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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.

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.

Functions of the State Board

- (a) To plan a comprehensive program for the prevention, control or abatement of pollution of streams and wells and ambient air in the State and to secure the execution thereof;
- (b) To advise the State Government on any matter concerning the prevention, control or abatement of water pollution/ Air pollution;
- (c) To collect and disseminate information relating to water/Air pollution and the prevention, control or abatement thereof;
- (d) To encourage, conduct and participate in investigations and research relating to problems of water/Air pollution and prevention, control or abatement of water pollution;
- (e) To collaborate with the Central Board in organizing the training of persons engaged in programs relating to prevention, control or abatement of water/Air pollution and to organize mass education programs relating thereto;
- (f) To inspect sewage or trade effluents, Air and Stack, works and plants for the treatment of sewage and trade effluents and to review plans, specifications or other data relating to plants set up for the treatment of water, works for the purification thereof and the system for the disposal of sewage or trade effluents or in connection with the grant of any consent as required by this Act;
- (g) Lay down, modify or annual effluent standards for the sewage and trade effluents and for the quality of receiving waters (not being water in an interstate stream) resulting from the discharge of effluents and to classify waters of the State;
- (h) To evolve economical and reliable methods of treatment of sewage and trade effluents, having regard to the peculiar conditions of soils, climate and water resources of different regions and more especially the prevailing flow characteristics of water in streams and wells which render it impossible to attain even the minimum degree of dilution;
- (i) To evolve methods of utilization of sewage and suitable trade effluents in agriculture;

- (j) To evolve efficient method of disposal of sewage and trade effluents on land, as are necessary on account of the predominant conditions of scant stream flows that do not provide for major part of the year the minimum degree of dilution;
- (k) To lay down standards of treatment of sewage and trade effluents to be discharged into any particular stream taking into account the minimum fair weather dilution available in that stream and the tolerance limits of pollution permissible in the water of the stream, after the discharge of such effluents;
- (l) To make, vary or revoke any order –
 - (i) For the prevention, control or abatement of discharge of waste into streams or wells;
 - (ii) Requiring any person concerned to construct new streams for the disposal of sewage and trade effluents or to modify, alter or extend any such existing system or to adopt such remedial measures as are necessary to prevent control or abate water pollution;
- (m) To lay down effluent standards to be complied with by persons while causing discharge of sewage or sludge or both and to lay down, modify or annual effluent standards for the sewage and the trade effluents;
- (n) To advise the State Government with respect to the location of any industry the carrying on of which is likely to pollute a stream or well;
- (o) To perform such other functions as may be described or as may, from time to time be entrusted to it by the Central Board or the State Government;
- (p) The Board may establish or recognize a laboratory or laboratories to enable the Board to perform its functions under this section efficiently, including the analysis of samples of water from any stream or well or of samples of any sewage or trade effluents, Ambient air or stack.

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, members representing the local bodies (not exceeding five) and members representing interests of agriculture, fishery, industry, trade or any other interest are not appointed yet as per the composition given under the Act.

Shri **Milind Mhaikar IAS** has joined in as Member Secretary w.e.f. 27/06/2011 and shri **Jatinder Singh Sahani IAS** has joined in as Chairman of the Board w.e.f. 08/08/2011.

Present Constitution of M. P. C. Board

Shri Jatinder Singh Sahani

Chairman,
M. P. C. Board, Mumbai

Secretary

Environment Dept.
Government of Maharashtra,
Mumbai

Additional Chief Secretary

Public Health Dept.
Government of Maharashtra,
Mantralaya, Mumbai

Principal Secretary - II,

Urban Development Dept.
Government of Maharashtra,
Mumbai

Principal Secretary

Water supply and Sanitation.
Government of Maharashtra,
Mantralaya, Mumbai

Secretary,

Home (Transport) Dept.
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 Milind Mhaikar

Member Secretary,
M. P. C. Board, Mumbai

3. MEETINGS OF THE BOARD

During the reporting year 3 meetings were held. The major decisions taken are as below

154th meeting (21/07/2011)

- The Board accorded its sanction to the additional budget of s.4,43,25,18800 for disbursement of subsidy to CETP facilities for the year 2011-12 and Rs. 1,16,72,187=00 for IMIS-e-Biz integration.
- Guidelines for setting up poultry farm unit and fix the terms/conditions for grant of Consent to poultry farms i.e. Distance from habitation and river, to decide categories, to decide provisions of treatment and disposal facilities required for waste generating from their activities, and necessary precautions of sanitation etc. have been prepared by the Board.
- M.P.C. Board in its 151st Meeting has approved a proposal for sponsorship for M.Tech, Ph.D. and Chair Professor at the renowned educational institutes in the state. In this regard MoUs with the following institutes are finalized and signed in the presence of Hon'ble Chief Minister on 5th June 2011. The total financial assistance of Rs.310.00 lakhs for M.Tech and Ph.D. fellowships and for a Chair Professor each at IIT & VNIT has been sanctioned for the same.
- The Board decided to introduce remote monitoring systems at major CETPs having effluent quantity about 10 MLD.

155th meeting(24/10/2011 & 25/10/2011)

- The Board decided to approve Revised Scheme for engagement of the Services of Approved Panel Advocate/s with effect from 01.01.2012. With this scheme the Regional Officer/s with the approval of Member-Secretary and in consultation with the Policy & Law Division can engage the Advocate/s in Lower Courts.
- CPF Budget for the year 2012-2013 has been approved.
- Member-Secretary has been authorized to invest surplus funds of the Board in private sector Banks, Public Sector Banks as well as development and financial institutions and in Nationalized banks for a period up to one year maturity and for more than one year maturity period, investment shall be made with the approval Chairman/ Board by following guidelines as stipulated in the concerned Govt. Resolutions.
- The Board decided to issue authorization only to those Municipal authorities under Municipal Solid Waste (Management & Handling) Rules, 2000 where landfill or waste processing site is approved by the District Level Committee formed as per G.R. dated 26/08/2003 issued by the Water Supply & Sanitation Deptt., Govt. of Maharashtra. This may be made applicable to new sites with the condition that the buffer zone should be properly developed with green belt, to prevent any sort of adverse impact on environment of the surrounding area.

156th meeting (30/01/2012&31/01/2012)

- The Board in principle agreed for the estimated cost of Rs. 28.82 lakhs to be shared for the installation of 5 Noise monitoring Stations in Mumbai, which will be taken up on 50:50 cost sharing basis.
- The Board decided to lease out the Boards Premises at 7th floor Raigad Bhavan in Navi Mumbai admeasuring 437.73 sq. mtrs. at a rent of Rs. 1,82,390=00 per months to MSRLM excluding all taxes & other charges.
- The Board approved the Annual Accounts prepared for the year 2009-10 and also decided to engage top Accounting and Audit firms for comprehensive review of existing accounting policies and internal control systems and suggestion/ recommendations for a revamp. For this a provision of Rs. 25,00,000/- is also made.
- The Board accorded its approval for the financial Budget for the year 2012-13.
- For financial assistance to new common Bio-Medical Waste Treatment and Disposal Faciliy in the State, the Board decided to submit a proposal to Mo EF through State Environment Dept. for further evaluation and approval.
- The initiatives taken by the Boar office in respect of consent management for improvement in enforcement and compliance was noted and decided to prepare overall architecture/road map for working of the Board in next five years.



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 was constituted

4.1 Appellate Committee:

In exercise of the powers conferred under section 13 read with Rule 9(1) (b) of the Water (Prevention and Control of Pollution) Cess Act, 1977 and Rules made thereunder the Appellate Committee has been constituted comprising of following members.

- | | |
|-----------------------------------------------------------------------------------------------------------|----------|
| 1. Chairman Maharashtra Pollution Control Board | Chairman |
| 2. Chief Executive Officer
Maharashtra Industrial Development Corporation
Andheri (E) Mumbai 400093 | Member |
| 3. Member-Secretary (Technical)
Maharashtra Jivan Pradhikaran
Nariman Point Mumbai 400021 | Member |

The above Appellate Committee shall hear the appeals preferred against the orders of assessment made under section 6 or order imposing penalty made under section 11 of the Water (Prevention and Control of Pollution) Cess Act, 1977 by the Assessing Authority.

4.2 Consent Appraisal Committee (CAC):

During the reporting year, Consent Appraisal Committee is comprised of following members;

- | | |
|-------------------------------------------------|------------------|
| 1. Chairman,
MPC Board, Mumbai. | Chairman |
| 2. Secretary,
Home (Transport) Dept., Mumbai | Member |
| 3. Technical Advisor,
MIDC, Mumbai | Member |
| 4. Member Secretary,
MPC Board, Mumbai | Member Secretary |
| 5. Scientist & Head, | Special Invitee |

NEERI, Mumbai

TERMS OF REFERENCE

The CAC shall consider the 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. 100 crores.
‘ORANGR’ Category	:	Projects with capital investment above Rs. 500 crores.
‘GREEN’ Category	:	All Projects beyond Rs. 1000 crores/ All Municipal Corporations.

MPCB has conducted 20 Consent Appraisal Committee meetings during the year 2011-12 and total 764 applications were discussed which are more than double to the previous year.

For transparent, speedy disposal of consent applications under Consent Appraisal Committee, following strategy is used

1. Prepared the database of industries comes under consent appraisal committee. Total number of CAC industries are 626 and number of consents issued are 771.
2. Prepared the calendar for CAC industries to know the industries which are due for consent. Accordingly, issued notices to the industries for making application for consent.
3. Prepared the compliance report of CAC industries to whom Board has stipulated specific conditions (such as up-gradation of pollution control system, provision of ZERO discharge, Bank guarantees, Board Resolution, etc.) in the consent granted and taken the action on defaulting units. The total 86% industries has made compliance of Bank Guarantee condition and other conditions too.
4. Prepared the **Legal Matrix** for taking uniform action on defaulting CAC industries for compliance of consent conditions.
5. Initiated **Auto-Renewal** of consent based on self certification to speed up consent procedure. The said scheme is applicable for industries which are granted consents by CAC/CC committees constituted by the Board. Auto renewal of consent will be applicable when there is no increase in overall production capacity and also, in pollution load and in case, there is marginal increase (max. 10%) in the capital investment which is due to adoption of cleaner technologies or increase in investment within 10% of its previous year, etc.
6. Hosted entire details of CAC database (list of industries along with information), calendar, CAC meetings, agenda, minutes of meeting, consent copies, action taken report, compliance report of specific conditions, bank guarantee details, etc. on MPCB website and updated regularly which resulted in transparency in working, easy access of information to public/ industries and speed up of disposal of applications/matters.

The above working methodology has increased the Boards revenue. This is the 1st year during which maximum number of CAC meetings conducted and maximum number of applications disposed and near to achieve the ZERO Pendency.

4.3 Consent Committee (CC):

The Member Secretary of the Board was authorized to constitute the consent committee. The Member Secretary of the Board accordingly constituted the Consent Committee on the subject matter and Consent Committee is comprises of following members;

1.	Member Secretary Maharashtra Pollution Control Board	Chairman
2.	Water Pollution Abatement Engineer Maharashtra Pollution Control Board	Member
3.	Air Pollution Abatement Engineer Maharashtra Pollution Control Board	Member
4.	Regional Officer, I/c, PCI-II Maharashtra Pollution Control Board	Member
5.	Shri. R. G. Pethe Retired WPAE. MPC Board	Member
6.	Dr. B. N. Thorat Prof. Chemical Engineering, Dept. of Chemical Engineering, UDCTI, Mumbai	Member
7.	Shri. D. T. Devle Sr. Law Officer, MPC Board, Mumbai	Special Invitee
8.	Regional Officer (Project & Planning) Maharashtra Pollution Control Board	Convener

TERMS OF REFERENCE

The CC shall consider the 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. 25 Crores and upto Rs. 50 Crores.
‘ORANGR’ Category	:	Projects with capital investment above Rs. 200 crores and upto Rs. 300 Crores.
‘GREEN’ Category	:	Projects with capital investment above Rs. 1000 crores and upto Rs. 1500 Crores.
‘Infrastructure’ Category	:	Projects with capital investment above Rs. 100 crores and upto Rs. 200 Crores.

Chairman

‘RED’ Category	:	Projects with capital investment above Rs. 50 Crores and upto Rs. 100 Crores.
‘ORANGR’ Category	:	Projects with capital investment above Rs. 300 crores and upto Rs. 500 Crores.
‘GREEN’ Category	:	Projects with capital investment above Rs. 1500 crores and upto Rs. 2000 Crores.
‘Infrastructure’ Category	:	Projects with capital investment above Rs. 200 crores and upto Rs. 500 Crores.

MPCB has conducted 21 consent committee meetings during the year 2011-12 and total 607 applications were discussed and disposed off in the meeting. Now, consent committee is following the same strategy used in Consent Appraisal Committee for achieving ZERO Pendency and compliance of consent condition.

4.4 Research Advisory Committee (RAC):

The Board has constituted ‘**Research Advisory Committee**’ under the Chairmanship of Chairman of the Board on 17.01.2011 comprising of following members

- | | | |
|--------------------------------------------------------------------------------|---|-----------------|
| 1. Hon. Chairperson, MPCB | - | Chairperson |
| 2. Member Secretary, MPCB | - | Member |
| 3. Representative of MIDC
(CEO or his representative / Jt. CEO (Env.), MIDC | - | Member |
| 4. Representative of CPCB
(Member Secretary or Addl. Director (Lab), CPCB) | - | Member |
| 5. Dr. Sengupta, Ex. Member Secretary, CPCB | - | Member (Expert) |
| 6. Prof. A.R. Kale, Ex. HOD, Env. Dept., JNU, Delhi | - | Member (Expert) |
| 7. Director, NEERI, Nagpur | - | Member (Expert) |
| 8. Dr. Sandhya Mainkar-Nirgude, Aurangabad | - | Member (Expert) |
| 9. Prof. A.D. Sawant, Ex. Pro Vice Chancellor,
Mumbai University | - | Member (Expert) |
| 10. Chief Accounts Officer, MPCB | - | Special Invitee |
| 11. Principal Scientific Officer, MPCB | - | Member Convener |

The meeting of above committee was held on 14 June 2011 in which it was decided to prepare R and D policy documents for next 3 years including priority areas, budget and proforma for application etc.

4.5 Laboratory Committee:

The Laboratory Committee comprising of following members was reconstituted on 20.10.2010:

- | | |
|-----------------------------------------------------------------------------------|-------------------|
| 1. Hon. Chairperson, MPCB | - Chairperson |
| 2. Secretary, Environment (Board Member) or his nominee | - Member |
| 3. Member Secretary, MPCB | - Member |
| 4. Member Secretary, Maharashtra Jeevan Pradhikaran (Board Member) or his nominee | - Member |
| 5. CEO, MIDC, Mumbai (Board Member) or his nominee | - Member |
| 6. Prof. M.H. Fulekar, Dept. of Life Sciences, University of Mumbai, Mumbai | - Expert Member |
| 7. Shri P.P. Nandusekar, Ex-PSO, MPCB | - Expert Member |
| 8. Chief Accounts Officer, MPCB | - Special Invitee |
| 9. Principal Scientific Officer, MPCB | - Member Convener |

The above committee held one meeting on 24th October 2011. As decided in the meeting, a review report in respect of performance of Regional offices, sub-Regional offices and laboratories was prepared and based on this review sampling norms are defined. The procurement of new laboratory instruments and equipments is being reviewed by sub-committee constituted for this purpose. Preparation of vision document for Laboratories along with training needs is under process.



5. Air & Water Quality Monitoring Network

5.1 Water Quality Monitoring Network

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 entering the rivers everyday which might prove to be detrimental not only to the aquatic life but also to the human life due to inadequate STP and ETP facilities. The physicochemical, biological and ecological characteristics of water bodies change adversely due to the flow of 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 the water quality by analyzing the various physicochemical and biological parameters from various water bodies in the State. To attain the same, various monitoring stations have been set up at different points through which these rivers flow.

Modernized management of water resources requires a large amount of temporal and spatial information on variations in water quality and quantity, in order to protect communities from floods or drought, to support various types of water use and to control pollution in water bodies. As urbanization and industrialization have increased and water pollution has become a threat for more areas, both the general public and policy makers have called for improvements in the design and operation of monitoring networks in river systems.

The State Pollution Control Board is responsible for restoration and maintaining the wholesomeness of aquatic resources. The ever increasing population of the State and thereby increasing the demand of water for irrigation, human and industrial consumption etc. resulted in depletion of water resources and deterioration of water quality. The main sources of river water pollution are discharge of untreated sewage and industrial effluent.

To evaluate the trend in water quality, observe the pollutants in terms of their nature, concentration and also to know the extent of pollution control needed and study the effects of pollution control measures already taken it is essential to monitor the pollution level of



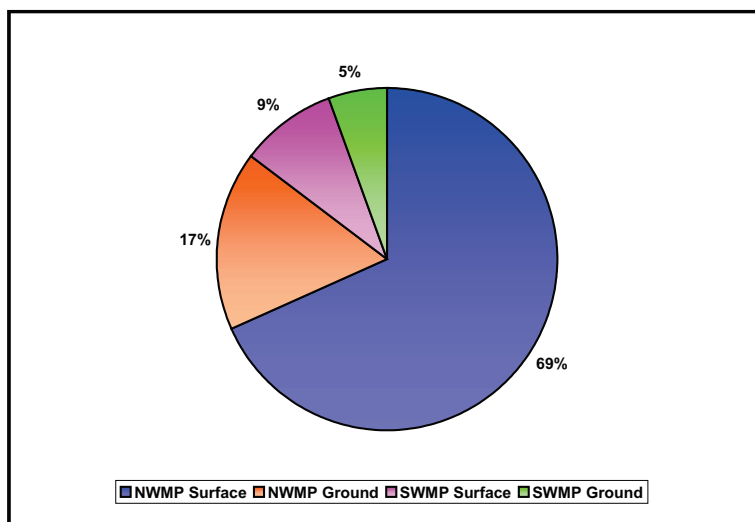
water sources. As provided under section 17 of water (P&CP) Act, 1974 & Air (P&CP) Act, 1981, it is one of the important functions of the Board to collect & disseminate information regarding water & air pollution.

The Board has a network of 200 surface water quality monitoring stations and 50 stations are fixed for ground water monitoring across the State. The region wise monitoring stations for water quality are shown in the following table.

Region	Water (NWMP)		
	Surface Water		Ground Water
	MINARS	GEMS	
Mumbai	12	0	0
Navi Mumbai	2	0	0
Thane	26	0	5
Kalyan	10	0	0
Raigad	17	0	1
Pune	45	2	6
Nashik	31	0	6
Nagpur	11	0	11
Amaravati	6	0	2
Aurangabad	10	1	5
Kolhapur	16	1	13
Chandrapur	9	1	1
Total	195	5	50

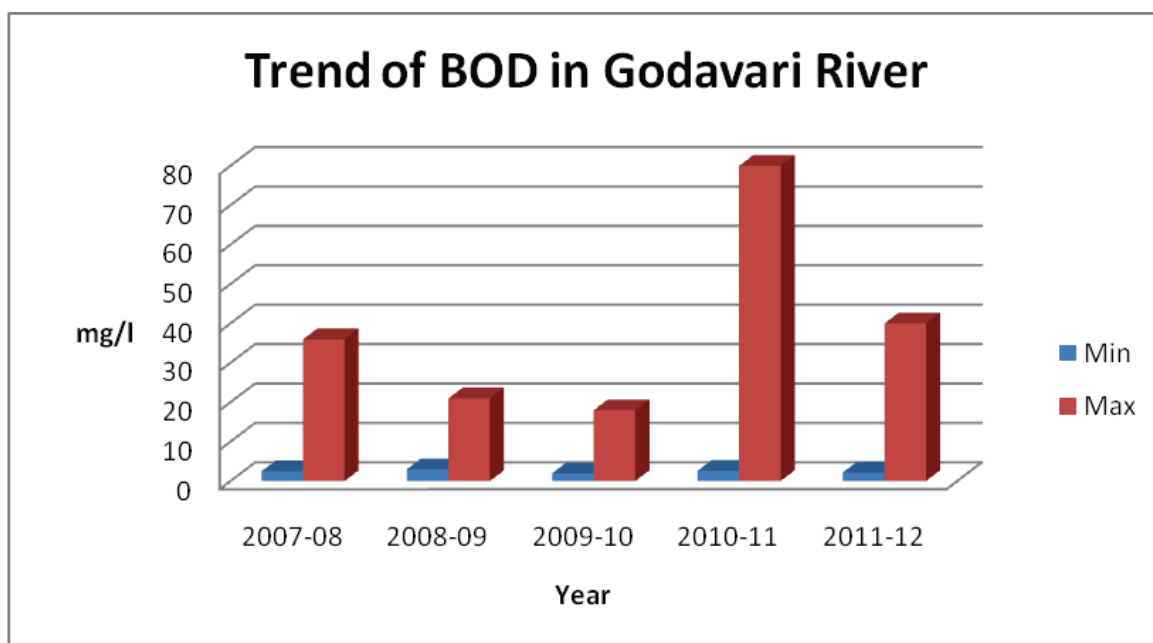
All these stations are monitored under **National Water quality Monitoring Programme (NWMP)**. All surface water stations are now monitored once in month. The ground water monitoring stations are monitored half yearly.

From Jan 2012 Board has been monitoring 43 stations comprising 27 surface water locations and 16 Ground Water locations under **State Water Monitoring Programme (SWMP)**.

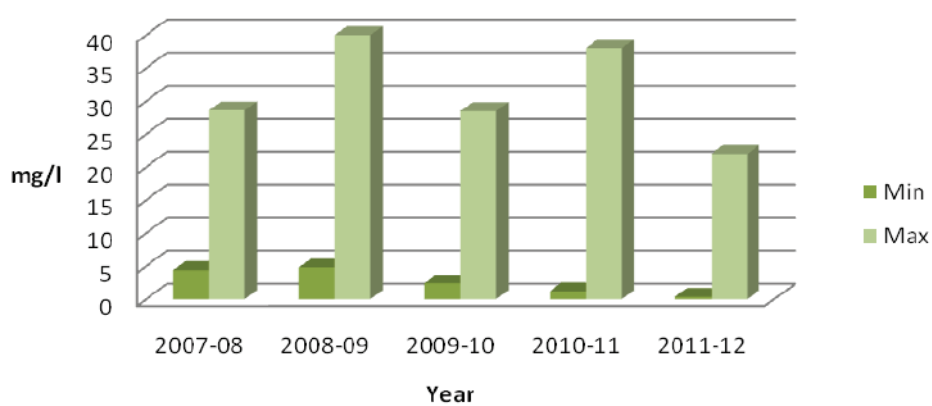


The data generated through these stations are useful in understanding the water quality trends and effectively preparation of action plan to prevent and control the water pollution. Maharashtra Pollution Control Board proposes to increase the additional 55 monitoring stations under State Water Monitoring program.

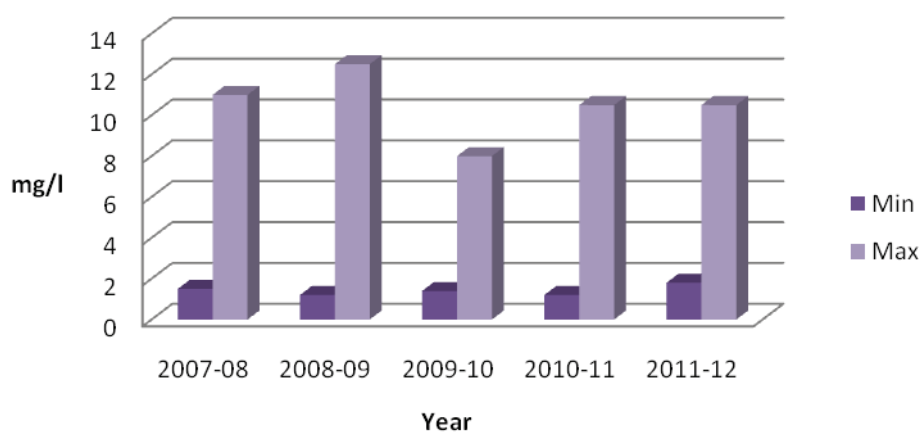
The water quality trend of B.O.D. in major rivers in Maharashtra like Godavari, Bhima, Krishna and Tapi for last 5 years is presented in following figures.

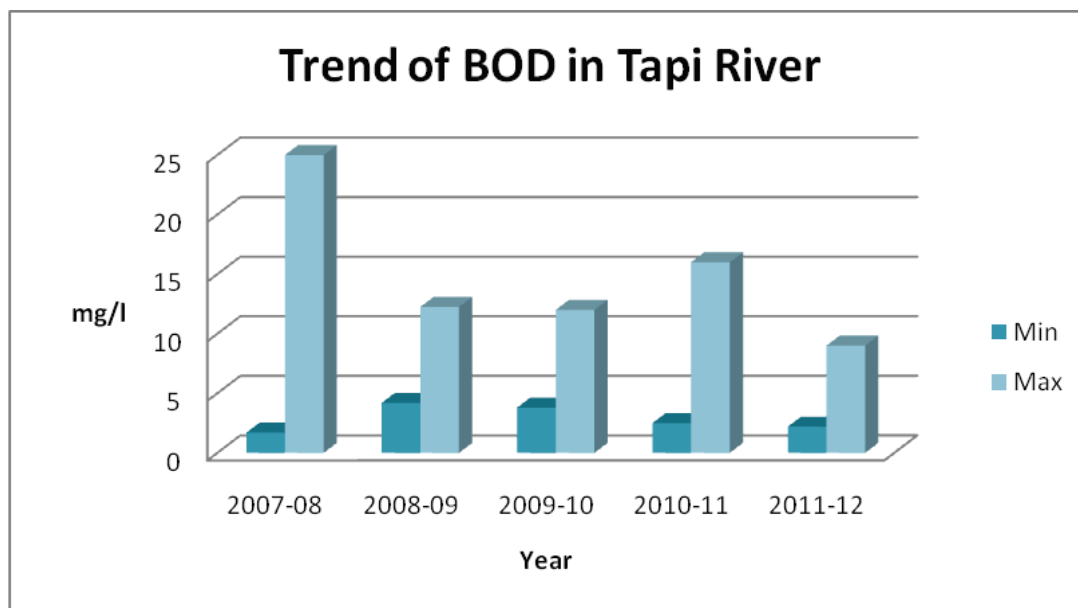


Trend of BOD in Bhima River



Trend of BOD in Krishna River





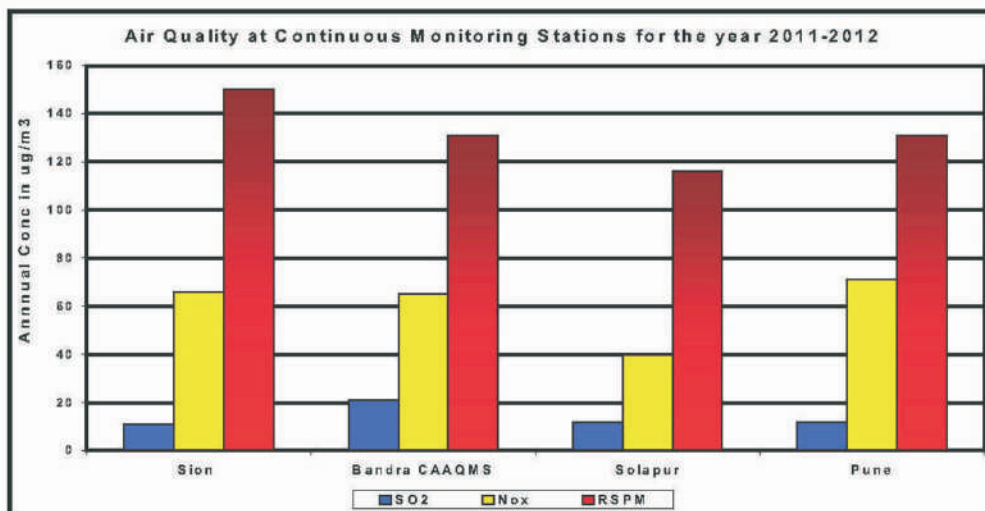
Air Quality Monitoring Network

Air pollution comes from many different sources: stationary sources such as factories, power plants, and smelters and smaller sources such as dry cleaners and degreasing operations; mobile sources such as cars, buses, planes, trucks, and trains; and naturally occurring sources such as windblown dust, and volcanic eruptions, all contribute to air pollution. Air Quality can be affected in many ways by the pollution emitted from these sources. These pollution sources can also emit a wide variety of pollutants.

The Ambient Air Monitoring Program through which, air quality samples are collected to judge attainment of ambient air quality standards, to prevent or alleviate air pollution emergencies, to observe pollution trends throughout regions, and to evaluate the effects of urban, land-use, and transportation planning relating to air pollution.

At present MPCB is operating air quality monitoring project at 88 stations, which is operated through various educational institutes. 77 monitoring stations are operated under National Air Quality Monitoring Programme (NAMP), 3 stations are operated under State Air Quality Monitoring Programme (SAMP) and 5 Continuous Ambient Air Quality Monitoring stations are in operation.

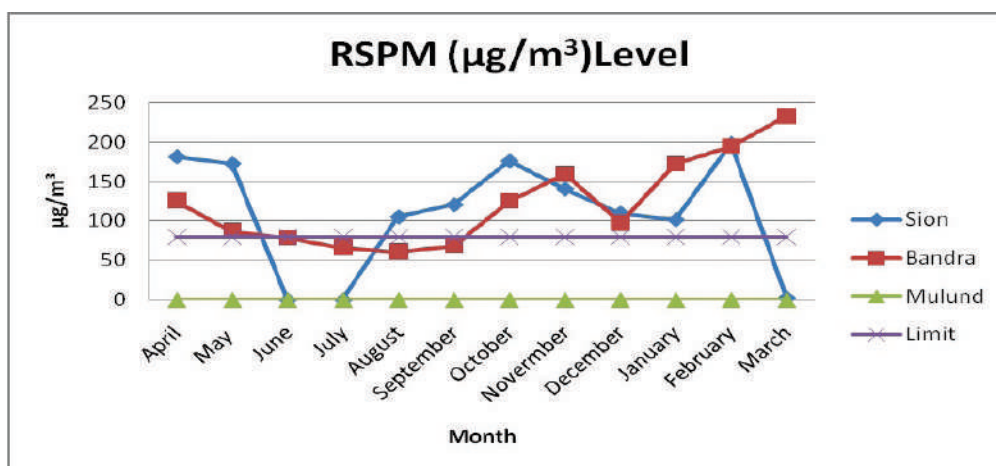
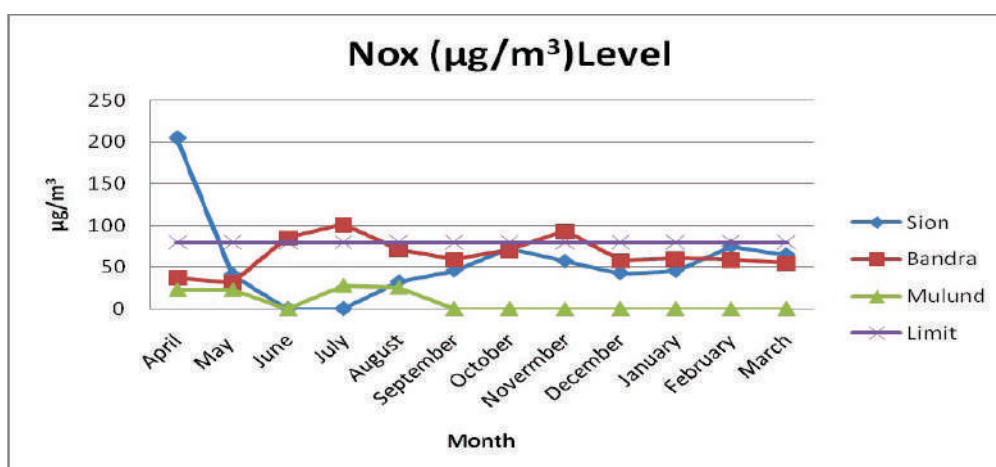
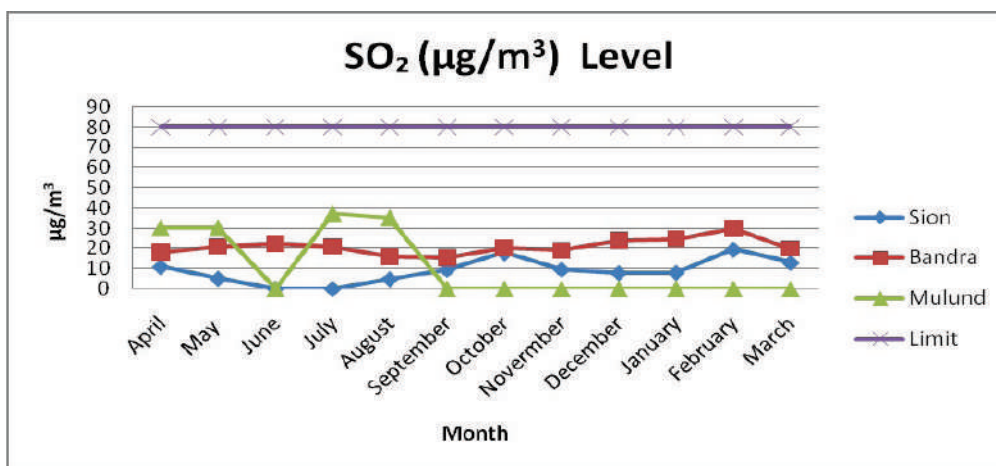
The air quality observed during 2011-12 at Continuous monitoring stations at Mumbai, Solapur and Pune are given below.



