

# REPORT ON ACTION PLAN FOR MITHI RIVER

March, 2019

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## Mithi River (Powai to Dharavi)

### 1.1 Executive Summary

Sr. No.	Description of Item	Details		
1.	Name of the identified polluted river and its tributaries	:	Powai to Dharavi	
2.	Is river is perennial and total length of the polluted river	:	Non- perennial Length- 17.8 KM	
3.	Revised priority as per Jan. to Dec.2018 Analysis results	:	Priority I	
4.	No of drains contributing to pollution and names of major drains	:	Drains flowing through Dharavi slums	
5.	Major Towns on the banks of the river with population	:	Sakinaka, Mahim, Marol, Bandra Kurla Complex (BKC) & Dharavi areas of Mumbai Corporation. Mumbai Population - 1,40,00,000	
6.	a. Sewage generation & Treatment in MLD	:	Total Water consumption 3500 MLD Total Sewage generation 2671 MLD	
	b. Total no. of existing STPs and the total capacities in MLD	:	8 STPs in Mumbai Capacity – 2677 MLD <b>Effective Treatment Capacity – 1998 MLD</b>	
	c. Gaps in sewage treatment in MLD and no. of towns not having STPs	:	Gap in treatment – 673 MLD	
7.	Major industrial estates located with total no. of industries	:	Industrial Estate	No. of Industries
			Nil	947
	a. Total water consumption and total industrial effluent generation in MLD	:	Effluent Generation - 8.9 MLD	
	b. No. of industries having captive ETPs and their treatment capacity in MLD	:	100 % treatment capacity MPCB does not permit treated/untreated industrial effluent discharge into the River.	
	c. No of CETP's and their treatment capacity	:	No CETP in the catchment area of the river	
	d. Gaps in treatment of industrial effluent	:	No gap in effluent treatment.	
8.	Waste Management	:		
	a. Solid Waste Generation & processing	:	Generation – 7500 MT/day Treatment – 3000 MT/day Sites – Mulund, Deonar, Kanjurmarg	
	b. Biomedical Waste Generation & treatment	:	Hospitals are joined to CBMWTSDF-SMS ENVOCLEAN Pvt Ltd, Near Total collection and treatment: 22171 Kg/day	
	c. E-Waste Management Generation & treatment	:	E-waste generated by industries is sent to MPCB authorized E-waste reprocessor.	
	d. Hazardous waste Management	:	9563 TPA generated in Mumbai Corporation Area	

			9563 TPA disposed at CHWTSDF at Taloja, Mumbai. Mumbai Waste Management Ltd. – 1.2 Lacs TPA Landfill 30,000 TPA Incinerable Lifespan – 30 years from 2005
9.	Action plan includes mainly covering aspect such as (Proposal for utilisation of sewage, ground water recharging or rain water harvesting, measures for regulating ground water use, protection and management of flood plain zone, maintaining minimum E-flows and water shed management, plantation on both sides of the river, setting up of bio-diversity parks etc., as per Hon'ble NGT Orders dated 20.09.2018 and 19.12.2018)	:	RRC has already communicated to Water Resource Dept, GoM for maintaining minimum E-flows and water shed management, plantation on both sides of the river, setting up of bio-diversity parks.
10.	Min. and Max. required time period for implementation of action plans		Min - 2023 Max - 2025
11.	Total estimated budget in crores towards implementation of proposed action plans with break-up ( e.g. No. of STPs, capacity, total cost; No of CETPs, total capacity, Cost towards interception and diversion of sewage/effluent to STPs/CETPs etc.,)	:	4000 Crores (8 STPs)
12.	Whether 'River Rejuvenation Committee (RRC)' constituted by the State Govt./UT Administration and If so, Date of constitution of 'RRC'.	:	River Rejuvenation Committee (RRC) constituted as per the Maharashtra Government G.R. issued by the Environment Dept, GoM vide No. NGT 2018/PC-2/TC-3 dtd.13.12.2018.
13.	Responsible Organisation (s) for implementation of proposed action plans (Please enclose details as annexure )	:	1. Water Resource Department, GoM 2. Urban Development Department 3. Municipal Corporation of Greater Mumbai
14.	Expected deliverables w r to achieving Goals	:	1. To achieve 100% sewage collection and treatment 2. To achieve 100% MSW collection, transportation and treatment. 3. To achieve river water quality of Bathing standards by 2023. 4. Augmentation of River Flow and restoration of water quality-2024
15.	Initiatives taken by Govt. of Maharashtra and MPCB.	:	<ul style="list-style-type: none"> <li>• Maharashtra Government through it's forest department has announced The Plantation Program in 2016 with the aim of planting 2 crore &amp; planted 2.82 crore saplings. Forest Department has set the target of plantation of 4Crore, 13Crore and 33Crore saplings under the mission of 50Crore plantation which shall be accomplished in the three consecutive years viz. 2017, 2018 and 2019.</li> <li>• GOM, announced 'Namami Chandrabhaga Abhiyan' in year 2016. It is an initiative taken to</li> </ul>

		<p>revive and rejuvenate the river Chandrabhaga and to restore its historic glory. Government of Maharashtra has prepared a comprehensive plan for cleaning of the river on the lines of 'Namami Gange'. The aim of the mission is to make the Chandrabhaga river pollution free and conserve its purity and sanctity up to year 2022.</p> <ul style="list-style-type: none"> <li>• MPC Board will provide financial &amp; technical assistance to villages in next three years to comply with sewage &amp; waste management.</li> <li>• MPC Board has issued Direction to the local bodies to make 25% budgetary provision for scientific treatment and disposal of Sewage and Solid Waste.</li> </ul> <p>Accordingly, Municipal Corporations have passed resolution in their General Body meeting and reserved the funds.</p> <p>These funds are reserved and made mandatory to utilise for preparation of DPR, establishing treatment facility, O &amp; M of treatment facility etc. The review of the same is taken from time to time by the Board.</p> <ul style="list-style-type: none"> <li>• MPC Board has issued directions to 08 Municipal Corporations to penalize to the tune of 1pais/litre of sewage generation under 'Polluter pays principle'.</li> <li>• MPC Board has issued directions to non-complying CETPs to penalize to the tune of 2 paisa/litre for remediation &amp; upgradation to comply with the consented standards.</li> </ul>
	Budget Estimates & Pooling of Resources from Local Bodies, State Pollution Control Board, State Government & Central Government	<p>Bombay Municipal Corporation has already proposed budget for additional STPs &amp; upgradation of the existing STPs for Rs. 4000Crs. &amp; the timeline for completion of said STPs will be year 2024-2025 including management of sewerage system</p> <p>In addition to this corporation is also implementing Mithi River Action Plan having budget of around 200 Crs. &amp; the same will be utilized by year 2022.</p> <ul style="list-style-type: none"> <li>• The Maharashtra Government through Urban Development Department has approved DPR of all 388 Urban Local Bodies for Solid Waste Management. The funds for the same amounting to Rs. 2560.0Cr has been already approved by Government &amp; the said DPRs will be implemented &amp; Solid Waste Management issues will be</li> </ul>

			resolved by December'2019.
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## **Preamble -**

In the matter of OA No. 673 of 2018-"More river stretches are critically polluted now: CPCB", the Hon'ble NGT has passed order dated 20.09.2018 for constitution of River Rejuvenation Committee (RRC) and Special Environment Surveillance Task Force (SESTF). The report comprises 351 polluted river stretches in India out of which 53 polluted river stretches are in Maharashtra. In the state, 9 polluted stretches in priority I & 6 polluted stretches in priority II. It has been mandated to prepare Action Plan for River Stretches and make them pollution free. In compliance of the orders of the Hon'ble NGT, the State Government has constituted RRC.

River Rejuvenation Committee (RRC) constituted as per the Maharashtra Government G.R. issued by the Environment Dept, GoM vide No. NGT 2018/PC-2/TC-3 dtd.13.12.2018 with 5 members under the guidance of Principal Secretary for preparation of action plans and to monitor the implementation of these action plans. The members of RRC are as mentioned under:

1. Commissioner / Director, Directorate of Municipal Administration
2. Chief Executive Officer – Maharashtra Industrial Development Corporation
3. Director (Environment)
4. Director (Industries)
5. Member Secretary – Maharashtra Pollution Control Boards- Member & Co-ordinator of RRC

Further State Government also constituted District Level Special Task Force comprising of the following:

1. Representative of District Collector
2. Representative of District Superintendent of Police
3. Representative of Regional Officer, MPCB
4. Representative of the District Judge of the concerned District

## **Meetings of the RRC Committee:**

- 1<sup>st</sup> Meeting of River Rejuvenation Committee (RRC) convened on 14.12.2018.  
RRC reviewed draft action plans of polluted river stretches of Priority I prepared by Maharashtra PCB. It was decided by the all the committee members, to take review of local bodies and accordingly to communicate the outcomes of the meeting to the Hon'ble NGT, Principal Bench. Maharashtra PCB submitted nine draft action plans of polluted river stretches of Priority I to CPCB along with minutes of 1<sup>st</sup> meeting of RRC and submitted progress report of polluted river stretches to Hon'ble NGT on 15.12.2018
- 2<sup>nd</sup> Meeting of River Rejuvenation Committee (RRC) convened on 09.01.2019.  
RRC reviewed draft action plans of polluted river stretches of Priority II prepared by Maharashtra PCB. It was decided in the meeting to add in the draft action plans funding



details like source, name of scheme, timeline etc for proposed STPs by concern local bodies.

- 3rd Meeting of River Rejuvenation Committee (RRC) convened on 23.01.2019.  
RRC reviewed and finalised draft action plans of polluted river stretches of Priority I, II, III, IV and V prepared by Maharashtra PCB. RRC also decided to call the local bodies and review the timelines proposed in action plans from time to time.
- Maharashtra PCB submitted 53 draft action plans of polluted river stretches of Priority I, II, III, IV and V to CPCB along with minutes of 2<sup>nd</sup> & 3<sup>rd</sup> meeting of RRC and submitted progress report of polluted river stretches to Hon'ble NGT on 31.01.2019.
- CPCB Task Team on Polluted River Stretches called MPCB to give presentation on Action Plan for Priority-I & II polluted river stretches on 12.02.2019. Accordingly, the presentations were reviewed by Task team & few improvements in the action plan were suggested.
- 4th Meeting of River Rejuvenation Committee (RRC) held on 16/02/2019 & it was decided to communicate with Water Resource Department to maintain e-flow in the rivers of Maharashtra adopting good irrigation practices, protection & management of flood plain zone (FPZ), rain water harvesting, ground water charging, plantation on both sides of river, Setting up of biodiversity parks on flood plains by removing encroachments and Urban Development department communicated to take necessary steps to provide adequate funds to urban local bodies for installation of sewage treatment & MSW processing facilities in a time bound manner so as to comply with the Hon'ble NGT.

#### **Achievable goal:**

The objective/goal of the action plan is that the quality of river water should meet with the required value as given under:-

<b>Quality Parameter</b>	<b>Standard to be achieved</b>
BOD	3.0 mg/l.
Dissolved Oxygen (DO)	More than 5.0 mg/l.
Faecal Coliform	Less than 500 MPN/100ml.

## 1.2 Background

Mithi serves as one of the major rivers in Mumbai flowing from Vihar Lake to Arabian Sea. Mithi has been treated as an open nallah by the nearby residents as well as industries. The methodology includes assessment of pollution sources and estimation of pollution load around the catchment area along with suitable conservation and management strategies. Originating at Powai, Mithi River is the convergence of water discharges from Powai and Vihar lakes. From Powai, it enters the Arabian Sea through Mahim creek traversing amidst industrial as well as residential premises. It is assumed that the residential areas across the Right of Way of Mithi and especially in the slums aligned at both the banks of Mithi, contribute towards the major raw sewage discharge in the river water. It is anticipated that this has resulted into severe pollution of the Mithi threatening the ecology as well as the aesthetic aspects of the river. Also, the dumping of garbage, scrap materials has reduced the carrying capacity of the river making it stagnant in some of the areas adding to its deterioration.

Mithi River passes through Powai, Saki Naka, Kurla, Mahim flowing through a distance of about 15kms where it meets the Arabian Sea at Mahim creek. The river is narrow in initial stretch, but it widens gradually and is widest at Bandra-Kurla Complex. Mithi River is under the tidal influence of Arabian Sea at west coast. This tidal influence can be observed in river flow for about more than 5 kilometers from Mahim towards Vakola & Santacruz Airport.

### Sources of Water Pollution in Mithi River

- a. Urban development
- b. Industrial Wastewater
- c. Resurfacing of Previously Deposited Pollutants
- d. Solid Waste Dumping Scenario in Mithi River



**Figure 1 Polluted Stretch of Mithi River**

MPCB has carried out monitoring of at 16 different locations along the river stretch. These sampling locations were approximately 2.5kms apart throughout the stretch of Mithi from origin to its convergence into Arabian Sea.



*Figure 2 Waste discharge into Mithi River*

*Mithi River is responsible for Mumbai Floods. Flood mitigation and disaster management planning should be done.*

*Dumping solid waste into the River is a common practice. Municipal Corporation must take action against such practices.*

*Sewage generation is high due to the population and mostly flows into the River and hence deteriorate water quality of the river. Suitable sewage treatment technologies should be opted.*

The river is non-perennial in nature and there is a natural water flow only when there is overflow of Vihar and Powai lake.

The river stretch extends from Powai to Dharavi. Length of the stretch is approximately 17.8 Km.

Sakinaka, Mahim, Marol, Bandra Kurla Complex & Dharavi are the areas of Mumbai located on the bank of river.

The current status of the river as per the monthly sampling conducted between January to December 2018 reveals that water quality of the river falls in Priority I i.e. max BOD 95 mg/l.

**Table 1 Introduction of river stretch**

Sr. No.	Description of item	Details
1	Approx. length of stretch	17.8 Km
2	Major Towns located on the bank along with Population	Sakinaka, Mahim, Marol, Bandra Kurla Complex & Dharavi areas of Mumbai. Mumbai Population - 1,40,00,000
3	Stretch of River Perennial or Non Perennial	River is not perennial
4	Water usage in the stretch	Water not used for any purpose
5	Current status of polluted river stretch (Jan – Dec 2018)	Priority I

### 1.3 Status of Sewage Generation & Treatment

Greater Mumbai generates about 2671 MLD sewage. There are 08 Sewage Treatment Plants installed by Municipal Corporation of Greater Mumbai with capacity of 2677 MLD. At present seven of them are in operation with effective treatment capacity of 1998 MLD. The gap in treatment is about 679 MLD. MCGM plans to bridge the gap in sewage treatment by installing 08 sewage treatment plants of capacity 2484 MLD at different locations. Colaba STP will be operational by 2019 and the rest have time period ranging from 2023-25. The projects are self-funded and the work order is planned to be issued by May 2019.

