initiative to improve pollution control devices and pollution level in general. To implement the direction the Board has obtained bank Guarantees from these industries, so far Bank Guarantee of Rs. 18.6 Lacs is forfeited and Bank Guarantee of Rs. 1.57 Crores is still with Board.

6.5.3 Due to electroplating / metal finishing units there was water pollution in Satpur & Ambad area in Nasik Region. Therefore a Survey of metal finishing units has been carried out & notices are issued to the defaulting units. The CETP proposal for small electroplating / Metal finishing units is under consideration.

6.5.4 Due to lack of finance and lack of awareness the local bodies are not taking serious steps for segregation, treatment and disposal of MSW scientifically.

The Board Officers are regularly visiting the MSW sites of local bodies for verifying the compliance of MSW Rules and the Board has issued Show cause notices and directions to all defaulters.

The Board has provided financial assistance for installation of Pilot Project at few places in Maharashtra. These pilot plants are operated and maintained by the local bodies. Latur Municipal Council has installed MSW process plant and MPCB has provided financial assistance for development of landfill site. The work of MSW project at Jalna is under progress, which is financially assisted by MPCB and CPCB.

6.5.5 Due to discharge of chemical effluent by unknown tanker, the water in Borai Dam at Chiplun was polluted. Therefore an extensive survey was conducted to find out the defaulters. The defaulters found in this survey were closed down. 38 Proposed directions were also issued to the defaulters. A letter was issued by Member-Secretary of the Board to collector Ratnagiri, Police Dept., Traffic Police etc.for taking necessary steps in the matter.

6.5.6 Paneri Nalla Pollution:

There is issue raised by villagers of Mahim and Plghar. Paneri Nalla Pollution due to discharge of Palghar Municipal Council as well as discharge of Industrial effluents. MPCB had issued proposed directions as well as closure directions to the polluting

industries. After that the industries have upgraded ETP and made improvements in effluent treatment operation and maintenance. Palghar manufacturing association had submitted proposal of purification of nalla by using Bio-remediation technology and constructed 3 Nos. Grin Bunds into nalla but Palghar Municipal Council has not taken any steps to treat their sewage.

6.5.7 Illegal dumping of Municipal Solid Wastes:

Illegal dumping of Municipal Solid Wastes in Thane city invites the complaints of pollution and smell nuisance from local people. Regional Office Thane has issued notices and obtained the Bank guarantee of Rs. 5 Lakhs from Thane Municipal Corporation for improvement and scientific disposal of MSW. For sewage treatment of Thane city, Thane Municipal Corporation has submitted proposal for setting up new Sewage Treatment Plant of 120 MLD capacity.

7. Environmental Studies and Surveys

Implementation of environmental regulations require solid base of science and technology with a back up of research and development activities. Board is required to undertake investigative research, develop and assess its policy programmes and initiatives. Board has taken up several such projects which are of great importance for the environment protection and public health.

Following is the list of important research based surveys/studies implemented by the Board either on its own or in collaboration with other scientific institutions:

7.1 Assessment of Volatile Organic Compound (VOC) - BTX.

Volatile organic compounds (VOCs) are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short- and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors. VOCs are emitted by a wide array of products numbering in the thousands. Examples include: paints and lacquers, paint strippers, cleaning supplies, pesticides, building materials and furnishings, office equipment such as copiers and printers, correction fluids and carbonless copy paper, graphics and craft materials including glues and adhesives, permanent markers, and photographic solutions.

Organic chemicals are widely used as ingredients in household products. Paints, varnishes, and wax shall contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing, and hobby products. Fuels are made up of organic chemicals. All of these products can release organic compounds while you are using them, and, to some degree, when they are stored. VOCs are principal contributors to the formation of ozone & other petrochemical oxidants leading to urban smog.

VOCs are sometimes accidentally released into the environment, where they can damage soil and ground water. Vapours of VOCs escaping into the air contribute to air pollution.

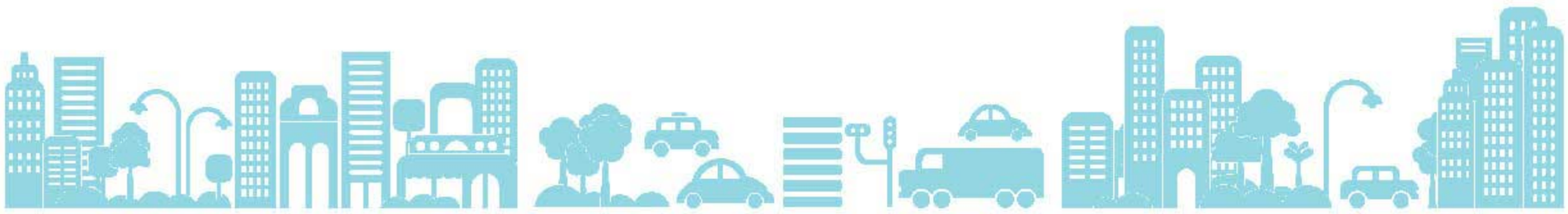
VOCs are an important outdoor air pollutant. In this field they are often divided into the separate categories of methane (CH4)2 and non-methane (NMVOCs). Methane is an extremely efficient greenhouse gas which contributes to enhance global warming. Other hydrocarbon VOCs are also significant greenhouse gases via their role in creating ozone and in prolonging the life of methane in the atmosphere, although the effect varies depending on local air quality. Within the NMVOCs, the aromatic compounds benzene,

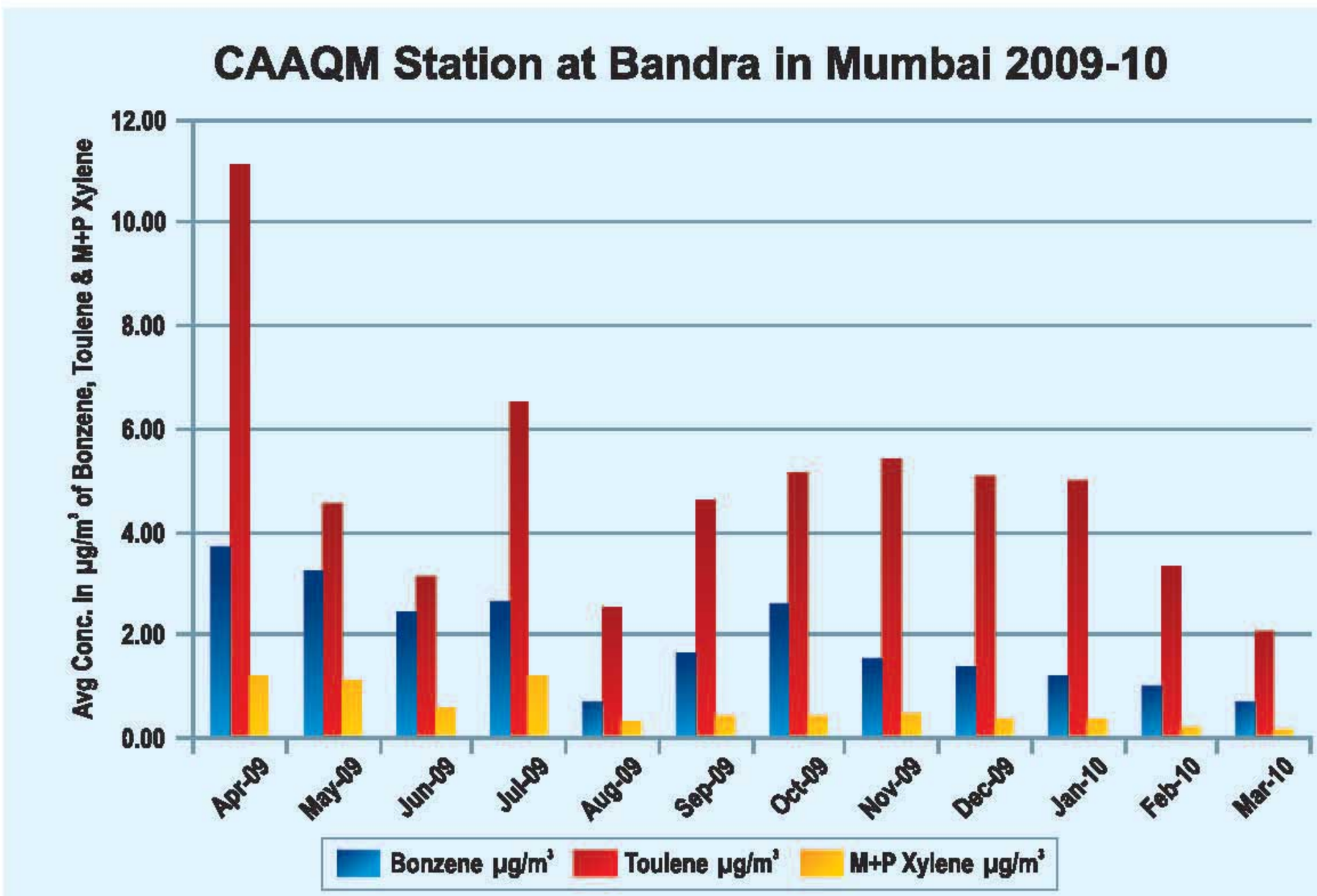
toluene and xylene are suspected carcinogens and may lead to leukemia through prolonged exposure. 1,3-butadiene is another dangerous compound which is often associated with industrial uses.

Some VOCs also react with nitrogen oxides in the air in the presence of sunlight to form Ozone.Although ozone is beneficial in the upper atmosphere because it absorbs UV thus protecting humans, plants, and animals from exposure to dangerous solar radiation. it poses a health threat in the lower atmosphere by causing respiratory problems. In addition, high concentrations of low level ozone can damage crops and buildings.

Table - IV : BTX levels in the ambient air of Bandra, Mumbai during April, 2009 to March,2010.

Months	Benzene in µg/m3 - Avg	Toulene in µg/m3 - Avg	M+P xylene in µg/m3 - Avg
April,09	3.70	11.14	1.23
May,09	3.23	4.54	1.12
June,09	2.43	3.13	0.56
July,09	2.63	6.51	1.22
August,09	0.70	2.55	0.34
September,09	1.64	4.62	0.40
October,09	2.58	5.13	0.41
November,09	1.54	5.42	0.48
December,09	1.36	5.11	0.39
Jannuary,10	1.23	4.98	0.36
February,10	1.03	3.36	0.22
March,10	0.68	2.07	0.16





7.2 Noise Pollution Survey

The word noise is derived from the Latin term nausea. It has been defined as unwanted sound, a potential hazard to health and communication dumped into the environment with regard to the adverse effect it may have on unwilling ears. Noise is defined as unwanted sound. Sound, which pleases the listeners, is music and that which causes pain and annoyance is noise. At times, what is music for some can be noise for others (Deepak Miglani-LLM from M.D.U Rohtak). Section 2 (a) of the Air (Prevention and Control of Pollution) Act, 1981 includes noise in the definition of 'air pollutant'. Section 2(a) air pollution means any solid, liquid or gaseous substance including noise present in the atmosphere such concentration as may be or tent to injurious to human beings or other living creatures or plants or property or environment. According to Encyclopedia Britannica, acoustic noise is defined as any undesired sound. A decibel is the standard for the measurement of noise. The zero on a decibel scale is at the threshold of hearing, the lowest sound pressure that can be heard, on the scale according to smith, 20 db is whisper, 40 db noise is a quiet office. 60 db is normal conversation, 80 db is the level at which sound becomes physically painful. Noise pollution causes decrease in efficiency of a man, lack of concentration, fatigue, and increased blood pressure, temporary or permanent deafness. Various rules have been put forth to control Noise Pollution like as follows:

Noise Pollution Control Rule 2000 under Environment (Protection) Act 1986 :

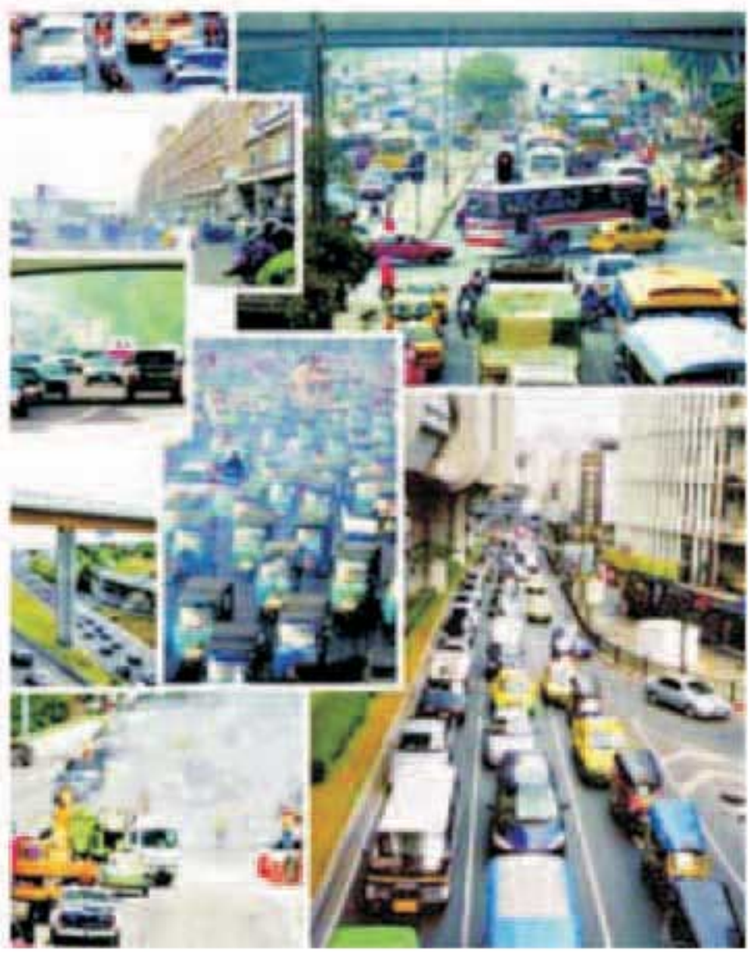
In order to curb the growing problem of noise pollution the government of India has enacted The Noise Pollution (Regulation and Control) Rules, 2000 that includes the following main provisions:-

The state government may categories the areas in the industrial or commercial or residential

The ambient air quality standards in respect of noise for different areas have been specified.

State government shall take measure for abatement of noise including noise emanating from vehicular movement and ensure that the existing noise levels do not exceed the ambient air quality standards specified under these rules.

An area not less than 100 m around hospitals, educational institutions and court may be declared as silence zones for the purpose of these rules.



A loud speaker or a public address system shall not be used except after obtaining written permission from the authority and the same shall not be used at night. Between 10 pm to 6 am

A person found violating the provisions as to the maximum noise permissible in any particular area shall be liable to be punished for it as per the provision of these rules and any other law in force.

The CentralPollution Control Board constituted a National Committee of Experts on Noise Pollution Control. The Committee recommended noise standards for ambient air and for automobiles, domestic appliances construction equipments, which were later notified under The Environment (Protection) Act, 1986 as given below:

Area Code	Category of Area	Limits in dB(A) , Leq	
		Day time	Night time
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

MPCB conducts noise level monitoring surveys during festivals such as Diwali and Ganesh festivals. During Diwali, 2009, Noise level monitoring was carried out in 12 cities and at 115 locations. During Ganesh festival, 2009, noise level monitoring was carried out in 12 cities and at 85 locations. Survey reports were prepared by PAMS division and hosted on MPCB website.

Given Below is the range of Noise levels monitored in Diwali Festival

CITY	NO.OF LOCATIONS	NOISE LEVEL RANGE IN dBA	
		DAY TIME	NIGHT TIME
Mumbai	45	46.2 – 117.7	43 – 107.6
Navi Mumbai	10	49.3 – 90.2	42.3 – 93.7
Thane	5	51.3 – 91.0	49.5 – 97.6
Pune	15	50.2 – 105.2	42.3 – 98.5
Nashik	5	57.1 – 88.3	51.9 – 94.5
A'bad	5	52.7 – 81.3	37.6 - 71.6
Nagpur	10	51.5 – 107.3	40.7 – 100.4
Kalyan	3	51.4 – 86.1	44.7 – 87.1
Dombivli	3	56.3 – 94.4	49.5 – 83.3
Ambernath	3	51.0 – 87.8	43.7 – 98.4
Ulhasnagar	3	58.9 – 116.1	55.0 – 97.3
Kolhapur	8	62.6 – 79.6	5.4 – 79.7

It is observed from the results that the noise levels were exceeding the permissible limit during the Diwali Festival on October 17 & 19, 2009 in all the cities.

