# District Environment Plan

Prepared By

Environment Department, Government of Maharashtra

Maharashtra Pollution Control Board

## Ahmednagar

## 1.0 Preamble

Hon'ble National Green Tribunal vide order dated 26/09/2019 in O.A. No. 360 of 2018 filed by Shree Nath Sharma Vs Union of India and Others directed that CPCB shall facilitate the District Magistrates in preparation of District Environmental Plan by placing Model plan on its website. This model plan may be adopted as per local requirements by all Districts under supervision of District Magistrate.

The said Order also directs that Department of Environment in respective States / UTs should collect district plans to prepare State Environment Plan, which shall be monitored by respective Chief Secretaries of State/UT by 15/12/2019.

Based on State Environmental plans, CPCB and Ministry of Environment, Forest & Climate Change shall prepare National Environmental Plan, under the supervision of Secretary, MoEF&CC and Chairman, CPCB by 31/01/2020. The National Action Plan needs to be submitted before Hon'ble NGT 15/02/2020.

In compliance to above directions and as per the model DEP prepared by CPCB, Environment Action plan for the district is prepared.

## 2.0 Introduction

Ahmednagar district, which is known as 'Rural Development in Co-operation' and 'Land of saints', is situated in the middle of western Maharashtra. District has the distinction of being the first in Maharashtra in terms of geographical area. It is 5.6 percent of the total area of the state. Ahmednagar takes its name from Ahmad Nizam Shah I, who founded the town in 1494 on the site of a battlefield where he won a battle against superior Bahamani forces. It was close to the site of the village of bhingar.

General Ahmednagar district profile is presented in the **Table 1** and location is shown in **Figure 1**.

**Table 1 Ahmednagar District Profile**

| Description | Details |
|---|---|
| Average Climate | 24°C. Rainfall: 382mm. |
| Geographical Location | It lies between 18.2 to 19.9 North Latitude and 73.9to 75.5 East Longitude. |
| Area | 17048 Sq. km. |

| Description | Details |
|---|---|
| Boundaries | To the north of the Ahmednagar district lie the districts Nashik and Aurangabad<br>To the east are districts of Beed and Osmanabad.<br>To the south lie Solapur and Pune.<br>To the west lie the districts of Thane and Pune |
| Languages Spoken | Marathi, Hindi, English are major languages but all Indian languages are spoken |
| Population | Total: 9,41,327<br>[*According to 2011 Census Report*] |
| Population Density | 266 Per Sq. km. |
| Literacy Rate | 79.05 |
| Rivers | Godavari, Bhim |
| ULBs | 15 Numbers |
| Municipal Corporations | 1 Numbers |
| Cantonment Boards | 1Number |
| Sub districts | |
| Villages | 1584 Numbers |
| Statutory Towns | 11 Numbers |
| Tahsils | 14 Numbers<br>Ahmednagar, Akole, Jamkhed, Karjat, Kopergaon, Newasa, Parner, Pathardi, Rahuri, Sangmner, Shevgaon, Shrirampur, Shrigonda and Rahata. |
| Pin code | 414001 |

