

2.6.4 Infrastructure renewal

2.6.4.1 Details of existing Infrastructural facilities: -

MIDC: - MIDC has developed the industrial plots and sheds in Phase-I and Phase- II. The residential and commercial plots are developed in between Phase-I & Phase-II and surrounding phase I & phase II.

Phase-I & Phase-II Area = 244.85 Hector,

Residential Area = 103.03 Hector,

TOTAL AREA = 347.88 Hector.

Internal Roads: - The industrial plots are well connected by the 9 meter & 12 meter wide Concrete as well as asphalt roads. The roads within the industrial area are managed by MIDC & in residential area roads are managed by local Grampanchayat. Industrial area is having 22-23 kms of road, out of which Cement Concrete road is about 11-12 kms and asphalt road is about 10-11 kms. The asphalt road within residential area is about 14-15 kms.

Drainage: - MIDC has provided 18585 meters of underground effluent collection system to collect the treated effluent from industrial units for further treatment at CETPs of the area, this drainage line is regularly monitored and repaired by MIDC.

CETPs:-There are 2 no. of CETPs functioning in the industrial area.

The capacity of individual CETP is as bellows:-

- | | |
|---|-----------|
| 1) Dombivali DBESA CETP Textile (Phase-I) | = 16 MLD |
| 2) DCETP Chemical (Phase-II) | = 1.5 MLD |

2.6.4.2 Need of upgradation of existing facilities:-

Drainage: -

For Industrial Effluent:-To collect the partly treated effluent from small scale units and treated effluent from LSI & MSI units MIDC has provided 18585

meters of underground effluent collection system for further treatment at CETPs of the area, out of which 14200 meters is converted into HDPE line. Repairing of leakages of Effluent carrying pipeline & replacement of remaining with HDPE line and expected completion period upto the Dec.2010.

For Domestic effluent /sewage: - At present partly area is covered for the collection of sewage generated from MIDC residential area and needs to cover collection system from the remaining remote area / Grampanchyat area.

Sumps:- MIDC has provided two sumps of 6 MLD and 4 MLD capacity in phase-I & Phase- II respectively. The capacity of the sump shall be increased to sustain overload problems arises at the time of maintaince and during power failure period.

CETPs: - Upgrading both the CETPs by providing tertiary treatment facility. CETP shall provide on line pH meter, flow meter. Both CETP shall install adequate capacity DG set.

Treated water Disposal Line: - Laying of 7.0 km closed pipeline for disposal of treated effluent from CETPs upto Creek.

At present the treated effluent from CETPs & untreated domestic effluent from residential areas is discharged into Natural Nalla at Khambalpada Nalla & Bhopar Nalla which flows through residential area and giving chance for frequent complaints of smell nuisance. To avoid air pollution problem it has been decided to dispose these treated effluent in to deep creek area through closed pipeline, as per guidelines of the NIO.

STP: - Provision of 52 MLD STP for the treatment of domestic effluent from MIDC residential area.

Others: - 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.

2.6.4.3 De-silting of water tanks drains connection: - It is necessary to carry out de-silting of MIDC collection sump, CETP equalization tank, effluent collection drainage pipeline/ chamber and nalla on regular basis.

2.6.4.4 Construction of lined drains/ connections: - At present there are many leakages at various locations in the drainage pipeline & existing drainage pipeline is very old. The repairing & replacement will help avoid leakage of effluent into the nalla. MIDC has already started the work and will be completed by December 2010.

2.6.4.5 Treatment and management of contaminated surface water bodies:-

There are no such type water bodies existing in this cluster.

2.6.4.6 Rejuvenation /management plan for important eco-geological features:-

There is no presence of eco-logical features in this industrial cluster.

2.6.4.7 Carrying of effluent from industrial units located in non industrial locations to CETP facilities by lined drains/ pipelines only and presentation of their disposal into city sewage surface drain.:-

At present all units located outside of MIDC Dombivali cluster are connected to CETP through pipeline.

2.6.4.8 Installation of Gen sets at CETPs: - DCETP, DBESA Dombivali have installed DG set of 125KVA & 60 KVA respectively, needs to be strengthen by way of increasing DG set capacities .

2.6.5 Managerial and Financial aspects

2.6.5.1 Cost and time estimates

Sr. No	Action Points	Agency	Time	Estimated Cost
1	Performance evaluation of Both CETPs	CETPs	Upto Dec. 2010	DCETP:- @7.0-8.0 Laks DBESA :- @ 11.0 -12.0 Lakhs
2	Providing tertiary treatment facility and advance waste water treatment using Micro	CETP	Upto Dec.2012	DCETP :- upgradation along with tertiary treatment = 3.5 Crore

	Enzymes to CETPs			DBESA – upgradation along with tertiary 9.0 Crore
3	Repairing of leakages of Effluent carrying pipeline & replacement of the same	MIDC	Upto Dec 2010	Estimation work done by MIDC 2.4 Crore
4	Laying of closed pipeline for disposal of treated effluent from CETPs upto Creek	MIDC/ Grampan chayat / KDMC	Upto Dec. 2011	Work of tender documents in progress Cost estimation work done by MIDC 7.0 Crore
5	Providing underground drainage network for collection of sewage from remote area/ Grampanchayat area	MIDC / Grampan chyat / KDMC	Up to Dec 2011	Approx. estimation work done by MIDC /KDMC 4.2 Crore
5	Providing STP for domestic effluent of residential colony developed by MIDC. Treated water can be used for gardening.	MIDC /KDMC	Upto Dec. 2012	STP for 4.5 MLD :- @ MIDC 6.0 Crore & KDMC 41 Crore (Land & Equipments)
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	Upto Dec 2010	MIDC :- 25 Lacs Work is in progress