Noise Monitoring During Ganesh Festival

Ganesha Chaturthi, the Ganesha festival, also known as 'Vinayak Chaturthi' or 'Vinayaka Chavithi' is celebrated by Hindus around the world. It is observed during mid-August to mid-September and the grandest and most elaborate of them, especially in the western Indian state of Maharashtra, lasts for 10 days, ending on the day of 'Ananta Chaturdashi'. After 10 days, Ganesh idols are immersed in the water bodies. Large number of people participates in the festival and the immersion procession on the last day. Vocal music and musical instruments during the festival causes high levels of noise. In general, ambient levels of noise increase considerably. In order to access the situation of noise levels in various cities across the state, Maharashtra Pollution Control Board has carried out the survey for 5 days during Ganesh festival from August 30th to September 03rd.

The objective of this exercise is to assess the problem faced by the residents when the noise levels of their surroundings exceed the permissible limit.

Given Below the comparison between the years 2007, 2008 and 2009 in the Noise levels monitored in Ganesh Festival

Sr. No	City	2007 Observation Noise Level in dBA		2008 Observation Noise Level in dBA		2009 Observation Noise Level in dBA	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
1	Mumbai	63.4	102.7	50.2	91.3	46	105.8
2	Navi Mumbai	85.9	100.6	51.3	95.8	42.1	93.3
3	Thane	59.2	92.4	56	96.5	60.1	95
4	Pune	56.8	99.3	62	107	53.3	101.8
5	Nashik	40.2	89.3	41.9	99.8	61.5	97.3
6	Aurangabad	65.2	114.1	51.3	99.5	41.3	96.5
7	Nagpur	62.2	98.3	60.7	85.9	53	89.6
8	Kalyan	65.4	103.8	59.6	92.7	67.8	95.7
9	Amravati	52.6	93.6	59	79.7	51.7	85.6
10	Jalgaon	54.0	102.9	60	79	54.5	96.3
11	Kolhapur	56.9	105.4	65	86	52.9	104.5
12	Satara	62.5	96.7	66	100	66.1	92.2

It is observed from the results that the noise levels were exceeding the permissible limit during the Ganesh Festival from August 30 to September 03, 2009 in all the cities.

7.3 Survey of Thane-Belapur Industrial area

Thane-Belapur Industrial area is one of the largest industrial belt in India, occupied by more than 1200 industrial units. The effluent generated in the tune of 25,000 cu.m. is dumped into the sea everyday by partial treatment. The studies have stated that some waste water is discharged with minimal or no treatments consisting of trace heavy metals like lead and calcium in Thane creek. In view of this continuous threat to the coastal environment, it was decided to undertake a project to review the status of aquatic environment of Mumbai Coast with respect to heavy metals.

The project under the name of "Qualitative and Quantitative Determination of Heavy Metal Pollutants from Flora and Fauna of Coastal Regions of Mumbai" was awarded to "K.J. Somaiya College of Science & Commerce, Vidyavihar, Mumbai" in the year 2007, costing Rs.1,50,000/-. The said college has conducted the studies by carrying the samples at selected locations around the coast of Mumbai during two seasons, before and after monsoon of water, sediments, commonly available fish and plant samples in order to detect traces of heavy metals. They have completed their project in the year 2009 and submitted the final report in October, 2009.

7.4 Assessment Of Riverine Fisheries And Linking With Water Quality Restoration Programme – River Godavari

From time immemorial, the rivers are said to be the lifeline for living beings, as all types of developments, directly or indirectly relate to them. They have played a vital role in the development of human civilization since they provide basic necessities of life, water and food, on which depends the survival of living-beings. In a way, rivers are also the ultimate sink of all types of terrestrial and aquatic pollution. On the other hand, the rapid industrial development and demographic explosion, during the last few decades, have resulted in a galloping pace of environmental degradation and irrational exploitation of riverine resources.

The river traverses about 693 km in Maharashtra and is largely utilized by constructing weirs, barrages and reservoirs for irrigation and domestic purposes. Two reservoirs, one is Gangapur (2230 ha) 15 km below its origin in Nashik District and the large Nathsagar (Jayakwadi Dam, 35000 ha) at Paithn in Aurangabad District are situated on the main stream of Godavari in Maharashtra. A 321 m long irrigation barrage is situated at Vishnupuri, 8 km upstream of Nanded and another old weir at Nandur-Madhyameshwar, near Nashik. In addition, there are 12 weirs (Kolhapur type) in this stretch of Godavari in Maharashtra. Due to dams and weirs, the flow in the river is not continuous and water is mainly confined to these points leaving the main course almost dry in the post-monsoon and summer months. The important tributaries joining in this stretch are Pravara and Purna.

The river is considered to be one of the very sacred rivers in India. It is often referred to as the 'Vridha Ganga' (Old Ganga) or 'Dakshina Ganga'. The people believe that taking a holy dip in the river relives them from all the sins. Being the ultimate sink of anything and everything drained through surface runoff, the river has been subjected to considerable stress. As a result, their fishery has suffered both quantitatively and qualitatively. Therefore, it must get the special attention to improve environmental condition for eco-restoration and development of norms for management of rivers from the fishery point of view.

The riverside fisheries offer the main economic activity to our fisherman and it would be necessary to link water quality improvement with the biotic community, particularly fish diversity. It has been recognized that fishes and their presence with rich diversity in the river indicate a high level of cleanliness. There have been many reports on the massive mortalities of fishes and many river stretches have turned to be “Dead Pockets” where no fishes are present. Riverine fisheries have also been considered to be one of the important economic activities in the nation. It could be worthwhile to link water quality improvement programs with biotic assessments, particularly for aquatic animals, i.e. fishes and invertebrates.

Thus, any strategy of fisheries development in riverine sector needs to give equal emphasis to conservation of the bio-diversity and fish production. To assess the impact of water quality on fisheries, the present study was carried out at selected stations of the River Godavari during 2009-10.

Objectives

- To evaluate the water quality of River Godavari.
- To study the fish biodiversity in the river.
- To study the quality of riverine environment, particularly in river stretches identified by the Maharashtra Pollution Control Board (MPCB) in relation to fishery status.
- To study the changes in fish diversity and productivity with respect to water quality changes.

Project	Assessment of riverine fisheries and linking with water quality restoration program- River Godavari in Maharashtra.
Problem	Likely changes in fish species in the river due to environmental stress.
Constraints	Lack of adequate data base on ecological integrity related to fisheries for the various stretches of the River.
Intervention	Investigation in the status of fisheries at different stretches of the river vis-à-vis water quality.
Output	Comprehensive information on the ecological integrity of the river with regard to water quality status.
Outcome	Data for conservation and restoration of the river.

Sampling Procedure

The study of the River Godavari was conducted during 2009-10 to assess soil and water quality, biological productivity and status of fishery. An attempt was also made to assess the pollution levels at different stations. For this purpose, the study was carried out in the river from Gangapur Dam in Nashik District down to Raher in NandeD District where the stretch of the river ends in the state of Maharashtra. The 10 sampling sites selected in consultation with MPCB along the river, namely Jayakwadi Dam, Gangapur Dam, Tapovan, Nandur-Madhyameshwar, Kopargaon, Pravara Sangam, Paithan Sangam, Pathegaon, Dhalegaon and Rahe covered a total distance of 693 km. Samples of water, sediment, fish, benthos, algae and plankton were from each station. Fish samples were collected through experimental fishing using a cast net and repeated attempts were made at each station. The nets of the fishermen and their catch at each station were also examined to make sure that we have collected a representative sample. In case, there was any species left out from sample, such specimens were obtained from them. Set gill nets were also employed for collecting as many species as possible. The specimens were identified at the time of sampling and preserved in 10% formalin for confirmation and other investigations in the laboratory. Heavy metal contents in the fish samples were analyzed as well.

Periodicity and Frequency of Sampling

The river at the ten stations mentioned above was sampled for three seasons, viz, pre-monsoon (May 2009), post-monsoon (October-November 2009) and winter (January-February 2010).

Water and sediment Quality of River Godavari

Samples for water and soil quality analysis were collected during May 2009 to February 2010, i.e., pre-monsoon (I), post-monsoon (II) and winter (III). Water and soil samples were collected from 10 sampling stations as mentioned above. Physical and topographic parameters like atmospheric and water temperature were recorded. Water pH was recorded at the time of sampling. Water transparency was also recorded.

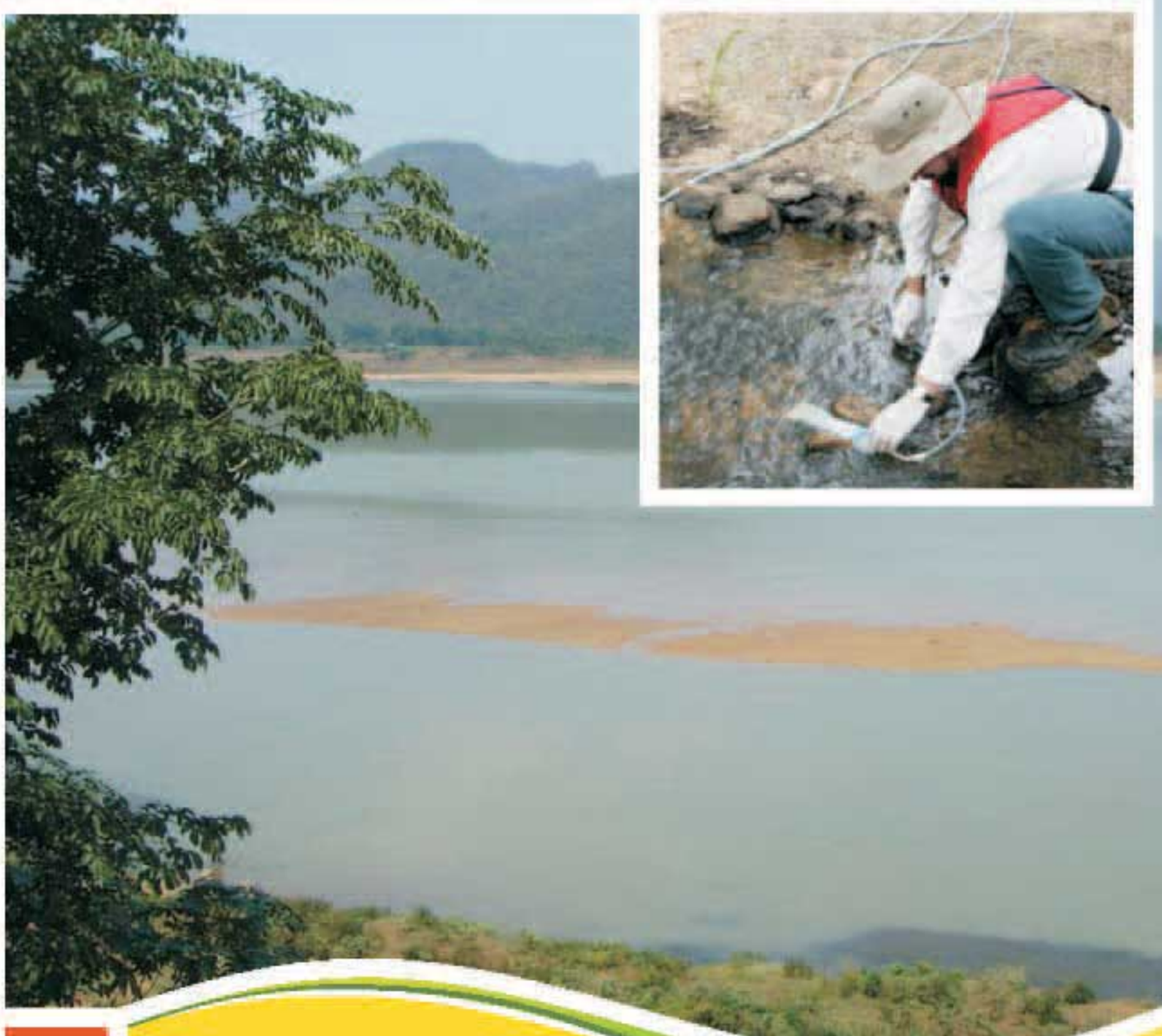
The soil texture of Godavari riverbed varied from sandy to sandy-loam with certain rocky areas having very less soil content. Gangapur dam and Jayakwadi Dam have rocky beds, while the soil texture at Kopargaon and Pravara Sangam is sandy, and at the rest of the stations had sandy-loam.

Water is the major environmental factor influencing the distribution of fish communities in the river. Water temperature varied from 20.0 to 28.00 C. However, the mean temperature fluctuated over a narrow range of 22.6 to 25.5.00 C in the entire river course of Maharashtra. Transparency (Secchi disc depth) was ranging between 11 and 110 cm, while mean transparency varied from 24.67 to 92.33 cm. Higher values occurred during

the post monsoon and winter months. At Kopargaon, transparency was very low due to dense algal bloom and detritus. Water was also not flowing in this stretch. Some sugar industries are located in this area. Tapovan also showed low transparency because of sewage and effluent discharge into the water and had a frothy surface.

Dissolved oxygen values fluctuated from 3.68 mg/l at Raher in May 2009 to 7.32 mg/l at Pathegaon in February 2010. The lowest biochemical oxygen demand (BOD) was recorded as 2.8 mg/l at Pathegaon and Dhalegaon in November 2009, whereas the highest (120.0 mg/l) was at Gangapur Dam and Tapovan in May and October 2009, respectively.

In the present study, the water quality of River Godavari was found to be fit only at Gangapur Dam. Nandur-Madhyameshwar and Dhalegaon. The pH ranged from 7.4 to 9.1 is suitable for fish growth.



8. Environmental Training

It is one of the functions of MPCB to plan and organize training in various aspects of prevention, abatement and control of pollution.

The Board deputes its staff for training so that they may acquire knowledge in the various topics related to the environment field, to equip them fully to discharge their duties efficiently. Before deputing staff to any course, the nature of work and duties performed by them and the need felt by the Board is considered.

Training is recognized as an essential ingredient for the effective implementation of the stipulated pollution control norms. Thus, training is imparted not only to personnel of the Board, but also for workers in industries and local municipal bodies. Common topics for training generally include:

1. Planning, funding and execution of activities for state Board personnel.
2. Upgrading the knowledge and capacity of state Board personnel as and when new advancements are made in the field from time to time.
3. Efficient operation and maintenance of industrial effluent treatment plants and sewage treatment plants operated by industries andmunicipal-bodies respectively.

In addition to this, with the new environmental norms coming into force, such as BMW Rules – 1998, MSW Rules – 2000 and HW Rules – 1989 / 2000/2003, it has become imperative to impart special training to the operators of the facilities for the correct treatment, storage and disposal of such wastes. Training is also needed to upgrade the knowledge and capability of officials already working in the Board and related fields.

Training, Workshop/seminars conducted by Board and it's participation in the same.

- The Ministry of Environment & Forests, Govt. of India has organized one day user workshop jointly with National Informatics Centre at Maharashtra Pollution Control Board, Sion, Mumbai on web based GIS for National Hazardous Waste Information System (NHWIS) on 25/08/2009 for Western Region. The entire workshop was organized and facilitated by the HSM Division. The beneficiaries were Goa State Pollution Control Board, Gujrat State Pollution Control Board, Rajasthan State Pollution Control Board, Zonal Office Western Region, CPCB and MPCB.
- **Workshops for validation of "District Environmental Atlas (DEA)" "Zoning Atlas for Siting Of Industries (ZASI)" - for Pune, Latur, Nanded Districts.**

  Workshop was convened by MPCB under the Chairmanship of District Collectors of

concerned Districts for validation the reports of District Environmental Atlas, Zoning Atlas for sitting of the industries. MPCB has carried out the workshops for validation of the reports of Pune, Latur and Nanded Districts.

In the workshop Project Leader, Zoning Atlas Division gave the brief background of the project. He informed that the project was started with the initiative of Ministry of Environment and Forest, Govt. of India with technical assistance from German Technical Co-operation (GTZ) through Central Pollution Control Board in 1994. He informed that Central Government has asked MPCB to prepare DEA and ZASI, so that all compiled information of the district can be made available in the form of a document consisting of Text, Maps and data base. This will help decision making transparent and faster at all levels.

Project Leader categorically mentioned that, the basic purpose of DEA is compilation of information of district on various themes and present the same on GIS platform. The information presented is further analyzed using the guidelines of CPCB for identification of suitable zones/sites for siting of industries considering the pollution potentials of given industry and is presented in separate report `ZASI'. Areas which are sensitive to pollution, either due to environmental, legal or social considerations are also recorded in the DEA. The information in the atlas being dynamic in nature shall be reviewed after five years considering change of scenario due to various developmental activities of the particular district including industrial development. Information in DEA shall be useful for the entrepreneur to identify the less environmentally sensitive locations & for policy makers to plan the development of district in environmentally sustainable manner. He informed & clarified that the DEA which is a compilation of information related to environment will be finalized after considering the comments/ feed back on data presented in DEA. The report will be placed on MPCB website after formal approval of State Government. `ZASI', the document which identify the suitable sites for siting of polluting industries based on environmental considerations and pollution potential of respective type and scale of industry. ZASI & DLISG would be used by concerned departments for taking policy decisions on developmental issues in general & industrial siting in particular. However, he stressed a need for a wider consultation with the Industries Associations, Industries, other infrastructure development departments and NGOs before finalization and onward submission to State Govt. for further approval. He requested all the government officials to send their comments/suggestions on the data presented in DEA, immediately so that the DEA can be put in public domain for reference after approval from the Government.

