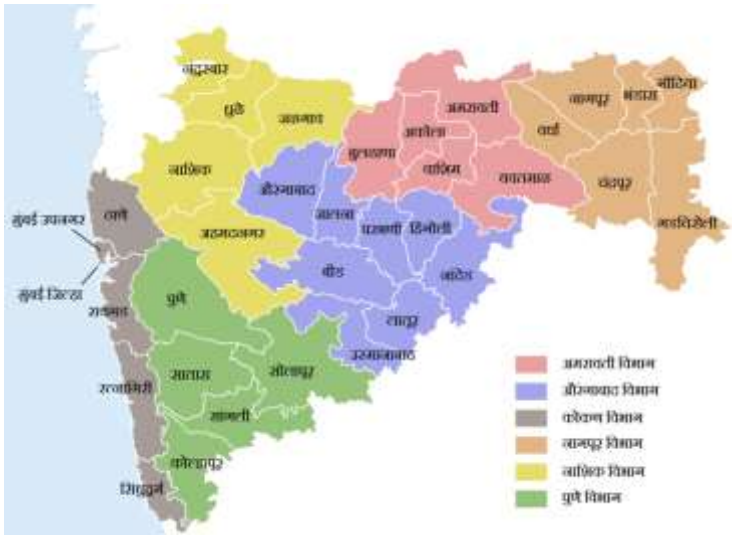
R-2

Revised Action Plan for Industrial Cluster in Severelly Polluted Areas

डोंबिवली Dombivali



MAHARASHTRA

Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

July-2020

A. PREAMBLE:

In 2009, the Ministry of Environment &Forests(MoEF), Govt. of India in association with Central Pollution Control Board (CPCB), New Delhi and Indian Institute of Technology (IIT), New Delhi have carried out an environmental assessment of industrial clusters across the country named Comprehensive Environmental Pollution Index (CEPI) with the aim of identifying polluted industrial clusters & prioritizing planning needs for intervention to improve the quality of environment in these industrial clusters and the nation as a whole. For this, CPCB has selected 88 industrial clusters in country out of which 43 Nos. of industrial clusters in 16 states.

The industrial clusters/areas having aggregated CEPI scores of 70 and above were considered critically polluted clusters/areas and those with scores above 60 were classified as Severely Polluted; further detailed investigations were carried out in terms of the extent of environmental damage and formulation of appropriate remedial action plan.

Again in year 2017-2018 CPCB carried out monitoring and found that, number of identified polluted areas in country went upto 100. The said number included 38 Critically Polluted (CEPI Score above 70), 31 Severely Polluted (CEPI Score between 60-70) and reaming 31 as Other Polluted (CEPI Score below 60).

In identified 100 polluted areas Maharashtra having 9 Nos. of area namely Tarapur (CEPI Score 93.69), Chandrapur (CEPI Score 76.41), Aurangabad (CEPI Score 69.85), Dombivali (CEPI Score 69.67), Nashik (CEPI Score 69.49), Navi Mumbai (CEPI Score 66.32), Chembur (CEPI Score 54.67), Pimpri-Chinchwad (CEPI Score 52.15) & Mahad (CEPI Score 47.12).

Government of Maharashtra, under Chairmanship of Principal Secretary, Environment Department, GoM constituted State Level Committee and one local committee at Regional Officer level at each regions. Also Member Secretary of Board conducted several review meetings with all stakeholders at a regular interval to review the status of implementation of CEPI action plans.

With compare to earlier CEPI score calculated by CPCB in 2009-2010 Dombivali was ranking at no 14 with overall CEPI score 78.41, but after effective implementation CEPI score of Air, water & land are reduce and now as per CPCB 2017-2018 monitoring report Dombivali industrial area is out of critically polluted industrial area and overall CEPI score below 70. All stakeholder taking effort for same. The proposed action plan will help to reduce Air CEPI score below 60.

B. Dombivali

1.1 Area Details

Dombivli or Dombivali is a city in Kalyan tehsil of Thane District, in Maharashtra, India. It is located about fifty kilometers from the city of Mumbai and about twenty kilometers from Thane. The population of the city, according to the 2001 census is 1,193,000. City is located in south of Ulhas river.

The population of Dombivli has over the years been subject to dynamic influences. The city's population is predominantly Marathi-speaking Maharashtrians but people from all over the country have made Dombivli their home. Significant number of people from Gujarat, Karnataka, Tamil Nadu, Kerala, Uttar Pradesh and Punjab are to be found here, with a marginal population of Khojas (The Aga-Khan sect).

The unique culture of Dombivli is reflected in the 'Navavarsha Swagat Yatra' that started in the city in late 1990s. The Yatra is organized on the first day of the Hindu New ear. People from and near Dombivli take part with their own 'Chitrarathas' to welcome the New Year. Dombivli has a unique, mixed culture. People celebrate every festival from Diwali to Eid, Dandiya, Ganpati etc.