2.6.5.2 Identified private/ public sector potential sector investor & their contribution: -
N.A.

2.6.5.3 Government Budgetary support requirement:-

CETP has already obtained Subsidy for Existing plant during the construction

2.6.5.4 Hierarchical and structured managerial system for efficient implementation: -

CETP (DBESA & KAMA) Association, is a registered organization under section 25 of Companies act 1956 and is managed by well qualified & experienced Board of Directors.

2.6.6 Self monitoring system in industries: -

Some Large and Medium industries are having in-house laboratory for carrying out the analysis of effluent and some are conducting through outsourcing. All industries shall provide on line pH meter, flow meter, U tube discharge with storage tank. This will help in evaluation of pollution control system at any given point.

2.6.7 Data linkages to SPCB / CPCB (of monitoring devices):-

Proposal is being prepared in centralize manner by MPCB and is under consideration.

3.0 Air Environment

3.1. Present status of Air environment supported with minimum one year analytical data

3.1.1. Critical locations for air quality monitoring: -

At present the locations for AAQM are MilapNagar, DCETP Phase-I, DBESA CETP Phase-I. KAMA association carries out Ambient Air Quality Monitoring at different location & M/s Gharda Chemical Ltd carry out AAQM in their premises.

3.1.2. Present levels of pollutants in air (routine parameters, special

parameters and

air toxics relevant to the area in three categories- known carcinogens, probable carcinogens and other toxic) :-

Parameters	Standards 24 Hr. Average	Location			
		Milap Nagar	DBESA Phase-I	DCETP Phase-II	Casablanka Society, Near Phase I
SO ₂	80	15.85	9.9	10.82	6.83
Nox	80	13.35	14.89	24.35	7.83
RSPM	100	266.5	322.5	344.5	95.66
CO	2	0.78	0.81	0.785	7.83

Ambient Air Quality Monitoring Analysis Reports of CPCB

Date:- 15, 16 & 17December 2009

Location details:- At CETP Chemical Dombivali Phase-II

Air Pollutant	Lead	Benzene	Benzo(o) pyrene	Arsenic	Pm10	Nickel	SO ₂	NO ₂	CO	O ₃
Standards for 24 hrs. $\mu\text{g}/\text{m}^3$	0.5	5.0	1.0	6.0	100.0	0.02	80.0	80.0	2000.0	100.0
Sample-1	0.18	23.1	0.03	<0.1	165.8	<0.1	21.3	20.2	690.0	4.2
Sample-2	0.19	19.8	0.01	<0.1	91.4	<0.1	19.8	16.9	720.0	5.2
Category	C	C	C	C	B	B	A	A	C	C

A- Pollutants with no acute or systemic carcinogenicity

B- Probable Carcinogens

C- Known carcinogen

3.1.3. Predominant sources contributing to various pollutants:-

Following sources are identified which contributes to various pollutants

- (i) Industries – Flue gas, TPM, SPM, SO₂, No_x, Cl₂, NH₃, Acid Mist, VOC etc.
- (ii) Vehicles – SPM, SO₂, RSPM, No_x, Dust particules.
- (iii) Construction activities – Dust particules,
- (iv) Public places – Dust particules.
- (v) Unauthorized burning of domestic and other waste in MIDC & residential areas

3.2. Sources of air Pollution viz industrial, domestic (Coal & Biomass burning), natural and Transport & Heavy Earth Movers:-

1. Industry – Fuel burning, Process Emissions, fugitive emission.
2. Domestic – Coal and biomass burning.
3. Transport – Fuel combustion,
4. Heavy Earth Movers – Fugitive emissions.

3.3. Air Polluting Industries in the area / cluster:-

Number of air polluting Industries: - 129

(1-Large Scale, 7-Medium Scale & 121 Small Scale Industries)

Majority of industries are burning coal as a fuel for boiler however few industries which are mostly in small scale category having process emissions and are having their own APC such as scrubbers according to their type of gases emission which are bulk drug, dye intermediates and one major pesticides industry. All these industries are scattered.

3.4. Impact of activities of nearby area on the CEPI Area:-

- 1) Unscientific burning of MSW,
- 2) Thick Vehicles population,
- 3) Construction activities,
- 4) Adulteration in fuel by public transport vehicles such as Autorikshaw ,taxies Tempo.

3.5. Quantification of the air pollution load and relative contribution by different sources:-

Sr.Nn	Fuel	Consumption Quantity	SO ₂ Load
1	Coal	450 MT/D	4.5 MT/D
2	LDO	30 KI/D	1.08 MT/D
3	F.O.	6 KI/D	0.054 MT/D

3.6. Action Plan for compliance and control of pollution:

3.6.1. Existing infrastructure facilities –

At present there is no continuous ambient air quality network. Occasional monitoring is carried. Strengthening of AAQM network is proposed at 5 locations namely at Phase I, Phase II, residential area between phase I & Phase II, Gandhi nagar & Dombivali station area under SAMP/NAMP.