The various training courses / workshops / seminars / lectures attended by the staff and officers of the Board are summarized in ANNEXURE III.

9. Environmental Awareness and Public Participation

It is important that people are aware of the environment related issues affecting them. Mass awareness helps in creation of proper perception of the Board and its activities in society. Courts are also directing Board from time to time to engage in to mass awareness programs.

Intensive efforts were made during last year in this area. Some of them are listed below:

9.1 World Environment Day

The Board has organized the 'World Environment Day' on 5th June 2009 at Ravindra Natyamandir, Prabhadevi Mumbai. This year United Nations Environment Program has suggested the theme **'Reduce Carbon' and Enrich Environment'**. Considering this theme, the Board has organized Film Festival on Environment on 6th, 7th and 8th June 2009. In this Film Festival International Level films on Environment were shown. The Film Festival was inaugurated by Hon'ble Chief Minister Shri Ashokraoji Chavan. On this occasion technical report was also published. At this moment, He emphasized on the responsibility of general people towards Environment Protection and Conservation and role of Government to make Pollution-free Maharashtra. On this occasion, it was announced for **'Vasundhara Awards'** to be given to industries,Local bodies and schools for their excellent efforts in environment protection. The books **'Jagar Paryavaranacha' and 'Gatha Dnyanachi'** were published at the hands of Hon'ble Chief Minister Shri Ashokraoji Chavan. The occasion was graced by Hon'ble Dy. C.M. Shri. Chagan Bhujbal, Environment Minister Shri. Ganeshji Naik, and State Environment Minister Shri. Vijay Vadettiwar, Smt. Valsa Nair Sinh Chairman M.P.C.

Board and Secretary Environment and Member Secretary of the Board Shri Sanjay Khandare. On this occasion Prizes were distributed to the successful participants in Essay Competition conducted by Environment Department, Government of Maharashtra. In this Program, the employees completing 25 years of their service in the Board were felicitated.

The Awareness message was also published in leading News papers of Maharashtra State. A special supplement on 'Environment Protection and Conservation' was also published in 'Loksatta' and 'DNA'. To create awareness among general public, School children about Environment Protection & its Conservation, a program in Marathi 'Jagar Paryavaranacha 'was broadcast through Asmita channel of All India Radio.

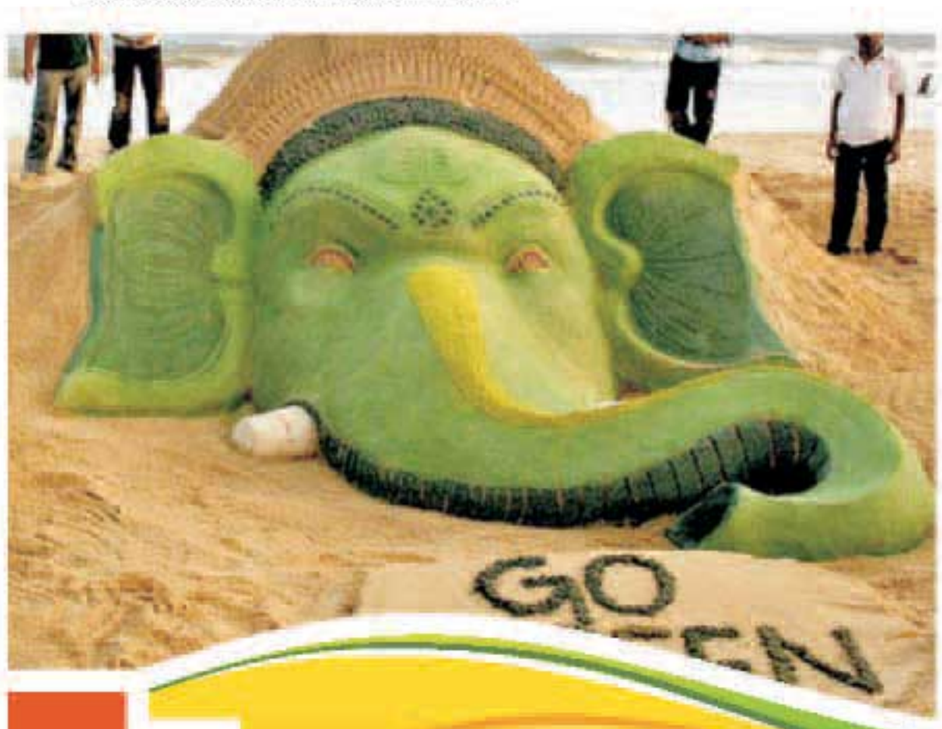
On the Eve of Environment Day a Special Seminar was organized by Mumbai University. M.P.C. Board has also participated in this seminar.

9.2 Eco-Friendly Festivals

1] **Dahi Handi:** In the month of August the festival called Dahi –Handi to memorize Lord Krishna was celebrated with big enthusiasm. In order to avoid the noise created during the festival a rally was organized with the help of Celebrities. To spread message of Noise Pollution prevention, this rally was organized in open deck Best Bus. This Bus with boards on Noise Pollution Control visited several Govinda Troupes and pursued them for control of Noise Pollution.

2] **Ganesh Festival:** In association with leading Newspaper **'Dainik Loksatta' and 'Dainik Maharashtra Times'** Eco-Friendly Ganesh Festival was conducted for Public Ganesh Mandal. In this festival Plastic and thermacol decoration was avoided and use of clay, wood or any other material which is not harmful for environment for making Ganesh idol was promoted. A Competition in this regard was organized in Mumbai and Surrounding area by Maharashtra Times, while in Pune, Nagpur, Aurangabad, Nasik, Ahmadnagar, the competition was organized by 'Loksatta'. In this competition, more than 2000 Ganesh Idols were participated.

For Ganesh Festival organized in Housing Socities **'Eco-Friendly Green Ganesh Award '** was given by 'Mumbai Mirror' of Times of India group News paper in Housing Societies of Mumbai.



3] **Eco-Friendly Navratra Festiva:** In Navratra Festival, it is observed that Big DG Sound systems is used which causes noise pollution. To make the people aware of such noise pollution and to avoid it during festival, an organization **'Mithasmi Creation Pvt. Ltd.'** along with 10 Film and Drama Artist visited 15 Navratra Mandals in Mumbai and Thane and spread the message of avoiding noise pollution. A street play was also organized on ill - effect of Noise Pollution.

4] **Eco-Friendly Diwali Festival:** To avoid Air pollution and Noise pollution due to firecrackers, awareness messages were published in leading newspapers like, 'Loksatta', 'Maharashtra Times'. Messages were also broadcast through All India Radio and TV Channels. A film of 40 second on awareness produced by **'Media Magic'** was also displayed on TV Channels.

5] **Eco-Friendly Holi:** The M.P.C. Board in association with Environment Department, Govt. of Maharashtra , had put a stall of natural colors at Mantralaya. The stall was inaugurated on 25th February 2010 at the hands of Hon'ble Chief Minister Shri. Ashokraoji Chavan. To grace this occasion Shri Chaganraoji Bhujbal (Hon'ble Dy. C.M.), Shri Suresh Shetty (Hon'ble Environment Minister), Shri Sachin Ahir (Hon'ble Minister of State for Environment) and Hon'ble Chief Secretary Govt. of Maharahstra Shri. J.P. Dange was present. The natural colors were distributed free of cost. The stall was installed by M/s. Chandra Trio Services Pvt. Ltd.

In this regard, Awareness messages were broadcast through Radio and Television.

9.3 Financial Assistance for Environmental Awareness Program

The Board has made financial assistance to the following institutions, Newspaper, Organizations, for creating Environmental Awareness through their medium.

1. 'Vasundhara Nashik Environmental International Film Festival, 2009'.
2. Bhimashnakatr Area Development Trust
3. English Magazines 'In India Now', Geographic Magazines, EPC World, DNA and Outlook
4. Eco-Friendly Street plays by UNAST.
5. Awareness through electronic Media.
   - A] To Control Air and Noise pollution in Diwali Festival, jingles and awareness messages were broadcast through FM Radio Channel.
   - B] A film on Public awareness was telecast from Doordarshan Channels during Diwali Festival and Holi Festival.
6. The Hindu Survey of Indian Industries, 2010.
7. To create Environmental Awareness among College Students, financial assistance is made to ICT Green Marathon, 2010.
8. Exhibitions organized by Bombay Art Society.

9.4 Awareness programs/workshops organized at Regional office level

Nagpur Region:

On the occasion of World Environment day 5th June 2009 Nagpur office conducted public Awareness program this included about 40 Km Rally/Procession (Wraksha-Dindi) with Vehicles mounted banners, posters (with slogans) and display items. Road side show, of local conventional sound on environment and free-distribution of more than 30,000 nos. saplings to the people during rally to motivate the people for plantation. During rally senior citizens, prominent politicians were also present.

Thane Region:

Thane Region has conducted tree plantation programmes in many Industries and local bodies. Public awareness programmes are conducted to develop interest and knowledge of younger generation & put their efforts to avoid the environmental degradation. To upgrade knowledge of teachers and school students about the environment protection, tree plantation, exhibitions and awareness programmes were conducted at various places from time to time.

Nasik Region:

1. One day workshop on concept of achieving zero discharge by grain based distilleries was organized on 12/08/2009. This work shop was attended by representatives of the existing as well as proposed grain based distilleries in Maharashtra.
2. Training to Police officials on noise monitoring is given in MPCB Office on dated 22/08/2009.
3. Training/awareness programme was organized on 22/08/2009 for Ganesh Mandals in Nashik city in which information about use of eco-friendly materials and immersion of Idols was given and information brochures were circulated. Also instructions were given to minimize the noise pollution during Ganesh Festival.

4. One day training programme on noise monitoring to police officials of Nashik region was organized at KTHM College on dated 17/09/2009.

5. A study visit was organized for technical staff from Nagpur, Amravati, Chandrapur and Nashik region on 22/01/2010. to M/s. Seagram distilleries Pvt. Ltd. M/s. Ravalgaon Sugar Industry, Niphad S. S. K. to observe the steps taken by the industries for reduction in water consumption, effluent generation, and achieving zero discharge for compliance of CREP directions.

6. The Seminar on Bio-medical waste management was conducted jointly with Indian Medical Association (IMA) of Jalgaon at IMA Hall Jalgaon on 26/02/2010.

   One day workshop on municipal solid waste management was conducted at Hotel Royal Palace on 26/11/2009; the workshop was conducted under the Chairmanship of Shri.A.D.Saraf, WPAE, MPCB Mumbai. The members of local bodies from Jalgaon & Dhule Districts were present to this workshop.

7 The Board participated in Tree plantation programme organized by M/s. Mahindra & Mahindra Ltd., Satpur & M/s. Dirk India Ltd. Eklahare.

8. The meetings were also organized with the medical associations at Trambakeshwar, Ozar, Yeola, Satana, Sinnar, Dhule & Nashik Road, so as to discuss the various issues related to biomedical waste and its scientific disposal.

9. During the Ganpati festival, guidelines about immersion of idols were circulated. Also wide publicity was given through local leading news papers for use of non metallic colors for idol painting and immersion of idols in a safe place so as to avoid ground /surface water pollution. Also carried out noise monitoring in the major cities of the region during day and night times. A report in this regards has been prepared. The noise monitoring report reveals that there is substantial impact on the local public for keeping noise level minimum especially after 10 p.m. in the night. Also many people had adopted the suggestions made about idol immersion which helped to minimize the pollution of the water bodies.

10. Similarly during Diwali festival, notice about minimum use of fire crackers and having noise level within 110 dB only was circulated. Also given the wide publicity through local leading news papers for use of less noise generation crackers. A cartoon film was prepared for awareness of the general public about noise pollution & displayed on the local news channels in Nashik. The noise monitoring report in this regard reveals that there is substantial impact on the local public for keeping noise level minimum especially after 10 pm in night times.

10. Implementation of the Rules Under Environment (protection) Act, 1986

10.1 Management of Hazardous Wastes

As per the order issued by the Hon'ble Supreme Court of India regarding management of hazardous wastes and expeditious implementation of the rules, the Central Government has appointed Supreme Court Monitoring Committee (SCMC) to monitor the activities like setting up of hazardous waste management facilities, closure of industries operating without authorization, preparation of inventory of waste generated, identification of illegal waste dump sites and removal of wastes from site to a safe place, mass awareness, dissemination of information, institutional capacity building etc. The SCMC is submitting quarterly Action Taken Report (ATR) to the Court. Based on the ATRs filed by the SCMC from time to time, the Court is passing further orders in the matter.

Action Taken Reports submitted by the Board are also placed on the website of the Board **http://mpcb.gov.in**

There are 4 Common facilities for management hazardous wastes set up at Taloja, T.T.C, Ranjangaon and Butibori Industrial Areas of MIDC in Maharashtra and two more CHWTSDFs are proposed at Shendre, in Aurangabad and Mahad, in Raigad. The Central Government in the Ministry of Environment & Forests, MPCB and MIDC have provided capital subsidy to these facilities so as to reduce the tariff and motivate the user industries for management of their waste in an environmentally sound manner. These 4 facilities cater the need of disposal of hazardous wastes from industries in Maharashtra.

At present four CHWTSDF sites are in operation as stated above where direct land filling, Incineration, land filling after treatment of H.W is carried out. From 5389 nos. of hazardous waste generating units 732384.88 MT of hazardous waste is received at these four sites. Operational sites are:

i. Manarashtra Enviro Power Ltd., Ranjangaon.
ii. Vidharbh Enviro Power Ltd., Butibori.
iii. TTC- Thane.
iv. Mumbai Waste Management Ltd., Taloja.

The hazardous wastes received at CHWTSDFs during April 09-March 10 is given in the following table

Sr. No	CHWTSDF	Waste Disposal			Total in MT
		DLF	LAT	INC	
1	Taloja	42407	38878	16010	97295
2	TTC	12196.14	2169.28		14365.42
3	Ranjangaon	14047.24	7060.64	9281.43	30389.31
4	Butibori	3913.58	5111.39	686.12	9711.09

Hazardous Waste Generation in Maharashtra

Region wise Break-up of HW based on Disposal Method

Sr. No	Region	Quantity of HW (MT/Annum)			Total
		SLF	RCL	INC	
1	Navi Mumbai	58955.51	23891.06	45324.41	128170.98
2	Pune	48396.84	50221.99	34052.61	132671.44
3	Nagpur	40117.60	49167.86	11782.28	101067.74
4	Thane	57832.17	58218.24	19459.49	135509.90
5	Aurangabad	26897.69	22021.50	8359.69	57278.88
6	Raigad	78439.29	140660.10	23433.66	242533.05
7	Kalyan	68552.66	178825.88	6946.24	254324.78
8	Nashik	27236.65	61061.92	17056.96	105355.53
9	Amravati	7212.76	703.42	518.76	8434.94
10	Kolhapur	23690.13	28847.23	13415.86	65953.22
11	Mumbai	39693.95	304305.07	18432.80	362431.82
12	Chandrapur	37230.71	104324.68	10092.29	151647.68
13	Non-Industrial Sources	19581.0	51773.00	1627.8	72,981.8
	TOTAL	**533836.96**	**1074021.95**	**210502.85**	**1818361.76**

SLF : Secured Landfill, RCL : Recyclable, INC : Incinerable

10.1.1 Performance Evaluation of Common Hazardous Wastes Treatment, Storage and Disposal Facility:

Maharashtra Pollution Control Board has issued the necessary directions for preparation the Action Plan for implementation of guidelines "Storage Tank Limit for storage of incinerable hazardous waste by the operators of the HWTSDF" and compliance to this guidelines bank guarantee shall be submitted.

The performance evaluation of the CHWTSDF was carried out by the Board and appointed Expert Technical Committee to visit all 4 CHWTSDFs in the State. The experts from National Environmental Engineering Research Institute (NEERI),

Directorate of Industrial Safety & Health (DISH), University Department of Chemical Technology (UDCT) along with Senior Board Officials, I/C Hazardous Waste Management Division (HSMD) and Regional Officers of the Board. The committee has visited all the 4 sites and suggested the improvement in the management of hazardous wastes. This is the 1st of this kind performance evaluation based on this idea central Government has introduced "Performance Evaluation of CHWTSDFs"

10.1.2 Introduction of GPS:

It was observed that sometimes hazardous waste transporters are dumping hazardous waste illegally other than CHWTSDF for saving destruction cost. In this regard complaints were received by the Board. Control on illegal disposal was challenge before the Board. The Global Positioning System (GPS) is considered as an effective tool to control irregularity among the transporters of hazardous waste. The idea of installation of GPS on every HW transporting vehicle is to track their roads and destinations. The proposal was long pending for initiation. The Board has taken initiation for installation of GPS under the esteemed supervision of Member Secretary of Board. The GPS system is made mandatory. According to the circular, it is obligatory on every hazardous waste transporter to install GPS system. The benefit of this system is, it shows the location of vehicle carrying H.W. and thereby control the improper disposal. At present 20 nos. of hazardous waste transporters have installed GPS. The GPS has been inaugurated at the auspicious hands of Shri. Sachin Ahir, Hon'ble State Minister for Environment.