**Table 2 Status of Sewage generation & treatment in Mumbai City**

Sr. No.	City	Total Sewage Generated	STP capacity	Total effective Treatment Capacity	Gap in Treatment (MLD)
1	Mumbai	2671	2677	1998	679

**Table 3 Status of STPs in Mumbai City**

Sr No	City/ Town	STP Location	Status (Operational/ Non- Operational/ Under Construction)	STP Installed Capacity (MLD)	STP utilization capacity (MLD)	Technology (UASB/ASP/OP/S BR/MBR/FAB etc.)	Disposal (land, River, Sea or Any other)
1	Greater Mumbai	Colaba	Operation	45	37	Primary Treatment	In to Sea (through marine outfall)
2		Love Grove (Worli)	Operation	850	756	Primary Treatment	
3		Bandra	Operation	796.9	635	Primary Treatment	
4		Varsova	Operation	180	115	Primary Treatment	Malad Creek
5		Malad	Operation	240	180	Primary Treatment	Malad Creek
6		Bhandup	Operation	280	150	Primary & Secondary Treatment (ASP)	Thane Creek
7		Ghatkopar	Operation	300	138	Primary & Secondary Treatment (ASP)	Thane Creek
8		Charkop	Operation	6	5	Primary & Secondary Treatment (ASP)	Gorai Creek

**Table 4 Status of Proposed STPs in Mumbai**

Sr No	Name and Address of STP	Design d Capacit y (MLD)	Sourc e of Funds	Allocatio n Status	Utilizatio n status	Present Status of the work	Time line for various stages of work Completi on	Target date of Completi on
1	Worli STP, MCGM	500	MCG M Intern al funds	Allotted	Nil	Tenders invited , Bids are under evaluation	Work orders will be issued by May 2019	2025
2	Bandra STP, MCGM	360						2024
3	Dharavi STP,	250						2023

	MCGM							
4	Versova STP, MCGM	180						2023
5	Bhandup STP, MCGM	215						2023
6	Ghatkopar STP, MCGM	337						2023
7	Malad STP, MCGM,	605				Clearance from Forest Department is awaited	Tender will be invited by May 2019	2024
8	<b>Colaba STP, MCGM</b>	37		Total Design Buid cost 137 crore	45 Crore as on 18.01.2019	Work in Progress	Work will be completed by July 2019	2019

**Table 5 Source based categorization of the stretches**

Stretch	Source of wastewater	Proposed Management Plan
I- Filterpada	Domestic	STP with capacity of Approx. 2MLD
II- Gautam Nagar	Domestic	STP with capacity of Approx. 3MLD
III- JVLRRidge	Industrial Mixed with domestic	CETP of capacity Approx. 3.5MLD
IV-Bamandaya Pada	Domestic	STP of capacity 40MLD at the upstream
V-KBM Compound	Industrial Mixed with domestic	CETP of capacity 10MLD at source for industries and domestic wastewater
VI - Marol	Industrial Mixed with domestic	CETP of capacity 9MLD
VII - Sakhinaka	Industrial Mixed with domestic	CETP of capacity 35MLD at the downstream
VIII-Domestic Airport	Domestic	STP of capacity 10MLD
IX - Safed Pool	Mostly Domestic	STP of capacity 15MLD
X-BMK Compound	Domestic	STP of capacity 27MLD at the downstream
XI - CST Bridge	Domestic	STP of capacity 45MLD at the downstream
XII –MTNL Bridge	Domestic	Under tidal influence
XIII - BKC	Domestic	Under tidal influence
XIV-Vakola Nallah	Domestic	Under tidal influence
XV - Kalanagar	Domestic	Under tidal influence
XVI - Mahim	Domestic	Under tidal influence

**Table 6 Organic loads in each stretch of Mithi River**

Location		Flow (MLD)	BOD (Tons)	COD (Tons)
Gautam Nagar	UP	1.97	0.07	0.12
	DN	4.71	0.17	0.67
JVLR	UP	5.76	0.08	0.94
	DN	8.58	0.32	1.13
BamandayaPada	UP	48.77	1.89	12.19
	DN	48.77	1.16	6.58
KBM Compound	UP	48.91	2.18	5.06
	DN	57.60	4.44	4.44
Marol	UP	59.68	1.03	3.46
	DN	67.76	1.48	3.59
Sakhinaka	UP	69.12	2.80	11.85
	DN	103.68	3.63	37.01
Airport	UP	111.48	1.40	22.30
	DN	102.86	2.55	12.34
Safed Pool	UP	100.15	2.35	40.86
BMK Compound	UP	113.40	1.84	18.94
	DN	140.62	5.35	17.86
CST Bridge	UP	183.60	23.10	149.70
MTNL Bridge	UP	500.90	8.10	45.25
	DN	448.83	11.69	109.96
BKC	UP	448.83	63.96	1189.40

**Table 7 domestic sewage aspects on the river stretch**

Sr No	Particular	Remarks
1	Details of drainage system/sewerage network present/proposed	Expansion in Drainage Network is planned by MCGM along with new STPs
2	Proposal for utilisation of sewage	<p>The Infrastructure Projects are mandated by MPCB to recycle 60% of treated sewage for secondary use by providing dual pipeline.</p> <p>The Local Bodies will be encouraged to reuse treated sewage for various purposes including to Thermal Power Plants wherever possible.</p> <p>e.g. Koradi TPS is receiving 100 MLD of treated sewage from Nagpur city.</p>

3	Ground water extraction & consumption	Water to Greater Mumbai is provided from lakes. Hence ground water extraction is minimum.
4	STP sludge management	STP sludge is disinfected and used as manure.
5	Proposal for ground water recharging/rain water harvesting	<ul style="list-style-type: none"> <li>• The EC has mandated rainwater harvesting for projects above 20,000 Sq.m.</li> <li>• G.S.D.A. is engaged in the development and management of groundwater resources in the State through various schemes. The main aim is to provide safe and potable drinking water to the community.</li> <li>• The G.S.D.A. is engaged, in the exploration, development and augmentation of groundwater resources in the State through various schemes. This mainly includes, drilling of bore wells/tube wells under Rural Water Supply Programme, rendering technical guidance under minor irrigation programme by locating suitable dug well sites, strengthening of groundwater sources by water conservation measures, artificial recharge projects for induced groundwater, specific studies related to the periodic status of groundwater availability, protecting the existing groundwater resources through technical assistance under Groundwater Act etc.</li> </ul>
6	Adopting good irrigation practices	Agriculture Department, GoM & Water Resource Department, GoM is requested for implementation.
7	Protection and management of Flood Plain Zones (FPZ)	Water Resource Department, GoM is requested for implementation.
8	Plantation on both sides of the river	Water Resource Department, GoM is requested for implementation.
9	Setting up of biodiversity parks on flood plains by removing encroachment	Water Resource Department, GoM is requested for implementation.

#### 1.4 Performance assessment of Sewage Treatment Plants

In entire Mumbai region, there are 8 operational STPs with a collective treatment capacity of 2686.9 MLD. The total domestic effluent received at these STPs during the year 2017-18 was 6725 MLD while the quantity treated at these STPs was 6627.9 MLD. The mean of annual performance and analysis of all STPs provided in Mumbai Region are represented in **Table 8**.



**Table 8 Mean of Annual Performance of STPs in Mumbai Region**

Location	Parameters (mg/l)					
	pH		BOD (Mean)		S.S. (Mean)	
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
Worli STP	7.4	7.06	114	87.142	142	98
Colaba STP	7.2	7.16	59.14	42	46	37.71
Bandra STP	-	7.2	-	42	-	28
Versova STP	7.2	7.1	60	32	55	31
Ghatkopar STP	-	6.8	-	40	-	30
Bhandup STP	-	7.3	-	15	-	22
Malad STP	7	6.9	250	90	35	18
Charkop STP	7.5	7.3	80	78	115	16

Note: All existing STPs needs to be upgraded and modernized for achieving for 10BOD outlet standards as existing STPs are designed way back based on 30 BOD disposal standard i.e. stream standards as per EPA. Up-gradation will be completed in next 4 years as per the draft notification dated 24<sup>th</sup> November 2015 & directions of CPCB. (Responsibility – Bombay Municipal Corporation, Timeline – 4 years)

### 1.5 Status of Water Quality

The monthly status of water quality for the year 2017 & 2018 at two NWMP locations for different parameters such as pH, DO, BOD, FC and TC are provided in the following Table 9. The water quality of the river is determined referring to Water Quality Criteria set by CPCB for Outdoor bathing.

**Table 9 Status of Water Quality for River Mithi at Mithi Bridge**

Month	Year	pH (6.5- 8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml	TC MPN /100ml	Water Quality Criteria of Bathing
January	2017	7	BDL	50	540	920	Non Complying
	2018	6.9	1.5	34	1600	1600	Non Complying
February	2017	7.1	BDL	250	920	1600	Non Complying
	2018	7.5	BDL	60	1600	1600	Non Complying
March	2017	6.9	BDL	115	920	1600	Non Complying
	2018	7.3	BDL	60	920	1600	Non Complying
April	2017	7.1	1.8	20	970	1600	Non Complying
	2018	7.7	BDL	80	1600	1600	Non Complying

May	2017	7.6	BDL	40	540	920	Non Complying
	2018	8.2	BDL	45	1600	1600	Non Complying
June	2017	7.6	BDL	80	1600	1600	Non Complying
	2018	7.4	BDL	45	1600	1600	Non Complying
July	2017	7.1	3.9	8	920	1600	Non Complying
	2018	7.3	5.2	7	1600	1600	Non Complying
August	2017	7.4	5.6	7	920	1600	Non Complying
	2018	6.8	BDL	95	1600	1600	Non Complying
September	2017	6.6	3.8	6	1600	1600	Non Complying
	2018	6.9	1.2	40	1600	1600	Non Complying
October	2017	7	BDL	45	1600	1600	Non Complying
	2018	7	1	40	1600	1600	Non Complying
November	2017	7.2	BDL	17	1600	1600	Non Complying
	2018	6.8	BDL	46	1600.0	1600	Non Complying
December	2017	7	BDL	32	1600	1600	Non Complying
	2018	7.2	1.2	40	920	920	Non Complying

## 1.6 Status of Ground Water Quality

### Status of Ground Water Quality

Maharashtra Pollution Control Board (MPCB) regularly monitors the water quality across 250 Water Quality Monitoring Stations (WQMS) for both surface (155 on rivers, 34 on sea/creeks, 10 on drains, 1 dam) and ground water (24Borewells, 24Dugwell, 1 Handpumps, 1 Tubewell) under two programs of NWMP (National Water Monitoring Programme) project titled GEMS (Global Environment Monitoring System) and MINARS (Monitoring of Indian National Aquatic Resources). Surface water samples are monitored every month whereas the ground water samples are monitored every six months.

#### WQI for ground water

MPCB monitors ground water quality once in six months. Based on the stringency of the parameters and its relative importance in the overall quality of water for drinking purposes each parameter has been assigned specific weightage by CPCB. These weights indicate the relative harmfulness when present in water. Nine parameters (pH, Total Hardness, Calcium Hardness, Magnesium Hardness, Chloride, Total Dissolved Solids, Fluoride, Nitrate, Sulphate) are considered for calculating Water Quality Index of ground water.

Water Quality Index - Ground Water		
WQI	Water Quality	Colour Code
<50	Excellent	
50-100	Good Water	
100-200	Poor Water	
200-300	Very Poor Water	
>300	Water Unsuitable for drinking	

**Table 10 Water Quality Index for 156 locations (surface water & ground water) during January - 2019**

WQI Category	WQI	Number of WQI values in different category	
		No. of WQI	% of WQI
Good to Excellent	63-100	98	73.68
Medium to Good	50-63	12	9.02
Bad	38-50	9	6.77
Bad to Very Bad	38 and less	14	10.53
Total WQI values		133	100

**Summary:**

1. 110 WQI values or 82.70 % values are in category of Good to Excellent and Medium to Good.
2. 9 WQI values or 6.77 % are in category of Bad.
3. 14 WQI values or 10.53 % are in category of Bad to Very Bad.

## 1.7 Status of Industrial Effluent Generation & Treatment

Industrial Statistic in Mumbai region is represented in following Figure.

Mumbai		
LSI	MSI	SSI
38	30	1956
526	232	686
444	79	640
White -9		

There is no CETP in this Region at present. The total effluent generated and treated by industries in Mumbai Region was 8.9 MLD during the year 2017-18. Categorization of industries in this Region is given in **Figure 5.6**.

### Organics Load in Industrial Wastewaters

Mithi is surrounded by numerous industrial activities mostly unorganized sectors ranging from a variety of hotels and restaurants, bakeries and eateries right in the RoW (actually on the Banks of River), drum washing in slums, jewellery & multiple manufacturing/engineering units in MIDC area of SEEPZ, dying, bleaching and laundry in BMK and KBM Compounds, car washing centre in almost all parts of the river, limited plating units, beverages especially Sakhinaka and Marol, RMC units in Gautam Nagar & similar units along with animal farms / housing in JVLR and several others. Seemingly such a complex source of industrial areas around, it was assumed that at least a few of these industries would add to the overall pollution of Mithi River and thereby monitoring of industrial sources was incorporated in the overall study design. 79 such samples from variety of representative industrial sources were collected with a premise to understand polluting potential of such industries and input variability of river with respect to characteristics of these effluents.

**Table 11 Representative Industrial Types and Hydraulics Surveyed alongside Mithi River**

Type		Representative Nos.	Type of Waste water	Approximate Flow (M <sup>3</sup> /Day)
Residential Area		27	Sewage	Variable
Industrial Area	Clusters	7	Dyes and Bleach	10.0 to 200
	Hotels and Bakers	4	Sewage/ Effluents	1.0 to 50.0
	Hospitals	2	Effluents/Laundry	5.0 to 20.0
	Car washing units	6	Oil and Grease	5.0 to 10.0
	Chemical industries	6	High COD and Toxic	5.0 to 50.0
	Metal plating clusters	2	Metals and acids	0.2 to 5.0
	Bottle washing units in Premnagar	4	Mixed effluent	0.5 to 1.0
	Jewelers clusters	2	Metals	0.5 to 10.0

Several of these samples were either raw effluent whereas most of them especially from the large scale organized industries were either sewage or outlets of ETP or combined treated wastewater, statistical analysis of which is presented in Table Below:

**Table 12 Statistical Analysis of Organic Parameters in Industries**

Parameters	Minimum	Maximum	Average
COD (mg/l)	BDL	21468.0	1002.9
BOD (mg/l)	BDL	7256.0	348.7
TSS (mg/l)	BDL	3143.0	408.9
O&G(mg/l)	0.5	5109.0	386.7
COD to BOD Ratio	0.0	4.0	2.9

Both COD & BOD values have a wide variation with BDL concentrations observed mostly with the outlets of ETP of LSI such as L&T Gate No. 7 to 7256mg/l. Similarly TSS too is found to be extremely low in these LSI but higher in those unorganized industries and car washing centre reaching to maxima of 408.9mg/l. O&G is extremely important in organics though averaging only about 386.7mg/l shows maximum concentration of 5109mg/l with similar high concentration trends in almost all the auto-care centre both in Sakhinaka and Marol areas. COD to BOD ratios reaches peaks of 4.0 which is characteristics of industrial waste as have been explained throughout this chapter and assumed for interpretation of industrial sources though the averages for both Cod and BOD are found to be higher than the general consented values for industries in coastal areas i.e. 475mg/l and 180mg/l respectively. Though the average ratio seems to be around 2.9, it is to be considered in relation with the types of samples used for such averaging. The authors would like to put forth that when analysis of industrial wastewater samples pertaining to only effluents from industrial areas are considered, the COD to BOD ratios seem to be >3.5 as is also evident from nallah wastewater analysis from those areas connected to industrial activities.