Values of SO₂ are well within the prescribed standards however the NO_x levels at Pune, Mumbai (Sion & Bandra) are exceeding the prescribed ambient standards. RSPM are also exceeding the prescribed standards at Mumbai (Sion, Bandra), Pune, Solapur. Level of NO_x & RSPM is marginally exceeding may be due to construction and infrastructural activities and vehicular Traffic.

Ambient Air quality in Mumbai

Maharashtra Pollution Control Board monitors 3 continuous monitoring stations in Mumbai. During 2011-12 these stations are monitored for Sulphur di oxide, Nitrogen oxide and Respirable Particulate matter. The trend of parameters observed during the year is depicted in following figures. Mulund station was not monitored during Sept 2011-March 2012. The SO₂ concentration remained within 40 µg/m³ throughout the year at Sion and Bandra. However NO_x crossed the limit at Sion in April 2011 and was observed 200 µg/m³. The NO_x concentration is also crossed the limit at Bandra during the month of June, July and November 2011 which may be attributed to vehicular congestion during the period. An increasing trend of RSPM level is also seen from Oct-2011 onwards at Sion and Bandra.



Continuous Ambient Air Quality Monitoring

Maharashtra Pollution Control Board is undertaking Continuous ambient air quality monitoring at 6 locations, Sion & Bandra in Mumbai, Vashi & Airoli in Navi-Mumbai, Karve Road in Pune and Solapur. The data of these stations are regularly uploaded to M.P.C.B. website. The table showing monthly average of Parameters SO₂, NO_x & RSPM is presented below.

Parameter ($\mu\text{g}/\text{m}^3$)	Stations	Apr'11	May'11	June'11	July'11	Aug'11	Sep'11	Oct'11	Nov'11	Dec'11	Jan'12	Feb'12	March 12	Annual Avg. ($\mu\text{g}/\text{m}^3$)
SOX	Sion, Mumbai	10.9	5.33			4.79	9.52	17.6	9.55	7.87	8	19.4	12.9	10.59
	Bandra, Mumbai	18.1	21.07	22.4	20.9	16	15.4	20.1	19	23.8	24.8	24.9	20	20.57
	Karve Rd, Pune	7.41	5.37	4.64	5.16	5.19	5.72	12.7	20.2	17.1	14.7	20.3	20.3	11.46
	Vashi, NM	25.1	11.33			27.3	7.44	13.5	15.8	3.82	15.9	28.8	35.8	18.87
	Airoli Fire Station	25.4	22.19			9.3	6.62	9.59	8.5	7.81	10.5	15.4	13.6	13.08
	Solapur	11.7	12.38	12.9	12.5	12.4	13.7	13.1	12.1	11.2	11.9	11.1	11.3	12.18
NOX	Sion, Mumbai	205	40.95			32.4	46.1	72.1	57	42.7	45.5	74.7	64.6	65.7
	Bandra, Mumbai	37.5	31.41	85.2	101.3	71.2	59.4	70.8	93.1	58.3	60.2	58.9	54.5	65.39
	Karve Rd, Pune	47.2	40.45	46.6	45.94	49	54.8	86.6	133	112			96.7	71.5
	Vashi, NM	55.9	28.89			20.8	24.9	27.3	63.9	67	38.8	37.2	45.2	42.99
	Airoli Fire Station	70.3	44.14			99.8	56.9	71.6	57.1	61.4	93.1	81.4	125	75.36
	Solapur	37.6	34.31	32.47	31.9	33.6	33.8	40.2	45.2	47.9	47.8	48.1	50	40.23
RSPM	Sion, Mumbai	181	169.5			105	120	176	141	110	102	198	203	149.78
	Bandra, Mumbai	125	87.07	78.73	66.29	60.8	68.5	125	160	197	173	195	233	130.84
	Karve Rd, Pune	159	125.5	83.89	70.68	59.5	74	123	155	199	153	177	195	131.42
	Vashi, NM	88.3	59.56			38.3	24.6	36.6	148	132	154	160	175	111.45
	Airoli Fire Station	136	83.81			75.8	97.9	150	192	248	238	240	274	180.8
	Solapur	121	113.1	73.53	60.68	64.5	81.7	122	129	152	154	152	169	115.7

During the year 2011-12 the annual average of SO₂ was within the prescribed limit. The annual average concentration of NO_x though observed within limit was seen higher at Sion, Bandra in Mumbai, Karve Road in Pune & Airoli in Navi-Mumbai. The annual average concentration of RSPM was crossed the limit at all stations and highest concentration was recorded at Airoli fire Station.

Ambient air quality monitored in different areas (class) is as shown in the following table.

In this table the locations where NO_x and RSPM level exceeded the limit is shown. It is seen that at 90% of the residential locations, 83% industrial and 73% commercial locations the RSPM crossed the limit. The highest concentration of RSPM (150 µg/m³) in commercial locations was recorded at college of Engineering Akola. In industrial locations the highest value 158.9 µg/m³ was recorded at Rajura Chandrapur, whereas the concentration in residential areas was highest at Grampanchayat Ghugus Chandrapur (206 µg/m³).

class	Locations monitored	Locations where NO _x exceeded the limit	Locations where RSPM exceeded the limit
Industrial	18	4	15
Residential	41	16	37
Commercial	11	2	8

Development of Ambient Noise Monitoring Network in India

With increasing urbanization and industrialization, noise pollution particularly in ambient is also increasing. Government of India have taken number of steps to control noise pollution such as notifying noise rules-2009 and prescribing noise standards for vehicles, generators sets, fire crackers etc. Till now Maharashtra Pollution Control Board is carrying out noise monitoring in urban area during festival periods (Diwali and Ganapati) and ambient noise monitoring in 6 major cities of Maharashtra is being carried out once in a year at fixed locations and the reports of these monitoring are being displayed in the public domain through MPCB web site.

The Honourable Minister of Environment and forest has announced the road map of systematic monitoring of ambient noise under the National Ambient Noise Monitoring Network Programme (NANMP) in the month of January, 2010. As per the proposed road map 10 continuous monitoring stations are to be established in each of seven identified cities i.e. Mumbai, Delhi, Kolkata, Bangalore, Chennai, Lucknow and Hydra bad. Out of 10 stations proposed in Mumbai, 5 continuous monitoring stations have been installed at Mumbai/Navi Mumbai/Thane area at following locations:

1. Bandra,
2. Wadala,
3. Mahape (Navi Mumbai),
4. Vashi (Navi Mumbai)
5. Thane Municipal Corporation Building (Thane).

These above stations are in networking and real time noise data is being transmitted to the central server at CPCB.

Glimpse of Noise Monitoring Stations

VASHI HOSPITAL – 1712



MPCB, Mahape – 1718

Performance of Board Laboratories:

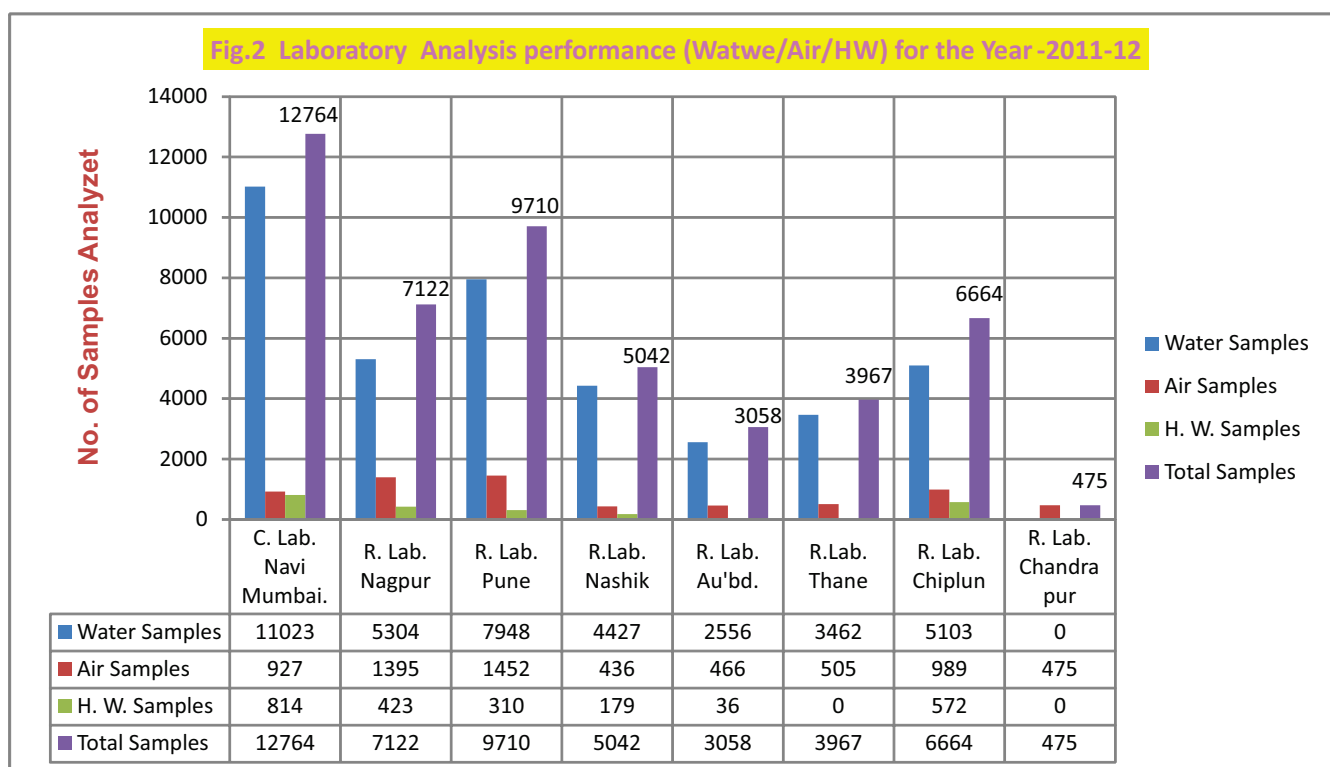
MPCB has established Central Laboratory at Navi Mumbai and seven Regional Laboratories at Nagpur, Aurangabad, Pune, Nashik, Thane, Chiplun and Chandrapur. The major objective of these laboratories is to carry out analysis of Water, Effluent, Air (ambient and stack), Hazardous Waste, Bio-Medical Waste samples, etc., which are categorized as Environmental Samples, Joint Vigilance Samples (JVS) and Law Evidence Samples (LES).

These samples are collected by Field Offices and are submitted to the respective laboratories. The samples submitted by the Field Offices are analyzed in the respective laboratories as per jurisdiction allocated to each of them.

All the Board Laboratories except Regional Laboratory Chandrapur are equipped for analysis of all types of samples i.e. Air, Water, Hazardous Waste and Bio-Medical Waste.

Water sample analyses include Physical, Chemical, Microbiological and Toxicological parameters. Air sample analyses include ambient air quality parameters such as RSPM, Suspended Particulate Matter, Sulphur-di-Oxide, Oxides of Nitrogen, Acid Mist, Benzene, Chlorine, Lead, Ammonia, VOC, etc. The Stack monitoring includes analyses of parameters, such as Total Particulate Matter, Sulphur-di-Oxide, Acid Mist, Chlorine, H₂S, HCl, Ammonia, etc. Hazardous Waste samples are analysed for Metals, Hydrocarbons, etc. Bio-Medical Waste samples are analyzed for spore test.

Performance of Board laboratories in respect of sample analysis during the year 2011-12 is shown in following figure



6. PRESENTS STATUS OF ENVIRONMENT, PROBLEMS AND CONTROL MEASURES

6.1 Water quality Assessment

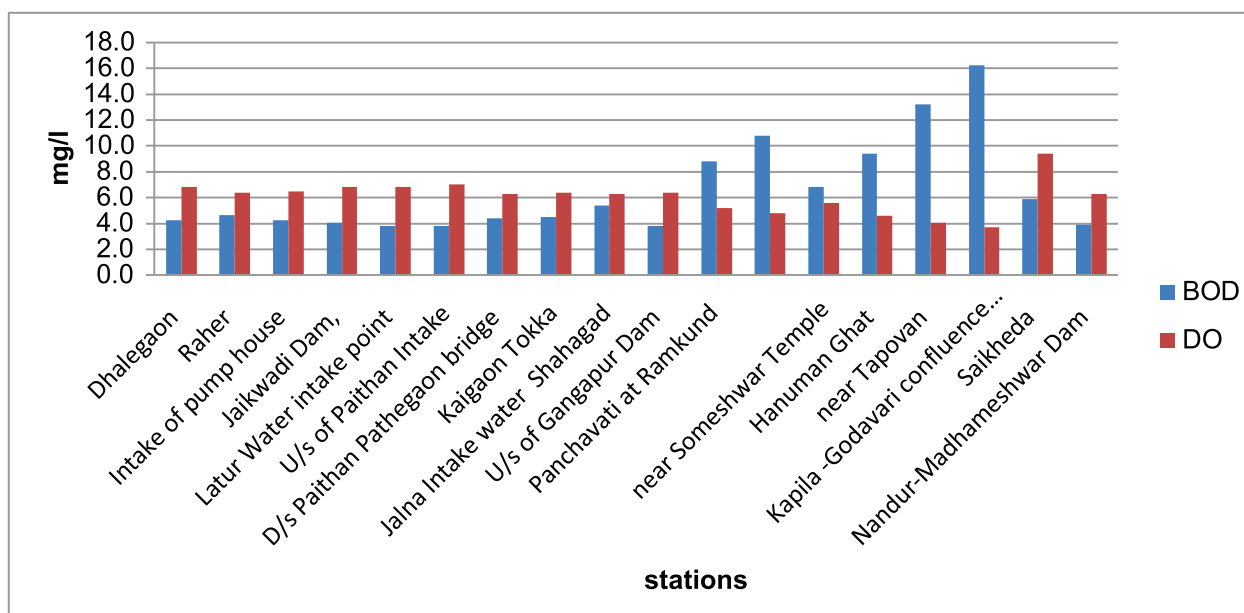
6.1.1 River Water Quality Assessment

Assessment of water quality of Godavari River

The Godavari River rises near the Trimbak in the district of Nasik in the Indian state of Maharashtra. It flows in the eastward direction through the states of Maharashtra. Godavari is sometimes also referred to as the 'Ganga of the South'. After every twelve years, a major bathing festival called as Pushkaram is held on the banks of the Godavari River.

Darana, Mula, Pravara rivers are tributaries of river Godavari. In A-II zone the major source of river water pollution are discharge of domestic waste from municipal corporations and municipal councils in the area as well as occasional discharge of treated / untreated effluent from the industries. However, the discharge of the treated/untreated effluent from the industry is not on regular basis. Besides these small commercial organizations like automobile service stations, hotels, restaurant mainly situated on the bank of river also release domestic effluent into the river and thereby deteriorating river water quality and also affecting ground water quality occasionally.

From the analysis results it is observed that water quality of Godavari, Darana, Mula, Pravara, and Tapi river is exceeded the permissible level of BOD but not alarmingly. Stretches of these rivers are deteriorated largely due to discharge of treated / untreated sewage from municipal Corporation & Municipal councils. The water quality meets the standard in terms of pH, DO and BOD (for A-II Class of Water). However, BOD does not meet the prescribed standard except at one location i.e. Gangapur Dam. Compared to last year there is rise in BOD level from Someshwar to Kapila-Goda confluence in Nasik. From Dhalegaon to Kaygaon toka, the stations coming under Aurangabad Region, the water quality of river Godavari was found more or less well within the standard.



BOD & DO levels of Godavari River observed during 2011-12

Action plan is prepared for improvement of water quality of Godavari river in Nashik City and being implemented

Water Quality assessment of Bhima river

Bhima flows southeast for long journey of 861 km. During this long journey many smaller rivers flow into it. Kundali River, Kumandala River, Ghod river, Bhama, Indrayani River, Mula River, Mutha River and Pavna River are the major tributaries of this river around Pune. Of these Indrayani, Mula, Mutha and Pawana flow through Pune and Pimpri Chinchwad city limits. Chandani, Kamini, Moshi, Bori, Sina, Man, Bhogwati and Nira are the major tributaries of the river in Solapur. Of these Nira river meets with the Bhima in Narsingpur, in Malshiras taluka in Solapur district.

With the plan to set up at least three sewage treatment plants in the next two years in Pune city and Pimpri Chinchwad Municipal Corporation (PCMC), the Maharashtra Pollution Control Board (MPCB) is hopeful to streamline the system for a clean Bhima river basin with 100 per cent treatment of water.

MPCB has extensively studied the pollution potential of Bhima River through monitoring and analysis of various environmental parameters of concern during this year in the entire stretch of Bhima from the origin to Ujni Dam including its tributaries Mula, Mutha, Pawana, Indrayani etc.. Accordingly, potential pollution sectors of concern have been identified and short/long term action plans have been formulated & presented for policy decisions to the respective authorities.

The main reason for Bhima river pollution is discharge of sewage from surrounding areas in Pune district. The MPCB had asked the Maharashtra Jeevan Pradhikaran (MJP) for a detailed project report (DPR) to plan to treat the river water. The DPR gives details of various measures

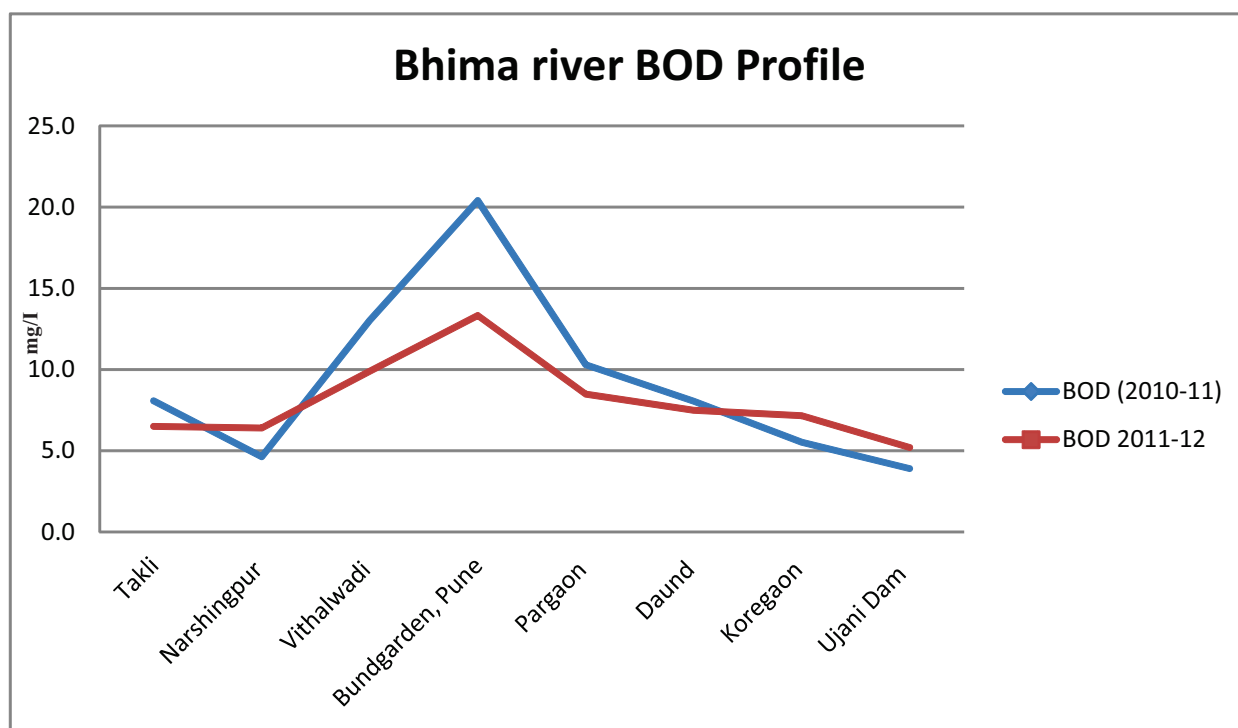
to be taken to clean the river. It will also enlist various technologies to be adopted for the process.

Pune Municipal Corporation alone generates 744 MLD of sewage, out of which 527 MLD is treated at present with the help of 07 Nos. of STPs provided at different locations. The STPs at Naidu, Baner and Kharai have the capacity of 115 MLD, 30 MLD and 40 MLD respectively are under construction and are in completion stages. Besides this 7 more STPs are proposed for which necessary permission from the Standing Committee is obtained and approached for financial assistance to central government.

In the Pimpri-Chinchwad Municipal Corporation (PCMC) out of the 255 MLD sewage 207 MLD of sewage is treated. The Corporation has provided 11 STPs at various locations in a phased manner & the same are in operation and the treated and untreated wastewater is disposed off into the river.

The MPCB is regularly monitoring the compliance of STP's by way of collecting the samples from STP outlet on monthly basis. From analysis results it is seen that pH value is in the range of 7 to 8.9 which is within the stipulated standards. The BOD and COD concentration was also in the range of stipulated standards of 30 mg/l & 250 mg/l. Total Suspended Solids value was in the range of 22 to 60 mg/l. Kasarwadi phase II is having highest BOD level i.e. 64 mg/l while Vitthalwadi STP is having lowest BOD level i.e. 9.47 mg/l.

From water quality analysis of Bhima River along with tributaries it is deduced that water quality meets the standards specified for the best designated use of water.



Water quality assessment of Krishna & Panchganga

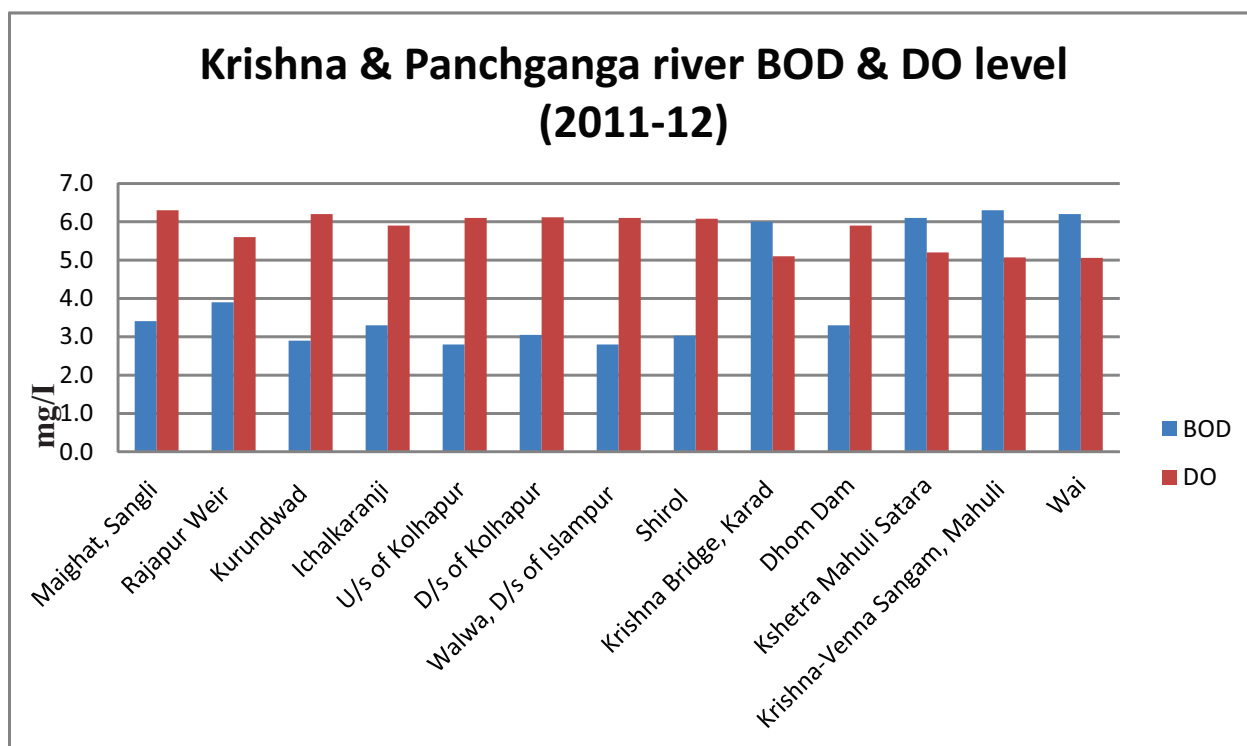
Krishna Basin extends over an area of 258,948 km² which is nearly 8 % of total geographical area of the country, and flows for about 1400 km and outfalls into the Bay of Bengal. In Maharashtra the principal tributaries joining Krishna are Urmodi, Nira, Koyana and venna. Ecologically, this is one of the disastrous rivers in the world, in that it causes heavy soil erosion during the monsoon season. River causes a high degree of erosion between June and August. Pilgrim places like Narsoba wadi and Ramling Temple are located on the bank of river Krishna

The analytical results for the BOD and DO parameters have been shown in the following figure.

The BOD varies from 2.8 to 6.3 mg/l whereas DO varies from 5.1 to 6.3 mg/l. this indicate that DO levels are satisfactory and confirming to the Standards. However BOD exceeded the limit at 4 locations coming under Satara sub –Region.

The analysis results have also indicated that the Total Coliform level was varied from 89-1555 MPN/100ml. The highest coliform level i.e. 1555 was recorded at Karad on Koyana river. The coliform level at Mahabaleshwar on Venna river and at DhomDam on Krishna river were not confirming to the standards of A-I class of water.

It is also seen that, compared to last year slight increase in BOD has been noticed except at Kurundwad and Ichalkaranji. Similarly DO level is also decreased slightly at most of the locations.



Water quality of rivers in Chandrapur Region

In Chandrapur district there are mineral based industries such as cement, sponge iron, Thermal Power Station, and coal mines along with agro based industries such as paper mills. All these industries are scattered and are in operation from last many years. This district is also having industrial areas developed by MIDC at Chandrapur, Chimur, Mul. The major source of water supply to all these is from Wardha & Erai river and other tributaries of Wardha.

Bilt Graphic Paper Products Limited is located near Wardha River; Chandrapur Super Thermal Power Station is located near Erai River, WCL mines are located near Wardha & Erai Rivers. The treated effluent discharge of these industries directly or indirectly meets the river after flowing through a sufficient distance. However, Bilt discharges treated effluent directly into Wardha river through pipe line / open nalla of about 6.0 km length at downstream of the water supply scheme of Ballarpur city. There is no direct discharge of CSTPS into Erai as the treated effluent is used for making ash slurry which is disposed into the slurry pond, while there is discharge of WCL mine water into Wardha, Erai, & Zarpur rivers. Maharashtra Electrosmit Ltd, use their treated effluent to the maximum extent for suppression the dust within the premises except in rainy season. In rainy season, the treated industrial effluents find its way into Zarpur River.

There are two Municipal Councils which are located near the bank of the rivers viz Ballarpur and Rajura. A domestic effluent of this Municipal Council respectively flows into these rivers.

The river Wardha and Erai are the source of water supply for Rajura, Ballarpur and Chandrapur city respectively. Of these as per the state RRZ classification Wardha river is notified as class – II river, and is perennial and flows throughout the year but the water level reduces drastically during the summer but the rivers Erai and Zarpur in Chandrapur District & river Vidarbha in wani, Yavatmal District flows due to discharge of mine water by various WCL mines.

Regional Office, Chandrapur has prepared Action Plan for Wardha River, Wainganga River as well as Erai and Zarpur rivers.

River	Name of station	COD mg/l	BOD mg/l	DO mg/l	Total coliform MPN/100ml	pH
Wardha	D/s of Erai River,	44.5	14.86	5.1	173.17	7.83
Wardha	U/s of Erai River	18.9	6	6	64.17	7.97
Wardha	U/s of ACC Ghugus,	21.3	5.31	5.9	49.25	7.79
Wardha	D/s of ACC Ghugus	25.8	6.61	5.5	51.25	7.9
Wardha	WardhaPengangaconfluence	25.83	6.23	5.3	62.42	7.84
Wardha	Rajura	0.1	5.4	5.8	68.6	7.95
Wainganga	U/s of Gaurav Paper Mill	23.9	5.33	5.9	64.33	7.85
Wainganga	D/s of Gaurav paper Mill	27.8	6.86	5.3	96.64	7.91
Wainganga	Asthi	19.92	5.23	6	97.75	7.77

The Board has monitored 6 stations on Wardha river and 3 stations on Wainganga river for the above mentioned parameters.

It is seen from the above table that pH remained well within the standard but BOD varies from 5.3 to 14.9mg/l and DO varies from 5.1 to 6 mg/l. The COD concentration was found in the range of 0.1-44.5mg/l. The highest BOD was recorded at D/s of Erai River, Total coliform as well as COD was also found at higher side at this point. Control measures are being taken in this regard.

6.1.2 Ground water quality assessment

Water markets thriving on groundwater has become a lucrative business for all those ranging from the private suppliers selling water, water tankers and the big bottled water companies. This over extraction has found rapid depletion of water tables as well as deterioration of water quality in most of the cities

The concentration of many pollutants in groundwater is often higher than that in the most contaminated surface water supplies. Many of the chemicals are tasteless and odorless at concentrations believed to pose a threat to human health. The major groundwater pollutants are chlorides, nitrates, heavy metals, and toxic organics.

Since groundwater usually moves slowly through an aquifer, it may take years for pollution to show up in areas adjacent to sources of contamination. Once an aquifer is contaminated the pollutants may remain for centuries.

The Board has assessed ground water quality through 92 locations across the State. Out of these at 28% of the locations the Total Hardness exceeded the limit. Chloride exceeded at 13% of the locations and at 5% of the locations the sulphate content in the water exceeded the limit. The Board is now paying more attention towards ground water in Pune, Kolhapur and Thane region and necessary control measures are being taken.

The region wise breakup of monitored stations and the stations where parameters violated the standard are depicted in the following table.

