MAHARASHTRA POLLUTION CONTROL BOARD

SUB REGIONAL OFFICE, KALYAN-I
DOMBIVALI AREA)
(As on August-2015)

	Why Dombivali Cluster comes under CEPI?	
Sr.No	Points	Authority
1.	No Buffer Zone between MIDC & Residential Colony. Residential area developed between two MIDC Phase.	MIDC
2.	CETP's are not complied.	MPCB/CETP
3.	Use of High Polluted Petro Coke as a fuel by industry, no proper air pollution control system.	Industry /MPCB
4.	Individual industries effluent treatment plants are not adequate	Industry /MPCB
5.	Effluent carrying line from industry to CETP are broken / damaged.	MIDC
6.	No Treated effluent Disposal line from CETP to Creek	MIDC
7.	No Sewage treatment plant for the sewage generated from residential colony developed by MIDC.	MIDC
8.	Non removal of Sludge from MIDC sump	MIDC
9.	Illegal & unscientific dumping of municipal solid waste by Grampanchayat's in industrial area as well as in residential area	Grampanchayat / Jilla Parishad / MIDC /MMRDA
10.	No adequate Sewage treatment plant for the sewage generated from KDMC area.	KDMC
11.	Un-Scientific Disposal of Municipal Solid Waste in KDMC area.	KDMC

Chronological order of CEPI meetings – Dombivali MIDC.

Sr. No.	Date	Details	Venue of the Meeting
1	Dec- 2009	CPCB/ MoEF published CEPI	-
2	May - 2010	Preparation of tentative action plan	-
3	May - 2010	Issued letters to Organizations	-
4	Sep - 2010	Issued letters to Industries	-
5	Oct - 2010	Reply received from most of the stake holders	-
6	June - 2011	Submitted 1st compliance report	-
7	Oct - 2011	Preparation of final action plan	-
8	Dec - 2011	Present status report on CEPI action points submitted to CPCB	-
9	Dec – 2011 / Jan- 2012	CEPI review meeting with industries & organizations	Conference hall, MPCB, Kalyan.
10	May - 2012	Review meeting	Conference hall, MPCB, Kalyan.
11	Aug - 2012	Review meeting	Conference hall, DBESA, CETP, Phase – I, Dombivali
12	13.11.2012	Review meeting	Conference hall, MPCB, Kalyan.
13	18.05.2013	Review meeting	Conference hall, MPCB, Kalyan.
14		Review meeting	Conference hall, MPCB, Kalyan.
15	22.08.2013	Review meeting	Conference hall, DBESA, CETP, Phase – I, Dombivali.
16	17.03.2014	Review meeting	Conference hall, MPCB, Kalyan.
17	28.08.2014	Review meeting	KAMA conference hall , Phase – I, MIDC, Dombivali
18	28.04.2015	Review meeting	Conference hall, MPCB, Kalyan.
19	29. 07.2015	Review meeting	Conference hall, MPCB, Kalyan.

	CEPI SCORE	
Parameters	CEPI SCORE	Average CEPI SCORE-2009
Water	63.5	
Air	66.0	78.41
Land	57.5	

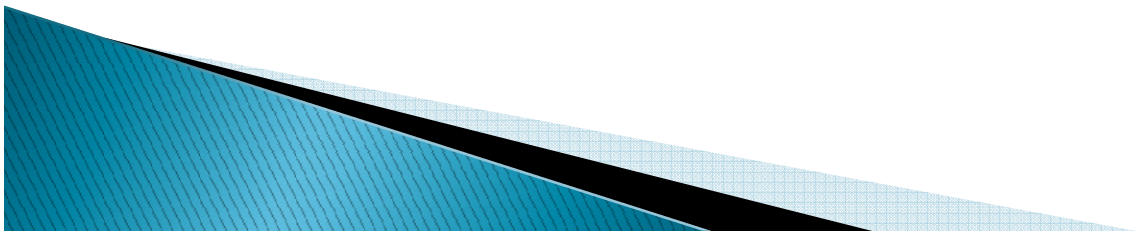
IMPLEMENTATION OF ACTION PLAN FOR DOMBIVALI CLUSTER

Industry Details- MIDC, PH-I & PH-II, Dombivali.