The other 2 parameters representing organics too show concentrations higher than the General Standards prescribed in Coastal region industries though the conditions may be much more stringent for such industries located on the banks of Mithi River being classified as RRZ II. Average concentration of TSS and O&G are found to be 408.9mg/l and 386.7mg/l respectively which seem to pose critical cause of concern. Extremely high concentrations of O&G in case of auto-care related industries which are about 8 out of the 79 samples and can be extrapolated to be representative of almost all similar units around Mithi.

## **1.8 Waste Management**

### **1.8.1 Solid Waste Management**

In the state of Maharashtra there are total 271 local bodies , comprising of 27 Municipal Corporations, 16- 'A' Class Municipal Council, 54- 'B' Class Municipal Council, 154- 'C' Class Municipal Council, 14- Nagar Panchayat, 06-Cantonment Board generating about 22897.83 MT of municipal solid waste every day, of which the Contribution in terms of percentage by the

corporation is 84.72 %, by A class council is 4.25 %, by B class council is 5.04 % , by C Class Council is 5.07 % and by Others is 0.96 %. The overall percentage of treatment is 34.70 % i.e. 7945.544 MT/day quantity is treated and the remaining is disposed in an unscientific manner. Out of 27 Municipal corporations, 24 Corporations have obtained Authorization from MPCB for 22 Nos of approved sites having processing & disposal facilities and same are in operations. 109 Nos. of Municipal Councils having partially processing & disposal facilities.

Total generation of MSW is 7500 MT/Day. Out of this 3000 MT is treated through Bioreactor, landfill, Composting, RDF at Kanjurmarg facility rest is disposed of at Deonar dumping yard. Mulund dumping yard is currently closed Biomining of the site is currently under progress.

### 1.8.2 Bio-medical waste Management

Total Bio-medical waste generation in Mumbai is 22171 Kg/day. 100% waste is collected, transported and treated at CBMWTSDf- SMS ENVOCLEAN Pvt Ltd, Near Deonaar Dumping ground. The details of equipments at BMW facility are provided in the table below.

### 1.8.3 E-Waste management

- Maharashtra Pollution Control Board awarded work order to M/s. IRG Systems South Asia Pvt. Ltd. to carry out inventorisation of E-Waste generation in the State of Maharashtra.
- Interim inventorisation report is submitted to MPCB and final report will be ready within one month.
- As per the Interim inventory report submitted to MPCB, the E-Waste generation for the year 2015 is approx. 6,46,509 MT.
- **Number of authorized dismantlers/ recyclers in the state of Maharashtra**

Present Status of E-Waste dismantling and recycling capacity			
1	E-Waste Dismantlers	70	77525 MTA
2	E-waste Recyclers	08	
	<b>Total</b>	78	

- E-Waste Treated (Recycled/Dismantled)
  - Year 2015-16 : 4041.72 MT
  - Year 2016-17 : 6720.69 MT
  - Year 2017-18 : 7031.5 MT
- CPCB has approved EPR of 261 producers for Maharashtra. The list of the producers is enclosed here.
- Annual report for the year 2017-18 is submitted.

### Action Taken by MPCB

- MPCB is undertaking regular monitoring of EPR Authorization conditions and regular inspection of the collection points/ centers mentioned in EPR Plan.
- MPCB has issued Directions u/s 5 of the Environment (Protection) Act, 1986 read with E-waste (Management) Rules, 2016 to all Municipal Corporations in Maharashtra on 06/12/2018 for provision of collection centres.
- Co-ordination with Various State Government Departments
- Co-ordination with Urban Local Bodies (Municipal Committee /Council /Corporation).
- Awareness through Public Notice

#### Constraints:

- Channelization E-waste from informal sector to formal sector.
- Awareness about impact of E-waste on Environment and Rules of E-waste is required.
- Authorized collections and Segregation centers are required to be established by Local Bodies.

#### 1.8.4 Hazardous Waste Management

The state of Maharashtra has four Common Hazardous Waste Treatment, Storage and Disposal Facilities. These facilities are located at MIDC Taloja, Trans-Thane Creek Industrial Area, MIDC Ranjangaon, Pune and MIDC Butibori, Nagpur. These facilities collectively handle 340,847 MT of Hazardous waste per annum.

**Table 13 Status of Waste Management in Mumbai city**

Sr. No	Particular	Remarks
1	Total MSW Generation	Total generation of MSW – 7500 MT/Day.
2	Existing MSW treatment and disposal facilities	MSW Treatment – 3000 MT/day through Bioreactor, landfill, Composting, RDF at Kanjurmarg facility. Rest is disposed of at Deonar dumping yard.

3	Bio-medical waste Management	<p>Hospitals are joined to CBMWTSDf-SMS ENVOCLEAN Pvt Ltd,Near Total collection and treatment: 22171 Kg/day</p> <table><tr><th colspan="3">Capacity of Treatment Equipments installed by CBWTFs</th></tr><tr><th>Equipment</th><th>Nos.</th><th>Total installed capacity</th></tr><tr><td>Incinerator</td><td>4</td><td>250 Kg/hr</td></tr><tr><td>Autoclave</td><td>1</td><td>450Litr/cycle</td></tr><tr><td>Shredder</td><td>4</td><td>250 kg/hr</td></tr><tr><td>Sharps encapsulation or concrete pit</td><td>1</td><td>100 kg/day</td></tr><tr><td>Deep burial pits</td><td></td><td></td></tr><tr><td>Any other equipment</td><td>1</td><td>400 kg/batch</td></tr><tr><td>Effluent Treatment Plant</td><td>1</td><td>200 KL/day</td></tr></table> <p>Ash is Disposed at Secured Landfill at TTC WMA Mahape New Mumbai. Plastic Disinfected &amp; Shredded &amp; send to MPCB Authorized Recycler. Sharp Disposed at Sharp Pit.</p>	Capacity of Treatment Equipments installed by CBWTFs			Equipment	Nos.	Total installed capacity	Incinerator	4	250 Kg/hr	Autoclave	1	450Litr/cycle	Shredder	4	250 kg/hr	Sharps encapsulation or concrete pit	1	100 kg/day	Deep burial pits			Any other equipment	1	400 kg/batch	Effluent Treatment Plant	1	200 KL/day
Capacity of Treatment Equipments installed by CBWTFs																													
Equipment	Nos.	Total installed capacity																											
Incinerator	4	250 Kg/hr																											
Autoclave	1	450Litr/cycle																											
Shredder	4	250 kg/hr																											
Sharps encapsulation or concrete pit	1	100 kg/day																											
Deep burial pits																													
Any other equipment	1	400 kg/batch																											
Effluent Treatment Plant	1	200 KL/day																											
4	E-Waste management	E-waste generated by industries is sent to MPCB authorized E-waste reprocessor.																											
5	Hazardous Waste Management	HW generated from industry is disposed through CHWTSDf, Talaja.																											

### 1.12 Dream Project of Government of Maharashtra (GOM), Namami Chndrabhaga

GOM, has announced Namami Chandrabhaga Abhiyan on 18/03/2016 in the Budgetary Assembly Session of 2016-17. Namami Chandrabhaga is an initiative taken to revive and rejuvenate the river Chandrabhaga and to restore its historic glory. Considering the religious, social and economic importance of the river Chandrabhaga, the Government of Maharashtra has decided to prepare a comprehensive plan for cleaning of the river on the lines of 'NamamiGange'. Hon'ble Finance Minister, GOM, directed to issue the GR about finalization of working System of the Abhiyan, vide letter dt. 07/04/2016. The aim of the Namami Chandrabhaga Abhiyan is to make the Chandrabhaga river pollution free and conserve its purity and sanctity up to year 2022 and others are as mentioned below:

- To maintain the permanent minimum continuous flow of water in the river bed.
- To construct weirs in the river bed for maintaining water level.
- To maintain & keep minimum environmental flow of water.



- To make available sufficient public bathrooms & toilets as well as mobile bio-toilets to the publics during Pandharpur yatras.
- To install STP's for treatment of domestic wastes and scientific disposal facilities for solid waste generated from the villages & cities located on the bank of Chandrabhaga river.
- To carry out the beautification & forestation of river banks.
- To make reuse/recycle of treated industrial water generated from the industries and industrial estates located in the catchment area of chandrabhaga river.
- As per the local need to work for public participation and development of pilgrimage area.

### **“Namami Chandrabhaga Pradhikaran”**

Established under the Chairmanship of Hon'ble Chief Minister, GoM & Co-Chairmanship of Hon'ble Finance Minister, GoM, having Divisional Commissioner, Pune as Member Secretary.

### **“High Power Committee”**

Established under the Chairmanship of Hon'ble Chief Secretary, GoM of Maharashtra having Divisional Commissioner, Pune as Member Secretary.

In this context, the Government has identified CSIR National Environmental Engineering Research Institute (CSIR-NEERI) as 'Nodal Technical Expert Agency' the project. Bhimariver originates in Bhimashankar in Pune district. But when it reaches Pandharpur, it appears like a crescent moon, thus deriving the name Chandrabhaga. It flows in a 370-km stretch between Pune and Solapur districts. CSIR-NEERI was already involved by the Maharashtra Government to provide technological solutions for sanitation and sewage treatment at important cities and pilgrim centers like Nashik and Pandharpur. Furthermore, is retained CSIR-NEERI for technological interventions during the execution of the Project 'Namami Chandrabhaga'. The Maharashtra Government intends to cleanse and make the holy river Chandrabhaga pollution free by the year 2022.

Similarly, on the line of Namami Chandrabhaga Maharashtra Government is in process of undertaking various projects for clean-up of other rivers in the State.

### 1.13 Involvement of Civil Society/Creation of awareness

For sustainable development it is necessary to promote and create environmental awareness among communities, businesses and governments. Therefore the Board organizes various environmental awareness programs across the State of Maharashtra. During the year 2017-18 the following programs on environmental awareness were conducted by the Board.

Month	Subject	Details
22nd April 2017	World Earth Day	Public awareness messages published in leading newspapers namely Dainik Samna, Sakaal, Divya Marathi, Loksatta, Indian Express, Lokmat, Maharashtra Times of India, DNS, Hindustan Times and Midday on the occasion of World Earth Day.
5th June 2017	World Environment Day celebration	<p>The main event was organized at the Yashwantrao Chavan Auditorium, Mumbai on 5th June, 2017 on occasion of World Environment Day. Hon'ble Chief Minister of Maharashtra, Shri Devendra Fadnavis, Hon'ble Minister of Environment, Shri Ramdas Kadam and Member Secretary of MPCB, Dr. P. Anbalagan attended this event. During this event, award ceremony for Vasundhara Award competition organized for industries, municipal corporations and CETPs was carried out. On the occasion of World Environment Day, Vasundhara Short Film Competition based on the environment was announced by Hon'ble Chief Minister of Maharashtra at the main event. This competition will be organized for professionals as well as amateurs.</p> <p>During this event, the award ceremony for Photothon 2017 took place. This ceremony was presented by Member Secretary of MPCB, Dr. P. Anbalagan. Villages which had participated in the water conservation activity 'Jalsanvardhan Panchayat – Ek Lok Chalwal' organized by Maharashtra Pollution Control Board, Vanrai Pune and Zee 24 Taas were awarded at the hands of Hon'ble Chief Minister of Maharashtra for their exceptional performance. During this event, a short film festival related to the environment was organized for three days at Yashwantrao Chavan Centre, Mumbai with assistance from Enviro-Vigil and as a joint effort by MPCB and Environment Department, Government of Maharashtra. A large number of environmentalists attended this festival. At this time, discussion sessions with directors, producers,</p>

environment experts and analysts were also organized.



Hon'ble Shri Devendra Fadnavis, Chief Minister, GoM lighting the lamp during inauguration of the World Environment Day program held at Y. B. Chavan Auditorium, Mumbai on 5th June 2017.

Hon'ble Shri Ramdasji Kadam, Minister for Environment, GoM, Shri Sumit Mallik (IAS), Chief Secretary, GoM and Dr. P. Anbalagan (IAS), Member Secretary graced the occasion with their august presence.




On the eve of World Environment Day on 5th June 2017, Hon'ble Shri Devendra Fadnavis, Chief Minister, GoM giving away Vasundhara Awards to the entrepreneurs who have introduced best

environment-friendly practices in their industry, at Y. B. Chavan Auditorium, Mumbai.			
5th June 2017	World Environment Day		On the occasion of World Environment Day (5th June, 2017) public awareness messages were published in Maharashtra Times, Time of India, Loksatta, Indian Express, DNA, Hindustan Times, Midday (Gujarati, Urdu and English), Lokmat, Dainik Sakaal, Samna, Divya Marathi and in other leading newspapers. Information about various control measures adopted for pollution control was published in this section on behalf of MPCB.
5th June 2017	World Environment Day		On the occasion of World Environment Day (5th June, 2017) public awareness programs related to the environment, canvas paintings with messages about the environment, brainstorming on public awareness and various other activities were organized by We Love India on 5th June, 2017 at Bandra. Famous movie artists, sportspersons and Hon'ble Environment Minister for State were present during these activities.
4th July 2017	'Paryavaranachi Vaari Pandharichya Daari'		An environmental public awareness campaign namely 'Paryavaranachi Vaari Pandharichya Daari' was organized on the occasion of Aashadhi Ekadashi and the foot pilgrimage to Pandharpur. As environmental issues are equally detrimental to urban and rural areas, fundamental messages such as plastic waste removal, proper use of water, electricity and natural resources, use of limited electrical power for agriculture, use of organic fertilizers, proper waste management of wet waste and dry waste were spread among the 10 lakh devotees who had gathered for the Pandharpur pilgrimage. These messages were made public through folk art, popularly known as Kirtan, Bharud, and Povada. In this 15 day long pilgrimage, Sangeet Natak Academy award winner, Smt. Chandabai Tiwari, famous Shahir Shree Devanand Mali and Hari Bhakta Parayan Shri Dnyaneshwar Maharaj Wabale created public awareness through Bharud, Povada and Kirtan respectively. This year's Pandharpur pilgrimage was inaugurated at Pune by Hon'ble Minister of State of Environment, Shri Ramdas Kadam. Honorable dignitaries such as Member Secretary of MPCB, Dr. P. Anbalagan and Hon'ble Mayor of Pune were present at this event. Guidance for this pilgrimage was sought from Dr. Prakash Khandge, a well-known researcher of folk arts. The conclusion of this pilgrimage was organized on the eve of Aashadhi Ekadashi in the presence of Hon'ble Chief Minister,

