

District Environment Plan



Prepared By



Environment Department, Government of Maharashtra



Maharashtra Pollution Control Board

Buldhana

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, CPCB has prepared a model District Environment Plan (DEP) that covers following thematic areas;

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

2.0 Introduction

Buldhana district is located in the Amravati division of Maharashtra, India. It is situated at the western border of Vidarbha region and is 500 km away from the state capital, Mumbai. Buldhana is the district headquarters and a Municipal Council in the Buldhana District of Amravati division in the Indian State of Maharashtra.

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

Table 1 Buldhana District Profile

Description	Details
Average Climate	Hot and Dry summers and cold winters with the seasonal variation in the temperature being pretty large
Geographical Location	It lies between 20.4561° N North Latitude and 76.3637° East Longitude. It is situated at the western border of Vidarbha region and is 500 km away from the state capital, Mumbai.
Area	9661 Sq. km.
Boundaries	Latitudes are 19.51° to 21.17° N and Longitudes are 75.57° to 76.59° E.

Description	Details
	Bounded on the north by Madhya Pradesh state, to the east by Akola, Amravati and Washim districts, to the south by Parbhani and Jalna districts, and to the west by Jalna and Jalgaon districts.
Languages Spoken	Marathi, Hindi, English are major languages
Population	Total: 2,586,258; Male: 1,337,560 Female: 1,248,698 [According to 2011 Census Report]
Population Density	268 Per Sq. km.
Literacy Rate	83.40
Rivers	Tapi River and Godavari River basins. Tributeries of these rivers flow in Buldhana district.
ULBs	13 Numbers
Sub districts	6 Numbers
Villages	1,444 Numbers
Statutory Towns	11 Numbers
Tahsils	13 Numbers Buldhana, Chikhli, Deulgaon Raja, Malkapur, Motala, Nandura, Mehkar, Sindkhed Raja, Lonar, Khamgaon, Shegaon, Jalgaon Jamod, and Sangrampur.
Pin code	443001

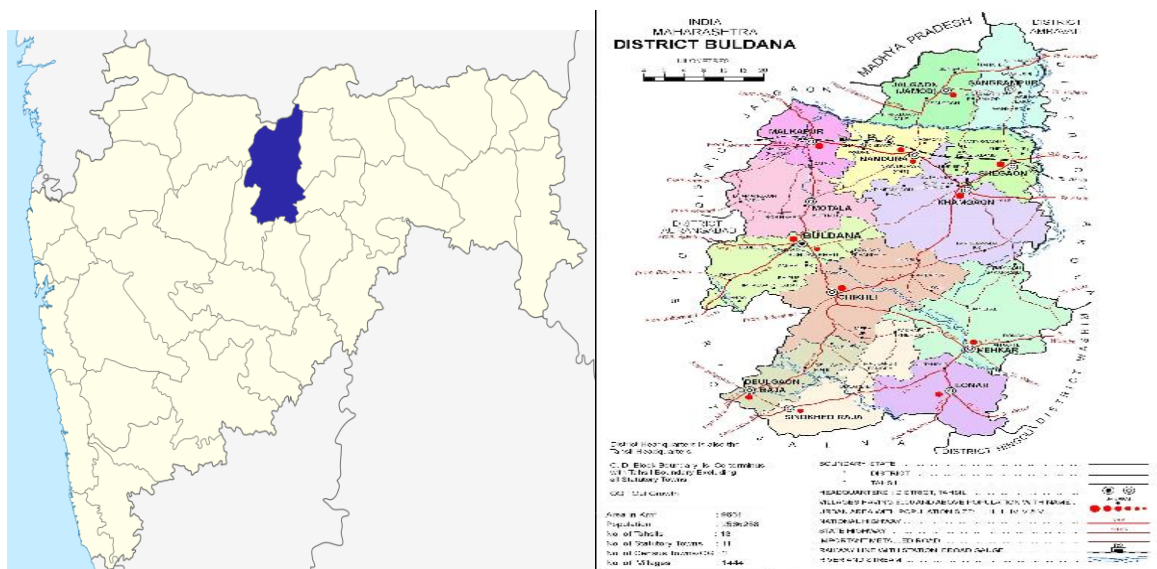


Figure 1 Location of Buldhana District

3.0 Waste Management Plan

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. In Buldana District 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 17 Urban Local Body [ULB] in Buldana district.

3.1 Domestic Solid Waste Management Plan

Buldana district is having 13 ULB. As per collected data, total solid waste generation of Buldana district is 150.19MTD. Wherein, Dry Waste generation is 67.85MTD and Wet waste is 82.06MTD.