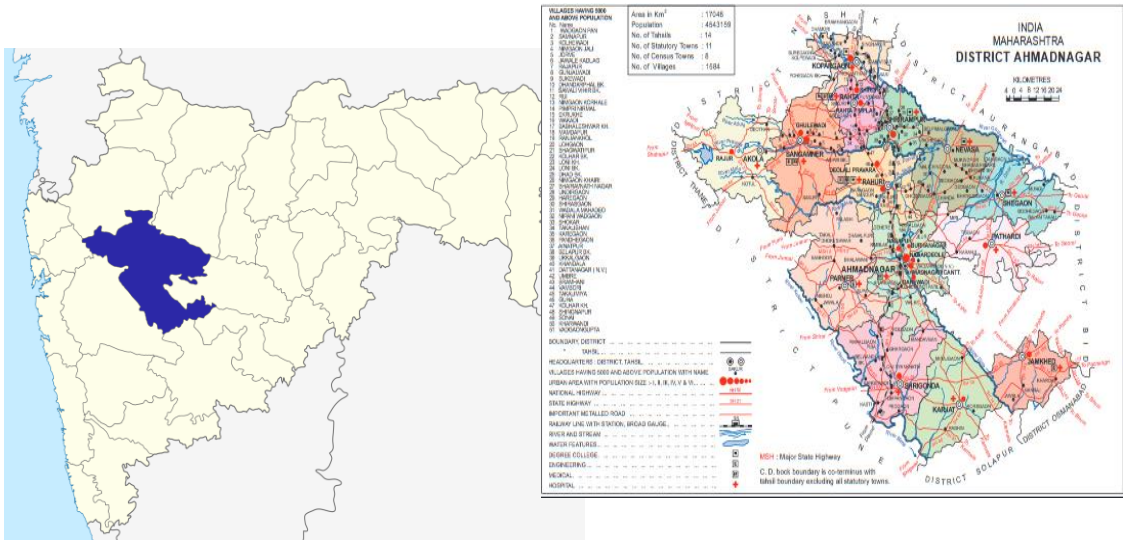


**Figure 1 Location of Ahmednagar District**

## 3.0 Waste Management Plan

Urban India is facing an ever increasing challenge of providing for the incremental infrastructural needs of a growing urban population. According to the 2011 census, the population of India was 1.21 billion; of this 31% live in cities. It is further projected that by 2050 half of India's population will live in cities. With this increasing population, management of Municipal Solid Waste (MSW) in the country has emerged as a severe problem not only because of the environmental and aesthetic concerns but also because of the sheer quantities generated every day.

Solid waste management is among the basic essential services provided by municipal authorities in the country to keep cities clean. Primary sources of solid waste are local households, commercial establishments, hospitals, hotels, restaurants, and markets. Local Bodies are responsible for collection, storage, segregation, transportation and disposal of all solid waste generated in the city. There are 15 Urban Local Bodies [ULBs] in the district.

### 3.1 Domestic Solid Waste Management Plan

There are 15 ULBs with 305 Wards. Municipal Solid Waste [Dry & Wet] generated from the district is 315.53MTD wherein, Dry Waste is 141.75MTD and Wet waste is 173.78MTD. Quantity of treated solid waste is 225.4MTD and 90.13MTD is directly dumped. Wet waste is being treated though Composting & Bio-Methanation.

Almost 90% of generated waste is being transported but segregation is only 75.5% across the district.

#### 3.1.2 Adequacy of Infrastructure

51 numbers of waste Transfer points for all types of waste collection & transportation and 6 waste deposition centres for DHW is provided across the entire district. District is equipped with 107 Waste collection Trolleys and 36 Mini collection Trucks. 9 Sanitary Landfill sites are present in the district. Maximum wet waste is treated in the available 120 Centralised and 10 decentralised composting units. There are 2 Bio-Methanation units are installed. District authorities have implemented Solid Waste Management Rules in all the ULBs.

### 3.2 C&D Waste Management Plan

The Construction and Demolition Waste [C&D Waste] generated in the district is about 847.5MTD. Out of which only 2.21MTD waste is processed / recycled and 774.5MTD of C&D

waste is being disposed of by land filling without process and 70.78MTD is dumped illegally. There are 7 facilities for storage of C&D waste.

### 3.3 Plastic Waste Management

Total Plastic waste generated by Aurangabad district is 16.1MTD. Overall door to door collection and segregation system is implemented by 93% and approximately 95% respectively. District authority has established 2 Collection Centre across the district. There are 131 Plastic Waste Pickers and 5 numbers of Plastic Waste Recycler but there is no plastic manufacture unit in the district. PW Management Rules, 2016 is implemented in all the ULBs.

### 3.4 Biomedical Waste Management

District has 1984 HCFs and out of which only 1570 HCFs have taken authorization. Total BMW generation from all above mentioned sources are to the tune of 1800kg/day and all generated waste is being treated.

### 3.5 Hazardous Waste Management

There are 544 industries and generating Hazardous Waste to the tune of 1250MT/Annually. Out of which 800MT is sent for incineration and 450MT is sent for Land filling. There is no Hazardous waste dump site in the district. All HW generating units have taken authorization and but only 134 units have displayed Board of HW Generation in front of Gate.

### 3.6 E - Waste Management

There are 2 Authorized E waste recycler and 2 authorized E Waste Collector in the district. 11 Collection Centres are established by ULBs. and 9 are established by Producer under EPR scheme. There are 7 numbers of authorized E-Waste recyclers / Dismantler.

### 3.7 Action Plan

As per the above mentioned observation, it seems that almost all ULBs are handling solid waste generated as per the Solid Waste Management Rules, however there are certain issues that needs to be addressed for 100% implementation of the rules as mentioned in **Table 2**.