Region	Monitored Locations	No.Of Station where Parameters violated the standard		
		Total Hardness	chloride	sulphate
Aurangabad	9	4	1	1
Chandrapur	4	-	-	-
Navi-Mumbai	4	-	-	-
Pune	16	12	4	1
Amravati	7	-	-	-
Nasik	12	1	1	-
Nagpur	11	-	-	-
Kolhapur	14	5	5	-
Thane	15	5	1	3
Total	92	26	12	5

The status of ground water in some regions is summarized below:**Navi-Mumbai**

The area is mainly dependent on the water supply through pipeline network provided by local bodies. Ground water i.e bore well or open well are seldom used at Uran. Regular monitoring of bore well water is carried out at common hazardous waste treatment and disposal facility i.e. at TTCWMA, Mahape & MWML, Taloja. This ground water is not used for drinking purpose. In this region 4 locations have been monitored where all the parameters were meeting the standards of A-II class of water.

Pune

Ground water samples were collected randomly from the wells (open and bore). In Pune sub region recorded higher ground water is contaminated due to higher concentration of sulphates and chlorides i.e. 2008 ppm and 1950 ppm. Hardness, a strong indicator of change in physicochemical characteristics, was also found to be significant. The sampled water is slightly alkaline in nature with dissolved oxygen levels around 5.0mg/l. Pune II and Pimpri – Chinchwad has just one monitoring location catering to the major industrial areas. Sampling network needs to be reviewed and amended in order to have a good representation of the study area.

Kolhapur

The Region covering area of Kolhapur, Sangli, Ratnagiri and Chiplun has monitored the ground water at 14 locations. The water quality analysis results when compared with A –II class of water, it has been observed that in Chiplun and Ratnagiri the ground water is not contaminated however the ground water is polluted in Kolhapur and Sangli area where the Total Hardness and chloride concentration were on much higher side than the prescribed limit. The Hardness was found in the range of 65 mg/l – 912 mg/l whereas the chloride concentration was found in the range of 17 mg/l – 1775 mg/l. The highest contamination was observed at borewell savali in Sangli. The average chloride concentration at MIDC Shinoli and MIDC Gokulshirgaon was observed 975mg/l and 1227 mg/l respectively. This may be due to discharge of effluent from MIDC.

Aurangabd

Ground water quality assessment in the region revealed that the Total Hardness in the ground water at Pandharpur, Ranjangaon, Katpur and Wahegaon is much exceeded and highest value 1940 mg/l was recorded at Katpur. The chloride concentration and sulphate concentration were also exceeded the limit and recorded as – and 2015mg/l respectively. The ground water in MIDC Waluj area is contaminated due to use of treated effluent on land for gardening and irrigation purpose since last many years.

Thane

The ground water assessment carried out at 15 locations in the region revealed that the ground water contamination is higher in Tarapur area where higher concentration of Total Hardness, chlorides and sulphate were found in the ground water. In Tarapur out of 11 locations monitored

the values of pollution parameters much exceeded the limit at three locations. The highest concentration of Total Hardness, chloride and sulphate recorded were 1710 mg/l, 765 mg/l and 1661 mg/l. This location is near one laboratory.

6.1.3 Status of sea water pollution

The seas and oceans receive the brunt of human waste, whether it is by deliberate dumping or by natural run-off from the land. In fact over 80% of all marine pollution comes from land-based activities and many pollutants are deposited in estuaries and coastal waters.

Maharashtra has a coastline of 720 km, of which about 320 km (about 44%) is subject to erosion. Coastal urban areas such as Mumbai have been severely affected by erosion, partly due to clearance of mangroves and associated vegetation along the shoreline and also due to construction of offshore and coastal infrastructure. Rural coastal regions are hence adversely affected by erosion. This has increased the vulnerability of resident coastal communities to natural disasters (such as cyclones) since their dwellings are along the fringes of the shoreline. The government of Maharashtra recognizes the need to address coastal protection in a more systematic manner. The state is interested in identifying alternative coastal protection methods that are compatible with the coastal activities and the environments that are to be protected, particularly innovative coastal protection interventions that can be structured into financially viable projects, especially through public-private partnerships.

Regions along the Thane and Mahim Creeks show high values of industrial and domestic solid waste accumulation in the mangrove swamps. In fact, different types of plastic material cover most of the mud flats and mangrove areas. This situation is common along the coastal Ratnagiri District where industrial estates are located (e.g., Chiplun, Ratnagiri, etc.)

Pollution of the brackish water due to the industrial and sewerage discharge is serious along the coastal belt of Maharashtra. Increasing urbanization in the densely populated cities like Thane, Mumbai or fast developing cities like Alibag, Ratnagiri, Malwan is responsible for generation of huge quantities of sewage and disposal problems. Series of Industrial belts developed along Dahanu-Tarapur (Thane), Thane-Belapur (Mumbai), Alibag- Roha (Raigad), Lote Parshuram (Ratnagiri) has resulted in increased industrial effluents.

There are 6 Regions covering coastal area of Maharashtra i.e. Mumbai, Thane, Navi-Mumbai, Kalyan, Raigad and Kolhapur. The coastal water was monitored through 53 monitoring stations along the sea-coast of Maharashtra. The overall sea water quality indicates the BOD crossed the limit at 73% of the stations, DO level was not confirming to the standard at 13% stations and at 43% of the stations Faecal coliform exceeded the limit.

As far as Mumbai coast is concerned though the pH values were well within the limit, the DO values were not confirming to the standard at 'Haji-Ali' and 'Elephanta Caves', while the BOD concentration exceeded the limit at all locations and was found in the range 6.5-14.2 mg/l. at 'Dadar Chowpati' and 'Gorai Creek' the annual averages of BOD were recorded as 13mg/l and 14.2 mg/l. resp. The COD level in sea water was found in the range of 124-254 mg/l and the Faecal coliform was ranged between 810-1300 MPN/100ml, which is much beyond the standard. The highest Faecal coliform was noted in the sea water at 'Dadar Chowpati'.

not confirming to the standards and were ranged between 81-192 mg/l and 416-1214 MPN/100ml respectively. The BOD concentrations were satisfactory at all locations of 'SW-IV' class of water coming under Tarapur area, where DO also was not confirming to the standards at 3 locations.

The sea water pertaining to Kalyan and Navi-Mumbai Regions having 'SW-II' class of water have shown deterioration in water quality at 'Kamavari creek' and 'sea water near ONGC'. The Faecal coliform also much exceeded the limit at 'vashi creek' & 'Airoli' in Navi-Mumbai.

The coastal areas of Ratnagiri and Chiplun coming under Kolhapur Region were monitored for sea water, where no deterioration was seen during the year.

To assess sea water quality pertaining to Raigad Region 10 locations were monitored on Arabian sea and some creeks. The water quality at these locations indicate that sea water is much deteriorated at 'Kopra creek'. The parameters BOD and Faecal coliform observed at this point were 15.9 mg/l and 371 MPN/100ml respectively.

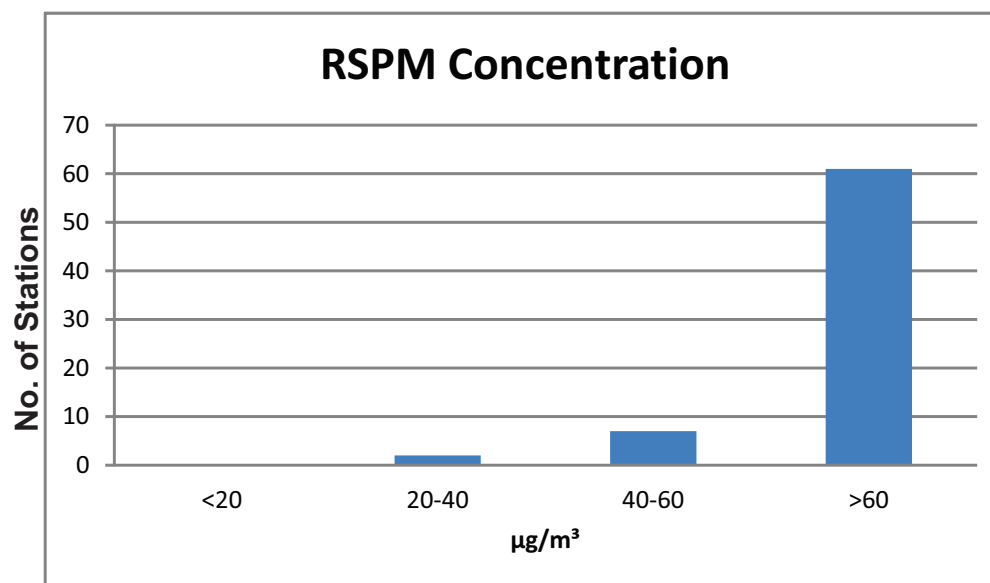
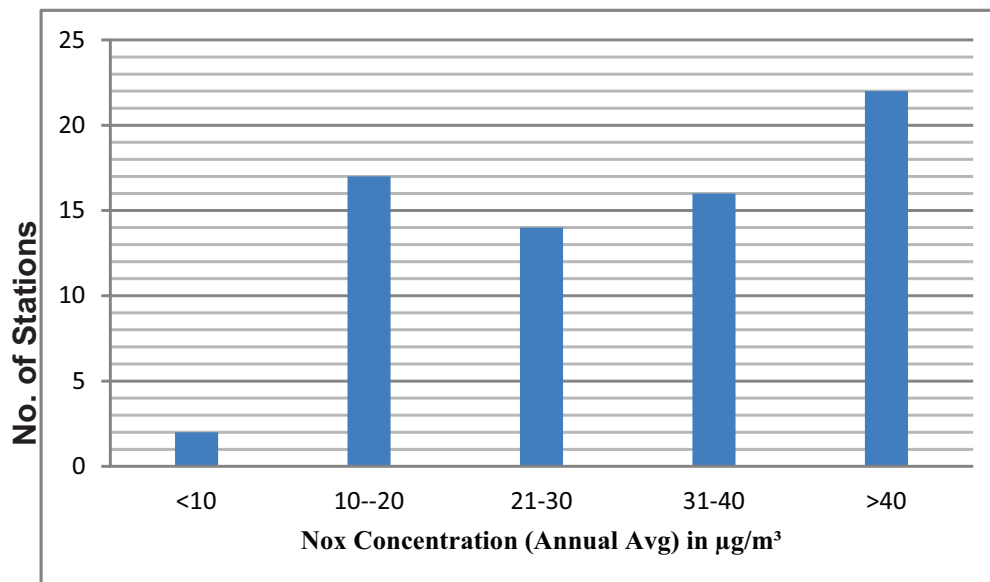
Region	No. of Stations Monitored	No. of Stations where parameters violated the standard		
		B.O.D.	D.O.	Feacal. Coliform.
Mumbai	13	13	2	10
Thane	19	11	3	10
Navi-Mumbai	3	3	1	2
Kalyan	2	2	1	-
Raigad	10	10	-	1
Kolhapur	6	-	-	-

6.2 Status of Air pollution

Air quality in the State is assessed through routine and specific monitoring. From the analysis of monitoring results in 2011-12, it was noted that though SOR remained within the standard at all locations. At more than 87% of the monitored locations, the levels of RSPM exceeded the standard. At 31% of locations, NOX levels also exceeded the limit. The latter parameter exceedance can be attributed to source emissions and vehicular pollution.

In the following figures, number of monitoring stations in various ranges of annual average concentration of SO₂, NO_x and RSPM are depicted. SO₂ level was found within National Ambient Air Quality Standard at all the stations. The NO_x level violated the standard at 22 stations which includes 16 residential stations whereas RSPM level violated the standard at 61 stations which includes 37 residential stations. The highest concentration of NO_x 75 µg/m³ in residential area was observed at 'Airoli Fire station' in Navi-Mumbai while in commercial area the highest value 62 µg/m³ of NO_x was recorded at 'Nal-Stop' in Pune. 'Bhosari' in Pune, MIDC Taloja and MIDC Jalgaon were only the industrial locations which had violated the Ambient Air Quality Standard of NO_x. The RSPM values ranged between 37-150 µg/m³ in

commercial area. In industrial area the values ranged between 45-158 $\mu\text{g}/\text{m}^3$ and in residential area the values ranged between 22-206 $\mu\text{g}/\text{m}^3$.



Ambient Air Quality in Aurangabad Region

Ambient air quality was assessed through 11 locations set in Aurangabad, Jalna, Nanded and Latur cities under NAMP Project. Maximum air quality deterioration was seen in MIDC Jalna, where the highest RSPM recorded was 334.5 $\mu\text{g}/\text{m}^3$. sulphur dioxide and nitrogen oxide level at

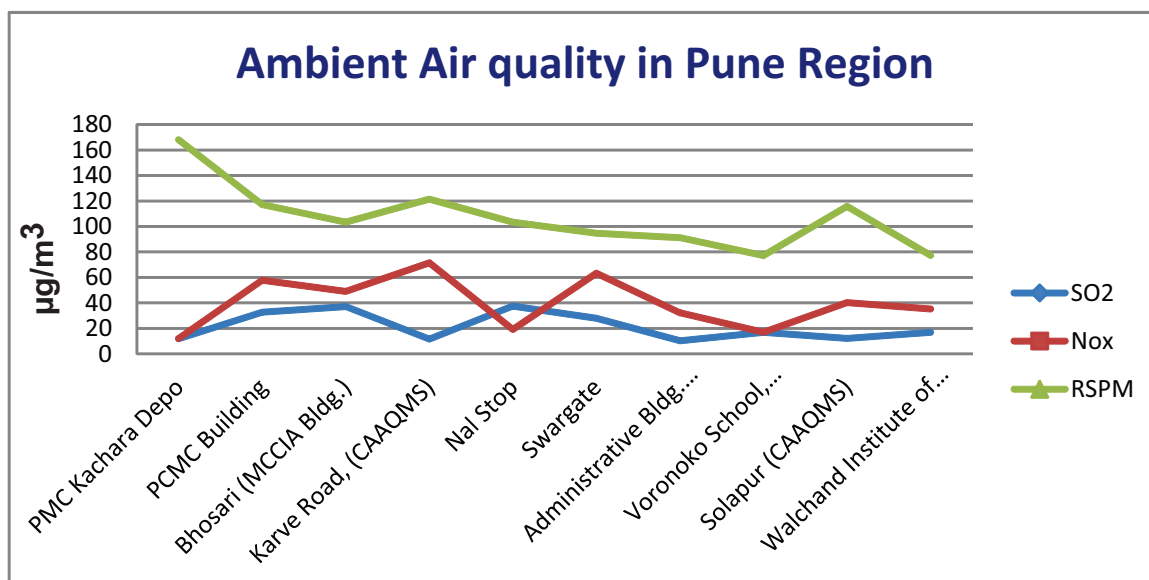
all locations remain within the prescribed ambient air quality standard, whereas the RSPM crossed the limit at 9 locations. Nanded city remained pollution free during the year.

Ambient Air Quality in Navi-Mumbai Region

Ambient air quality was assessed through 4 locations established under NAMP Project and 2 locations operated as CAAQM in Navi-Mumbai. It has been observed that sulphur dioxide at all locations remain within standard. However nitrogen oxide level exceeded the standard at 5 locations and RSPM exceeded the standard at all locations ranging between 100-180 $\mu\text{g}/\text{m}^3$.

Ambient Air Quality in Pune Region

Pune Region covers area of Pimpri-Chinchwad, Solapur and Satara Districts. There are 2 CAAQM stations in operation one is in Pune and other is in Solapur. Including these two stations and 8 stations set under NAMP Project ambient air quality was assessed in this region. The analysis report has shown that sulphur dioxide at all locations remain within standard. However nitrogen oxide level exceeded the standard at 4 locations and found in the range 12-71 $\mu\text{g}/\text{m}^3$. PCMC bldg, Karve road, Bhosari and Swargate were the locations where nitrogen oxide exceeded the limit. RSPM exceeded the standard at all locations ranging between 77-168 $\mu\text{g}/\text{m}^3$. The highest RSPM was recorded at PMC kachra depo.



Ambient Air Quality in Kalyan Region

Out of 11 locations monitored for ambient air quality in Kalyan Region, nitrogen oxide crossed the limit at the locations in Dombivli, Ulhasnagar and Badlapur. RSPM crossed the limit at 8 locations and was ranging between 54-425 $\mu\text{g}/\text{m}^3$. One residential area in Dombivli, kudur area in Wada and MIDC area in Murbad were the places where RSPM was found beyond 150 $\mu\text{g}/\text{m}^3$.

No air quality deterioration is seen in Bhiwandi and Shahapur during the year.

Ambient Air Quality in Amravati Region

Ambient air quality was monitored at 3 locations in Amravati and 3 locations in Akola. At all these locations sulphur dioxide and nitrogen oxide remain well within the standard. However RSPM exceeded the standard at all locations and was found in the range of 78-144 $\mu\text{g}/\text{m}^3$.

Ambient Air Quality in Nashik Region

Ambient Air quality in the Nashik city area was monitored under NAMP at 3 stations in Nashik city. Also one station under SAMP is operated at Udyog Bhavan, Nashik which is presently operated by KTHM, Nashik. From the analysis results of Nashik city it is seen that, the average RSPM exceeded the prescribed standard and the recorded values were in the range of 75-102 $\mu\text{g}/\text{m}^3$.

Ambient Air quality in the Jalgaon city area is monitored under NAMP at 3 stations in Jalgaon city which are presently operated by North Maharashtra University, Jalgaon. From the analysis results of Jalgaon city it is seen that, the average RSPM exceeded the prescribed standard and the recorded values were in the range of 92-141 $\mu\text{g}/\text{m}^3$. At MIDC office Jalgaon, the nitrogen oxide also exceeded the standard.

Ambient Air Quality in Chandrapur Region

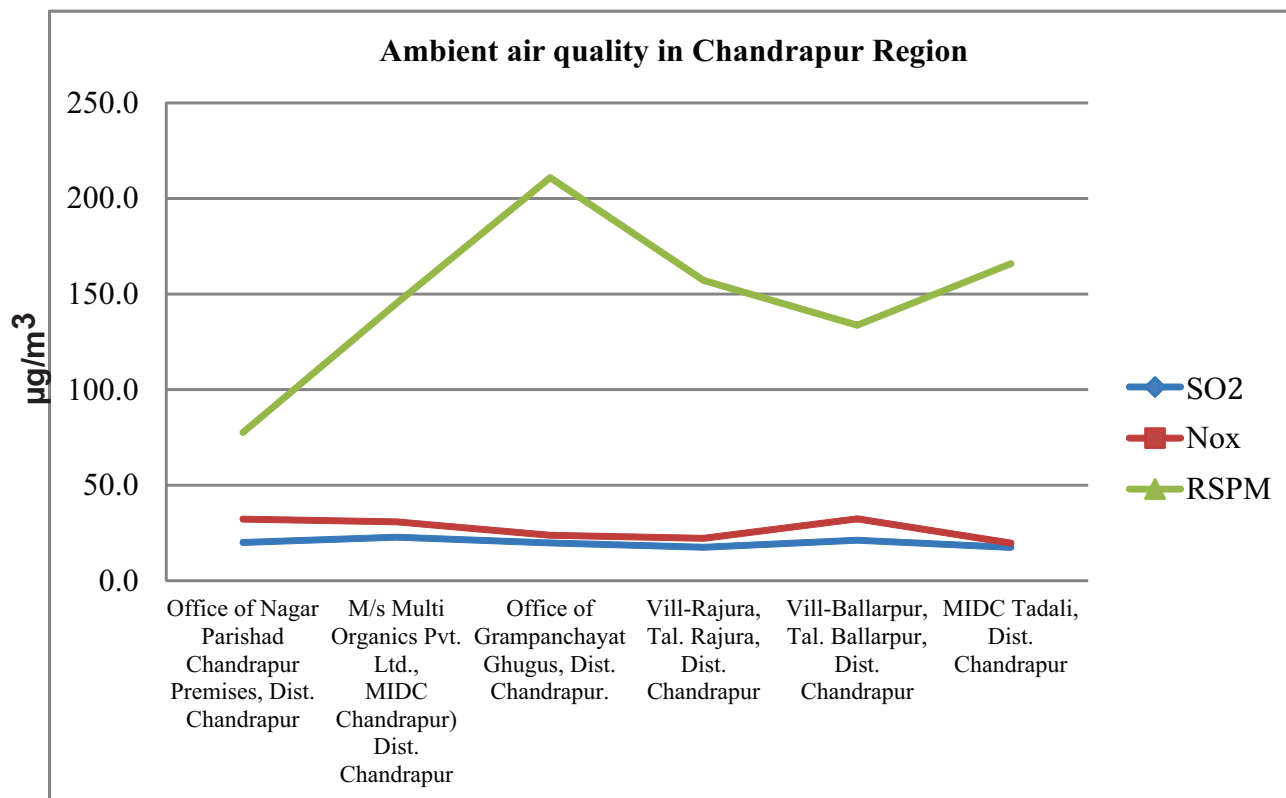
Various air pollution potential industries such as coal mines, cement industries, coal washeries, sponge iron units, paper mill are operational in CEPI area. These industries cause source emissions of particulate matter, Sox and NOx from the source as well as fugitive emissions of particulate matter. Paper mill at Ballarpur is also responsible for smell nuisance due to release of mercaptans from cooking process in digester of the bamboo / biomass. Solid waste generated from the industry like dolo char, iron ore fines, dust and de-dusting fly ash are also the sources of fugitive air emissions due to their improper storage arrangements at the site and due to not having periodical disposal.

Due to lack of railway siding, mineral transportation activities are carried out via road as well as fly ash transportation through trucks which causes air pollution in the form of particulate matter emissions. Coal transportation activities from coal mines, coal washeries and other industries also practices via road through trucks. While coal transportation the coal carrying trucks are not properly covered with adequate tarpaulin leading to spillage of coal on the road ultimately generating dust emissions. The bad condition of the road aggravates the problems.

There are various coal depots at Padoli naka at Nagpur road which are unauthorized handlers of the coal storage and distribution. These coal depots are also the source of particulate matter emissions due to handling of the coal at the site.

Domestic coal burning in different parts of region practiced by the local citizens generates smoke

Ambient Air Quality for the year 2011 -12 is given in following figure for the parameters SO₂, NO_x and RSPM in $\mu\text{g}/\text{m}^3$ in CEPI area & Chandrapur city. The level of RSPM is observed exceeding the permissible level of $60\mu\text{g}/\text{m}^3$. Particulate matter is a critical pollutant in Chandrapur district as far as air pollution is concerned. There are no toxic elements as air pollutants.



Ambient Air Quality in Nagpur Region

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

Air quality in the Nagpur city area is monitored at 9 locations. Out of these at 4 locations are under NAMP in Nagpur city and one location under SAMP at Udyog Bhavan, Nagpur operated by VNIT, Nagpur. Board is also monitoring ambient air quality of PM 2.5 at Nagpur City & MIDC Butibori.

From the AAQM analysis results of Nagpur city it is seen that, SO₂ remain within standard at all locations. NO_x exceeded the standard at 'Jaystambh chowk' which was the place of highest air quality deterioration, where NO_x and RSPM recorded were $55\mu\text{g}/\text{m}^3$ and $279\mu\text{g}/\text{m}^3$ respectively. Except Regional office Nagpur and MIDC Butibori the RSPM violated the standard at other locations and observed in the range of 77-279 $\mu\text{g}/\text{m}^3$

Some air pollution potential industries have installed continuous ambient air quality monitoring station to monitor ambient air quality of the area **such as Koradi Thermal Power Station (One station), Abjijeet MADC Nagpur Energy Pvt. Ltd. (3 Stations), Adani Thermal Power Plant, Tirora , Sunflag Iron & Steel industries, Warthi, Bhandara.**

Ambient Air Quality in Mumbai Region

Mumbai being the trade and commercial capital of India, has been the destination for all types of population groups such as literates, illiterates; skilled and unskilled; and persons from all walks of life. The Mumbai is one of the most populous metropolises in the world. With the increase in population there has been an increase in number of vehicles and industrial activities aggravating of air pollution levels.

A report on air pollution and its sources in mega cities by National Environmental Engineering Research Institute (NEERI) and sponsored by the Central Pollution Control Board reveals just how deep the pollution in Mumbai is. Construction activity, including paved and unpaved road dust is responsible for as much as 38% of the emission load of particulate matter (PM) in Mumbai. Power plants are the second biggest culprits accounting for 20.99% of air pollution, followed by landfill open burning at 10.84%. In the vehicular category, heavy duty diesel (HDDV) vehicles contribute to 3.42% of emissions.

In Mumbai besides two continuous monitoring stations at 'Sion' & 'Bandra', 17 other stations are also monitored to assess the air quality in the city. At 'Sion', 'Bandra' and 'Mulund' the annual average level of nitrogen oxide exceeded the standard and the highest level was recorded at 'Bandra'. The RSPM level exceeded the standard at 8 stations. Haji Bunder, RMC Plant Wadala, W.E. Highway Goregoan , Jawahar Narag, Chembur were the places where the RSPM in ambient air was found beyond $140\mu\text{g}/\text{m}^3$.

6.3 Industrial Pollution Control

Industrial pollution is becoming a major problem in fast developing economies such as China and India where it has already created huge problems in form of excessive water and air pollution. Fossil fuels, on which our economies are built, are usually the main culprits behind the excessive industrial pollution, particularly coal, which is the dirtiest energy source of them all.

The main problem about the industrial pollution is the fact that industry generates incredible amount of waste many of which are dumped into different water bodies. The water pollution is the most common form of industrial pollution.

In the last couple of decades, due to the rapid global industrialization of the world the industrial pollution has even spread to Earth's poles. The scientists have already found traces of industrial pollutants in samples of ice cores from Antarctica and the Arctic.

The negative impact of industrial pollution is not only limited to our environment but also to human health, especially health of workers who work in high polluting factories and the people who live in areas close to these factories.

The Maharashtra State generates the highest amount of tax revenue and has the highest gross domestic product (gdp) among all the states in India. It is the most investment friendly state of the country. Its capital Mumbai — known as the business capital of India — hosts industrial units of different type. The Maharashtra Industrial Development Corporation (MIDC) has developed 226 industrial estates. Maharashtra's coast has a well developed petroleum industry, which attracts different chemical units. Maharashtra accounts for one-fourth of the national annual turnover of the chemicals sector.

As per the recent records received from Regional offices of the Board, there are 13066 'RED' categories of industries, 16329 'ORANGE' categories of industries and 48351 'GREEN' categories of industries in the State of Maharashtra. Of these 21166 are water Pollution Prone, 20022 are Air Pollution Prone and 5400 are Hazardous waste generating industries. The total effluent quantity generated is around 2453 MLD.

Under Central Action Plan, out of 741 industries identified during year 100 industries found closed and 540 industries were complied with the standards. The Board has initiated the action against remaining 101 industries, which were not complying with the standards. Maximum non compliance was seen in Pune and Nashik Regions.

Industrial Pollution status in Kalyan Region

In Kalyan Region industrial development took place mostly in Dombivali MIDC Badlapur MIDC, Ambernath & Addl. Ambernath MIDC & Saravali MIDC areas, The treated effluent arising from industries in these areas is treated in common effluent treatment plants, namely DBESA (CETP Textile) Dombivali, DCETP (CETP Chemical) Dombivali, ACMA CETP Ambarath, Chikhholi-Morivali CETP Ambarath Badlapur CETP, Badlapur. Presently the work of commissioning of CETP for additional MIDC is in progress.

The following table indicates the performance of above all CETPs in terms of parameters mentioned in the table. It is seen from the table that DBESA (CETP Textile) Dombivali, DCETP (CETP Chemical) Dombivali, ACMA CETP Ambarath performed well during the year. There is more than 50% reduction in BOD and COD load at the outlet. The other CETPs at Chikhholi-Morivali and Badlapur have shown 22-25% reduction in BOD and COD load at the outlet.

CETP	pH		BOD		COD		SS		O & G	
	Avg. Inlet (mg/l)	Avg. Outlet (mg/l)	Avg. Inlet (mg/l)	Avg. Outlet (mg/l)	Avg. Inlet (mg/l)	Avg. Outlet (mg/l)	Avg. Inlet (mg/l)	Avg. Outlet (mg/l)	Avg. Inlet (mg/l)	Avg. Outlet (mg/l)
ACMA CETP	7.64	7.83	422	227	1192	536	44.30	18.11	11.10	3.0
Chikloli Morivali	7.62	7.69	3522	2735	10792	8273	52.58	45.52	10.56	9.80
Badlapur CETP	7.6	7.47	586	443	1566	1170	34.56	34.93	12.52	8.48
DBESA CETP (Textile)	7.8	7.6	599.1	256.7	1613.4	661.8	244.40	169.8	6.40	3.9
DCETP (Chemical)	7.57	7.09	568.6	234.7	1421.6	634.6	248.6	139.3	8.03	6.27

In Bhiwandi area the Yarn dyeing & textile processing industries are scattered & unplanned. The areas are not earmarked as Industrial, Residential, or Commercial areas separately. Most of the industries are situated in residential or closed to residential areas. The effluent arising from these industries is treated by individual unit and discharge into local nalla which enters into creek. Besides this in MIDC at Saravali, where mainly textile processing units are located, the effluent arising from the industries is treated by individual unit and discharged into local nalla leading to creek through MIDC sewerage system.

Also there are many jean wash units in Ulhasnagar & Ambernath located in the mixed area i.e industrial cum residential area. These units have not provided any facility for treatment of industrial effluent.

In Dombivali, residential areas are very near to industrial area. Many times the effluent carrying pipeline breaks & due to over flow of chamber, industrial effluent enters into Khambalpada & Bhopar Nallah & inviting complaints from surrounding area.

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

Under Central Action Plan, out of 30 industries 6 industries are closed and 24 industries have complied with the standard.

Status of industrial pollution control in Navi-Mumbai Region

The Thane Belapur area is well known for the largest industrial belt in Asia. Thereafter the area was developed as a satellite city to Mumbai. The area is highly urbanized and also industrialized. The proximity to Mumbai, good transport network, and surplus manpower has helped the industrial sector of this area to bloom. The proximity to sea / creek has assisted to solve many problems related to disposal of treated effluent generated due to domestic and industrial activities. Proximity to the port JNPT/ MBPT has helped immensely in the import of raw materials and export of finished goods and thus facilitating good economical growth of the region.

The water supply for this region is mainly done through network of closed pipeline from Morbe dam, Hetawane dam, Baravi dam and Ransai dam by NMMC, MJP for domestic purpose and by MIDC for industrial purpose.

MIDC Taloja industrial area is located in Taluka Panvel, District Raigad. There are large medium & small scale industries such as Fertilizers, Pesticides, Bulk drugs, Dyes, Textile, Chemicals & fine chemicals, Glass industries, Fish & meat processing and engineering industries are in operation. In Uran Taluka the major activities in are JNPT, ONGC, Tank Farms, CFS, Container yards and stone crushers.

JNPT is a container loading unloading port having 3 container terminals .The liquid cargo jetty is operated by BPCL ,the class A,B,C petroleum products and other chemicals are unloaded from the cargo and transported to tank form through dedicated pipelines .There are 8 tank forms located in the JNPT & Dronagiri node. The container loaded & unloaded through custom bonded container freight station.

ONGC plant is situated on the bank of the Arabian sea in Uran Taluka where the crude oil and natural gas fetched from offshore is separated .The crude oil send to refinery and the natural gas is supplied to the customers. The sea water after treatment is discharged into the sea.

Maharashtra State Power Generation Co. Ltd has gas based power plant of 840 MW capacities. About 12 stone crushers are also located in the Uran Taluka and they are almost complied with consent conditions.