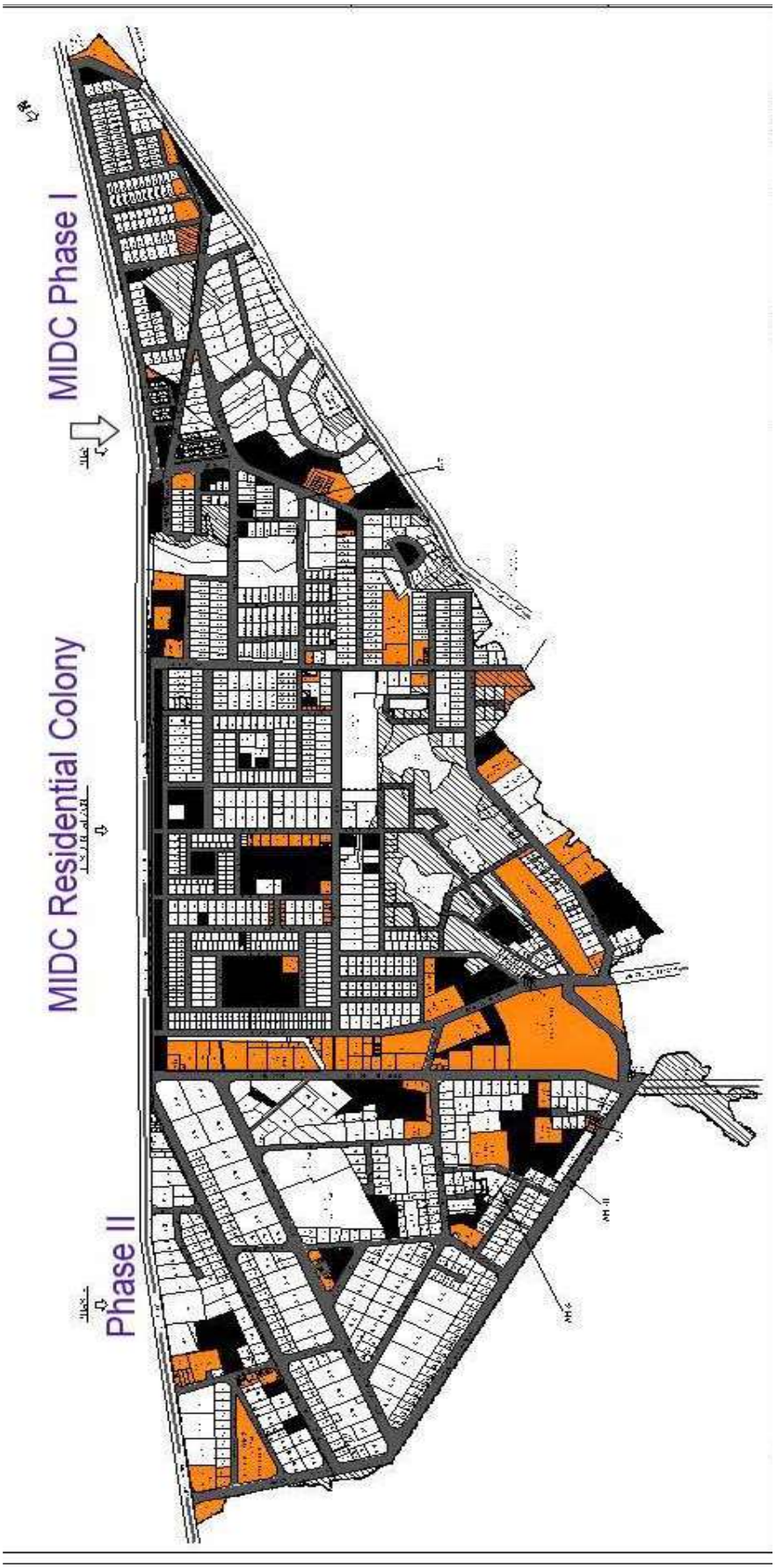
Dombivali enjoys a tropical climate with mean annual temperature of 24.30C (min) to 32.90C (max). The hottest and driest part of the year is April-May, when temperature rises to 38.00C. The humidity is usually in the range of 58 to 84% and sea breeze in the evening hours is a blessing to combat the high temperature and humidity during summer months. The average southwest monsoon rainfall is in the range of 1850 mm to 2000 mm. The average annual rainfall in the region is the range from 1286 to 1233 mm.

1.2 Location:

The Dombivali industrial area was established by MIDC in 1964. The Dombivali MIDC occupies an area of about 347.88 Hector. And is approachable from Mumbai-Pune National Highway- 4 via the Kalyan-Shil Phata and also from Mumbai-Agra National Highway -3 via the Bhiwandi-Kalyan Road and it is about 45.00 km from Mumbai International Airport and 15.00 km from Thane city. This area is 3.00 km from Dombivali railway station and 5.00 km from Kalyan junction on the central railway. This area comprises of revenue villages like Sagaon-Sonarpada, Asde-Golivali, Gajbandhan-Patharli and Chole in Kalyan tahasil, Thane district. The area is located on the Kalyan-Shil and Kalyan-Dombivali roads. In this area, industrial plots and sheds have been developed as Phase-I and II and residential and commercial plots/area in between & surrounding Phase-I & Phase-II.

Digital map of Dombivali demarcation

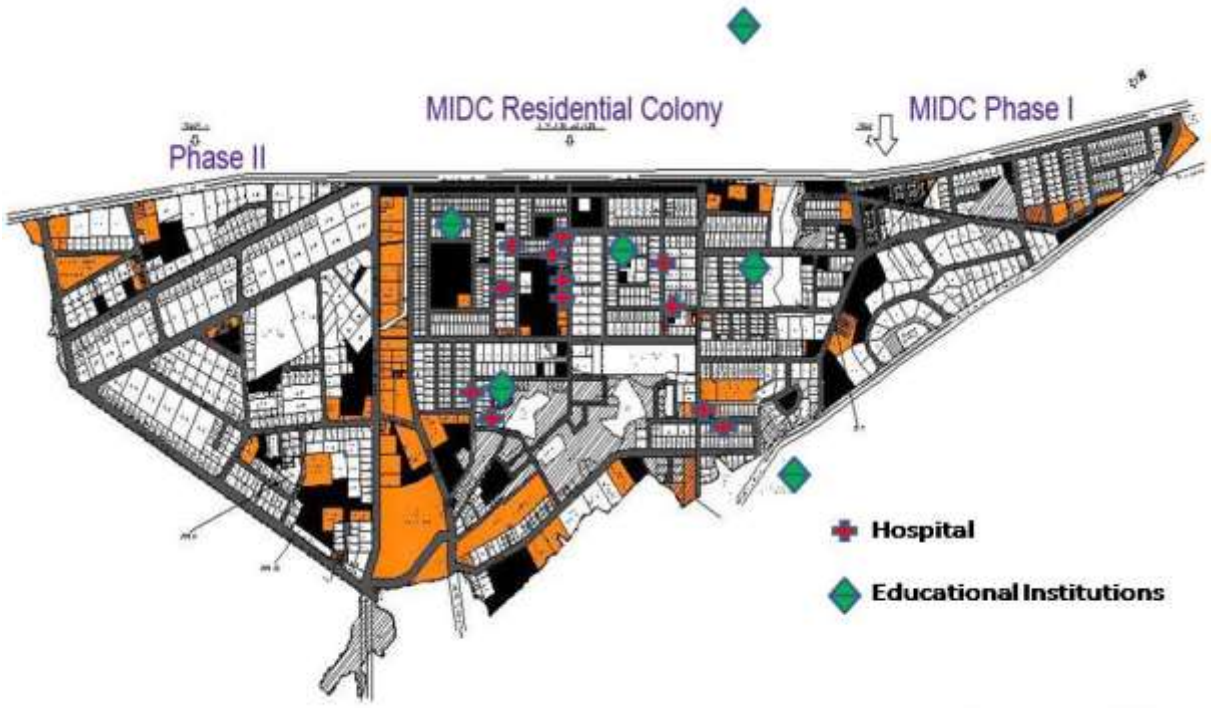
DIGITIZED MAP:



