STATE ENVIRONMETAL PLAN
Madhya Pradesh

Department of Environment
Government of Madhya Pradesh

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INDEX

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1.0 : STATE PROFILE OF MADHYA PRADESH

1.1 With the foundation of Republic on 26 January 1950, hundreds of princely states were merged into the union. The boundaries were rationalized with reorganisation of states and then Madhya Pradesh was founded on 1 November, 1956. Bhopal was chosen as the capital of the State. Madhya Pradesh in its present form came into existence on November 1, 2000 following its bifurcation to create a new state of Chhattisgarh. The State of MP is blessed with a strategic location owing to its centrality and easy accessibility from any part of India. Madhya Pradesh ranks second in terms of area. The state is land-locked and sea is minimum 300 km away from any point. The locational details of the State are given below:

Table1.1: Locational Details Of MP

Extent of Latitude and Longitude of the State	Bounded by States in	Total Area of the State	
		Sq.km.	%to the country
74 ^{0} and 82 ^{0} 45' E Longitude, 21^0 and 27^0 N Latitude	**North East** : Uttar Pradesh	**3,08,252**	**9.38**
	NorthWest : Rajasthan		
	SouthEast : Chhattisgarh		
	South West: Maharastra		
	West : Gujarat		

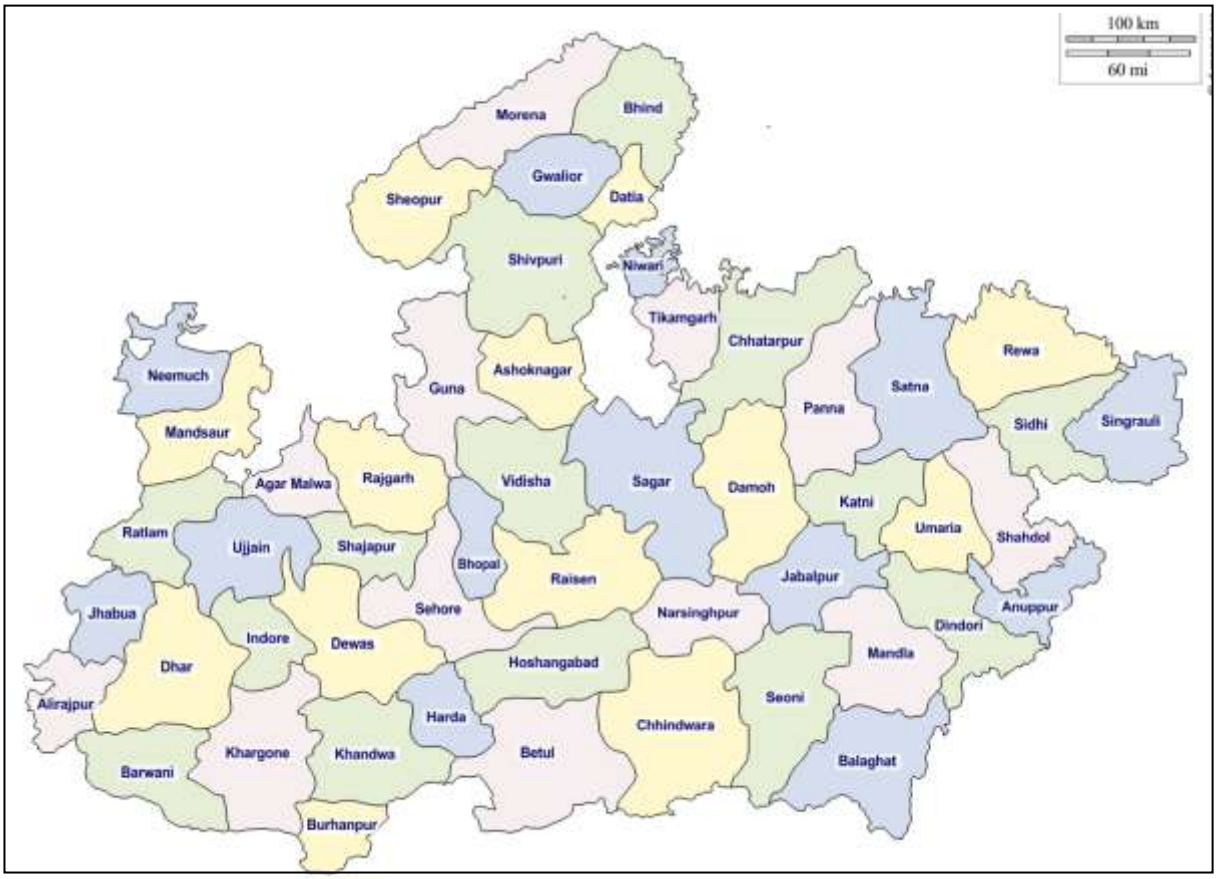
SOURCE: State Environmental Atlas, MPPCB

1.2 Antiquity of Madhya Pradesh goes back to the dawn of history. Its hoary past is associated with some famous names in Indian History. Madhya Pradesh, because of its central location in India, has remained a crucible of historical currents from North, South, East and West. Since Madhya Pradesh is situated at the heart of India, it has been home to the cultural heritage of Hinduism, Buddhism, Jainism and Islam. The State has a monumental and architectural heritage ranging from prehistoric rock-shelters to a rich variety of edifices such as rock-cut caves, stupas, viharas, temples of different faith and orders mosques, tombs, churches forts, palaces, tanks and reservoirs belonging to different periods of region's long history. It is known as the richest State in the country for painted rock-

shelters found in the districts of Sehore, Bhopal, Raisen, Hoshangabad and Sagar. The pre-historic caves dating back to Palaeolithic times, perhaps the oldest part of the subcontinent, lies close to Bhopal at Bhimbetka.

1.3 There were 43 districts in the State to begin with. But during the inter-censual period of 1971-81, two more districts Rajnandgaon out of Durg and Bhopal out of Sehore were created. Thus till 1991 census, there were 45 districts in the state. In May - July 1998, as a result of bifurcation and trifurcation of some of the districts, 16 more districts came into existence and thus the number of districts in the state rose to 61. Again, on 1st November, 2000, Chhattisgarh with 16 districts and area of 135,191 Sq. Km was taken away. Now for administrative purposes, Madhya Pradesh is divided into 52 districts and 10 revenue divisions i.e. Bhopal, Chambal, Gwalior, Hoshangabad, Indore, Jabalpur, Rewa, Sagar, Ujjain and Shahdol.

Figure 1.1: District Map of Madhya Pradesh



1.4 As mentioned earlier, the State is divided into 10 revenue divisions and 52 districts. There are further 424 tehsils (talukas), 313 development blocks- including 89 tribal blocks. As per 2011 Census of India there are 476 cities / towns, 54903 villages (53738 revenue villages), 16 Municipal Corporations, 98 Municipalities and 264 Nagar Parishads. In all there are 408 local bodies, however 30 have been newly notified which will come into force after due process of election. Thus presently there are 378 existing and functional urban local bodies (ULBs) in the State of MP and 5 Cantonment Boards. As on 19-20, the number of Gram Panchayts in the State are 22812.

1.5 The State constitutes around 6% of the national population and the 9.37% of the total geographical area of the country. The population of the State as per 2011 census was 7.2627 crores. The rural population was 5.2557 crores and the urban population was 2.0069 crores, which is around 27.6 % of the total population of the State. The male population was 3.7612 crores and female population was 3.015 crores with a decadal growth (2001-2011) of 20.3%. The density of population per square kilometre is 236 against the national average of 382.

1.6 Geography & Physiography:-

1.6.1 The State is blessed with a strategic location owing to its centrality and easy accessibility from any part of India. It shares its boundaries with 5 states of Gujarat in the West, Rajasthan in the North-West, Uttar Pradesh in the North-East, Chhattisgarh in the South-East and Maharashtra in the South. The State is land locked, with minimum distance from the sea of 300 km.

1.6.2 The State of Madhya Pradesh is a part of peninsular plateau of India lying in north central part, whose boundary can be classified in the north by the plains of Ganga-Yamuna, in the west by the Aravali, east by the Chhattisgarh plain and in the south by the Tapti valley and the plateau of Maharashtra.

1.6.3 The topography of Madhya Pradesh is defined by the Narmada Sone Valley. It is a narrow and long valley extending through almost

the whole of the State from east to west. Sone valley forms the upper part; Shahdol and Sidhi districts lie in this valley. The lower part forms the Narmada valley. It has an average elevation of 300 meters above MSL and is covered with alluvial soil. Jabalpur, Mandla, Narsinghpur, Hoshangabad, Raisen, Khandwa, Khargone and Barwani districts lie in this region. The Sone valley is narrower than Narmada valley and alluvial deposit is also comparatively poor and thin, therefore Narmada valley is more important than Sone valley for agricultural activities. To the north of this valley lie the Central Highlands, to the south the Satpura-Maikal ranges and to the south-east, the eastern plateau. These three form the natural physiographic regions- into which the State is divided.

1.6.4 The Central Highlands are spread between the Narmada-Sone valley and the Aravali ranges to the west in a triangular form. The highlands slope towards the north and drain into the Yamuna. The central highland region in the State includes the following four uplands : **The Rewa-Panna plateau** is one, also known as the **Vindhyan plateau**, which lies in the north- eastern part of the central highlands. The main rivers flowing in the area are ***Ken, Sonar, Barna and Tons***. Rewa, Panna, Satna, Damoh and Sagar districts lie in this region. The other is **Bundelkhand plateau** located to the north-west of the Rewa-Panna plateau. Datia, Chhatarpur, Panna, Tikamgarh and parts of Guna and Shivpuri districts forming the northern part of the State lie in this region. The plateau is bounded in north-east by Vindhyan escarp lands or Rewa-Panna plateau. The average height of the region is 350-450 meters above MSL and general slope is towards north. The main rivers flowing in the area are ***Betwa, Dhasan and Jamner which finally join Yamuna***. **Central India plateau** is the third that lies to west of Bundelkhand plateau. Shivpuri, Morena and Gwalior districts exist in this region. This plateau has an average elevation of 450 meters on highlands and 150-450 meters above MSL in valleys. ***Chambal, Kali Sindh and Parvati*** are the main rivers flowing in this area. The fourth **Malwa**

plateau covers almost the entire western Madhya Pradesh. The plateau is bounded in the north by ***Chambal*** and in south by the ***Narmada.*** The average elevation ranges between 300-500 meters above MSL. Shajapur, Dewas, Indore, Ujjain, Dhar, Ratlam and parts of Sehore and Jhabua districts lie in this region. Bhopal is situated at the eastern edge of the Malwa plateau. ***Kshipra, Parvati, Kali Sindh, Gambhir and Chambal*** rivers flow through the Malwa plateau. It also forms the water divide between the ***Ganga and the Narmada basin***. The soil in the area is black cotton as a result of weathering of basalts. Satpura-Maikal ranges lie to the south and the eastern plateau regions to the north- east of the Narmada - Sone valley. Chhindwara, Betul, Seoni, Balaghat, Mandla and parts of Khandwa and Khargone districts lie in the Satpura-Maikal ranges. Average height of these ranges is 300 meters, but there are several high peaks; the ***highest peak of the State, Dhoopgarh*** that rises to 1360 meters above MSL lies in these ranges. The slope is sharp in south face and gentle on northern side. The eastern part, the Satpuras, is wider than the western part which stretches in the form of a semi-circle and is known as the Maikal ranges. The Maikal ranges include the **Amarkantak plateau**, which is origin of both Narmada and Sone rivers. The other rivers in the area are ***Johila, Macherwa, Denwa and Choti Tawa which join the Narmada***. The eastern plateau region comprises Baghelkhand Plateau lying between Maikal ranges and Chhattisgarh plain area with an elevation of 1033 meters above MSL.