Due to constant follow up with industries & other government bodies towards reduction in pollution by adopting cleaner technology, reducing pollution load qualitatively & quantitatively and submission of action taken report, compliance achieved thereof, the ban put up by Department of Environment, Govt. of Maharashtra for establishment of new chemical units & also expansion / modification of chemical units in TTC area has been lifted by Department of Environment, Govt. of Maharashtra.

Bank Guarantees of Rs.1,29,40,000/- (Rupees One Crore Twenty nine Lakh and Forty thousand only) was collected from defaulting industries in the jurisdiction of Navi Mumbai Region. More than Rs.6.00 Crore are invested by the industries for up-gradation of Effluent Treatment Plants and Air Pollution Control devices.

42,573 MT of Hazardous Wastes and 603 MT of Bio-Medical Wastes was collected in year 2011-12 and sent to CHWTSDF & BMWTSDF for treatment.

TTC Waste Management Association (TTCWMA):

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 by TTCWMA. 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.

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

Common Effluent Treatment Plant at Talaja

CETP at Talaja is designed to handle 10 MLD of effluent. Up-gradation in the existing aeration tank by installing Diffused Aeration System has resulted in quality of effluent being treated is well within prescribed standards and also increased effluent treating capacity from 10 to 12 MLD. CETP has provided de-canter and filter press for sludge removal (hazardous waste) which is regularly sent to CHWTSDF at MWML, Talaja for further disposal. CETP has augmented the quantity of effluent to be treated by providing additional CETP of 10 MLD capacity adjacent to the existing CETP, thus the total capacity of effluent to be treated will be 22 MLD.

CETP at Talaja MIDC has also improved its functioning during the year 2011-12. The average COD at outlet is 252 mg/l. in March, 2012.

Common Effluent Treatment Plant at TTC (Trance Thane Creek)

There are 2 CETP Plants having capacity of 12 MLD and 15MLD in Thane-Belapur industrial area.

MIDC has provided underground effluent collection system to collect the treated effluent from industrial units for further treatment at CETP of the industrial area. Quantity of Industrial and domestic effluent generated in MIDC industrial Area is about 26 MLD. The domestic effluent of Pawane village, Indira nagar, Turbhe is also treated in this CETP and the treated effluent is finally discharged 7 km away into the TTC creek as per recommendations of NIO.

Under Central Action Plan, out of 47 industries 11 industries are closed and 34 industries have complied with the standard. Interim directions are issued and Bank guarantee is obtained from non complying defaulter industries.

CETP, Mahad

CETP, Mahad has removed 10,000 MT of sludge and disposed at CHWTSDF, Taloja. It has installed additional 9 Aerators of 70 H.P. to improve the treatment of effluent. The outlet COD is reduced from 2500 mg/l. in December 2010 to below 350 mg/l. in March, 2012.

Status of CETPs in Pune Region:

Out of the twenty MIDC areas, six have common effluent treatment facilities. CETP at Ranjangaon which is considered to be a five star MIDC, surrounded by multinational industries along with small scale units, receives an incoming effluent quantity of about 3.0 MLD. Hinjewadi, the IT hub situated on Mumbai – Bangalore highway, also comes under the purview of State Pollution Control Board. The software industry has two units i.e. Phase I, and Phase II of which the latter has two CETPs treating an effluent flow of 0.8 MLD and 4 MLD respectively. Out of which the Phase I CETP is no more functional & effluent is diverted to Phase II. A detailed description of cost involvement, commissioning dates, design capacity, number of industries & others are represented in Table below

CETPs performance at all these locations have been regularly monitored by comparing the inlet and outlet parameters, pH is maintained consistently at 7 i.e. neutral but varies from 6-9. Average BOD removal efficiency achieved is 85% which is almost equal to the COD. Though functioning at its best capacity, the CETP's at Kurkumbh, Ranjangaon & Chincholi are not able to qualify the desired standards.

CETP	Date of Commissioning	Total number of member industry	Quantity of effluent Treated/ Design (MLD)	Total project cost (Cr.)	Subsidy Released	
					Central Govt	State Govt
M/s. CETP Kurmumbh, MIDC Kurkumbh, Tal - Daund, Dist - Pune.	2001	63	0.7/1	10.98	-	-
Common Effluent Treatment Plant, Ranjangaon MIDC, Tal:- Shirur, Dist:- Pune	July, 2001	111	2.5/3	3.01	-	1885.25 Lacs
Common Sewage Treatment Plant, Hinjawadi MIDC, Tal:- Mulshi, Dist:- Pune	0.8 MLD on march 2009 & 4 MLD on March, 2011	Software units Phase I – 39 Phase II – 13	2.5/4.8	2.97	-	MIDC
CETP Talegaon, Plot No.7, Talegaon Indu. Area. Tal - Maval, Dist - Pune	2009	1	0.6/4	5.55	-	100 Lacs
M/s. Greenfield CET Plant Pvt. Ltd. M. I. D. C. Chincholi, Dist - Solapur	Oct.- 2005	22	0.7/1.5	2.5	1,22,00,000/- Bal - 78,00,000/-	MIDC 48,85,000/- Bal. - 1,15,000/- MPCB - 10,18,000/- Bal. - 2,32,000/-
M/s. Common Effluent Treatment Plant, MIDC Akkalkot Road, Solapur	Dec.- 2009	Membership not yet issued	2.5/3	4.4	-	-

6.4 Environmental Problem and control measures

1) Environmental Problems in Mumbai

The main sources of air / noise pollution in Mumbai are construction of Govt. ongoing infrastructures, private building constructions, and vehicular pollution. Industrial pollution is drastically lowered as most of the LSI & MSI industries are closed and remaining have switched over the fuel from coal, furnace oil to Gas. But at RMC plant due to loading – unloading of heavy trucks and dampers the internal road condition is disturbed and resulted into dust pollution. In this regard to control air/noise pollution necessary action is already initiated.

The Transport Authorities have made it compulsory for all the taxis to use CNG in place of Diesel or Petrol. In Mumbai now, superior fuel quality is also supplied i.e. Euro-IV.

2) Environmental Problems in Nasik: -

Water pollution in Satpur & Ambad is due to electroplating / Metal finishing units which require adequate effluent treatment arrangement. It is very much necessary to install CETP immediately for small electroplating / Metal finishing units to avoid ground water pollution.

Municipal Corporation, Nashik do not have treatment facility to treat 100% domestic effluent which is resulted into untreated sewage effluent being discharged into Godavari river causing deterioration of water quality of Godavari river. Therefore it is necessary to operate existing Sewage Treatment Plant with its capacity and to provide additional STP on various locations to reduce water pollution problems.

In Nashik region there are no. of sugar, distillery units in operation also they are having effluent treatment arrangement, but it is observed that some of them are not treating the trade effluent up to the mark resulting in increase of problems related with ground water, surface water pollution.

Problem related with slaughter houses is an urgent need to provide adequate pollution control measures during slaughtering activity and disposal of solid and liquid waste as per CPCB guidelines specially in Malegaon area.

Thermal Power Plants:

- ★ Fly Ash Utilization- Non compliance of fly ash notification.
- ★ Non confirming dust emission from the stack due to old ESPs.
- ★ Poor quality of coal containing high ash.
- ★ Leakages of ash carrying pipelines towards ash bunds.

MPCB is pursuing on above issues with NTPS & BTPS to prepare appropriate action plans for 100% utilization of fly ash in a time bound manner, to procure good quality of coal and imported coal for combustion purpose and to use strong ash carrying pipeline to avoid leakages of ash.

3) Environmental Problems in Nagpur

Mining Industries

- ★ Depletion of ground water due to de-watering activity.
To avoid depletion of ground water due to mining activity, it is necessary to undertake rainwater harvesting projects by the WCL & MOIL
- ★ Uncovered transportation of minerals leading to air pollution problems.
- ★ Deterioration of roads due to plying of heavy loaded truck.

Nagpur region is having big mining zone and operating coal mines, Manganese ore mine, dolomite mine etc. However, they are transporting their mineral products by the truck which is not covered by adequate tarpaulin. Due to this ores are spread over the road. To control fugitive emission and spillages of ore It is necessary to transport these minerals by mechanically type closed container.

- ★ Unscientific dumping of overburden truck on the bank of river reduces width of the river.

Disposal of spent acid :

In Nagpur region there are many units generating spent acid which is not disposed off scientifically. The Board has already incorporated condition in the consent order that the spent acid should be sent to CHWTSDf and in some cases to regenerator. The CHWTSDf has no facility to treat spent acid at their site. Also common acid regeneration plan (ARP) arrangement is not available in the region. Due to this the industries may resort to illegal disposal of spent acid. Efforts are being taken to install common ARP at CHWTSDf facility meanwhile the industries are directed to send spent acid to regenerator only.

Slaughter House

There are 21 nos. of slaughter houses operating in Nagpur Region. Recently, Regional office has carried out survey of these slaughter houses during 7/4/2011 to 9/4/2011 & observed that only slaughter houses at Kalmeshwar & Katol are complied units, which have provided Bio-gas plant. The remaining slaughter houses have not taken any effective steps towards scientific treatment and disposal of effluent generating during slaughtering activity. To provide adequate pollution control measures for disposal of solid and liquid waste as per CPCB guidelines the matter is already brought to the notice of Local Authorities and informed them about urgent attention.

4) Environmental Problems in Navi-Mumbai & Raigad

a) MIDC, Mahad

Mahad MIDC is a Chemical zone catering about 50 chemical industries of which 40 industries are operating with proper ETP facilities. All large & medium scale industries have provided their own ETP consisting primary, secondary & tertiary systems & small scale units consisting primary systems only.

The treated effluents of industries are disposed to MMA CETP for further treatment, which is consisting of Receiving sump, Reaction tank, Primary Clarifloculator, Bio-Tower (Trickling Filter), Deffused Aeration tank (240HP), Secondary Clarifloculator,

Reaction Clarifier, Chlorination tank, Thickener, Decanter(2Nos) sand Filters(3Nos) Carbon Filters (3 Nos), Disposal sump. After treatment in CETP industrial effluent (7. MLD) disposed to Savitri-Bankot Creek at Ovale village (23 Km. away) instead of Amba village which is approved by NIO.

In spite of this, complaints were received for years together about the pollution of River Savitri due to overflow of effluent from MMA CETP, Mahad in rainy season and industries discharging high COD effluents. The rigorous survey was carried out and defaulting units were identified in year 2010 (18 Nos.). Stringent action was initiated against the defaulting units and Bank Guarantee and time bound programme for up-gradation of ETP was obtained.

To ensure the actions taken by the industries, w.r.t. the conditional restart orders issued, survey of defaulting industries in Mahad was carried out on 07-08 June, 2011. On the basis of partial compliance made by the industries, BGs were extended till July, 2011 and after reviewing compliance as on December, 2011 again Closure Directions were issued in February, 2012 and industries were compelled to up-grade the ETP to achieve 100% compliance resulting in drastic improvement in the performance of CETP to achieve consented discharge standards.

b) MIDC Talaja :

Talaja MIDC is Chemical zone catering about 750 industries. Complaint of foul smell nuisance due to fisheries was received in March, 2011. Member Secretary of the Board visited Talaja MIDC area on 12th March, 2011 and instructed to carry out the survey of L & M zone of MIDC. Accordingly, survey was carried out for 169 units and defaulting units (61 Nos.) were identified and proposed directions were issued.

There were complaints of illegal dumping of hazardous waste and bio-medical waste in Navi Mumbai area, particularly at Rabale and Ghansoli, which was attended and complaint was filed at the nearest Police Station. The matter was investigated and notices were issued to defaulting units.

There was complaint of smell nuisance, particularly in night session at New Panvel, Kharghar, Kamothe and Kalamboli areas. Night vigilance was conducted in the areas during 3 – 5 January, 2012 and defaulting units, particularly M/s. Mumbai Waste Management, Talaja which were emitting fugitive emissions was identified and action initiated against the unit.

7. ENVIRONMENTAL STUDIES AND SURVEYS

7.1 Comparative Study of Noise levels from 2007 to 2011 during Ganesh Festival

Table 7.1 shows the maximum and minimum noise levels in last five years during Ganesh Festival. Comparative study shows that noise levels in some of the cities decrease this year significantly, but these are still higher than the permissible limits. Maximum and minimum values gives the range of noise levels measured during Ganesh Festival.

By comparing the noise levels of previous year during Ganesh Festival with this year results, we can observe that the maximum noise level came down in all the cities except Kalyan and Jalgaon, however Pune and Nashik shows the similar pattern as it was in previous year.

Although the noise level get decreased but these are still higher than the permissible limits, which is the matter of concern. From Comparative study following observations are made in different cities of Maharashtra:

Mumbai: Comparative study shows decrease in noise levels this year in Mumbai as compared to last years (49-97dBA). In 2007, it was higher (63-102dBA), then decreased in 2008 (50.2-91dBA) which again got increased in 2009 (46-105dBA) and in 2010 it is increased with highest maximum value (58-111dBA).

Navi Mumbai: In Navi Mumbai there is decrease in noise levels observed this year as compared to previous 4 years. The highest noise level was observed in the year 2010 (57-126dBA)

Thane: In Thane, minimum and maximum level of noise decreased this year (45-94dBA). In 2009, it was in the range of 60-95dBA, in 2008 it was 56-96dBA, and in 2010 it increased to 50.3-108dBA.

Pune: The maximum noise level value in Pune this year (45-101dBA) is found similar to that of 2010 (39-101dBA). In 2007 it was 56-99dBA, in 2008 it was 62-107dBA and in 2009, 53-101dBA .

Nashik: In Nashik also. the maximum noise level this year (63-105dBA) is similar to that of 2010 (46-104dBA) even though the minimum noise level increased abit.

Aurangabad: In Aurangabad, little decrease in noise levels are observed this year as compared to last year. The noise levels of 2010 fall in the range of 55-98dBA, in 2009 it was in between 41-96dBA and now in 2011 it is 49-96dBA .

Nagpur: The noise level range this year (49-92dBA) in Nagpur is increased as compared to the previous year i.e. in 2010 (51-90dBA).

Kalyan: In Kalyan, increase in maximum value of noise levels are observed this year as compared to last year. The noise levels of 2010 fall in the range of 69-98dBA, in 2009 it was in between 67-95dBA and now in 2011 it is 58-107dBA.

Amravati: Decrease in noise level is observed in Amravati this year (53-84dBA) as compared to noise levels in year 2010 (87-92dBA).

Jalgaon: In jalgaon, the maximum and minimum noise levels this year (60-100dBA) are found to be increased as it was in previous year i.e. in 2010 (53-98dBA).

Kolhapur: As compared with the maximum and minimum noise level of Kolhapur in 2010 (66-131dBA), there is a great decrease in the noise level this year (52-90dBA). Also, compared to last three years there is significant decrease in noise levels this year .

Satara: In Satara also, decrease in maximum noise level is observed this year, however minimum level increased. If we consider the overall range of values, the overall decrease in noise levels is predicted this year in satara as compared to year 2010.

Table 7.1: Noise Levels during Ganesh Festival for last 5 years in different cities of Maharashtra

	City	2007 Noise Levels in L_{eq} dB(A)		2008 Noise Levels in L_{eq} dB(A)		2009 Noise Levels in L_{eq} dB(A)		2010 Noise Levels in L_{eq} dB(A)		2011 Noise Levels in L_{eq} dB(A)	
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	Mumbai	102.7	63.4	91.3	50.2	105.8	46.0	111.3	58.2	97.8	49.6
2	Navi Mumbai	100.6	85.9	95.8	51.3	93.3	42.1	126.3	57.4	104.2	58.3
3	Thane	92.4	59.2	96.5	56.0	95.0	60.1	108.0	50.3	94.5	45.5
4	Pune	99.3	56.8	107.0	62.0	101.8	53.3	101.3	39.1	101.4	45.8
5	Nashik	89.3	40.2	99.8	41.9	97.3	61.5	104.4	46.1	105.2	63.3
6	Aurangabad	114.1	65.2	99.5	51.3	96.5	41.3	98.0	55.6	96.7	49.6
7	Nagpur	98.3	66.2	85.9	60.7	89.6	53.0	90.6	51.4	92.5	49.1
8	Kalyan	103.8	65.4	92.7	59.6	95.7	67.8	98.4	69.3	107.9	58.7
9	Amravati	93.6	52.6	79.7	59.0	85.6	51.7	92.2	57.2	84.8	53.0
10	Jalgaon	102.9	54.0	79.0	60.0	96.3	54.5	98.0	53.1	100.3	60.2
11	Kolhapur	105.4	56.9	86.0	65.0	104.5	52.9	131.1	66.1	90.9	52.9
12	Satara	96.7	62.5	100.0	66.0	92.2	66.1	107.3	55.6	94.5	58.3

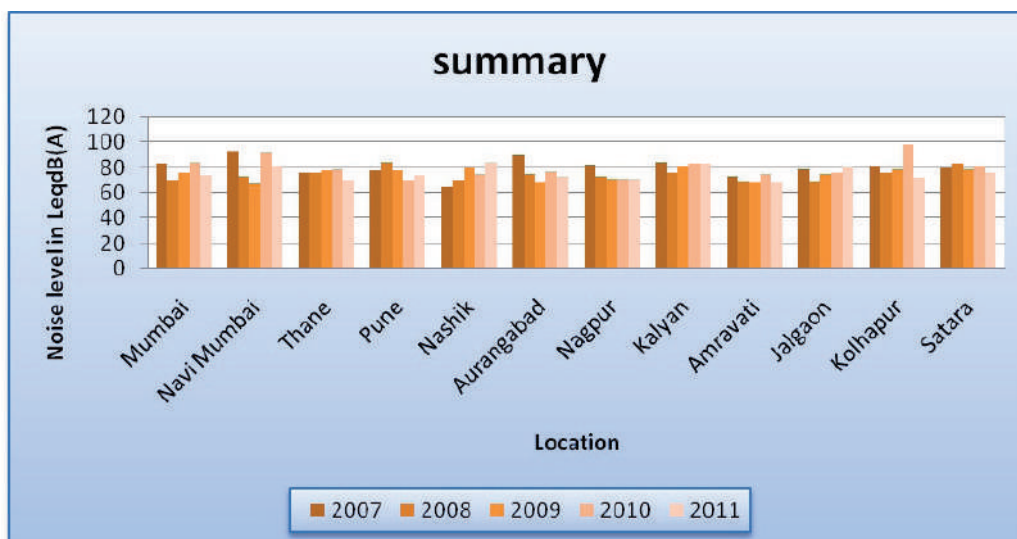


Chart Showing : Noise Levels during Ganesh Festival for last 5 years in different cities of Maharashtra

Conclusion

In present study, it is concluded that there is significant decrease in noise levels in some of the cities like Kholhapur, Satara, Mumbai, Navi Mumbai, Thane, Aurangabad and Amravathi. However, in some cities like Nagpur and Jalgaon showed significant increase in noise levels. Besides this, cities like Pune and Nashik showed similar range of noise levels as it was in year 2010.

Decrease in noise levels resulted may be due to increase in awareness among citizens by the enforcement of environmental awareness programs and campaigns conducted by Maharashtra Pollution Control Board and other Regulatory Agencies.

However more efforts are needed to bring down the noise levels upto the permissible limits which may include more awareness among people about noise pollution and its adverse health effects without disturbing their spiritual thoughts about the festival.



**Vinod Kumar
with Field Officer
at Borivali,
Mumbai**



Datta Abhaji Jadhav with Field Officer Mr. Hemant Kulkarni at Gaodevi Mandir, Thane

7.2 Survey of Hotels & Schools in Mahabaleshwar-Panchgani

Mahabaleshwar is located at 17.92 N 73.67 E in western Ghat range. It has an average elevation of 1353 meters & is located 120 Km. away in south west direction of Pune city (Maharashtra). The population of Mahabaleshwar is about 12780 souls as per 2001 census, having area about 150 sq. km bounded by valleys on all sides.

Panchgani is located adjoining to Mahabaleshwar, which is about 18 kms away. The population of Panchgani is about 13280 souls as per 2001 census, having elevation 1293 meters. The Mahabaleshwar-Panchgani is topographically covered by hills, and famous for tourist place (Hill Station).

Being tourist place there are many residential Hotels established in Mahabaleshwar & Panchgani area. Residential educational institutes are also established in Panchgani area. Both Mahabaleshwar & Panchgani has separate municipal councils.

Mahabaleshwar is origine of Krishna River that flows across Maharashtra, Karnataka & Andhrapradesh.

Panchgani is known for many Boarding schools established since late 19th Century by the Britishers.

Mahabaleshwar-Panchgani being hilly area & ecologically sensitive, the Government of India, MoEF, New Delhi has declared Mahabaleshwar-Panchgani as Eco-Sensitive zone, vide notification dt.17th Jan 2001. The ESZ includes entire area within Boundaries of Mahabaleshwar Tahasil & villages of Bondrawadi, Buteghar, Danwadi, Taloshi & Umbri of Jawali Tahasil of Satara district. Under this notification many activities are regulated in the Eco-Sensitive zone.

As per Hon'ble High Court decision, Board has started carrying out Survey in the year 2007. At that time (23/03/2007) Board has decided criteria for compliance of Hotels as under-

1. If hotel has provided septic tank followed by soak pit / metal filter & the quantity of sewage is less than 10 CMD, then hotel is considered as complied.
2. If the Hotel is generating sewage more than 10 CMD & connected to underground sewer (Irrespective of terminal STP) then the hotel is considered as complied.
3. If it is not connected to sewer line & away from sewer line & sewage generation is more than 10 CMD then the hotel has to provide full fledged STP.

4. If hotel is far away from sewer line & Sewage generation is less than 10 CMD then hotel has to provide septic tank followed by soak pit/ metal filter, then only such hotel is to be treated as complied.

On the basis of above criteria Survey of Hotels & Schools in Mahabaleshwar-Panchgani was carried out. Based on the results of the Survey, M.P.C.Board has taken stringent actions against the non-complying hotels & educational institutes by issuing Closure Directions including disconnection of electricity & water supply.

In order to check the compliance regarding provision of STPs & their operations, MPCB has carried out Survey of hotels & schools/educational institutes during the period November-December-2011 to March 2012.

Observations:-

1. As per consent order of hotels, sewage generation was not based on no. of rooms in the hotel. It was varied from case to case i.e. from 50 litres to 300 litres per room as per amenities provided in the hotel.
2. In Mahabaleshwar & Panchgani area most of the hotels from July to third week of Oct remain closed every year.
3. Heavy crowd is observed in Diwali, Christmas vacation period & in summer season. During this period all the hotels are mostly fully occupied. In the rest of the period at weekends these hotels are partially occupied.
Due to this situation, flow of sewage from any hotel is not continuous throughout a year which sometimes affects the operation of sewage treatment plants which are based on aerobic treatment process.
4. Due to heavy rains in monsoon, the STPs get corroded, electric motors get burned & due to this the operation of STPs gets disturbed and it is necessary to repair / maintain the STPs every year after monsoon.

Hotels in Mahabaleshwar: -

During survey it is noticed that 42 hotels are having their individual STPs & the treated sewage is being utilized on land for gardening. Other 89 hotels which are located in city & market area do not have sufficient land for disposal of treated sewage. Therefore they have connected their septic tank/filters out let to Municipal sewer line.

The hotels which are operating the activities without valid consent are asked to apply for renewal of consent.

The hotels which need up-gradation/repairs of existing STP have been asked to upgrade the system.

Hotels in Panchgani: -

There are 35 hotels in Panchgani city & nearby area, out of these hotels, one hotel has provided septic tank followed by filters and the outlet of which is connected to Municipal sewer line. There are 14 hotels having septic tank & the out let of which is also directly connected to Municipal sewer line. There are 20 hotels which have provided their own STPs septic tank & treated sewage is being used for gardening.

The hotels which are operating the activities without valid consent are asked to apply for renewal of consent.

The hotels which are requiring up-gradation/repairs of existing STP have been also asked to upgrade the system.

There are 20 Restaurants in Panchgani. Survey of these restaurants was conducted earlier i.e. in year 2007. There is only restaurant activity & no lodging activity. Most of the restaurants are located in market place & out let of those restaurants are connected to Municipal Sewer Line. Hence, these Restaurants are not considered in this survey.

Educational Institutes in Panchgani –

There are 22 Educational institutes, out of these, 02no's of Institutes have provided septic tank followed by filters & outlet of them is connected to Municipal sewer line. There are 08 Institutes which have provided only septic tank & the out let of which is directly connected to Municipal sewer line. There are 10 Institutes who have provided their own STP and septic tank & treated sewage is being used for gardening.

The educational institutes which are operating the activities without valid consent are asked to apply for renewal of consent.

The educational institutions requiring up-gradation/repairs of existing STP have been also asked to upgrade the system.

Present status of STP's of both the Municipal Councils:

The Board office has also pursued the matter of provision of STPs of both the Municipal councils as per time to time directions given by the Hon'ble High Court and the present status of both the municipal councils till date is given as below-

MAHABALESHWAR MUNICIPAL COUNCIL(status of STP's)

STP No.1 (4.0 MLD Capacity based on SBR technology) at compartment no 79(City Survey no.257/1):

1. The Mahabaleshwar Municipal Council has provided STP of 4.0 MLD capacity based on SBR technology and the same is commissioned on 15/03/2012.
2. The STP based on SBR technology with PLC control arrangement is provided which consists of Grit Chamber, Collection cum equalization tank along with 04 no's of pumps installed with sensor facility for lifting the sewage from collection tank, followed by screening chamber, grit chamber, flow divider, SBR basin, Zig-zag chlorination tank, Decaners etc.
3. During the visit, STP was found in operation.
4. In case of power failure to operate the STP one D.G.Set of 150 KVA capacity is provided by Municipal Council.

STP No.2:- (1.0 MLD Capacity based on MMBR technology) at Survey No.626, near Dhobi Ghat:-

The work of 1.0 MLD STP located at Dhobi Ghat based on MMBR technology is stopped due to rain. RCC work of aeration tank & clari-settler tank has been completed. For provision of grit chamber & screen chamber the pits are seen excavated. Some of the mechanical equipments are seen received at site, further there is no progress.

MUNICIPAL SOLID WASTE

1. Tarring work of the approach road to the Municipal Solid waste treatment site is completed.
2. Presently, all the MSW is brought to the MSW dumping site & the same is dumped without segregation. The existing facility provided for wet garbage is not in operation due to mechanical problems.
3. Landfill pit for inorganic waste (for inert material) disposal provided, however it is not in operation.
4. The unscientific disposal of MSW is not attended since last 30 years, which needs scientific capping/ scientific disposal. There is no further progress.

PANCHGANI MUNICIPAL COUNCIL(Status of STPs)

1. **STP No.1** (0.65 MLD Capacity) at Survey No.83/2 near Siddharth Nagar: -

The STP of 0.65 MLD at Siddharth Nagar was installed during Dec-2009. However, till date sewer connection is not made & no further progress is seen,.

2. **STP No.2** (0.35 MLD Capacity) at Plot no.497/4 & 5 near Shivaji Nagar:-

Almost 95% civil & mechanical work is completed. It is also reported by Chief Officer of Municipal council that, 95% work of sewer lines in Shivajinagar area is also completed. Filtration system installed at site, presently the work is in progress.

3. **STP No.3** (1.5 MLD Capacity) at Hindu Crematorium: -

The M.J.P. (Maharashtra Jivan Pradhikaran) has given technical sanction for this new proposed STP (1.5 MLD Capacity), further there is no progress.

MUNICIPAL SOLID WASTE

The existing vermi-composting arrangement provided for treatment of biodegradable waste is not in operation. The solid waste around the facility which has been unscientifically dumped is still unattended and there is no further progress.

According to the decision taken in the year 2007 and as per directives of the court as mentioned above, this Survey was carried out with an aim to monitor the status of pollution control systems provided and the methodology used for the same . On the basis of observations made during the survey, the hotels, school/institutes were instructed to comply with the lacunas.

7.3 Zoning Atlas activities:

7.3.1 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. The District Environmental Atlas is highly useful to district planning authority to identify the thrust areas for formulating programs & policies for environmental conservation & sustainable industrial development in the district.

The objective of preparing the District Environmental Atlas is to present the environmental status of the districts through easy to read maps. In addition, DEA streamlines several benefits, which are briefed below:

- Provides a ready-reckoner for relevant environmental information in the district;
- Provides a basis for incorporating environmental aspects into physical (landuse) planning process that are needed in the district;
- Helps in planning cost-effective pollution control measures and programmes;
- Helps in developing infrastructure facilities such as roads, water supply, electricity etc and provision of common waste treatment and disposal facilities;
- Helps to check the additional pollution in the areas already over-stressed with pollution;
- Helps in increasing awareness of the public on the sources and nature of pollution anticipated in the district and
- Helps to locate areas to be monitored for pollution

The District Environmental Atlas (DEA) is prepared using secondary data from various departments and from thematic maps procured from the Survey of India (SoI) and Maharashtra Remote Sensing and Applications Centre (MRSAC), Nagpur.

Steps to prepare the District Environmental Atlas

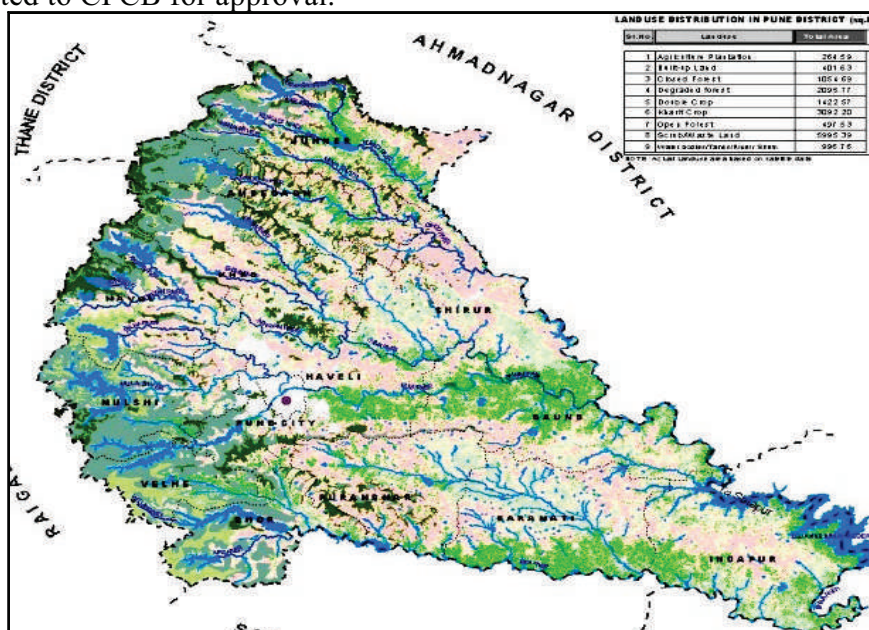
The procedure for preparing the District Environmental Atlas [1:2, 50,000 (1 cm = 2.5 km)] is broadly categorized into five steps, as below:

1. Preparation of the base map and general maps of the District (Settlement, Transportation Network, Climate and Natural Hazard);
2. Preparation of themes which show the physical features of the District (landuse drainage, physiography etc.);
3. Identification of areas showing 'Sensitive Zones' which are unsuitable for industrial sitting from environmental considerations/ guidelines, legal restrictions, social constraints and physical constraints for industrial siting;
4. Preparation of maps stating information about major sources of pollution:
 - Location of Existing Industrial Areas/ Estates

- Location of Mines
- Solid / Hazardous waste generation
- Vehicular Pollution Load
- Domestic Sewage Load
- Consumption of Pesticides and Fertilizers;

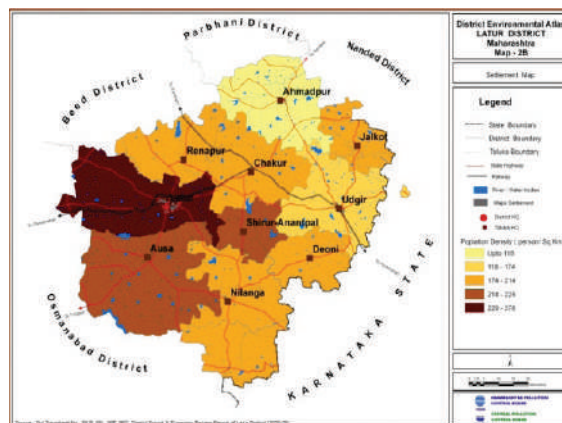
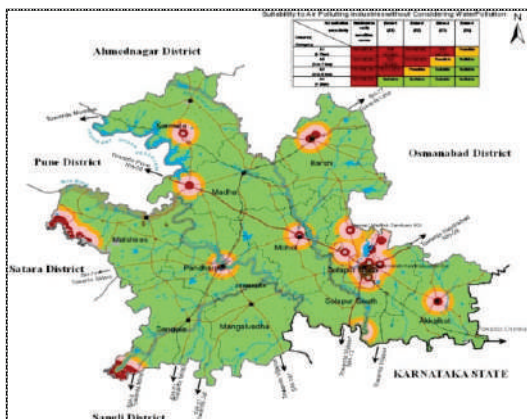
1. Preparation of theme maps pertaining to air, surface and ground water quality.