The Maharashtra Pollution Control Board has taken proactive steps in the monitoring and tracking of hazardous waste in the State of Maharashtra. The manifest system (Form 13) is used as a movement document accompanied with the waste. The Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 specifies that waste should not only be disposed in scientific manner but also the movement of hazardous waste is continuously monitored and tracked from the generating industry to the recycling, reprocessing/reusing industry or to the notified disposal site during transportation.

The GPS will provide proper tracking of the hazardous waste transporting vehicles from the generating industry to the waste processing industry or destined disposal. The MPCB has used GPS as a tool to trace the movement of all transporting vehicles carrying hazardous wastes. This will help to find out the exact location of the particular vehicle at any particular time anywhere in the State of Maharashtra.

The Board has awarded the said assignment to M/s. Tata Autocomp Mobility Telematics Ltd., Taco House, Damle Path, Erandwane, Pune – 411 004. The authorised transporters of the hazardous wastes shall pay minimum amount fixed by the Board to this company for installation of GPS devices. The total cost is fixed as follows-

1) Trako Ezee along with instrument for online GPS based vehicle tracking system - Rs. 7800/-.
2) Monthly web access charges into the data enabled SIM card - Rs. 400/-
3) One time installation charges - Rs. 500/-

The transporters of the hazardous waste are separately authenticated by issuing authorization. The following are the features provided by M/s. Tata Autocomp Mobility Telematics Ltd.:

1] Live tracking of vehicles with frequency of locations update every 5-minute online
2] Map view of all the vehicles.
3] Reply of route taken by vehicles on map.
4] Tracking of vehicles through SMS.
5] Details and summarized tracking report.
6] Over speed Report for all Vehicles.
7] Stoppage Report for vehicles.
8] Trip Report when trips are created manually online.
9] Group Summery Report.
10] Distance view Report.
11] Night drive Report.
12] Advance view showing drive time, stoppage time for all vehicles including over speed and night drive instances.
13] MPCB officers should be able to create Landmarks online.
14] Vehicle Group – Vehicle mapping (Transporter-wise).
15] Vehicle – Driver mapping online.
16] Exception Alerts for over speeding, Stoppage of Vehicle, Geofencing to designated MPCB e-mail ID.

The all hazardous waste transporters have immediately responded to the steps taken by Maharashtra Pollution Control Board in tracking of hazardous waste vehicles. The implementation of all above mentioned mechanism of installation of GPS is at zero investment from Boards side.

10.1.3 Devised the Mechanism for registering of Import of Schedule B Annexure-III Wastes of Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.

As per Hazardous Waste (Management, Handling & Transboundary Movement) Rules 2008 and further amendment on 2009 import of metal scrap (Iron &Steel) part B of schedule III can be done only after obtaining registration from State Pollution Control Board.

The provisions of the rules are as under:

A) "Every trader desirous of import of Metal scrap, paper waste and other wastes as lised in Schedule III (Part D) may make an application in Form 16 to any of the State Pollution Control Boards or Pollution Control Committees. The State Pollution Control Boards of Pollution Control Committees will register the trader on a one time basis and registration would be considered as deemed if not objected to within a period of 30 days.

The registered trader shall be required to submit details of such import and particulars of the actual users along with quantities to the concerned State Pollution Control Board or Pollution Control Committees on a quarterly basis and registration would be liable for cancellation on failure to furnish these details to the State Pollution Control Boards or Pollution Control Committees.

B) Rules stipulates the application form for such registration. On receipt of such application, the application is processed based on the verification of the documents. No field visits or any hearing are presently practiced for such registration. However, some of hazardous wastes, Board may conduct site visits to verify the environmental safeguards during the storage of material.

MPCB has started issuing such registration to the importers of the metal scrap and other waste as above, and has so far issued registration to 314 importers.

These rules provide 30 days time for granting of registration, such registration is granted well within the stipulated time.

It is now proposed to provide list of these registered importers on MPCB Website for information dissemination. The rules also stipulate quarterly returns from these registered importers and Board has developed mechanism for compilation of information through outsourcing. Board has also devised the registration format under this rule and it is first of its kind in India. Afterwards the same format is being used by other State Boards.

10.2 Lead Acid Batteries Management

Government of India made Lead Acid Battery (Management & Handling) Rules, 2001. This rule represents a major step forward in the effort to facilitate the recycling of nickel-cadmium and lead-acid rechargeable batteries.

The Lead Acid Battery (Management & Handling) Rules, 2001 applicable to battery manufacturers, Assembler, Re-Conditioner, Dealers, Bulk Consumer, Auctioneers, Importer and Recyclers.

To implement Battery rules effectively in the states for the collection, storage, and transportation of batteries covered by the Battery Rules 2001, Public education program on battery recycling and the proper handling and disposal of used batteries required to consult with manufacturers and retailers to carry out this initiative.

Requirement of the Battery Rule -

The Battery Rule changed the regulatory framework governing Lead acid batteries. It streamlined the framework in an effort to remove the regulatory barriers to increased recycling of rechargeable batteries.

Enforcement Authority-

Authority for ensuring compliance of rule is the state Pollution Control Board and state Board has to submit annual compliance status report to the Central Pollution Control Board.

Action taken by MPC Board -

State Pollution Control Board plays an important role in developing and implementing a successful battery recycling program.

- MPCB has issued letters to identified Manufacturer, Re-conditioner, Assembler, Importer ,Dealer, Recycler Bulk consumer & Auctioneer to comply by rules & submit Half Yearly returns in form I, IV,V, VII, VIII & IX resp.
- MPCB has issued directions to Regional officers, regarding stricter compliance of the Battery Rules in Maharashtra. MPCB is taking effective steps to achieve the compliance in this regard and needs more time to make appropriate inventory.
- Legal actions are being taken against defaulters as, MPCB has issued SCN to 74 battery manufacturer and reconditioner & dealers, 15 battery importers. In response to these notices 58 manufacturers, re-conditioners & dealers and 15 battery importers have complied and submitted form no I, IV, V. In addition to this MPCB has issued 24 Closure directions to Battery Recyclers under the violation of Battery (M&H) Rules 2001, in response to these direction 24 numbers recyclers have complied and they have applied for Registration as Recycler to CPCB and they have

furnished an irrevocable bank guarantee of amount Rs. 6,00,000/- to ensuring the compliance of consent conditions & these directions.

- MPCB has submitted Annual returns to CPCB as per section 12 of Battery Rules – 2001 every financial year.

The information on the sale of batteries by the dealers throughout the State of Maharashtra has been collected by the Regional offices of MPCB. There are difficulties in getting correct information in this regard due to lack of awareness among the battery consumers. The paucity of manpower at MPCB is also an issue in ensuring compliance of the Battery Rules. However, efforts are being made by MPCB to overcome these difficulties.

Apart from the major battery manufacturers, there are few new lead acid batteries importers who have obtained registration from Ministry of Environment & Forest under the Rule 4 of the HW Rules for sale of lead acid batteries in India. There are 170 such importers of lead acid batteries in the State of Maharashtra.

The information collected by MPCB on repurchase of lead acid batteries by the dealers and disposal of the batteries by the bulk consumers by auction, reveals that the percentage of the batteries returned to the dealers continues to be poor as compared to the percentage of batteries auctioned by the bulk consumers. Although the percentage in respect of collection of batteries by the dealers appears less the number of batteries returned to the dealers is more. The percent compliance in respect of bulk consumers is more or less steady and they are maintaining the compliance status.

From the information gathered by the Board, it is seen that the bulk consumers generally auction used lead acid batteries as per the Hazardous Waste (Management , Handling & Transboundry Movement) Rules, 2008 only to the authorized recyclers / re-refiners having EST along with valid registration from CPCB.

There are 34 nos. of Lead acid Battery recycling units having valid registration from CPCB. Most of the units have submitted half yearly returns on recycling of the batteries. The information from the remaining units is being collected.

Efforts are being made by MPCB with the help of its Regional offices to create awareness among the various stakeholders to ensure that they comply with the Batteries Rules.

The information collected by MPCB from the **Battery Manufacturer, Assembler, Re- conditioner, Dealers, Bulk Consumer and Recycler** from different regions of Maharashtra is shown in the following table.

Annual Report of Battery (M&H) Rules, form the period of April 2009 to March 2010.

MAHARASHTRA POLLUTION CONTROL BOARD	
Lead Acid Battery Manufacturer, Re-conditioner, Assembler	
Total No of Manufacturer, Assembler, Re- conditioner	70
Production of lead acid batteries in unit numbers/year	1413212
Collection of lead acid batteries in unit numbers/year	970633
Lead Acid Battery Dealer	
Total No of Dealers	277
Sale of lead acid batteries in unit numbers/year	242442
Collection of lead acid batteries in unit numbers/year Total No of Bulk Consumer, Auctioneer	98248
Lead Acid Battery Bulk consumer, Auctioneer.	
Total No of Bulk Consumer, Auctioneer	1822
Collection of lead acid batteries in unit numbers/year	797088
Lead Acid Battery Recycler	
Total No of Battery Recycler	34
Collection of lead acid batteries	11787.124 MTA
Lead Acid Battery Importer	
Total No of Battery Importer	170
No. lead acid batteries Imported numbers /year	28581

10.3 Municipal Solid Waste Management

In the State of Maharashtra, there are 249 No. of local Bodies (Metro cities, Corporations, 'A'-class Councils, 'B' & 'C' class Councils, Cantonments Boards & Nagar Panchayats). The detail breakup of ULB's is as below :-

1	Corporations	23
2	'A' class Council	14
3	'B' & 'C' class Council	204
4	Cantonment Board	05
5	Nagar Panchayat	03
	Total	249

Maharashtra Pollution Control Board has prepared a summary statement of all local bodies indicating class, populations, Quantum of MSW generated, status of Authorization and submission of Form-II by the local bodies. The total waste generation in the corporation area is 16131 MT/D, in A class council it is 904MT/D, in B class council it is 1147MT/D and in C class municipal council it is 1022 MT/D.

In the Nagpur region, 22 Municipal Councils and 1 Municipal corporation authorities have administrative approval for establishing MSW processing & disposal sites. Municipal Council, Kalmeshwar installed a gasification plant for processing of Municipal Solid waste generated from Market and running efficiently by producing bio-gas with help of Mahila Bachat Gat. Municipal Council Ramtek known as birth place of God Rama. During the Ram Navmi period and other occasion lacs of devotees visit to this important site. Therefore a special attention is given under environmental improvement program of religious places.

Municipal solid waste generated from Kalyan Dombivali Municipal Corporation, Bhiwandi Nijampur City Municipal Corporation is collected & disposed unscientifically at dumping ground in village Umbarde & Katai respectively. Badlapur Municipal council has commissioned Organic waste converter machine having capacity 3MT /Day

Navi Mumbai Municipal Corporation has developed a scientific MSW dumping site .The site is in operation since 2005.All the municipal solid waste is collected and disposed off scientifically at the MSW dumping ground. During the period of april-2009 to Jan-2010, approximately 425216 Tone of municipal solid waste was disposed by scientific landfill method at this site. Total solid waste generation in Uran Municipal Council area is @ 7-8 MT/day. A vermin-culture plant is installed in the premises of Uran municipal council building where some part of MSW is treated and rest is dumped on open land in S. No. 142-1A at Bori Pakhadi. The Bio-gas plant of 5 TPD is under construction and expected to be completed by June-2010.

For solid waste processing and disposal as per the provision of Municipal Solid Waste (M&H) rules, 2000, Thane Municipal Corporation and all the councils of Vasai, Virar, Mira-Bhayander, Nallasopara and Navghar-Manikpur have provided integrated MSW processing plant. The local bodies from Dahanu, Palghar and Jawahar have selected and finalized the sites. The sites were approved by the district level committee. Other steps taken are (a) segregation of waste at source (b) dustbins are eradicated (c) Composting plants have been established.

Out of 43 local bodies in Nasik Region generating municipal solid waste 30 local bodies have obtained authorization. The Municipal Solid Waste generated is 1011.98 MT/M. Total 09 no. of local bodies have provided treatment and disposal facilities

The Board has provided financial assistance for installation of Pilot Project at Ambad and Sonpeth in Marathwada Region. These pilot plants are operated and maintained by the local bodies. Latur Municipal Council has installed MSW process plant and MPCB has provided financial assistance for development of landfill site. The work of MSW project at Jalna is under progress, which is financially assisted by MPCB and CPCB.

Financial Assistance made for environment improvement.

Treatment of Municipal Solid waste and its disposal is major problem in the state of Maharashtra. To tackle the problem, Maharashtra Pollution Control Board has given financial assistance to Mahabaleshwar Hill Station Municipal Council and Pandharpur

Municipal Council. Board has decided to assists Rs. 1, 18, 00.000/- to Pandharpur Municipal Council for treatment of composting to MSW. MoU in this regard has been signed. Mahabaleshwar Hill Station Municipal Council has requested Board to give loan for the management of MSW. The Board has decided to assists the council in this matter and decided to release Rs. 53, 00,000/- for the same with a condition to return the amount to MPCB within 20 years.

10.4 Implementation of Bio-Medical Waste Rules.

Bio-Medical Waste (Management & Handling) Rules, 1989 have been notified under the Environment (P) Act, 1986 and M.P.C. Board is the prescribed authority as required under Rule 7 of the BMW Rules to grant/renewal/refuse/cancel/suspend the authorization. Board has recently delegated powers to Sub-regional officers to grant/renew authorization for HCEs with less than 50 bed capacity and to regional officers to grant/ renew authorization up to 100 beds and HCEs such as clinics, dispensaries, Blood Bank and Pathological laboratories treating thousand patient and above per month. This delegation has resulted in expeditious disposals of the authorization applications and in improved compliance of obtaining authorization by HCEs.

10.4.1 Court Compliance

Board is complying with the various Directions issued Hon'ble High Court in the PIL No. 32/2006 and 41/2006. Board has carried out Regional-wise inventorisation of Bio-medical Waste generating units by physical survey in Maharashtra through outsourced agencies. The objective of the inventorization is to identify and collect information from all BMW generating units excluding those, identified by the Board as on 30-09-2008 and to compile the data – district wise of the respective region in a list and prepare a comprehensive report of Maharashtra. As per the report submitted by respective Regional Officers there are 26,525 newly identified HCEs generating Bio-Medical Waste in the State. The verification of those identified HCEs is under process at Regional level. This data has enabled the Board to ascertain the numbers of Bio-Medical Waste generators.

Board has formed a separate BMW Management Cell at Head Office level to look into various aspects of BMW compliances which includes SRO, FO & JSA. State Govt. has

sanctioned 31 No. of post for BMW Management in which the above posts are included. In addition to this, Board has appointed 24 Field officers exclusively for BMW Work at Regional Offices.

Board has instructed Public Health Department to verify whether nursing home/hospital have obtained authorization of MPCB while renewing or granting registration under Bombay Nursing Home Act, 1949 for actual commencement of the nursing homes/HCEs. Public Health Department has submitted recommendations of amendment in their Act to State Government to incorporate this condition. This would encourage and make it mandatory for all nursing homes to obtain authorization under BMW Rules.

Board has filed 22 prosecutions in the Court of Law against non-complying bedded HCEs in May-June, 2008 and also, against two CBMWTSDF M/s. Gajanan Baba BMW facility, at Buldhana and M/s. Sun Enviro Management Pvt. Ltd., Pune for gross non compliance. Board had also issued Proposed Direction to 430 and Closure Direction to 20 non complying HCEs u/s. 5 of E(P) Act, 1986.

10.4.2 Initiatives

Board has undertaken several initiatives for improved enforcement and compliance of BMW rules in the state. These initiatives were on creating awareness, ensuring availability of common facilities, efficient operations of the common facilities etc. Some of these initiatives are mentioned in following paras.

a] Awareness-cum-training program conducted on Bio-Medical Waste Management in 11 cities of Maharashtra.

Board has conducted awareness and training program in the rural parts of the Maharashtra during the period December, 2008 to March, 2009 through All India Institute of Local Self Government (AIILSG). The Awareness and training programmes were arranged through experts in the field for the staff of Health Care Establishments (private and Govt.), who are involved in handling of the waste, various medical associations, Officials of concerned Govt. agencies such as local bodies & Department of Health Services, CBMWTSDF Operators. About 1000 participants attended the training program.

b] Reasonable fixing of charges by CBMWTSDF to HCEs in the State

MPCB has undertaken the project to evolve guidelines for charging pattern between the CBMWTDF operators and HCEs. The objective of this assignment is to evolve mechanism for fixing of reasonable charges on Health Care Establishments by authorised operators/ transporters of CBMWTSDF.