		Shri Devendra Fadnavis, Mrs. Amruta Fadnavis, Cabinet Minister (Solapur), Shri Vijay Deshmukh, Minister of Water and Sanitation, Shri Babanrao Lonikar, Senior Cabinet Minister, Shri Mahadev Jankar, Member Secretary of MPCB, Dr. P. Anbalagan and other honorable dignitaries.
		Hon'ble Shri Devendra Fadnavis, Chief Minister addressing pilgrims on the eve of environment public awareness campaign at Pandharpur on 4th July 2017, in the presence of Dr. P. Anbalagan (IAS), Member Secretary, GoM.
August 2017	92.7 Big FM Big Green Ganesha	The Big Green Ganesha activity was co-organized by 92.7 Big FM and MPCB in the city of Mumbai. During this activity, the Big Green Ganesha van encouraged citizens at various locations to celebrate an eco-friendly Ganesh festival and to donate newspaper scrap for the even. During Ganesh festival a special studio was set up at Lalbaghcha Raja in Mumbai city for 10 days. At this time, Hon'ble Chief Minister of Maharashtra, Hon'ble Minister for Environment, Hon'ble State Minister for Environment and film celebrities spread messages for public awareness.
August 2017	Zee 24 Taas Eco-Friendly Household Ganesh Festival Competition	The Household Eco-friendly Ganesh Festival Competition was organized at the state level as a joint venture by MPCB and Zee 24 Taas. This competition has a large number of participants. Citizens celebrating household in a unique way had participated in this competition from all over the state. Response to this competition has been increasing over the years.
August 2017	ABP Maza Eco-Friendly Ganesh Festival Competition	A special public awareness campaign regarding celebrating an eco-friendly Ganesh festival in housing societies in major cities in the State was organized by MPCB and ABP Maza, a

		news channel. News about eco-friendly Ganesh festival celebrated in housing societies at cities such as Mumbai, Pune, Nashik and Nagpur was broadcast through the channel. Special programs on eco-friendly Ganesh festival celebrations at housing societies were also broadcast on the ABP Maza television channel. Well-known celebrities from Marathi film industry, Sayali Sanjeev and Rushi Saxema advertised the competition organized for celebrating an eco-friendly Ganesh festival through promos. Winners in this competition were awarded certificates by MPCB and Prasad. Public relations officer of MPCB was present at this time. These celebrities visited MPCB's Mantralaya. Special news regarding the event was broadcast by ABP Maza television channel.
August 2017	Household Eco-Friendly Ganesh Festival Competition 2017 organized by Loksatta and MPCB.	Eco-friendly household Ganesh festival decoration competition was organized jointly by MPCB and Loksatta at 6 divisions of Loksatta newspaper at Mumbai, Pune, Nashik, Nagpur, Ahmednagar and Aurangabad. More than 2000 people competed in this event. Prize distribution of this competition took place at Yashwantrao Chavan Pratishthan at the hands of Hon'ble Minister for Environment, Shri Ramdas Kadam, State Minister for Environment, Shri Pravin Pote-Patil and Member Secretary of MPCB, Dr. P. Anbalagan. A special column regarding this event was published in all editions of Loksatta newspaper.
August 2017	Eco-Friendly Ganesh Festival UFO Digital Movies financial assistance.	Public awareness messages by celebrities from Marathi and Hindi film industry were publicized at 205 digital theatres by UFO Digital Movies for two weeks to promote an eco-friendly Ganesh festival.
August 2017	Financial assistance for DNA Eco Ganesha public awareness campaign organized by DNA and MPCB.	To celebrate an environment friendly Ganesh festival, eco-friendly Ganesh idols based on the five natural elements were installed in selected malls in Mumbai city on behalf of the MPCB and DNA. MPCB played the role of co-convenor in this campaign organized by DNA. Prominent celebrities from the Hindi film industry participated in this campaign.
August 2017	Financial assistance for public awareness activity, Times Green Ganesha.	Eco-Green Ganesha competition was organized jointly by Environment Department of MPCB, Government of Maharashtra and Times of India group for public Ganesh festival organizations and housing societies in Mumbai and Pune. During this campaign, public awareness activities were conducted in various malls, movie theatres and colleges. Eco-



		friendly Ganesh festival workshops were conducted for school students. Various activities and cleanliness campaigns were conducted by college students for the eco-friendly Ganesh ambassador during Ganesh idol immersion at Girgaon Chowpati, Juhu beach and Versova beach at Mumbai. This campaign was launched by popular actor, Vidyut Jammwal and Hollywood Director, Chuck Russel at Lala Lajpat Rai College. A special film for public awareness had been created by Times group for this campaign. A dedicated column for this campaign was published for 10 consecutive days in the newspaper, Times of India.
August 2017	Eco-Ganesh Public awareness campaign organized by Dainik Samna and MPCB.	Eco-friendly public Ganesh festival was organized at Mumbai, Pune and Aurangabad with assistance from the newspaper, Dainik Samna. The prize distribution event was conducted in the presence of Hon'ble Minister for Environment, Shri Ramdasbhai Kadam and Member Secretary, MPCB, Dr. P. Anbalagan.
 <p>Hon'ble Shri Ramdasji Kadam, Minister for Environment, GoM giving away prizes to the participants on the eve of Eco-friendly Ganesh Public awareness campaign in the presence of Dr. P. Anbalagan (IAS), Member Secretary, MPCB</p>		
August 2017	Public awareness messages about eco-friendly Ganesh festival displayed on Times OOH BEST bus stop shelters.	Public awareness message of 'Celebrate a pollution-free Diwali' by Hon'ble Chief Minister, Hon'ble Minister for Environment and Hon'ble State Minister for Environment were displayed on bus stops in Mumbai city for a period of 15 days.

August 2017	Eco-friendly Handi 2017.	Dahi	Eco Friendly Dahi Handi Festival 2017 was organized in association with IDEAL Book Company and MPCB. In this program, anti-noise pollution awareness rally was organized by famous Marathi film industry celebrities on the Open Deck Bus Service of Best Transport Service. Notable film and TV celebrities were present at this rally. On the eve of Dahi Handi, this rally was organized in the presence of street-play celebrities in Dadar, Lalbagh area. Eco-friendly Dahi Handi was smashed in the presence of young celebrities from Zee TV and ETV. At the time, in front of Chhabildas High School in Dadar, the noise-free eco-friendly Dahi Handi was smashed along with celebrities from the film and theatre industry. Public Relations Officer, MPCB was present during this event.
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Anti-noise pollution awareness rally on the eve of Dahi-handi (Gopalkala) festival was organized with participation of famous Marathi film industry celebrities on the Open Deck Bus Service of Best Transport Service in the month of August 2017.





Anti-noise pollution awareness rally on the eve of Dahi-handi (Gopalkala) festival was organized with participation of famous Marathi film industry celebrities on the Open Deck Bus Service of Best Transport Service in the month of August 2017.

October 2017	Public Awareness message for Diwali on television.	A public awareness message saying 'Celebrate a pollution-free Diwali' by celebrities from the film industry was broadcast by the television channels Zee 24 Taas, ABP Maza, IBN Lokmat, Star Pravah, Mi Marathi, TV9 Maharashtra, Saam TV, Jay Maharashtra and Maharashtra One.
October 2017	Public Awareness message for Diwali on FM radio.	A public awareness message saying 'Celebrate a pollution-free Diwali' was broadcast on leading FM Radio channels in the State.
October 2017	Diwali Bus Stop messages in Mumbai, Pune and Nagpur.	A public awareness message saying 'Celebrate a pollution-free Diwali' by Hon'ble Chief Minister of Maharashtra, Hon'ble Minister for Environment and Hon'ble State Minister for Environment were displayed on bus stops in the cities of Mumbai, Nagpur and Pune for a period of 15 days.

October 2017	Pollution-free Diwali Resolution Campaign Pledge 2017.	Pollution-free Diwali Resolution Campaign Pledge 2017 was organized at Mantralaya to promote celebration of a pollution-free Diwali. A pollution-free Diwali was pledged by students from schools and colleges from the entire State in the presence of Hon'ble Chief Minister of Maharashtra, Shri Devendra Fadnavis. Hon'ble Minister for Environment, Shri Ramdas Kadam, Hon'ble Minister of Water Resources & Irrigation, Shri Girish Mahajan, Hon'ble State Tourism Minister, Shri Jaykumar Rawal, Hon'ble Additional Chief Secretary of Environment Department, Shri Satish Gavai, Hon'ble Chairman of Maharashtra Pollution Control Board, Shri Milind Mhaiskar and Hon'ble Member Secretary of MPCB, Dr. P. Anbalagan attended this event. Students from various colleges
March 2018	Eco-Friendly Holi.	From the last few years, the widespread public awareness campaigns organized by Maharashtra Pollution Control Board to promote the celebration of an eco-friendly Holi have been receiving an increasing response. This year on behalf of the MPCB, eco-friendly colours were distributed for free to employees and officers from MPCB, Hon'ble Ministers from Mantralaya, Hon'ble Secretaries, Hon'ble Chairman, Hon'ble Speaker and Members of Legislative Assembly and Legislative Councils. Messages to promote the celebration of an eco-friendly Holi were broadcast on television and radio channels.

#### 1.14 Greenery Development Plan of Forest Department, Government of Maharashtra

Government of Maharashtra has been instrumental in increasing tree and forest cover all over the State. GOM through its Forest Department has announced The Plantation Program in 2016 with the aim of planting 2Crore trees on 1st July 2016 was a resounding success with the final total reported figure of 2.82Crore saplings planted on a single day. After the successful implementation of 2Crore plantation program on 1st July, 2016, the Government of Maharashtra has designed the 50Crore plantation program for 3 consecutive years viz. 4Crore, 13Crore and 33Crore for 2017, 2018 and 2019 respectively. 10% Bamboo, mangrove and medicinal plantation is also incorporated in this plantation drive.

In the Second Phase, though the target was of 4Crore plantation from 1<sup>st</sup> to 7<sup>th</sup> July, 2017, actually 5.43Crore seedlings were planted due to overwhelming response of Government employees and people at large. These saplings programs are driven with the involvement of 33 Government

Departments along with Students of Schools and Colleges, NSS, NCC, CSR, NGOs, Railways, National Highways, Defense, NABARD and other stakeholders of Society.

"Limca Book of World Records" has taken cognizance of these remarkable achievements of Forest Department relating to plantation in 2016 and 2017 and felicitated with certificates. Thus Maharashtra is the first State in India who acquired the place three years consequently in "Limca Book of Records".

In the Third Phase, against the target of 13Crore plantation in 2018 between the period from 1<sup>st</sup> to 31<sup>st</sup> July 2018 we could plant 15.88Crore trees, again exceeding the said target. The response of the public was overwhelming.

GoM continued this good work for the protection, enrichment and secure environment through various Schemes and Programs. In the Fourth Phase, the year 2019 represents the most significant and important step in completing this Mission of 50 crore plantation. In this year it was intended to plant 33Crore saplings throughout Maharashtra. Preparation and Planning for the success of this year's target have been initiated from 3rd August, 2018 i.e. immediately after completion of 13Crore Plantation Program. Forest Officials along with Revenue machinery and all administrative departments are working extremely hard with the active support of all sections of the society. The details of this 2 Crore, 4Crore, 13Crore & 33Crore plantation program are attached as Annexure I, II, III & IV respectively.

In an attempt to boost conservation and protection of forests and wild life in Maharashtra, the State Forest Department has launched a drive aimed at roping in citizens to help the department in their massive 50Crore trees plantation drive. A dedicated website [greenarmy.mahaforest.gov.in](http://greenarmy.mahaforest.gov.in) has been developed for registration of individuals and organizations as member of Green Army. I am happy to say that up-till now around 60 lakh members have been registered and we hope we could cross the 1Crore membership in near Future.

For maintaining the transparency, accountability and credibility, all the data relating to site selection for plantation with Geo-Tagging, development of Nurseries, digging of pits, availability of manpower, actual plantation and survival of the trees planted etc. is uploaded on the Digital Platform of Forest Department so that people can access the data at any given point of time. This

has helped to build confidence amongst the people and their ever increasing participation in the plantation programme.

For the registration of plantation by the individuals, private NGOs and other stakeholders of society the mobile application called "My Plants" has been developed. Similarly, the programs like "Saplings at the Door Step", "Digital visibility on social media", "publicity campaign" are being implemented for greater public participation.

In Marathwada region of the State having low forest cover, a dedicated "Eco-Battalion" has been established at Aurangabad for tree plantation and its protection under the Defense Ministry of GIO considering establishing two more companies of this force at Beed & Latur.

The Forest Department is trying it's level its level best to increase the Forest and Tree cover in the State by various innovative ideas by involvement of people in the plantation & its protection especially on Non-Forest areas as forest area is limited. Massive tree plantation program in urban & rural areas under the scheme "Nurturing Trees is Worshiping Nature" has been launched by the Govt. in line with Ranmala Village in Khed Taluka of Pune District.

The Tree based Agriculture under Mahatma Gandhi National rural Employment Guarantee Scheme (MG-NREGS) Kanya Van Samruddhi Yojana, Bhausaheb Phundkar Horticulture Plantation Programme in co-ordination with Agriculture Department, Sericulture Plantation in coordination with Textile Department, Riverside Plantation are some of scheme initiated for increasing green cover in the Non- Forest areas.

- Status report on Forest for 2017 at all India level has been published by "Forest survey of India" in February 2018 vis-a-vis status of forest & related sectors in 2015. As far as Maharashtra is concerned the findings are as follows:
- Tree cover on non-forest area has increased by 273Km.sq – Maharashtra is a leading state
- Mangrove cover has increased by 82Km.sq - Maharashtra is a leading state
- Water bodies in forest areas has gone up by 432 km.sq – Maharashtra is having higher rank
- Increase in the bamboo plantation area by 4462 km.sq – Eventually Maharashtra is placed highest in the country

## Plan for restoration of Water Quality

### Short Term Mitigation Measures

1. Effective implementation of operation and maintenance of ETP/STP in Organized & large scale industries including hotels & restaurants.
2. Control over open defecation / solid waste dumping through installation of sulabh sauchalaya concept and in-situ solid waste treatment facility in each stretch.
3. The treatment options shall all be confined mostly to those stretches of river with no tidal influence whereas it shall be applicable to all nallahs and industrial source irrespective of its location.
4. Effective collection and transfer mechanism for sewage, industrial or otherwise source wastewater shall be implemented and connected to proposed treatment facilities.
5. Silt accumulation removal and ongoing practice needs to be improved by enhanced scientific & effective removal followed by scientific disposal especially silt accumulated in the nallahs at the mouth of the river.
6. Black colored pigmentation observed on banks of river in certain stretches such as downstream of confluence of Vakola Nallah on left bank of Mithi & downstream of CST Bridge which may be probably resurfacing of historic pollutants needs to be scientifically remediated.

### Long Term Management Measures

1. Mithi River is responsible for Mumbai floods. Hence Flood mitigation and disaster management of the river is important and should be priority done.
2. The earlier fitted STP's and treatment facilities for at source wastewater generators for short term mitigations shall need up-gradation through installing polishing quaternary treatment units.
3. All nallahs that require full-fledged treatment facility need to achieve stringent standard of 30mg/l BOD concentration.
  4. There might also be need for mechanical agitation / aeration through natural or other means within the course of river especially in the first half of river stretches for effectively adding up and maintaining DO levels above 6mg/l.
  5. Absolute vigilance and zero disposal of solid waste or entry of runoffs carrying open defecated matter shall find its way into the river at any point of time.
  6. Cluster development based on typical / representative generator of particular type of waste such as scrap dealers, bottle washing units, buffalo sheds (Gothas), electroplaters & laundry through allotting locations that are equipped with environment infrastructure facilities.
  7. Eventually all automobile service / washing Centre to adopt zero discharge policy.
  8. A greenbelt/greenway should be developed on both sides of the embankment, for controlling erosion, reducing sediment load of the main channel, reduce pollution,

and beautification. Nature trails may be provided across riparian areas for recreation to the public without losing the ecological functions of the floodplains.