DEA is presented to respective District Collector and concerned stakeholder department and are finalized as per the suggestions and recommendations received from stakeholders during the workshop. The reports of DEA Latur, Nanded, Nasik and Solapur are submitted to CPCB for approval.



7.3.2 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 easy to read 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. Preparation of the ZASI Latur, Nanded, Nasik and Solapur District are completed and submitted to CPCB for approval.

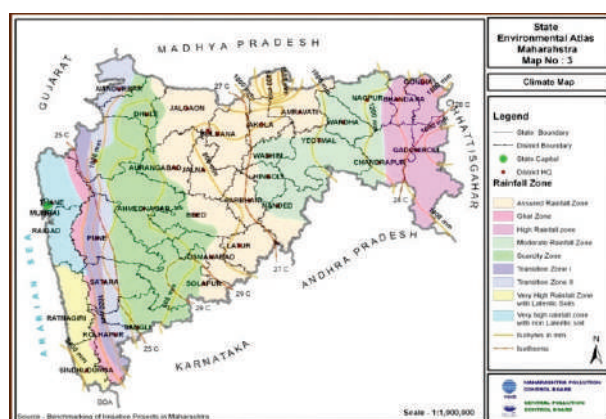


7.3.3 DISTRICT LEVEL INDUSTRIAL SITING GUIDELINES (DLISG):

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 to be avoided for priority districts. This help in implementing the District Level Zoning Atlas for Siting of Industries. The district level guidelines for Nashik and Solapur are completed and submitted to CPCB for approval.

7.3.4 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 which specifies Biological Diversity, Incompatible Land Uses etc. in the State. The draft State Environmental Atlas is completed and submitted to CPCB for approval.

8. ENVIRONMENTAL TRAINING

To upgrade the skill and to enhance capacity building the Board deputed officers and employees of the Board for various technical and non-technical training in India and abroad. The training includes various courses related to prevention, abatement and control of pollution, cleaner technologies, waste minimization and amendments in related Acts and Rules.

During the year the Board had deputed 155 officials to attend training in technical, scientific and administrative courses as shown in the following table.

Sr. No.	Particulars	No of official nominated during 2011-12	
		National	International
1	Technical	90	3
2	Scientific	19	0
3	Administration & Accounts	46	0
Total No of Officials		155	3
Total Cost Rs		312058	

The major topics covered in this training program during the year were as below

- ★ Global Environment & disaster management: Law and Society
- ★ HW Mgnt and remediation of contaminated sites
- ★ Pollution Monitoring techniques and Instrumentation
- ★ Ambient air and stack monitoring techniques
- ★ Climate change, oil spill and radiation risk, new environmental challenges
- ★ Analytical Quality Control in Water Quality Analysis
- ★ Integrated Municipal Waste Management
- ★ Budget Distribution System
- ★ IT Audit & Security
- ★ Remote sensing , GIS, GPS and IT applications

8.1 Workshop cum Training programme

Board has taken initiatives in organizing workshop cum training programme especially for the newly appointed Field Officers in respect of Bio-Medical Waste (Management and Handling) Rules 1998. The workshop was organized by MPCB officers in collaboration with VNIT, Nagpur in the Month October, 2011 for two days. During the training session various aspects of Bio-Medical Waste Management were covered such as,

- Health Hazards caused due to improper management of Bio-Medical Waste.
- Responsibilities of various Govt. organizations
- Responsibility of MPCB in Management of Bio-Medical Waste.
- Safety measures taken by the hospitals while handling BMW.
- Segregation, Storage, treatment and disposal and Recordkeeping of BMW as per Rule.
- Technical session with respect to treatment and disposal of BMW.
- Brief description on CAG Audit Report on BMW.



The concept of organizing the above training program was to ensure proper implementation of Bio-Medical Waste in the State of Maharashtra. The Board has decided to undertake such Workshop cum training programme in the near future.

8.2 MPCB FELLOWSHIP FOR ENVIRONMENTAL TECHNOLOGIES AND POLLUTION CONTROL:-

The function of the Board specified in section 17 of Water act 1974 and Air Act 1981 clearly include “encourage, conduct and participate in investigations and research related to the problems of water and air pollution”. It also includes other functions, which necessarily include promotion of R & D based initiatives including appropriate and clean technologies, environmental baselines data collection, analysis and interpretation of the data etc. M.P.C.Board being a most proactive Board needs to take initiative for research at the advanced level in the field of environmental technologies and pollution control at the reputed institutions of the State.

To encourage and participate young generation in investigation and research related work for environment protection and development in present scenario, Board has initiated and implemented a scheme for research and development in the field of Environmental technologies and pollution control through fellowship for Master’s and doctoral research students.

Thrust on Research and Science based initiatives-

- Research in Environmental Technology
- Research in advance pollution control system and management.
- Improve interaction of research institutes with industry and society.
- Coordinated research for major concerns and challenges of Pollution and Environmental degradation

The Board has awarded fellowships to the following institutes on 5th June 2011 in the presence of Hon’ble Chief Minister, GoM.

- 1) Indian Institutes of Technology, Bombay
- 2) Visvesvarya National Institute of Technology, Nagpur
- 3) Walchand College of Engineering, Sangli
- 4) Virmata Jijabai Technological Institute, Mumbai.

Institutes	No. of Fellowships		Chair professor	Total Financial assistance (Rs) lakhs
	Post Graduates	Ph.D		
IITB, Powai	2	1	1	100.00
VJTI, Mumbai	2	-	-	52.00
VNIT, Nagpur	2	1	1	92.00
WCE, Sangli	2	-	-	66.00
Total			Rs	310.00

9. ENVIRONMENTAL AWARENESS AND PUBLIC PARTICIPATION

9.1 World Earth Day

The Maharashtra Pollution Control Board celebrated the World Earth Day on April 22, 2011. On the occasion of this day, messages for creating awareness among the general public on environment and the significance of World Earth Day, were published in leading Newspapers like 'Loksatta', 'Maharashtra Times' and 'D.N.A.' Also on the day messages were telecasted through various TV Channels like Sahyadri, IBN Lokmat, Sam Marathi, Star Maza on enrichment of environment. Messages on awareness were also spread through mobiles in Mumbai city. On this occasion a video film inclusive of renowned Marathi actors shri sachin Pilgaonkar, shri Bharat Jadhav, shri Samir Dharmadhikari and smt. Kranti Redkar was prepared to spread awareness among the people

9.2 World Environment Day

Every year June 05, is celebrated as the World Environment Day. The Board celebrated World Environment Day on June 05, 2011 at Yashwantrao Centre in Mumbai.

To grace this occasion, Hon'ble Chief Minister shri. Prithviraj Chavan, Hon'ble Dy. Chief Minister shri Ajit Pawar, Environment Minister shri. Sanjay Devtale, State Minister for Environment shri. Sachin Ahir, Chief Secretary of the State Mr. Ratnakar Gaikwad, Secretary Environment and Chairman M.P.C.B smt. Valsa Nair Singh and Member-Secretary M.P.C.B. Shri Radhyeshyam Mopalwaar were present at the venue.



As a part of the celebration film festival was also organized during June 05 -07, 2011. During the two-day film festival around 40 films of international standards related to environment protection and pollution control were screened. Around 1000 environmental lover attended this festival.

“Vasundhara Award 2011”, Photothon prize were distributed to the winners at the hands of Ministers. Experts meetings on environmental issues were conducted as well as Mobile Exhibition Van was also inaugurated on this occasion.



To spread this live function to each corner of Maharashtra State telecast was done through Sahyadri T.V. channel.

As a part of this function on 4th June, 2011 various programs like awareness campaign, canvas painting, discussions were arranged by “We Love India” institute. In these programs renowned cine artist, players and ministers were present.



World Environmental Day at Nasik

World Environmental Day - 5 June 2011 was organized at Udyog Bhavan, Nasik. On this occasion a cycle rally was organized to give message to general public for use of cycles as a mean of transport which will conserve the natural resources and subsequently control the air pollution generated from burning of fuels in the vehicles and for betterment of the public health in general.

The cycle rally was started from Udyog Bhavan. This was organized with the help of students from ITI Nashik in which around 90 students were participated apart from general public of the city.

Tree plantation program was also organized at M/s. Hindustan Coca-Cola Ltd., MIDC Ambad, Nashik. To spread the message of World Environment Day 2011, note covers & stickers having messages were distributed to the students of rural area.



World Environment Day celebrated on 5th June 2011 at M/s. Cadbury Industries at Talegaon Tal - Maval, Pune



9.3 Environmental Calendar

On behalf of M.P.C.Board Environmental Calendar 2011 was prepared by Sanskriti Prakashan. In this Calendar different festival with the ir relation to environment was published. For every month there was environmental massage in this calendar. Festival, Nature and Human being and their interdependency was also elaborated in this calendar.

9.4 Environmental awareness during Pandharpur Yatra

“Paryavarnachi vari Pandharichya Dari” a campaign of environmental awareness was initiated by Shri Mahesh Pathak, Commissioner Pune Municipal Corporation on 26th June, 2011 at Yashwantrao Chavan Auditorium kothrud, Pune. In this program Mayer, Deputy Mayer and Member Secretary M.P.C.B. were present as Chief Guest. In this program from Alandi to Pandharpur through various Folk Arts like Kirtan, Bharud, Powada related to environment were arranged to make the people and pilgrims aware of surrounding environment and need for its protection.

In the present situation the environmental problems in urban areas and rural areas are equal therefore to convey the message in respect of ban the Plastic and save the country, Water conservation and protection, electricity conservation, conservation of all natural resources, use of organic fertilizer for farming and management of solid waste were addressed to ten lakh people gathering in Pandharpur. During 15 days of this program the winner of Sangeet, Natak Academy Smt. Chandabai Tiwadi, Shri Devanand Mali and Dyaneshwar Maharaj Wable expressed their thoughts through their Art like Bharud, Powada and Kirtan.



Pilgrims on the way to Pandharpur



MPCB Staff and Artist in the campaign



Member-Secretary MPCB delivering speech on Eco-Friendly pilgrim campaign at Pune



**Ex-Member-Secretary MPCB delivering speech on
Eco-Friendly pilgrim campaign at Pune**

9.5 Environment Friendly Festivals

In Mumbai city on behalf of DNA Group of News Papers “Eco-Ganesh” competition was arranged. In this competition eight malls in Mumbai had installed Eco-friendly Ganesh idol. On similar line a separate competition for public Ganesh Mandal and Green Housing Society was also organized in Mumbai. To visit these stalls “Ashtavinayak Darshan” was kept free for senior citizen.

Hon’ble Environment Minister Shri Sanjay Devtale, State Minister for Environment Shri Sachin Ahir, Environmental Secretary Smt. Valsa Nair Singh and Member Secretary Shri Milind Mhaikar visited all Eco-Ganesh stalls.

M.P.C.Board and Dainik Loksatta had jointly organized Eco-Friendly Ganesh decoration competition in Houses of Mumbai, Pune, Nashik, Nagpur, Ahmednagar, and Aurangabad. In this competition more than 1500 participants had participated. The news in this regard was published in special edition of Loksatta in which Secretary Environment and Member Secretary M.P.C.Board expressed their views about this Eco-Friendly festival.

To arrange such type of competitions in Mumbai and Pune the Board has given financial assistance to the organizer. On the occasion of immersion of Ganesh idol cleanliness campaign was observed at Girgaon Chowpaty, Juhu Beach and Varsova Beach. On this awareness a special film was prepared by Times group. During 15 days of celebration special articles were published in Times of India. The prize distribution of this festival was conducted in presence of State Minister of Environment Shri Sachin Ahir, Secretary Environment Smt. Valsa Nair Singh, Member Secretary M.P.C.Board Shri Milind Mhaikar and well known Actress Samira Reddy.



Winners of Eco - Friendly Ganesh festival competition



State Minister of Environment Shri. Sanjayji Devtale (second from right)



Ganpati Festival in Nasik Region

During Ganpati festival Nasik office had circulated the guidelines about immersion of idols and also given wide publicity through local leading news papers for use of non metallic colors for idol painting and immersion of idol in a safe place so as to avoid ground /surface water pollution. During Ganpati festival noise monitoring also carried out in the major cities of the region during day and night time.

A report in this regards has been prepared. The noise monitoring report indicates 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 about idol immersion which has helped to have minimum impact on the water bodies

One Act Play Competition on Environment

Eco Folks and M/P.C.Board jointly organized inter school One Act Play Competition on Environment in Mumbai, Pune, Nagpur, Aurangabad and Kolhapur. The competition was held in two rounds first round and final round.





Audience at Drama competition

Eco-Friendly Dahi Handi

M.P.C.Board and Ideal Book depot had jointly organized Eco-Friendly Dahi Handi in Mumbai. On this occasion a rally was organized that toured from Shivaji Park Dadar across the city in the open roofless double Decker BEST Bus where in film stars, drama artist joined and conveyed message to reduce noise pollution. This rally began with a street play. The end of rally was observed with breaking of Eco-Friendly Dahi Handi at the hands of well known film artist at Ideal Book Depot. The rally was inaugurated by Shri Bharat Nimbarte, Regional Officer M.P.C.Board.



Shri Bharat Nimbarte Regional officer showing flag at inaugural function of Bus carrying messages on Eco-Friendly "DAHI - HANDI"



10. IMPLEMENTATION OF THE RULES UNDER ENVIRONMENT (PROTECTION) ACT, 1986

10.1 Hazardous Waste (M, H & TM) Rules, 2008:

A) Functioning of TSDF(Treatment Storage & Disposal Facility) :

CPCB has published guidelines in respect of operations of CHWTSDF facilities, which are required to be followed by CHWTSDF operators. In order to bring uniformity in checking compliance / monitoring the operations of TSDF by SPCB /PCC for assessment of compliance of guidelines, CPCB has framed “Protocol for performance Evaluation & Monitoring of the Common Hazardous Waste Treatment Storage & Disposal Facilities including Common Hazardous Waste Incinerators.”

The Operator of CHWTSDF facility is responsible for:

Accepting hazardous wastes at CHWTSDF from the generators authorized by SPCB/PCC.

Establishing a system for optimal movement of hazardous wastes transportation, Treatment and disposal operations which may include resource recovery/ recycling as the case may be.

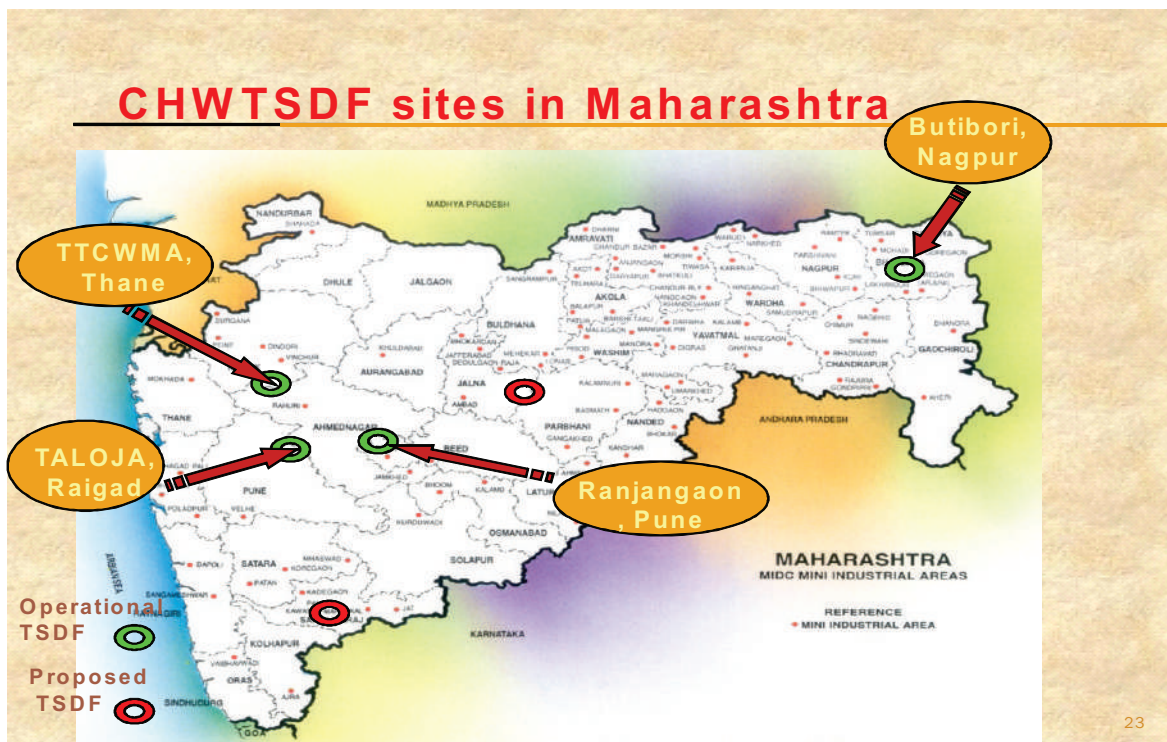
Fingerprinting analysis to confirm the wastes shall be the responsibility of the Operator.

Operating the CHWTSDF as per conditions stipulated in the authorization issued by SPCB/PCC.

Ensuring waste treatment and/or disposal as per Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008

Undertake cleanup operation in case of contamination resulting from CHWTSDF pollution and the odour arising out of CHWTSDF Operations and subsequent abatement.

Compliance of regulations concerning occupational safety and health of CHWTSDF employees.



Picture: I. CHWTSDF Sites in Maharashtra State



Picture: II. Land Fill site at M W M L, Taloja

At present there are four CHWTSDF in operation where direct land filling, Incineration and land filling after treatment of H.W being carried out. From 5511 nos. of hazardous waste generating units 923703.48 MT of hazardous waste is received at all four sites. Four sites are in operation & details of those are, as under:

Sr No.	Criteria	Taloja (MWML)	TTC	Rajangaon	Butibori
1	Details of the facility	M/s. Mumbai Waste Management Limited, Plot No. P-32, MIDC, Taloja, Tal: Panvel, Dist: Riagad	M/s. Trans Thane Waste Management Association P-128, Shil-Mahape Road, Next to L&T Infotech Ltd. Mahape, Navi-Mumbai-400105	M/s. Maharashtra Enviro Power Ltd. (SPV of M/s. Shaktikumar M. Sancheti Ltd) Plot No. 56, MIDC Ranjangaon, Taluka- Shirur, Dist – Pune.	M/s. Vidharbha Enviro Protection Ltd. (SPV of M/s. Shaktikumar M. Sancheti Ltd) Sr.No.7 to 15, 131 & 162, Butibori Industrial Area, Mouza- Mandawa, Taluka- Hingana, Dist- Nagpur.
2.	Consent to Establish issued on	02.01.2002	02.01.2002	27.10.2005	27.10.2005
3	In Operation / Under construction	Commissioned since 2001	Commissioned since Jan 2004	SLF- Commissioned Since Jan 2007 Incinerator- Commissioned since November 2008	SLF- Commissioned since Feb 2007 Incinerator- Commissioned since November 2008
4	Capacity of the Facility	SLF- 120,000 MT/ Year	SLF- 10,000 MT/Year	SLF- 60,000 MT/Year	SLF- 60,000 MT/Year
		1. INC - 2 .5 TPH. 2. INC- 2.5 TPH	INC-No Facility (Incinerable HW sent to Taloja)	INC-3 TPH	INC-3TPH
5	Total Waste Quantity received up to 31st Mach 2012 at CHWTSDF (since commissioning of the facility)	8,15,404 MT	2,45,737 MT	1,49,361.8 MT	55058.00 MT
6	Number of Members registered to CHWTSDF sites up to 31st March 2012	3199	1622	1728	553

Performance of CHWTSDF in Nagpur Region:-

Common Hazardous Treatment, Storage & Disposal Facility is developed at Vill. Mandva, Near MIDC Butibori a capacity of secured landfill is 60,000 T/Annum. They have one cell of secured landfill and about 65% is filled up with landfill Hazardous Waste. The incinerator with latest plasma technology is put in to operation. CHWTSD facility is also having shed for storage of Hazardous Waste of incinerable nature, or which require treatment before landfill. The effluent generated from wheel wash & vehicle wash, after settling sent to CETP Butibori for further treatment. They have leachate collection well and sending effluent from leachate collection well to CETP Butibori. Facility is also having laboratory for finger print analysis.

This facility is complying with the guidelines of CPCB in general with regard to infrastructure of CHWTSDF. . BG of Rs. 5.0 Lacs is taken to ensure the implementation of new storage guidelines.

Facility is regularly monitors the ground water quality. Board is also monitoring ground water quality regularly and as per analysis report some of the parameter like BOD, TDS & Chloride in few well samples are found exceeding the prescribed standards.

They have also installed power plant of 3 MW capacities, same is put in to operation. Air pollution control equipment such as a cyclone type dust collector is provided to 2 nos. of boiler.. It is also based on the waste heat available from incinerator and furnace oil which burns as a supporting fuel.

B) Implementation of HW (MH&TM) Rules, 2008:

a) HWM Cell at MPCB (HQ):

For better management /implementation of HW (MH&TM) Rules, 2008 HWM Cell was created at MPCB HQ, with following activities:

1. Implementation of Hazardous Waste Rules :

Scrutiny of Annual Returns under Form 4 / Form 13 filed by industries/ Auctioneers (Conduct scrutiny of documents submitted and compare quantities of Waste generated with Inventory figures & verify the quantity disposed off at various disposal sites).

Scrutiny of Returns under Form 6 filed by Registered Recyclers.

- Raising queries on report /application/return to ensure that Hazardous Waste generated is safely disposed off.

Updating of the HW Inventory based on information / feedback received.

Submit complete scrutiny report on Annual Returns.

1. Updating the Inventory on Hazardous Wastes :

Update inventory of hazardous wastes from industrial sources based on information received from industries through representations / consents / Annual Returns / Site visits etc. & submit the inventory of HW generating units to CPCB / MoEF every year.

2. Compilation of data on Import of Hazardous Chemicals.

3. Office Work :

To assist RO (HQ) and MS for carrying out need based help in day to day work.

a) Updating of HW Inventory:

This is a continuous process of updating of HW inventory records of Hazardous Waste generating units in Maharashtra, taken up by HSM division of MPC Board in year 2011-2012 through industrial sources based on information received from industries through representations / consents / Annual Returns to MPC Board.

Following are findings of the HW inventorization work carried out by RO (HQ)/HSM Division by involving services of M/s. Eco Friend & Company for this work:

Region-Wise HW Totals (MTPA)

Hazardous Waste Generation Updated on 31st March-2012

Regions	SLF (MTPA)	RCL (MTPA)	INC (MTPA)	Total
Mumbai	37902.8	309516	18252.3	365671.1
Raigad	70261.1	147546	37324.8	255131.9
Navi Mumbai	66335.3	34785.8	40734.8	141855.9
Thane	56423.3	65449.7	36119.2	157992.2
Kalyan	73038.4	178219	9679.36	260936.76
Pune	55128	54589.1	41382.1	151099.2
Kolhapur	25170.5	22700.6	11539.4	59410.5
Nashik	24658.3	59918.7	16040.1	100617.1
Aurangabad	45042.8	65624.2	21602.6	132269.6
Amravati	679.17	5845.46	423.471	6948.101
Chandrapur	24456.5	50473.2	10315	85244.7
Nagpur	37175.4	39164.4	11775.8	88115.6
Total	516271.57	1033832.16	255188.93	1805292.66

No of Hazardous Waste generating units (As on 31 st March 2012)		
Sr. No.	Region	Total no. of units
1	Navi Mumbai	694
2	Pune	970
3	Thane	721
4	Aurangabad	283
5	Raigad	334
6	Kalyan	863
7	Nashik	451
8	Amravati	73
9	Kolhapur	331
10	Mumbai	377
11	Chandrapur	115
12	Nagpur	299
	Total	5511

10.1.2 Registration for import of Metal and Metal-bearing wastes (Part-D of Schedule-III) on behalf of end user under Hazardous Wastes (Management, Handling & Transboundary Movement) Third Amendment Rules, 2010.

As per the Hazardous Waste (Management, Handling & Transboundary Movement) Third Amendment Rules, 2010, import of Metal and Metal-bearing wastes (Part-D of Schedule-III) on behalf of end user can be done only after obtaining registration from the State Pollution Control Board. It is now become mandatory to the importers to obtain registration form State Pollution Control Board for import activity.

MPCB has issued registration to **425 nos** of importers for import of Metal and Metal-bearing wastes (Part-D of Schedule-III) on behalf of end user under Hazardous Wastes (Management, Handling & Transboundary Movement) Third Amendment Rules, 2010.

10.1.3 Ship breaking activity and Collection, reception, storage, transport and disposal of hazardous waste mentioned under Schedule-I of Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008.

The ship breaking activity in Maharashtra is limited at Lakri Bunder and Powder Works Bunder at Darukhana in Mumbai Port Trust Area. MbPT has earmarked 19 plots for ship breaking activity in Mumbai. MbPT has assured MPCB that the number of plots for ship breaking in their area will not be increased in future. Besides, there is no regular allotment of plots to the ship breakers, as is being done in Alang, Gujarat, where the area is under the control of Gujarat Maritime Board.

The plots are given to the ship breakers on arrival of the ship for breaking. Generally, smaller ships arrive at Mumbai for breaking. The authorizations have been granted to ship breakers who operate in MbPT area. MPCB is keeping a strict vigil on this activity to ensure that there is no expansion of this activity at the existing location or on

any other coastal stretches of Maharashtra. It has accordingly informed Maharashtra Maritime Board to comply with the direction of the Apex Court in this regard.

Till date MPCB has issued authorization to 52 nos of Ship Breakers for Ship breaking activity and Collection, reception, storage, transport and disposal of hazardous waste mentioned under Schedule-I of Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008.

10.1.4 Implementation of procedure for issuance of grant / renewal of registration of Industrial Units having Environmentally Sound Management facilities for reprocessing / recycling of the Hazardous Waste in MPCB.

Industrial units having Environmentally Sound Management facilities for reprocessing / recycling of Hazardous Waste listed in Schedule IV As per rules 8(1) & 9 of Hazardous Waste, (MH&TM) rules, 2008, requires to obtain registration from Central Pollution Control Board (CPCB), New Delhi as reprocessor / recycler of Hazardous Waste by submitting application in prescribed Form- 5 for grant or renewal of the registration.

1. The Procedure for grant of registration as per Hazardous Waste, (MH&TM) rules, 2008 in CPCB as under:

Every person desirous of recycling or reprocessing the hazardous waste specified in Schedule-IV may make an application in **Form 5** accompanied with a copy each of the following documents for the grant or renewal of the registration:-

- (a) consent to establish granted by the State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974 (25 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (21 of 1981);
 - (b) Certificate of registration issued by the District Industries Centre or any other government agency authorized in this regard;
 - (c) Proof of installed capacity of plant and machinery issued by the District Industries Centre or any other government agency authorized in this behalf; and
 - (d) in case of renewal, certificate of compliance of effluent, emission standards and treatment and disposal of hazardous wastes, as applicable, from the State Pollution Control Board or the Concerned Zonal Office of Central Pollution Control Board..
2. CPCB has constituted a registration committee for grant or renewal of the registration of the Industrial units having Environmentally Sound Management facilities for reprocessing /recycling of Hazardous Waste listed in Schedule IV As per rules 8(1) & 9 of Hazardous Waste, (MH&TM) rules, 2008, comprising of experts in the field of environmental chemistry, Govt. / State Govt Engineering Institutions, Industrial association representatives, Petroleum refinery Institutions.
 3. CPCB vide their letter dt: 29/10/2010 informed to MPCB that from **1st September 2010** onwards the CPCB has delegated powers to state pollution control Boards for the grant / Renewals of registration of Industrial Units possessing Environmentally Sound Management facilities for reprocessing /recycling as per Rule 8 of Hazardous Waste (MH&TM) Rules, 2008.

CPCB enclosed the list of units granted in Maharashtra till date, list of applications under process for grant of registration & procedure followed for grant / renewal of registration.

4. In this concern, for Implementation of procedure for issuance of grant / renewal of registration scheme of Industrial Units possessing Environmentally Sound Management facilities for reprocessing / recycling of the Hazardous Waste listed in Schedule IV As per rules 8(1) & 9 of Hazardous Waste, (MH&TM) rules, 2008, in MPCB, there was need to constitute registration committee for grant or renewal of the registration at Maharashtra Pollution Control Board, similar to CPCB registration committee viz. Comprising of experts in the field of environmental chemistry, Govt./State Govt Engineering Institutions, Industrial association representatives, Petroleum refinery Institutions.
- Thus MPCB has constituted registration committee for grant or renewal of the registration at Maharashtra Pollution Control Board, similar to CPCB registration committee viz. Comprising of experts in the field of environmental chemistry, Govt./State Govt Engineering Institutions, Industrial association representatives, Petroleum refinery Institutions.
- MPCB has conducted 6-meeting of registration committee and registration has been granted to 33 -units for the reprocessing of Used Oil, Waste Oil, E-Waste, Non Ferrous Metal & lead bearing wastes.

10.2 Plastic Waste Management:

The State of Maharashtra has passed Maharashtra Non Bio-Degradable Garbage (Control) Act, 2006 and made the Rules namely, the Maharashtra Plastic Carry Bags (Manufacture and Usage) Rules, 2006, amended on 2007. The purpose of the Govt. of Maharashtra is to implement the Maharashtra Non Bio-Degradable Garbage (Control) Act, 2006 more effectively. While issuing the Maharashtra Plastic Carry Bags (Manufacture & Usage) (Amendment) Rules, 2007, State of Maharashtra made stringent standards for the manufacture of plastic carry bags in Rule-8, prescribing thickness of plastic carry bags made of virgin plastics or recycled plastics shall not be less than 50 microns and of the size more than 8" X12". State of Maharashtra further made it compulsory to the units manufacturing plastic carry bags and containers made of virgin or recycled plastics to obtain necessary registration from the Maharashtra Pollution Control Board.

The Ministry of Environment and Forests, Govt. of India has issued the Plastic Wastes (Management & Handling) Rules, 2011 in super session of the earlier Rules of 1999 incorporating innovative definitions of carry bags, commodities,

compostable plastics, disintegration, multi-layered plastics and plastic wastes etc., thereby, extending further the scope of management and handling of plastic waste. After going through, the said Rules of 2011 read with the Maharashtra Plastic Carry Bags (Manufacture & Usage) (Amendment) Rules, 2007, the MPC Board has issued a Circular with necessary guidelines to all the Regional Offices of the Maharashtra Pollution Control Board and discussed on both the Rules in the Co-ordination Meetings of all the officers of the Board at length.