It seems that Dry waste comprises of approximately 45% of total waste generated of the district and were else Wet waste contributes 55%.

Total treated qty. of Solid waste comprises to 43.02MTD treated while 107.17MTD of waste is dumped daily. District have different types of MSW Processing facility like Dumping, Vermi - composting, Pit composting, etc.

3.1.1 Collection and Transport

In line with the total Solid waste generated, District have 80-100 percent of collection system.

All ULB's have facility of door to door collection of Solid waste. Some of the local bodies have not initiated Mechanical Road Sweeping facility however, district has 100 percent Manual Road sweeping facility too.

The district has 80 - 100 percent segregated waste transport for all ULB's. Segregated wet waste is further utilized for composting.

3.2 C&D Waste Management Plan

The Construction and Demolition Waste [C&D Waste] generated by Buldana district is about 358.4MTA. No waste is recycled nor is disposed by landfilling without processing or filling low lying area. Total 358.4MTA of waste is dumped illegally in Buldana. There is 1 Storage Facilities for C&D Waste Storage at Khamgaon M. Council. Non availability of data will not help in preparing ingenious and executable plan for waste management of the district hence local bodies must ensure proper sampling and factual measurement of the various types of

waste being generated. Issuance of Permissions by ULB is been already initiated. C & D Waste is not used in Sanitary landfill (for solid waste) as per Schedule III. No Municipal magistrates are appointed for taking penal action for non-compliance with C & D rules

3.3 Plastic Waste Management

Plastics are integral part of society and have varied application. Total Plastic waste generated by Buldana district is 0.49MTD.

Buldana have 100% door to door collection system and 70 - 100% of segregation system in its major ULBs. District have 4 Plastic Waste Collection Centre. No Authorization for waste collection centres is developed in District. District has no Plastic Manufacturer whereas, 5 Waste recyclers. For Treatment and recycling of generated plastic waste, there are no Pyrolysis Oil Plant. PW Management Rules, 2016 is implemented in the ULBs.

District has implemented the PW Management Rules, 2016 in its 6 ULB's resulting in Sealing of units producing < 50-micron plastic, prohibiting sale of carry bags < 50 micron followed by Ban on Carry bags and other single use plastics as notified by State Government.

On other hand, there are no producers associated with ULB's to produce Plastic nor any Infrastructure is supported by Producers / Brand owners to ULBs.

There's no Implementation of Extended Producers Responsibility (EPR) through Producers / Brand owners in Buldana

3.4 Biomedical Waste Management

Bio-medical waste refers to any waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or research activities pertaining there to or in the production or testing of biological or in health camps,etc

Buldana district generate in total 271kg/d of BMW waste which is completely treated with its treatment facility provided.

It can be concluded that there are about 331 bedded hospitals in among all the 13 local bodies in Buldana district whereas, 269 nos. of non-bedded hospitals. There are in total 199 nos. of clinics. Buldana district do have 50 nos. of Dental Clinics in its three Muncipal councils followed by 44 Pathalogoy labaratories .

No any Authorization has been done for HCFs by SPCBs / PCCs neither district have any common Biomedical Waste Treatment and Disposal Facilities (CBMWTFs). Buldana district doesnot have any Linkage with other CBMWTFs for disposal of Bio-medical waste.

3.5 Hazardous Waste Management

Hazardous waste data is not estimated for the district.

3.6 E Waste Management

No Collection Centres are established by ULBs neither any ULBs have established by Producer under EPR scheme. There are no authorized E-Waste recyclers / Dismantler nor any Authorized E-Waste collectors. 7 Collection centre is established by ULB in District.

Citizens are not able to deposit or provide E-Waste through Toll-free Numbers in the District. The top class mobile companies have provided their collection centres from where the discarded mobiles are collected. There is no E-waste recycler nor the local bodies have linked up for same with anyone. To create awareness among the people The District administration arranges District level Awareness Campaigns

3.7 Action Plan

As per the above mentioned observation, it seems that almost all ULBs are handling solid waste generated as per the Municipal 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	<ul style="list-style-type: none"> ▪ Methodology for solid waste quantification should be ascertained ▪ Quantification based on Income group, culture affluence and technology to be considered 	<ul style="list-style-type: none"> ▪ 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 ▪ Quadrate sampling methodology to be adopted in order to reduce quantity as well as quality 	Immediate
Collection	<ul style="list-style-type: none"> ▪ Some of the places, 	<ul style="list-style-type: none"> ▪ Ideally most proven method of 	Short to