Board has assigned this work to M/s. Environmental Management Consultant to evolve for authorized operators / transporters of CBMWTSDF for fixing charges on HCEs. As per the TOR the said agency has analysed the data collected from identified HCEs & respective CBMWTSDF operators and presented the draft report.

C] Project of " Environment sound management of medical waste in India" to reduce & ultimately eliminate Dioxin & Furans

Govt. of India is a signatory to the Stockholm Convention on Persistent Organic Pollutants (POPs). About this subject, 2nd meeting of steering Committee was held under the chairmanship of Additional Secretary of MoEF on 13th August 2008 at New Delhi, wherein a project proposal of "Environmentally Sound Management of Medical Waste in India" was presented and discussed. This project has identified for 5 States namely Karnataka, Orissa, Gujarat, Maharashtra and Punjab for implementation.

The project proposal has been approved by Global Environment Facility (GEF) and a full sized project document is to be prepared based on objectives and activities as outlined in project preparation proposal. UNIDO in consultation with MS Ramaiya Medical College, Bangalore is preparing a full scale project document on "Environmentally Sound Management of Medical Waste in India" which is one of the post NIP project identified for implementation.

A team of experts from UNIDO and this Medical College visited our State on 8th & 9th July 2009 and had an interaction with senior officials of Environment Department, Public Health, Medical College and Hospitals and MPCB. A team of working group for implementing this project was formed at each State level. Also a team of action group was formed at all the 12 Regions of Maharashtra Pollution Control Board and visited specific Health Care Establishments and CBMWTSDF identified for assessing the present techniques and practice of Bio-Medical Waste management.

The duration of this project is for 5 years and the total cost of the project is 40 million USD over 5 year. As per the Co-financing pattern of the project each State has to contribute a total of Rs. 10.0 Crore over the period of 5 years from 2010 – 2014 with an annual contribution of Rs. 2.0 Crore as co-financing in cash / kind. State Government vide letter dated 17.03.2010 has given confirmation to the project proposal through MOU to Co-finance the GEF/ UNIDO project entitled "Environmentally Sound Management of Medical Wastes in India".

d] Project on "Preparation of Present status report Biomedical Waste Management in the state".

Board has undertaken a project of preparing Status report on Biomedical Waste Management in the State of Maharashtra" with the part financial assistance of CPCB. Board has assigned this task to Environment Management Centre (EMC) Mumbai.

10.4.3 Financial assistance to set up CBMWTSDF in the State.

In Maharashtra there are 33 CBMWTSDF facilities established and operational in various districts of the State. Certain HCEs specifically rural hospitals, Civil hospitals of Public Health Dept. have provided their own facilities comprising of deep burial, autoclave and shredder.

Out of 33 CBMWTSDF 27 are having Incineration facilities of double Chambered followed by Air Pollution Control Devices. Rests are deep burial facilities where population is less than 5 lakhs. These CBMWTSDF caters their services to 36751 nos. of Health Care Establishments in the State and are treating 30683.0 Kg of Bio-Medical Waste per day.

MoEF, vide their letter dated 26.12.2008 has informed that they propose to give financial assistance in the form of subsidy of Rs. 10.0 Lakhs (about 10% of the total cost of the project excluding the cost of the land) for each facility provided that matching contribution is made by the concerned State along with the requisite land made available to the entrepreneur. Board identified 5 ULB's where such new facilities are required namely; Buldhana, Yavatmal, Hingoli, Osmanabad and Vasai–Virar-Nalasopara Municipal Corporation and Mira Bhayander Municipal Corporation. Board has considered this proposal in its 148th meeting held on 25.02.2009 & 12.03.2009 and has resolved for part funding to CBMWTSDF up to 15% of the total project cost excluding the cost of land not exceeding Rs. 1.0 Crore. Further, Board has also resolved to support the switch over proposal of Deep Burial CBMWTSDF to incineration facility by part funding subject to viability of incineration based CBMWTSDF at relevant places. The proposal of Baramati Taluka M/s. Jai Bhavani Bio-Medicare systems was considered. The same was communicated to MoEF and respective Municipal corporations/ Councils. But, till date no response was received for setting up of CBMWTSDF at those 5 Municipal Councils.

Thereafter, MoEF vide their letter dated 24.09.2009 has raised the Central subsidy up to 25% subject to matching grant (equal amount) / subsidy is provided by the State / UT Government, with the balance amount contributed by the entrepreneur. The requisite land should also be made available to the entrepreneur by the State /UT Govt. The cost of the land and infrastructure to be provided by the State Govt. / UT Govt. will be considered to be included in the 25% share of the State / UT subsidy. Hence, it is now proposed that the matching grant/subsidy to the new common facilities be increased to

25% from 15% existing subject to provision that the facility should get approval from MoEF. The procedure for release of grant also needs to be finalized. It is proposed that the funds may be released only after, the approval of the techno-economic proposal by MoEF and only, in the form of reimbursement, against the bank guarantee to commission the facility i9n time bound manner. The financial support for up gradation of the common facilities from Deep Burial to incinerator based is proposed to be kept constant at 15 %.

Board had directed the local bodies of Osmanabad, Hingoli, Yavatmal, Buldhana and Vasai- Virar- Nallasopara to identify suitable sites to setup CBMWTSDF, but the reply was poor. In this connection, Director, Environment Department, Government of Maharashtra vide letter dated 20.02.2010 has informed Board about the necessity to setup CBMWTSDF at the above District and suggested to ask MIDC to provide land for this project. Further, it is also suggested to float Tender in those areas for setting up this project.

Considering the requirements of effective BMW management in the state, it is necessary to take a policy decision on allocation of waste collection areas for each of the operator. This is essential to improve the performance of the facility and also to reduce complaint, litigation and incidences of waste handling. There are no specific provisions for such demarcation in the rules, however, there are enabling provisions which authorize the Board to take suitable steps to ensure effective enforcement of rules in the state and they can be suitably invoked. In case of development of such new facilities, it is submitted that Board is a regulatory authority and also specified prescribed authority for these rules, and therefore development of such facility needs to be viewed from these aspects. Such development can therefore be done through appointment of expert agency/committee for preparing Tender Document, Floating the Tender and for Evaluating and selecting bids. Alternatively, specialized state government agency like MUIDCL can be approached to develop such projects on PP mode.

10.5 Plastic Waste Management

Our planet is becoming increasingly contaminated due to unnecessary use of plastic carry bags. Big black bin liners, plastic carrier bags carrying advertising logos, clear sandwich bags, vegetable bags and a variety of other forms used to carry our daily food items and other items are all polluting our environment. Just take a look around you. Plastic bags can be seen hanging from the branches of trees, flying in the air on windy days, settled amongst bushes and floating on rivers. They clog up gutters and drains causing water and sewage to overflow and become the breeding grounds of germs and bacteria that cause diseases.

Animals and sea creatures are hurt and killed every day by discarded plastic bags - a dead turtle with a plastic bag hanging from its mouth isn't a pleasant sight but mistaking plastic bags for food is commonplace amongst marine animals. Plastic clogs their intestines and leads to slow starvation. Others become entangled in plastic bags and drown. Because plastic bags take hundreds of years to break down, every year our seas become 'home' to more and more bags that find their way there through our sewers and waterways. Given India's poor garbage collection facilities, tons of plastic bags litter the roads, preventing rainwater from seeping into the ground. Every bag that's washed down a drain during rainfall ends up in the sea every bag that's flushed down a toilet (many mall bags are), ends up in the sea - every bag that's blown into a river will most likely end up in the sea. Besides choking drains, plastics are highly toxics. When burned they release cancer-causing gases. The cheap bags contain chemicals such as cadmium- or lead-based chemicals that are harmful to health. They leach into vegetables, meat and food.

Ban on Plastic bags:

The Environment Ministry has banned manufacture and uses of plastics carry bags less than 8 inches X 12 inches in size & 50 micron in width. The ministry has also asked State Governments to register all plastics manufacturing unit, so that these can be regulated. However, the implementation of the order has been tardy, evident from the large number of polythene bags strewn in every major town and city. Fabrics made of jute fibers are therefore carbon dioxide neutral and are naturally decomposable. The alternatives to plastic bags are paper bags, jute bags and cloth bags. Paper, Jute and Cloth are eco-friendly. Jute bags are most suitable substitute than paper and cloth, because it is cheaper than cloth and reusable. Though paper bags are cheaper than jute bags they are less durable.

Role of the Maharashtra Pollution Control Board:

As per the Recycled Plastics Manufacture & Usage (Amendment) Rules, 2003 published on 17th June 2003 by the MoEF, Govt. Of India, Plastic Carry Bag Rules, 2006, Maharashtra Plastic Carry Bags (Manufacture & Usage) Rules, 2006 published

on 3rd March, 2006 & Maharashtra Non - Biodegradable Garbage (Control) Act, 2006 published on 21st April, 2006 by Environment Department, Government of Maharashtra & Draft notification of Plastics (Manufacture, Usage & Management) Rules, 2009 by the MoEF, Govt. of India, Maharashtra Pollution Control Board is the implementing & monitoring authority. The annual status of implementation of above rules for the period of April 2009 – March 2010 is as given in the table below.

The annual status of the Plastics for the period of April 2009-March 2010

No. of industries Registered with Board	466
No. of industries obtained Registration	32
No. of Closure Directions issued to Industries	19
No. of Industries penalised as 1st offence i.e. Rs. 5000/-	19
Amount of Rs. Fine Recovered by the Board	95000/-
No. of Directions issued by the Board for obtaining Bank Guarantee (Rs. 25000/-)	19
No. of restart Directions issued by the Board	15

To creat awareness among the citizens regarding use of the plastic carry bags in appropriate manner, under the guidance of Member Secretary Maharashtra Pollution Control Board, with a NGO "UNAST" has completed their work successfully by conducting more than 200 street plays in Mumbai, Navi Mumbai, Thane, Nashik, Pune & Kolhapur.

11. Prosecution Launched and Convictions Secured

11.1 Water (prevention and Control of Pollution) Cess Act 1977

The Water (prevention & Control of Pollution) Cess Act 1977 was enacted by the Parliament on December 7, 1977. The main object of the Act is levy and collection of cess on water consumed by persons carrying on certain industries and by local authorities and to augment the resources of Central pollution Control Board and State pollution Control Boards.

The Act provides for constitution of Appellate Authority comprising of Chairman (Chairman of the Board) and two members to be nominated by the Chairman from amongst the Board Members. The Appellate Authority is empowered to entertain appeal against the order of assessment and order of imposing penalty. The Appellants are required to prefer an appeal within 30 days.

Accordingly, Appellate Authority has been reconstituted vide order No.E-319/2006 dated 8/12/2006 to hear appeals. 59 Appeals were pending before the Appellate Authority since 1992. Out of 59 appeals, the Appellate Authority disposed off 33 Appeals & remaining 26 Appeals are pending for final hearing. No. of Appeals along with their status is given as below.

Sr. No	Name of the Appellants	Total No. of Appeals	Status
1	M/s NRC Ltd, Mohane, Kalyan	14	Part heard
2	M/s Tata Power Company Ltd. Chembur, Mumbai	11	Part heard
3	M/s Tarapur Automic Power Station, Boiser, Thane	01	Pending (Reminder sent)

11.2 STATUS OF LEGAL ENFORCEMENT UPTO MARCH 2010

Status of cases filed before Trial Courts

Water (Prevention & Control of Pollution)Act 1974

1.	No. of cases filed	--	452
2.	No. of cases disposed off	--	371
3.	No of cases pending	---	81

Air Prevention & Control of Pollution) Act 1981

1.	No. of cases filed	--	149
2.	No. of cases disposed off	--	149
3.	No of cases pending	---	Nil

Environment (Protection) Act 1986

1.	No. of cases filed	--	47
2.	No. of cases disposed off	--	06
3.	No of cases pending	---	41

Status of cases filed before Hon'ble High Court of Judicature at Bombay Bench at Mumbai/Aurangabad/Nagpur as on

1)	No. of Writ Petitions fil	=	420
2)	No. of Writ Petitions disposed Off	=	334
3)	No. of Writ Petitions pending	=	86

Status of cases before the Hon'ble Supreme Court of India

1)	No. of Special Leave Petitions filed	=	31
2)	No. of cases dismissed	=	24
3)	No. of cases pending	=	07

Appeals filed under section 28 of the Water (Prevention & Control of Pollution) Act 1974 & Air (Prevention & Control of Pollution) Act 1981 - 27

Appeals disposed off under section 28 of the Water (Prevention & Control of Pollution) Act 1974 & Air (Prevention & Control of Pollution) Act 1981-10

Appeals pending under section 28 of the Water (Prevention & Control of Pollution) Act 1974 & Air (Prevention & Control of Pollution) Act 1981 – 17

11.3. Implementation of Right to information Act 2005

The said Act provide for setting out the practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, the constitution of a central information commission and state information commission and for matters connected therewith or incidental thereto.

The applicants preferred 840 applications under section 6(1) of the Maharashtra Right to information Act 2005. Out of 840 applications, 790 applications are disposed off and 110 applications are pending. The amount of fee collected is Rs.11273=00

Being aggrieved by the order passed by the Public Information Officer, the 67 appeals are preferred by the Appellants under section 19(1) of the Maharashtra Right to information Act 2005 before the Appellate Authority. Out of 67 appeals, 60 appeals are disposed off and balance 7 appeals are pending as on 31.3.2010 before the First Appellate Authority under the RTI, Act, 2005.

11.4 High Court Matters.

Judgment & Order passed by the Hon'ble High Court of Judicature at Mumbai, Bench at Nagpur in Writ Petition No.4452/2009 – Shri Ghansham Ganpat Dupare and 2 Ors v/s State of Maharashtra and Ors.

Shri Shankarrao Govind Johri had lodged complaint to the Secretary, Ministry of Environment and Forests, Govt. of India, dtd.2/10/2009, stating that M/s.Jejani Pulp and Paper Mills Pvt. Ltd., Wadsa, Dist: Gadchiroli was discharging chemical waste in his field as well as in the fields of other persons, thereby, causing not only the soil pollution but also causing water and air pollution in the surrounding area. He had also specifically stated that earlier also, a number of such complaints filed with the Ministry of Environment and Forests, Govt. of India, but no action was taken. He had further stated that the Maharashtra Pollution Control Board issued certain directions, but, not taken any care to ensure the compliance of those directions, thereby, M/s.Jejani Pulp and Paper Mills Pvt. Ltd. had continued its discharge of polluted effluent into his field and causing air and water pollution in the surrounding area.

Shri Shankarrao Govind Johri alongwith two others had filed the Writ Petition bearing No.4452/2009 before Hon'ble High Court of Judicature at Bombay, Bench at Nagpur for issuance of appropriate directions against the Respondents to take action against the Respondent NO.7 unit as well as for suspension of registration of the Respondent No.7 and directions to NEERI to submit a report about the compliance of the Environmental Norms to the Hon'ble Court, on account of the alleged discharge of polluted effluent into the lands of the Petitioners and thereby, causing pollution thereof. However, the Respondent No.7 i.e. M/s.Jejani Pulp and Paper Mills Pvt. Ltd., disputed the very

location of the petitioners' land in the proximity of the Respondent No.7 unit, pointing out that entire land surrounding its unit is owned by the Respondent NO.7 and there is a canal on the border and after the said canal, the lands of the petitioners are located and there is no chance of pollutants seeping in the soil. It was further stated that the Respondent NO.7 has already taken steps to control effluent from the plant with due treatment and there has been no seepages whatsoever.

Maharashtra Pollution Control Board through its Regional Officer at Chandrapur had filed a detailed Affidavit in the month January,2010,giving the details of actions initiated by the Board including the show cause notice issued on 17/02/2009 for having inadequate treatment and disposal arrangements as well as use of coal, causing air pollution, followed by the personal hearing extended to the unit and thereafter, issuance of interim directions about not to use coal as a fuel until necessary permission from the Respondent-Board is taken. The unit was directed to upgrade existing pollution control system within 15 days time and to provide fixed water sprinklers at ash storage area within one month's period to fill up all the lagoons with boiler ash and to utilize maximum industrial effluent in the process by providing recycling system as well as not to discharge any effluent outside the factory premises. After issuance of interim directions, the unit had installed mechanical dust collector and placed order for bag filter and water sprinklers.

M/s.Jejani Pulp and Paper Mills Pvt. Ltd., though, named as Pulp and Paper Mills Ltd. was based on the waste paper processing and was not doing any pulping, specifically pointed out that Shri Devidatt Jejani was removed from the Board of Directors because of his mischievous activities and therefore, he and his son have been indulged in nasty politics to make the labours strike, making false complaints against the unit, which was brought to the notice of the Maharashtra Pollution Control Board vide letter dtd.18/8/2009. It is also stated that the unit was requested by the farmers to supply the treated effluent for irrigation purpose and therefore, the unit had applied for an amendment in the consent for allowing the utilization of the treated effluent by the farmers on their agriculture lands. The unit further stated that the chimney has been repaired.