In this connection, Regional Offices have been asked to identify all the Gutkha Manufacturers using sachets / packing in their jurisdiction and to initiate appropriate action to comply with the order passed by the Hon'ble Supreme Court of India dtd.11/05/2011 read with the Plastic Rules. The information in respect of status of implementation of the Rules in the light of the order passed by the Hon'ble Supreme Court of India has submitted to CPC Board, New Delhi for doing needful in the matter. On the basis of compliance of Hon'ble Supreme Court India's order in respect of ban on using sachets / packing of plastic for packaging of Gutkha, Pan Masala & Tobacco. M.P.C. Board has ensured that, there is no manufacturing unit of sachets, pouch / packing of plastic for packaging of Gutkha, Pan Masala & Tobacco in the state of Maharashtra; as per the information available from all the Regional offices. Maharashtra is the leading state for the compliance of the Hon'ble Supreme Court of India. As well as, M. P.C. Board has directed to the all the Municipal Corporations & Local bodies of the A, B & C class for the Implementation of the plastic rules & compliance thereof.

M.P.C. Board is implementing the State & central rules & granting the registration to the plastic carry bags & containers, virgin & recycled, multilayered plastic sachets & concern manufacturer. 491 Nos. of Plastic carry bags & containers, virgin & recycled manufacturers are registered under the Maharashtra Plastic carry bags (M & U) Rules, 2006 & 71 nos. of the plastic carry bags & containers, virgin & recycled, multilayered plastic sachets & concerned manufacturer are registered under Plastic Waste (M & H) Rules, 2011 read with Maharashtra Plastic carry bags (M & U) Rules, 2006. Vigilance squads are formed to check & monitor the compliances of the rules by plastic manufactures. In the financial year 2012 -2013 Board has decided to focus on the awareness & plastic waste management projects.

10.3 Bio Medical Waste management:-

Bio-Medical Waste (M&H) Rules, 1998 have been enforced in the State of Maharashtra and the rules stipulates a time bound action plan for providing treatment and disposal facility for the bio-medical waste generated in their establishments. It is necessary in the larger interest of public health and properly to treat and dispose the bio-medical wastes in the most appropriate scientific manner as prescribed in the said Rule.

In exercise of powers conferred by sections 6,8,25 of the Environment (Protection) Act,1986 Ministry of Environment and Forests, Government of India notified the rules for the management and handling of bio-medical waste called The Bio- Medical Waste (Management and Handling) Rules,1998 as amended on 6th March 2000, 2nd June 2000 and 17th September 2003.

These rules apply to all persons who generate, collect, receive, store, transport, treat, dispose or handle bio- medical waste in any forms. Pollution Control Board / Committees have been given the task of granting authorization and implementing these rules in their respective states and UTs.

In August, 2011 draft Amendment on Bio-Medical Waste Rules were issued by Ministry of Environment and Forest in which certain amendment in Rules were mentioned and the same were discussed in the 2nd Meeting of State Advisory Committee of Bio-Medical Waste was held on 30/11/2011 at Mantralaya in the chamber of Secretary, Environment, GOM Secretary Environment, Government of Maharashtra as below,

10.3.1) Functions of the Occupier of the HCEs

As per the BMW (M & H) Rules 1998 is the duty of the occupier of Health Care Establishment (HCE's) to obtain authorization from the prescribed authority. The clinics / dispensaries treating less than 1000 patients per month are exempted from obtaining authorization. Now in the amended BMW Rules, obtaining authorization from prescribed authority has not been defined as duty of occupier. Also, all HCE's irrespective of patient have to apply for authorization.

The Committee discussed the issue and noted that as per the amended BMW Rule 10 in the procedure for authorization, it is already mentioned that irrespective of the quantum of BMW generation, the HCE shall make an application in Form –I to the prescribed authority for grant of authorization. This will result into large number of applications for authorization. The Committee felt that, the earlier provision of exemption

of authorization to clinics / dispensaries with less than 1000 patient per month shall be retained. The Committee therefore, suggested that MPCB may refer this matter to MoEF for necessary amendment in the Rules.

10.3.2) Functions of the prescribed authority

The Committee discussed the subject and agreed that there is a need to assess the criteria of manpower required for effective implementation of the said Rules. The draft does not mention authorization fees for obtaining authorization. The committee felt that, the fees should be therefore decided as per earlier Rules, the State Government should have powers to decide that fees.

The Committee has suggested having a mechanism to regulate common facility operation for fixing the rates, area of operation, performance and also protect the HCE's from monopoly and sudden non-operation of common facility. Board official also informed that, the Advisory Committee has already recommended that allowing new CBMWTSDf on incineration shall be permitted only if the incinerable Bio-Medical Waste about 400Kg/day is available for proposed facility without adversely affecting operations of existing facilities. The criterion is essential for techno economic feasibility of the Common Facility. These aspects should also be part of the BMW rules.

10.3.3) Functions of the local bodies in management of BMW.

Present BMW Rule 14 stipulates that, it is the responsibility of Local Body to provide suitable common disposal sites for Bio Medical waste generated in the area under their jurisdiction. The Committee noted that most of the local bodies are not actively participating in the Management issues of BMW in their jurisdiction. Many local bodies have even not provided suitable land to setup CBMWTSDf.

The committee therefore suggested that the local bodies shall play an proactive role in the management of BMW by providing suitable land, resolving the issues of charges in coordination with the medical association and shall also see that no health issues arise due to mismanagement of BMW by the HCE's and the facility operator in their jurisdiction.



10.3.4) Functions of State Govt. for implementation of BMW

The Committee suggested that District level monitoring Committee shall be formed under the Chairmanship of District Medical Officer for monitoring the compliance of BMW in the HCE's and in CBMWTSDf. State Government shall also provide necessary support including approval for additional manpower at SPCBs and also related issues of financial assistance for effective implementation of the rules.

10.3.5) Categories of BMW.

Present Rules has 10 categories of Bio-medical waste. The proposed amendment specifies only 8 categories of BMW thereby avoiding the clubbing and overlapping of categories. The officials of Public Health Department, GoM suggested that, the waste sharps i.e. glass vials generated in their hospitals, instead of putting in sharp pits, may be handed over to authorized recyclers. The Committee pointed out that in BMW category No 4. i.e Waste Sharps, the glass vials are not covered and in the hospital the generation of glass vials is enormous. The same shall be communicated to MoEF to incorporate the glass vials in the waste category and suggest the treatment option.

The Public Health Officials has also suggested the Committee that, most of their hospitals are situated in rural areas hence they have to carry out deep burial process for management of BMW due to which most of their land is consumed which results in land constraint. It is suggested to follow the guidelines of WHO about reopening of deep burial pits. The Committee asked them to submit the report in order to review the same for better implementation.

10.3.6) Segregation of BMW.

The Committee noted that in the proposed amendment, only non chlorinated bags have been specified, earlier biodegradable bags were also specified for segregation of BMW. The Committee proposed that, any specific term like non-chlorinated or biodegradable etc. should be adequately defined in the rules as this will facilitate better implementation. Lack of clarity on such specific terms generally leads to non – compliance of provisions.

10.3. 7) CPCB Guidelines.

The Committee suggested that the guidelines issued by CPCB shall be the part of the proposed Rules.

The committee thereafter decided that, the observations should be communicated to MoEF for considerations.

10.3.8 Status of Bio-Medical Waste Management in the State

As per the Annual Report of Bio-Medical waste for 2011 there are in all 50,104 Health Care Establishments (HCE's) in the State of Maharashtra and about 44416 kg of Bio-Medical Waste is been collected and disposed off from these HCEs. Board has taken proactive steps to set up 36 Common Bio-Medical Waste treatment and disposal facilities in the State out of which 30 facilities are incineration based and remaining 6 are having deep burial system.

10.3.9 Financial Assistance for setting up of new CBMWTSDF

In connection to the scheme of Central subsidy (Financial Assistance) of MoEF for setting up of new Common Bio-Medical Waste treatment and disposal facility in the State, Board had invited expression of Interest from interested Project proponent for 5 identified region in the State namely, Vasai Virar and Mira Bhayander, Yavatmal /Hingoli / Osmanabad / Buldhana. An Expert Committee was also formed to evaluate the proposals. In response to the EOI Board has received 19 proposal and it was observed that for Vasai-Virar, there is one proposal from M/s. SMS Infrastructure Ltd. which mentions that the entire funds will be raised by proponents and no subsidy is required from the Government. There is one more proposal separately received from M/s.Touch and Glow for conversion of their existing deep burial facility to incineration based facility. Considering this, the committee felt that there is no need to provide subsidy if market driven facilities are coming in that area. This is more relevant as the proposed waste collection areas for Vasai-Virar location are rapidly urbanizing and the waste generation will be substantial in near future. The proposal for the remaining four regions were evaluated and forwarded to MoEF through Environment department, GOM.

10.4 Lead Acid Batteries Management

Ministry of Environment and Forests, Government of India in the Gazette of India was published Batteries (Management and Handling) Rule, 2001 on 16th May, 2001, amended on 4th May 2010. As per the said rule these rules shall apply to every manufacturer, importer, re-conditioner, assembler, dealer, recycler, auctioneer, consumer and bulk consumer involved in manufacture, processing, sale, purchase and use of batteries or components there of

10.4.1 Provisions under the Battery Rule -

As per the rule, it is mandatory to file a half-yearly return latest by 30th June and 31st December of every year to the Maharashtra Pollution Control Board. To obtain registration for importing the new Lead Acid Batteries, Applicant shall apply to the Ministry of Environment and Forests & to obtain registration for facilities possessing environmentally sound management proactive for recycling of used lead acid batteries, applicant shall apply to the Maharashtra Pollution Control Board. As per the amendment of the Batteries (Management and Handling) Rule which was published in the Gazette of India on 4th May 2010, it is the responsibility of Battery Dealer to apply for obtaining the registration from Maharashtra Pollution Control Board. By implementation of these rules, the hazardous waste can be managed in scientific manner & with handling of Lead by recycling it the secured method can be achieved.

10.4.2 Need of Awareness of Recycling of Batteries

Public education and participation are keys to the success of any recycling program and are particularly important with materials like batteries that have not been commonly recycled. A public education program can heighten awareness of the recycling program, involve more individuals and businesses, and increase the number of batteries collected. EPA in consult action with Lead Acid Batteries battery manufacturers, consumer product manufacturers, and retailers has to establish a public education program on batteries recycling, proper handling and disposal of used Lead Acid batteries.

10.4.3 Action taken by MPC Board –

Maharashtra 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.
- ★ Proposed directions issued to the stakeholders of the batteries.
- ★ MPCB has submitted Annual returns to CPCB as per section 12 of Battery Rules
- ★ Dealers of the Batteries are now applying for obtaining registration from Maharashtra Pollution Control Board & process is going on.

- Further, on the basis of a half-yearly return filed by the manufacturer, importer, re-conditioner, assembler, dealer, recycler, auctioneer, consumer and bulk consumer, it has been noticed that most of them have not filed a half-yearly returns & some of the have filed a half-yearly return irregularly. The Regional Offices & Sub Regional offices of the MPCB are taking necessary follow up in this regard.
- ★ Maharashtra Pollution Control Board has decided to conduct mass awareness campaigns regarding implementation of the Batteries (Management & Handling) Rules, 2001, amended on 2010 in the five regions of Maharashtra State.

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 25 such importers of lead acid batteries in the State of Maharashtra.

In the State of Maharashtra, the major bulk consumers of lead acid batteries are Maharashtra State Road Development Corporation, Maharashtra Electricity Board, Airport Authority of India and Military establishments in and around Mumbai, Municipal Transport (BEST) and Railways. From the information gathered by the Board, it is seen that these bulk consumers generally auction used lead acid batteries as per the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 only to the authorized recyclers / re-refiners having EST along with valid registration from CPCB.

There are 48 nos. of Lead acid Battery recycling units having valid registration from CPCB / MPCB. Most of the units have submitted half yearly returns on recycling of the batteries.

It has been observed that there is general lack of awareness among the consumers, dealers, bulk consumers, re-conditioners and assemblers of the batteries, importers and recyclers about the compliance of Battery (M&H.) Rules, 2001. Therefore Efforts are being made by MPCB with the help of its Regional offices to create awareness among the various stakeholders for ensuring compliance of the Batteries Rules.

MPCB has decided to organize mass awareness workshop for Battery Manufacturer, Assembler, Re - conditioner, Dealers, Bulk Consumer and Recycler in the state of Maharashtra at five different cities.

The information collected by MPCB from the **Battery Manufacturer, Assembler, Re- conditioner, Dealers, Bulk Consumer and Recycler** from different regions of Maharashtra is enclosed in table No. 1.

**Table No.1. Information of Battery (M&H) Rules form the period of
April 2011 to March 2012.**

Lead Acid Battery Re-conditioner, Assembler			Lead Acid Battery Dealer			Lead Battery consumer, Auctioneer.		Lead Acid Battery Recycler		Lead Acid Battery Importer	
Total No of Manufacturer, Assembler, Re-Conditioner	Production of lead acid batteries in unit numbers/year	Collection of lead acid batteries in unit numbers/year	Total No of Dealers	Sale of lead acid batteries in unit numbers/year	Collection of lead acid batteries in unit numbers/year	Total No of Bulk Consumer, Auctioneer	Collection of lead acid batteries in unit numbers/year	Total No of Battery Recycler	Collection of lead acid batteries for disposal MT/Y	Total No of Battery Importer	No. lead acid batteries Imported numbers /year
80	2516421	1020519	1050	7493519	208403	1913	922012	48	150086	25	8012

10.5 Municipal Solid Waste Management:

Municipal solid waste consists of household waste, construction and demolition debris, sanitation residue, and waste from streets. This garbage is generated mainly from residential and commercial complexes. With rising urbanization and change in lifestyle and food habits, the amount of municipal solid waste has been increasing rapidly and its composition changing.

Maharashtra State has 249 local bodies, comprising of 23 corporations, 16- A class council, 205- B and C class council, 5- cantonment Boards, generating about **182337.78** MT of municipal solid waste every month.

10.5.1 Status of Municipal Solid Waste Management in some of the Region of Maharashtra State:

Aurangabad

For installation of pilot project at two municipal council i.e. Ambad and Sonpet municipal council, the Board had provided financial assistance. Municipal councils are operating and maintaining the plant, but not upto the mark.

C.P.C.B & M.P.C. Board provided financial assistance for proposed MSW project at Jalna Municipal Council at the cost of Rs. 3 crores. The site is at Samangaon and the processing capacity of the project is 50 MT/D. The work of said project is in progress.

Latur municipal council had installed MSW processing plant of capacity 60 MT/Day at village Warwanti and producing compost. M.P.C.B. has provided financial assistance to Latur Municipal council to develop landfill site.

31 municipal councils in the region installed vermi composting plant for waste generating from vegetable and fruit market. Nanded municipal Corporation has applied for new MSW site at village Tuppa for which Board has granted authorization for treatment and disposal of MSW on BOT Basis to M/s. A to Z Infrastructure Ltd. The work will commence in April - 2012.

Navi Mumbai

Navi Mumbai Municipal Corporation generating about **550T/day** of municipal solid waste 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 site. During the year, approximately 200750 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.

Kalyan

Bhiwandi Nizampur City Municipal Corporation has obtained the MSW Authorisation for Dapode site but could not acquired the land due to opposition from the villagers. Also the Grampanchayat Dapode, had filed a Writ Petition in the Hon'ble High Court which was decided and the Hon'ble High Court directed the Government of Maharashtra to take suitable decision in this matter and report the same to the court, which is under progress and presently they are dumping the Municipal solid waste at village Chavindra. Badlapur Municipal council installed 6 MT/D capacity biogas plant and the remaining approximately 55 MT/D is dumped on ground near Chikloli unscientifically. Ambarnath Municipal Council has installed vermicompost plant of capacity 25 MT/D, which is presently not in the working condition; the Council has also proposed 5MT/D biogas plant.

Amravati

Akola Municipal Corporation has set up facility for treatment of bio-degradable waste and operated by M/s Bhudan Organic Pvt Ltd having capacity about 50 Mt/day. Recently, Amravati Municipal Corporation, Amravati awarded the work of treatment of Municipal Solid Waste to M/s. A 2 Z Infrastructure Ltd., Gurgaon, Hariyana on BOOT basis. The work is not yet started.

Nashik

Nashik Municipal Corporation has provided arrangements for disposal of Municipal solid waste at Pathardi which involve Segregation, Biomethanization, refused RDF Fuel Station, unit control, Micro bind Vindro Process and Plastic process. Also, Sinnar Municipal Council has provided aerobic composting treatment arrangement for treatment of Municipal Solid waste. Jalgaon Municipal Corporation has provided arrangement for disposal of municipal solid waste such as segregation, wet organic processing, dry organic processing and secured landfilling. Dhule Municipal Corporation has provided vermin composting arrangement for treatment of Municipal Solid Waste. Ahmednagar Municipal Corporation has already placed the work order for providing the facility for municipal solid waste treatment but presently solid waste is dumped on open land. Municipal Councils like Nandgaon, Malegaon, Rahuri, Shrirampur, Bhusawal, Shirpur & Navapur have provided vermi composting treatment arrangement.

Nagpur

Nagpur Municipal Corporation has set up Green coal plant (RDF) for processing MSW at Bhandewadi dumping site, Nagpur. Previous old dump of the Municipal Solid

Waste are being capped by soil & synthetic liner in order to get rid of smell nuisance. Wet waste which is being processed for producing compost and green fuel i.e. RDF from dry organic waste. From plastic scraps plastic lumps are produced by recycling it. The capacity of MSW processing plant is 800 MT/day and is operated by M/s.Hanzer Biotech. Inert waste from the compost yard of the processing plant and dry inorganic waste i.e. debris and construction material is at present dumped at old dumping yard. Nagpur Municipal Corporation is developing a land fill site at the old dumping ground.

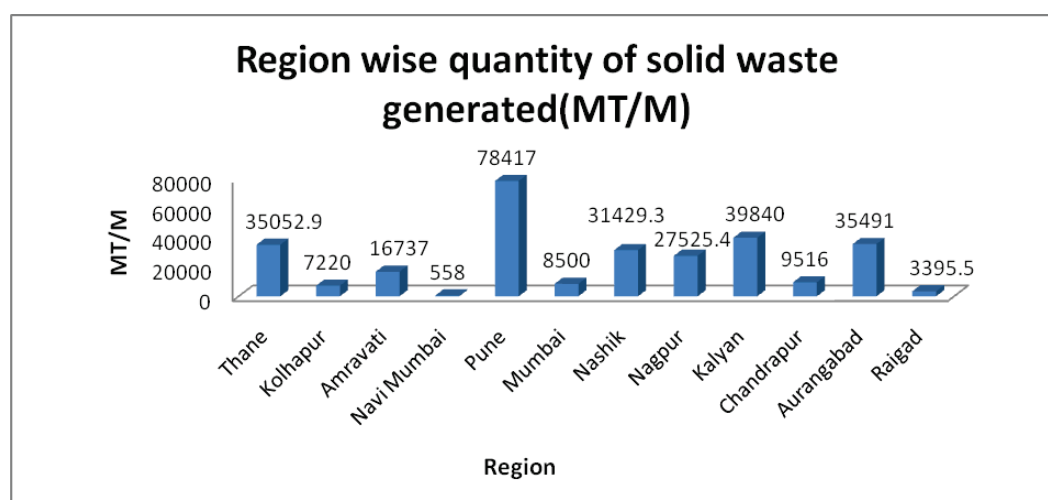
Municipal Council, Katol and Kalmeshwar have installed bio-methanization plant for processing of Municipal Solid waste generated from Market and are operating efficiently producing bio-gas.

Quantity of solid waste generated in the Nagpur Region is 1034.23 MT/day, which is further disposed for making green coal, compost, civil bricks from inert, plastic product from plastic waste, composting and remaining is dumped.

Pune

Pune being the upcoming metro city with a population around 40 lakh, it has the highest rate of MSW generation i.e. 1300 MT/Day. MSW generation rate can be very well correlated with the population dynamics of the respective area. The population of Pune is two times the population of Pimpri – Chinchwad which is 20 lakhs and reaching 5 times the population of Satara i.e. 1.69 lakh. This variation in population is directly reflected in the SW generation too.

With a view to collect, transport, treat & dispose the solid waste, Pune Municipal Corporation has undertaken several steps like introduction of technologies such as RDF, Plastic processing, Carcus utilization plant, 300 TPD composting as well as decentralized collection and treatment augmented with ward level / sector specific treatment facilities (especially for hotels). Similar type of approach needs to be introduced by other local bodies and stress must be given on segregation of waste into as many categories as possible to achieve ease of management & treatment and related decentralized disposal options.



11. PROSECUTION LAUNCHED AND CONVICTIONS SECURED

11.1 Some important decisions / Court Orders during the year 2011-12

1) Brief on M/s.Lavasa Corporation, Mulshi, Pune

M/s.Lavasa Corporation, Mulshi, Pune has developed a Hill Station Township on 681 hector area out of 2000 hector, without obtaining Environment Clearance from the Competent Authority. Therefore, the Ministry of Environment & Forests, Govt. of India vide letter dtd.10/6/2011, directed to the Secretary, Environment Deptt., Govt. of Maharashtra, to take credible action against M/s.Lavasa Corporation Ltd., Pune under the provisions of the Environment (Protection) Act, 1986, in respect of the violations made by M/s.Lavasa Corpn. by carrying out constructions / developments without obtaining prior Environment Clearance under the EIA Notification 2006 for the development of Hill Station Township (First Phase-2000 Ha.)

Accordingly, the MPCB as a Nodal Agency to implement the Environmental Laws, has filed a Criminal Case No.4671/2011 before the Hon'ble Chief Judicial Magistrate, Pune on 4/11/2011 against M/s.Lavasa Corporation Ltd. and 14 other Directors & officials of the accused-company as per the directives of the Secretary, Environment Department, G.o.M.

In the said matter, based on the all relevant documents produced by the Environment Deptt., Govt. of Maharashtra & MPCB for the complainant Board at length, Hon'ble Chief Judicial Magistrate, Pune has issued process against the Accused No. 1&15 vide order dated 24/11/2011, which is reproduced as under:

: ORDER:

“Issue process against the accused Nos. 1 to 15 of the offence punishable under section 15 r.w.16 of the Environment (Protection) Act 1986 for violation of directions contained in the Environment Impact Assessment Notification 1994 as amended in 2004 & the Environment Impact Assessment Notification,2006.”

Out of 15 Accused 10 Accused preferred Criminal Revision Application/s before the District & Session Judge, Pune and High Court, Mumbai, aggrieved by the Order issued by the CJM, Pune against all the Accused, on the ground of most of the directors are non-executive and the other officials are not directly incharge of and responsible for commissioning of the offence/s.

The above proceedings are pending.

2) Writ Petition No.1973/2011 filed by Hindustan Petroleum Corporation Ltd & anr V/s Municipal Corporation of Greater Mumbai & Ors. Before Hon'ble High Court of Judicature at Bombay, O. O. C. J.

M/s.Hindustan Petroleum Corporation Ltd had filed a Writ Petition bearing No.1973/2011 against the Municipal Corporation of Greater Mumbai & Ors before the Hon'ble High Court of Judicature at Bombay. The Board was Respondent No.11 in the said matter.

The Petition was mainly filed in respect of the development activity carried out by M/s.Oswal Agro Mills, the Respondent No.20 on CTS No.381,381/1 to22 at Chembur, Mumbai and prayed to the Hon'ble Court that the Respondent Nos.1 to 19 be ordered and be directed to forthwith issue a "stop work notice" to the Respondent No.20. The property was acquired by the Respondent No.20 from the Union Carbide Ltd, which was a chemical factory and was rightly placed in heavy industrial zone alongwith all other similar industries in and around the vicinity. The said land was also in Special Industrial Zone. The petitioner learnt that the Respondent No.20 had proposed to construct a residential and commercial complex on the aforesaid site situated in I-3 zone. The Hon'ble High Court vide order dtd 10/10/2011 directed the Respondent No.20 to maintain status quo.

3) Public Interest Litigation No. 17/2011 filed by Nicolas Almedia V/s State of Maharashtra & Ors

Nicolas Almedia has filed a Public Interest litigation bearing No. 17/2011 before the Hon'ble high Court of judicature at Bombay on the following grounds:

Grounds

- a) Petitioner states that the Govt. Resolution of RRZ policy dated 13/7/2009, suffers from total non-application of mind, is patently arbitrary & discriminatory.
- b) The petitioner state that, the said Govt. Resolution dated 13/7/2009 wrongly exempts Respondent no.2 (MIDC) from setting up industries close proximity to water bodies.
- c) Any relaxation or prohibition upon industries near water bodies in the State of Maharashtra will result in environmental degradation & will also increase pollution of water bodies in the state of Maharashtra.
- d) There is no rational explanation why the areas under the control of Respondent No.2 be permitted to set up industries in close proximity to water bodies.
- e) The environment (Protection) Act 1986, the permissible levels of minerals / effluents in CETP has been specified. A perusal of the aforesaid Rules & the said report on the performance of CETP makes it abundantly clear that the levels of BOD, TDS, COD, TSS in effluents discharged from CETP was above the prescribed standards

- f) The State of Maharashtra & Respondent No. 2 (MIDC) does not even have a CETP in each of its areas near water bodies. The close proximity of industries, including industries in the Red category to water bodies only increase the chances of colossal damage to the environment & the ecology due to industrial accidents.

In these circumstances, the petitioner states that, there is a public interest involved in the present petition in as much as the impugned Notification dated 13/7/2009 will result in increase in pollution of water bodies in the State of Maharashtra.

Prayer in brief:

- 1) The Hon'ble High court be pleased to quash & set aside the GR dated 13/7/2009 to the extent that it permits an exemption in favour of Respondent No.2 for setting up industries in close proximity to water bodies in the State of Maharashtra.
- 2) Pending the hearing and final disposal the present petition, the effect & implementation of said impugned notification dated 13/7/2009 may be stayed.

Following interim orders passed by the Hon'ble High Court :-

i) Order dated 1/12/2011 :-

“Respondent No. 3, MPCB shall file an Affidavit along with the report indicating the results of analysis of the effluent being discharged by the industries in the MIDC estate at Mahad, Addl. Mahad, Roha, Talaja, patalganga, Addl. Patalganga, Murbad, Addl. Murbad, Talegaon, Vilebhagad, Shirol (Kolhapur) & Vasarni (Nanded). If any other industries have been set up by MIDC at river banks, the Respondent-Board shall also submit report in this regard.”

ii) Order dated 22/12/2011 :-

“The Regional Officer Raigad had taken action against the polluting units in MIDC Mahad in Nov. 2010, Chairman of MPCB modified the orders of closure on 14/12/2010 by imposing the certain conditions including levy of fine. However, the performance of industries even in Nov, 2011 indicates that the industries have continued to flout the pollution control norms & therefore the MPCB has forfeited the Bank Guarantees.

That is not a satisfactory manner of dealing with the problem, hence, the MPCB to show cause why this court should not grant interim stay against the withdrawal orders passed by the Chairman of MPCB on

14/12/2010 in respect of polluting industries in MAHAD, Dist. Raigad. The MIDC shall show cause as to why this court should not grant ad interim relief restraining the MIDC from setting up industries in MIDC Mahad until the performance of CETP is improved.

iii) Order dated 23/1/2012 :-

Hon'ble High Court has passed an order dated 23.1.2012 by granting leave to the Petitioner to add Mahad Manufacturers Association through its President as the Respondent No.6 and NEERI as the Respondent No.7

Hon'ble High Court also directed all the Respondents (i.e. President and Secretary of Respondent No.6 as well as representative of chemical industries of MIDC, Mahad shall also remain personally present. Secretary, Env't. Dept., and M.S. MPCB, Chief Executive Officer of MIDC and Under Secretary of MPCB) to remain present on 2.2.2012 for hearing before the Hon'ble High Court.

Hon'ble High Court clarified that the Secretary, Env't. Dept shall mean the Secretary, Env't. Dept. G.o.M. and adjourned the matter and fixed on 23.2.2012 at 3.00 p.m.. But the matter was adjourned to 1.3.2012, due to Election Duties to the Staff of MPCB including Member Secretary of the Board.

iv) Order dated 1/3/2012 :-

After extending an opportunity of hearing to all concerned in the above matter on 1.3.2012 in the Conference Room at High Court, the Hon'ble High Court has passed an order dtd. 1.3.2012 wherein following directions were given to the MPCB :-

- a) Out of 9 industries, which have been closed down by the MPCB, Shree Hari Chemicals Export Ltd., manufacturing H. Acid shall not be permitted to restart its manufacturing activities without obtaining prior permission of the Hon'ble Court
- b) In case of other 8 industries served with the closure notices, they may not be permitted by MIDC and MPCB to restart their mfg. activities until they satisfy MPCB that they are in a position to control the pollution levels of treated effluents to such an extent that CETP in MIDC, Mahad is able to receive such effluents and treat them so as to discharge treated effluent within the permissible norms.
- c) The Board has to submit a report, by 24th March, 2012, indicating the functioning of CETP in MIDC Mahad, on the basis of continuous daily monitoring of the CETP in the next three weeks.
- d) The Board shall also submit a report indicating the functioning of the CETPs in other 15 MIDC Estates on the basis of the monitoring done at least on weekly basis.

iv) Order dated 30/3/2012 :-

- a) The Hon'ble High Court has directed the Mahad Manufacturers Association and MPCB to submit analysis of the reports of the effluent samples collected by them separately for the period from 1/4/2012 to 25/4/2012 on 3/5/2012.
 - b) The Board has also been directed to place on record a report indicating the summary of the performance of the respective CETPs and the action taken against the highly polluting industries.
 - c) The MPCB Shall circulate the revised Guidelines issued by the M.o.E.F., G.o.I. dtd. 15.3.2012 for the centrally sponsored scheme of Common Effluent Treatment Plants to all the associations running CETPs.
 - d) Dr. Rakesh Kumar of NEERI, Officers of the MPCB & MIDC shall have joint meeting within 10 days from 30.3.2012 and the suggestions made at such meeting shall be acted upon by MIDC as well as MPCB and a report shall be submitted by Dr. Rakesh Kumar of NEERI to MPCB. Thereafter, the decision of the Competent Authority is to be placed on record on 3.5.2012.
- ☐ **Remarks: -** In compliance of the various orders passed by the Hon'ble High Court, the Respondent Board has filed Affidavits in the above matter from time to time. Now the matter is still pending.

4) Writ Petition No. 3953 of 2011 with Civil Application No. 1310/2011 (For Intervener) filed by M/s Mumbai Waste Management Ltd. (Ramky Group) Tal. Panvel Dist- Raigad V/s Secretary of Environment, G.o.I., M.o.E.F., New Delhi & Ors. AND Writ Petition No. 5846 of 2011 with Civil Application No. 2051 of 2011 filed by M/s SMS Infrastructure Ltd. V/s S.o.M. & Ors

☐ **Writ Petition No. 3953 of 2011 filed by M/s MWML V/s Secretary, Env't. Dept., G.o.I. :-**

The Petitioner had filed the above Petition under Article 226 of the Constitution of India mainly to challenge the totally arbitrary, illegal decision of respondent No.2 Board (i.e. Member Secretary of the MPCB) in assigning the areas of operation of Common Hazardous Waste Collection, Treatment Storage and Disposal Facilities in the State of Maharashtra for management of Hazardous Wastes to the Petitioner Co., by its Order No. MPCB/ROHQ/HSMD/B-7446 dtd. 11.12.2008 and Order No. MPCB/ROHQ/STDF/B-1695 dtd. 9.3.2009. The Petitioner also challenged the order passed by the Appellate Authority constituted under Rule 26 of the Hazardous Waste (M, H and T M) Rules, 2008, in the appeal filed by the petitioner (i.e. Respondent No.4, the Secretary, Environment Department, G.o.M., Mantralaya)

Brief prayers of the Petitioner are as under:-

- a) To quash and set aside the order passed by the Appellate Authority after verifying the legality and correctness thereto.
- b) To hold and declare the order passed by the Respondent No.2 dtd. 11.12.2008 and Order dtd. 9.3.2009 and order of the Respondent No.4 dtd. NIL are illegal, bad in law, untenable, excessive and ultravires its powers.