1.7 Climate:- Like other parts of India, Madhya Pradesh also has three major seasons – Summer, Monsoon and Winter. During summer (March-June), the temperature in the entire state ranges above 29.4°C. In general, the eastern parts of Madhya Pradesh are hotter than the western parts. The regions like Gwalior, Morena and Datia record temperature of over 42°C in the month of May. The humidity is relatively very low and the region usually experiences frequent mild dust storms. The south-west monsoon usually breaks out in mid

June and the entire State receives a major share of its rainfall between June and September. The average rainfall received by the State is around 1024.3 mm. The south and south-east regions tend to experience a higher rainfall whereas the parts of north-west receive less. Mandla, Balaghat, Sidhi, Jabalpur and other extreme eastern parts receive more than 1500 mm rainfall. The districts of western Madhya Pradesh receive less than 800 mm rainfall. The winter season starts from the month of November. The temperature remains low in the northern parts of the State in comparison to the southern parts. The daily maximum temperature in most of the northern part in the month of January remains between 15 and 18°C. The climate is generally dry and pleasant with a clear sky.

1.8 Land Use Pattern:- The present land use pattern of the State is tabulated below:

Table 1.2 : Land Use Pattern in MP

S.No.	Heading	Area in Lakh Hectares
1.	Total Land Area of the State	308.252
2.	Area Under Forests	87.08
3.	Culturable Waste Land	9.67
4.	Total Fallow Land	10.29
5.	Net Sown Area	151.91
6.	Total Sown Area	251.14
7.	Double Cropped Area	99.23
8.	Net Irrigated Area	105.66
9.	Gross Irrigated Area	113.94

SOURCE: GoMP Diary, 2020

1.9 Agriculture :- Out of the total geographical area 308.252 lakh hectares of the State, only about 151.91 lakh hectares are arable. Out of this, at present, in about 145 lakh hectares area Kharif crops and in about 119 lakh hectares area, rabi crops are being taken up. The crop density of

the State is 165.70 percent. The total irrigated area in the State is about 110.97 lakh hectares from government and private sources. Madhya Pradesh, famous as the Soybean State, has earned the highest award "Krishi Karman" given by the Government of India in the field of agriculture for six consecutive years. The State ranks 1st in country in the production of Soybean, Gram, Urad, Tur, Masoor, Linseed; 2nd in the production of Maize, Sesame, Ramtil, Moong and 3rd in the production of Wheat, Sorghum, Barley. In rabi season, wheat, gram, peas, lentils, mustard, sugarcane and linseed are sown in abundance. Based on the diverse climate of the State, it is divided into 11 climatic zones and 5 crop areas. The soybean crop is the highest sowing crop in the State during the Kharif season, which is presently being sown in about 62 lakh hectares. Apart from this, major crops in Kharif are soybean, paddy, maize, arhar, moong, urad, sorghum, millet, kodo, kutki, sesame, cotton etc. On the other hand, Rabi has major crops like, wheat, gram, peas, lentils, mustard, sugarcane, linseeds etc. Among them, wheat acreage is the highest. Apart from these, cotton and sugarcane are also major cash crops.

1.10 Forests:

1.10.1 Situated as the heartland of India, Madhya Pradesh is known for the abundance of natural resources, especially the diversity of forests and wildlife. The importance of forests as a protector of soil and water is unparalleled. Due to the forest cover of various mountain ranges of Madhya Pradesh and their catchment area, it is able to feed the population based on agriculture and forest produce. There are tropical dry, deciduous teak, mixed and sal forests. Mandla, Dindori, Shahdol and Balaghat have sal forests, Chambal region Gwalior, Shivpuri, Bhind and Datia have kardhai and bushy forests, the remaining area has valuable teak forests.

1.10.2 Apart from wood from the forests, bamboo and various types of minor forest and medicinal produce are found in abundance. The State is also endowed with rich resources of medicinal plants. A large

part of the tribal and other rural people living in and near the forest boundary is dependent on forests. The main responsibility of the State is to manage the forests scientifically in such a way that not only the villagers continue to get their source of livelihood from the forests, and their participation in the management also strengthens the forest as a natural heritage, becomes sustainable, protected and enhanced, and continue to grow as a resource.

1.10.3 The total notified forest area is 94.69 thousand square kilometers, which is 30.72% of the total geographical area of the State. Out of this area, 65% is reserved forest, 33 % is protected forest and 2% is unclassified forest. According to the 2019 report of the Forest Survey of India, there is about 8339 sq km of area outside the forest area which is covered with trees. For the control of temperature and water cycle the need for forest conservation and increase in tree cover is necessary.

1.10.4 For combating the effects of climate change and for harnessing the benefits of the environmental services, bio diversity conservation and ensuring conservation of natural habitat for the wildlife, the State has 11 National Parks and 24 sanctuaries including 6 tiger reserves, 2 Kharmor sanctuaries, 2 Son Chirraiya sanctuaries, 3 crocodile sanctuaries and two national parks for fossil conservation. The national parks and sanctuaries cover an area of 16.79 thousand sq km out of which 14.85 thousand sq km is notified forest area. According to tiger census conducted in 2018, there are 526 tigers. Also according to 2019 census, there are 8300 Giddh (vultures) which was 7000 in 2016 census.

1.11 Mines & Minerals :

1.11.1 Mineral resources plays a very important role in the industrial development of the State. In the terms of mineral availability Madhya Pradesh is the fourth mineral prosperous State of the Nation. According to the development needs the demand of minerals increases together with industrial development. Continuous work is

being done by the State's Mineral resources Department through conservation, exploration and continuous monitoring on exploitation of minerals under the rules valid by the Law. Exploitation of some minerals is also being carried out by Madhya Pradesh Mining Corporation, which is constituted under the Mineral Resources Department.

1.11.2 The State is endowed with mineral resources and 8 prominent minerals are in abundance in MP. The State is first in the country in mining of diamond and manganese ore, second in the production of lime stone and rock phosphate and fourth in coal production in the country. The important minerals and the regions where they are found is tabulated below:

Table 1.3 : Mineral Deposits in MP

Mineral	Regional Deposits
Bauxite Deposits	Rewa, Satna etc.
Gem variety of quartz, road material, Lime stone	Dhar, Jhabua district
Coal Deposits	Betul, Singrauli, Shahdol, Chhindwara, Jabalpur districts
Clay deposits	Katni, Shahdol etc
Lime stone	Damoh, Katni, Dhar, Jhabua, Rewa, Satna, Mandsaur etc
Diamonds	Panna, Chhattarpur
Lead-Zinc Deposits	Damoh
Copper Ore	Balaghat
Rock Phosphate	Sagar, Chhatarpur, Tikamgarh
Manganese Ore	Balaghat, Jhabua, Chhindwara
Pyrophylite- diaspore	Chhatarpur, Tikamgarh
Granite	Chhatarpur, Tikamgarh
Iron Ore	Jabalpur, Katni
Dolomite	Mandla

SOURCE: Mineral Resources Department official web-site, GoMP

1.11.3 The availability of the prominent minerals viz a viz the national scene is presented in the following Table:

Table 1.4 : Mineral Deposits in MP & Country

S.No.	Mineral	Unit	Reserves (Proved + probable)		Percentage of Country's Reserves
			India	MP	
1.	Diamond	Thousand Carats	1045.31	1045.31	100%
2.	Pyrophyllite	Million tones	23.27	14.64	62.91%
3.	Diaspore	Million tones	28.59	1.45	5.07%
4.	Copper Ore	Million tones	394.37	198.319	50.28%
5.	Dolomite	Million tones	738.18	82.43	11.16%
6.	Rock Phosphate	Million tones	34.77	18.14	52.17%
7.	Manganese Ore	Million tones	141.97	34.99	24.64%
8.	Coal	Million tones	251472.70	21063.03	8.37%
9.	Limestone	Million tones	14926.39	1651.82	11.06%
10.	Coal Bed Methane #	Bcm	1434.00	144.00	10.00 %

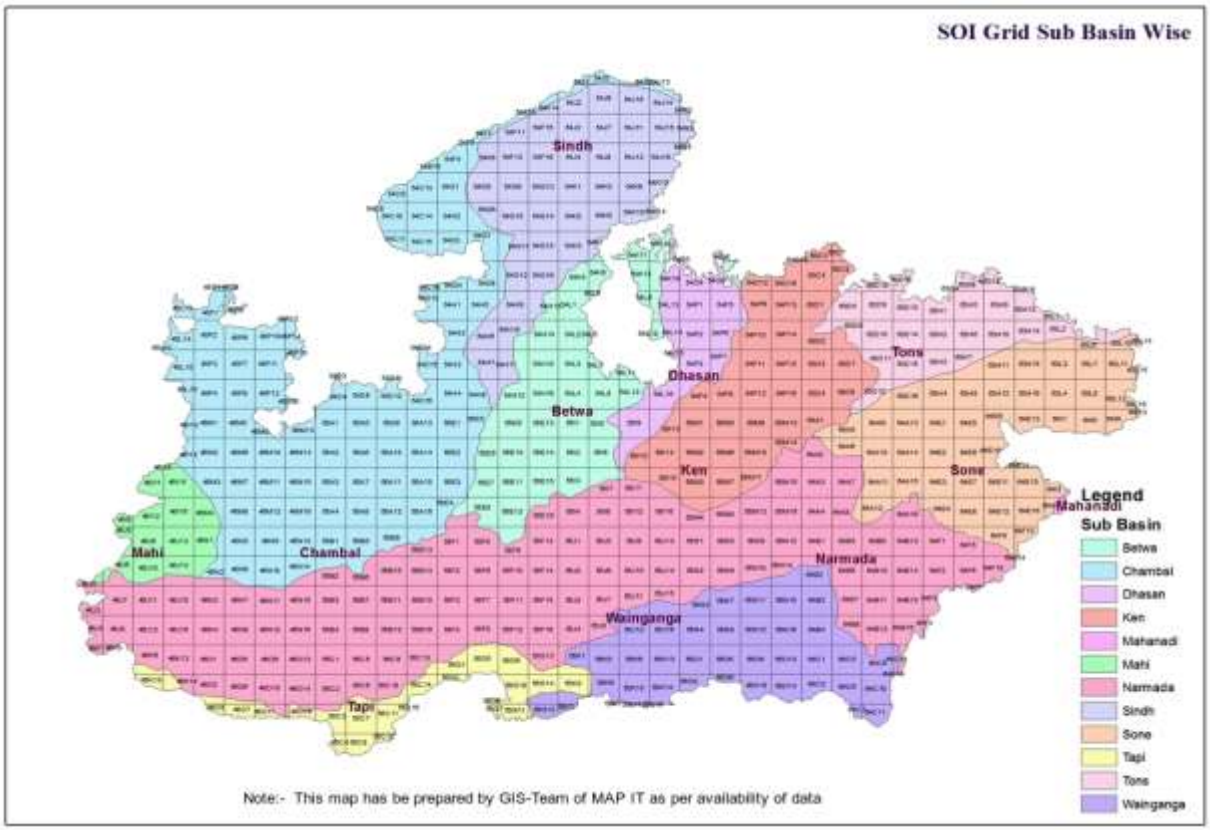
SOURCE: Mineral Resources Department official web-site, GoMP

1.12 Water Resources:-

1.12.1 Twelve major rivers originate in M.P. viz. Narmada, Mahi, Chambal, Betwa, Son, Tons, Tapti, Ken, Dhasan, Kunwari, Sindh, Paisuni and Baghen. The total length of these rivers in M.P is approximately 3956 km and 553 km share boundaries with other states. Chambal, Betwa, Sindh, Dhasan, Ken, Paisuni and Baghen rivers join the Yamuna river and are the sub-basins for Yamuna Basin, which itself falls under the Ganga Basin. Sone and Tapti rivers join the Ganga river directly and therefore, are the sub-basins to Ganga Basin. The other rivers of importance are Kshipra, Tawa, Wainganga etc.