Total population & Sensitive Receptors

The population pressure on the city is ever growing. As per the 2001 census, the population of the residential area around the industrial area of Dombivali is about 215000 and as per growth rate considered as 15% per annum, the present population is about 105000. (Minimum 2Km)

Sr. No	Name of Sensitive Receptors	Numbers
1	No of hospital	41 (Beded Hospitals)
2	No of Educational institutes	53 (School & collages)
3	Courts	Nil



MIDC Dombivali Location

Location	Latitude	Longitude
Phase-1	**19°12'59.93"N**	**73° 6'48.73"E**
Phase-2	**19°12'21.54"N**	**73° 6'0.43"E**

Google image of Dombivali Phase-1 & Phase-2 MIDC area.

Dombivali CEPI area impact area i.e 5 km form boundary of core zone.

Eco-geological features

1. Major Water Bodies (Rivers, Lakes, Ponds, etc.):-Nil

2. Ecological parks, Sanctuaries, Flora & fauna of eco sensitive zone:-Nil

3. Buildings or monuments of Historical /archaeological / religious importance:-Nil

INDUSTRIES IN THE CLUSTER Phase-I & Phase-II:

The total number of industries operating in the Dombivali Industrial cluster is as listed below:

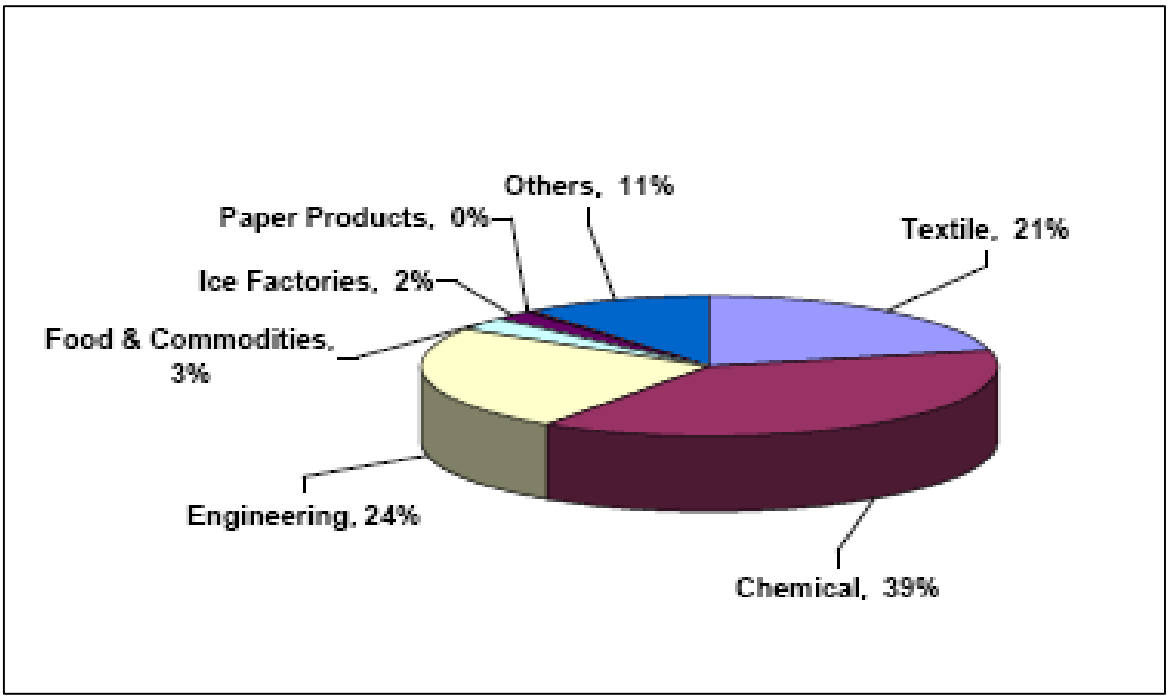
Sale/ Category	RED	ORANGE	GREEN	Total
Large	7	1	0	8
Medium	10	1	2	13
Small	292	71	222	585
Total	309	73	224	606

DOMBIVLI INDUSTRIAL AREA (Phase-I & Phase-II):

- Dombivali MIDC establishment:- **1964**
- Sub-divided in **Two Phases :- Phase-I & Phase-II.**
- Phase I approx.:- **148 Ha.**
- Phase II approx:- **97 Ha.**
- Residential Area developed in between these two phases, having population approx**. 2 lakh** soles.
- Both Phases has a mix of industries, mainly **Textile, Chemical & Engineering.**
- Except for 7 large & 10 Medium units, most of the chemical manufacturing units are SSI.