3.6.2. Pollution control measures installed by the individual sources of pollution:-

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.

3.6.3. Technological Intervention

3.6.3.1. Inventorisation of prominent industries with technological gaps:

Inventorisation is not done however industrial sector wise assessment of existing processes for manufacturing and treatment will be assessed and in coordination with these prominent industries the further developments for reduction in technological gaps will be initiated. In case of VOCs the industries will be identified and the monitoring will be strengthened. Majority of industries are textile based and very few industries are chemical as mentioned bellow.

Type	Large	Medium	Small	Total
Bulk Drug	--	01	20	21
Pesticides	01	--	--	01
Dyes & Intrmediates	--	01	07	08
Total	01	02	27	30

3.6.3.2. Identification of low cost and advanced cleaner technology for air pollution control:-

The industries which are using solvents are very few and are small scale therefore the solvent generated from these industries is collected and send to for recovery to the authorized plants. However more emphasis is propose for monitoring VOCs at source and low cost and advanced cleaner technologies will be identified and adopted in coordination with industries and expertise in the field after interaction. At present M/s Gharda Chemical Ltd as a LSI, has undertaken cleaner technology for reduction in VOCs.

3.6.3.3. Introduction and switch over to cleaner fuel Need of

infrastructure Renovation: - At present most of the industries are using coal as a fuel for steam generation, being a mixed zone the Cleaner fuel such as Gas will be replaced for conventional fuel, which is under consideration with the industries association and

the GAIL authority. Which will bring down the sulphur and TPM load in the atmosphere which is at present 4.5 TPD of SO₂. Calculated on total consumption of coal per day.

3.6.4 Need of Infrastructure Renovation:-

3.6.4.1. Development of roads: - By concretization / repairing, proper maintenance of internal roads will help reduce emissions & air pollution.

3.6.5 Impact on CEPI score after installation/ commissioning of unfledged air pollution control systems:-

	A1	A2	A	B1	B2	B3	B	C1	C2	C3	C	D
Existing	6.0	5.0	30.0	6.0	0.0	0.0	6.0	5.0	3.0	0.0	15.0	15.0
Post Action plan	4.0	5.0	20.0	5.0	0.0	0.0	5.0	5.0	2.0	0.0	10.0	10.0

Existing Air CEPI = 66.0

Post Action Plan = 45.0

3.6.6 Managerial and Financial aspects-

3.6.6.1 Cost and time estimates:-

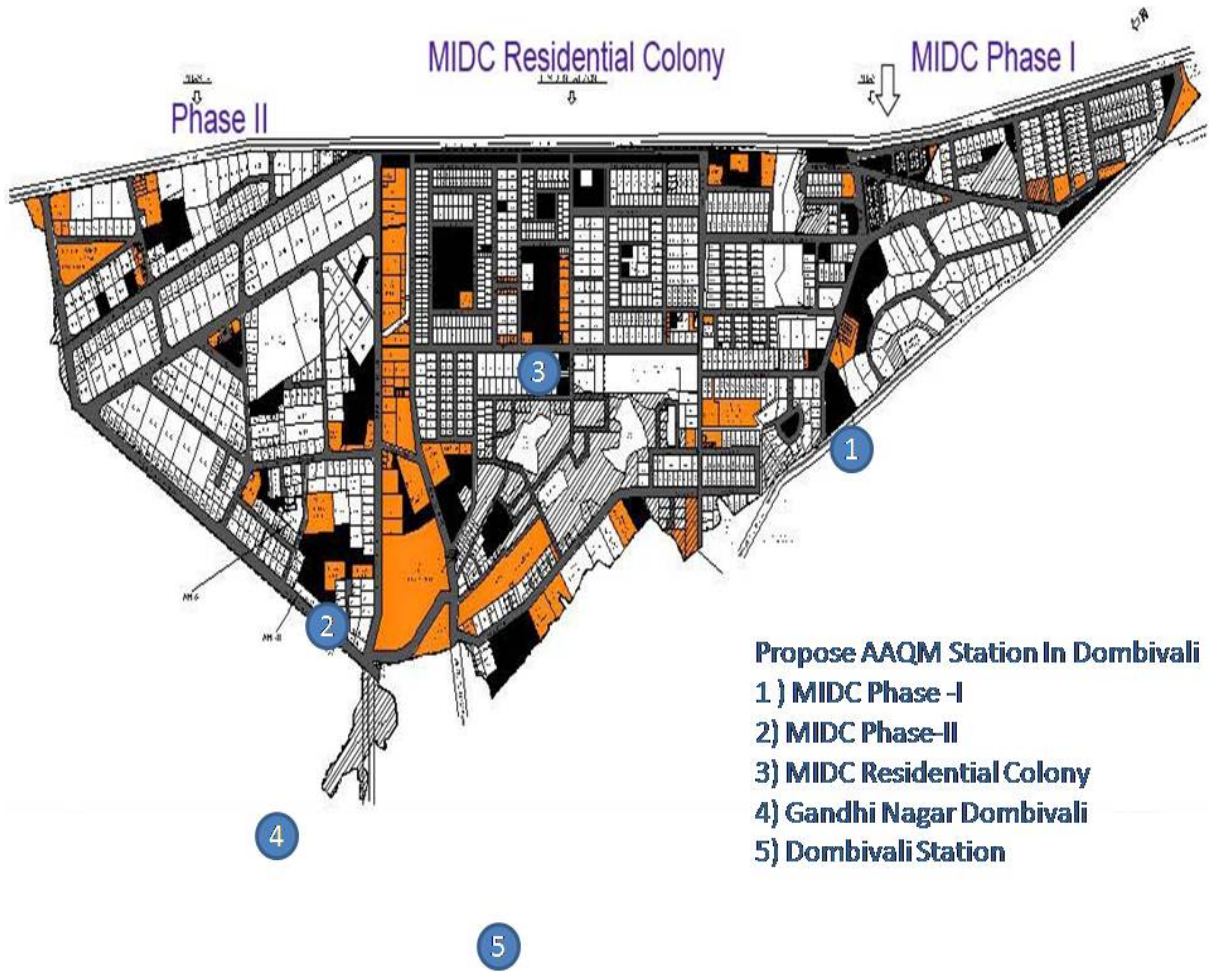
Sr. No	Action Points	Agency	Estimated Cost
1	Inventorizing of Hazardous Air Pollutant emitting units And Installation of Leak Detection and Repair (LDAR) in case of pesticide and bulk drug manufacturing units .	MPCB/ Individual industry	LDAR =10 Lacs 6 Bulk drug and pesticide industries Total cost:- 60 Lacs