The Joint Vigilance Samples collected from the Respondent No.7 unit on 6/10/2008, 5/11/2008, 16/2/2009 and 6/4/2009 from the effluents being utilized on their land for irrigation purpose and duly analyzed from the MPC Board's Laboratory, showed that the parameters of BOD, COD and Suspended Solid were not meeting alongwith the parameter of Particulate Matter. Therefore, directions of closure were issued by the Maharashtra Pollution Control Board on 8/12/2009 and after taking effluent steps in respect of erection of chimney and with the bank guarantee as well as corrective measures, the unit was allowed to restart on 18/12/2009 on account of short term measures taken by the unit with certain conditions. Since, the long term measures were not taken in the time bound manner, a bank guarantee of Rs.10,000/- was encashed. Later on, the unit has complied with the conditional directions, the Board has specifically made clear in its affidavit that the Petitioners are exaggerating the facts and circumstances in respect of discharge of effluent, when, the treated effluent from the waste paper mill can be easily utilized for irrigation purpose. The Board had also filed further Affidavit, giving the details of compliance of the conditional directions.

After hearing, the Petitioners and the Respondents at length, the Hon'ble High Court of Judicature at Nagpur Bench observed that as per the Affidavit of the Regional Officer, MPCB, Chandrapur, there were no seepages observed during the visit and inspection carried out by the Board. It was further observed that though the problem faced by the petitioners is serious and requires thorough investigation into the fact, the nature of the dispute raised in the petition right from the location of the land, the measures taken by the Respondent No.7 and the flow of the effluents seeping into the ground water streams, involves several disputed questions of facts, which the Hon'ble Court does not want to go into the details. Therefore, the petition was dismissed on 2/3/2010 with liberty to the petitioners to approach the Civil Court as may be advised in accordance with the law.

11.5 Prosecution Proposal under B.M.W. Rule

Following are the defaulting Health Care Establishments against which Prosecution Proposal is under consideration of the Board.

1. M/s. Priti Multispeciality Hospital, P-113, MIDC Hingna Road, (Ele. Zone), Nagpur.
2. M/s. Suryog Nursing Home, Gandhi Chowk, Pulgaon, Tq. Deoli, Dist. Wardha.
3. M/s. Kene Nursing Home, Ravekar Complex, Nachangaon Road, Pulgaon, Dist. Wardha.
4. M/s. Vinoba Bhave Gramin Hospital, Main Road, Deoli, Dist. Wardha.
5. M/s. Anushree Surgical Hospital, In front of SBI, Karanja (GH), Dist. Wardha.

6. M/s. Rashtrasant Arogya Kendra, At-Post-Borkhedi, Tq. & Dist. Nagpur.
7. M/s. K.K. Surgical Hospital, Main Road, Sadak Arjuni, Dist. Gondia.
8. M/s. Pooja Multicpeciality Hospital, Main Road, Mohadi, Dist. Bhandara.

11.6 Legal actions, fine imposed on defaulters.

For the implementation of Plastic carry Bags (M&U) Rules 2006. Board has carried out survey of plastic carry bags manufacturing units all over Maharashtra and found 18 units culprit. The imposed fine is Rs. 90,000/- (Rupees Ninety Thousand).

In response to the complaints of water pollution and air pollution at Palghar area and Dombivali area, Regional Officer Thane & Regional Officer Kalyan has submitted their survey report. Accordingly 5 units located at Palghar were issued closure directions and thereafter interim directions were issued with B.G. of Rs. 50,000/- each. 32 units located at Dombivali area were issued closure directions and thereafter interim directions were issued with B.G. of Rs. 25,000/-.each.

12. Finance and Accounts 2009-2010

The Board's actual receipts for the financial year are Rs 9212.79 Lakhs.

The same are classified as under :

Figures: In lacs

Sr. No.	PARTICULARS	WATER	AIR	TOTAL
1.	Grant - in - Aid from State Govt.	0.00	0.00	**0.00**
2.	Reimbursement of Water Cess received from Central Govt.	1066.12	0.00	**1066.12**
3.	Interest on Investment	1178.97	0.00	**1178.97**
4.	Receipt from Central Board for analytical work	377.80	141.98	**519.78**
5	CETP	49.85	0.00	**49.85**
	TOTAL (A)	**2672.74**	**141.98**	**2814.72**
	NWMP	₹ 1736848		
	C.H.W.T.D.S.F	₹ 32000000		
	SEPP	₹ 500000		
	Procurement of Lab Equipment	₹ 35425200		
	Total (Water)	₹ 37779348		
	NAMP	₹ 9319917		
	AAQM	₹ 4877959		
	Total (Air)	₹ 14197876		
	GRAND TOTAL	**₹ 51977224**		
6.	**Other Receipts**			
	Consent Fee	3782.23	853.98	4636.21
	Consent Form Fee	12.69	2.65	15.34
	Analysis Charges	257.39	16.66	274.05
	Laboratory Fee	0.00	0.00	0.00
	Appeal Fee	0.02	0.00	0.02
	Misc. Receipt	83.47	0.00	83.47
	Hazardous Waste	3.68	0.00	3.68
	Hazardous Waste Form Fee	0.00	0.00	0.00
	Hazardous Waste Analysis	11.84	0.00	11.84
	Hazardous Waste Remending	0.00	0.00	0.00

Figures: In lacs

6.	**Other Receipts**			
	Bio Medical consent Fee	162.2	0.00	162.2
	Bio Medical Form Fee	7.43	0.00	7.43
	Env. Dev.	0.00	0.00	0.00
	Env Planning Report	0.00	0.00	0.00
	Regn. For Plastic	0.55	0.00	0.55
	Noise Pollution	0.9	0.00	0.9
	Fine & Forefiture	0.00	0.00	0.00
	Profit on sale of Asset	2.19	0.00	2.19
	Spl. Env Act	0.00	0.00	0.00
	Right Of Information	0.19	0.00	0.19
	Transfer from APNP	1200.00	0.00	1200.00
	Total (B)	**5524.78**	**873.29**	**6398.07**
	Total A+B	**8197.52**	**1015.27**	**9212.79**

The total expenditure of the Board was ₹ 6918.47 lacs. Out of this an amount of ₹ 717.8 lacs for capital expenditure and an amount of ₹ 6200.67 lacs for revenue expenditure. The details are as under :-

Figures: In lacs

Sr. No.	EXPENDITURE	WATER	AIR	TOTAL
I.	**CAPITAL EXPENDITURE**			
	I) Land & Building	0.00	0	0.00
	ii) Lab Equipment	119.76	0	119.76
	iii) Vehicle	14.41	0	14.41
	iv) S.I.& O.	241.26	0	241.26
	v) Furniture & Fixture	342.37	0	342.37
	TOTAL	**717.80**	**0**	**717.80**
II.	**REVENUE EXPENDITURE**			
	A. ADMINISTRATIVE			
	I) Salary	608.96	38.38	647.34
	ii) Contribution to staff Provident Fund	31.06	9.30	40.36
	iii) Office contingencies	438.34	0.01	438.35
	iv) Financial Assistance (CPCB)	363.15	0.00	363.15
	v) Financial Assistance (Cess)	634.51	0.00	634.51
	v) L.S.& P.C.	0.00	0.00	0.00
	TOTAL	**2076.02**	**47.69**	**2123.71**

Figures: In lacs

II.	**REVENUE EXPENDITURE**			
	B. EXECUTIVE			
	I) Salary	1414.16	104.10	1518.26
	ii) Contribution to staff Provident Fund	79.72	0.06	79.78
	iii) Office contingencies	180.12	0.00	180.12
	TOTAL	**1674.00**	**104.16**	**1778.16**
	C. Running Expenditure of Laboratory	83.27	0.00	83.27
	D. Running Expenditure of vehicle	106.63	0.00	106.63
	E. Maintainance & Repairs	115.87	0.00	115.87
	Education Allowance	0.00	0.00	0.00
	Law charges	7.89	0.00	7.89
	Professional charges	116.65	0.00	116.65
	Misc. Expenditure	20.15	0.00	20.15
	Audit Fee	11.64	0.00	11.64
	HBAR	4.30	0.00	4.30
	Depreciation	575.91	37.24	613.15
	Magazine Allowance	0.35	0.00	0.35
	Canteen Allow & Medical Allow	18.89	0.00	18.89
	Transfer to WP	0.00	1200	0.00
	TOTAL	**4811.57**	**1389.09**	**6200.66**
	TOTAL (I) & (II)	**5529.37**	**1389.09**	**6918.46**

The total expenditure of ₹ 5529.38 lacs under Water Pollution Control activities is inclusive of ₹ 575.91 lacs on account of Depreciation Charges during the year (2009-2010).

The total expenditure of ₹ 5529.38 lacs against the income of ₹ 8147.67 lacs (₹ 8197.52 lacs ₹ 49.85 lacs of CETP) & ₹ 717.80 lacs of income over exp. transferred to capital expenditure during the year resulted in excess of income over expenditure of ₹ 3336.09 lacs. Out of the total balance of excess of income over expenditure amounting to ₹ 3336.09 lacs Provision for Gratuity ₹ 30 lacs is made, keeping the balance of ₹ 14578.82 lacs.

The total expenditure of ₹ 1389.09 lacs under Air Pollution Control Activities includes ₹ 37.24 lacs on account of depreciation for air. The total expenditure of ₹ 1389.09 lacs against the income of ₹ 1015.27 lacs resulted in excess of expenditure over income for ₹ 373.82 lacs.

Summary of the account for 2009-2010 is as under.

WATER POLLUTION CONTROL ACTIVITIES :

Figures: In lacs

PARTICULARS		CAPITAL	REVENUE	TOTAL
	CETP		240.08	240.08
	GRATUITY**		32.29	32.29
Bal 09-10		0.00	11990.52	11990.52
Amt trns.		717.80	-717.80	0.00
*** Amt Trns to income**		**717.80**	**11272.72**	**11990.52**
	CETP		49.85	49.85
	GRATUITY**		92.01	92.01
Income		**717.80**	**8147.67**	**8865.47**
	CETP		289.93	289.93
	GRATUITY**		124.30	124.30
TOTAL	**Income**	**1435.60**	**19420.39**	**20855.99**
	CETP		228.85	228.85
	GRATUITY**		59.31	59.31
Expenditure		**717.80**	**4811.57**	**5529.37**
Bal. for 2010-2011	CETP	0.00	61.08	61.08
Bal. for 2010-2011	GRATUITY**		64.99	64.99
Bal. for 2010-2011		**717.80**	**14608.82**	**15326.62**
Add Previous Year Adj		0.00	0.00	0.00
		0	**14608.82**	**14608.82**
Provision 2009-2010		0	0.00	0.00
		0	**14608.82**	**14608.82**
Provision for Gratuity **		**0**	**30.00**	**30.00**
Balance for 2010-2011		**0**	**14578.82**	**14578.82**

** (Rs. 30 prov. + Rs. 32.49 + 29.52 int on invst.)

AIR POLLUTION CONTROL ACTIVITIES :

Figures: In lacs

PARTICULARS	CAPITAL	REVENUE	TOTAL
Bal 09-10	0	1687.67	1687.67
Income 2009-2010	0	1015.27	1015.27
TOTAL	**0**	**2702.94**	**2702.94**
Expend	0	1389.09	1389.09
Balance for 2008-2009	**0**	**1313.85**	**1313.85**

WATER 2009-2010

Figures: In lacs

Excess of income over expenditure	11990.52
Less : Excess of income transferred to for Capital exp.	717.80
TOTAL 2009-2010	**11272.72**
Add Excess of income over expenditure for 2009-2010	3336.09
	14608.81
Less : Provision for Gratuity	30.00
	14578.81
Add Previous Year Adj	0.00
Excess of income over expenditure for 2010-2011 C/F	**14578.81**

AIR 2009-2010

Figures: In lacs

Excess of income over expenditure	1687.67
TOTAL	1687.67
Add Excess of income over expenditure for 2009-2010	-373.82
Excess of income over expenditure for 2010-2011 C/F	1313.85

13. Important Matters Dealt with by the Board

13.1 Zoning Atlas

1) District Environmental Atlas (DEA):

The District Environment Atlas is a compilation of district wise environment related information presented in the form of GIS based maps (1:250000), texts, and statistical data. It includes maps on General / Physical Features, Surface / Ground Water Features, Environmentally Sensitive Zones, Major Source of Pollution and environmental quality of the district.

The District Environmental Atlas are highly useful to District Planning Authority to identify the thrust areas for formulating programs & policies for environmental conservation & sustainable industrial development in the district. DEA for district Ratnagiri, Pune and Aurangabad have been approved by CPCB Delhi. DEA for Latur & Nanded District was presented before District level stakeholders in the workshop held at Collector office under the Chairmanship of District Collectors. Both the reports will be finalized shortly and submitted to CPCB for approval. Workshop on DEA of Nashik and Solapur proposed to be held in April 2010 for validation and finalization of the reports. DEA of Six Districts is taken up during this year.

2) The District Level Zoning Atlas For Siting Of Industries (ZASI):

The study inter relates the sensitivity of environment with the pollution potential of industries. The Atlas identifies the sites through maps suitable for siting of polluting industries, based on their pollution potential and capability of the site to withstand pollution of industries, with minimal environmental impact / risk. As per guidelines of CPCB, MPCB has revised ZASI for Ratnagiri, Pune & Aurangabad Districts and submitted for approval. Preparation of the ZASI for Nashik, Latur, Nanded & Solapur District is in progress.

3) District Level Industrial Siting Guidelines (DLISG):

The District Level Siting Guidelines, clearly brings out information on environmentally sensitive zones / areas to be avoided for location of industries or carrying of process or operations to be restricted in the district, potential zones for Siting of air and water polluting industries and carrying process that may be considered for Siting anywhere in the district, other than Environmentally Sensitive Zones / Areas in the districts. This will help in implementing the District Level Zoning Atlas for Siting of Industries. The district

level guidelines for Pune, Aurangabad and Ratnagiri is completed and submitted to CPCB for approval. Preparation of the DLISG Nashik and Solapur district is in progress.

4) The State Environmental Atlas (SEA):

The State Environmental Atlas is a compilation of environment related information in the form of GIS based maps, texts and statistical data. It includes maps on general features like Administrative boundaries, major settlements, transportation network etc. The physical characteristics of the State include Land Use, Physiography, Land Capability etc., The Surface / Groundwater features includes Drainage Pattern, Use, Quality, Flow and Table etc. Sensitive Zones will cover major source of Pollution and Environmental Sensitive Zones specifying Biological Diversity, Incompatible Land Uses etc. in the State. Data collection and draft report preparation are under process. Procurement of digital data of SEA is assigned to MRSAC, Nagpur. Partial data received from MRSAC, Nagpur. Preparation of SEA is in progress and will be completed shortly.

5) Environment Improvement Planning At Religious Places:

The religious places in Maharashtra are mostly located in small cities or on the bank of rivers. The local authority do not have adequate infrastructure to manage the floating population during the festival seasons or religious occasions. Due to huge conglomeration of people occasionally at these places may put adverse affect on environment and public health, causing Air, water, noise and solid waste pollution. Considering the seriousness of the issues, the Maharashtra Pollution Control Board considered implementation of the project on environmental improvement of religious places in its 139th meeting held on January 22, 2004. A conceptual paper regarding the environmental improvement at Shirdi, Shani Shinganapur and Alandi was presented at this meeting and the concept of undertaking such a project in Maharashtra was in principle approved by the Board.

The total 17 religious places were identified for the study in the first phase three places Alandi, Shirdi and Shani Shinganapur are taken. The objective of the project is to identify the environmental problems of these religious places identify the suitable projects, prepare the PFR & DPR for the priority projects and provide the logistic support for raising the financial support from Central/State Govt, Public-private partnerships, individual donor organisations, NGOs etc.

Concept plan and prefeasibility studies of Alandi, Dehu, Shirdi and Shani Shingnapur have been completed and submitted to respective authorities for implementation.

Alandi :

- MoU is entered between District Collector, Pune, Alandi Municipal Council, Alandi and MPCB, Mumbai on 19/04/2008 upon submission of Personal Ledger Account (PLA) details by District Collector, Pune to MPCB. Board has agreed to release grant

of Rs. 280.21 Lakh to District Collector. Rs. 10.00 Lakh has been disbursed to District Collector, Pune as a token amount for initializing the study.

Pandharpur :

Techno Economic feasibility study of "Sanitation and Sewerage Management of Pandharpur Town & adjoining areas" is competed through M/s Ecosan Services Foundation, Pune.