**Table 2 Action Plan for Solid Waste Management**

| Sectors | Gaps | Action Points | Priority |
|---|---|---|---|
| **Domestic Solid Waste** | | | |
| Quantification | ▪ Methodology for solid waste quantification should be ascertained<br>▪ Quantification based on Income group, culture affluence and technology to be considered | ▪ Mechanism for graded weighing system either through intermediate transfer station or at the common receiving station to be created. Usually one weigh bridge at any treatment / disposal location required<br>▪ Quadrate sampling methodology to be adopted in order to reduce quantity as well as quality | Immediate |
| Collection System & Transport System | ▪ Some of the places, efficiency of the collection system is not up to the mark | ▪ Ideally most proven method of SWM is 3 Tier System with door to door, community and transfer station approach<br>▪ Need to create infrastructure for additional 25% waste segregation | Short to Mid Term |
| Infrastructure | ▪ Mostly composting is the main treatment methodology with about 80% coverage<br>▪ Sanitary landfill is limited to few ULBs<br>▪ RDF Facility is limited to only with few ULBs | ▪ Intermediate / Transfer station based decentralized waste treatment facility to be evaluated<br>▪ Need to install Sanitary landfill<br>▪ Need to explore and practised RDF facility in almost all ULBs<br>▪ Need to create facility of Bio-composting for additionally about 100 MTD of solid waste | High & Immediate |
| Plastic Waste | ▪ Lack of SOP for not only quantification but also life cycle analysis [LCA]<br>▪ Limited understanding / interpretation of EPR / PRO<br>▪ Only two ULBs lacking | ▪ Strengthening surveillance of life cycle assessment for type and quantity of Plastic Waste<br>▪ Effective EPR Policy<br>▪ Initiation of 100% compliance to PW Rules at the earliest | High & Immediate |

| Sectors | Gaps | Action Points | Priority |
|---|---|---|---|
| | implementation of PW notification | | |
| C&D Waste | ▪ No facility for C&D Waste Recycling Plant | ▪ Minimum 1 such facility at each of the ULB to be established<br>▪ System for utilization of recovered material and processed C&D waste to be effectively implemented and monitored | High |
| Biomedical Waste | ▪ Rooting and effective collection within 48hrs from the time of generation to be effectively handled<br>▪ Treatment facility lacks implementation of 2016 Notification in line with CPCB audited report<br>▪ Limited Inventorization | ▪ Regular Inventorization through automatic / digital platform to be developed<br>▪ Up-gradation of existing facility to meet 2016 CPCB norms<br>▪ Additional at least 1 facility to cover the of umbrella zone along with increasing burden on the existing coverage area to be planned<br>▪ Collection mechanism to be strengthen with additional vehicles to cover vast area and scattered HCF [miniscule quantity] | Very High & Immediate |
| Hazardous Waste | ▪ Domestic HW being mixed with solid waste posing threat<br>▪ No separate handling of domestic HW<br>▪ Not effective segregation of DHW at source | ▪ Either decentralized 4 - 5 step segregation practices to be initiated or at least advisory for intermittent storage and collection of domestic HW to be initiated<br>▪ Inventory to be initiated and maintained | Very High & Immediate |

| Sectors | Gaps | Action Points | Priority |
|---|---|---|---|
| E Waste | ▪ Lack of inventory<br>▪ Limited understanding of E waste rule and management<br>▪ Neither segregation nor separate transfer / handling facility<br>▪ No Awareness programme conducted by ULBs & PROs | ▪ Detailed inventory for domestic e waste under 26 different categories<br>▪ Mass awareness campaign<br>▪ Every ULB to have at least one E waste management centre and minimum one collection / drop centre in a radius of 25-30km<br>▪ At least one e waste processing unit in a district | Very High & Immediate |
| | ▪ | ▪ | |

## 4.0 Water Quality Management Plan

There are 5 major Rivers in flowing in the district with 56km in length and 4 drains / nallas are identified meeting in to the river. There are 3 ground water polluted stretch are identified and availability of ground water quantity is adequate the district. Water quality of the region is monitored through water sampling and analysis for multiple parameters throughout the years and also represented digitally in form of WQI on various platform.

All ULBs generates about 94.7MLD of sewage with an existing capacity of 2.8MLD of STP with Sewerage Network System Length of 88km. However only 3% of generated sewage is being treated in the STP and about 91.9MLD sewage is left untreated. Only one ULB has installed STP. It is observed that only 15% of population is covered under sewage network.

Industrial effluent generation is to the tune of 27.5MLD from 564 numbers of industries of prominently of "Agro Based / Pharma / Sugar Distillery". Industries are treating their entire effluent to the best possible norms as stipulated by their permits and same is monitored effectively and regularly through the MPCB. 20 numbers of industries are meeting discharge limits of water standards and 20 No of complaints received or number of recurring complaints against industrial pollution in last 3 months. Based on the complaint received, MPCB has closed 2 industries for exceeding the discharge standards and on 1 industry Environmental Compensation was imposed during last 3 months.

All the above needs to be combined with the effort of sensitization and awareness at all level in order to formulate and implement successful water quality management strategy. Detailed Issue based management action plan is provided in **Table 3**.