TYPE	LSI	MSI	SSI	TOTAL
RED	4	6	290	300
ORANGE	NIL	2	71	73
GREEN	NIL	2	220	222
TOTAL	4	10	581	595

Water supply by the MIDC

Sr. no.	Particulars	Water consumption & effluent generation (MLD)
1	Total water supply	23
2	Residential purpose	03
3	Industries	20
4	Industries using for processing	18
5	Industries using for domestic	02
6	Total effluent generation (industrial & domestic)	17.0 & 1.5



Short Term Action Plan

S.N	Action Point	Compliance
1.	Performance evaluation of water pollution control measures in the industrial units:-	➢Survey of industrial unit is carried out in 2010. ➢ Accordingly Board had issued 32 closer direction & 26 show cause notice to industry in 2010. ➢ As per directions industry has complied. ➢ Regular compliance is monitored by Board Officials.
2(a)	Performance evaluation of CETP (Ph-I) :-	➢CETP has carried out performance evaluation study. ➢On the basis of analysis report and visit, The Board has issued directions to both CETP on 24.05.2010, 03.03.2012, 04.04.2012,15.12.2012, 24.05.2012, 25.02.2014, for the up gradation. ➢Accordingly both CETP has carried out up gradation of CETP. Though the CETP is carried out temporary upgradation, the outlet quality of CETP is not achieved. ➢ Recently, CETP is upgrading their CETP units as per advise given by IIT, Mumbai. It is reported that they have placed order for procurement of equipment's & cost is about 4.0 Crore. The CETP authority assured that they will complete upgradation by Dec-2015. ➢The PH-I CETP has provided additional flash mixer in the Year -2015 so as to improve primary treatment. ➢ MIDC has completed the work of 1.5 KM close pipeline & presently discharging treated effluent near Thakurli village nalla.

S.N	Action Point	Compliance	
3.	Taking possession of drainage pipeline carrying effluent to CETP by CETPs:-	➢ Presently MIDC authority maintaining the network of effluent carrying pipeline. Also the replacement work of old cement concrete pipeline with HDPE pipeline is completed.	➢ MIDC
4.	Providing tertiary treatment facility and advance waste water treatment :-	➢ DPR prepared (DBESA) & submitted to MIDC. ➢ The up gradation of DCETP (PH-II, Capacity—1.5 MLD) is completed and further up gradation & further upgradation is completed by providing new bioreactor of 1 MLD capacity & sand filters & same are commissioned in Yr.2015.	➢ DBESA CETP- Amount spent Rs. 400.00 lakhs. ➢ Recently invested 40 Lakhs. Proposed to be invested Rs-4.0 Crore. ➢ DCETP- Amount incurred Rs. 39.00 lakhs ➢ Recently incurred 150 Lakhs

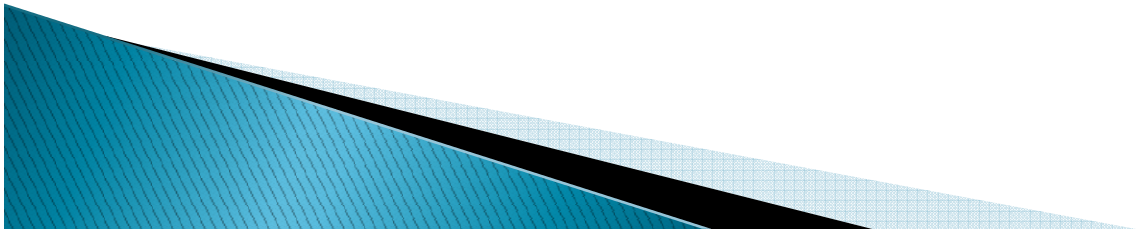
S. N	Action Point	Compliance	Amount Spent
4	Status of up gradation work of CETP	➢ D CETP (PH-II):- (1.5 MLD) ➢ Additional Hyca-Reacter for bio- tower "A" installed. ➢ New Bio-reactor of 1 MLD capacity and sand filter is installed & commissioned ➢ Additional two blowers installed for bio-towers. ➢ On line pH monitors installed. ➢ Civil work of launders carried out. ➢ Central control panels with indicators installed for better operational management. ➢ Microscope camera attachment procured for better identification of microbial culture.	DCETP- Amount spent Rs. 39.00 Lakhs & 150 Lakhs

S. N	Action Point	Compliance	Amount Spent
4	Status of up gradation work of CETP	➢Converted equalization tank as a 2nd stage bio-reactor. ➢ Installed monobelt filter press for proper removal of sludge & same is in operational. ➢D.G. Set installed to take care of operations especially during weekly off. ➢ DPR for up gradation & expansion is prepared & approved by MIDC & NEERI.	DCETP-Amount spent Rs. 39.00 lakhs.