- Final report – Draft was presented before State level Stakeholders by M/s.Ecosan Services Foundation, Pune on 18th March 2009 at Mantralaya, Mumbai and decided to present on 6th May 2009 at Sahyadri Guest House, Mumbai.
- Half day workshop has been conducted on 6th May 2009 at Sahyadri Guest House, Mumbai for finalization of the study report on "Sanitation and Sewerage Management of Pandharpur Town & adjoining areas"
- With reference to the discussion held in the workshop, the work order for preparation of the Detailed Project Report for select activities has been issued to M/s Ecosan Services Foundation, Pune on 29.10.2009 and the draft DPR has been presented to High Level Project Monitoring Committee on 08.02.2010. The suggestions and recommendations of the committee have been included in the final Draft and it is proposed to present it before committee for finalization of the report.

Tuljapur And Ramtek :

- Field visit and discussion with Municipal Council officials and Devsthan carried out by MPCB officials.

Action Plan For Environment Improvement At Latur Town (Maharashtra):

- The final draft report is presented to stakeholders.

6) Eco-village At Village: Katewadi, Tal. Baramati, Dist. Pune.

Age old villages in India are characterized by communities which live close to nature and have a supportive socio-economic structure. But nowadays, with the urban centric developments, these villages face problems of out-migration, which effectively leads to the disintegration of the old community systems. Lack of village supportive infrastructure facilities, unsustainable environmental practices and a breakdown of the traditional knowledge systems lead to an overall destruction of villages.

The motivation for eco-villages is the choice and commitment to reverse the gradual disintegration of supportive social and cultural structures and the upsurge of destructive environmental practices. Eco-villages are intended to be socially, economically and ecologically sustainable communities that allow for social networks within a broader foundation.

For the development of an eco-village, people have to strive for achieving the supportive environment and socio-economic developments. For this, the communities integrate various aspects of ecological planning, sustainable waste management practices, green production through organic farming, alternative energy generation etc. Through these practices, the communities develop a sense of responsibility for the environment in which they are living. People are then able to participate in making decisions that affect their own lives and those of the community, on a transparent basis.

Eco Village Goals

The principle of eco-villages seeks a sustainable lifestyle for its inhabitants through infrastructural independence based on the latest available technologies within the region. These include:

- Maximize respect for existing natural and manmade surrounds: landscape, nature, agriculture, local culture and heritage, infrastructure and local economy
- Preserve bio-diversity and habitats in the surrounding landscape, strive for the protection of the surrounding landscape and its natural elements

- Minimize impact of harmful substances on vegetation, wildlife and water systems through practices like organic farming, waste management techniques etc, based on the latest available technologies
- Establish measures to avoid unplanned future extensions of settlements in order to conserve the much-needed agricultural areas
- Maximize mental well-being and community feeling: health and recreation and cultural identity, through women empowerment, youth employment etc.
- Optimize interaction within the natural environment: reuse of waste water, reuse/recycling of waste, use of solar/ wind power, organic farming etc.

MPCB in its 147th meeting held on 28th April 2008 has approved implementation of the project entitled " Eco-Village" at village Katewadi, Tal. Baramati, Dist. Pune to facilitate the protection and conservation of environment infrastructure at Katewadi and entered into MoU.

- MPCB has agreed to provide one time financial assistance of Rs. 129.85 Lakhs to implement demonstration of projects shortlisted by Board.
- MoU is signed on 30th Jan., 2009 among Katewadi Gram Panchayat, Chief Executive Officer, Zilla Parishad, Pune and YASHADA and MPCB.
- Yashada, Pune was appointed as project Management Consultant on behalf of MPCB.
- PMC is formed under the Chairmanship of CEO, ZP Pune to guide and monitor the progress.
- Meetings of the Project Monitoring committee have been conducted to identify the agencies and implement the project.
- Agencies have been identified for various projects and work order are issued to the agencies to carry out the work of the projects as directed by the committee.

13.2 Funding from the Ministry of Environment & Forests, Government of India for Laboratory Equipments and other Projects:

Under the Scheme of Assistance for Abatement of Pollution, funding for the Laboratory Equipments and other Projects, Ministry of Environment and Forests (CP Division), Government of India called the proposals. A proposal was submitted to MoEF, GoI for funding of about Rs.11 Cr. (Rupees Eleven Crore only) for strengthening and smooth functioning of Board's Laboratories. MoEF has sanctioned budgetary allocation under the above scheme to the extent of Rs.3.5 Cr. (Rupees Three Crore Fifty Lakh only). However it was informed by MoEF that the financial assistance can be considered in a phased manner.

13.3 Establishment of Regional Laboratory at Chandrapur:

Chandrapur district is one of the sensitive zone in Maharashtra comprising of industries like Mines, Coal washeries, Cement, Power Stations, Chemicals, etc., where there is a need of rigorous monitoring of environmental issues with respect to air, water and hazardous waste. Considering the workload at Regional Laboratory, Nagpur, Board has proposed to establish a new laboratory at Chandrapur region and accordingly proposal was approved in 146th Board Meeting.

In this regard, comprehensive proposal has been prepared comprising of the budgetary provision for the year 2009-10. Also it is proposed to start the actual working of the laboratory by 5th June, 2010 subject to sanction of required manpower form GOM and deployment thereof by the Board and also budget for the establishment and O & M of Lab.

13.4 Chandrapur Action Plan:

There are various mineral-based industries in Chandrapur district, 35 coal mines, thermal power plants, sponge iron and cement plants are in existence. Due to such type of industries and increasing urbanization, the environment is degraded. In order to prevent environmental degradation and pollution, M.P.C. Board has prepared Chandrapur Action Plan in March 2006. While preparing this plan, issues have been discussed among the concerned industries as well as Government Departments. As a part of Action Plan, M.P.C. Board has strengthened the Air Quality Monitoring system and increased the Air Monitoring activity of respective industries. The Ambient Air Quality of Chandrapur District is monitored by the Board and the results are placed on Website of the Board. Under this Plan in Chandrapur a new Regional Office and Regional Laboratory started recently.

Considering pollution potential the Board has prepared the industry-wise Action Plan. Similarly, for main industries in the District like, Coal-mines, Coal-Washeries and Sponge iron Plants the status report have been prepared. As the Ambient Air Quality is far exceeding the limit, the M.P.C. Board is implementing the Action Plan industry-wise to reduce the level of Air Quality. For implementation of the Action Plan specific time period has been fixed for industries concerned. As per the Action Plan, to observe improvement in Air pollution control system industry-wise review is taken from time to time. The major Cement industries in the District have installed Continuous Ambient Air Quality Monitoring Stations with display arrangements. Due to the Action initiated against various industries, reduction has been noticed in the Air pollution though the Air Quality is not meeting the Standards.

13.5 Pollution due to Electroplating Industries:

In our day to day life, we are using various domestic materials like spoon; pots etc., also

part of motor vehicles are made up of metals. Due to Pollution parameters in the air, the metal gets rusted, due to which life of metal is reduced. In order to increase the life of metal and to make it attractive metal is coated which is called electroplating, galvanizing, polishing etc.

In Maharashtra there are allied industries for Motor vehicles in Pune, Aurangabad, Nashik and Mumbai. There are about 200 to 250 electroplating industries in these areas. From these industries wastewater along with pollutants is discharged in which heavy metals like, Chromium, Cyanide, Copper, Nickel etc are also discharged. Due to these pollutants, there may be effect on land and surface water for long term. Similarly, Chromium and Hexavalent Chromium can cause skin diseases, stomach pain, ulcer, respiratory problem, Kidney/Lung cancer.

In Maharashtra State, most of the Small Scale Industries are engaged in such type of activities, the big industries take the services of electroplating from such small scale industries. Due to lack of skilled labour, in small scale industries they try to complete the work within stipulated time and because of this there may be negligence towards pollution control aspects. Such types of industries are not in cluster form therefore it is impossible to get the wastewater treated to the standard and discharged as per the norms. Therefore the Board and the concerned industries discussed the issues and derived an Action Programme which is being implemented. Now it has been made compulsory that the effluent having metal contamination has to be segregated and recycled. Similarly, wherever Common Effluent Treatment Plant (CETP) is there the effluent has to go to CETP and after treatment it should be used for gardening purpose. All large industries have been instructed to ensure small or Medium industries about their valid permission for electroplating obtained from the Board and also to check pollution control system is in operation or not. In this regard, a Research paper prepared by the Board was presented in an International Workshop held in Pune.

Due to various actions taken by the Board against electroplating industries the Pollution level is reduced in 2009-2010 as compared to 2008-2009. As various electroplating industries have installed metal-recovery Plants, the effluent containing metal is reused hence there is reduction in water consumption. Due to increase in reuse of effluent the discharge on land is totally stopped.

13.6 Electronic Waste Management:

M.P.C.Board has carried out a detailed study in respect of electronic waste generated in MMRDA and Pune - Chinchwad area and it's method of treatment and disposal. According to this study, the waste generated in MMRDA area is 23218 ton per year and in Pune Pimpri-Chinchwad area it is about 1919 ton per year. It has been estimated that the quantity of electronic waste will rise in 2015 to the tune of 50,000 Ton per year and 3500 Tons per year respectively.

It is observed that only physical dismantling is carried out for electronic waste. It is also seen that there are no industries in organized sector to dismantle the waste by chemical treatment. Such types of Industries are mainly based in Delhi, therefore such waste is sent to Delhi for Chemical Treatment.

At present in Mumbai, and Murbad in Thane District a project of physical dismantling of electronic waste is going on. Due to study conducted by M.P.C. Board and the Public Awareness, the Government as well as Private Organizations become aware of electronic waste management and the efforts are being made to manage electronic waste environment-friendly. To prepare necessary Guidelines and to handle the electronic waste in proper manner, MMRDA has constituted high level advisory committee on 22/10/2009.

Based on the Guidelines of Western Europe Electronic Equipments to establish E-waste management project, the Board has prepared feasibility report and submitted to MMRDA for further action.

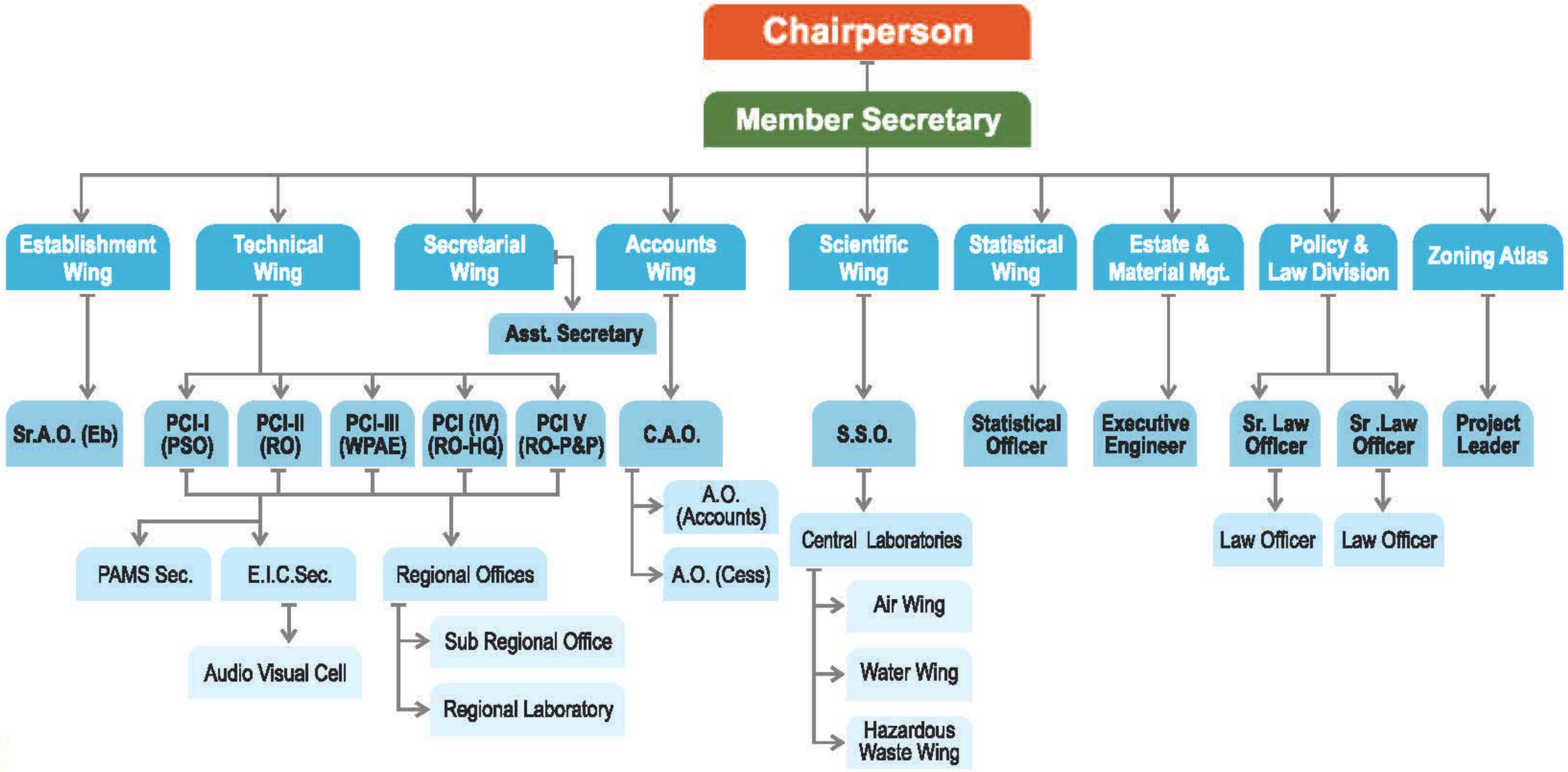
महाराष्ट्र प्रदूषण नियंत्रण मंडळ

MAHARASHTRA POLLUTION CONTROL BOARD

ANNEXURE
2009-10

ANNUAL REPORT 2009-10

Organization Structure of M.P.C.B.

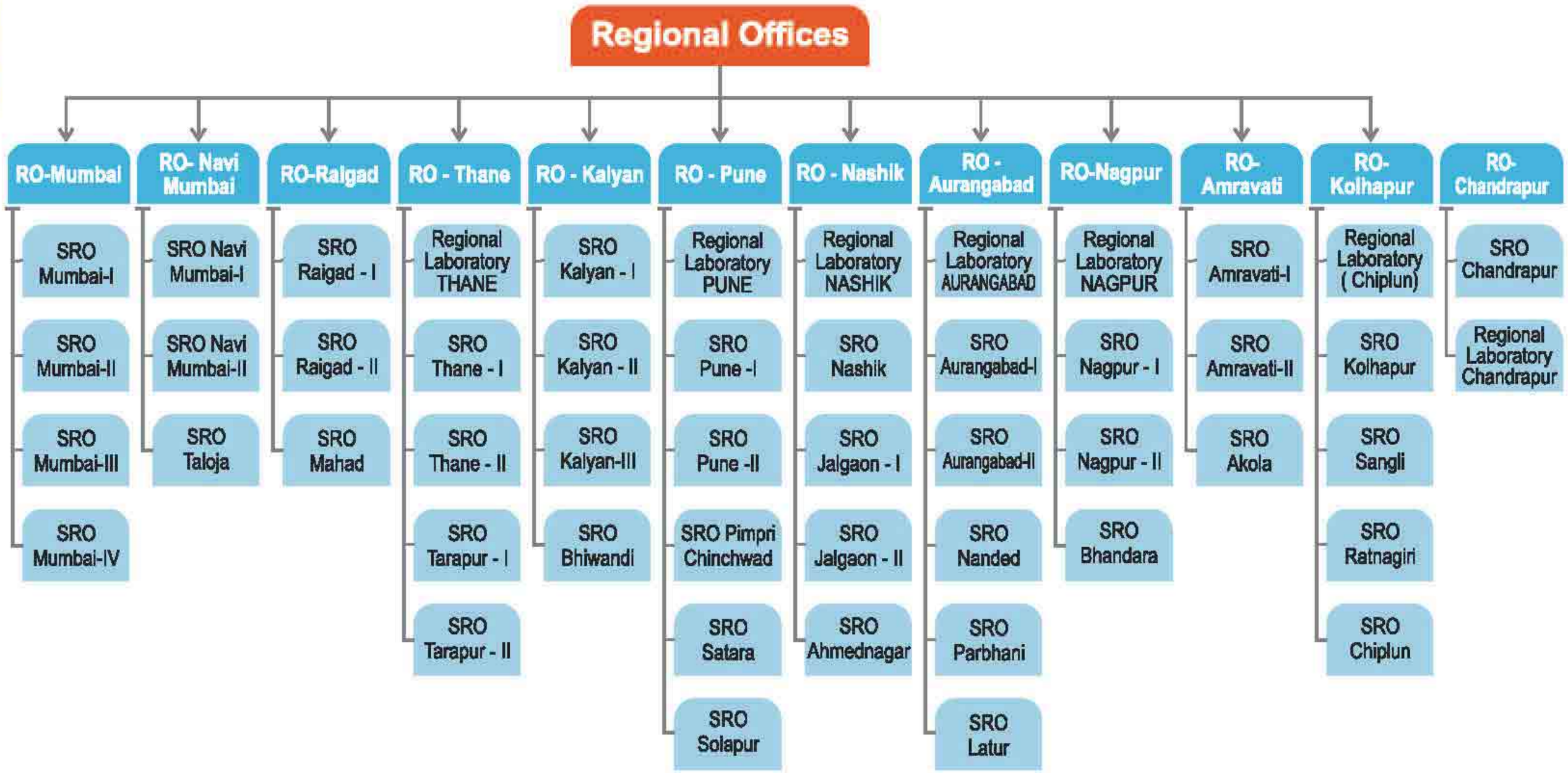


Abbrievations Used :-

WPAE	- Water Pollution Abatement Engineer	Sr. A.O.	- Senior Administrative Officer
APAE	- Air Pollution Abatement Engineer	CAO	- Chief Accounts Officer
RO (HQ)	- Regional Officer (Head Quarter)	AO (Cess)	- Accounts Officer (Cess)
PCI	- Pollution Control & Implementation	AO (Accts.)	- Accounts Officer (Accounts)
RO (P&P)	- Regional Officer (Project & Planning)	SSO	- Senior Scientific Officer
EIC	- Environmental Information Center	PAMS	- Pollution Assesment Monitoring & Survilliance
PSO	- Principal Scientific Officer		

ANNEXURE I (B)

Organization Structure of M.P.C.B.