**Table 14 Long term action plan for Mula River**

<b>Sr.No.</b>	<b>Activity</b>	<b>Responsibility</b>	<b>Time Frame</b>
1	Compulsory application of water meter.	Municipal Corporation of Greater Mumbai	1 Year
2	Maintaining continuous flow in the river	Municipal Corporation of Greater Mumbai	1 Year
3	For the treatment of 100% waste water prepare a plan, construct & operate STP in scientific manner	Municipal Corporation of Greater Mumbai	2 Years
4	Up-gradation of existing STPs to meet 10mg/lit BOD Outlet standard	Municipal Corporation of Greater Mumbai	4 Years
5	Exploration, development and augmentation of groundwater resources	Groundwater Surveys & Development Agency ( G.S.D.A. )	Continuous
6	Groundwater Monitoring	Maharashtra Pollution Control Board, Ministry of Drinking water & sanitation	Continuous
7	Provision of adequate funds to Local Bodies located at bank of the river	Urban Development Department, Municipal Administration, Rural Development Department	1 Year for planning & 3 years for implementation
8	Tree Plantation in catchment area & banks of the river	Forest Department, Water Resource Department	1 Year
9*	Maintaining the flow of the river, protection of flood plain zone, development of Bio Diversity Park	Forest Department, Water Resource Department	1 Year for planning & 3 years for implementation
10	Prevention of Agricultural run-off to the river	Agriculture Department	1 Year for planning & 3 years for implementation
11	Up-gradation of existing STPs to meet 10mg/lit BOD Outlet standard	Pune Municipal Corporation	4 Years



<b>Ghatkopar STP</b>									
<b>Malad STP</b>									
<b>Colaba STP</b>									
<b>Augmentation of Creeks &amp; Sea and restoration of water quality</b>									

## 1.17 Governance and Supervision

### 1.17.1 Two Tier Monitoring

Monitoring will be done by the concerned Departments/ Agencies, which are executing or responsible for particular activities and it will be their primary responsibility to ensure compliance of the Action Plan. In addition, there will be two level of Committees to review and monitor the status: (i) District Level Task Force (ii) River Rejuvenation Committee

### 1.17.2 District Level Special Task Force:

The District Level Special Task Force will monitor the Status of implementation of the Action Plan at the district Level.

### 1.17.3 River Rejuvenation Committee:

The River Rejuvenation Committee will monitor the Status of implementation of the Action Plan at the State Level



Table showing Districtwise Targer v/s Achievement for 2-crore plantation program

S.No.	Revenue Division	District	Forest Department					Non - forest Department					Achievement in %		
			Plantation Target	Plantation Achievement (online)	Plantation Achievement (offline)	Plantation Achievement (Total)	Total Plantation Achievement (%)	Plantation Target	Plantation Achievement (online)	Plantation Achievement (offline)	Plantation Achievement (Total)	Plantation Achievement (%)	Plantation Achievement	Plantation Achievement	Plantation Achievement (%)
A	B	C	1	2	3	4	5	1	2	3	4	5	1	2	3
1	Amravati	Akola	97000	106482	0	106482	109.78	Cumulative target for non-forest departments for all districts put together was 50 lakh	170638	0	170638			277120	
2	Amravati	Amravati	110000	172653	0	172653	156.96		223895	0	223895			396548	
3	Amravati	Buldhana	110000	152000	500	152500	138.64		99162	0	99162			251662	
4	Amravati	Washim	96000	102100	0	102100	106.35		61134	0	61134			163234	
5	Amravati	Yavatmal	1232000	1326600	0	1326600	107.68		368877	0	368877			1695477	
	Division Subtotal		1645000	1859835	500	1860335	113.09		923706	0	923706			2784041	
6	Aurangabad	Aurangabad	483000	491500	0	491500	101.76		73918	0	73918			565418	
7	Aurangabad	Beed	603000	613137	0	613137	101.68		71871	0	71871			685008	
8	Aurangabad	Hingoli	345000	348400	0	348400	100.99		124846	0	124846			473246	
9	Aurangabad	Jalna	157000	165000	0	165000	105.10		126963	0	126963			291963	
10	Aurangabad	Latur	368000	374750	0	374750	101.83		28670	0	28670			403420	
11	Aurangabad	Nanded	488000	510000	0	510000	104.51		82043	46062	128105			638105	
12	Aurangabad	Osmanabad	363000	373000	0	373000	102.75		13427	0	13427			386427	
13	Aurangabad	Parbhani	153000	161500	0	161500	105.56		122980	0	122980			284480	
	Division Subtotal		2960000	3037287	0	3037287	102.61		644718	46062	690780			3728067	
14	Konkan	Mumbai City	0	0	0	0	0		8020	0	8020			8020	
15	Konkan	Mumbai suburban	0	5000	0	5000	0		4823	0	4823			9823	
16	Konkan	Palghar	116000	531409	2105	533514	459.93		279345	0	279345			812859	
17	Konkan	Raigad	88000	234109	27835	261944	297.66		36780	0	36780			298724	
18	Konkan	Ratnagiri	11000	26847	18425	45272	411.56		16763	142940	159703			204975	
19	Konkan	Sindhudurg	23000	27500	0	27500	119.57		117898	0	117898			145398	
20	Konkan	Thane	148000	656650	0	656650	443.68		287011	0	287011			943661	
	Division Subtotal		386000	1481515	48365	1529880	396.34		750640	142940	893580			2423460	
21	Nagpur	Bhandara	424000	684890	0	684890	161.53		109050	0	109050			793940	
22	Nagpur	Chandrapur	1145000	1556787	467580	2024367	176.80		446205	111007	557212			2581579	
23	Nagpur	Gadchiroli	420000	598636	0	598636	142.53		105995	13410	119405			718041	
24	Nagpur	Gondia	552000	828266	0	828266	150.05		2915	0	2915			831181	
25	Nagpur	Nagpur	686000	1002805	0	1002805	146.18		303441	8433	311874			1314679	
26	Nagpur	Wardha	270000	525002	0	525002	194.45		28681	0	28681			553683	
	Division Subtotal		3497000	5196386	467580	5663966	161.97		996287	132850	1129137			6793103	
27	Nashik	Ahmednagar	1054000	1591379	0	1591379	150.98		362789	17725	380514			1971893	
28	Nashik	Dhule	305000	515500	0	515500	169.02		178854	9531	188385			703885	
29	Nashik	Jalgaon	950000	1085050	0	1085050	114.22		85113	16400	101513			1186563	
30	Nashik	Nandurbar	869000	1033000	0	1033000	118.87		70199	8820	79019			1112019	
31	Nashik	Nashik	1402000	2492433	17415	2509848	179.02		17910	69744	87654			2597502	
	Division Subtotal		4580000	6717362	17415	6734777	147.05		714865	122220	837085			7571862	
32	Pune	Kolhapur	210000	405304	0	405304	193.00		171918	200540	372458			777762	
33	Pune	Pune	1010000	1135510	189392	1324902	131.18		11189	989678	1000867			2325769	
34	Pune	Sangli	230000	332000	0	332000	144.35		168833	0	168833			500833	
35	Pune	Satara	272000	527600	0	527600	193.97		60462	23511	83973			611573	
36	Pune	Solapur	410000	468700	144746	613446	149.62		8718	0	8718			622164	
	Division Subtotal		2132000	2869114	334138	3203252	150.25		421120	1213729	1634849			4838101	
	Grand Total		15200000	21161499	867998	22029497	144.93		4451336	1657801	6109137			28138634	

Online - District Wise Forest & Non-Forest Details as on 9 th July 2017

Sr. No.	District	Total Target as per distributed by CCF(T) for Forest Departments	FOREST									Non Forest Agnecies								
			No. Of Site Registered	Site Area (in Ha.)	No of Seedlings to be planted (As per Data Filled up by Forest department till Date)	No. Of Pits Dug (As per Data Filled up by Forest Department till Date)	No of Seedlings planted	Plantation % Achivement Against Target of Forest Department	Plantation % Achivement Against no of Pits dug of Forest Department	Total Target as per distributed by District Collector for Non Forest Departments	No of participants	No. Of Site Registered	Site Area (in Ha.)	No Seedlings to be planted(As per Data Filled up by all Agencies till Date)	No. Of Pits Dug(As per Data Filled up by all Agencies till Date)	No of Seedlings planted	Plantation % Achivement Against Target of Forest Department	Plantation % Achivement Against no of Pits dug of Forest Department	No of participants	Grand Total of Forest and Non Forest No of Seedlings planted
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Ahmednagar	2228200	222	2784.82	2221323	2219923	2219935	99.63	100.00	807403	17,902	1,805	15,928	813824	776587	638607	79.09	82.23	68,140	2858542
2	Akola	283000	67	537	367258	367258	367258	129.77	100.00	357000	16,266	2,044	3,196	346602	346032	317949	89.06	91.88	46,962	685207
3	Amravati	405000	122	699.84	503572	486732	488388	120.59	100.34	565100	10,784	3,926	74,381	630485	504855	419928	74.31	83.18	18,303	908316
4	Aurangabad	510000	70	616.45	510832	510732	510832	100.16	100.02	692104	10,108	2,692	9,097	787484	682734	637178	92.06	93.33	11,524	1148010
5	Beed	448000	72	1253.69	795452	795452	795452	177.56	100.00	564572	5,986	1,673	2,321	551380	433861	488889	86.59	112.68	15,738	1284341
6	Bhandara	890000	103	946.58	1058469	1058469	1048469	117.81	99.06	85000	9,901	1,251	19,412	349841	316362	283914	334.02	89.74	27,009	1332383
7	Buldhana	414000	131	431.3	432100	432100	431100	104.13	99.77	495814	8,197	3,015	2,342	487127	471738	437882	88.32	92.82	10,057	868982
8	Chandrapur	2257883	144	2357.28	3407746	3407746	3357121	148.68	98.51	660000	22,909	4,177	127,491	1456512	1181935	1004395	152.18	84.98	41,274	4361516
9	Dhule	517000	64	977.54	1196873	1196873	1196873	231.50	100.00	285000	3,648	1,209	21,307	277619	263469	247573	86.87	93.97	4,728	1444446
10	Gadchiroli	1452500	94	1672.77	2425548	2425548	2351675	161.91	96.95	259732	23,311	1,360	20,841	284890	258175	211191	81.31	81.80	24,851	2562866
11	Gondia	1145000	125	934.15	1193385	1193385	1187896	103.75	99.54	151000	41,396	3,870	143,813	414624	414124	337925	223.79	81.60	43,499	1525821
12	Hingoli	438000	76	823.82	703840	703840	686700	156.78	97.56	328850	3,545	1,046	5,465	326225	323532	319249	97.08	98.68	26,198	1005949
13	Jalgaon	1440000	103	1656.45	1715981	1715981	1715981	119.17	100.00	649049	5,899	5,763	111,548	794952	651012	536564	82.67	82.42	26,621	2252545
14	Jalna	260000	56	367.94	260000	260000	260000	100.00	100.00	590250	10,907	1,386	3,564	603904	590513	595988	100.97	100.93	29,449	855988
15	Kolhapur	500000	77	660.5	562222	562222	555722	111.14	98.84	342000	14,934	4,025	106,084	378429	327394	357051	104.40	109.06	59,205	912773
16	Latur	310000	88	478.59	453820	400118	404512	130.49	101.10	583362	10,303	2,436	11,488	661810	642492	639028	109.54	99.46	41,926	1043540
17	Mumbai City	0	0	0	0	0	0	0.00	0.00	0	0	54	550	4,730	4,392	4037	0.00	91.92	653	4037
18	Mumbai Suburban	0	1	1	500	0	500	100.00	100.00	0	100	256	3,806	23,899	5,715	14411	100.00	252.16	2,591	14911
19	Nagpur	763000	143	865.68	1024915	1024915	1024915	134.33	100.00	276000	4,729	5,773	42,237	673895	661305	560967	203.25	84.83	52,998	1585882
20	Nanded	710000	167	1764.75	1217300	1217300	1211050	170.57	99.49	535576	7,150	1,395	3,786	552358	545289	544708	101.71	99.89	40,779	1755758
21	Nandurbar	712000	79	598	712370	712270	712270	100.04	100.00	346535	6,211	5,639	6,357	921850	821758	910922	262.87	110.85	40,986	1623192
22	Nashik	2635300	194	2970.28	3490475	3489475	3487790	132.35	99.95	777810	17,864	4,416	556,270	1225548	923890	856375	110.10	92.69	35,406	4344165
23	Osmanabad	250000	120	571.08	534180	534180	532180	212.87	99.63	472900	56,730	1,954	48,531	578209	446815	563453	119.15	126.10	94,935	1095633
24	Palghar	1125000	144	1860.98	1647756	1639160	1634296	145.27	99.70	495000	17,916	2,281	169,544	757911	547671	528322	106.73	96.47	22,437	2162618
25	Parbhani	350000	40	538	309600	309600	309600	88.46	100.00	372260	2,746	2,999	4,148	414549	404125	413312	111.03	102.27	86,294	722912
26	Pune	797000	117	1185.02	1016063	1014713	1011063	126.86	99.64	1413000	14,967	3,463	505,320	1514091	1375085	1266379	89.62	92.09	70,363	2277442
27	Raigad	551000	158	573.71	728580	728580	728580	132.23	100.00	483000	14,690	2,098	122,918	451212	359128	389537	80.65	108.47	28,579	1118117
28	Ratnagiri	33487	58	77.37	51832	51832	38500	114.97	74.28	209025	2,142	1,851	108,842	345093	312397	300577	143.80	96.22	34,156	339077
29	Sangli	464000	81	921.31	504606	504606	504606	108.75	100.00	461000	17,155	1,510	18,969	486208	457206	410057	88.95	89.69	9,801	914663
30	Satara	552000	110	861.03	678796	678796	650983	117.93	95.90	225000	15,750	1,072	45,508	319468	278952	235173	104.52	84.31	2,754	886156
31	Sindhudurg	71000	27	165.21	65219	65219	65219	91.86	100.00	188100	2,888	2,178	7,246	551804	531276	537136	285.56	101.10	22,424	602355
32	Solapur	400000	62	498	447400	447400	447400	111.85	100.00	534000	11,444	1,256	3,824	433549	410291	397190	74.38	96.81	45,279	844590
33	Thane	825000	177	1227.43	947484	947484	944326	114.46	99.67	1003000	18,966	4,600	23,496	693843	559774	363329	36.22	64.91	10,749	1307655
34	Wardha	684000	155	897.27	706770	706770	693189	101.34	98.08	399500	16,534	1,307	34,545	620904	573596	544952	136.41	95.01	16,122	1238141
35	Washim	189000	43	259	227810	227810	225880	119.51	99.15	318500	8,417	944	63	397914	351189	341592	107.25	97.27	31,661	567472
36	Yavatmal	1563000	169	2365.07	2310225	2280416	2280758	145.92	100.01	816000	32,895	3,874	43,170	845905	684777	650791	79.75	95.04	50,281	2931549
TOTAL		26173370	3,659	35,399	34430302	34316905	34081019	130.21	99.31	16742442	4,85,290	90,598	24,27,408	20978648	18439446	17306531	103.37	93.86	11,94,732	51387550