- **Textile Industry** generates about **80%** of the wastewater by volume.
- CETPs installed & operative in both phases.
- Phase I (DBESA) - **16 MLD** for textile units.
- Phase II (DCETP) – **1.5 MLD** for Chemical & other units.
- Total Length of internal MIDC area Pipeline- 30 Km., (28.5 Km. HDPE).
- Total No. of Chambers- 1290**.**

Percentage distribution of industries in Dombivali industrial area



M/s. Dombivli Better Environment System Association (DBESA CETP) Phase-I:

1	**Name of CETP**	M/s. Dombivli Better Environment System Association.
2	**Designed Capacity (MLD)**	16
3	**Present Load (Last three months' average)**	15.235 MLD
4	**Inlet results (Jan 2019 to Dec 2019 average)**	PH = 7.77, COD = 1598, BOD = 593, TSS = 373.
5	**Outlet results (Jan 2019 to Dec 2019 average)**	PH = 7.17, COD = 136, BOD = 40, TSS = 43.
6	**Sludge generation Qty. (Last 6 months)**	3287 Tons
7	**Sludge disposal Qty. (Last 6 months)**	3287 Tons
8	**Details of Member Industries along with bifurcation**	Red – 82, Orange – 1, Green – 23
9	**OCEMS Installed (Yes/No)**	Yes
10	**OCEMS connected to MPCB Server (Yes/No)**	Yes
11	**OCEMS connected to CPCB Server (Yes/No)**	Yes
13	**Whether performance evaluation study of CETP conducted through Government institution (If yes, specify the details)**	Yes. NGT Committee comprising of IIT , MPCB and CPCB
14	**Details of up gradation projects implemented by CETP in last one year**	MIDC is looking in to Up gradation of CETP. Tendering process completed.
16	**Issues/challenges faced by CETP in achieving compliance**	1. Segregation of Textile & Chemical cluster effluent. 2. Disposal of treated effluent up to NIO discharge point.

M/s. DOMBIVALI COMMON EFFLUENT TREATMENT PLANT (PHASE-II):		
1	**Name of CETP**	M/s. Dombivli Common Effluent Treatment Plant.
2	**Designed Capacity (MLD)**	1.5
3	**Present Load (Last three months' average)**	0.375 MLD
4	**Inlet results (Jan 2019 to Dec 2019 average)**	pH - 7.31, COD - 1399.09, BOD - 482.68, TSS - 212.55
5	**Outlet results (Jan 2019 to Dec 2019 average)**	pH - 7.11, COD - 139.91, BOD- 38.86, TSS - 48.59.
6	**Sludge generation Qty. (Last 6 months)**	68 MT
7	**Sludge disposal Qty. (Last 6 months)**	58.06 MT
8	**Details of Member Industries along with bifurcation**	RED- 107, Orange-9, closed-14
9	**OCEMS Installed (Yes/No)**	Yes
10	**OCEMS connected to MPCB Server (Yes/No)**	Yes
11	**OCEMS connected to CPCB Server (Yes/No)**	Yes
12	**Whether performance evaluation study of CETP conducted through Government institution (If yes, specify the details)**	Yes. NGT Committee comprising of IIT , MPCB and CPCB
13	**Details of up gradation projects implemented by CETP in last one year**	1) Two nos. Carbon filters installed with flow 50 m3 /hr for better tertiary treatment. 2) O&G skimmer installed to remove O&G at inlet to better operational treatability of effluent in Bio Tower and Bio reactor. 3) Dissolved Oxygen meter installed with synchronisation to Blower, so that Required free oxygen in bioreactor continuosly to obtain.Electricity saving is also one aspect to installed DO meter, 4) DG set installed to run fully at MSEB power failure, which definaterly helps to run plant without break. 5) Flow meter installed at every stage in primary and secondary to moniter flow record.
14	**Issues/challenges faced by CETP in achieving compliance**	1. Segregation of Textile & Chemical cluster effluent. 2. Disposal of treated effluent up to NIO discharge point.

MONITORING STATIONS SELECTED BY CPCB: SURFACE WATER, GROUND WATER& AIR QUALITY:

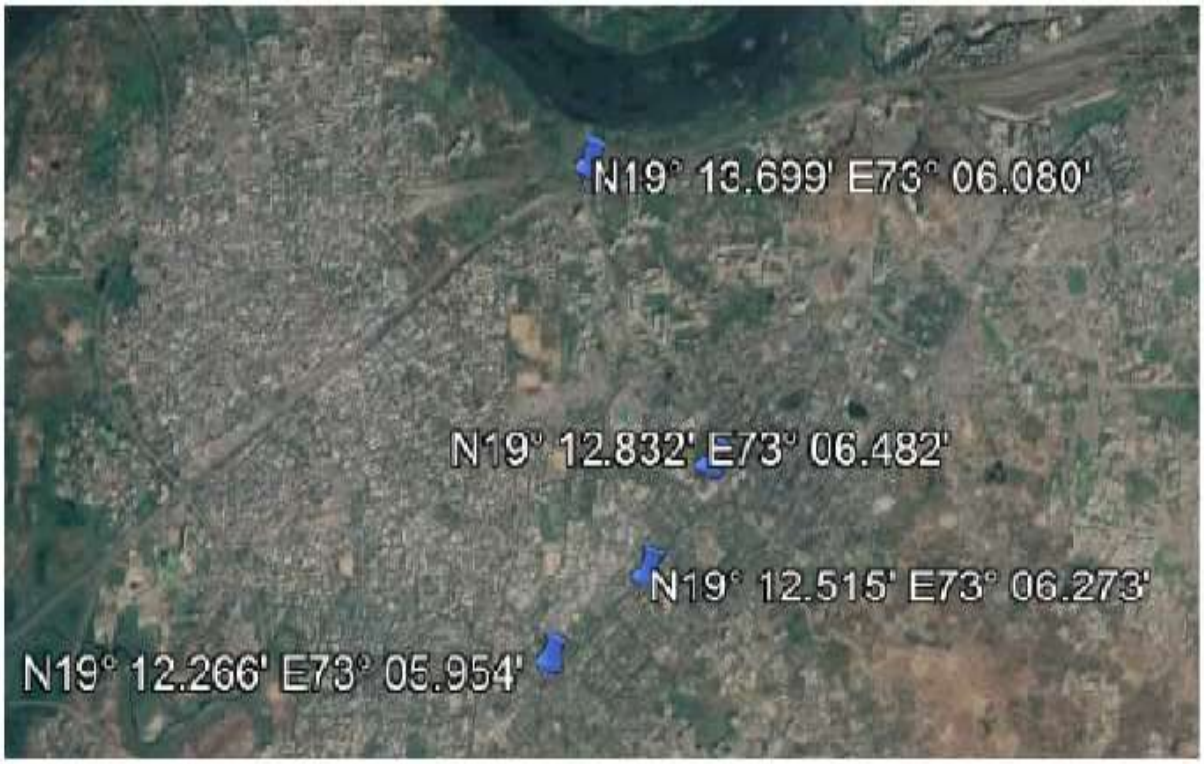
i. <u>Air Quality Monitoring Station:</u>