2	Introduction of Cleaner fuel like CNG/LPG	GAIL/ KAMA	GAIL / KAMA - 8.0 Crore Gas station & pipeline
3	Installation of CAAQM Stations	MPCB/ KAMA	KAMA : 60 Lacs With Digital output on screen
4	Stranger of new AAQM station	KAMA / MPCB	MPCB:- 40 Lacs Equipment & operation for one year
5	On Line Display of AAQM data	KAMA	KAMA:- 5.0 Lacs
6	Development of Green belt & garden	MIDC/ KAMA	MIDC/KAMA:- 50 Lacs
7	Repairing of internal roads & proper maintenance of same	MIDC	Cost estimation work done by MIDC

3.6.6.2. Identified Private/ Public sector potential investors & their contribution/ obligation: - N.A.

3.6.6.3 Government Budgetary support requirement:-

Strengthening of AAQM network is proposed at 5 locations namely at Phase I, Phase II, residential area between phase I & Phase II, Gandhi nagar & Dombivali station area. Estimated cost of 50 lacks per year, and one continuous AAQM station with display with estimated budget of Rs. 1.0crore





3.6.6.4 Hierarchical and structured managerial system for efficient implementation: N.A

3.6.7 Self monitoring system in industries (Stacks, APCDs) :- Some Large and Medium industries are carrying out the analysis of Stack and APCDs is outsourcing by individual industries .

3.6.8 Data linkages to SPCB / CPCB (of monitoring devices) :- Proposal is being prepared in centralize manner by MPCB and is under consideration.