Table - 4 (Districtwise : Online data including no of sites of Forest and Non Forest Department)							
13-Crore Plantation Drive (1st-31st July 2018)							
Districtwise Final Detail Report Online							
Sr. No.	District	No. of Site Registered (As per Data Filled up by all Agencies Forest and non Forest )	Target Seedling (As per Data Filled up by all Agencies Forest and non Forest )	No. of Pits Dug (As per Data Filled up by all Agencies Forest and non Forest )	No. of Seedling Planted	No of Participants	Plantation % Achivement Against Target (As per Data Filled up by all Agencies )
1	2	3	4	5	6	7	8
1	Ahmednagar	2,772	51,08,370	50,15,315	48,61,408	3,06,543	95.17%
2	Akola	4,144	21,25,903	21,03,510	20,46,069	97,664	96.24%
3	Amravati	5,818	29,04,424	27,29,228	26,75,694	58,189	92.12%
4	Aurangabad	4,732	42,34,736	42,06,668	38,13,300	1,90,465	90.05%
5	Beed	1,678	32,80,561	32,66,578	31,84,650	1,64,332	97.08%
6	Bhandara	1,645	20,69,030	19,52,926	19,26,818	71,189	93.13%
7	Buldhana	4,737	28,66,716	26,20,663	26,15,863	44,262	91.25%
8	Chandrapur	10,624	76,89,774	73,22,882	70,22,285	1,28,804	91.32%
9	Dhule	2,531	44,03,806	40,05,121	39,78,375	23,948	90.34%
10	Gadchiroli	4,520	56,45,700	55,60,998	54,60,676	1,49,207	96.72%
11	Gondia	4,090	35,78,065	35,16,681	31,61,809	1,22,904	88.37%
12	Hingoli	3,474	33,24,604	33,20,524	33,15,847	60,876	99.74%
13	Jalgaon	7,718	46,76,921	43,72,652	43,51,516	1,28,362	93.04%
14	Jalna	4,416	37,71,870	37,46,711	37,28,979	1,48,654	98.86%
15	Kolhapur	4,682	27,29,339	27,14,656	26,99,189	1,74,431	98.90%
16	Latur	4,203	44,25,414	44,14,461	43,75,652	92,248	98.88%
17	Mumbai City	8	1,734	345	125	15	7.21%
18	Mumbai Suburban	21	1,77,239	1,77,104	1,77,054	3,640	99.90%
19	Nagpur	7,578	43,50,575	41,94,072	36,12,600	1,14,443	83.04%
20	Nanded	2,280	78,75,138	78,74,773	78,74,023	1,09,782	99.99%
21	Nandurbar	4,501	48,47,165	48,36,830	48,35,801	1,22,364	99.77%
22	Nashik	10,959	81,12,851	76,07,679	72,34,067	2,20,556	89.17%
23	Osmanabad	4,924	43,65,452	41,94,431	41,73,890	1,68,040	95.61%
24	Palghar	2,511	48,34,917	39,37,411	40,47,309	96,654	83.71%
25	Parbhani	3,035	33,43,340	28,29,588	26,56,513	31,643	79.46%
26	Pune	6,825	53,87,602	47,79,571	46,34,593	1,03,592	86.02%
27	Raigad	6,423	36,33,058	33,03,872	26,30,299	64,730	72.40%
28	Ratnagiri	1,650	12,50,643	11,36,124	11,28,532	24,767	90.24%
29	Sangli	2,136	29,46,189	29,38,110	29,24,149	57,204	99.25%
30	Satara	1,917	27,91,533	27,03,806	25,99,132	51,990	93.11%
31	Sindhudurg	3,890	15,91,404	15,69,542	15,34,156	29,785	96.40%
32	Solapur	1,887	22,25,306	21,31,315	20,89,491	3,21,701	93.90%
33	Thane	4,723	32,39,134	30,98,694	30,76,186	91,623	94.97%
34	Wardha	1,897	38,22,690	23,86,546	23,47,121	38,967	61.40%
35	Washim	1,159	16,79,735	15,21,253	15,17,885	43,832	90.36%
36	Yavatmal	5,575	62,75,861	61,26,193	59,95,076	1,70,267	95.53%
<b>TOTAL</b>		<b>1,45,683</b>	<b>13,55,86,799</b>	<b>12,82,16,833</b>	<b>12,43,06,132</b>	<b>38,27,673</b>	<b>91.68%</b>

शा.नि. क्र:- साववि-2018/प्र.क्र.144/फ-11, दि. 6 सप्टेंबर, 2018 सोबतचे

विवरणपत्र

Revenue - District Wise, Agency wise Plantation Target Distrubution Under 33 Crore Plantation Program 2019

Sr. No.	Implementing Agency Name	Aurangabad	Jalna	Beed	Parbhani	Hingoli	Latur	Osmanabad	Nanded	Aurangabad Revenue division Total
		Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019
1	Agriculture Department	997050	1906800	601150	666350	581500	700550	865200	221650	6540250
2	Urban Development Department ** (Except Municipal Corporations)	206850	97100	150350	24950	30000	271550	434450	65000	1280250
3	Municipal Corporations	20700	NA*	NA*	2500	NA*	27150	NA*	6500	56850
4	PWD	138750	100150	28100	70000	23750	34950	120000	2950	518650
5	Water Resources Department	155450	19400	38400	51750	5100	60600	141250	63800	535750
6	Co-operation & Marketing Department	19500	10800	28100	10000	13200	10000	60200	4800	156600
7	Industries Department	119850	18800	25200	15750	25000	59000	31050	47750	342400
8	School Education Department	137700	49650	75000	348200	75300	200000	128400	65800	1080050
9	Sports Department	15000	15000	15000	15000	15000	15000	15000	15000	120000
10	Higher Education Department	24200	24200	24200	24200	24200	24200	24200	24200	193600
11	Technical Education Department	24200	24200	24200	24200	24200	24200	24200	24200	193600
12	Home Department (Police)	13500	34450	20000	8700	25300	3650	48550	16700	170850
13	Home Department (Jail)	21850	2800	5000	5000	5000	4850	9700	550	54750
14	Tribal Development Department	2450	2450	2450	2450	2450	2450	2450	2450	19600
15	Social Justice and Special Assistance	2250	10850	10100	12200	5350	1400	11300	5000	58450
16	VJNT & OBC welfare Department	1800	1800	1800	1800	1800	1800	1800	1800	14400
17	Tourism Department	16300	16300	16300	16300	16300	16300	16300	16300	130400
18	Cultural Affairs Department	1800	1800	1800	1800	1800	1800	1800	1800	14400
19	Public Health Department	9450	2550	53050	33450	4500	14800	18550	550	136900
20	Energy Department	18500	19950	6200	8750	4500	20000	7000	4000	88900
21	Medical education Department	300	300	300	300	300	300	300	300	2400
22	Food and Drug Administration Department	300	300	300	300	300	300	300	300	2400
23	State excise	1000	1000	1000	1000	1000	1000	1000	1000	8000
24	Transport (RTO)	1200	1200	1200	1200	1200	1200	1200	1200	9600
25	Transport (MSRTC)	1850	1850	1850	1850	1850	1850	1850	1850	14800
26	Labor Department	650	650	650	650	650	650	650	650	5200
27	Law and Judiciary Department	650	650	650	650	650	650	650	650	5200
28	Water Conservation Department	29350	19050	19750	10000	10000	4800	10150	10000	113100
29	Skills development and entrepreneurship	1750	1750	1750	1750	1750	1750	1750	1750	14000
30	Revenue Department	3000	29650	20000	29450	10600	22450	9700	20000	144850
31	Women and Child Welfare Department	200	200	200	200	200	200	200	200	1600
32	Water supply and Sanitation	950	950	950	950	950	950	950	950	7600
33	Animal Husbandry Department	3050	350	5000	9250	1700	11600	12000	1850	44800
34	Dairy Department	1000	1700	1000	3000	550	2850	4000	600	14700
35	Fisheries Department	1000	100	1000	3000	550	2850	4000	600	13100
36	Minority welfare department	8700	8700	8700	8700	8700	8700	8700	8700	69600
37	Finance - GST Department	900	900	900	900	900	900	900	900	7200
38	Finance - Accounts and Treasury Department	900	900	900	900	900	900	900	900	7200
39	Rural Development Department (Excluding Grampanchayat )	363000	262400	250700	1297950	38200	363000	14700	4200	2594150
40	Grampanchayat - 3200 Plants each GPs (RDD)	2759250	2493600	3300250	2253500	1802150	2509600	1991000	4190100	21299450
41	Housing Department	1000	300	300	300	300	300	300	300	3100
42	Railway under Gol	1250	1250	1250	1250	1250	1250	1250	1250	10000
43	National Highways under Gol	4500	4500	4500	4500	4500	4500	4500	4500	36000
44	Defence under Gol	300	300	300	300	300	300	300	300	2400
45	Gol offices In State	10550	10550	10550	10550	10550	10550	10550	10550	84400
46	Textiles & Sericulture Department	651700	1282300	1000000	1500000	324450	2181200	2000000	1000000	9939650
	<b>TOTAL</b>	<b>5795450</b>	<b>6484450</b>	<b>5760350</b>	<b>6485750</b>	<b>3108700</b>	<b>6628850</b>	<b>6043200</b>	<b>5854400</b>	<b>46161150</b>

\*NA - Not Applicable.

\*\*UDD - Includes Municipal Councils, Nagar Panchayats, CIDCO and Various Pradhikarans Like MMRDA, PMRDA, NIT etc.

Sr. No.	Implementing Agency Name	Nagpur	Wardha	Gondia	Chandrapur	Gadchiroli	Bhandara	Nagpur Revenue division Total
		Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019
1	Agriculture Department	150850	886700	718800	701850	71750	174000	2703950
2	Urban Development Department ** (Except Municipal Corporations)	23750	94000	21500	508400	5750	16150	669550
3	Municipal Corporations	82450	NA*	NA*	96700	NA*	NA*	179150
4	PWD	301300	217650	165750	364800	19500	112200	1181200
5	Water Resources Department	173450	154850	21600	152700	3650	8550	514800
6	Co-operation & Marketing Department	4350	2950	44850	92300	7250	2450	154150
7	Industries Department	112350	51750	18000	58150	1900	7700	249850
8	School Education Department	99750	534050	97950	363500	166250	83250	1344750
9	Sports Department	11100	59350	10900	40400	18450	9250	149450
10	Higher Education Department	4975	56600	850	1500	8900	375	73200
11	Technical Education Department	4975	56600	850	1500	8900	375	73200
12	Home Department (Police)	35050	118950	21750	32300	12350	4650	225050
13	Home Department (Jail)	5600	4400	2000	1400	2300	2800	18500
14	Tribal Development Department	17300	6600	7550	61350	24750	4200	121750
15	Social Justice and Special Assistance	2350	2350	2350	2350	2350	2350	14100
16	VJNT & OBC welfare Department	600	600	600	600	600	600	3600
17	Tourism Department	1000	1000	1000	1000	1000	1000	6000
18	Cultural Affairs Department	1000	1000	1000	1000	1000	1000	6000
19	Public Health Department	2300	30500	10150	40450	13150	17000	113550
20	Energy Department	350	16450	1900	114950	650	2250	136550
21	Medical education Department	1500	1500	1500	1500	1500	1500	9000
22	Food and Drug Administration Department	400	400	400	400	400	400	2400
23	State excise	450	450	450	450	450	450	2700
24	Transport (RTO)	1300	1300	1300	1300	1300	1300	7800
25	Transport (MSRTC)	2000	2000	2000	2000	2000	2000	12000
26	Labor Department	17100	14000	14000	14000	14000	14000	87100
27	Law and Judiciary Department	10050	10700	1550	2200	5000	5000	34500
28	Water Conservation Department	11650	50950	50400	13150	25000	20000	171150
29	Skills development and entrepreneurship	850	2450	3000	15400	1150	4200	27050
30	Revenue Department	9100	28300	17650	28300	2800	14000	100150
31	Women and Child Welfare Department	8750	10400	10000	17750	4100	5050	56050
32	Water supply and Sanitation	13450	42200	20000	17050	20000	20000	132700
33	Animal Husbandry Department	5200	9400	3200	10650	750	3500	32700
34	Dairy Department	1750	3150	1050	3550	250	1150	10900
35	Fisheries Department	1750	3150	1050	3550	250	1150	10900
36	Minority welfare department	8700	8700	8700	8700	8700	8700	52200
37	Finance - GST Department	700	700	700	700	700	700	4200
38	Finance - Accounts and Treasury Department	700	700	700	700	700	700	4200
39	Rural Development Department (Excluding Grampanchayat )	240000	141000	120000	246000	244300	120000	1111300
40	Grampanchayat - 3200 Plants each GPs (RDD)	2506400	1661300	1747750	2647250	1459650	1731750	11754100
41	Housing Department	700	700	700	700	700	700	4200
42	Railway under Gol	1250	1250	1250	1250	1250	1250	7500
43	National Highways under Gol	500	500	500	500	500	500	3000
44	Defence under Gol	8450	10000	14050	18100	10000	25100	85700
45	Gol offices In State	3700	8400	10000	10000	10000	10000	52100
46	Textiles & Sericulture Department	1205050	1452250	0	0	0	550	2657850
	<b>TOTAL</b>	<b>5096300</b>	<b>5762200</b>	<b>3181250</b>	<b>5702350</b>	<b>2185900</b>	<b>2443800</b>	<b>24371800</b>

\*NA - Not Applicable.

\*\*UDD - Includes Municipal Councils, Nagar Panchayats, CIDCO and Various Pradhikarans Like MMRDA, PMRDA, NIT etc.