The Member Secretary of the Board was the Respondent No. 2 and Chairperson was the Respondent No. 3 in the said petition. The Board had filed an Affidavit in the above matter on 15.9.2011.

□ Writ Petition No. 5846 of 2011 filed by M/s SMS Infrastructure Ltd. V/s S.o.M. & Ors. :-

The Petitioner had filed the above Petition, challenging the encroachment of M/s MWML in the area which had been allotted by the Board to M/s SMS Infrastructure Ltd. vide order dtd. 11.12.2008. The main prayer of the Petitioner was to restrain Mumbai Waste Management Ltd. from encroachment of the area of petitioner.

Since, the above matter was identical with that of the W.P. filed by M/s MWML; the Hon'ble High Court clubbed both the matters. Both the Petitioners in these two petitions are competitors in the business of collection, treatment, storage and disposal of hazardous waste of various establishments in Maharashtra.

□ Hon'ble High Court Disposed Off the matter by Order dtd. 16.3.2012

After hearing both the Petitioners and Respondents through their Advocates, the Hon'ble High Court had passed an Order dtd. 16.3.2012 that :

1. Writ Petition No. 3953 of 2011 is dismissed. Rule discharged.
2. The Petitioner in the Writ Petition No. 3953 of 2011 shall not encroach upon the area of operation allotted by Respondent No. 2 (i.e. the MPCB) to any other facility except its own.
3. Rule is granted in Writ Petition No. 5846 of 2011 to the above extent.
4. The above Civil Applications are disposed off accordingly.

5) Public Interest Litigation No 164 of 2010 filed by Shri Hasmat Parker and Others V/s State of Maharashtra and Others before Hon'ble High Court of Judicature at Mumbai

Shri Hasmat Parker and others have filed Public Interest Litigation before the Hon'ble High Court of Judicature at Mumbai, Bench at Mumbai bearing No.164 of 2010 alleging that the Respondent Authorities were not taking effective steps for stopping pollution of Dabhol Creek in Ratnagiri District caused

by the chemical industries by releasing poisonous effluents into the Dabhol Creek through the Respondent No 5. (i.e. Lote Parshuram Maharashtra Industrial Development Corporation (MIDC). The Board has filed an Affidavit in the above matter on 6.8.2011.

Order passed by the Hon'ble High Court on 1.11.2011 :-

“ The Hon'ble High Court has directed the Board to upgrade the CETP and to treat the effluents of plants/ units discharging the effluents directly or indirectly into the Dabhol Creek and to take action in accordance with the law, wherever the industries are found to be violating the relevant statutory provisions. In case the CETP is not upgraded by 31st July 2012, the petitioners will be at liberty to move the court again. Accordingly the Hon'ble High Court has disposed of the petition vide order dtd.1/11/2011. “

In compliance of the said order, the Board had issued a letter to the Regional Officer, MPCB, Kolhapur and Sub Regional Officer, MPCB, Chiplun to take appropriate action against the erring industries of Lote CETP vide letter dated 15/3/2012.

6) Matter regarding M/S UCIL (M/s.Union Carbide India Ltd), Bhopal Waste

The “Bhopal Gas Tragedy”, which took place in the year, 1984 at Bhopal on account of leakage of Methyl Isocyanides from the plant of Union Carbide India Ltd., resulting into en masse death of the people, living in & around the plant of M/s.Union Carbide India Ltd. Besides, countless men, women and children permanently crippled.

One Shri Alok Pratap Singh, has filed Writ Petition No.2802/2004 against the Union of India and Ors. before Hon'ble High Court Judicature at Madhya Pradesh, Principal Bench at Jabalpur, seeking appropriate directions against the Respondents for the transportation and disposal of the toxic and hazardous waste lying at the defunct & dismantled plant of Union Carbide India Ltd., Bhopal (i.e. UCIL, Bhopal). The Hon'ble High Court at Jabalpur had passed an order dtd.12/07/2011 to dispose off the hazardous and toxic waste material of M/s.Union Carbide India Ltd.,Bhopal in the double chamber incinerator capacity at Defence Research & Development Corporation (i.e. DRDO Nagpur).

Being aggrieved by the said order, a Public Interest Litigation No.31/2011 was filed by Shri Devendra Fadnavis, MLA before the Hon'ble High Court at Nagpur, wherein the Hon'ble High Court disposed off the said petition vide order dtd.21/07/2011 and directed the petitioner, State of Maharashtra and MPC Board to approach the Hon'ble High Court at Jabalpur.

Accordingly, the Board had filed an application on 27/07/2011 for issuance of appropriate directions to the petitioner for impleading the Board as Party-

Respondent in the present petition bearing No.2802/2004 filed by Alok Pratap Singh v/s Union of India & Ors., application for recalling or modifying order dtd.12/7/2011 passed by the Hon'ble Jabalpur High Court alongwith Affidavit filed on behalf of the Board on the ground that

- (i) DRDO Incineration Facility at Nagpur has not obtained authorization from MPCB.
- (ii) The capacity of the incinerator at DRDO Complex at Nagpur is only 0.5 to 1.0 MT per day and considering the total quantity of 346.4 MT of hazardous waste, which could take more than two years for the disposal of the said hazardous wastes, if 1 MT of hazardous waste transported daily as mentioned in the order dtd.12/7/2011 and during this period, the interstate transportation movement of hazardous wastes between the two states is not advisable.
- (iii) The hazardous wastes of UCIL Bhopal content toxic waste material in unprecedented and high quantities. It is held that incomplete combustion thereof would possibly lead to discharge of several toxic compounds and heavy gases in soil, air and water of Nagpur and other surrounding areas, thereby polluting the entire eco-system.

Similarly, the State of Maharashtra through Environment Department has filed its Affidavit on 27/7/2011 before Hon'ble Jabalpur High Court on the same grounds.

Thereafter, the matter was heard by the Hon'ble Jabalpur High Court on 28/7/2011, wherein Hon'ble Court directed the Maharashtra Pollution Control Board (i.e.MPCB) to examine the following points :

- (i) analysis of the toxic waste,
- (ii) details of packaging of transfer methodology, and
- (iii) site & plant available for the disposal of toxic waste at DRDO.

In compliance of the order dtd.28/7/2011 passed by the Hon'ble High Court Jabalpur, the Board had filed its Affidavit on 10/8/2011, wherein the Board had brought on record of the Hon'ble Court at Jabalpur the constitution of the committee under the chairmanship of Shri R.K. Gerg, for examination of the issues. The preliminary report of the said committee was also brought on record. Similarly, the State of Maharashtra through Environment Department has filed its Affidavit on 10/8/2011 before Hon'ble Jabalpur High Court on the same grounds.

The Hon'ble High Court at Jabalpur vide its order dtd.11/08/2011 directed the Board to collect the samples from UCIL Bhopal within 3 days and get it analysed within 15 days time, at the same time to inspect the DRDO Nagpur Disposal Plant by expert officers of MPCB.

In this regard, on 11/08/2011, a meeting was held in the presence of Hon'ble Chief Minister, Govt. of Maharashtra and the Secretary, Environment Department, Govt. of Maharashtra, wherein it was decided that the State Govt. and MPCB would be challenging the order of the Hon'ble High Court, Jabalpur Bench before the Hon'ble Supreme Court of India at the earliest.

The Deptt. of Law & Judiciary had issued a letter dtd.11/08/2011 to Mr.S.V. Kharde, Govt. Lawyer, New Delhi to take necessary steps and to obtain stay from the Hon'ble Supreme Court. In the meantime, the MPCB was directed to comply with the order dtd.11/08/2011 for collection of samples & analysis and communication to DRDO for inspection and other compliances. Therefore, in compliance of the order dtd.11/08/2011, the Board had filed its Affidavit on 26/08/2011, wherein the Board submitted the steps taken by it.

The Hon'ble High Court at Jabalpur vide order dtd.29/8/2011 directed the Board to consider on the basis of reports of analysis of 8 samples to decide, whether as a result of the incineration of the waste at the plant of DRDO, Nagpur; the gases, which are likely to release will have any kind of toxic contents and secondly even if they do have toxic content, how harmful it will be and what is the range of territory likely to be affected and to submit the report in this regard.

In compliance of the said order dtd.29/08/2011, the Board had filed its Affidavit on 20/09/2011, stating that the Board is unable to submit comprehensive report in view of the fact that DRDO Nagpur will have to appoint expert agency to conduct a study and accordingly submit EIA study report to the competent Authority for grant of necessary clearance.

Thereafter, the matter listed on the Board on 22/09/2011, wherein, the Hon'ble High Court of Jabalpur directed the Union of India to get it done Impact Analysis of Incineration of incinerable waste of Bhopal through best available Laboratory to know its toxic contents after incineration, gases emissions being emitted, its likely impact on the nearby environment, water & land with reference to DRDO facility. The report of MoEF, GoI be placed on record within 3 weeks time. The court also observed that MPCB to go by the technicalities in DRDO plant and noted MPCB's Advocate statement about unable to do impact analysis on the nearby areas due to incineration.

Further one Public Interest Litigation was filed before the Hon'ble High Court of Judicature at Nagpur bearing No.75/2011 by Shri Sanjay Jiwane and Anr. against the State of Maharashtra and Ors., challenging the decision of the Union of India and CPCB regarding transporting 346.6 Metric tons of hazardous waste lying at the defunct industrial plant of Union Carbide India Ltd., Bhopal to the Incineration Facility of DRDO, Nagpur at Borkhedi, Near Nagpur City, knowing that it would cause harmful effects on the human life, flora & fauna, environment and ecology of the nearby area. The petition is pending before Hon'ble Nagpur High Court and MPCB has been made necessary party in the matter.

Further, the MPCB has filed its Affidavit on 7/12/2011 bringing on record the communications made by the Board with the DRDO, Nagpur that the MPCB is unable to consider grant of permission of trial run without taking steps to comply with the substantial non-compliances and it was also informed to Development of Bhopal Gas Tragedy Relief and Rehabilitation (i.e. BGTRRD) that the MPCB is unable to consider grant of NOC for transportation of UCIL Bhopal toxic waste from Bhopal to DRDO, Nagpur Incineration facility due to non-compliances of relevant Rules.

- The Hon'ble Jabalpur High Court vide its order dtd.19/12/2011 directed the Central Govt. to get the test of incineration of waste material and analysis of the fumes & residues carried out in the selected Laboratory and submit its report.

Based on the communication made by Member Secretary, CPCB dtd.4/1/2012 regarding permission for trial of incineration in respect of 10 MT UCIL highly toxic Bhopal Waste at MWML, Taloja, the Board had informed the CPCB vide letter dtd.6/2/2012 brining to the notice of CPCB that the National Environment Policy, National Hazardous Waste Management Strategy finalized by the MoEF, GoI in the year, 2001 and the Guidelines issued by MoEF, GoI and CPCB, in what circumstances, the interstate transportation of hazardous waste is permissible? It was further made it clear that the mutual consultation & agreement between the State Govt. and the disposal should be close to the sources of the generation i.e. it should be disposed off at the nearby proximity. The Board has also communicated to the MWML, Mumbai that without MPCB's permission, they should not directly permit the incineration of 10 metric tons of Bhopal waste vide letter dtd.6/2/2012. The Board has also informed BGTRRD, Bhopal vide letter dtd.6/2/2012 that they are unable to give permission for interstate transportation and disposal of UCIL toxic waste on trial run.

Further the MoEF, GoI has organized a meeting on 22/2/2012 of all concerned and decided that the CPCB will conduct the trial run of hazardous waste at Pithampur.

11.2. Maharashtra 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 **838** applications under section 6(1) of the Maharashtra Right to information Act 2005 during the year. Out of these applications, **814** applications are disposed off and **82** applications are pending.

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. **64** appeals are disposed off and **3** appeals are pending.

11.3 STATUS OF LEGAL ENFORCEMENT UPTO MARCH 2012

I) Status of cases filed before Trial Courts

A)	Name of the Act	No. of cases filed	No. of cases disposed off	No. of cases pending
1.	Water (Prevention & Control of Pollution) Act, 1974	454	391	63
2.	Air (Prevention & Control of Pollution) Act, 1981	149	149	NIL
3.	Environment (Protection) Act, 1986	49	12	37

II) Status of Writ Petitions / PILs filed before Hon'ble High Court of Judicature at Bombay Bench at Mumbai/Aurangabad/Nagpur

Sr. No.	No. of Writ Petitions filed	No. of Writ Petitions disposed off	No. of Writ Petitions pending
1	511	363	148

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

Sr. No.	No. of Special Leave Petitions filed	No. of Special Leave Petitions disposed off	No. of Special Leave Petitions pending
1	32	24	08

IV) Status of Appeal/Application filed before the National Green Tribunal, New Delhi

Sr. No.	No. of Appeals / Applications filed	No. of Appeals / Applications disposed off	No. of Appeals / Applications pending
1	10	02	08

V) Status of Appeals filed u/s 28 of the Water (P & CP) Act, 1974 and 31 of the Air (P & CP) Act, 1981

Sr. No.	No. of Appeals filed	No. of Appeals disposed off	No. of Appeals pending
1	30	17	13

VI) Status of appeals filed under Water (Prevention and Control of Pollution) Cess Act 1977 and Partly heard/Pending before the Water Cess Appellate Authority

Sr. No.	Name of the Appellants	Total No. of Appeals	Status
1	M/s NRC Ltd, Mohane, Kalyan	14	Part heard
2	M/s Tarapur Atomic Power Station, Boiser, Thane	01	Pending (Reminder sent to MOEF)
3	M/s Tata Power co. Ltd. Chembur	01	Pending
4	M/s Ratnagiri Power Generation	01	Pending
5	M/s JNPT	01	Pending
	TOTAL	18	

12
ACCOUNTS AND FINANCE

MAHARASHTRA POLLUTION CONTROL BOARD Receipt & Payment Account for the Year 2011 - 12

Previous Year 2010-11		Receipt		Current Year		Previous Year 2010-11		Payment		Current Year	
Major Head	Sub Head	Amount		Amount	Amount	Major Head	Sub Head	Amount		Amount	Amount
200911298.00		OPENING BALANCE			158755690.10	87358603.94		A) CAPITAL EXPENDITURE			
2125500.00		1) GRANT RECEIVED						i) Works			
		0.00 a) From State Government						ii) Fixed Assets		4763183.93	27660122.03
		0.00 b) From Government of India						a) Land & Building		10598315.24	
		2125500.00 c) From other Agencies for Capital Exp.						b) Laboratory Equipment		1040709.48	
7269903.00		2) FINANCIAL ASSISTANCE from CPCB						c) Vehicle		11258613.38	
127650154.00		3) REIMBURSEMENT of CESS						d) Furniture & Fixtures			
		from MoEF						e) Scientific Instrument & Office Apply.			
16807000.00		4) FINANCIAL ASSISTANCE for CETP						B) SALARY			289455378.00
765936953.56		5) FEES						1) SALARY FROM CORE ACTIVITY SEGMENT			
		45048381.00 a) Analysis Charges						ADMINISTRATION			
		700628381.00 b) Consent Fees						i) Pay of Officers		9921425.00	
		2095956.00 c) Consent Form Fees						ii) Pay of Establishments		58474330.00	
		900.00 d) Appeal Fees						iii) Allowances & Honorarium		27161455.00	
		14654665.50 e) Bio Medical Authorisation Fees						EXECUTIVES			
		1266738.00 f) Bio Medical Form Fees						i) Pay of Officers		23713492.00	
		1912817.00 g) Hazardous Waste Analysis Charges						ii) Pay of Establishments		80427780.00	
		h) Hazardous Waste Authorisation fees						iii) Allowances & Honorarium		78245316.00	
		64630.00 i) Hazardous Waste Form Fees						ADMINISTRATION			
		24688.00 j) Registration Fees For Plastic						i) Pay of Officers		781810.00	
		201255.00 k) Noise Pollution Monitoring Fees						ii) Pay of Establishments		3112794.00	
		38642.00 l) Right to Information Fees						iii) Allowances		1885996.00	
163663953.37		6) INTEREST ON INVESTMENT						EXECUTIVES			
		Other Interest						i) Pay of Officers		691230.00	
		7) MISCELLANEOUS INCOME						ii) Pay of Establishments		2559319.00	
23038945.04		8) PROFIT ON SALE OF ASSETS						iii) Allowances		2480431.00	
		9) MISCELLANEOUS ADVANCES						B) BOARD CONTRIBUTION TO CPF			14817223.00
161035672.91		10) GRANT-IN-AID INVESTMENT						i) Core Activity Segment		14073623.00	
2386739924.47		11) DEPOSITS						ii) Cess Activity Segment		7436600.00	
85914884.00		12) AMOUNT TRANSFERRED						C) CONTINGENCIES			73172745.00
160000000.00		13) CREDITORS						i) Administration		35342543.00	
								ii) Executive		37830202.00	
								D) RUNNING EXPENDITURE OF LAB.			5286233.00
								E) MAINTENANCE & REPAIRS			33792607.04
								i) Land & Building		1569094.00	
								ii) Furniture & Fixture		1700174.27	
								iii) Scientific Instrument & Office Apply.		17491099.77	
								iv) Running Expenditure of Vehicle		13032239.00	
								F) LAW CHARGES			2065444.00
								G) MISCELLANEOUS EXPENSES			2733216.00
								H) AUDIT FEES			8138630.00
								I) PROFESSIONAL CHARGES			35201082.00
								J) EXPENDITURE FROM CESS FUND			
								i) Medical Allowance		0.00	
								ii) Major Medical Reimbursement		9386421.00	
								iii) Reimb. of Interest on Housing Loan		457529.00	
								iv) Magazine Allowance		0.00	
								v) Canteen Allowance		2047535.00	
								vi) Performance Related Benefit		7448945.00	
								vii) Laboratory Peon Allowance		69709.00	
								viii) Laboratory Allowance		138550.00	
								ix) Education Allowance		15651993.00	
								K) FINANCIAL ASSISTANCE			181399349.90
								i) From MoEF fund for CETP		149336349.90	
								ii) From Cess Fund		32063000.00	
								L) MISCELLANEOUS ADVANCES			67858847.00
								M) DEPOSITS			10546487.00
								N) AMOUNT TRANSFERRED			1715100000.00
								O) SHORT TERM DEPOSITS			2478096788.00
								P) CLOSING BALANCES			126351119.87
								i) Cash at Bank		126172029.00	
								ii) Cash in Hand		10030.00	
								iii) Cash in Transit (Imprest)		169060.87	
4101094093.35											5166593761.84

Income & Expenditure Account for the Year 2011 - 12

Previous Year 2010-11		Current Year		Previous Year 2010-11		Current Year	
Major Head	Sub Head	Amount	Amount	Major Head	Sub Head	Amount	Amount
256382043.20	A) SALARY		269670715.00				
	1) SALARY FROM CORE ACTIVITY SEGMENT						
	ADMINISTRATION						
	i) Pay of Officers	11190596.00	9065636.00				
	ii) Pay of Establishment	28318145.00	56546286.00	7269808.00			
	iii) Allowances	33701808.00	25024873.00	127650154.00			
	EXECUTIVES						
	i) Pay of Officers	26781042.00	21836567.00				
	ii) Pay of Establishment	93432195.00	73394778.00				
	iii) Allowances	62958257.20	72491388.00	765936953.56			
	2) SALARY FROM CESS ACTIVITY SEGMENT						
	ADMINISTRATION						
	i) Pay of Officers		731580.00				
	ii) Pay of Establishment		2961624.00				
	iii) Allowances		1733885.00				
15349617.00	EXECUTIVES						
	i) Pay of Officers		644230.00				
	ii) Pay of Establishment		2345629.00				
	iii) Allowances		2294239.00				
	B) BOARD CONTRIBUTION TO CPF		12589504.00				
	i) Core Activity Segment	4386525.15	11896956.00				
	ii) Cess Activity Segment	10963091.85	692548.00				
	C) CONTINGENCIES (Annexure-1)						
	i) Administration	39449232.00	35187332.00	73017534.00			
	ii) Executive	20892978.27	37830202.00				
	D) RUNNING EXPENDITURE OF LAB.(Annex-2)						
	Opening Balance	3009581.59	3404539.92				
	Add: Purchases	6727185.00	5286233.00				
	Less: Closing Balance	3404539.92	0.00				
	34353782.66	E) MAINTANANCE & REPAIRS (Annex-3)					
i) Land & Building		3072398.00	1569094.00				
ii) Furniture & Fixture		198876.00	1700174.27				
iii) Scientific Instrument & Office Apply.		18157728.66	17491099.77				
iv) Vehicles		12924780.00	13032239.00				
F) LAW CHARGES							
G) MISCELLANEOUS EXPENSES							
H) AUDIT FEES							
I) PROFESSIONAL CHARGES							
J) EXPENDITURE FROM CESS FUND							
i) Medical Allowance		1573.00	0.00				
ii) Major Medical Reimbursement			9386421.00				
iii) Reimb. of Interest on Housing Loan		305083.00	457529.00				
iv) Magazin Allowance		20079.00	0.00				
v) Canteen Allowance		2087014.00	2047535.00				
112775157.00	vi) Performance Related Benefit	5019328.00	7448945.00				
	vii) Laboratory Peon Allowance		69709.00				
	viii) Education Allowance		138950.00				
	K) FINANCIAL ASSISTANCE (Annex-4)						
	i) From Cess Fund	112775157.00	149336349.90				
	L) DEPRECIATION						
	i) Land & Building	9191728.99	61438569.97				
	ii) Laboratory Equipment	61099504.78	20623505.34				
	iii) Vehicle	3649408.62	6223325.75				
	iv) Furniture & Fixture	8557278.41	8762455.96				
	v) Scientific Instrument & Office Apply.	22799000.88	16637553.93				
	M) EXCESS OF INCOME OVER EXP.		0.00				
	256382043.20						
	112775157.00						
	105296921.61						
429401542.70							
1046556289.11							

MAHARASHTRA POLLUTION CONTROL BOARD

Balance Sheet at the Year 2011 - 12

Previous Year 2010-11		Current Year		Previous Year 2010-11		Assets		Current Year	
Major Head	Sub Head	Amount		Major Head	Sub Head			Amount	Amount
1148926851.78		1176586973.81		468808286.48		1) WORKS (Form K-V)		546355494.37	457616557.49
						2) FIXED ASSETS (Form K-V) (Schedule A)		0.00	0.00
						a) Land & Building (A)-(B)		546355494.37	546355494.37
						Opening Cost of Land & Building		79547207.89	79547207.89
						Less:- Purchase during the year		9191728.99	9191728.99
						Less:- Sale during the year		88738936.88	88738936.88
						Closing Cost of Land & Building (A)			
						Less:- Opening Accumulated depreciation			
						Less:- Depreciation During the year			
						Closing Accumulated Depreciation (B)			
						b) Laboratory Equipments (A)-(B)		220710816.28	33199850.92
						Opening Cost of Laboratory Equipments		4763183.93	
						Add:- Purchase during the year			
						Less:- Sale during the year			
						Closing Cost of Laboratory Equipments (A)		225474000.21	
						Less:- Opening Accumulated depreciation		171650943.95	
						Less:- Depreciation During the year		20623505.34	
						Closing Accumulated Depreciation (B)		192274349.29	
						c) Vehicle (A)-(B)		53858051.82	28812307.14
						Opening Cost of Vehicle		10598315.24	
						Add:- Purchase during the year			
						Less:- Sale during the year			
						Closing Cost of Vehicle (A)		64456367.06	
						Less:- Opening Accumulated depreciation		29620734.17	
						Less:- Depreciation During the year		6223325.75	
						Closing Accumulated Depreciation (B)		35844059.92	
						d) Furniture & Fixture (A)-(B)		169581193.90	114610164.54
						Opening Cost of Furniture & Fixture		1040109.48	
						Add:- Purchase during the year			
						Less:- Sale during the year			
						Closing Cost of Furniture & Fixture (A)		170621308.38	
						Less:- Opening Accumulated depreciation		47248887.88	
						Less:- Depreciation During the year		8762455.96	
						Closing Accumulated Depreciation (B)		5601143.84	
						e) Scientific Instruments (A)-(B)		152376803.30	66167612.68
						Opening Cost of Scientific Instruments		11258513.38	
						Add:- Purchase during the year			
						Less:- Sale during the year			
						Closing Cost of Scientific Instruments (A)		163635316.68	
						Less:- Opening Accumulated depreciation		80830150.07	
						Less:- Depreciation During the year		16637553.93	
						Closing Accumulated Depreciation (B)		97467704.00	
						3) CLOSING STOCK OF CONSUMABLES			
						4) ADVANCES		110403770.97	110403770.97
						Grant & Advances to Sub. Offices & Employee			
						5) ACCRUED INTEREST ON FIXED DEPOSIT		3317143724.85	4191629811.95
						6) FIXED DEPOSITS		874485887.10	
						Other Fixed Deposits			
						7) CLOSING CASH & BANK BALANCE		126351119.87	
						Fixed Deposits of Pension Fund		126172029.00	
						Cash at Bank		10030.00	
						Cash in Hand		169060.87	
						Cash in Transit (Imprest)			
3613960492.30		5128590795.56		3613960492.30				5128590795.56	

13. IMPORTANT MATTERS DEALT WITH BY THE BOARD

13.1 Policy / guidelines for granting consent to poultry farm

1. Poultry farms engaged in activities like egg processing, hatching, nursery and growing of bird's only exempted from Consent Management considering low Environmental pollution potential. However, for disinfection of workplace area, disposal of egg shells and dead birds the guidelines given by the animal husbandry department must be followed.
2. Poultry farms which are engaged in dressing, slaughtering and packing activities shall be considered under RED category and such unit shall be located at a suitable distance away from human habitation and water body to avoid pollution/infection.
3. Poultry farm owner shall provide concrete flooring for poultry farm and it shall be cleaned periodically.
4. Poultry farm owner should adopt scientific waste management process strictly.
5. Poultry farm owner should provide separate disposal pits made of concrete covered by layer of soil intermediately. Emptying of completely filled pits after one week and use as a manure.
6. Poultry excreta collection and storage area shall be cleaned regularly and shall be located at opposite side of wind direction/ human habitation.
7. Disposal of solid waste shall be made within 24 hours to avoid unhygienic conditions and used as manure.
8. Poultry farm owner shall maintain records of dead birds and it shall be disposed off strictly through deep burial within premises or at MSW dumping site. And that area shall be restricted for access of pet animals.
9. Poultry farm owner shall provide separate drainage lines for storm water and for waste water /liquid waste arising from the poultry farm and ensure that rain water shall not mix with waste solid / liquid waste in any case.
10. Poultry farm owner shall have to provide adequate effluent treatment plant for the treatment of waste water /liquid waste arising from the poultry farm. After treatment, waste water/liquid waste arising from poultry farm activity shall be utilized for gardening / tree plantation within the premises.
11. Suitable chemicals and deodorant must be sprayed for disinfection and suppression of foul odor.
12. Poultry farm owner shall provide proper exhaust /ventilation for poultry farm.

13.2 Guidelines for adopting Integrated Uniform Approach in initiating various legal actions under the provisions of the various Environmental Laws

Various Environmental Legislations provide for different legal remedies against polluters. Actions can be initiated under these provisions for filing of applications for

restraining the polluters from further polluting the environment, followed by criminal complaints. More stringent actions are further proposed under Section 33A of the Water (Prevention & Control of Pollution) Act, 1974 and u/s 31A of the Air (Prevention & Control of Pollution) Act, 1981. Under these Sections, the polluters can be asked to regulate the production and also other appropriate directions including closure of the defaulting units can be issued.

In order to bring more simplification as well as transparency in the Consent Management and to strengthen enforcement mechanism for achieving comfortable compliance level, it becomes necessary to adopt pragmatic approach in improving consent management, so as to process consent and authorization applications in a speedy manner and to concentrate more on the effective monitoring as well as surveillance. It is, therefore, decided to correlate the Regulatory Functions of the Board with the enforcement and environmental monitoring as well as surveillance, more particularly to various legal actions initiated by the Board at various levels. The object of this particular manual is to re-define procedure for processing and grant of Consent/s and Authorization/s including renewal thereof, to lay down the requirements and guidelines in respect thereof to expedite the consent management. A separate mechanism is to be developed to concentrate more on effective monitoring & surveillance for effective enforcement of various legal remedies independent of the consent management. Accordingly, the manual is prepared for simplified consent management and a separate mechanism for initiating various legal actions taking into consideration the degree of violations, seriousness of pollution and complaints and on the basis of available record has been circulated to all the officers of the Board.

In order to adopt Uniform Integrated Approach in initiating various legal actions under various Environmental Laws taking into consideration enabling provisions therefore, cause of invoking such actions, severity / seriousness of violations and procedure to be followed in proper format, this Format Manuals is prepared and developed. This will introduce appropriate contents in the proposal for initiating necessary action and also bring the statutory compliance on record.

A number of notices, proposed directions, interim directions, voluntary closure directions and directions of closure and disconnection of electricity / water supply along with various formats of notices given under the Water and Air Acts, Environment (Protection) Act, 1986 have been perused. It has been observed that the ingredients of the concerned violated provisions are not being introduced uniformly and thereby, different formats, not pointing out specific non-compliances have been used at different offices. Therefore, the format manual is prepared to have consistent Uniform Integrated Approach to bring the action to its logical conclusions. The said format manuals are placed on the website of MPCB : <http://mpcb.gov.in>

13.3 Emission Trading Scheme (ETS):-

The Ministry of Environment and Forest (MoEF) is initiated a new innovative approach on Environmental Regulations through Emissions Trading Scheme (ETS). The pilot emission trading scheme will be initiated in Maharashtra, Gujrat and Tamilnadu. The Emission Trading scheme is basically designed as an add on technical feature at the Continuous Emissions Monitoring System. The ETS is a new regulatory instrument for transformation of the trade-off between environmental quality and growth. The ETS will cut down in overall cost of compliance and increase economic perspective. This will help to provide information to public. The Board constituted a Working Group for Emission Trading Scheme under JDPAMS. The group has conducted 4 Meetings and decided to implement the pilot project on Emission Trading scheme (ETS) in Maharashtra. 300 industries from different areas of Maharashtra are selected and field trials for selection of technology will be initiated.

CPCB has constituted 7 working groups for Single Window System / Common Application Form or Single Window Clearance issues on common consent Mechanism, consent fees and training. A Committee has been constituted by CPCB and JDPAMS in this regard, where there were 2 meetings held during the year. MPCB is the convenor for the said committee.

13.4 E-Governance:

Board in its 145th meeting had decided to implement integrated Management Information system in the Board. The IMIS is a specially conceptualized and designed modular information system for the Board which includes development of an enterprise solution of the Board's multi-disciplinary functions including Consent management, Waste management, Cess management, Laboratory management and HR / Accounts functions. The Modules covers under IMIS are Consent Management, Waste Management, Cess Management, Complaint, Personal Information System (PIS), Asset Management, File Tracking System (FTS), Stores Management and Payroll. All these modules will be seamlessly integrated with Laboratory Information Management System (LIMS) and Finance and Accounts System (FAS).