**Table 3 Action Plan for Water Quality Management**

| Sector | Gaps | Action Plan | Priority |
|---|---|---|---|
| Water Resources | ▪ Limited information available on mapping of surface water resources in terms of quantity<br>▪ Limited Inventorization of quantity, usage, availability exploitation etc.<br>▪ Limited Rejuvenation / remediation of water bodies<br>▪ Solid waste dumping in the river bodies<br>▪ identification of ground water resource [Bore-well] is not mentioned<br>▪ | ▪ Thorough Mapping of resources to be taken up<br>▪ Extensive assessment of quality to be done<br>▪ Criticality indicators to be established for each water body/resource<br>▪ Extend water quality monitoring network to include representativeness<br>▪ Based on the criticality initiate Rejuvenation / remediation<br>▪ Online Monitoring system for surface water bodies to be established<br>▪ Protection methods to be developed for creative stoppage of dumping of solid waste in the surface water bodies<br>▪ Need to identify bore-well present in the area<br>▪ | High |
| Domestic | ▪ Correlation between generation and treatment often misleading<br>▪ Water budgeting exercise often missing<br>▪ Computation of water footprint missing<br>▪ Surveillance /Inventorization in cradle to grave approach absolutely never applied | ▪ Digital Platform to accommodate water budgeting / reuse potential<br>▪ Need to install additional sewage network to cover balanced 85% of population<br>▪ Need to install STP of almost 100MLD<br>▪ In situ treatment for 56 River stretches to be developed | Very high & Immediate |

| | | | |
|---|---|---|---|
| | ▪ Limited collection system and treatment facility especially in remote area<br>▪ Often polluting water resources<br>▪ No established reuse options / reuse network<br>▪ Only 2.8MLD Sewage is being treated leaving almost 100MLD untreated<br>▪ Sewage Network installed covers only 15% of population | ▪ Policy for reuse / recycle of treated wastewater | |
| Industrial | ▪ Performance of CETP is questionable | ▪ CETP performance to be more effective in line with various orders of regulatory bodies / courts<br>▪ Digital compliance methodology to be developed<br>▪ Disposal system to be under constant surveillance | High |

## 5.0 Air Quality Management

Air quality assessment and sectoral management needs are ought to be essentially planned and executed. As of now no monitoring station has setup in the district however, 3 Manual and 1 Continuous Air Quality Monitoring stations are proposed by SPCBs /CPCB.

Gap identified and action plan to be adopted with its priority for air quality of Aurangabad region is presented in **Table 4**.

**Table 4 Action Plan for Air Quality Management**

| Sectors | Gaps | Action Points | Priority |
|---|---|---|---|
| Air | ▪ Till date no Air Quality Monitoring Stations are installed<br>▪ Sectoral action plans not effectively established | ▪ Emission inventory and source apportionment supported with dispersion and health based iterative process for science based AQM strategy to be established<br>▪ Each ULB to have atleast one urban and one rural CAAQMS or three manual stations at least to include criteria pollutants with minimum one location to include parameters of 2009 CPCB notification and meteorological data including cloud cover<br>▪ Fugitive emission control system for hot spot emission control to be installed<br>▪ Green barriers / Photo catalyst options to be evaluated<br>▪ Capacity building to be enhanced | High |

## 6.0 Mining Activity Management plan

There Basalt Stone Crusher Ordinary Sand Mining types mining activity is being done in the distric. Number of Basalt Stone Mining is 109. Area covered under mining is 17114 sq.km. and area covered under sand mining is 1576700 sq.m. There are 109 numbers of Mining areas meeting Environmental Clearance and consent Conditions.

## 7.0 Noise Action Plan

Other than event base monitoring and special projects related / orders monitoring, MPCB carries out annual noise monitoring. No details regarding availability of noise measuring devices with district administration. District has received 1 complaint on noise pollution in last 1 year, however details of action taken is not shared. **Table 5** spells potential management plan that could be taken up on priority by each of the ULBs. There is no complaint received in lat one year related to the noise pollution.

**Table 5 Noise Action Plan**

| Sectors | Gaps | Action Points | Priority |
|---|---|---|---|
| Noise | ▪ Most of the source related noise areas show exposure beyond compliance<br>▪ Excessive exposure during noise generating potential events/ festivals<br>▪ | ▪ Noise mapping to be carried out for zonation purposes<br>▪ At source control using<br>▪ physical or natural attenuation methods to be adopted<br>▪ In the path noise control methodologies using noise absorbers creating zone of inhibition / silence zone to be done<br>▪ End of the pipe measures such as PEs acoustic enclosures etc. to be adopted<br>▪ Event based noise control policy to be effectively implemented | High |