AAQ location marking on Google map

List of air Quality Monitoring Stations:

Sr. No.	Location Name	Latitude	Longitude
A-1	BKT Phase 1, Dombivali	19°12'39.64"N	19°12'39.64"N
A-2	Dombivali Common Effluent Treatment Plant	19°13'4.66"N	73° 6'21.47"E
A-3	Connectwell Pharmaceutical, phase 2 Dombivali	19°11'42.28"N	73° 5'38.29"E
A-4	Sagar Ice Factory, Phase 1, Dombivali	19°12'58.61"N	73° 6'29.78"E

ii. Surface Water Monitoring Station:

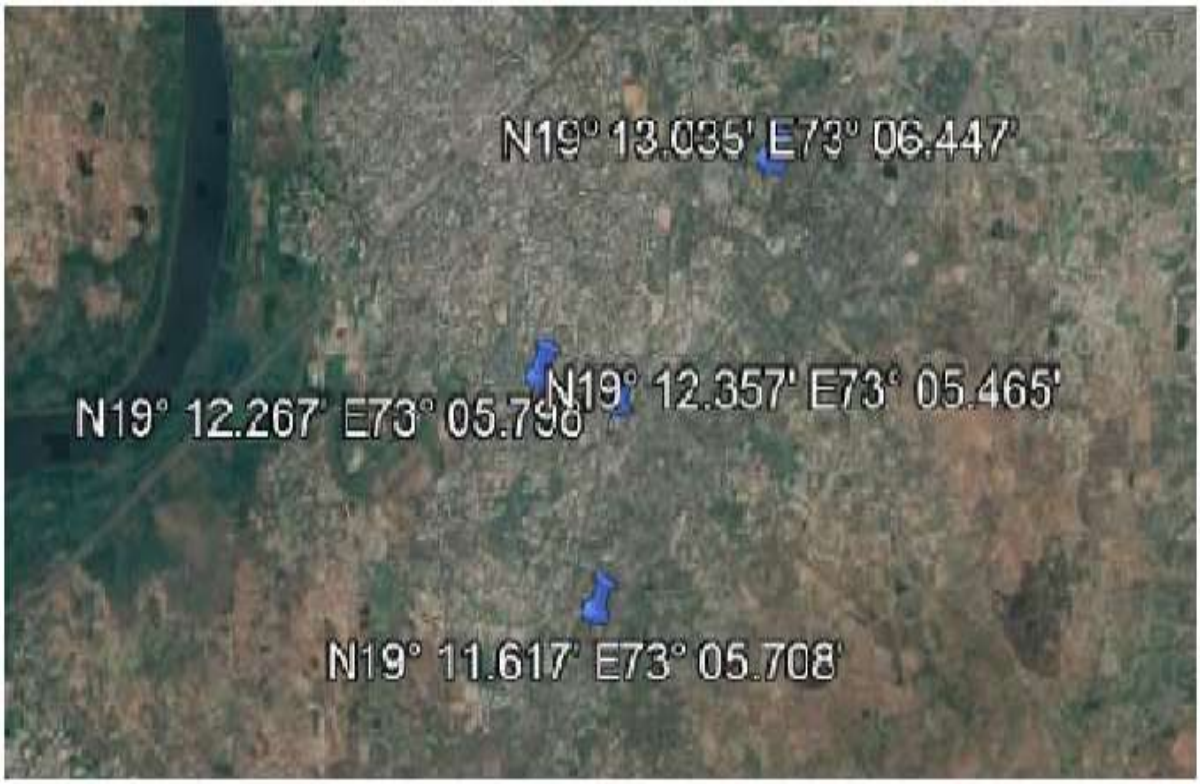


SW location marking on Google map

List of Surface Water Monitoring Stations:

Sr. No.	Location Name	Latitude	Longitude
SW-1	Drain flowing from DEBESA CETP	19°12'49.9" N	73°06'28.9" E
SW-2	Khambal Pada Nalla, Dombivali	19°13'41.96" N	73°6'4.79531" E
SW-3	Nalla water after DCETP	19°12'15.96" N	73°5'57.25781" E
SW-4	Nalla water at Ranchandra Nagar	19°12'30.9" N	73°06'16.4" E

iii. Ground Water Monitoring Station:



GW location marking on Google map

List of Ground Water Monitoring Stations:

Sr. No.	Location Name	Latitude	Longitude
GW-1	Bore well water, Opposite KAMA office	19°13'02.1" N	73°06'26.8" E
GW-2	Bore well water, Near Mamata Hospital	19°12'16.0" N	73°05'47.9" E
GW-3	Bore well water, Pimpleshwar Mahadev Temple	N19°11'37.0" N	73°05'42.5" E
GW-4	Bore well water, Dr. Hardikar Hospital	19°12'21.4" N	73°05'27.9" E

Comprehensive Environmental Pollution Index As per CPCB Monitoring 2017-2018:

Sr. No	Industrial Area	Air	Water	Land	CEPI Score	Rank
1	Dombivali	62.00	63.50	27.25	69.67	40

Revised CEPI is comprised of the following components:

Component A	Scale of industrial activity	20 Marks
Component B	Status of Ambient ENV. Quality (Air/SW/GW)	50 Marks
Component C	Health related Statistics	10 Marks
Component D	Compliance of	20 Marks

a) **Air Score:**
   - **Ambient Air Quality Parameter considered for CEPI calculation: PM_{10}, PM $_{2.5}$ & CO.**
   - **Sub Score (A+B+C+D)= (12+40+0+10)=62.0**

b) **Water Score (Surface Water):**
   - **Surface Water Parameter considered for CEPI calculation : BOD, T. Hardness & T NH4-N**
   - **Sub Score (A+B+C+D)= (10+43.5+0+10)=63.50**

c) **Land Score (Ground Water):**
   - **Ground Water Parameter considered for CEPI calculation : Total Hardness, TDS, Iron**
   - **Sub Score (A+B+C+D)= (6+11.25+0+10)=27.25**