Sectors	Gaps	Action Points	Priority
System& Transport System	efficiency of the collection system is not up to the mark	<p>SWM is 3 Tier System with door to door, community and transfer station approach</p> <ul style="list-style-type: none"> ▪ 100% efficiency to be achieved ▪ Approximately 36 Ghanta Gadi would be required 	Mid Term
Infrastructure	<ul style="list-style-type: none"> ▪ Mostly composting is the main treatment methodology with about 80% coverage 	<ul style="list-style-type: none"> ▪ Intermediate / Transfer station based decentralized waste treatment facility to be evaluated ▪ Additional 20% alternative treatment such as bio-Methanation can be explored 	High
Plastic Waste	<ul style="list-style-type: none"> ▪ Lack of SOP for not only quantification but also life cycle analysis [LCA] ▪ Limited understanding / interpretation of EPR / PRO ▪ Only two ULBs lacking implementation of PW notification 	<ul style="list-style-type: none"> ▪ Strengthening surveillance of life cycle assessment for type and quantity of Plastic Waste ▪ Effective EPR Policy ▪ Initiation of 100% compliance to PW Rules at the earliest 	High & Immediate
C&D Waste	<ul style="list-style-type: none"> ▪ Many ULBs need to establish C&D Waste management system 	<ul style="list-style-type: none"> ▪ Minimum 1 such facility at each of the ULB to be established ▪ System for utilization of recovered material and processed C&D waste to be effectively implemented and monitored 	High
Biomedical Waste	<ul style="list-style-type: none"> ▪ Rooting and effective collection within 48hrs from the time of generation to be effectively handled ▪ Treatment facility lacks implementation of 2016 Notification in 	<ul style="list-style-type: none"> ▪ Regular Inventorization through automatic / digital platform to be developed ▪ Up-gradation of existing facility to meet 2016 CPCB norms ▪ Additional at least 1-2 facilities to cover the of umbrella zone along with increasing burden on the 	Very High& Immediate

Sectors	Gaps	Action Points	Priority
	<p>line with CPCB audited report</p> <ul style="list-style-type: none"> Limited Inventorization 	<p>existing coverage area to be planned</p> <ul style="list-style-type: none"> Collection mechanism to be strengthen with additional vehicles to cover vast area and scattered HCF [miniscule quantity] 	
Hazardous Waste	<ul style="list-style-type: none"> Domestic HW being mixed with solid waste posing threat No separate handling of domestic HW Not effective segregation at source 	<ul style="list-style-type: none"> 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 Inventory to be initiated and maintained 	Very High & Immediate
E Waste	<ul style="list-style-type: none"> Lack of inventory Limited understanding of E waste rule and management Neither segregation nor separate transfer / handling facility 	<ul style="list-style-type: none"> Detailed inventory for domestic e waste under 26 different categories Mass awareness campaign Every ULB to have at least one E waste management centre and minimum one collection / drop centre in a radius of 25-30km At least one e waste processing unit in a district 	Very High & Immediate

4.0 Water Quality Management Plan

Data of about 17.23 MLD of domestic sewage generation is available, of which few ULB domestic sewage generation data is not available as-well the sewage treatment system data is not available. Currently the sewage network line data available as 54kms. On industrial front there are 12 industries operation of which currently 9 industries meet the discharge standards and currently 3 do not meet the discharge standards. There is no Common Effluent Treatment Facilities available in Buldana district.

It is essential as part of the ULBs to map HFL, demarcate and protect flood plains especially in light of the erratic precipitation witness in the recent years some of the ULBS have already

included this features as their regulatory mandate though the irrigation department seems to be directly responsible for the same.

All the above data is combined and a detailed issue based management action plan is provided in order to formulate and implement successful water quality management strategy in **Table 3**.