Average Report of CETP								
DBESA CETP Phase-I								
	Standards	2009	2010	2011	2012	2013	2014	2015 (Upto Aug-15)
pH	5.5-9	7.69	7.41	7.51	7.5	7.74	7.5	7.33
BOD	100 mg/lit	165	159.1	294.4	124.7	145.3	177.2	116.67
COD	250 mg/lit	503.7	439.3	797.2	325.6	336	436.3	285.33
Dombivali CETP Phase-II								
		2009	2010	2011	2012	2013	2014	2015 (Upto Aug-15)
pH	5.5-9	7.78	7.31	7.02	7.01	7.37	7.3	7.0
BOD	100 mg/lit	107.6	265.8	233.6	127.1	175.1	154.7	238.3
COD	250 mg/lit	305.1	804.3	619.4	328.7	428.0	393.4	514.7

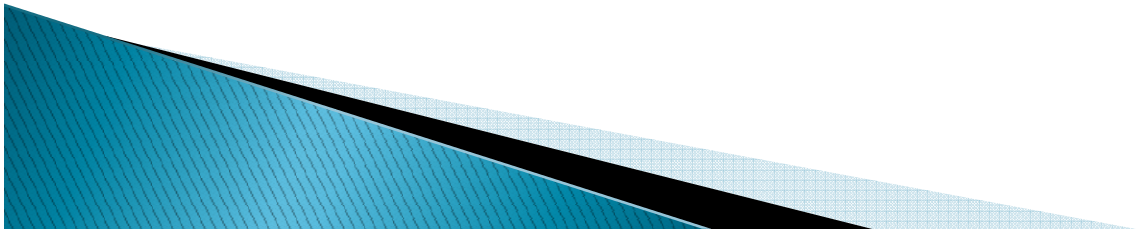
S.N.	Action Point	Compliance
5.	Repairing of leakages of Effluent carrying pipeline & its replacement :-	➢ Length of internal effluent carrying pipeline is 30.40 KM. MIDC has replaced same with HDPE line. ➢ Total no. of chambers is 1290. Out of 1290 chambers ,265 new chambers are constructed by MIDC. ➢ There are frequent leakage/breakdown of pipeline chambers which should be attended by MIDC on priority.
6.	Laying of closed pipeline for disposal of treated effluent from CETPs up to Creek:-	➢ Local body KDMC has issued NOC for laying pipeline. ➢ From DBESA to creek 0-1500 mtrs. laying of pipeline work is completed & commissioned. ➢ From 1500 meter to 4650 meter. The NIO has recommended disposal point at 4650 mtrs. away. Now MIDC has requested NIO to reconsider the disposal point. It is expected the NIO should submit report Dec-2015.

S.N	Action Point	Compliance
7.	VOCs Monitoring :-	➢ VOC monitoring carried in 2011 & 2014 in MIDC Dombivali area & at residential area at different locations along with CETP on behalf of Board. Further the industries are issued SCN & they are completed the work of upgradation of APC.
8.	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 :-	➢ Length of internal effluent carrying pipeline is 30.40 KM. MIDC has replaced same with HDPE line. ➢ Total no. of chambers is1290. Out of 1290 chambers ,265 new chambers are constructed by MIDC. ➢ MIDC has completed above work.

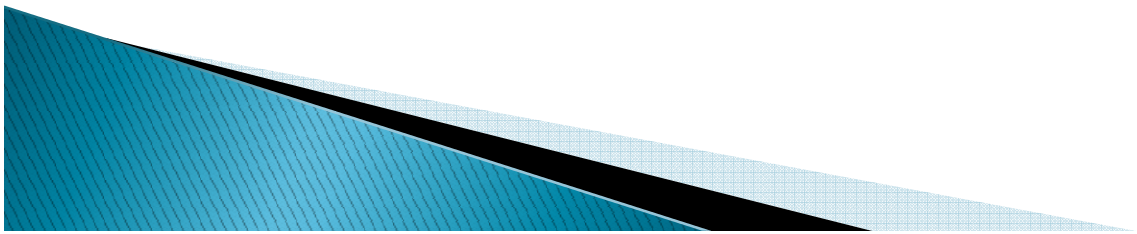


S.N	Action Point	Compliance
9 (a).	Provision of continuous power supply to CETPs:-	➢ DCETP & DBESA CETP has installed D.G. sets.
9 (b)	Provision of continuous power supply to Pumping station:-	➢ MIDC has installed D.G. set.
9 (c)	Provision of continuous power supply to STP & Pumping station:-	➢ KDMC has installed DG set for their newly commissioned 2 STP's and pumping stations.