COMPLIANCE OF SHORT TERM AND LONG TERM ACTION PLAN

With the implementation of long term and short term plan, the impact on Environment pollution have decreased which is visible from the decrease in the CEPI score of the region. Summary of action implementation are given below:

Sr. No.	Action Points	Responsible stake Holder	Compliance Status
1	Performance evaluation of water pollution control measures in the 345 industrial units with respect to efficiency, operation, maintenance and implementation of maintenance/ operation charter along with upgradation of Water pollution control equipment.	Industry / MPCB / CETP	Survey of industrial area conducted and implementation work is in progress.
2	Performance evaluation of Both CETPs	CETPs / MPCB	➢ CETP has already started works. The treated effluent is connected to the CETP outlet of DBESA through pipeline. MIDC has completed the work of 1.5 KM close pipeline & presently discharging treated effluent near Thakurli village,

Sr. No.	Action Points	Responsible stake Holder	Compliance Status
			Khambalpada nalla.
	Optimization of both CETPs	CETP	Studying of CETP up gradation work done.
3	Taking possession of drainage pipeline carrying effluent to CETP by CETPs	CETP & MIDC	MIDC has completed the work of 1.5 KM close pipeline & presently discharging treated effluent near Thakurli village, Khambalpada nalla.
4	Providing tertiary treatment facility and advance waste water treatment.	CETP	➢ The MIDC has appointed CH2M consultant for the upgradation of both CETPs Ph-I and Ph-II. ➢ The DBESA CETP has obtained environment clearance for the upgradation

Sr. No.	Action Points	Responsible stake Holder	Compliance Status
			and expansion of existing 16 MLD to 26 MLD. However the MIDC has appointed a technical consultant for the upgradation and expansion of CETP ➢ The MIDC has appointed technical consultant CH2M consultant to achieve the outlet standards 30 mg/l BOD.
5	Laying of closed pipeline for disposal of treated effluent from CETPs upto Creek	MIDC/ Grampanchayat / KDMC	The work of treated effluent carrying pipeline from DCETP to DBESA CETP and collection sump is completed.

Sr. No.	Action Points	Responsible stake Holder	Compliance Status
6	Lifting of effluent passed into nalla due to any accident or leakage or chamber overflow into CETP by providing bandhara on the nalla near CETPs	MIDC/ KAMA/ CETPs	The work of treated effluent carrying pipeline from DCETP to DBESA CETP and collection sump is completed.
7	a. Provision of continuous power supply to CETPs	CETP / MSEDCT	Already CETP chemical has installed 82.5 KVA DG set. CETP textile installed 500KVA DG Set on hire basis & Applied to MSEDCL for continuous power
	b. Provision of continuous power supply to Pumping Station	MIDC	MIDC has installed DG set at one pumping station.
8	Performance evaluation of Air pollution control measures in the 345 industrial	Industry / MPCB	Survey of industrial area conducted.

Sr. No.	Action Points	Responsible stake Holder	Compliance Status
	units with respect to efficiency, operation, maintenance and implementation of maintenance/operation charter along with upgradation of Air pollution control equipments		Textile industries has provided APC arrangements such as, dust collectors, Scrubbers. Chemical industries generating gases emissions has provided scrubbers.
9	Inventorying of Hazardous Air Pollutant emitting units And Installation of Leak Detection and Repair (LDAR) in case of pesticide and bulk drug manufacturing units.	MPCB/ Individual industry	One large & one small industry have installed LDAR.
10	Provision of new AAQM station	KAMA / MPCB	➢ Under SAMP/ NAMP two AAQM station @ DCETP MIDC Phase-II & MIDC

Sr. No.	Action Points	Responsible stake Holder	Compliance Status
			Office, Phase-I Dombivali commissioned. ➢ Both are in operations from May 2012. ➢ Stations are operated by M/s. Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar.
11	a. Installation of CAAQM Stations	MPCB/ KAMA	➢ CAAQM station is installed at MIDC, PH-II, Dombivali and the reports are displayed on the Boards website. ➢ Additional one CAAQM station at B Ward, Kalyan city area is installed and commissioned in Sept

Sr. No.	Action Points	Responsible stake Holder	Compliance Status
			2018. ➢ The CAAQMS data is displayed in MIDC and Kalyan city area.
12	Online Display of AAQM data	KAMA	The CAAQMS data is displayed in MIDC and Kalyan city area.
13	Repairing of internal roads & proper maintenance of same	MIDC	MIDC authority repaired internal road maintenance is continues process.
14	Inventory of solvent using industry & solvent recovery units	MPCB	Units were identified and installed solvent recovery system.
15	Ground water monitoring [Locations: Open Well 1. Pimpleshwer Temple Ph-II 2. Dr. Hardikar Hospital Dombivali 3. Ramchandra	MPCB / CETP	MPCB has already started ground water Monitoring at 5 locations in an around MIDC.

Sr. No.	Action Points	Responsible stake Holder	Compliance Status
	Nagar Dombivali 4. Mamta Hospital Milpnagar Bore Well 1.Opp KAMA office Phase I		
16	Proper storage & regular disposal of Hazardous waste & solid waste.	Industry/ CHWTSDF/ MPCB	All industries are member of CHWTSDF & regularly disposing H.W.
17	Awareness Programe	MPCB/CETP KAMA / KDMC /IMA	Awareness Programe is organized through WED , Earth Day, O3 Day. Tree plantation in industrial area by Industry and KAMA. Organized workshop on Pesticide industries by MPCB
18	a. Providing STP for domestic effluent of residential colony developed by MIDC. Treated water can be used for gardening. b. Providing STP for Kalyan	MIDC /KDMC KDMC	The residential zone is located in between MIDC Phase-I &II Dombivli and generating about 4 MLD domestic sewage. MIDC has proposed to construct