4.0 Land Environment (Soil & Ground Water)

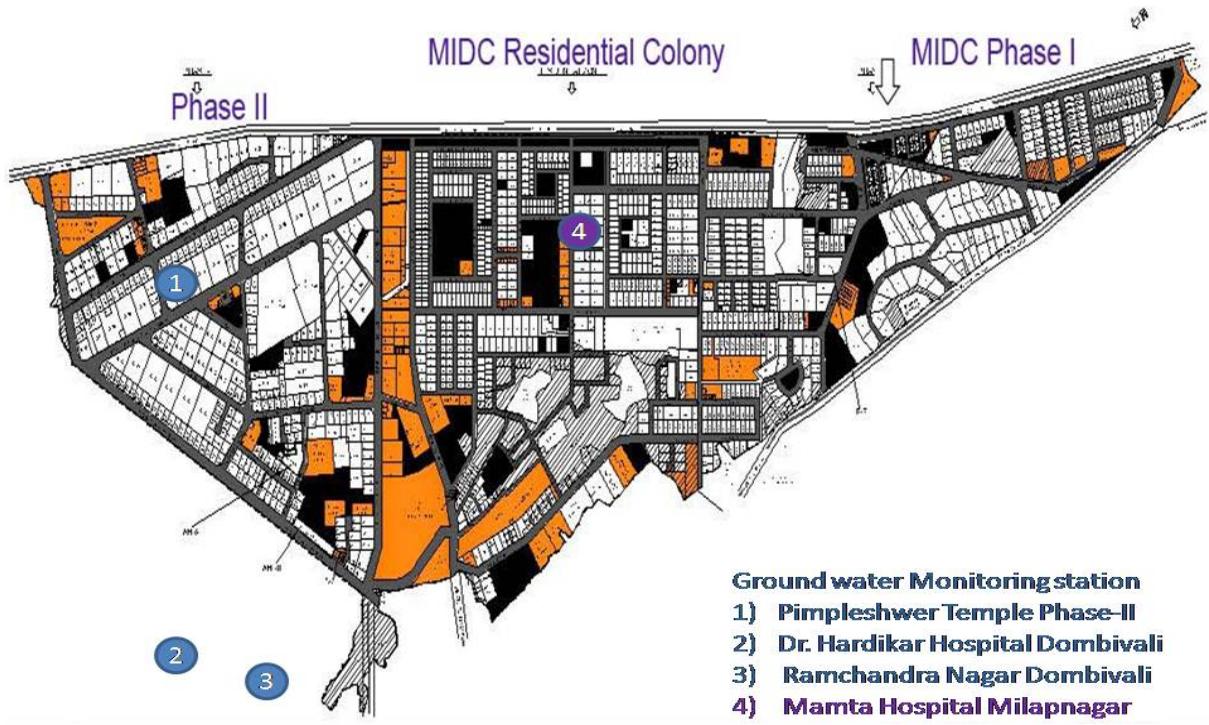
4.1. Soil contamination

4.1.1. Present status of land environment supported with minimum one

year analytical data: - The industries in this industrial cluster generate H.W. and for the disposal of the same are member of CHWTSDF and are regularly disposing the H.W through the facility transporter. The storage and transportation of H.W in the industries is in accordance with the guideline given under H.W. rules. There is no on-land discharge of industrial effluent by industries or the CETPs. Hence the chances of soil contamination are very less.

4.1.2. Critical locations for land/ soil pollution assessment and ground water monitoring.- The critical locations near unscientific dumping of MSW in the industrial area will be identified for land /soil pollution assessment and ground water monitoring.

4.1.3. Present levels of pollutants in land/soil and ground water (routine parameters. Special parameters and water toxics relevant to the area in three categories - known carcinogens, probable carcinogens and other toxics):- -Location has been identified at Pimpleshwer Mandir Phase II MIDC, Ramchandra Nagar Residential Area, Near Hardikar Hospital Dombivali.



4.1.4. Predominant sources contributing to or posing danger of pollution

of land and ground water such as hazardous/ toxic wastes or chemicals dumps/ storage etc.:

- In the industrial area all the process waste generated by industries is send to, CHWTSDF, however only during the rainy seasons there are chances of seepage with rain water runoff. Due to illegal dumping of MSW chances of ground water pollution due to leacheates.

4.1.5. Sources of Soil Contamination:-

As the industrial area and its surrounding falls under different Grampanchyat, which is now urbanized therefore approximately 200 MT/D MSW generated from this area is collected and dumped at different open land in the MIDC and hence due to which there is contamination of soil and it is proposed to undertake soil analysis for which additional budget has to be allotted.





4.1.6. Types of existing pollution:-

As specified above

4.1.7. Remedies for abatement, treatment and restoration of normal soil quality:-

- the issue of illegal dumping of MSW in the industrial area was taken up by the Board with the gram panchyat, KDMC, and the MIDC, and it was agreed by the KDMC to permit the Grampanchyat for dumping their MSW at the KDMC site, which is so far not resolved and the matter is being persuade to stop the dumping of MSW in MIDC with the Grampanchyat & KDMC. A litigation has been filed in the court by the association against the Grampanchyat and is pending.

4.2. Ground water contamination

4.2.1. Present status/ quality of ground water

Location	pH	COD	BOD	DO	O & G	S.S.
Well near Pimpleshwar Mandir	7.11	36.00	6.00	...	BDL	18.00
Well near Dr. Hardikar Hospital	7.5	16.0	4.0	6.3	BDL	14.0
Bore Well at Ramchandra nagar	8	48	4	6.8	BDL	12

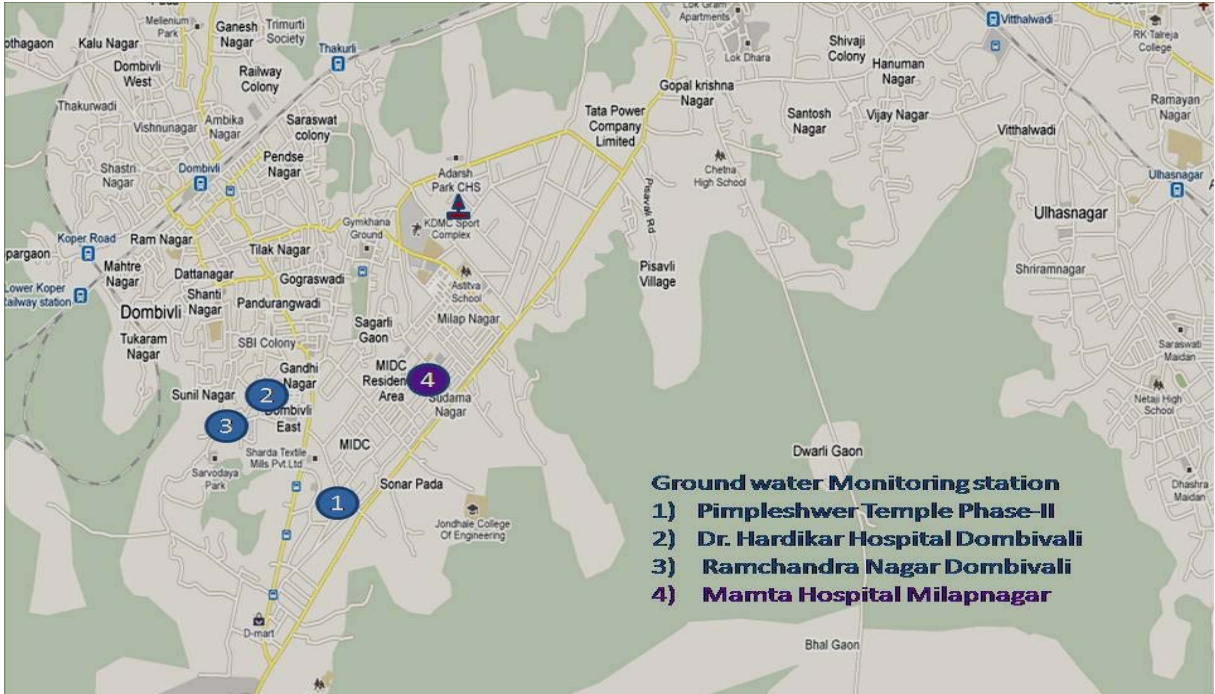
4.2.2. Source Identification (Existing sources of Ground water Pollution)