S.N	Action Point	Compliance
10.	Performance evaluation of air pollution control measures in the industrial units:-	➢ The industries in area stopped using pet coke & started using fuel as Coal or LDO/FO. ➢ The industries are upgraded their APC systems. ➢ Regular compliance is monitored by Board Officials.
11.	Inventorying of units carrying out reactions in open vessels and Ensuring closed operations with adequate APCMs:-	➢ MPCB has carried out survey of industrial unit in MIDC area. No such unit observed.
12.	Inventorying of Hazardous Air Pollutant emitting units And Installation of Leak Detection and Repair (LDAR) in case of pesticide and bulk drug manufacturing units:-	➢ LDAR is installed by one pesticide & one bulk drug unit.



S.N	Action Point	Compliance
13.	Provision of new AAQM station :-	➢Under SAMP/ NAMP two AAQM station @ DCETP MIDC Phase-II & MIDC Office, Phase-I Dombivali commissioned. ➢Both are in operations from May 2012. ➢Stations are operated by M/s. Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar.
14.	Installation of CAAQM Stations :-	➢ Work of installation of one CAAQM stations is in progress.
15.	Online Display of AAQM data	➢ In progress.



Average AAQM Report from April – June-2015

Parameter		So2			NOx			SPM	
Standards ug/m3		80			80			500	
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
Location :- MIDC Office, Dombivali.									
Readings	14	44	19.68	35	95	53.3	94	202	127.76
Location :- DCETP, MIDCPhase-II, Dombivali.									
Readings	13	28	19.88	39	65	51.17	113	156	129.73

S.N	Action Point	Compliance
16.	Repairing of internal roads & proper maintenance of the same:-	➢ Partially Cement roads are constructed & regular maintenance is carried by MIDC.
17.	Inventory of solvent using industry & solvent recovery units:-	➢ 4 Nos. of solvent recovery plants. Out of which 2 are captive. One industry is closed & one industry is carrying solvent recovery on job work basis.
18.	Ground water monitoring:-	➢ MPCB has started ground water monitoring at 3 locations, i.e. (1)KAMA Office, MIDC, PH-I , (2) Near Pimpleshwar Mandir, MIDC, PH-II, Near M/s Altra Pure Rasayan, MIDC, PH-II, Dombivali. ➢ Also above locations brought under the purview of SWMP.
19.	Health Impact study:-	➢ Large industries are carried out the Health Impact studies.

S.N.	Action Point	Compliance
20.	Proper storage & regular disposal of HW & solid waste:-	➢ All industries are member of CHWTSDF & regular collection and transportation is done by CHWTSDF, Taloja. ➢ The industries from the area have send their HW during year 2010-6758 Tons/Yr. & during 2014- 10720 Tons./Yr. ➢ Also regular monitoring of inds. are carried out by MPCB.
21 & 22.	Awareness Program & Monitoring Vision:-	➢ Regular Review meeting are held for up gradation work of CETP by Board Officials. ➢ Tree plantation program is undertaken by MIDC & industrial associations. ➢ MPCB recently organized the seminar on ETS with J-PAL appointed by CPCB & carried out stack monitoring at MIDC, PH-I & PH-II, Dombivali in Oct-Nov-14. ➢ MPCB has conducted meeting for the progress of Dombivali action plan & smell nuisance in surrounding area with stake holders in July-2015.