ANNEXURE II

STAFF STRENGTH AS ON 31.03.2010

Sr. No	CADRE	SANCTIONED	FILLED IN	VACANT
I	**A- TECHNICAL**			
1	Water Pollution Abatement Engineer	1	1	0
2	Air Pollution Abatement Engineer	1	1	0
3	Asst. Secretary (Technical)	1	1	0
4	Regional Officer	14	12	2
5	Executive Engineer	1	1	0
6	Sub-Regional Officer	57	36	21
7	Deputy Engineer	1	0	1
8	Field Officer	204	196	8
9	Statistical officer	1	1	0
10	Statistical Assistant	1	1	0
11	Draughtsman	1	0	1
12	Field Inspector	42	31	11
13	Asst. Draughtsman	2	0	2
14	Tracer	6	4	2
15	Electrician	2	1	1
16	Instrument Fitter	1	1	0
	TOTAL	**336**	**287**	**49**

Sr. No	CADRE	SANCTIONED	FILLED IN	VACANT
II	**B- LEGAL**			
1	Senior Law Officer	2	1	1
2	Law Officer	2	1	1
3	Asst. Law Officer	3	2	1
4	Legal Assistant	4	2	2
	TOTAL	**11**	**6**	**5**

Sr. No	CADRE	SANCTIONED	FILLED IN	VACANT
III	**C- SCIENTIFIC**			
1	Principal Scientific Officer	1	1	0
2	Senior Scientific Officer	3	1	2
3	Scientific Officer	9	6	3
4	Junior Scientific Officer	26	24	2
5	Junior Scientific Asst.	39	38	1
6	Laboratory Asst.	7	6	1
	TOTAL	**85**	**76**	**9**

Sr. No	CADRE	SANCTIONED	FILLED IN	VACANT
IV	**D- ACCOUNTS & ADMINISTRATION**			
1	Chief Accounts Officer	1	1	0
2	Senior Administrative Officer	1	1	0
3	Material Officer	1	0	1
4	Private Secretary	2	1	1
5	Accounts Officer	2	2	0
6	Administrative Officer	1	0	1
7	Asst. Secretary	1	0	1
8	Asst. Accounts Officer	11	11	0
9	Head Accountant/O.S.	20	17	3
10	Senior Clerk	50	47	3
11	Junior Clerk	64	59	5
12	Senior Steno	5	5	0
13	Junior Steno	27	25	2
14	First Clerk	17	14	3
15	Daftari	14	10	4
16	Drivers	74	69	5
17	Roneo Operator	1	0	1
18	Naik	2	0	2
19	Chowkidar	20	18	2
20	Peons	88	69	19
21	Sweeper	3	3	0
	TOTAL	**405**	**352**	**53**

Sr. No	CADRE	SANCTIONED	FILLED IN	VACANT
ABSTRACTS				
A.	Technical	336	287	49
B.	Legal	11	6	5
C.	Scientific	85	76	9
D.	Accounts & Administration	405	352	53
	Member Secretary	1	1	0
	Chairman	1	1	0
	TOTAL	**839**	**723**	**116**

ANNEXURE III

Training, Workshops and Seminars attended by Board Officers & Staff (2009-10)

Name of the Institute & Venue	Training Date	Subject	Participant Name
E.S.C.I., Hyderabad	15th - 17th April, 2009	Environmental Legislations in India-Interpretation & Implementation	Shri D.T. Devale, SLO Mrs. Neelam Kubal, ALO Mrs. Netra Chapekar, ALO
Confederation of Indian Industry Soharabji Godrej Green Business Centre	7th - 8th May, 2009	Green Cementech, 2009, International Conference & Exposition on Cement Technoloies	Shri V.V. Shinde, I/c. R.O. Chandrapur
YASHADA Pune	4th - 7th May, 2009	Computerised Office Administration	1)Mrs. N. Borade, AAO 2)Mrs. Mankar, Sr. Clerk 3)Mrs. Naik, Sr. Clerk 4) Mrs. Giri, F.C. 5) Mrs. Londhe, H.A. 6) Mrs. Pedekar, F.C.
Coast Guard Mumbai, Coast Guard, Pollution Response Team(W), Shed No.3, New Ferry wharf	27th April -1st MAY 2009	National Level Pollution Response Excerse (Natpolrex 09)	Shri A.F. Deshmane, SRO Shri U. Kulkarni. F.O.
YASHADA, Pune	22nd May, 2009	Training Programme on Unicode	Mrs. Trupti H. Gosavi Mrs. Chhaya Kadam
Advanced International Norrkoping, Sweden	25th May -18th June, 2009	Training Programme on "|Air Polluton Management-India"	Mr. J.H. Patil, R.O. Nashik Mr. N.D. Toke, S.R.O(HQ) Mr. S.C. Kolhur, JSO Mr. A.D. Satphale, F.O. Mr. Kiran Hasabnis, F.O.
Computer Society of India Mumbai Chpater at Andheri, Mumbai	11th - 14th May, 2009	Training Programme Project Management	Mr. Dinesh M. Sonawane, ASO
Madhaya Pradesh P.C. Board	9th & 10th June, 2009	Training Program on Bio-monitoring during 9th & 10th June, 2009	Mr. Suresh Bhosale, JSO, Pune Lab.Mr. P.B. Khadkikar, JSO, A'bad Lab.
E.S.C.I., Hyderabad	15th - 17th July 2009	Training Programme on CDM Projects Conceptualization to Marketing	Mr. A.D. Saraf, RO (C)
C.P.C.B. sponsored National Geophysical Research Institute, Hyderabad	23r - 25th June, 2009	Second Phase training programme on 'Mass Transport Marketing for remediation of Haz. Waste Dump SitesIndustry	Dr. Y.B. Sontakke, RO (HQ)
C.P.C. Board, Central Pulp & Paper Research Institute at Tagore hall Scope Complex, Delhi	2nd July, 2009	Workshop on "Solutions to Emerging Environmental concerns in Pulp & Paper Ind.	Shri V.V. Shinde, I/c. R.O., Chandrapur Shri N.N. Gurav, SRO(HQ)
YASHADA, Pune	24th - 27 th Aug. 2009	Hardware Trouble shooting in Networking	Shri Jay Hadkar, Jr. Clerk Shri Subodh Waikar, Jr. Clerk

Name of the Institute & Venue	Training Date	Subject	Participant Name
NITIE Mumbai	14th - 16th Sept., 2009	Business Strategies for climate change	Dr. B.S. Birader , S.R.O. Aurangabad
E.S.C.I., Hyderabad	14th - 16th Sept., 2009	Latest trends in Envt. Impact assement (EIA)	Shri Raju Vasave,SRO Kalyan-II Shri Sandeep Tope, F.O. (HQ)
German Development Corpn., Delhi Centre for Envt. & Nature Conservation Deptt of Zoology, Patna University, Patna	13th - 14th Sept, 2009	Municipal Solid Waste Management Sponsored by German Development Corpn, Delhi	Mr. Nagesh Lohalkar, S.R.O. (H.Q.)
Thermo Fisher Scientifisc (Cabridge, U.K.) SID Diision at SOLAAR House, 19, Mercers Row, Cambridge, CBS 8BZ UK	5th - 7th Oct., 2009	Inductively coupled Plasma Emission Spectrometer (ICPES)	Shri A.P. Kolhe, S.O.
National Institute of Hydrology, Roorkee at CSMRS, New Delhi	9th - 13th Nov. 2009	Water Quality & its Management at CSMRS, New Delhi	Ms. Rgini Butale, JSO Shri V.R. Thakur, S.O.
Administrative Staff College of India, Bella Vista, Raj Bhavan Road, Hyderabad	12th - 14th Oct.	Environmental Management Systems in Pharma & Chemical Sector	Mrs. Soujanya S. Patil, F.O. Mrs. P.K. Mirashe, R.O Pune
Coast Guard Mumbai, Coast Guard, Pollution Response Team(W), Shed No.3, New Ferry wharf	5th - 9th Oct. 2009	National Level Pollution Response Excerce (Natpolrex-09) Coast Guard, Mumbai	Kishore Kerlikar, F.O., SRO Thane-II T.K. Dev Kamble, F.O. S.R.O. Mumbai-I
Good Governance India Foundation at Kolkatta	4th - 6th Nov. 2009	Municipalika Kolkatta 2009 – 7th International Conference & Exhibition on Municipal Services	Shri A.S. Fulse, I/c. R.O. Nashik Shri R.A. Rajput, S.R.O. Dhule
Technical Corporation of the Govt. Japan International Corpn. Agency, Japan	15th Nov-18th Dec.,2009	Effective Use of Industrial Water and Reuse of Waste Water	Shri Pramod Rajaram Mane, Field Officer, Chiplun
Exhibition Conducted at Nashik by M/s. Seagram Distilleries Pvt. Ltd., Nashik	12th aug., 2009	Zero Discharge Concept in Grain Based Distilleries	R.O. Nashik with Staff (Rs. 30,250/-)
H.R.D.P. supported by German Technical Corporation Delhi Centre for Envt. & Nature Conservation, Patna University	21st - 23rd Nov. 2009	Hazardous Waste Management	Shri Tanaji N. Yadhav, F.O. Navi Mumbai-III Dr. Arjun Jadhav, F.O. Mumbai-III
VBS Marketing Communication Pvt. Ltd., Nehru Centre, Worli, Mumbai	20th Nov. 2009	Supplementing & Saving Energy -The Renewable Energy Reuse	Shri Sandip Rane, Electrician
YASHADA, Pune	23rd - 26th Nov, 2009	Computerised office Adm with MS Office Module	Shri Sanjay Bhosale, SRO(CO) Shri Nagesh Lohalkar, SRO
Secretary Envt., GoM, Seminar Hall, Ground Floor, TERI, India Habitat Centre, Darbari Seth Block, New Delhi	20th Nov., 2009	Energy Efficiency Improvement in Indian Brick Industry	Shri B.B. Nimbarte, R.O. Kalyan
YASHADA, Pune	30th Nov-2nd Dec.	IT Security	Shri U.S. Jadhav, F.O. EIC Shri J.S. Hadkar, Jr. Clerk, EIC
MITCON Consultancy Services Ltd., Tirupati Training Centre, B-Wing, 1st Floor, New Samadhan, Mumbai	3rd Dec. 2009	"Selection of Professional Consultant & Client Consultant Agreement	Mrs. Vidya Pednekar, JSO Mr. A.V. Reddy, J.S.O. Mrs. Shilpa Mantri

Name of the Institute & Venue	Training Date	Subject	Participant Name
Veermataji Jijabai Technological Institute, (Central Technological Institute, M.S. Matunga, Mumbai	20th Dec. 2009	"Selection of Professional Consultant & Client Consultant Agreement	Ms. Shrutika Dalvi, F.O. Ms. Rupali Kamble, F.O.
	Batch-I, 14th Jan to 12th Feb 2010	"Sustainable Envt"	All New Field Officers
	Batch-II, 15th Feb to 26th March, 2010	Collection & Analysis of various types of samples	
Bhugol GIS Pvt. Ltd., IIT Bombay, Powai, Mumbai	4th – 6th Jan. 2010	Gram ++	Mr. Gopal Kadam, JSA Mr. Umesh Jadhav, F.O. Mr. Rajaram Indulkar, F.O. Mr. Sandeep Motegaonkar, F.O. Mr. Sangram Nimbalkar, F.O. Mr. Subodh A. Waikar, Jr. Clerk
National Metalurgical Laboratory at Jamshedpur	21st – 22nd Jan. 2010	Electronic Waste	Mr. Ajay Deshpande, R.O. I/c. PCI-II
C.P.C. Board, Training Hall	18.1.10 to 22.1.10	Waste Management	Shri Sanjay Bhosale, S.R.O. Shri R.R. Vasave, S.R.O.
M/s. Envirotech Centre for Research & Development At Ghaziabad, U.P.	12.2.10 to 13.2.10	Appropriate Instruments & Techniques for complying with New Ambient Air Quality Standards	Shri Sarang Deshpande, JSO Shri Bhivapurkar, F.O. Shro N.S. Awtade, F.O. Shri Mahesh Rakh, JSO Shri A.S. Nandavate, F.O.
Indian Institute of Technology, Delhi of the Dept. & Chemical Engineering ITI, Hauz Khas, New Delhi	25th-27th Feb.	Pollution Control of Textile Dyeing Industries	Shri Ajay Chavan, F.O. Shri Joy Thakur, F.O. Shri Chandrakant Shinde, F.O.
Computer Society of India & Bombay Management Association at Andheri (E), Mumbai	26.02.2010	India IT 2020	Dr. Rajiv Desai, IT Manager Dinesh Sonavane, System Officer
C.P.C. Bord at NEERI, Nagpur	16th-18th Feb, 2010	Quality Assurance & Quality Control in Labaoratory Analysis	Shri B.U. Bhandara, JSO Miss Babita P. Baysa, JSO
Trinity Academy, Kurla	17th -18th Feb. 22nd-23rd Feb. 24th-25th Feb. 2nd-3rd March	Soft Skill Training	All HQ Staff
Dyandeep Education & Research Foundation at Sangli	21xt Feb., 2010	Green Tech2010	Shri B.M. Kukade Shri V.V. Killedar Shri N.S. Avtade. Shri Pramod Mane, F.O.
YASHADA at Pune	18th – 20th March, 2010	IT Security	Shri Jay Hadkar Shri Subodh Waikar, Jr. Clerk
Water Quality Mgnt. Plan at Zonal Office, CPCB, Vadodra	Feb. 4th – 6th 2010	Water Quality	Shri S.V. Bhosale, S.O. Regional Lab. Nashik
Rajiv Gandhi College of Engineering Research & Technology, Chandrapur	12th March 2010	Sponsorship of workshop Bio-gas energy generation & utilization	4 officials from Chandrapur region

ANNEXURE IV (A)

Consents / Authorizations Granted by HQ during (2009-2010)

Sr. No	Region	Consent Granted			Total	Authorizations granted under the Rules
		To Establish	To Operate	Renewal		BMW
1	Mumbai	64	15	41	120	28
2	Navi Mumbai	26	22	56	104	3
3	Thane	38	23	85	146	6
4	Kalyan	28	42	50	120	2
5	Raigad	44	17	47	108	2
6	Pune	156	161	180	497	22
7	Nagpur	46	44	61	151	7
8	Nashik	50	59	87	196	17
9	Amravati	13	12	7	32	7
10	Aurangabad	27	39	62	128	13
11	Kolhapur	45	45	93	183	15
12	Chandrapur	9	16	14	39	2
	Total	**546**	**495**	**783**	**1824**	**124**

ANNEXURE IV (B)

Status of Consents / Authorization Granted by Regional / Sub Regional Offices (2009-2010)

Sr. No	Region	Consent to Establish	Consent to Operate	Total Consents granted	Authorization granted under BMW Rule
1	Mumbai	11	338	349	331
2	Navi Mumbai	105	429	534	110
3	Thane	127	500	627	391
4	Kalyan	139	432	571	203
5	Raigad	66	147	213	203
6	Pune	508	865	1373	871
7	Nagpur	256	474	730	308
8	Nashik	579	1068	1647	1618
9	Amravati	231	228	459	590
10	Aurangabad	616	951	1567	2292
11	Kolhapur	762	779	1541	738
12	Chandrapur	88	183	271	383
	Total	**3488**	**6394**	**9882**	**8038**

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MAHARASHTRA POLLUTION CONTROL BOARD

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