- 1) Leachates from illegal dumping of MSW,
Breakages & leakages in pipeline/drainage carrying effluent,
- 2) Illegal disposal of liquid chemical waste in to the nallas & drains flowing through MIDC by tankers

3) Disposal of treated effluent from CETPs through open nalla.

4.2.3. Ground water quality monitoring program:-

Location will be identified and monitoring will be carried out.



4.2.4. Action Plan for control of pollution including cost/ time aspects:-

Sr. No	Action Points	Agency	Estimated Cost
1	Scientific Disposal of municipal solid waste by Grampanchayat & MIDC	Grampanchayat/ MIDC	Rs:- 122 Crore Land , Equipment & treatment on previous dumped MSW
2	Repairing of leakages in pipeline/drainage carrying effluent& replacement of the same	MIDC	Estimation work done by MIDC 2.4 Crore
3	Ground water monitoring	MPCB / CETP	5 Lacs / Year

4	Laying of closed pipeline for disposal of treated effluent from CETPs upto Creek	MIDC	Estimation work done by MIDC 7.0 Crore
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4.2.5. Treatment and management of contaminated ground water bodies, etc.:

4.2.6. Impact on CEPI score after abatement of pollution

	A1	A2	A	B1	B2	B3	B	C1	C2	C3	C	D
Existing	3.0	5.0	15.0	8.0	1.5	3.0	12.5	5.0	3.0	5.0	20.0	10.0
Post Action plan	2.0	2	10.0	6.0	1.5	3.0	10.5	5.0	2.0	4.0	14.0	5.0

Existing Land CEPI = 57.50

Post Action Plan = 39.5

4.3. Solid waste Generation and management

4.3.1. Waste classification and Quantification

4.3.1.1. Hazardous waste:-

Approx. 320.00 MT/M

4.3.1.2. Bio-medical waste:-

Approx. 535.00 Kg/D (Includes all hospitals within corporation limits)

4.3.1.3. Electronic waste:-

Not quantified

4.3.1.4. Municipal solid Waste:-

Approx 550 MT/D (by the corporation)

4.3.1.5. Plastic waste: -

Not quantified

4.3.1.6. Quantification of wastes and relative contribution from different sources:-

Not quantified

4.3.2. Identification of waste minimization and waste exchange options:-

Inventorisation is not done however industrial sector wise assessment of existing processes for manufacturing and treatment will be assessed and in coordination with these prominent industries the further developments for reduction in technological gaps will be initiated.

4.3.3. Reduction/ Reuse/ Recovery / Recycle options in the co-processing of wastes.:

Inventorisation is not done however industrial sector wise assessment of existing processes for manufacturing and treatment will be assessed and in coordination with these prominent industries the further developments for reduction in technological gaps will be initiated.

4.3.4. Infrastructure facilities:-

4.3.4.1. Existing TSDF / Incineration facilities including capacities:-

- 1) There is no CHWTSDf, but all industries are member of CHWTSDf facility located at Taloja and TTC.
- 2) CBMWSTDF facility at Vill- Umbarde, Kalyan having capacity- 3MT/D.
- 3) MSW dumping site provided by the corporation at

Adharwadi, Kalyan.

4.3.4.2. Present status/ performance and need of up gradation of existing facilities

including enhancement of capacities:-

MSW facility is being upgraded by corporation and the further enhancement under consideration.

4.3.4.3. Treatment and management of contaminated waste disposal sites, etc.

4.3.4.4. Impact on CEPI score after proper management of Solid Wastes.

	A1	A2	A	B1	B2	B3	B	C1	C2	C3	C	D
Existing	3.0	5.0	15.0	8.0	1.5	3.0	12.5	5.0	3.0	5.0	20.0	10.0
Post Action plan	2.0	2	10.0	6.0	1.5	3.0	10.5	5.0	2.0	4.0	14.0	5.0

Existing Land CEPI = 57.50

Post Action Plan = 39.5

5. PPP Model

5.1. Identification of project proposals (for both the options i.e. technology intervention and infrastructure renewal) for implementation under the PPF mode under the Action Plan.