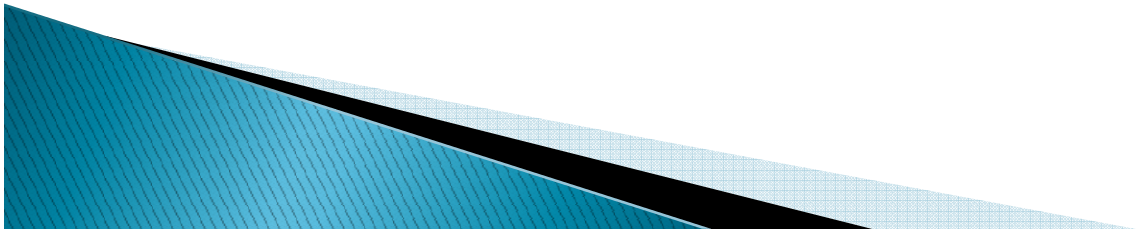
Long Term Action Plan

S.N	Action Point	Compliance
1.	Amalgamation of CETP Textile & CETP Chemical and upgradation of CETP Textile:-	➢ Amalgamation of CETP will not be appropriate as both CETP governed by separate industrial association. ➢Presently there is no consideration by both the CETP for amalgamation. ➢But the load coming from chemical industries of high COD is mixed with considerable quantity of low COD effluent from textile industries in common sump in order to reduce COD load by dilution factor and then distributed to both CETP for further treatment.
2.	Recycling of treated effluent:-	➢ Some industries from Dombivali area is started recycling of the effluent up to 20%.

S.N	Action Point	Compliance
3.	Providing underground drainage network for collection of sewage from remote area/ Grampanchyat area:-	➢ No progress is observed in this matter from MIDC / Grampanchayat. ➢ The CETP has prepared DPR to collect 4.5 MLD sewage from the area.

S. N	Action Point	Compliance
4 a.	Providing STP for domestic effluent of residential colony developed by MIDC. Treated water can be used for gardening.	➢ The CETP has prepared DPR to collect 4.5 MLD sewage from the area.
4 b.	Providing STP for KDMC area:-	➢ KDMC has started work of 6 new STP. ➢ Out of 6 STP's, 2 STP's are commissioned having capacity of 73 MLD. Work of 4 STP's completed and commissioned by December 2015, as reported by KDMC.
5.	Provision of continuous power supply to STP & their pumping station:-	➢ KDMC has installed DG set for their new STP & Pumping stations.

S.N	Action Point	Compliance
6.	Introduction of Cleaner fuel like CNG/LPG:-	➢ Work of installation of Gas pipe line by Mahanagar Gas authority in Dombivali MIDC area is in progress. ➢ As informed by M/s. Mahanagar Gas authority, gas will be available in Dombivali MIDC Area by Dec. 2016.
7.	The vehicles in this area shall use clean fuel as LPG/ CNG:-	➢ Under RTO, Kalyan 6673 Riksha & Taxi and 1719 LMV Car are converted on LPG fuel. This process is ongoing.



S. N	Action Point	Compliance
9 a.	Illegal & unscientific dumping of municipal solid waste by Grampanchayat's in industrial area as well as in residential area :-	➢ MIDC has stopped illegal disposal & dumping of solid waste at one place & another places are still continuing. ➢
9 b.	Scientific treatment & disposal of MSW- KDMC:-	➢ MPCB has filed the case against KDMC in the court of Kalyan as per the directives of Hon'ble High Court. ➢ KDMC is disposing MSW at Adharwadi site illegally and unscientifically, hence case is filed in the court of Kalyan. ➢ KDMC has obtained Authorisation from MPCB for new site at Umbarde, Barwe & Manda Kalyan. ➢ Board is forfeited BG of Rs. 5.00/- lacks from KDMC for not starting work of new site. New BG of Rs. 10.00 Lakhs is submitted.

S. N	Pending Issue	Authority
1.	Treated effluent Disposal line from CETP to Creek	➢ MIDC has provided close pipeline upto 1.5 KM & discharging the PH-I CETP effluent at Khambalpada Nalla. The work of laying pipeline from PH-II CETP to PH-I CETP is completed about 50% & it is reported that the work will be completed by March-2016. The disposal point is not as per the recommendation of NIO.
2.	Illegal & unscientific dumping of municipal solid waste by Gram panchayat's in industrial area as well as in residential area	➢Grampanchyat / MIDC
3.	Sewage treatment plant for the sewage generated from residential colony developed by MIDC.	➢ The CETP authority has prepared DPR for the treatment of 4.5 MLD sewage from residential colony-MIDC.
4.	Scientific Disposal of Municipal Solid Waste in KDMC area.	➢ KDMC

Action Taken Report

- The Board is continuously initiating action against industries / local bodies since Jan-14 to till date:-
- Closure Direction: 54
- Proposed Direction: 58
- Show Cause Notice: 33