Sr. No.	Implementing Agency Name	Amravati	Akola	Washim	Yavatmal	Buldhana	Amravati Revenue division Total
		Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019
1	Agriculture Department	135150	440700	217500	407650	397300	1598300
2	Urban Development Department ** (Except Municipal Corporations)	64100	88500	34850	109550	138850	435850
3	Municipal Corporations	20300	16300	NA*	NA*	NA*	36600
4	PWD	500150	121750	161750	411600	10400	1205650
5	Water Resources Department	67850	35400	24800	182550	4200	314800
6	Co-operation & Marketing Department	7050	18750	5000	5900	7950	44650
7	Industries Department	176050	134750	600	33950	30900	376250
8	School Education Department	151550	49200	24700	70600	317400	613450
9	Sports Department	16850	5450	2750	7850	35250	68150
10	Higher Education Department	3475	350	7625	875	425	12750
11	Technical Education Department	3475	350	7625	875	425	12750
12	Home Department (Police)	17650	19750	6100	5850	28100	77450
13	Home Department (Jail)	27250	4200	400	550	850	33250
14	Tribal Development Department	32500	28100	600	79150	4200	144550
15	Social Justice and Special Assistance	18760	1760	2760	11600	4840	39720
16	VINT & OBC welfare Department	4690	440	690	2900	1210	9930
17	Tourism Department	1000	1000	1000	1000	1000	5000
18	Cultural Affairs Department	1000	1000	1000	1000	1000	5000
19	Public Health Department	23400	9000	17250	10800	6300	66750
20	Energy Department	3550	14850	13350	7850	7750	47350
21	Medical education Department	500	500	500	500	500	2500
22	Food and Drug Administration Department	500	500	500	500	500	2500
23	State excise	2650	350	550	1100	2800	7450
24	Transport (RTO)	1000	100	1000	2300	1200	5600
25	Transport (MSRTC)	1500	150	1500	3450	1750	8350
26	Labor Department	500	500	500	500	500	2500
27	Law and Judiciary Department	13100	9950	11250	2400	300	37000
28	Water Conservation Department	25300	14050	15000	28150	24650	107150
29	Skills development and entrepreneurship	5450	5600	5000	5350	5600	27000
30	Revenue Department	21500	13500	8550	34550	28100	106200
31	Women and Child Welfare Department	9200	3700	5650	21200	8950	48700
32	Water supply and Sanitation	6350	8600	7950	6250	6000	35150
33	Animal Husbandry Department	11550	5300	2750	5900	8450	33950
34	Dairy Department	3850	1750	900	1950	2800	11250
35	Fisheries Department	3850	1750	900	1950	2800	11250
36	Minority welfare department	8700	8700	8700	8700	8700	43500
37	Finance - GST Department	750	750	750	750	750	3750
38	Finance - Accounts and Treasury Department	750	750	750	750	750	3750
39	Rural Development Department (Excluding Grampanchayat )	48000	15000	1500	9300	2600	76400
40	Grampanchayat - 3200 Plants each GPs (RDD)	2688850	1706150	1571700	3844400	2784850	12595950
41	Housing Department	500	500	500	500	500	2500
42	Railway under Gol	1250	1250	1250	1250	1250	6250
43	National Highways under Gol	4500	4500	4500	4500	4500	22500
44	Defence under Gol	500	500	500	500	500	2500
45	Gol offices In State	500	500	500	500	500	2500
46	Textiles & Sericulture Department	100000	100000	100000	525550	100000	925550
	<b>TOTAL</b>	<b>4236900</b>	<b>2896500</b>	<b>2283500</b>	<b>5864850</b>	<b>3998150</b>	<b>19279900</b>

\*NA - Not Applicable.

\*\*UDD - Includes Municipal Councils, Nagar Panchayats, CIDCO and Various Pradhikarans Like MMRDA, PMRDA, NIT etc.

Sr. No.	Implementing Agency Name	Nashik	Ahamadnager	Dhule	Jalgaon	Nandurbar	Nashik Revenue division Total
		Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019
1	Agriculture Department	684800	672100	235750	162150	292650	2047450
2	Urban Development Department ** (Except Municipal Corporations)	171300	188750	144300	132500	5600	642450
3	Municipal Corporations	81650	22450	126400	25300	NA*	255800
4	PWD	398100	64150	91700	126700	39600	720250
5	Water Resources Department	158700	62750	20400	138000	350	380200
6	Co-operation & Marketing Department	35550	17000	17500	61050	13000	144100
7	Industries Department	51950	4450	12650	29800	400	99250
8	School Education Department	114850	72400	12450	111400	35550	346650
9	Sports Department	12750	8050	1400	12400	3950	38550
10	Higher Education Department	3075	11150	500	1925	900	17550
11	Technical Education Department	3075	11150	500	1925	900	17550
12	Home Department (Police)	54050	2800	4850	8450	4300	74450
13	Home Department (Jail)	29500	500	500	500	500	31500
14	Tribal Development Department	12350	10000	15950	55150	50900	144350
15	Social Justice and Special Assistance	3000	3000	3000	3000	3000	15000
16	VJNT & OBC welfare Department	700	700	700	700	700	3500
17	Tourism Department	1600	1600	1600	1600	1600	8000
18	Cultural Affairs Department	500	500	500	500	500	2500
19	Public Health Department	3200	3500	1450	46000	500	54650
20	Energy Department	8900	200	500	21300	500	31400
21	Medical education Department	500	500	500	500	500	2500
22	Food and Drug Administration Department	500	500	500	500	500	2500
23	State excise	300	11450	500	500	500	13250
24	Transport (RTO)	4450	650	500	1300	500	7400
25	Transport (MSRTC)	6650	950	500	1900	500	10500
26	Labor Department	15350	87900	500	500	500	104750
27	Law and Judiciary Department	4350	500	300	3250	500	8900
28	Water Conservation Department	35450	4850	11900	4650	24850	81700
29	Skills development and entrepreneurship	100	500	4700	7500	500	13300
30	Revenue Department	3150	45200	5550	14900	3150	71950
31	Women and Child Welfare Department	32350	500	500	1050	13600	48000
32	Water supply and Sanitation	9300	500	2900	1400	500	14600
33	Animal Husbandry Department	8700	13100	4400	3950	4300	34450
34	Dairy Department	2900	4350	1450	1300	1450	11450
35	Fisheries Department	2900	4350	1450	1300	1450	11450
36	Minority welfare department	8700	8700	8700	8700	8700	43500
37	Finance - GST Department	2900	2850	500	500	500	7250
38	Finance - Accounts and Treasury Department	2900	2850	500	500	500	7250
39	Rural Development Department (Excluding Grampanchayat )	60300	5400	2200	18000	18000	103900
40	Grampanchayat - 3200 Plants each GPs (RDD)	4423800	4199700	1731750	3677950	1904600	15937800
41	Housing Department	950	950	950	950	950	4750
42	Railway under Gol	1250	1250	1250	1250	1250	6250
43	National Highways under Gol	500	500	500	500	500	2500
44	Defence under Gol	500	8150	500	500	500	10150
45	Gol offices In State	37700	500	500	500	500	39700
46	Textiles & Sericulture Department	0	0	0	648900	0	648900
	<b>TOTAL</b>	<b>6496050</b>	<b>5563850</b>	<b>2476100</b>	<b>5343100</b>	<b>2444700</b>	<b>22323800</b>

\*NA - Not Applicable.

\*\*UDD - Includes Municipal Councils, Nagar Panchayats, CIDCO and Various Pradhikarans Like MMRDA, PMRDA, NIT etc.

Sr. No.	Implementing Agency Name	Ratnagiri	Sindhudurg	Thane	Raigad	Palgher	Mumbai City	Mumbai Suburbab	Kokan Revenue division Total
		Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019
1	Agriculture Department	738350	573500	366700	348400	238950	0	0	2265900
2	Urban Development Department ** (Except Municipal Corporations)	47000	11250	295800	59650	220200	0	0	633900
3	Municipal Corporations	NA*	NA*	219750	15050	195000	12100	124850	566750
4	PWD	11150	4450	62450	2450	24600	1250	0	106350
5	Water Resources Department	17300	850	500	11100	5700	0	0	35450
6	Co-operation & Marketing Department	20900	16350	500	650	1250	0	0	39650
7	Industries Department	500	500	11250	102450	32850	0	0	147550
8	School Education Department	120850	2600	120800	2600	143300	1900	0	392050
9	Sports Department	13450	300	13400	300	15900	200	0	43550
10	Higher Education Department	500	500	500	500	775	1600	175	4550
11	Technical Education Department	500	500	500	500	775	1600	175	4550
12	Home Department (Police)	2650	700	8150	8650	500	7200	550	28400
13	Home Department (Jail)	500	500	500	500	500	0	0	2500
14	Tribal Development Department	300	500	28100	300	93400	0	0	122600
15	Social Justice and Special Assistance	500	500	500	500	1760	0	0	3760
16	VJNT & OBC welfare Department	500	500	500	500	440	0	0	2440
17	Tourism Department	500	550	500	500	500	0	0	2550
18	Cultural Affairs Department	500	500	500	500	500	0	0	2500
19	Public Health Department	4600	750	23600	70100	250	300	0	99600
20	Energy Department	3000	500	350	8700	7900	50	0	20500
21	Medical education Department	550	500	500	500	500	0	0	2550
22	Food and Drug Administration Department	150	500	500	500	500	0	0	2150
23	State excise	750	500	500	1950	8550	150	0	12400
24	Transport (RTO)	300	100	1350	1750	500	0	0	4000
25	Transport (MSRTC)	450	150	2000	2650	500	0	0	5750
26	Labor Department	550	500	6000	8600	9350	0	0	25000
27	Law and Judiciary Department	500	500	500	500	500	0	0	2500
28	Water Conservation Department	500	500	500	500	500	0	0	2500
29	Skills development and entrepreneurship	500	500	500	500	500	0	0	2500
30	Revenue Department	4050	1500	2000	82200	87350	0	0	177100
31	Women and Child Welfare Department	3850	500	11500	32600	8450	300	0	57200
32	Water supply and Sanitation	100	500	500	7750	8600	0	0	17450
33	Animal Husbandry Department	1500	850	6150	2850	10200	850	0	22400
34	Dairy Department	500	300	2050	950	3400	300	0	7500
35	Fisheries Department	500	300	2050	950	3400	300	0	7500
36	Minority welfare department	8700	8700	8700	8700	8700	8700	8700	60900
37	Finance - GST Department	500	500	8800	500	5200	0	0	15500
38	Finance - Accounts and Tresury Department	500	500	8800	500	5200	0	0	15500
39	Rural Development Department (Excluding Grampanchayat )	40400	199200	42100	764800	95800	0	0	1142300
40	Grampanchayat - 3200 Plants each GPs (RDD)	2711250	1373250	1376450	2583200	1514050	0	0	9558200
41	Housing Department	500	500	500	500	500	500	500	3500
42	Railway under Gol	1250	1250	1250	1250	1250	1250	1250	8750
43	National Highways under Gol	500	500	500	4200	56200	0	0	61900
44	Defence under Gol	500	500	500	500	500	0	0	2500
45	Gol offices In State	500	500	500	500	5700	0	0	7700
46	Textiles & Sericulture Department	0	150000	0	0	0	0	0	150000
	<b>TOTAL</b>	<b>3762900</b>	<b>2358900</b>	<b>2639550</b>	<b>4143300</b>	<b>2820950</b>	<b>38550</b>	<b>136200</b>	<b>15900350</b>

\*NA - Not Applicable.

\*\*UDD - Includes Municipal Councils, Nagar Panchayats, CIDCO and Various Pradhikarans Like MMRDA, PMRDA, NIT etc.



Sr. No.	Implementing Agency Name	Pune	Solapur	Satara	Sangli	Kolhapur	Pune Revenue division Total
		Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019	Target for 2019
1	Agriculture Department	927650	209700	496850	784800	343750	2762750
2	Urban Development Department ** (Except Municipal Corporations)	342600	31550	20350	298300	108500	801300
3	Municipal Corporations	273200	220000	NA*	70250	10900	574350
4	PWD	345600	9250	110500	151700	161500	778550
5	Water Resources Department	136900	48650	21850	23050	35850	266300
6	Co-operation & Marketing Department	38850	1550	500	210950	125050	376900
7	Industries Department	61800	2800	55600	135550	74250	330000
8	School Education Department	104150	2600	46650	33450	102350	289200
9	Sports Department	11550	300	5200	3700	11350	32100
10	Higher Education Department	500	8925	6025	16075	19825	50850
11	Technical Education Department	500	8925	6025	16075	19825	50850
12	Home Department (Police)	22750	5600	500	13400	16650	58900
13	Home Department (Jail)	500	500	150	5900	2800	9850
14	Tribal Development Department	500	1400	500	500	500	3400
15	Social Justice and Special Assistance	500	500	500	22480	6880	29360
16	VJNT & OBC welfare Department	500	500	500	5620	1720	7340
17	Tourism Department	1200	500	500	500	1150	3850
18	Cultural Affairs Department	150	500	500	500	150	1800
19	Public Health Department	8100	11500	500	5150	5500	30750
20	Energy Department	850	500	500	400	500	2750
21	Medical education Department	500	450	500	450	500	2400
22	Food and Drug Administration Department	500	100	500	100	500	1700
23	State excise	1000	11250	500	5600	2400	20750
24	Transport (RTO)	750	500	500	2650	200	4600
25	Transport (MSRTC)	1150	500	500	3950	300	6400
26	Labor Department	500	500	500	500	1400	3400
27	Law and Judiciary Department	300	500	500	150	14050	15500
28	Water Conservation Department	500	500	500	6500	5050	13050
29	Skills development and entrepreneurship	500	500	450	500	3000	4950
30	Revenue Department	395800	500	150	23900	68850	489200
31	Women and Child Welfare Department	14800	500	1000	500	1400	18200
32	Water supply and Sanitation	1350	1700	500	500	4600	8650
33	Animal Husbandry Department	250	850	2150	8050	1200	12500
34	Dairy Department	500	500	500	2000	500	4000
35	Fisheries Department	500	500	500	2000	500	4000
36	Minority welfare department	8700	8700	8700	8700	8700	43500
37	Finance - GST Department	500	550	500	500	1000	3050
38	Finance - Accounts and Treasury Department	500	550	500	500	1000	3050
39	Rural Development Department (Excluding Grampanchayat )	410100	700900	66000	56700	51900	1285600
40	Grampanchayat - 3200 Plants each GPs (RDD)	4478200	3293850	4788700	2237500	3287450	18085700
41	Housing Department	500	500	500	500	500	2500
42	Railway under Gol	1250	1250	1250	1250	1250	6250
43	National Highways under Gol	500	4450	500	500	500	6450
44	Defence under Gol	500	500	500	500	700	2700
45	Gol offices In State	4800	300	500	500	500	6600
46	Textiles & Sericulture Department	0	835700	726150	338500	633450	2533800
	<b>TOTAL</b>	<b>7602800</b>	<b>5432350</b>	<b>6376750</b>	<b>4501350</b>	<b>5140400</b>	<b>29053650</b>

\*NA - Not Applicable.

\*\*UDD - Includes Municipal Councils, Nagar Panchayats, CIDCO and Various Pradhikarans Like MMRDA, PMRDA, NIT etc.