- 1) Provision of STP.
- 2) Scientific disposal facility for MSW.
- 3) Energy conservation by use of non conventional energy.
- 4) Reducing Traffic congestion by widening of road and construction of flyovers
- 5) Developing green belt.
- 6) Rain Waterharvesting & water conservation program..

5.2. Identification of stakeholders/ agencies to be involved and to

evolve financial and managerial mechanisms for implementation of PPP projects.

- 1) KDMC
- 2) MIDC
- 3) CETP
- 4) Industrial association

6. Other infrastructural Renewal measure:

6.1. Green Belts - 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.

6.2. Development of Industrial Estate(s). :-

Not relevant

6.3. Development / shifting of industries located in the non – industrial areas to the existing / new industrial estates.-

Not proposed.

7. Specific Scheme:

7.1. GIS-GPS system for pollution sources monitoring.

Not relevant to this area.

7.2. Hydro-geological fracturing for water bodies rejuvenation.

Not relevant to this area.

7.3. In-situ remediation of sewage.

Not relevant to this area.

7.4. Utilization of MSW inert by gas based brick kilns.

Not relevant to this area.

7.5. Co-processing of wastes in cement industries.

Not relevant to this area.

8. Public awareness and 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.

9. Overall Impact of installation/commissioning of pollution control equipments/measures on the CEPI Score.

Parameter	Present CPCB CEPI	Post Action Plan
Water	63.5	44.0
Air	66.0	45.0
Land	57.5	39.5

10. Assessment of Techno-economical feasibility of pollution control equipment / measure on the CEPI scores.

Low cost and advanced cleaner technologies will be identified and adopted in coronation with industries and expertise in the field after interaction

11. Efforts shall be made to encourage use of Bio-compost and Bio-Fertilizer alongwith the chemical fertilizer in the state to minimize the unutilized chemical fertilizer run-off into the natural water resources from agriculture fields (through Govt. policy)

This point will be covered in public awareness program.

12.1. Short Term Action Point (upto 1 year, including continuous Activities)

Sr. No	Action point	Responsible stake Holder	Time Limit	Estimated Cost	Remarks
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 equipments (Pg.51.12.1.1)*	Industry / MPCB / CETP	June 2011	Total Amount for all industries having Industrial Effluent < 25CMD Is about 2,10,000 x 70 = 147 Lacs	Survey of industrial area conducted and implementation work is in progress.
2	a)Performance evaluation of Both CETPs (Pg.51.12.1.2)* b.)Optimization of both CETPs	CETPs / MPCB CETP	December 2010 June 2011	DCETP:- @ 7.0-8.0 Lacs DBESA :- @ 11.0 -12.0 Lacs CETP :- 25 Lacs computer Modeling	CETP has already started works. ----- Will be decided after studying the performance of CETP up gradation work.
3	Taking possession of drainage pipeline carrying effluent to CETP by CETPs (Pg.52.12.2.2)*	CETP & MIDC	June 2011	Estimation work done by MIDC	Appropriate direction will be issued to MIDCs regarding handover to CETP.
4	Providing tertiary treatment facility and advance waste water treatment. (Pg.52.12.2.3)*	CETP	Sept. 2011	DCETP :- upgradation along with tertiary treatment = 3.5 Crore DBESA - upgradation along with tertiary treatment = 15Crore	Presently upgradation of secondary treatment is in progress and will be completed by Dec. 2010.
5	Repairing of leakages of Effluent carrying pipeline & replacement of the same (Pg.51.12.1.3)*	MIDC	March 2011	MIDC:- 198 Lacs	Work has been started by MIDC.

6	Laying of closed pipeline for disposal of treated effluent from CETPs upto Creek (Pg.52.12.2.4)*	MIDC/ Grampanchayat / KDMC	Sept. 2011	Work of tender documents in progress	MIDC has prepared revised ADP and obtained NOC from KDMC.
7	VOCs Monitoring (Pg.51.12.1.4)*	MPCB	June 2011	5 Lacs	Monitoring will be carried out.
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 (Pg.51.12.1.5)*	MIDC/ KAMA/ CETPs	December 2011	MIDC :- 25 Lacs	Work is in progress.
9	a. Provision of continuous power supply to CETPs b. Provision of continuous power supply to Pumping Station	CETP / MSEDCT MIDC	March 2011 March 2011	CETP Textile :-72 Lacs for DG Set 500KVA	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 supply. Recommendation letter issued to Chief Engineer, MSEDCL. MIDC has installed DG set at one pumping station.
10	Performance evaluation of Air pollution control measures in the 345 industrial units with respect to efficiency, operation, maintenance and implementation of maintenance/operation charter along with upgradation of Air pollution control equipments (Pg.52.12.1.6)*	Industry / MPCB	June 2011	On line SO2 /SPM /NOx Meter :- 236.36 Lacs Total Amount for all Large and medium scale industries.	Survey of industrial area conducted and implementation work is in progress.
11	Inventorizing of units carrying out reactions in open vessels And Ensuring closed operations with adequate APCMs (Pg.53.12.2.7)*	MPCB Industry.	Sep 2011	Approx. estimation work done by MIDC /KDMC	Work is in progress, necessary circular & instruction have been issued to take necessary measures.