1.12.2 Madhya Pradesh has five major river Basins namely Ganga (Yamuna Basin), Narmada Basin, Tapti Basin, Mahi Basin and Wainganga (part of Godawri Basin). These basins are divided into 12 sub basins and further sub divided into 155 major watersheds out of which 6 watersheds in Son and Narmada sub-basin falls partly in adjoining Chhattisgarh State. The basin / sub basic map of the State can be referred as per the figure below:

Figure 1.2 : River Basin Map of Madhya Pradesh



SOURCE: Water Resources Department official web-site, GoMP

1.12.3 Water has many benefits, other than drinking it is also used for Agriculture, Industrial usages, Horticulture, for Power Generation, Fisheries and Recreation etc. According to its usages, Government of M.P has various departments for Water maintenance. These are Water Resources Department (WRD), Narmada Valley Development Department (NVDD), Public Health and Engineering Department (PHED), Agriculture Department and Agriculture – Engineering

Department, Horticulture Department, Panchayat and Rural Development Department, Fisheries Department, Forest Department, Power Department, Tourism Department, Industry Department etc.

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2.0: ENVIRONMENTAL ADMINISTRATION IN MP

2.1 Maintenance of pristine environment and pollution free life for its citizens and conservation of natural resources find a front seat in the governance of the State of MP. The State is the heart land of country and is endowed with rich forest resources, mineral resources, water resources and wildlife.

2.2 The State legislature of MP was among the first states that has passed resolution under clause (1) of Article 252 of the Constitution for the promulgation of the Water (Prevention & Control of Pollution) Act, 1974 by the Union Government on 23rd March, 1974. The State constituted Pollution Control Board u/s 4 of the Water Act on 23-9-1974. Later the Board was also entrusted with the duties of implementing the provisions of the Air (Prevention & Control of Pollution) Act, 1981, The Environment (Protection) Act, 1986 and various rules that were promulgated therein, including the Environment (Protection) Rules, 1986. Presently various environmental legislations being implemented by the MP Pollution Control Board include the Hazardous & other Wastes (Management & Trans Boundary Movement) Rules, 2016, Bio-Medical Waste Management Rules, 2016, Solid Waste Management Rules, 2016, E-Waste (Management) Rules, 2016, Plastic Waste Management Rules, 2016 etc.

2.3 The State Environment Department comprises of two main organisations namely MP Pollution Control Board (MPPCB) and Environmental Planning & Co-ordination Organisations (EPCO). MPPCB is a statutory body for the purpose of implementing environmental laws in the State. EPCO, established in 1981 is an organization in terms of the foresight and the width of its mandate which aligns with the other progressive policies of the State and responds to environmental challenges to play a pivotal role in mainstreaming of environmental concerns in various Governments for the sustainable development of State.

2.4 Apart from it, and in compliance to the order of the Hon'ble NGT dated 25-02-2020 in OA 606/2018 "Compliance of Municipal Solid Waste Management Rules, 2016", the State has constituted an inter departmental Environmental Monitoring Cell (EMC) in the office of the Chief Secretary of the State on 16-6-2020. The composition of the EMC can be seen at **Annexure 1.**

2.5 MP State Environmental Policy was first made way back in the year 1982 and was revised in the year 1999, underlining the State's impetus on the conservation and maintenance of its environmental endowments for the future generations as well as combining the development of the State on the principles of Sustainable Development. A copy of the MP State Environmental Policy, 1999 can be seen be at **Annexure 2**.

2.6 It needs no emphasis that the MP has been preparing its State of the Environment (SoE) Reports periodically since 1982 almost from three decades back. Since then, SoEs have been published regularly on 1987, 1991, 1996, 2000 & 2006, underlining the common goals of environmental protection & sustainable development. These reports, besides serving as resource base for identification of critical areas for priority attention in planning process, also serve as integral data bank for the administers, planners and environmental managers.

2.7 Also, as directed by Hon'ble National Green Tribunal vide order dated 26/09/2019 and 05/07/2021 in O.A. No. 360 of 2018 *"Shree Nath Sharma Vs Union of India and Others"*, revised District Environment Plans (DEPs) that cover all aspects, specially related to pollution of all kinds and its control as outlined in the said order and as per the template provided by CPCB have been prepared for all the 52 districts and have been submitted to CPCB on 29-10-2021.

2.8 Based on the above backdrop, this State Environmental Plan has been prepared to collate all the environmental issues specially related to

pollution of all kinds and its control, which the State faces, and new issues and wastes which crop up at an ever increasing pace. Efforts have been made in this document to address the issues one by one, their present status and challenges they pose before the State and lastly the policy framework, strategies and action plan which the state government adopts / will adopt in combating them.

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3.0 : SOLID WASTE MANAGEMENT

3.1 MANAGEMENT OF MUNICIPAL SOLID WASTE:

3.1.1 As per rule 3 (46) of the Solid Waste Management Rules, 2016 **"solid waste"** means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste but excludes industrial waste, bio-medical waste and e-waste, battery waste, radio-active waste generated in the area under the local authorities and other entities. In common parlance such waste is also termed as Municipal Solid Waste or MSW in short which is generated by the citizens in their daily chores of life and to handle, manage and treat them lies in the realm of urban local bodies.

3.1.2 As per 2011 Census of India there are 476 cities / towns, 54903 villages (53738 revenue villages) in MP. As per 19-20 information, there are 16 Municipal Corporations, 98 Municipalities (नगर पालिका) and 264 Nagar Parishads. In all there are 408 local bodies, however 30 have been newly notified which will come into force after due process of election. Thus presently there are 378 existing and functional urban local bodies (ULBs) in the state of MP and 5 Cantonment Boards. The district wise list of the all the local bodies and cantonment Boards is placed as **Annexure 3.** Similarly as on 19-20, the number of Gram Panchayats in the State are 22812.

3.1.3 Urban Administration and Development Department (UADD) under GoMP has been at the forefront of complying with Solid Waste Management Rules – 2016. GoI has also recognized the efforts of Madhya Pradesh and awarded the State as the best State in Solid Waste Management in 2019. Our commitment and dedication towards achieving a clean and dirt-free State succeeded

in bringing the State to **3rd Rank** in Swacch Survekshan (SS) 2020. Indore has been declared for the 5th time in a row as the cleanest city of the country. In SS 2020 and Bhopal has been declared as the best self sustainable State Capital, and 24 towns and cities of the State found place in top 100 ULBs of the Country.

3.1.4 In SS-2021, as of now results have been declared for ODF and Water+ certifications. Out of 297 ULBs which have applied for ODF++ certification, 295 ULBs have passed ODF++ certification. Out of 78 ULB which have applied for ODF+ certification, 74 have passed ODF+ certification. Also Indore has been declared as the first Water+ city of India.

3.1.5 In the present scenario, the municipal solid waste generation and management status in the State can be represented in the Table given below:

Table 3.1 : Solid Waste Generation & Management in MP

S.No.	Waste Management Status	ULBs	Cantonment Boards	Total
1.	Numbers	*378 No.*	*5 No.*	*383 No.*
2.	MSW Generation	*7980 TPD**	*42.5 TPD***	*8022.5 TPD*
3.	MSW Collection	*7193 TPD**	*42.5 TPD***	*7235.5 TPD*
4.	Segregation and Transportation	*6826 TPD**	*41 TPD***	*6867 TPD*
5.	MSW Processing	*6431TPD**	*41 TPD***	*6472 TPD*
6.	MSW Disposal in SLF	*762 TPD**	*1.5 TPD***	*763.5 TPD*

** MSW from Jabalpur & Morar CB managed by MC Jabalpur & Gwalior respectively*
*** MSW from Sagar, Mhow and Pachmarhi CB*
SOURCE: Urban Development & Housing Department GoMP & MPPCB

3.1.6 Thus, the State generates around 8000 MT of solid waste per day from ULBs. Presently solid waste management in the State is being managed through two pronged strategy :

- *Cluster Based Integrated Solid Waste Management (ISWM) model;*
- *Decentralised Solid Waste Management (stand alone / DSWM) model*

Further the ISWM clusters are based on following treatment approach:

- *Waste to Energy (WtE);*
- *Waste to Compost (WtC)*

3.1.7 Presently three ISWM clusters namely ***Sagar, Katni & Singrauli*** are based on WtC while two clusters namely ***Jabalpur & Rewa*** are WtE. These 5 clusters cover 60 ULBs (5 newly notified ULBs will also be attached to these clusters totalling to 65 ULBs). Apart from this, the State is in the process of creating 11 new clusters namely ***Barwani, Bhind, Chhatarpur, Chhidwara, Dewas, Guna, Hoshangabad, Khandwa, Ratlam, Shajapur & Vidisha*** which will further cater to 210 ULBs. The State thus proposes to have 16 clusters catering to 270 ULBs (including 210 ULBs). The details of the operative clusters and their associated ULBs as well as proposed clusters and their proposed ULBs is placed as **Annexure 4.**

3.1.8 Four DSWM are functional at ***Bhopal, Ujjain, Gwalior & Indore*** based on Waste to Compost. These four ULBs are all Municipal Corporations. Further 104 smaller ULBs are proposed to be developed on DSWM or stand alone model of MSW management. The details of the operative DSWMs as well as proposed DSWM ULBs is placed as **Annexure 5.**

3.1.9 The various facilities like material recovery facilities, recycling of recyclable portion of MSW, composting as well as biomethanisation for the generation of biogas, waste to energy etc have been adopted by the ULBs. The systems that have been provided in the ULBs for management handling, treatment & disposal of MSW in the ULBs is as per the ensuing Table:

Table 3.2 : MSW Management Facilities in MP

S.No.	MSW MANAGEMANT/ FACILTIES IN MP	QUANTITY	ULBs COVERED
1.	Material Recovery Facility/ Recycling	*275 Nos.*	*256*
2.	Composting	*4768 TPD*	*354*
3.	Bio-Methanisation (10 Nos)	*127 TPD*	*4*
4.	RDF Facilities (1222 TPD)	*27 Nos*	*27*
5.	Land Fills (8 Nos)	*762 TPD*	*62*
6.	WtE Plants	*2 (01 under installation)*	*44*

SOURCE: Urban Development & Housing Department, GoMP

3.1.10 For remediation of the legacy waste, concrete steps have been taken by the State. Out of 378 ULBs, 50 legacy waste dumpsites have been cleared fully and bio-mining of waste at 73 dumpsites have been commenced. The list of dumpsites where dumpsite remediation has been completed is placed at **Annexure 6.**

3.1.11 The identified shortfalls in the implementation of the SWM Rules, 2016 is of course due to the availability of finance as the financial health of most of the ULBs is not satisfactory. Another constraint is the entry of spurious and incompetent parties / concessionaires in the management of the MSW, which has forced the State time and again to cancel the tenders, terminate the contracts, thereby forcing the State to change its strategies for the management, handling and disposal of the MSW. The plan for speedy implementation and enforcement has been slated and can be seen at **APPENDIX 1.**

3.2 CONSTRUCTION & DEMOLITION WASTE MANAGEMENT:

3.2.1 As per rule 3 (c) of the Construction and Demolition Waste Management Rules, 2016 construction and demolition waste means the waste comprising of building materials, debris and rubble resulting from construction, re-modelling, repair and demolition of any civil structure. The C&D Rules were framed to emphasize the roles and accountability of waste generators and various stakeholders and to give thrust to segregation, recovery, reuse, recycle at source for the management of C&D wastes. Rule 22 of the SWM Rules, 2016 also prescribes for the separate storage, collection and transportation of C&D waste.