EPI- Water	In Dombivali	Score for Dombivali 2009	Score for Dombivali 2012	Score for Dombivali 2015	Remarks
A Pollutants	A1 - Presence of toxins, A2 – base on the scale of industrial activity A 1-4 >2 R 17 + 100R 54 hence A2= 5	A= A1× A2 4 × 5=20	A= A1× A2 4× 5=20	A= A1× A2 4× 5=20	A- Based on types & scale of industries, difficult to shift industries from Dombivali hence remain same.
B Pathway	B1 - Pollution Concentration , B2 - Impact on People, B3 – Impact on ecological features	B= B1+B2+B3 13+0+0=13	B= B1+B2+B3 7.0+0+0 B=7.0	B= B1+B2+B3 6 + 0+ 0 B= 6	
C Receptor	C1 - Potential affected population, C2 – Level of exposure, C3 – Risk to sensitive receptor.	C= (C1 × C2) + C3 (5×5) + 5 C=30	C= (C1 × C2) + C3 (5×5) + 5 C=30	C= (C1 × C2) + C3 (1×3) + 0 C=3	
D High Risk Element	D Additional High Risk Element	D=15	D=0	D = 10	LSI- Adequate CETP= Inadequate
	A+B+C+D =	EPI-78	EPI=57	EPI= 39	

EPI - Air	In Dombivali	Score for Dombivali 2009	Score for Dombivali 2012	Score for Dombivali 2015	Remarks
A Pollutants	A1 - Presence of toxins, A2 – base on the scale of industrial activity A 1-4 >2 R 17 + 100R 54 hence A2= 5	A= A1× A2 4 × 5=20	A= A1× A2 4× 5=20	A= A1× A2 4× 5=20	A- Based on types & scale of industries, difficult to shift industries from Dombivali hence remain same.
B Pathway	B1 - Pollution Concentration , B2 - Impact on People, B3 – Impact on eco-geological features	B= B1+B2+B3 13+0+0=13	B= B1+B2+B3 7.0+0+0 B=7.0	B= B1+B2+B3 6 + 3+ 0 B= 9	
C Receptor	C1 - Potential affected population, C2 – Level of exposure, C3 – Risk to sensitive receptor.	C= (C1 × C2) + C3 (5×5) + 5 C=30	C= (C1 × C2) + C3 (5×5) + 5 C=30	C= (C1 × C2) + C3 (1×3) + 0 C=3	
D High Risk Element	D Additional High Risk Element	D=15	D=0	D = 15	LSI / MSI- Adequate SSI & CETP= Inadequate
	A+B+C+D =	CEPI-78	CEPI=57	CEPI=47	

EPI - land	In Dombivali	Score for Dombivali 2009	Score for Dombivali 2012	Score for Dombivali 2015	Remarks
A Pollutants	A1 - Presence of toxins, A2 – base on the scale of industrial activity A 1-4 >2 R 17 + 100R 54 hence A2= 5	A= A1× A2 4 × 5=20	A= A1× A2 4× 5=20	A= A1× A2 4× 5=20	A- Based on types & scale of industries, difficult to shift industries from Dombivali hence remain same.
B Pathway	B1 - Pollution Concentration , B2 - Impact on People, B3 – Impact on eco-geological features	B= B1+B2+B3 13+0+0=13	B= B1+B2+B3 7.0+0+0 B=7.0	B= B1+B2+B3 3 + 0+ 0 B= 3	
C Receptor	C1 - Potential affected population, C2 – Level of exposure, C3 – Risk to sensitive receptor.	C= (C1 × C2) + C3 (5×5) + 5 C=30	C= (C1 × C2) + C3 (5×5) + 5 C=30	C= (C1 × C2) + C3 (1×3) + 0 C=3	
D High Risk Element	D Additional High Risk Element	D=15	D=0	D = 10	LSI / MSI/ SSI- Adequate CETP=Inadequate
	A+B+C+D =	CEPI-78	CEPI=57	CEPI=36	

Aggregate CEPI

Parameters	CPCB CEPI-2009	CEPI Score-2009	MPCB CEPI-2015	MPCB CEPI Score-2015	Remarks
Water	63.5		39.0		1) There is no buffer zone in between residential & industrial area. 2) MIDC has not completed the work of internal effluent carrying pipeline , i.e. from PH-II to PH-I . About 50 % work is completed. 3) The work of CNG gas supply to the industries is not completed & expected to complete by Dec-2015. 4) Presently domestic effluent from the area is directly discharged into nalla, which further leads to Creek. Due to above points , there is no reduction of score.
Air	66.0		47.0		
Land	57.5		36.0		
Score		78.41		54.44	

THANK YOU