The unique features of IMIS and the benefits that the Board will derive -

- ★ Single window dashboard - Will empower the Board's senior management and assist decision making.
- ★ Dynamic alerts and notifications - IMIS will be built to provide online status to customers and ensuring transparency
- ★ Online MIS, alerts & escalations - Effective monitoring & control
- ★ Workflow across the ROs - Efficiency improvement as result of instant information dissemination
- ★ Uniform User Interface across the organization coupled with role based access will ensure ease of use and data security

developed an adaptor to connect this application form with IMIS application. The integration solution done by M/s Ashtech is completed.

Board is also integrating with DIPP's e-Biz portal for online submission of Consent application [consent to establish]. The integration solution involves procurement of hardware and software with cost implication.

Currently, Board has initiated Consent Module enhancement Project and e-Payment gateway Project, which are under process of development and implementation in phase manner.

13.5 Auto Renewal of consent based on self Certification:

Presently, all consent applications for establish, first operate, expansion and plain renewals are considered uniformly by the Board, through the delegation of powers defined under consent management scheme. With the increased number of industries and also, the requirements of industries for amendment for products and expansion, the work load on MPCB for consent management has increased significantly. This additional workload of consent management with increased scope of activities of Board and the limited available manpower is resulting in delay in grant of consents at various levels. Therefore Board initiated the scheme of auto renewal of consent for the industries which requires plain renewal of consent and which submit a self-certification on compliance of environmental regulations.

The strategies for effective implementations of environmental regulations include enforcement and compliance aspects, which are being handled simultaneously with the consent.

Initially, the scheme of auto renewal of consent based on self certification will be rolled out for the industries where consent is granted by CC/CAC committees of the Board. The scheme can be evaluated over a period and its universal application can be considered after that.

The key features of this scheme are as under:

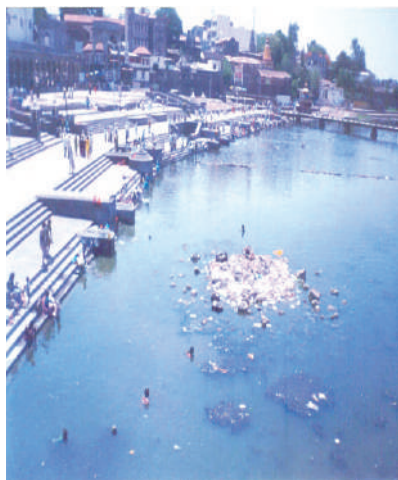
1. Initially this scheme is applicable for the industries which are granted consents by CAC/CC committees constituted by the Board.
2. The auto renewal of consent is applicable when there is no increase in overall production capacity and also, in pollution load.
3. In case there is marginal increase (max.10%) in the capital investment which is due to infrastructure development, clean technology, pollution control systems and better production management, without increase in production or pollution load, the industry shall submit corresponding fees for consent to establish and also, difference in consent to operate fees since the block year the capital investment is made, on pro-rata basis.

4. In case, the capital investment is decreased, then the industry needs to apply in prescribed consent application form.
5. Industry has to submit a self certification on compliance of earlier consent conditions. This self certification shall be submitted by the authorized official of the industry, duly authorized by the owner/board of directors.
6. The auto renewal will be availed for maximum 5 terms as per the existing practice of Board subject to payment of requisite fees.
7. The industry shall submit this format along with the prescribed fees either at MPCB HQ or RO/SRO offices.
8. In case of application is submitted RO /SRO office, RO and SRO shall ensure that, the same shall be forwarded to HQ within 3 days along with details of fees paid (DD) and DR details. The renewal will be reflected in MPCB website with-in a seven days
The above scheme is in force since January 2012.

13.6 Achievement of Laboratories of the Board:

- i. Board has obtained recognition of laboratories of the Board under Environment (Protection) Act, 1986 from Central Pollution Control Board for Regional Laboratories at Nashik, Aurangabad, Nagpur, and also submitted the proposal of renewal of recognition of Central Laboratory on 26.11.2011 to Central Pollution Control Board.
- ii. Central Pollution Control Board undertakes the programme of quality assurance of laboratories of the State Pollution Control Board every year. Central Laboratory, Mahape, Navi Mumbai, Regional Laboratory – Nashik, Pune & Aurangabad has achieved 100% success in the performance of 27 proficiency tests (AQC/Water Exercise) conducted in September, 2011.
- iii. The Board has started process of NABL Accreditation for all the laboratories as per MoEF Memorandum dtd. 12.08.2011 and initiated preparation to get NABL Accreditation, instruments AMC, calibration, standardization, etc.
- iv. As a part of process of NABL accreditation and for keeping the inventory / records of sophisticated instruments / equipments and their spares up-to-date, the Board has issued a Circular of Unique Identification No. (UID) to maintain the record for spares and consumables of laboratory instruments / equipments.

13.7 ENVIRONMENT IMPROVEMENT PLANNING AT RELIGIOUS PLACES:



The religious places in Maharashtra are mostly located in small cities and 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. Huge conglomeration of pilgrims 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 the implementation of a project on environmental

improvement of select religious places.



A) PANDHARPUR:

Pandharpur town – a prosperous ‘B’ class Municipal Council in Solapur district, famous for ancient temple of Lord *Vitthal- Rukhmini* receives annually about 1.5 Crore devotees. During four *wari* periods huge conglomerations of pilgrims (Av. 5.00 Lakh) visit Pandharpur whereas daily visitors’ influx exceeds 20’000 per day.

The large inflow of the pilgrims in the town has resulted into alarming sanitary and hygienic conditions; mostly due to inadequate facilities and management limitations. Major areas of concern to Pollution Control Board are polluted river, high dust suspension containing pathogens, indiscriminate & unscientific collection, treatment & disposal of Sewage & Solid waste in the town & adjoining areas particularly at the places of halt (*palkhi tal*) and the river bed (*walwant*). In short, the overall hygienic and ecological situation is turning *darshan* of Lord *Vitthal* in a rather stressful than pleasant experience.

Considering the findings of rapid environmental assessment of Pandharpur town and adjoining area proposal to identify possible approach to solutions of sanitation, sewage and MSW was approved by Board in May 2006 (147th Board Meeting). M/s. Ecosan Services Foundation (ESF), Pune was awarded the work to identify techno-economically viable solutions for the Sanitation and Sewage Management for Pandharpur and the adjoining areas.

The study is considered essential in the planning of the future devolvement of Pandharpur as a town as well as important pilgrimage place. The study aimed at improving the sanitary situation by offering a sufficient and properly maintained number of sanitary facilities alongside with an effective and sustainable treatment of the wastewater.

In order to achieve the objectives the overall management of the pilgrims it was proposed to consider decongest the core area of the city, to offer adequate staying facilities, decentralizing the pilgrims, the businesses and waste production – hence actually breaking down the challenge into more controllable units.

Considering recommendations of high level Project Monitoring Committee consisting of Secretary, Environment Dept. GoM & Hon'ble Chairperson, MPCB and Principal Secretary, Water Supply and Sanitation Dept., and others was considered preparation of the DPR for following nine activities.

1. Information, Education and Communication strategy
2. Community Based Organization (CBO)
3. Decongestion of queue (Virtual queue)
4. Model Camp sites
5. Strengthening of Existing Toilet system
6. Clean Pandharpur Concept (Sludge Management Plan)
7. New Toilet Facilities with on-site treatment system for MSRTC and railways
8. New Toilet facilities for Math clusters and,
9. New Toilet facilities at Parking lots and Wakhri

Project reports for above stated select activities are presented to High Level Project Monitoring Committee (HLPMP) under the Chairmanship of Principal Secretary, Water Supply & Sanitation Department (WS&SD), Govt. of Maharashtra are finalized.

The final Detailed Project Reports (DPR) submitted to HLPMP and the approved sets of above report (9 reports+1 Exe. summary) submitted to Principal Secretary, Water supply and sanitation Dept. Mantralaya, Mumbai, Division Commissioner Pune, District

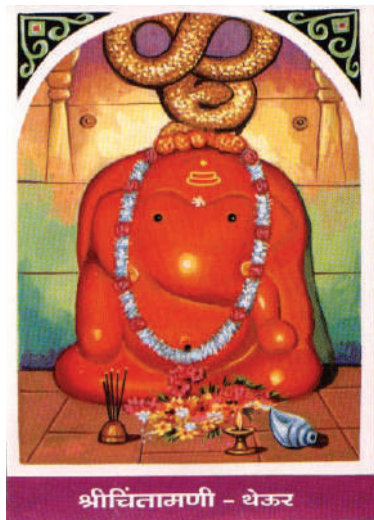
Collector Solapur, and Chief Officer Pandharpur Nagarparishad Pandharpur for information and necessary action by letter dated 09.09.2011. Also sets of above reports submitted to Hon'ble Chairman MPCB, Secretary Env. Dept. Mantralaya Mumbai and Member Secretary MPCB for information. Govt. of Maharashtra, Finance Department vide GR No TKV/2010/PK.13/K/144 dated 06.07.2010 has incorporated recommendations into "Dehu-Alandi-Pandharpur Tirthkshetra Vikas Prakalpa" project being implemented by Divisional Commissioner, Pune Division having total budget of Rs. 434 Crore. Project Leader, MPCB is extending technical support to Divisional Commissioner, Pune.



B) THEUR (CHINTAMANI) AND PALI (BALLALESHWAR):

Village Theur (Chintamani) Tal- Haveli, Dist- Pune and Village Pali (Ballaleshwar) Tal.Sudhagad, Dist. Raigad Asthavinayak Places having religious importance covered under "Environment Improvement Program (EIP) at Religious Places in Maharashtra". Concept plan for Environment Improvement at Theur is prepared by Ms. Ketki Gadgil, student of M.Arch, Dept. of Environmental Architecture & Planning, Dr. Bhanuben Nanavati College of Architecture for Women, Cummins College Campus, Karve Nagar, Pune-400052 whereas, Concept plan for Environment Improvement at Pali is prepared by Mr. Chandrashekhar Kaul, student of M.Arch, Institute of Urban & Regional Planning, Rachana Sansad, Prabhadevi, Mumbai-400025. Under technical guidance of Project Leader, Zoning Atlas, MPCB the reports are prepared and financial support was also extended to these students by MPCB.

The reports are further submitted to local body and devasthan for implementation.



13.8 PARYAVARAN SANTULIT SAMRUDDHA GRAM YOJANA :

Eco-Village" is the concept of transforming the village into ecologically self-sustainable village using well-planned environmental, socio-economic and cultural management tools.

The motivation behind the idea of an "eco-village" is an infrastructural independence and a sustainable lifestyle for its inhabitants with a minimum of ecological impact on the local area.

Objectives of Eco- Village:

- To achieve visible environmental improvement of the village and ensure protection of natural resources, landscape, agriculture, local economy, culture and village infrastructure for improving living conditions for the villagers
- Make sustainable use of the available natural/ manmade resources and surrounding landscape in accordance with the climatic, topographical and geological setting
- Promote use, re-use and revitalization of the cultural heritage

Based on the MPCB initiative of "Eco-Village" concept, Department of Rural Development, Government of Maharashtra on 18th August, 2010 declared state wide scheme "***Paryavaran Santulit Samruddha Gram Yojana***". MPCB is piloting the scheme and short listed consulting firms for preparation of "Eco- Village Development Plan" by calling all India basis Expression of Interest. 24 agencies are empanelled for the preparation of "Environment Development Plan" of villages identified by Rural Development Department.



13.9 PREPARATION OF ENVIRONMENT DEVELOPMENT PLAN (EDP):

In the current scenario of village governance, the panchayatraj system expects larger involvement of villagers in developmental planning & administration of village structure. The Government of India and State Government have various schemes in place for rural empowerment of almost each unit of society. However, need is felt to integrate concept of rural development planning with that of current practice of village administration giving special emphasis on environmental issues.

It is therefore, essential to build the capacity from grass root level to ensure environmentally sustainable development of village, the 'bottom up' approach. The scheme envisage the development of each village with a long term planning vision based on current demographic, social, cultural, educational status of the village and giving due considerations to economic, agricultural, industrial, tourism and ecological potentials of respective villages. It is to ensure that the natural resources of the village are not adversely affected and are preserved for generations to come.

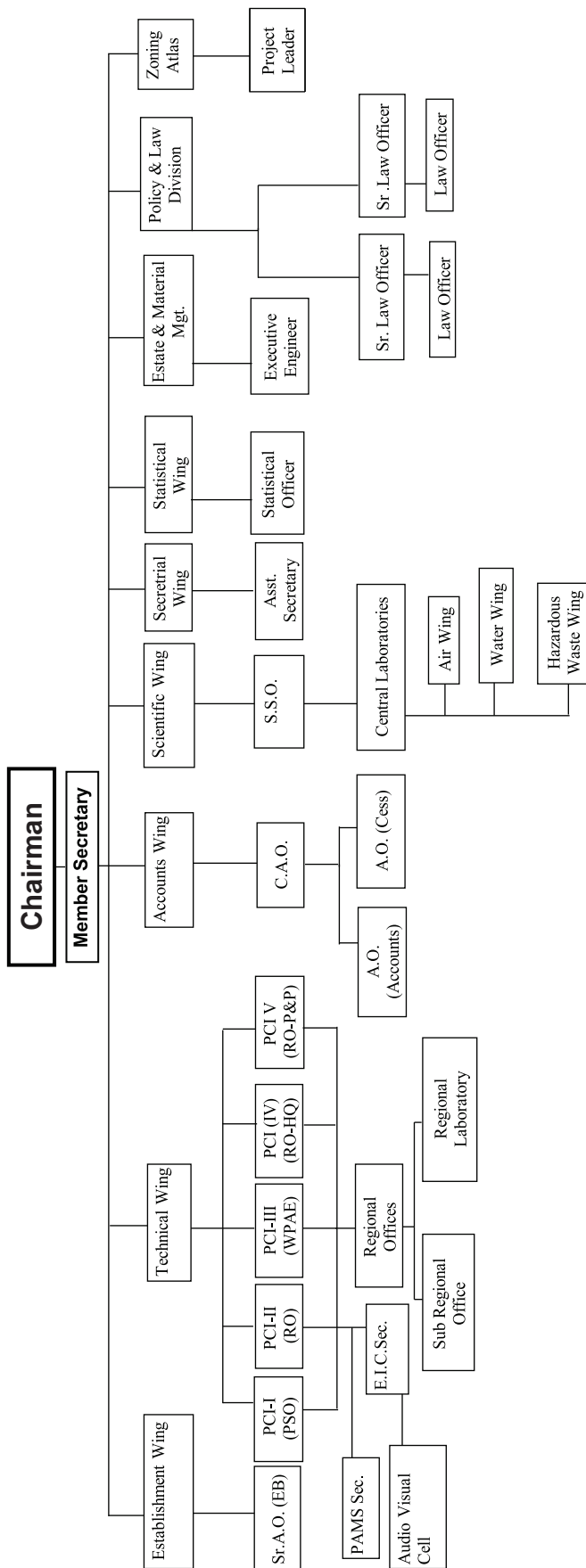
To meet the above objectives, MPCB is piloting for the preparation of "Environmental Development Plan" for selected five villages having populations above 10,000 in first phase. Based on this piloting experience, the Department of Rural Development of GoM will replicate preparation of such plans across other villages in subsequent phases. MPCB is in the process of finalizing agencies for preparation of "Environmental Development Plan" of five villages, viz. Uchgaon, Tal- Karveer Dist- Kolhapur, Arnala, Tal- Vasai, Dist-Thane, Tembhurni, Tal- Jafrabad, Dist- Jalna, Ghulewadi, Tal- Sangamner, Dist- Ahmadnagar and Mauda, Tal- Mauda, Dist-Nagpur.

ANNEXURE



ANNEXURE-I (A)

Organization Structure of M.P.C.B.

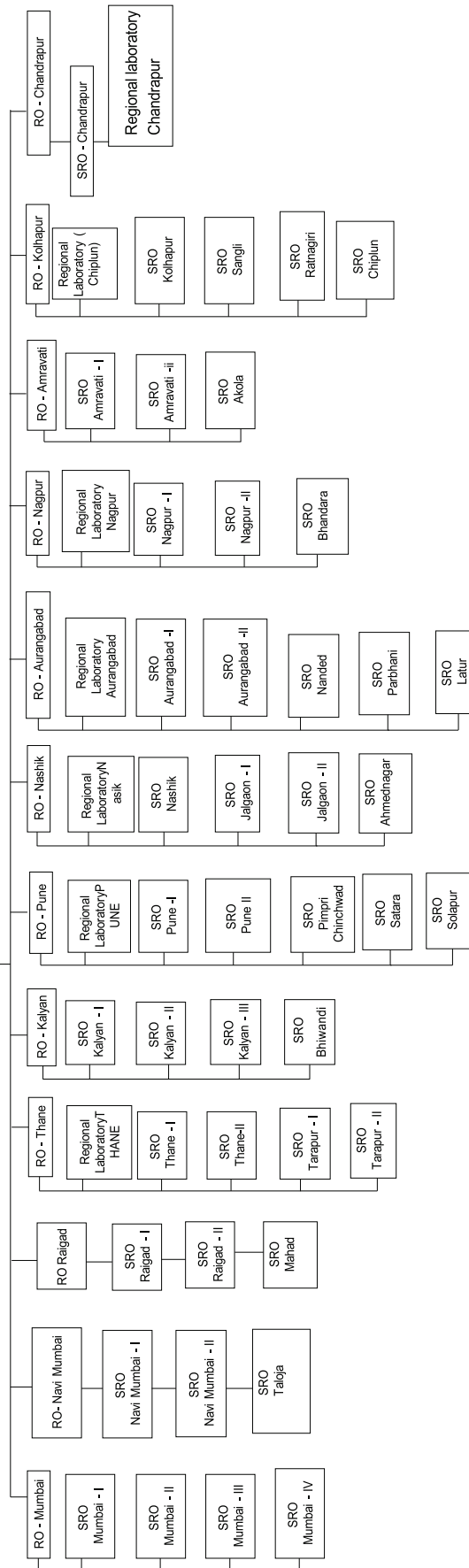


Abbreviations Used :-

WP&E - Water Pollution Abatement Engineer	Sr. A.O. - Senior Administrative Officer
AP&E - 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 Assessment Monitoring & Surveillance
PSO: Principal Scientific Officer	

ANNEXURE-I (B)

Regional Offices



Annexure- II

STAFF STRENGTH AS ON 31.3.2012

Sr. No.	Cadre	Sanctioned	Filled In	Vacant
I	A-TECHNICAL			
1	Water Pollution Abatement Engineer	1	0	1
2	Air Pollution Abatement Engineer	1	1	0
3	Asst. Secretary (Technical)	1	1	0
4	Executive Engineer	1	1	0
5	Regional Officer	14	12	2
6	Sub - Regional Officer	57	36	21
7	Deputy Engineer	1	0	1
8	Field officer	204	197	7
9	Statistical officer	1	1	0
10	Statistical Assistant	1	1	0
11	Draughtsman	1	0	1
12	Field Inspector	42	29	13
13	Asst. Draughtsman	2	0	2
14	Tracer	6	4	2
15	Electrician	2	1	1
16	Instrument Fitter	1	1	0
	TOTAL	336	285	51

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	23	3
5	Junior Scientific Asst.	40	39	1
6	Laboratory Asst.	7	6	1
	TOTAL	86	76	10

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 / Admin Officer	11	11	0
9	Head Accounts / O .S	20	16	4
10	Senior Clerk	50	45	5
11	Junior Clerk	64	58	6
12	Senior Steno	5	5	0
13	Junior Steno	27	25	2
14	First Clerk	17	16	1
15	Daftari	14	10	4
16	Drivers	74	68	6
17	Reneo Operator	1	0	1
18	Naik	2	0	2
19	Chowkidar	20	18	2
20	Peons	88	58	19
21	Sweeper	3	2	0
	TOTAL	405	349	56

Abstracts				
A	Technical	336	285	51
B	Legal	11	6	5
C	Scientific	86	76	10
D	Accounts & Administrative	405	349	56
	Member Secretary	1	1	0
	Chairman	1	1	0
	TOTAL	840	718	122

Annexure-III

Training, Workshops and Seminars attended by Board officers and Staff(2011-12)

Sr. No.	Name of the Institute & Venue	Training Date	Subject	Participant Name
1	YASHADA Pune	25-30 April 2011	Env. Audit Certificate Course	Shri. P.M.Bhosale, FO, Kolhapur Kum. Shrutika Dalvi, FO HQ Kum. Renuka Kulkarni, FO Pune Shri. S K Baviskar, JSO Nashik
2	EUROPE	21-29 May 2011	Study tour - e-waste recycling facilities in Europe	Shri. Y.B.Sontakke, RO HQ
3	Holiday Inn Resort, Goa	29 Sept to 01 Oct 2011	Paper Presentation in the international Conference and Exhibition on Oil Spill India 2011	Shri. Y.B.Sontakke, RO HQ
4	ICAI, Cuffe Parede, Colaba	23-26 June 2011	Workshop on preparation of Financial Statements Autonomous Bodies	Mrs. A.A.Londhe, AAO Shri. A.H.Padavi, AAO Shri. S S. Sengupta, AAO
5	YASHADA Pune	25-30 July 2011	Basic Prorg in PHP and Mysql	Shri Umesh Jadhav, FO EIC Shri Subodh Waikar, Jr Clk, PAMS
6	Vigyan Bhavan, New Delhi	22-24 July 2011	Global Environment & disaster mgnt: Law and Society	Shri. P.M.Joshi, RO Kolhapur Shri. D.T. Devale, SLO, HQ
7	CSE, New Delhi	1-30 Aug 2011	National Minimum training programme : Compliance, monitoring and enforcement	Shri. Sanjay Kavare, FO Tarapur Shri. Sanjay Bhusara, FO Thane Shri. R.P.Suryavanshi, FO, Nashik Shri. N.R.Lokhande, FO Solapur
8	ESCI, Hyderabad	24-26 Aug 2011	Calibration of instruments / equipment and measurement traceability	Shri. K.V.Gavankar, JSO HQ Shri. B.N.Sangle, JSO, Nashik
9	YASHADA Pune	8-10 Aug 2011	IT Audit & Security	Shri Umesh Jadhav, FO EIC
10	YASHADA Pune	16-18 Aug 2011	Systematic Procurement and maintenance of Hardware and software	Shri K.S.Lembhe, S.S. HQ Shri A.H.Padavi, AAO
11	YASHADA Pune	20-Aug-11	UNICODE	Shri Harshad Naik, Jr Clk, HQ Smt Anita Thorat, Jr Clk, Pune Ms Pallavi Loke, Jr Clk, PAMS Shri Chandrakant Pednekar, Jr Clk, HQ

Annexure-III

Training, Workshops and Seminars attended by Board officers and Staff(2011-12)

Sr. No.	Name of the Institute & Venue	Training Date	Subject	Participant Name
12	CSE, New Delhi	19-23 Sept 2011	Advance Training prog: HW Mgnt and remediation of contaminated sites	Shri Sharad Pawar, FO , RO HQ Shri Sanjay More, FO, Pune Shri Rahul Mote, FO , NM Shri Sandeep Motegaonkar, FONM
13	ESCI, Hyderabad	19-21 Sept 2011	Systematic website designing and mgnt PHP & mysql	Shri Jai Hadkar, Jr Clk, EIC Shri Subodh Waikar, Jr Clk, PAMS
14	Harvard University, Bostan, USA	19-21 Sept 2011	Lecture on ETS for iar pollution in india : Goverance innovation in environments	Shri Ajay A Deshpande, JD, PAMS
15	Holiday Inn Resort, Goa	29 Sept to 01 Oct 2011	Paper Presentation in the international Conference and Exhibition on Oil Spill India 2011	Shri. K.S.Langote, FO, P & P section
16	YASHADA Pune	15-Oct-11	Budget Distribution System	Shyamkumar Patil, AO, HQ
17	NWA, Pune	17-21 Oct 2011	Water Quality Management for Lakes and Reservoirs	Kiran Hasabnis, FO, Ratnagiri Utkarsh Shingare, FO RO, Mumbai Prakash Jadhav, FO, Nagpur Prakash Dhumal ,FO, Nashik
18	VNIT, Nagpur	13-14 Oct 2011	BMW (M & H) Rules (workshop)	30 field officers
19	YASHADA Pune	17-19 Oct 2011	Network Mgnt	Jai Hadkar, Jr Clk
20	CSE, New Delhi	14-18 Nov 2011	Pollution Monitoring techniques and Instrumentation (for Lab scientist)	S D Mali, JSO Nashik Anil Sandansing, JSO C Lab B.S.Shivankar, JSA Pune B.K.Chavan, JSA, C. Lab
21	CSE, New Delhi	14-18 Nov 2011	Advance training prog: Advance wastewater treatment technologies and the role of decentralisation of wastewater mgnt	Prashant Mehre, FO Amravati R.S.Kamat, FO APC Wing S S Dholam, FO Thane Manish Holkar, FO Raigad
22	IIT Kanpur	16-18 Nov 2011	Ambient air and stack monitoring techniques	Shri Yogesh Deshmukh, FO Shri Kishor Kerlikar

Annexure-III

Training, Workshops and Seminars attended by Board officers and Staff(2011-12)

Sr. No.	Name of the Institute & Venue	Training Date	Subject	Participant Name
23	NIH Roorkee	14-18 Nov 2011	Water quality monitoring network design, sampling & QA	Shri S.M.Kurmude, FO PAMS Shri S.K.Baviskar, JSO, Chiplun
24	VSI, Pune	16-18 Nov 2011	CDM & Carbon trading - case studies	Ms Poonam Poyrekar, FO PAMS Mrs Madhurima Joshi, FO NM
25	National Law School of India University, Nagarbhui, Bangalore	21-23 Nov 2011	Environmental legislation, interpretation and enforcement	Shri S.S.Gadhawe, SRO Nagpur Shri N.S.Awtade, FO Kolhapur
26	Aligarh Muslim University, Aligarh	28-30 Nov 2011	Integrated Municipal Waste Management	Shri L.T.Bhingardeve, SRO, Kalyan Shri B.U.Bhandare, JSO, Nagpur
27	ThermoFisher Scientific Stafford, Houseway, Hempel, UK	15-17 Nov 2011	Inductively coupled plasma emission spectrometer (ICPES)	Shri Ragini Butale, JSO C.Lab
28	Yashwantrao Chavan Pratishthan, Opp. Mantralaya,	15-16 Nov 2011	Climate change, oil spill and radiation risk, new environmental challenges	Shri Y.B.Sontakke, RO HQ Shri J.B.Sangewar, RO Mumbai
29	IIT Roorkee	05-07 Dec 2011	Recent trends in environmental monitoring and control strategies in Petroleum & petrochemicals industries	Shri Rajendra Jadhav, FO PAMS Shri D.R.Bansod, FO PAMS
30	ESCI, Hyderabad	13-15 Dec 2011	Remote sensing , GIS, GPS and IT applications	Shri V.V.Killedar, FO PAMS Shri Umesh Jadhav, FO EIC
31	TERI Gurgaon, Haryana	21-23 Dec 2011	Air Quality management through source apportionment	Shri V.M.Motghare, JD APC Shri A.V.Rathod, FO PAMS
32	La Meridien Hotel, Windsor Place, Janpath, New Delhi	20-Dec-11	Potential For increases use of mineral wastes	Shri R.S. Dafade, FO
33	CENC, Dept of Zoology, Patna University	10-14 Dec 2011	Laboratory Management Practices (QA & Lab Audit)	Shri Salil Save, JSA Shri S.N.Misal, JSA

Annexure-III

Training, Workshops and Seminars attended by Board officers and Staff(2011-12)

Sr. No.	Name of the Institute & Venue	Training Date	Subject	Participant Name
34	EUROPE	3-15 Dec 2011	Increasing AFR usage in Cement industry	V. M. Motghare, JD APC
35	ESCI, Hyderabad	7-9 Dec 2011	Lab Mgnt Effective implementation and internal auditor training based on ISO/IEC 17025 : 2055 (NABL)	N A Mogal, SO, C.Lab R.B.Sorter, SO, Pune
36	ESCI, Hyderabad	3-7 Jan 2012	Coastal water quality monitoring and Management	Shri Pravin Patil, FO, Raigad Shri Pramod Mane, FO, Ratnagiri
37	VSI, Pune	16-20 Jan 2012	Compliance to zero discharge in distilleries technical challenges and solutions	Shri P.B.Hajare, FO Aurangabad Shri Pankaj Bawane, FO WPC
38	CPCB, New Delhi	19-20 Jan 2012	Persistent Organic Pollutant (POP)	Yamini Chachad, JSO
39	CPCB New Delhi	24-Jan-12	Application & Operation of the CEPI software	Swati Muley, JSA R.A.Jadhav, FO Chandrapur
40	IIT Powai, Bombay	13-15 Feb 2012	Biology in pollution mitigation sewage treatment through in situ Bioremediation and bacteriophage	Shri Sanjay Jirapure, FO Pune Shri Tanaji Patil, FO Kolhapur
41	ISI, New Delhi	21-24 Feb 2012	Environmental Data interpretation, compliance, analysis, presentation and reporting	Shri A A Mokashi, SO, Mumbai
42	CSE, New Delhi	01-29 Feb 2011	National Minimum training programme Compliance, monitoring and enforcement	Shri Gajanan Khadkikar, FO, Nashik Shri Sarjerao Bhoi, FO NGP
43	CPCB Bangalore	8-10 Feb 2012	Analytical QC in WQA	A.R.Supate, PSO S C Kollur, JSO
44	CPCB Delhi	8-10 Feb 2012	Capacity building for emission measurement in India	V N Patil, SRO Kalyan S H Padwal, SRO Chiplun

Annexure-III

Training, Workshops and Seminars attended by Board officers and Staff(2011-12)

Sr. No.	Name of the Institute & Venue	Training Date	Subject	Participant Name
45	CPCB, Delhi	6-10 Feb 2012	Implementation of redenoliation process based on cost benefit analysis	J. S. Salukhe, SRO
46	EPTRI, Hyderabad	9-11 Mar 2012	Batteries & electronic waste management	Shri A.D.Chavan, FO, Kalyan Shri Mahesh Chavan, FO, Mumbai
47	ISI, New Delhi	21-23 Mar 2012	Proficiency testing & inter Laboratory comparison	Shri M.S.Rakh, JSO Chandrapur Shri A.J.Kurale, JSA, Pune
48	CSE, New Delhi	12-16 March 2012	Advance training prog on Environmental management of mines	R.S.Daphade, FO APC Wing M.D.Bhivapurkar, FO Chandrapur Kiran Hasabnis, FO Ratnagiri Umashankar Bhadule, Bhandara D B Patil, SRO Tarapur
49	India Bureau of Mines, Nagpur	1-2 Mar 2012	Chemicals analysis of res & minerals	N A Mogal, SO, C.Lab B.S.Fule, SO, Nagpur
50	IIT Powai, Bombay	30-31 Mar 2012	Rainwater harvesting and sustainable water mgnt	Joy Thakur, FO

Annexure- IV

Status of Consents / Authorization Granted by Regional / Sub Regional Offices (2011-2012)

Sr. No.	Region	Consent to Establish	Consent to Operate	Total Consents Granted	Authorization Granted Under BMW Rule
1	Mumbai	56	174	230	1463
2	Navi Mumbai	42	96	138	2
3	Thane	77	129	206	856
4	Kalyan	76	213	289	0
5	Raigad	42	77	119	0
6	Pune	396	410	806	8
7	Nagpur	115	184	299	0
8	Nashik	122	257	379	8
9	Amravati	63	63	126	1
10	Aurangabad	268	258	536	3628
11	Kolhapur	418	254	672	2336
12	Chandrapur	0	8	8	724
Total		1675	2123	3808	9026