3.2.2 The State has been preparing a policy for the management of Construction and Demolition Waste. The State is ensuring all the ULBs in the State have the required infrastructure to manage C&D Waste from collection to disposal. The waste management hierarchy for C&D Waste has been prioritized and managed in the order of – reduction, reuse, recycling, recovery and disposal, with reduction and reuse being the most preferred option and disposal at the landfill being the least.

3.2.3 The State has set up C&D Waste Processing Plants in big cities (>10 lakh of population) that generate huge amount of C&D waste and cluster-based approach to cover small ULBs. Currently Indore, Ujjain and Satna Municipal Corporations have C&D Processing plant on PPP basis with capacity of 100 TPD each. Jabalpur and Rewa have functional C&D waste processing plant of capacity 50 TPD each and Singrauli has a functional 30 TPD capacity C&D waste processing plant. A 100 TPD plant in Bhopal Municipal Corporation is under construction. Sagar is having a 20 TPD operational plant and is planning to set up a 50 TPD plant. Tender is under preparation.

3.2.4 There are 333 ULBs that have “C&D Waste Helpline” in place. 332 ULBs have notified user charges for services and fines for open

dumping of C&D waste, 338 ULBs have dedicated vehicles for collection and transportation of C&D waste and 318 ULBs have dedicated areas earmarked to keep C&D waste in the city.

3.2.5 However, smaller ULBs which generate very small quantity of C&D waste, the State intends to reuse the C&D waste for levelling of low-lying areas and road construction activities. The plan for speedy implementation and enforcement has been slated and can be seen at **APPENDIX 1**

3.3 MANAGEMENT OF PLASTIC WASTE:

3.3.1 For the management of plastic waste generated in the country, the erstwhile Ministry of Environment & Forests promulgated the Plastic Waste (Management & Handling) Rules, 2011, as amended from time to time. However, for more effective implementation and to give thrust on waste minimisation, source segregation, recycling, involving the informal sector of waste pickers, recyclers etc. new rules, namely Plastic Waste Management Rules, 2016 have been promulgated by MoEF&CC that have been amended on 12-08-2021, for further management of the issues related to single use plastics.

3.3.2 The State of Madhya Pradesh, now having a population more than 85 Million out of which around 30% is urban population and around 70% is rural population. It is estimated that around 380 MT/Day plastic wastes is generated from the urban areas and around 140 MT/day plastic waste is generated from the rural Areas. It is also estimated that around 75% of total plastic waste is easily recyclable if segregated properly and 25% may be used for the special purposes i.e. for co-processing with coal at high temperature and for road construction mixed with bitumen. Most of the urban local bodies of State are having sufficient mechanism for municipal solid waste segregation. There are 116 Registered Plastic Waste Processors and recyclers in the State and they recycled around 63000 MT plastic Waste during 2020-21.

3.3.3 It is pertinent to highlight that Madhya Pradesh has taken giant steps for the management of plastic waste. The plastic waste co-processing in cement kilns began in the State since 2007-2008 and till now 189097 MT of plastic waste has been co-processed. 1 kg of plastic waste replaces more than 2 kg of coal that is how approximately 3.78 lac tonnes of coal has been saved in the State by co-processing of plastic waste. Around 55183 MT of plastic waste has been co-processed in cement kilns during the year 2020-21.

3.3.4 In addition to the above, plastic waste in the State is also being used in the rural road construction since 2014-15 and in Madhya Pradesh Road Connectivity Project. During 2020- 2021, 405 MT of plastic waste has been used under Prime Minister Gramin Sadak Yojana (PMGSY) and MP Road Connectivity Project (MPRCP) for making roads approximately 938 km of roads.

3.3.5 In order to implement the ban on the use of plastic carry bags, concerned authorities i.e. District Administration, Local Bodies and MPPCB regularly carry out inspections and seizures. During the year 2021 from April to March 2021, approximately 24 MT of plastic has been seized . Total 2499 awareness programs and 19220 inspections / raids/seizures have been conducted by the 17 Regional offices of MPPCB and local bodies.

3.3.6 The provisions of the extended producers responsibility has been implemented in the State for proper management of the plastic packaging materials. The MP Pollution Control Board identified 164 producers/brand owners/importers requiring registration from the State out of which 124 producers/brand owners/importers have already got registered. Thus the overall management of plastic waste during the year 20-21 is presented in the Table:

Table 3.3 : Plastic Waste Generation & Management in MP

Plastic Waste (2020-21)	Quantity (TPA)
Generation	138484
Co-processing in cement kilns	55183
Recycling through recyclers	63400
Road Construction	405
Total Utilization	118988 (86%)

SOURCE: MPPCB

3.3.7 Overall, the management and environmentally safe disposal of the plastic waste in the State is impressive. As the amendment of the PWM Rules, 2016 on 12-08-2021, the State has also prepared its Action Plan for Elimination of Single Use Plastic , which has been submitted to MoEF&CC on 26-10-21. A copy of the same has been placed as **Annexure-7.** The plan for implementation and enforcement has been chalked and can be seen at **APPENDIX 1.**

3.4 MANAGEMENT OF E-WASTE

3.4.1 For the management of electrical & electronic waste, popularly known as e- waste, the erstwhile Ministry of Environment & Forests promulgated the E- Waste (Management & Handling) Rules, 2011, For more effective implementation and to give thrust on e-waste management new rules, namely e-waste (Management) Rules 2016 have been promulgated by MoEF&CC that have been amended on 22-03-2018, for further management of the issues related to this issue. E-Waste has been defined in the rule 3(p) as electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes.

3.4.2 The State of MP has a very central location in the map of the country. It is estimated that around 1.5 lac MT of e-waste is

generated annually in the State. There are around 272 collection centres of the producers to whom of e- waste EPR-authorisation have been issued by CPCB. However such collection centres, whose producers are situated outside the state, do not provide information to MPPCB about the waste collected by them from the State and the manner of its disposal, thereby the e waste generation, collection and disposal data cannot be updated.

3.4.3 There are two recyclers of e- waste in MP, 1 dismantler, 9 refurbishers and their 9 collection centres operative in MP. The total e-waste collection by them in MP during the year 2020-21 is 268.0677 MT, by the EPRAs 31.088 MT and by outside recyclers / collection centres is 120.28 MT as reported. Thus as per record made available to MPPCB, a total of 419.44 MT of e-waste was handled and disposed from MP in the year 20-21.

3.4.4 The waste collected and disposed by EPRAs, their collection agents etc but not reported nor any return furnished before MPPCB, which remains a big hurdle in properly tracking down the generation and disposal of e-waste having origin in MP. Several bottle necks of the rules have been reported to CPCB by the State which are as under:

- *Registration of the dealers of the various E&E appliances with the SPCB and filing of annual returns of the buy backs and e-waste collected by them;*
- *The collection centres of EPROs / EPRAs in the State to keep record and submit annual returns to SPCB;*
- *Authorized service centres of the E&E manufacturers fall in the definition of refurbishers, hence shall obtain authorisation from SPCB;*
- *EPROs /EPRAs to file returns of their e-waste collection and disposal from the state to respective SPCBs.*

3.4.5 The action plan for enforcement of e-Waste Management Rules, 2016 has been placed at **APPENDIX 1.**

3.5 MANAGEMENT OF BIO-MEDICAL WASTE:

3.5.1 As per rule 3 (f) of the Biomedical Waste Management Rules, 2016, bio medical waste means any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps, including the categories mentioned in Schedule-I of the rules. The rules apply to all institutions such as hospitals, nursing homes, clinics, dispensaries, veterinary institutions, animal houses, pathological laboratories, blood banks, Ayush hospitals, clinical establishments, research or educational institutions, health camps, medical or surgical camps, vaccination camps, blood donation camps, first aid rooms in schools, forensic laboratories and research laboratories etc. by whatever name they are called.

3.5.2 As per the provisions of the BMW Rules, 2016, the HCFs are required to obtain authorisation from SPCB under rule 10. However the establishment and operation of HCFs is a dynamic thing i.e. new HCFs come in being from time to time while some get closed down. Thus the status of authorisation granted to HCFs as on 31-12-2020 is tabulated as under:

Table 3.4 : Authorisation Status of HCFs in MP

Total HCFs	***8901***
HCFs that have applied for authorisation	***7233***
HCFs granted authorisation	***7037 (79.05%)***
Applications under consideration	***120***
Applications rejected	***76***
HCFs without authorisation	***1668 (18.74%)***

SOURCE: MPPCB

3.5.3 The State has been implementing the provisions for the management and disposal of BMW, since they were being enforced

under the previous rules, namely Bio- Medical Waste (Management & Handling) Rules, 1998 and thereafter the new rules are being implemented since the date of their publication i.e. 28-03-2016. As per the annual report submitted before the CPCB for the year 2020, the status of the health care facilities in MP is presented in the Table given below:

Table 3.5 : Health Care Facilities in MP

Bedded Hospitals & Nursing Homes	**4064**
Clinics, Dispenseries	**2009**
Veterinary Institutions	**907**
Animal Houses	**01**
Pathological Laboratories	**1251**
Blood Banks	**17**
Clinical Establishments	**319**
Research Institutions	**08**
Ayush	**325**
TOTAL HCFs	**8901**
TOTAL No. of Beds available	**115505**

SOURCE: MPPCB

3.5.4 Although HCFs are scattered all over the state in every district, however the concentration of the HCFs in general is more in big cities and consequently the BMW generation in the districts in which these big cities lie is more as compared to other districts. The BMW generation as on 31-12-2020 in the State is tabulated as under:

Table 3.6 : BMW Generation in MP

Item	BMW (Kg/day)
BMW Generation in MP	***20009***
BMW Generation in bedded hospitals	***17663(88.27%)***
BMW Generation in non bedded hospitals & others	***2346(11.72%)***

SOURCE: MPPCB

3.5.5 As per the provisions of the BMW rules and the guidelines published by CPCB from time to time, there are 14 Common Bio medical Waste Treatment & Disposal Facilities (CBWTF) in MP and 2 Captive Bio-medical Waste Treatment & Disposal Facilities are deployed by two medical colleges. Apart from that 2 facilities have been authorized for transportation of the BMW, one in the State and another outside the State to UP for further treatment in CBWTF situated in Agra (UP). The list of the CBWTFs can be seen at **Annexure-8.** The tabulated presentation of the treatment and disposal of BMW in MP is as per the following table:

Table 3.7 : Treatment of BMW & CBWTFs in MP

BMW Generation in MP	**20009 kg/day**
HCF having Captive BMW treatment & disposal facilities	2 *(see annexure 8)*
CBWTFs in MP	14 *(see annexure 8)*
BMW Transport Permission inside MP	1 *(see annexure 8)*
BMW Transport Permission outside MP	1 *(see annexure 8)*
CEMS installed for emission monitoring	15
BMW treated in Captive facilities	**242.10 kg /day**
BMW treated in CBWTFs	**18761.458 kg / day**
TOTAL BMW TREATED & DISPOSED	**19311 kg/day (96.5%)**

SOURCE: MPPCB

3.5.6 There are certain shortcomings like unauthorised operation of the HCFs, non coverage of many government PHCs etc by the CBWTFs due to their remote locations, non achievement of the 2 seconds residence time in the secondary chamber of some CBWTFs, bar coding of the BMW etc. The action plan for enforcement of BMW Management Rules, 2016 has been placed at **APPENDIX 1.**

3.6 MANAGEMENT OF HAZARDOUS WASTE:

3.6.1 The rules to ensure safe handling, generation, processing, treatment, package, storage, transportation, use reprocessing, collection, conversion, and offering for sale, destruction and disposal of hazardous waste were first promulgated in the name and style of Hazardous Wastes (Management & Handling) Rules, 1989 which were amended from time to time in the years 2000, 2003, 2008. Presently the Hazardous Waste (Management and Trans-boundary Movement) Rules, 2016 are in force since 04th April, 2016 in supersession of former notifications.

3.6.2 Hazardous Waste as per rule 3(17) has been defined as any waste which by reason of characteristics such as physical, chemical, biological, reactive, toxic, flammable, explosive or corrosive, causes danger or is likely to cause danger to health or environment, whether alone or in contact with other wastes or substances, and shall include waste specified under Schedule I, II & III of the rules.

3.6.3 As per these rules the state government has to develop Common Treatment Storage and Disposal Facility (CTSDF) to take care of disposal of the hazardous wastes generated in the state. Thus Common Treatment, Storage and Disposal Facility (CTSDF) at Pithampur Industrial area has been developed through M/s. M.P. Waste Management Facility (A unit of M/s. Ramky Enviro Engineers Ltd. Hyderabad) on BOOT basis as per Central Pollution Control Board (CPCB) guidelines in consultation and supervision of M.P. Pollution Control Board (MPPCB). The CTSDF is operative since 2005-06. The unit has changed its name to M/s Pithampur Industrial Waste Management project Pvt. Ltd. The site is designed to dispose off hazardous wastes for 20 years at the rate of 70,000 MT/Year through landfill and 20,000 MT/Year through incineration.

3.6.4 As per the last updated inventory for year 2020-21, there are 3041 authorised hazardous waste generating units in the state and approximate hazardous waste generation under various categories which are tabulated below:

Table 3.8 : Hazardous Waste Management in MP

S. No	Hazardous Waste Generation Year 2020-21		Quantity
1	***Total Number of Authoriesd HW generating Industry***		***3041 Nos.***
2	***Recyclable Hazardoes waste Under Schedule IV (MT)***	***Total Authorized Quantity***	***181466.49***
		Total Generated Quantity (includes received from other State)	***49024.76***
		Received from other State	***32371.39***
3	***Utilizable Hazardous Waste Under Rule 9 (MT)***	***Total Authorized Quantity***	***303637.96***
		Total Generated Quantity *include received form other State	***102951.19***
		****Received form other State***	***1521.37***
4	***Landfillable Hazardous Waste (MT)***	***Total Authorized Quantity***	***113722.55***
		Total Generated Quantity	***48124.81***
5	***Incinerable Hazardous Waste (MT)***	***Total Authorized Quantity***	***23647.31***
		Total Generated Quantity	***7827.14***
6	***Quantity of Hazardous Waste disposed by CTSDF (MT)***	***Total Quantity (includes landfill & Incineration)****	***41050.79***
		****For landfill Quantity*** ****For Incineration Quantity***	***38222.13*** ***2828.66***
7	***Hazardous waste Quantity sent for Co-processing (MT)***		***57337.24***
	Total Generation Quantity of Hazardous Waste (MT)		**271162.86**
	Total Disposed Quantity of Hazardous Waste (MT)		**271160.39**

SOURCE: MPPCB

3.6.5 For promoting recycling, resource conservation, coprocessing etc as per the "Guidelines for Environmentally Sound Recycling of Hazardous Wastes" for commonly recyclable hazardous wastes and the SOPs issued under Rule-9 of the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 by Central

Pollution Control Board, Delhi, the details of recyclers / reusers / coprocessors etc is presented in the table below:

Table 3.9 : Hazardous Waste Recyclers / Co-processing in MP

Type	Units Nos.	Capacity MTA
Lead Acid Battery scrap recycling units	***56***	***1,23,700***
Waste/Used Oil Recycling	***15***	***1,33,000***
Non Ferrous Metal Recovery/Recycling	***30***	***1,40,000***
Contaminated Drums/Barrels Washing/Recycling	***12***	***14,00,000 (Nos./year)***
Co processing in Cement Kilns	***3***	***6,00,000***

SOURCE: MPPCB

3.6.6 The State, in consultation with Central Pollution Control Board had identified 04 hazardous waste dump sites in Ratlam and Maksi area. All the industries responsible for contamination have been closed between 1997 to 2003. The approx. quantity of waste stored at various locations (industrial premises and near by area) is 23,594 MT & waste shifting proposals (Rs. 6.60 crore) to TSDF, Pithampur, Dhar had been forwarded to CPCB and MoEF in 17.04.2008. MoEF had appointed M/s. SENES Consultant India (P) Ltd., Noida for study of these sites. However the actual remediation of the sites has not yet been started for various reasons. Presently M/s ERM form Gurugram has been appointed consultant for further studies. As per the direction of Hon'ble NGT in OA No. 804/2018 vide order dated 12.04.2019, Government of Madhya Pradesh has constituted Technical Review Committee (TRC) for the monitoring of remediation contaminated sites.

3.6.7 During investigation by MoEFCC joint consortium, 21 probable contaminated sites have also been identified in the State. Out of it 08

sites were found in Class 'D' i.e. not contaminated. One site Ratlam Industrial Area-457001 is found in Class 'C'. This site is already investigated / inspected and found to be contaminated. Other sites are under investigation and shall be finalized after issuance of guidelines by MoEF&CC in this regard. The action plan for further strengthening the enforcement of HOWM, 2016 has been placed at **APPENDIX 1.**

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4: WATER QUALITY IN MP

4.1 Rivers are the main source of surface water in the state and its dependence on river water for irrigation, drinking water and industrial activities. Madhya Pradesh has five major river basins namely, Ganga (Yamuna Basin), Narmada Basin, Tapti Basin, Mahi Basin and Wainganga (part of Godawri Basin). The main basin and the major rivers which form these basins is as per the table below:

Table 4.1 : River basins and Major Rivers in MP

S.No	Name of Basin	Major Rivers of the Basin
1	Ganga Basin (Yamuna Basin)	Tones, Son, Chambal, Sindh, Jamuni, Betwa, Dhasan and Ken
2	Narmada Basin	Narmada, Banjar, Tawa, Kolar, Hiran, Sukhta and Goi
3	Godavari basin (Wainganga Basin)	Kanhan, Pench and Wainganga
4	Mahi Basin	Mahi and Anas
5	Tapti Basin	Tapti

SOURCE: Water Resources Department GoMP & MPPCB

4.2 Water pollution takes place due to the drainage of excess water from the agricultural land, the flow of domestic and industrial contaminated water into the rivers. Under the Water (Prevention and Control of Pollution) Act, 1974, the main objective of the State Pollution Control Board is to continuously monitor the water quality in the State and maintain its quality and wholesomeness. With this aim the monitoring of major rivers, lakes/ponds and ground water of the State is done by the Madhya Pradesh Pollution Control Board through its various laboratories.

4.3 The MPPCB regularly monitors the quality of its natural water resources. It collects water samples from major rivers, its tributaries, lakes, dams, ponds, drains and ground water sources and analyzes the

samples. Under water quality measurement, in the year 2020-21, 88 major rivers / tributaries, 98 ponds / dams, 145 drains /Nalla and 481 ground water points have been included in the programme.

4.4 The life line of the State is the perennial & holy river Narmada, which originates from Amarkantak in MP, flow for a length of 1077 km in MP before entering Gujarat. The river quality is monitored at 51 stations throughout its length. Another major river is Betwa which originates at Jhiri village in Raisen district of MP, flows for about 590 km before entering Uttar Pradesh, its quality is monitored at 14 stations. The water quality of the 88 rivers / tributaries of rivers flowing in the state are monitored at 287 stations. The water quality of the rivers in MP according to the CPCB river water quality criteria has been presented in **Annexure 9.** The river water quality of Narmada river falls between A & B categories. Out of the 287 sampling stations at 88 rivers, at 246 (86%) stations the rivers' water quality is either A or B, and only at 31 stations (11%) the quality is in D or E category.

4.5 Thus the quality of rivers' water in general is not affected with pollution. The various steps taken by the State for the control of water pollution and treatment of sewage are presented herein after one by one.

4.6 TREATMENT OF DOMESTIC SEWAGE:

4.6.1 Madhya Pradesh, is geographically the second largest State of the country. It covers almost 9.5 per cent of the area (308,000 Sq' Km.) and 6 per cent (72.5 million) of country's total population. On the basis of the size of urban population, it ranks 8th and accounts for 5.58 per cent of the total urban population of lndia. The 378 Urban Local Bodies of Madhya Pradesh accommodate 20.1 million urban population which accounts for 27.6 per cent of the total population of MP.