Annexure I					
Prioritywise Polluted River Stretches as per CPCB Report      September 2018					
Priority I (9)	Priority II (6)	Priority III (14)	Priority IV (10)	Priority V (14)	
GODAVARI	BHIMA	GHOD	BINDUSAR	AMBA	
KALU	INDRAYANI	KANHAN	BORI	BHATSA	
KUNDALIKA	MULA-MUTHA	KOLAR (MAH)	CHANDRABHAGA	GOMAI	
MITHI	PAWANA	KRISHNA	DARNA	KAN	
MORNA	WAINGANGA	MOR	GIRNA	MANJEERA	
MULA	WARDHA	PATALGANGA	HIWARA	PANCHGANGA	
MUTHA		PEDHI	KOYNA	PANZARA	
NIRA		PENGANGA	PEHLAR	RANGAVALI	
VEL		PURNA	SINA	SAVITRI	
		TAPI	TITUR	SURYA	
		URMODI		TANSA	
		VENNA		ULHAS	
		WAGHUR		VAITARNA	
		WENA		VASHISTI	
Based on data of 2018 Prioritywise Polluted River Stretches as on January 2019					
Priority I (4)	Priority II (4)	Priority III (8)	Priority IV (10)	Priority V (15)	Meeting to Bathing standards (3)
GODAVARI	BHIMA	INDRAYANI	DARNA	AMBA	PANCHGANGA
MITHI	KALU	KANHAN	KOLAR	BHATSA	URMODI
MORNA	KUNDALIKA	MULA	KRISHNA	BINDUSAR	VASHISTI
WAINGANGA	MUTHA	MULA-MUTHA	NIRA	CHANDRABHAGA	
		PAWANA	PANZARA	GHOD	
		PEDHI	PATALGANGA	KOYNA	
		PURNA	PENGANGA	MANZARA	
		WARDHA	RANGAVALI	PEHLAR	
			TAPI	SAVITRI	
			VEL	SURYA	
				TANSA	
				ULHAS	
				VAITARNA	
				VENNA	
				WENA	

**Dry river stretches :** BORI, GIRNA, GOMAI, HIWARA, KAN, MOR, SINA, TITUR, WAGHUR

## **Annexure II**

### **Proactive Steps taken by the Board regarding 25% Budget Provision to be kept for the Sewage Management and Solid Wastes Management**

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The Maharashtra Pollution Control Board has taken proactive action for protection of Environment under the Environment (Protection) Act, 1986 by issuing Directions u/s 33A of the Water (Prevention and Control of Pollution) Act, 1974 r/w 24, 25/26 of the Water (Prevention and Control of Pollution) act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 with Solid Wastes Management Rules vide letter dated 26.12.2014, 10.10.2016, 21.7.2016, 4.8.2017, 25.10.2018 and 23.1.2019 to the local bodies

Maharashtra state has 27 Municipal Corporations and are generating about 87% domestic sewage and remaining Local Bodies generate 13% domestic sewage. Therefore MPCB has concentrated on these 27 Municipal Corporations. The solid waste and sewage is not scientifically treated and disposed. Majority of the Local Bodies expressed financial incapability to provide waste management facilities. Hence, the Board has issued Direction u/s 33A of the Water (Prevention and Control of Pollution) Act, 1974 directing the local bodies to make 25% budgetary provision for scientific treatment and disposal of Sewage and Solid Waste.

Accordingly Municipal Corporations have passed resolution in their General Body meeting and reserved the funds. The utilisation of the said funds is reviewed from time to time. These funds are reserved and made mandatory to utilise for preparation of DPR, establishing treatment facility, O & M of treatment facility etc. The review of the same is taken from time to time by the Board. The details of Municipal Corporations is enclosed.

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**25 % budgetary provision made by Municipal Corporations (in Cr)**

<b>Sr. No.</b>	<b>Name of Municipal corporations</b>	<b>Financial Year 2015-16 (Provision)</b>	<b>Financial Year 2015-16 (Expenditure)</b>	<b>Financial Year 2016-17 (Provision)</b>	<b>Financial Year 2016-17 (Expenditure)</b>	<b>Financial Year 2017-18 (Provision)</b>	<b>Financial Year 2017-18 (Expenditure)</b>
1	Ulhasnagar Municipal corporation	174.31	31.5	164	40.94	39.6	26.76
2	Nagpur Municipal corporation	267.47	146.98	248.42	185.57	220.22	12.1
3	Thane Municipal Corporation	175.69	114.32	226.75	111.99	290.3	59.35
4	Mira Bhainder Municipal corporation	156.75	271.78	125.1	173.44	206.33	138.53
5	Vasi Virar Municipal Corporation	141.45	110	163.21	113.17	128.98	12.86
6	Parbhni Municipal Corporation	NIL	NIL	23.75	4.76	5	0.87
7	Pune Municipal Corporation	5600	387	1437	323	498.59	291.79
8	Amravati Municupal corporation	15	Not utilized	15	Not utilized	10	0.5
9	Akola Municipal Corpartion	3 from corporation fund	5.48 (Funds utilized from 13th finance commission )	2	Funds utilized from 14th finance commission	Not Reserved	26.16 Lakh funds utilized from 14th finance commission

10	Sangli Municipal Corporation	15	10.98	22	4.6001	40	0.79
11	Kolhapur Municipal Corporation	54.55	26.32	121	46.62	54.94	7.73
12	Solapur Municipal Corporation	1236.23	27.75	324.3	32.97	309.91	29.52
13	Latur Municipal Corporation	7.6	5.4	8.1	5.81	9.2	8.33
14	Navi Mumbai Municipal Corporation	319.14	203.61	246.65	133.91	473.58	Nil
15	Dhule Municipal Corporation	28.18	21.93	40.7	31.42	28.83	NIL
16	Jalgaoan Municipal Corporation	5	NIL	17.5	0.05	1.87	
17	Chandrapur Municipal Corporation	32lakh	6.73 Lakh	32 Lakh	16.56 Lakh	64.54 Lakh	9.32 Lakh
18	Kalyan Dombavli Municipal Corporation	27.25	8.86	49.5	23.24	50	7.24
19	Ahemednager Municipal Corporation	49.95	6.75	71.11	2.5	15	2.5
20	Bhivandi Municipal Corporation	69	26.88	151.03	30.17	95	78.98
21	Panvel Municipal Corporation	16.19	15.79	33.27	4.11	10.86	3.38
22	Pimpri Municipal Corporation	1000	9.14	297.36	101.46	169.11	152.2
23	Nanded Municipal Corporation	38	4.8	43	62.92	16.9	16.92
24	Aurangabad Municipal Corporation	84.5	26.41	76.85	14.19	50	

25	Nashik Municipal Corporation	174.75	31	136.43	136	150.66	137.53
26	Malegaoan Municipal Corporation	37.37	17.37	31.02	22.52	48.18	53.45
27	Mumbai Municipal Corporation	2970.09	1077.76	3365.17	950.78	2097.42	897

### **Annexure-III**

#### **A SUMMARY STATEMENT ON PROGRESS MADE BY LOCAL BODY IN RESPECT OF SOLID WASTE MANAGEMENT**

**In the state of Maharashtra there are total 271 local bodies , comprising of 27 Municipal Corporations, 16- ‘A’ Class Municipal Council, 54- ‘B’ Class Municipal Council, 154- ‘C’ Class Municipal Council, 14- Nagar Panchayat, 06-Cantonment Board generating about 22897.83 MT of municipal solid waste every day, of which the contribution in terms of percentage by the corporation is 84.72 %, by A class council is 4.25 %, by B class council is 5.04 % , by C Class Council is 5.07 % and by Others is 0.96 %. The overall percentage of treatment is 34.70 % i.e. 7945.544 MT/day quantity is treated and the remaining is disposed in an unscientific manner. Out of 27 Municipal corporations, 24 Corporations have obtained Authorization from MPCB for 22 Nos of approved sites having processing & disposal facilities and same are in operations. 109 Nos. of Municipal Councils having partially processing & disposal facilities.**

Maharashtra Pollution Control Board has prepared a summary statement of all local bodies indicating class, populations, Quantum of Solid Waste generations, status of Authorization and Form-II submission by the local bodies. The Region wise abstract along with summery statement in the state of Maharashtra is enclosed.

The total generation of Solid Waste is **22897.83** MT/day in which terms of total waste generation in the corporation is **84.72 %**, A class council is **4.25 %**, B and C Class Council is **5.04 %** and **5.07 %** respectively and others is **0.96 %**. The Statement of Municipal Solid Waste generation in MT/day in the State is enclosed.

The present status of local bodies in the State of Maharashtra is enclosed.

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## MAHARASHTRA POLLUTION CONTROL BOARD

### STATUS OF ULB's WITH RESPECT TO MSW RULES IN THE STATE OF MAHARASHTRA (REGIONWISE ABSTRACT)

Sr. No.	Name of Region	No. of ULBs
1	<b>Mumbai</b>	<b>01</b>
2	<b>Navi Mumbai</b>	<b>02</b>
3	<b>Thane</b>	<b>06</b>
4	<b>Kalyan</b>	<b>07</b>
5	<b>Raigad</b>	<b>10</b>
6	<b>Kolhapur</b>	<b>26</b>
7	<b>Pune</b>	<b>37</b>
8	<b>Nashik</b>	<b>48</b>
9	<b>Amravati</b>	<b>32</b>
10	<b>Aurangabad</b>	<b>59</b>
11	<b>Nagpur</b>	<b>22</b>
12	<b>Chandrapur</b>	<b>21</b>
	<b>Total</b>	<b># 271</b>

# 271 Local Bodies' (251 Corporations / Councils + 6 Cantonment Boards + 14 Nagar Panchayats)



### Municipal Solid Waste Generation (MT/day) in the State of Maharashtra.

Region	Corporation	“A” Class	“B” Class	“C” Class	NP/Cant./ other
Mumbai	7500.0	-	-	-	--
Navi Mumbai	750.0	-	-	11.0	--
Thane	1890.0	--	36.0	3.0	--
Kalyan	1560.0	221.0	-	--	14.5
Raigad	90.0	-	28.0	61.96	--
Kolhapur	420.0	140.0	104.0	105.25	15.5
Pune	3315.0	143.0	171.46	175.515	98.0
Nashik	1268	98.0	286.4	174.4	70.78
Amravati	420.0	30.0	164.1	115.4	--
Aurangabad	948.0	188.0	158.03	308.41	21.5
Nagpur	1100.0	112.0	92.0	70.0	--
Chandrapur	140.0	43.0	115.23	121.39	--
<b>Total</b>	<b>19401.0</b>	<b>975.0</b>	<b>1155.22</b>	<b>1146.325</b>	<b>220.28</b>

**Corporation : 19,401.0 - 84.72 %**  
**A Class : 975.00 - 04.26 %**  
**B Class : 1,155.22 - 05.04 %**  
**C Class : 1,146.325 - 05.00 %**  
**Others : 220.28 - 00.96 %**

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**Total : 22,897.83 - 100.00%**

### Municipal Solid Waste Treatment (MT/day) in the State of Maharashtra

**Corporation : 6998.0 - 88.07 %**  
**A Class : 187.00 - 02.35 %**  
**B Class : 367.96 - 04.63 %**  
**C Class : 331.124 - 04.16 %**  
**Others : 61.46 - 00.77 %**

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**Total : 7945.544 - 100.00%**

**Note : Urban Development Department, Government of Maharashtra has approved DPR Plan of 245 Local Bodies and cost of the project is Rs 2650 Crores.**

## Annexure IV

### District-wise Bio-Medical Waste Generation

S.No.	Region	Name of the CBMWTSDF / Union Territory	Bio-Medical Waste Generation (kg/day)	Existing Total Bio-Medical Waste treatment capacity (captive and CBMWTF) (kg/day)	
				Equipmnet	Total
1	Mumbai	MCGM area	22171	Incinerator	250 kg / Hr X 4
				Autoclave	450 liter/Cycle
				Deep Burial	NA
				Any Other	NA
2	Navi-Mumbai and Raigad	Navi Mumbai, Panvel, Khalapur, Mahad, Shriwardhan, Mangaon, Poladpur, Tala and Mhasala, Alibag, Roha, Pali, Mirudjangira, Sudhagad, Karjat	1972	Incinerator	250 Kg/Hr
				Autoclave	600 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Uran	45	Incinerator	NA
				Autoclave	50 liter/Cycle
				Deep Burial	22 kg/day
				Any Other	NA
3	Thane	Thane	2382	Incinerator	50 kg/hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Palghar	530	Incinerator	75 kg/hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
4	Kalyan	Kalyan	160	Incinerator	Treated at MWML,Taloja
				Autoclave	
				Deep Burial	NA
				Any Other	NA
6	Pune	Pune	4949	Incinerator	150 Kg/Hr.
				Autoclave	200 liter/cycle
				Deep/Burial	NA
				Any Other	NA
		PCMC	1544	Incinerator	50 Kg/hr
				Autoclave	200 liter/cycle
				Deep/Burial	NA
				Any Other	NA
		Talegaon	900	Incinerator	50 kg/hr
				Autoclave	50 liter/cycle
				Deep/Burial	NA
				Any Other	NA
		Baramati	1400	Incinerator	150 kg/hr
				Autoclave	250 liter/cycle
				Deep/Burial	NA
				Any Other	NA
		Karad	145	Incinerator	30 kg/hr
				Autoclave	50 liter/cycle
				Deep/Burial	NA
				Any Other	NA

7	Nashik	Satara	1150	Incinerator	100 Kg/Hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Solapur	1625	Incinerator	100 Kg/Hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Nashik	3000	Incinerator	250 Kg/Hr
				Autoclave	400 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Jalgaon	657	Incinerator	70 Kg/Hr
				Autoclave	430 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Dhule	485	Incinerator	50 Kg/hr
				Autoclave	60 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Nandurbar	503	Incinerator	50 Kg/Hr
				Autoclave	60 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Ahmednagar	1800	Incinerator	200 Kg/hr
				Autoclave	100 liter/cycle
				Deep Burial	NA
				Any Other	NA
8	Kolhapur	Sindhudurg	245	Incinerator	
				Autoclave	50 liter/cycle
				Deep Burial	244 kg/day
				Any Other	NA
		Kolhapur	1500	Incinerator	50 kg/hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Ratnagiri & Chiplun	566	Incinerator	50 kg/hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Sangli	973	Incinerator	50 kg/hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	
		Ichalkaranji	386	Incinerator	50 kg/hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	
9	Aurangabad	Aurangabad	1600	Incinerator	250 Kg/Hr
				Autoclave	400 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Latur	523	Incinerator	100 kg/hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA

		Jalna	1189	Incinerator	50 kg/hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Beed & Osmanbad	898	Incinerator	50 kg/hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
		Nanded	904	Incinerator	100 kg/hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
10	Amravati	Amravati	747	Incinerator	100 Kg/Hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
11	Nagpur	Nagpur	3660	Incinerator	100 Kg/Hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA
12	Chandrapur	Chandrapur	716	Incinerator	100 Kg/Hr
				Autoclave	50 liter/cycle
				Deep Burial	NA
				Any Other	NA

**Captive Incinerator & Deep Burial**

13	Pune	Krishna Hospital & Medical Research Center, Karad & KIMSDU. A/P: Dhebewadi road, Malakapur, Tal.: Karad, Dist.: Satara (02164)214555-58 Fax: (02164)242127	287	Incinerator	150 Kg/Hr
				Autoclave	30 liter/cycle
				Deep Burial	NA
				Any Other	NA
14	Nashik	M/s. Shri Bhausheb Hire Govt. Medical College, Surat By Pass Road, Tal. & Dist. Dhule	133	Incinerator	50 Kg/Hr
				Autoclave	30 liter/cycle
				Deep Burial	NA
				Any Other	NA
		M/s. Jawahar Medical Foundation ACPM Medical College, Dhule	164	Incinerator	45 Kg/Hr
				Autoclave	25 liter/cycle
				Deep Burial	NA
				Any Other	NA
15	Kolhapur	Bharati Vidyapeeth Deemed University Medical College and Hospital, Sangli – Maharashtra	39	Incinerator	60 Kg/Hr
				Autoclave	30 liter/cycle
				Deep Burial	NA
				Any Other	NA
16	Aurangabad	PHC's from Kolhapur District	48		
		M/s. MIMSR Medical college and Research Centre, Ambajogai Road, Latur	96	Incinerator	50 Kg/Hr
				Autoclave	12 liter/cycle
				Deep Burial	NA
				Any Other	NA
		PHC's from Nanded District	306	Deep Burial	
17	Nagpur	PHC's from Nagpur District	129	Deep Burial	
18	Amravati	PHC's from Amravati District	1392	Deep Burial	
<b>TOTAL</b>			<b>61918</b>		