Sr. No.	Action Points	Responsible stake Holder	Compliance Status
	– Dombivali Corporation area		4 MLD S.T.P. Existing 2 STP of capacity 30MLD at Motagaon & Adharwadi
19	Introduction of Cleaner fuel like CNG/LPG	GAIL/ Govt. of Maha/India / KAMA	Some large & medium industries switch over to cleaner fuel.
20	The vehicles in this area shall use clean fuel as LPG/ CNG	RTO/ Govt. of Maha./ GAIL	Autorikhwas, City buses switch over to cleaner fuel
21	Development of Green belt & garden	MIDC/ KAMA / Industry	MIDC handed over the grounds and free space to KAMA for development.
22	a. Illegal & unscientific dumping of municipal solid waste by Grampanchayats in industrial area as well as in	KDMC/ Grampanchay at/ MIDC KDMC	➢ KDMC appointed consultant for scientific closure of Adharwadi

Sr. No.	Action Points	Responsible stake Holder	Compliance Status
	residential area. b. Scientific treatment & disposal of MSW - KDMC Quantity 550MT/D		dumping ground work is in progress. ➢ The KDMC has obtained EC for Solid waste treatment at Umbarde, Barve & work is in progress.

EFFORTS TAKEN FOR POLLUTION REDUCTION:

Technological intervention

1. The industries which are using solvents are very few and are small scale therefore the solvent generated from the manufacturing is collected and send to for recovery to the authorized plants.
2. However there is a one LSI unit **M/s Gharda Chemical Ltd**. which is having solvent recovery plant for captive consumption and has taken up following initiative for waste reduction

Sr No	Brief description of the improvement	Scenario - Before Improvement	Scenario - After Improvement
1.	Change in process:	600 kg per day of residue was being incinerated.	Load on incineration reduced by 80 Kg per day.
2.	Reduction in quantity of residues by recovery of useful products	160 kg per day residue was incinerated.	160 kg per day of pure cumidine is recycled in the process.
3.	New fractionating column to separate the solvents in pure form from the mixture of solvents.	600 kg per day of Mixed solvents were incinerated.	Pure solvents, 600 kg per day after recovery are recycled in the process.
4	Recovery of intermediates and their recycle a) In CMAC process Tetra-chloro butyric Acid (TBA) is recovered by selective isolation from the waste stream of 2 -Chloro cyclo Butanone stage. b) In Isoproturon process, Di-methyl Urea (DMU) an intermediate, which is completely recovered, purified and recycled.	250 kg per day TBA was being incinerated. Only part of the DMU (3.3 MT per day) was recycled and the rest (1.3 MT) of being impure quality was being incinerated.	250 kg recovered TBA is recycled back in to the process Now all the DMU (4.6 MT per day) is being recycled after purifying the impure DMU.

Water Environment

Water quality monitoring network:-

a) **Industries:-**The MPC Board is regularly monitoring treated effluent quality of large, medium & small industries. The large and medium industries monitor their effluent quality regularly.

b) **CETPS:-** The MPC Board fortnightly monitors treated/untreated effluent quality of CETPs. The CETPs monitors their treated/untreated effluent quality on daily basis.

c) **Nalla :-** There are two nalla viz. Khambalpada Nalla & Bhopar Nalla through which treated effluent is disposed by CETPs and also the untreated domestic effluent of residential area disposed. The MPC Board fortnightly monitors water quality of these nalla.

d) **Effluent treatment plants:-** All large and medium scale industries have provided full-fledged effluent treatment facility and all small scale industries have provided primary treatment facility and dispose their effluent to CETP for further treatment through MIDC drainage.

e) **Common Effluent treatment Plants:** - There are 2 no. of CETPs functioning in the industrial area. Quantity of Industrial and domestic effluent generated in MIDC industrial Area is about 14 MLD, the treated effluent is finally discharged into the Diva creek

f) **D CETP Chemical (Phase-II) (1.5MLD)**:- Intensive efforts were made by chemical manufacturers in Phase-II, Dombivali industrial area to setup CETP in MIDC area of 1.50 MLD capacity, commissioned in March 1999 with capital investment of Rs 3.70 crore, and having 176 user members.

g) **Dombivali DBESA CETP Textile (Phase-I)(16MLD):-** Was set up by Textile manufactures of phase I, Dombivali in the year in October 2003, of 16.00 MLD capacity, The total capital investment of CETP is 6.6 crore, the user members are 121.

Air Environment

Dust Collectors Cyclones, Wet scrubbers, and process emissions.

As a case study the major industry M/s Gharda chemical has taken up the following initiative for control of hazardous air pollutants

a) For scrubbing the gases like HCl, Chlorine, Sulphur Dioxide etc. Caustic solution is used and the strength of the Caustic is monitored so as to ensure that it does not go below 0.5 N. This being chemisorption the efficiency of scrubbing is 100%.

b) For scrubbing gases like Ammonia, water is used with primary and secondary scrubber system. The secondary system is provided with chilled water-cooling.

c) Control of Fugitive Emissions / VOC:

- All the agitated reactors having hazardous air pollutants are provided with mechanical seals to ensure no fugitive emissions.
- All the transfer pumps are also provided with mechanical seals.
- Gas sensors (portable and fixed) are available to detect any leakage of the hazardous pollutant.
- Vacuum systems are available to take care of the leakage, if any.

Green Belt

Necessary follow up for the development of green belt in the industrial cluster as well as in corporation area will be taken with KDMC, KAMA, MIDC as well as local NGOs.

Public Awareness & Training Programmes

- To Organize Drawing competition in School & Colleges for making clean environment.
- Distribution of hand bills of safety measures to be adopted during accident.
- Posters and Banners displaying environmental awareness.
- To arrange Road Shows at public places.
- Arranging Lectures, Speech, Demonstration of the activities through School, Colleges, etc.