4.6.2 The estimated sewage generation in MP is approximately 2184 MLD. There are STPs existing and operational to take care of a part of the sewage generated in the state. Others are under construction to take care of the treatment of the sewage. The State is regularly reporting the status of compliance to the National Mission for Clean Ganga in the Ministry of Jal Shakti, GoI. The Status of the STPs as per the latest report of October 2021 is tabulated as under:

Table 4.2 : Status of STPs in MP

1.	***Total estimated Sewage Generation***	***2184 MLD***
2.	***Existing number of operational STPs***	***43 No.***
3.	***Existing Treatment Capacity***	***1132 MLD (52% of total sewage)***
4.	***Capacity Utilisation of existing STPs***	***647 MLD (57%)***
5.	***Treatment by Alternate Technology (FSTP, 26 Nos)***	***16 MLD***
6.	***Under Construction STPs in State***	***66 No.***
7.	***Treatment Capacity of under construction STPs***	***626 MLD***
8.	***STPs proposed to be constructed***	***7 No.***
9.	***Treatment Capacity of proposed STPs***	***47 MLD***
	Gap in Treatment (1-3-5-7-9)	**363 MLD**

SOURCE: Urban Development & Housing Department GoMP

4.6.3 The issues pertaining to the domestic sewage treatment in MP are mainly of the shortfall in the treatment capacity as well as of the capacity utilization and lack of sewerage network. The capacity utilization suffers from the lack of proper sewerage network thereby the sewage available at the end of the pipe is lesser than the STP capacities. The laying of sewerage network has been undertaken in various cities, although the pace is slow. The action plan for the sewage management in the State has been placed at **APPENDIX 1.**

4.7 REJUVINATION OF POLLUTED RIVER STRETCHES :

4.7.1 National Green Tribunal, Principal Bench, New- Delhi had passed an order on dt. 20/09/2018 in the matter of news item published in "The Hindu" authored by Shri Jacob Koshy tittled "More River Stretches are now Critically Polluted" in Original Application No. 673 of 2018 regarding 351 polluted river stretches in the country.

4.7.2 There are 22 polluted river stretches which have been identified by CPCB and MPPCB was asked to prepare Action plans for the river water rejuvenation. Out of this, three stretches are priority I (BOD more than 30 mg/litre), one stretch each are priority II (BOD between 22 to 30 mg/litre) & III, three stretches are priority IV and remaining 14 are priority V. All the rivers are non perennial.

4.7.3 The State has prepared action plans for the rejuvenation of all the 22 polluted river stretches and submitted to CPCB. Total Sewage generation in the catchment area of 22 polluted river stretches of M.P. is reported as 612 MLD out of which existing STP having treatment capacity of 451.32 MLD and there is gap of 161.03 MLD for treatment.

4.7.4 The generation of sewage in the catchment of these 22 polluted stretches is reported as 612 MLD out of which existing STP having treatment capacity of 451.32 MLD and there is gap of 161.03 MLD for treatment. Presently the implementation of the action plans is being undertaken which include the construction of STPs, CETP etc. The present status of construction of STPs is as per **Annexure 10.** Out of the 22 stretches, there are 15 stretches where the water quality is generally meeting the norms.

4.7.5 The Jal Shakti Ministry of GoI is regularly monitoring the status of implementation of the action plan for the rejuvenation. However to further strengthen the implementation, the action plan has been placed at **APPENDIX 1.**

4.8 INDUSTRIAL EFFLUENT & TREATMENT:

4.8.1 For the purpose of pollution control, MPPCB grants consents / authorisation to the industries for the enforcement of environmental laws. Industries are further divided into Red, Orange & Green categories based on their pollution potential and lists published by CPCB from time to time. The present status of various categories of industries registered with MPPCB is as per the table below:

Table 4.3 : Industries in MP*

Scale	Red	Orange	Green	Total
Large	572	220	100	892
Medium	1019	346	239	1604
Small	11735	2998	4967	19700
Total	13107	3547	5306	22196

** Real Time data on 08-11-2021, at 4 PM*

SOURCE: MPPCB

4.8.2 As a matter of policy since long, the State of MP through its instrumentality MPPCB, has ensured that no industrial effluent shall be permitted to be discharged outside its industrial premises into any natural water body. A persistent approach of "*zero discharge outside the premises*" in this regard has kept the rivers and natural water bodies of the State devoid of pollution from the industrial effluents by and large and the industries are asked to reduce, recycle and reuse it.

4.8.3 It is however sometimes become very difficult to encourage industrialization together with ensuring the stricter norms of effluent discharge into water bodies. There were units in MP which existed prior to 1974 i.e. before the promulgation of the Water Act, which used to discharge their industrial effluents in the nearby rivers and water bodies. Till a few years back, there were some units which can be counted on finger tips, namely Orient Paper Mills, Security Paper Mills and Grasim Industries Ltd (Staple Fibre Division) which were discharging their treated industrial effluents, conforming to norms of river water discharge, into Son, Narmada & Chambal rivers respectively. In the recent years, these units have also adopted zero discharge by

upgrading their treatment technology. The last such unit to become a zero discharge unit is M/s Grasim Industries Ltd (Staple Fibre Division), which has become Zero Liquid Discharge (ZLD) since 30th September, 2021 and a huge volume of 24000 KLD of treated industrial effluent discharge has been stopped into the Chambal River at Nagda.

4.8.4 As per the orders of the NGT from time to time, the concept of ZLD or Zero Liquid Discharge came into being in 2014. CPCB issued the "*Indicative Guidelines on Techno-economic feasibility of Implementation of Zero Liquid Discharge (ZLD) For Water Polluting Industries*" in December 2014 wherein Zero Liquid discharge has been defined as installation of facilities and system which will enable industrial effluent for absolute recycling of or re-use and converting solute (dissolved organic and in-organic compounds / salts) into residue in solid form by adopting method of "concentration and evaporation".

4.8.5 Thus adoption of advanced treatment methods like Reverse Osmosis (RO), Multi Effect Evaporators (MEE), Agitated Thin Film Drying (ATFD) were required to be adopted in sectors of industries which are identified as highly water polluting, namely Distillery, Tannery, Textiles, Bulk Drugs, Sugar, Pulp & Paper, Dye & dye intermediates, Chemicals etc. The ZLD status achieved in these sector of industries in MP is as per the Table given below:

Table 4.4 : Status of ZLD Industries in MP

Industry Sector	No of Industries	ZLD Status
Distillery	***11***	***11***
Bulk Drug	***14***	***14***
Pulp & Paper (integrated)	***2***	***2***
Dye & Dye Intermediates	***4***	***4***
Tannery	***1***	***1***
Textiles	***14***	***10***
Chemical & Others (Pigments, Dye, Viscose Fibre)	***8***	***8***
Chlor Alkali	***2***	***2***
Sugar*	***18***	**----**

**** Sugar industries in MP are seasonal, with no attached distillery and have adopted conventional treatment technologies followed by land application of treated effluent.***

SOURCE: MPPCB

4.8.6 The industries of greater water pollution potential are also required on line real time Continuous Effluent Quality Monitoring Equipments (CEQMS). The CEQMS are connected to the server of MPPCB Environment Surveillance Centre at Bhopal and real time treated effluent quality data can be monitored and alerts can be issued whenever the effluent standards are violated. The present status of the CEQMS installed in the highly polluting units of the State are presented in the table below:

Table 4.5: Status of CEQMS in MP

Industry Sector	Parameters of Concern	No. of CEQMS Installed
Aluminium	***ph, BOD, COD,TSS, Flow***	***1***
Distillery	***ph, BOD, COD,TSS, Flow***	***8***
Chlor Alkali	***ph, TSS***	***1***
Fertilizers	***Ph, flow, Ammonical Nitrogen, Fluoride***	***9***
Dye & Dye Intermediate	***ph, BOD, COD,TSS, Cr, Flow***	***1***
Oil Refinery	***ph, BOD, COD,TSS, Flow***	***1***
Petrochemical	***ph, BOD, COD,TSS, Flow***	***1***
Thermal Power	***ph, TSS, Temperature***	***20***
Drug & Pharmaceuticals	***ph, BOD, COD, TSS, Flow***	***14***
Pulp & Paper	***ph, BOD, COD,TSS, AOX, Flow***	***3***
Sugar	***ph, BOD, COD,TSS, Flow***	***20***
Tannery	***ph, BOD, COD,TSS, Cr, Flow***	***1***
Textile (GPI)	***ph, COD,TSS, Flow***	***9***
Dairy / Food & Beverages(GPI)	***ph, BOD, COD,TSS, Flow***	***3***
Cement	***ph, BOD, COD,TSS, Flow***	***2***
Chemical	***ph, BOD, COD, TSS, Flow***	***2***
CETPs	***ph, BOD, COD, TSS, Flow***	***2***
TOTAL		**98**

SOURCE: MPPCB

4.8.7 To have a constant vigil on the accidental / intentional discharges by the water polluting industries outside their premises, and in case of ZLD units also, the units have been asked to install PTZ IP Cameras at strategic locations, which are connected to the central server of the Environmental Surveillance Centre of the MPPCB, through which MPPCB has been able to view the real time images of the site situation of the discharges as well as the level of emissions from the chimneys of the industries. **A total of 183 cameras have been installed and connected to MPPCB server by 133 industries in the State**.

4.8.8 Apart from the industrial pollution control in highly water polluting industries, there are other units also which contribute to water pollution. All such industries are required to install Effluent Treatment Plants (ETP) of adequate capacity and quality. Such other units are also not permitted to discharge their treated effluent outside their industrial premises. Out of the total around 22196 industrial units in MP, 1273 units generate industrial effluent and all have functional ETPs. The treated effluent is used for beneficial uses like plantation / gardening & horticulture, reuse & recycling, dust suppression etc. For the non compliance with the treatment norms, suitable action including closure and court cases is ensured.

4.8.9 For the control of pollution and as a matter of assistance to the industries of small scale sector, Common Effluent Treatment Plants (CETP) have been installed at 3 places, the details of which are provided in the following table:

Table 4.6: Status of CETPs in MP

Place	Sectors Covered	Capacity	Industries Connected (No.)	Remark
Bhopal	*Industrial*	*0.6 MLD*	*29*	*Control of untreated discharge in Nala*
Indore	*Industrial + Domestic*	*4 MLD*	*111*	*Control of Pollution of Khan River*
Burhanpur	*Industrial + Domestic*	*4.5 MLD*	*42*	*Control of Pollution of Tapti River*

SOURCE: MPPCB

4.8.10 Overall the state has been able to keep its natural resources, rivers and ponds etc. devoid of pollution from the industrial effluents. Industries are maintaining zero discharge as well as ZLD status wherever required. However there is always a scope of improvement and accordingly the action plan for control of pollution from industrial effluents has been placed at **APPENDIX 1**.

4.9 POLLUTION PREVENTION DURING IDOL IMMERSIONS AND CONGREGATIONS:

4.9.1 According to the guidelines of the CPCB, Madhya Pradesh Pollution Control Board , is conducting since 2005 the works related to monitoring and public awareness at the time of idol immersions i.e. during Ganpati Visarjan & Durga Pooja. Keeping in view the size of the water body sufficient numbers of sampling sites are determined and the water quality is assessed in three phases i.e. before immersion, during immersion and after immersion as per the guidelines.

4.9.2 The MPPCB, through its 16 regional offices, conducts regular meetings with the officers of the local administration, urban local bodies, NGO, idol makers etc. The manufacture of Plaster of Paris (POP) idols is discouraged and construction of temporary visarjan kunds is undertaken so that the idols are immersed in them and not in any natural water body.

4.9.3 Public awareness programmes are undertaken through seminars, workshops, news paper advertisements, poster & pamphlet distribution etc. It is also ensured that the worship items like, flowers, garlands, bamboo sticks, clothes etc are removed within 48 hours of idol immersion from the water body and are disposed scientifically.