				4.2 Crore	
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. (Pg.53.12.2.8)*	MPCB/ Individual industry	March 2011	LDAR =10 Lacs Total cost:- 60 Lacs	One large & one small industry have installed LDAR.
13	Provision of new AAQM station (Pg.52.12.1.7)*	KAMA / MPCB	June 2011	MPCB:- 40 Lacs	Work order already issued to installed AAQM station to local Educational institutes.
14	a. Installation of CAAQM Stations (Pg.53.12.2.10)*	MPCB/ KAMA	Sept. 2011	KAMA : 60 Lacs	Subject to availability of funds. Order for manual AAQM work placed.
15	Online Display of AAQM data (Pg.53.12.2.11)*	KAMA	Sept. 2011	KAMA:- 5.0 Lacs	Proposal under preparation.
16	Repairing of internal roads & proper maintenance of same (Pg.52.12.1.8)*	MIDC / Grampanchayat	Dec.2011	Estimation work done by MIDC	Work in progress.
17	Inventory of solvent using industry & solvent recovery units	MPCB	June 2011		Units were identified and installed solvent recovery system. Monitoring of efficiency is in progress.
18	Ground water monitoring (Pg.52.12.1.9)* <i>[Locations:</i> <i><u>Open Well</u></i> <i>1. Pimpleshwer Temple Ph-II</i> <i>2. Dr. Hardikar Hospital Dombivali</i> <i>3. Ramchandra Nagar Dombivali</i> <i>4. Mamta Hospital Milpnagar</i> <i><u>Bore Well</u></i> <i>1.Opp KAMA office Phase I</i>	MPCB / CETP	On Going exercise	5 Lacs / Year	MPCB has already started ground water Monitoring at 5 locations in an around MIDC.
19	Health Impact Study	DISH / KDMC / PHC	June 2011		Health related data will be obtained from concerned health authorities.
20	Proper storage & regular disposal of Hazardous waste & solid waste.	Industry/ CHWTSDF/ MPCB	June 2011		All industries are member of CHWTSDF & regularly disposing

	(Pg.53.12.2.14)*				H.W.
21	Awareness Programe	MPCB/CETP KAMA / KDMC /IMA	June 2011		Awareness Programe is organized through WED , Earth Day, O ₃ Day. Tree plantation in industrial area by Industry and KAMA. Propose to organize workshop on Pesticide industries by MPCB in Nov.2010.
22	Monitoring Vision	MPCB	Dec.2010		MPCB will take point wise review quarterly.

12.2. Long Term Action Points (more than 1 year)

Sr. No	Action point	Responsible stake Holder	Time Limit	Estimated Cost	Remarks
1	Amalgamation of CETP Textile & CETP Chemical and upgradation of CETP Textile (Pg.52.12.2.1)*	CETP Textile & CETP Chemical / MIDC	December 2012		Amalgamation of CETP will not be appropriate as both CETP governed by separate industrial Association.
2	Recycling of treated effluent	Industry / CETP / MPCB	December 2012		Possibility of recycling of treated effluent is being assessed by industry

					as well as MPCB.
3	Providing underground drainage network for collection of sewage from remote area/ Grampanchyat area	MIDC / Grampanchyat / KDMC	Dec 2012		Appropriate direction will be issued to MIDC/Local Grampanchyat .
4	a. Providing STP for domestic effluent of residential colony developed by MIDC. Treated water can be used for gardening. (Pg.52.12.2.6)* b. Providing STP for Kalyan – Dombivali Corporation area [Existing 2 STP of capacity 30MLD at Motagaon & Adharwadi]	MIDC /KDMC KDMC	June 2012 June 2012	STP for 4 MLD :- @ 400 Lacs	KDMC has already issued work order for new 6STP of total capacity 123 MLD & work is in progress.
5	b. . Provision of continuous power supply to STP & their pumping station	KDMC	December 2012		Appropriate suggestion will issued to KDMC.
6	Introduction of Cleaner fuel like CNG/LPG (Pg.53.12.2.9)*	GAIL/ Govt. of Maha/India / KAMA	June 2012	GAIL / KAMA - 8.0 Crore	Appropriate suggestion will issued to GAIL /MIDC/ KAMA s regarding switch over to cleaner fuel
7	The vehicles in this area shall use clean fuel as LPG/ CNG (Pg.53.12.2.12)*	RTO/ Govt. of Maha./ GAIL	June 2012		Appropriate suggestion will issued to RTO /KDMC/ KAMA s regarding switch over to cleaner fuel
8	Development of Green belt & garden (Pg.53.12.2.13)*	MIDC/ KAMA / Industry	Ongoing pcess	MIDC/KAMA: - 50 Lacs	MIDC handed over the grounds and free space to KAMA for development.
9	a. Illegal & unscientific dumping of municipal solid waste by Grampanchayats in industrial area as well as in residential area.	KDMC / Grampanchyat/ MIDC	December 2012	Rs:- 122 Crore Land , Equipment & treatment on previous dumped MSW	Identification of site by revenue authority is in progress also the KAMA has filed PIL against Grampanchyat

	b. Scientific treatment & disposal of MSW - KDMC Quantity 550MT/D	KDMC	December 2013		and others Tenders procedure is completed.
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