Carrying out CEPI Monitoring as per CPCB direction dtd.26/04/2016:

- **As per CPCI direction dtd.26/04/2016 Board has selected third party agency (laboratory) recognized under Environmental (Protection) Act, 1986 and accredited under NABL through E-tendering for 3-year Post-monsoon season & Pre-monsoon Season monitoring. The monitoring data with CEPI score were communicated to CPCB and uploaded on public domain. The monitoring score are as below,**

- **Below are the CEPI score from 2017 to Feb 2019 Carried by Board through third party as per CPCB direction:**

	Air Index	Water Index	Land Index	CEPI
CEPI score Feb 2019	45.9	41.55	40.9	55.09
CEPI score June 2018	46.31	40.6	46.2	56.38
CEPI score February 2018	54.88	48.63	46.04	64.98
CEPI score June 2017	40.66	35.09	43.93	49.69
CEPI score February 2017	49	61.3	53.8	56.82
CEPI Score 2016	37.3	53	38.1	49.96

PROPOSED ACTION PLANS:

1. CEPI area for Dombivli including Phase-1 & Phase-II MIDC.

2. In the Application No. 1038/2018, directions are given by Hon'ble NGT regarding CEPI score for Aurangabad is 69.67 as its rank is 40 as Severely Polluted Industrial Area (SPAs).

3. MPCB with all stakeholders prepared time bound action plan t improve CEPI score as an below,

No	Points	Discussion	Time Target	Concerned Stakeholder
1	Upgradation and advance treatment in CETP to achieve the standard 30 BOD mg/l:-	The up gradation of DBESA CETP (PH-I) and DCETP (Ph-II) The expansion of existing DBESA CETP Capacity—16 MLD to 26 MLD) For 30 mg/l BOD standard. The MIDC has appointed CH2M consultant for the upgradation of both CETPs Ph-I and Ph-II.	6 Month	MIDC/ CEPT association

No	Points	Discussion	Time Target	Concerned Stakeholder
2	Mechanism to be developed for reduction of CEPI score	Measures for reduction in pollution - a) Enhancement in green belt from 33% to 40%.	Coming monsoon	Industry and MIDC
		b) Encouragement to switchover to clean fuel PNG from existing fuel coal.	1 Year	Industry & MNGL/ MPCB
		c) Permissible limit for TPM to be reduced from 150 ppm to 50 ppm.	1 Year	MPCB & Industry
		d) Zero liquid discharged to be achieved by major polluting units.	1 Year	
		e) Action against polluting industries & imposing environmental compensation.	3 Month	MPCB

No	Points	Discussion	Time Target	Concerned Stakeholder
	Pollution control measures in MIDC area	a) Inspection & monitoring of air polluting industries to assess the compliance status for adequacy of APC system.	3 month	MPCB & Industry
		b) Repair & maintenance of approach & internal roads of industrial area and provision of internal roads.	6 Month	MIDC & Local Body (Kalyan Dombivali Municipal Corporation i.e. KDMC)
		c) Providing STP for domestic effluent of residential colony developed by MIDC. Treated water can be used for gardening.	1 Year	MIDC
		d).Laying of closed pipeline for disposal of treated effluent from CETPs up to Creek.	6 Month	MIDC

No	Points	Discussion	Time Target	Concerned Stakeholder
		e) Replacement of old drainage pipelines in the MIDC areas as well as regular operation & maintenance of drainage system to prevent the leakages of effluent into nallas.	1 year	MIDC
		f) To provide PNG facility to maximum industries in MIDC Dombivali . To organise a co-ordination meeting of industries, MNGL & MPCB within 15 days. To submit business plan for replacement of PNG as fuel.	6 month	MNGL / MPCB/industry association

No	Points	Discussion	Time Target	Concerned Stakeholder
		g) To provide proper treatment & disposal facility for MSW generating in & around Dombivali MIDC.	1 year	MIDC and KDMC
		h) Provision of scientific storage of solid waste in MIDC area.	6 Month	KDMC
		i) Removal of sludge/ plastic/ debris from nallas located in KDMC area (Dombivali).	3 Month	KDMC
		j) Banning of Illegal & unscientific dumping of municipal solid waste by Grampanchayat's in industrial area as well as in residential area	3 Month	KDMC

No	Points	Discussion	Time Target	Concerned Stakeholder
		k) Capping of Adharwadi dumping ground in a scientific way within the time bound schedule.	6 Months	KDMC

No	Points	Discussion	Time Target	Concerned Stakeholder
3	Ban on Biomass burning on open land (This action point is incorporated in City level action plan under NCAP also sperate follw-up as per Hon'ble NGT order in OA No. 606/2018)	1. Launch extensive drive against open burning of bio-mass, crop residue, garbage, leaves, etc. 2. Ensure segregation of waste at source 3. Regular collection of municipal solid wastes. 4. Regular check and control of burning of Municipal Solid waste 5. Providing Organic Waste Compost machines, decentralization of processing of Waste, dry waste collection centers. 6. MPCB already issued direction on 29/08/2019 to Municipal Corporation for complete prohibition on open burning and for violation imposed Environmental Compensation.	Continuous process	Municipal Corporation

No	Points	Discussion	Time Target	Concerned Stakeholder
4	Installation of additional 1 nos. of CAAQMS	As per CPCB direction dtd. 26/04/2016 Board has already installed 1 CAAQMS station at Dombivali MIDC.	Completed	MPCB
5	Studying Carrying capacity of Dombivali MIDC area	M. P. C. Board is in process to carrying study coordination with NEERI for further planning of pollution control in Dombivali CEPI area.	18 month	MPCB/NEERI

Conclusion:

With compare to earlier CEPI score calculated by CPCB in 2009-2010 Dombivali was ranking at no 14 with overall CEPI score 78.41, but after effective implementation CEPI score of Air, water & land are reduce and now as per CPCB 2017-2018 monitoring report Dombivali industrial area is out of critically polluted industrial area and overall CEPI score below 70. All stakeholder taking effort for same.

State Level Monitoring Committee, under Chairmanship of Principal Secretary, Environment Department constituted vide GR dtd. 31/12/1018.

Till date M.P.C.Board under Chairmanship of Member Secretary conducted various reviews meeting with all stakeholders for effective implementation of action plan and constituted monitoring team at respective Regional Officer for visit.

Also Hon'ble Principle Secretary, Environment Department , GoM and Hon'ble Chief Secretary, GoM has conducted time to time meeting to review progress.

The proposed action plan is comprehensive and each activity under Air, Water and land considered for achieving environmental standards and will help to reduce Air CEPI score below 60. The all stakeholders like MIDC authority,

Industrial associations, District administrator and Local body contribution for implementation of action plan will help to achieve reduction of CEPI score.