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5: AIR QAULITY IN MP

5.1 Clean air is by far the most precious endowment that the nature has given to the mankind. However the quality of air is affected due to various human activities of industrialization, mining, construction, transportation, agriculture residue & MSW burning, deforestation etc. MP, the heartland of India, has been blessed by the nature with plenty of forests and trees which contribute immensely as a source of clean air as well as a sink for absorption of harmful air pollutants.

5.2 The State, with the promulgation of the Air (Prevention & Control of Pollution) Act, 1981 has been applicable since 16-5-1981. For the purpose of air pollution control, and in compliance of the section 19 of the Act, whole of the Madhya Pradesh has been declared as an air pollution control area on 09-03-1988. Hence the provisions of the Air Act are being enforced in whole of the State.

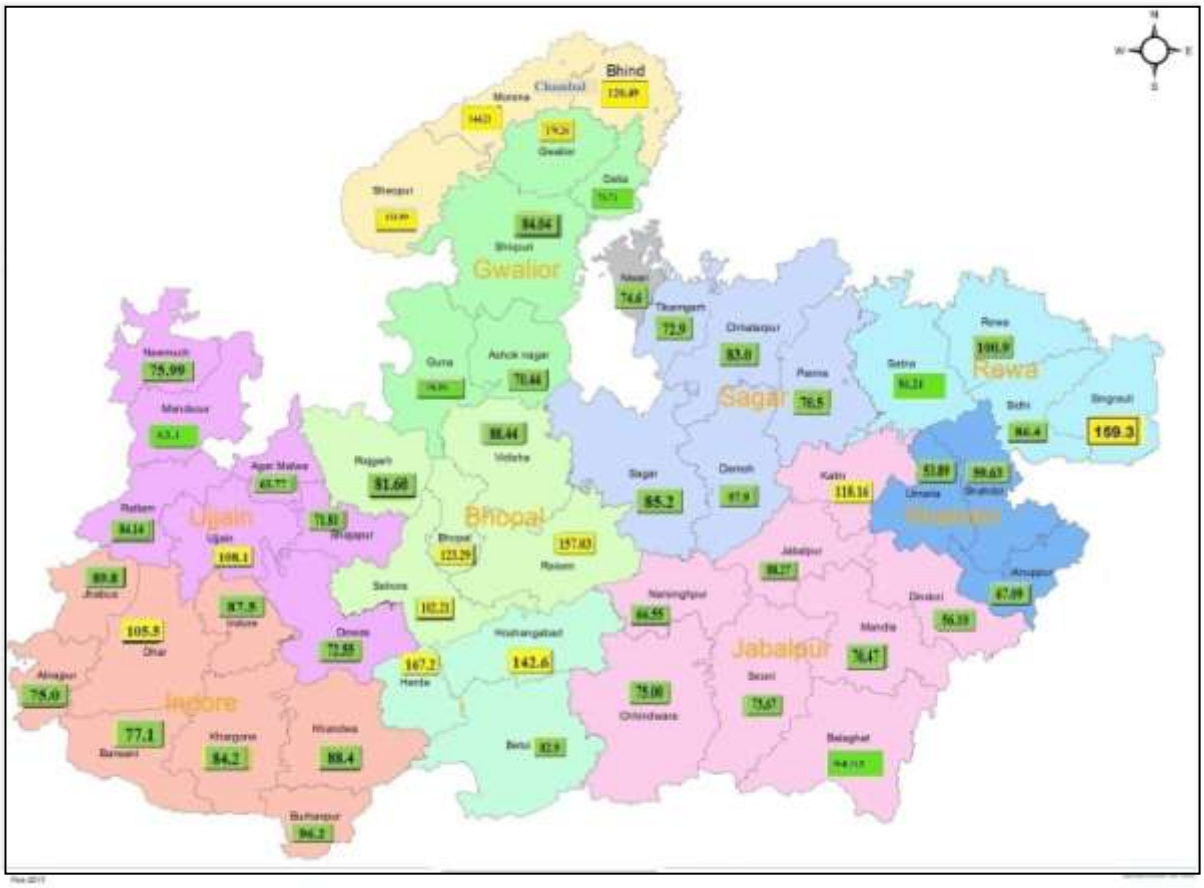
5.3 The various steps and enforcement being done by the State of MP for providing its citizens with clean and fresh air are presented in here-in after under various sub headings:

5.4 AMBIENT AIR QUALITY MONITORING & POLLUTION CONTROL:

5.4.1 Ambient air quality monitoring is being done twice a week in 52 districts of the state. Sulfur Dioxide, Oxides of Nitrogen, Respirable Suspended Particulate Matter (PM_{10} and $PM_{2.5}$ parameters) are being measured in district wise ambient air quality monitoring. The average air quality index (AQI) of all the 52 districts of Madhya Pradesh in the year 2020-21 is presented pictorially in map below. As per AQI data, the air quality in 39 districts has been found to be satisfactory *(AQI between 51-100),* and in rest of the 13 districts it is in moderate category *(AQI between 101-200).*

5.4.2 A comparison of the AQI of 52 districts for the year 2019-20 and for the year 2020-21 is placed at **Annexure 11** Out of the 52 districts, the AQI have improved in 36 districts while it has deteriorated in 16 districts. The improvement may be attributed to the Covid lock-down during 2020-21, however the deterioration attracts attention.

Figure 5.1 : District wise AQI of MP



SOURCE: MPPCB

5.4.3 Also the State Pollution Control Board is conducting Ambient Air Quality Monitoring in 16 cities (Ujjain, Nagda, Dewas, Gwalior, Indore, Pithampur, Jabalpur, Singrauli, Bhopal,Mandideep, Shahdol, Sagar, Katni, Satna Rewa and Chhindwara) at 41 stations under National Ambient Air Quality Monitoring Programme (NAMP) sponsored by CPCB. The details of the the NAMP stations are presented as per the table below**:**

Table 5.1: NAMP Stations in MP

S.No.	City/ Town	No. of Stations	S.No.	City/ Town	No. of Stations
1.	Bhopal	6	9.	Jabalpur	2
2.	Ujjain	4	10.	Satna	2
3.	Nagda	3	11.	Sagar	2
4.	Dewas	3	12.	Pithampur	2
5.	Singrauli	3	13.	Chhindwara	2
6.	Rewa	1	14.	Katni	2
7.	Indore	3	15.	Shahdol	2
8.	Gwalior	3	16.	Mandideep	1
TOTAL 41 NAMP STATIONS					

SOURCE: MPPCB

5.4.4 Apart from manual ambient air quality using high volume samplers under NAMP, the ambient air quality is also monitored at prominent cities of MP by Continuous Ambient Air Quality Monitoring Stations (CAAQMS). The CAAQMS installation for the monitoring of air quality in cities is as per the following table:

Table 5.2: CAAQMS Installations for Real Time Monitoring of Air Quality in Cities*

S.No.	City	CAAQMS Nos.	S.No.	City	CAAQMS Nos.
1.	*Bhopal*	*1*	11.	*Damoh*	*1*
2.	*Dewas*	*1*	12.	*Maihar*	*1*
3.	*Gwalior*	*2*	13.	*Ratlam*	*1*
4.	*Indore*	*1*	14.	*Sagar*	*1*
5.	*Jabalpur*	*1*	15.	*Satna*	*1*
6.	*Katni*	*2*	16.	*Neemuch*	*1*
7.	*Mandideep*	*1*	17.	*Anuppur*	*1*
8.	*Pithampur*	*1*	18.	*Rewa*	*2*
9.	*Singrauli*	*1*	TOTAL		21
10.	*Ujjain*	*1*			

**Includes 11 CAAQMS shifted by industries to cities*

SOURCE: MPPCB

5.5 INDUSTRIAL AIR POLLUTION MONITORING & POLLUTION CONTROL :

5.5.1 The principal sectors which cover air polluting industries in the State are Thermal Power and Cement plants owing to abundance availability of coal and limestone. The other air polluting industries which pose concern are chlor-alkali, aluminium, petroleum oil refinery, petrochemicals, fertilizer and distillery. Appropriate air pollution control equipments like ESPs, Bag Filters, Scrubbers etc have been installed by all the industries causing air pollution.

5.5.2 The State Pollution Control Board, with a view to keep watch on the emissions from the polluting industries and common facilities, has implemented the GoI's scheme of 'Self Monitoring of Compliance' in the State. As per the CPCB directives for the installation of Continuous Emission Monitoring System (CEMS) in air polluting industries for monitoring the target parameters is presented in the table below along with number of units in the State, target parameters and the status of CEMS installation :

Table 5.3: Status of CEMS in MP

Industry Sector	No of Units in MP	Parameters	No. of CEMS Installed
Aluminium	*1*	*PM, Fluoride*	*3*
Cement	*16*	*PM,NOx, SO_2*	*108*
Distillery	*11*	*PM*	*11*
Chlor Alkali	*2*	*Cl_2, HCl*	*14*
Fertilizers	*9*	*PM,Fluoride,Ammonia*	*26*
Iron & Steel	*1*	*PM, SO_2*	*1*
Oil Refinery	*1*	*PM, CO, NOx, SO_2*	*09*
Petrochemical	*1*	*PM, CO, NOx, SO_2*	*5*
Thermal Power (Utility)	*14*	*PM, NOx, SO_2*	*37*
Thermal Power (Captive)	*19*	*PM, NOx, SO_2*	*48*
Zinc	*NA*	*PM, SO_2*	*NA*
Copper	*NA*	*PM, SO_2*	*NA*
CBWTF (For BMW, including captive etc.)	*18*	*As per BMW Rules, 2016*	*15*
CTSDF (For HW)	*1*	*As per HWM Rules, 2016*	*1*
Common MSW Facility	*1*	*As per SWM Rules, 2016*	*1*
Others	*33*	*As per EP Rules,1986*	*62*
TOTAL	**128**		**341**

SOURCE: MPPCB

5.5.3 Apart from real time monitoring of source emissions, the air polluting industries in the State have been asked to install CAAQMS as per the conditions of the EC or MPPCB's Consent, in order to monitor the ambient air quality on real-time basis in and around their locations. The MPPCB has established a dedicated full-fledged Environmental Surveillance Centre (ESC) with a view to keep a constant watch on the emissions and ambient air quality of the polluting industries and common waste treatment facilities. All the CEMS, CAAQMS, IP-Camera etc., installed at the industry end, have been connected with the Central Server for transmission of real-time monitoring data from the target locations to the MPPCB. This data is projected on the website and the Env-Alert App and the same is accessible to the common citizens for the benefit of the masses and the environment. Several measures have also been taken by the ESC to ensure genuineness and the reliability of real-time data received from the far end. An auto trigger mechanism has been developed to send the SMS alerts to the industry on every violation or whenever any parameter of the industry exceeds the threshold/prescribed limits. The status of CAAQMS installed at industries, common facilities and other city locations for the purpose of monitoring of ambient air pollution, an important human health risk, is tabulated below :

Table 5.4: Status of CAAQMS in Industries of MP

Sector	No. of Units	CAAQMS installed
17 category Industry	***38***	***95***
Common TSDF	***1***	***1***
Other category industry	***31***	***35***
Total	**70**	**131**

SOURCE: MPPCB

5.5.4 There is dire need of strengthening the ambient air quality monitoring net work as well as that in industries as the present air monitoring network does not suffice the purpose to provide a representative picture of the State's air quality. An action plan for the same has been given at **APPENDIX 1.**

5.6 POLLUTION CONTROL IN NON ATTAINMENT CITIES:

5.6.1 CPCB has identified 06 cities of M.P i.e. Bhopal, Indore, Sagar, Ujjain, Dewas & Gwalior as non-attainment cities based on PM_{10} parameter of ambient air quality data of 2011- 2015. Hon'ble Tribunal directed the states to take emergent measures to check sources of air pollution and directed to prepare action plans of respective non-attainment cities.