Table 3 Action Plan for Water Quality Management

Sectors	Gaps	Action Points	Priority
Water Resources	<ul style="list-style-type: none"> ▪ Limited information available on mapping of surface water resources in terms of quantity ▪ Limited Inventorization of quantity, usage, availability exploitation etc. ▪ Limited Rejuvenation / remediation of water bodies 	<ul style="list-style-type: none"> ▪ Thorough Mapping of resources to be taken up ▪ Extensive assessment of quality to be done ▪ Criticality indicators to be established for each water body/resource ▪ Extend water quality monitoring network to include representativeness ▪ Based on the criticality initiate Rejuvenation / remediation ▪ Online Monitoring system for surface water bodies to be established ▪ Protection methods to be developed for creative stoppage of dumping of solid waste in the surface water bodies 	High
Domestic	<ul style="list-style-type: none"> ▪ Correlation between generation and treatment often misleading ▪ Water budgeting exercise often missing ▪ Computation of water footprint missing ▪ Surveillance /Inventorization in cradle to grave approach absolutely never applied ▪ Limited collection system and treatment facility especially in remote area ▪ Often polluting water resources ▪ No established reuse options / reuse network 	<ul style="list-style-type: none"> ▪ Digital Platform to accommodate water budgeting / reuse potential ▪ Approximately 20MLD of STP needed ▪ In situ treatment for River stretches to be developed ▪ Strengthen the sewage collection network to cover 100% Population ▪ Policy for reuse / recycle of treated wastewater 	Very high & Immediate

Industrial	<ul style="list-style-type: none"> ▪ Industrial Effluent is not estimated. 	<ul style="list-style-type: none"> ▪ Data needs to be estimated. ▪ Digital compliance methodology to be developed ▪ Disposal system to be under constant surveillance 	
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5.0 Air Quality Management

As Buldana district being one of the most vibrant and outgrowing areas in Maharashtra, Air quality assessment and sectoral management needs are ought to be essentially planned and executed. Neither CPCB & MPCB through their NAMP & SAMP programme has set up no manual neither CAAQM stations across the district.

PM10 is Ambient Air is one of the prime reason of the concern and historically Buldana has been in the centre of controversy with regards its air quality management. An exceedance factor reveals as per the monitored data that needs immediate attention as is the case in most of the areas of India. In view of the same the priamafece of every ULB shall be to establish at least one such Ambient Air Monitoring Station and coordinate / collaborate with other monitoring organisation to provide for visory to general public towards health associations and risk of exposure.

Inventory and policy formulation action plan is stated in **Table 4**.

Table 4 Action Plan for Air Quality Management

Sectors	Gaps	Action Points	Priority
Air	<ul style="list-style-type: none"> ▪ No CAAQMS to establish / corroborate inferences ▪ Sectoral action plans not effectively established 	<ul style="list-style-type: none"> ▪ Emission inventory and source apportionment supported with dispersion and health based iterative process for science based AQM strategy to be established ▪ Each ULB to have at least 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 	High

		data including cloud cover <ul style="list-style-type: none"> ▪ Fugitive emission control system for hot spot emission control to be installed ▪ Green barriers / Photo catalyst options to be evaluated ▪ Capacity building to be enhanced 	
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6.0 Mining Activity Management plan

Mining waste is the high-volume material that originates from the processes of excavation, dressing and further physical and chemical processing of wide range of metalliferous and non-metalliferous minerals by opencast and deep shaft methods. Buldana district has Sand mining and stone mining activities carried out among its local bodies.

Buldana district has not estimated its mining activity details for any of its ULBs.

7.0 Noise Action Plan

The goal of noise management is to maintain low noise exposures, such that human health and well-being are protected. The specific objectives of noise management are to develop criteria for the maximum safe noise exposure levels, and to promote noise assessment and control as part of environmental health programmes.

There is noise measuring devices with district administration to monitor the noise levels along with SPCBs. No any data for Noise monitoring is collected in the district.

Table 5 spells potential management plan that could be taken up on priority by ULBs.

Table 5 Action Plan for Noise Pollution Management

Sectors	Gaps	Action Points	Priority
Noise	<ul style="list-style-type: none"> ▪ Noise monitoring is not carried out in the district. 	<ul style="list-style-type: none"> ▪ Noise mapping to be carried out for zonation purposes at source control using physical or natural attenuation methods to be adopted ▪ In the path noise control methodologies using noise absorbers creating zone of 	Immediate

		inhibition / silence zone to be done ▪ End of the pipe measures such as PEs acoustic enclosures etc. to be adopted ▪ Event based noise control policy to be effectively implemented	
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8.0 Conclusion

There seems to be vast data gaps and a detailed exercise to collate and validate data gathered through this process needs to be urgently taken up in addition to the adopting a holistic & inclusive consultative process of gathering information, collating & converging it in order to be able to device strategies of future. Also, it is equally important that projection for at least next 20 years be done in order to evaluate management plans for futuristic view to meet the objective of such vast exercise. Digital data availability needs to be one of the prime tasks of government & methods of its validation be created with scope for improvement in near future. The practise needs to be a continual one to be updated regularly in order to monitor progress and effectiveness of this process & shall be linked with financial allocations being designed to be promoted by government of the day. With regards to action plans, the priorities shall be aligned based on sustainability objectives.