5.6.2 The action plan for the above 6 cities was prepared and submitted before CPCB in the year December 2018, which were approved by CPCB in February 2019. A new million plus city of Jabalpur has been added in the list of the above 6 cities in 2020. The action plan for Jabalpur town was also prepared in 2021 and submitted to CPCB, however its approval is awaited.

5.6.3 The action plans include components like identification of source and its apportionment considering sectors like vehicular pollution, industrial pollution, dust pollution, construction activities, garbage burning, agriculture pollution including pollution caused by burning of crop residue, residential and indoor pollution. The implementation of approved action plans is in various stages of progress.

5.6.4 Govt. of India Ministry of Environment, Forest & Climate Change has released the grants to CPCB under National clean air programme (NCAP) and CPCB has released the grant of total Rs. 22.12 Crore to M.P. Pollution Control Board in year 2019-20 & 2020-2021 to improve the cities' air quality. The Bhopal & Gwalior cities' source

apportionment study work order has been issued to Automotive research association of India (A.R.A.I.) Pune & IIT –Kanpur respectively. For providing mechanical street sweeper, water fogger & greening and paying activity, Ist installment Rs. 8.04 Crores has been released to Municipal Corporation Bhopal and Gwalior, however the IInd installment could not be released so far due to not submission of utilization certificate & proposal.

5.6.5 The national ambient air quality standards for PM_{10} are 60 µg/Nm^3(annual average). However the goal of National Clean Air Programme [NCAP] is to meet the prescribed annual average ambient air quality standards at all locations in the country in a stipulated timeframe. The tentative national level target of 35 %–50% reduction of and PM_{10} concentration by 2025-26 is proposed under the NCAP, taking 2019-20 as the base year for the comparison of concentration.

5.6.6 As far as the implementation of the action plan is concerned, the air quality of the non attainment cities has improved from the base year 2019-20, barring an increase noticed in levels in two cities of Gwalior & Jabalpur. The comparative air quality of the seven non attainment cities in year 2019-20 & year 2020-21 is presented below in the tables:

Table 5.5 : Annual Average of PM_{10} in Non Attainment Cities

S.No.	City	2019-20	2020-21	% Change
		PM_{10} µg/Nm^3 (Annual Average)		
1.	*Indore*	*87*	*59*	*(-) 32*
2.	*Bhopal*	*163*	*128*	*(-) 21*
3.	*Gwalior*	*164*	*119*	*(-) 27*
4.	*Sagar*	*75*	*59*	*(-) 21*
5.	*Ujjain*	*82*	*73*	*(-) 11*
6.	*Dewas*	*74*	*66*	*(-) 10*
7.	*Jabalpur*	*83*	*71*	*(-) 14*

SOURCE: MPPCB

Table 5.6: Annual Average of $PM_{2.5}$ in Non Attainment Cities

S.No.	City	2019-20	2020-21	% Change
		$PM_{2.5}$ µg/Nm^3(Annual Average)		
1.	*Indore*	*40*	*25*	*(-) 37*
2.	*Bhopal*	*62*	*56*	*(-) 09*
3.	*Gwalior*	*36*	*56*	*(+) 55*
4.	*Sagar*	*23*	*22*	*(-) 04*
5.	*Ujjain*	*34*	*30*	*(-) 12*
6.	*Dewas*	*48*	*39*	*(-) 18*
7.	*Jabalpur*	*32*	*33*	*(+) 03*

SOURCE: MPPCB

5.6.7 Since the action plan of non- attainment cities is being implemented, all of the non attainment cities have taken the path towards cleaner air as far as PM_{10} levels are concerned. However the levels in two cities of Jabalpur and Gwalior show an increasing trend. However it is expected that by the year 2025-26, 35 - 50% reduction in the level of PM_{10} & $PM_{2.5}$ will be achieved.

5.6.8 As submitted earlier, the State has already prepared the action plan for the non- attainment cities and submitted to CPCB. 6 plans are already approved and the 7^{th} for Jabalpur city is awaiting approval from CPCB. Apart from it, the State has also prepared Micro Level Plan and submitted to CPCB between January 2021 to March 2021. The State Action plan, as per **APPENDIX 1**, in this regard will be to implement the already approved action plans and micro-level action plan holistically.

5.7 CONTROL OF NOISE POLLUTION:

5.7.1 As per section 2(a) of the Air (prevention & Control of Pollution) Act, 1981, noise has been defined as an air pollutant. Noise Pollution (Regulation & Control) Rules, 1999 and later in year 2000 were framed under Environment (Protection) Act, 1986.

5.7.2 The ambient noise level increases due to various activities like industrial, construction, fire crackers, sound producing instruments, generator sets, loud speakers & public address systems, vehicular horns and other mechanical devices etc., which have deleterious effects on human health and psychological well being and therefore for maintaining the ambient noise levels following standards have been laid down:

Table 5.7: Ambient Air Quality Standards in Respect of Noise

Area Code	Category of Area/Zone	Limits in dB (A) Leq	
		Day Time (6 am to 10 pm)	Night Time (10 pm to 6 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

SOURCE: The Noise Pollution (Regulation & Control) Rules, 2000

5.7.3 The work related to Ambient Noise Quality level monitoring is done by MPPCB in commercial, residential, industrial and silence areas. The main reason for noise pollution in MP is due to excessive vehicular movement and use of pressure horn, use of loud speaker / very loud music system during commercial activities, marriage and religious events, use of generator sets and high noise producing firecrackers and loud speakers during festivals like Ganesh & Durga Pooja and Diwali festival. Noise level measurement work is also done on the religious festivals.

5.7.4 MPPCB also carries out the **noise monitoring** through its 17 regional offices. The monitoring results are communicated to the respective District Collectors for necessary action. The district administration & Police department are empowered to take action

regarding the noise pollution under **Noise Pollution** (Regulation & Control) Rules 2000.

5.7.5 A total of 16969 counts were measured in the year 2020-21, out of which 2099 counts i.e. 12.36 percent were found to be more than the prescribed standards, as per the table below:

Table 5.8: Ambient Noise levels in MP during 2021

S. No.	City	Noise level		
		No. of total noise level monitoring done (counts)	No. of noise level found to be more than standard	Percentage of noise level found to exceed standard
1.	*Bhopal*	*1188*	*198*	*16.66*
2.	*Mandideep*	*492*	*0*	*0*
3.	*Ujjain*	*528*	*88*	*16.66*
4.	*Guna*	*1608*	*18*	*1.11*
5.	*Indore*	*616*	*155*	*25.16*
6.	*Dhar*	*580*	*74*	*12.75*
7.	*Sagar*	*157*	*73*	*46.49*
8.	*Gwalior*	*1966*	*623*	*31.86*
9.	*Jabalpur*	*2016*	*251*	*12.45*
10.	*Chhindwara*	*192*	*0*	*0*
11.	*Rewa*	*1778*	*186*	*10.46*
12.	*Satna*	*1728*	*164*	*9.49*
13.	*Shahdol*	*1632*	*40*	*2.45*
14.	*Singrauli*	*288*	*0*	*0*
15.	*Katni*	*608*	*24*	*3.94*
16.	*Dewas*	*1012*	*131*	*12.94*
17.	*Pithampur*	*580*	*74*	*12.75*
Total		16969	2099	12.36%

SOURCE: MPPCB

5.7.6 The action plan for control of noise pollution is already in place in the State and has been submitted to Central Pollution Control Board Delhi. The State Police Department has been given approval for

the purchase of 1050 Sound Level Meters with printers for further strengthening the monitoring & implementation framework. 50 Sound Level Meters with printers have been procured and distributed in 44 districts so far. During the year 2020 around 694 cases of violation of noise pollution have been found by the police administration, Rs. 3,25,000/- has been levied as penalty and 56 cases have been filed in the courts. Similarly 55 violation cases have been registered in the year 2021 till June 2021 and Rs. 3000/- has been collected as penalty. The action plan for further control of noise pollution is placed at **APPENDIX 1.**

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6: OTHER ENVIRONMENTAL ISSUES

6.1 MINING MANAGEMENT IN MP:

6.1.1 Madhya Pradesh is a major mineral producing State in India. Coal, Lime stone, manganese ore, bauxite, copper ore, dolomite, fireclay, slate, pyrophylite-diaspore, dimension stones like granite, sand stone, marble are the main minerals occurring in the State. In terms of mineral production the state ranks third, next only to Jharkhand & Chhattisgarh.

6.1.2. Environmental management in mines is regulated in three steps-

- *Environmental Clearance (EC) by MoEF&CC or SEIAA depending on the area of the mine*
- *CTE & CTO by MPPCB*
- *Assurance of compliance with the environmental norms by MPPCB*

All the mines in the State are therefore required to deploy necessary pollution control devices including mist spray, foggers, dust suppression arrangements, controlled blasting, pollution control during mineral crushing and sizing, installation of ETPs where ever required. Hence like all other industries, pollution control arrangements in all kinds of mines have been implemented. The treated effluent if any , is also required to be used for plantation, gardening and dust suppression, and in some cases used by riparian uses like agriculture, drinking etc.

6.1.3 Sand mining, specially illegal mining of sand from the rivers and natural water bodies have been a matter of environmental concern over the years before Hon'ble Apex Court and NGT. Following the guidelines issued by MoEF&CC from time to time, stricter control is being exercised in the State, and the provision of Sustainable Sand

Mining Guidelines 2016 of Govt of India have been made applicable to estimate the available sand quantity in the mines.

6.1.4 To operate the Sand mine in the state of Madhya Pradesh the Sand (Mining, Transportation, Storage and Trading) Rule 2019 have been notified on dated 30.08.2019. For illegal sand mining, transportation, storage and trading the provision of imposing penalties, minimum 50 times of royalty of the sand mined, is levied on the defaulters. If penalty amount is not deposited, the provision to confiscate and auction the mineral, vehicle, machine and tools have been made in the rule.

6.1.5 As per Rule 5, the identified sand quarries boundaries is first demarcated by using DGPS. These identified sand mines are declared by the District Collector after enquiry and a group of all the identified sand mines in a district is formed and details are uploaded on the portal. The provision of estimation of available quantity of sand in the demarcated mines has been made in Rule 6. As per the provision of Madhya Pradesh Sand (Mining, Transportation, Storage and Trading) Rule 2019, sand quarries are allotted group wise through e Tender.

6.1.6 It has been made compulsory in Chapter 6, that keeping in view the Sustainable Sand Mining Management Guidelines 2016, sand mines will be operated only after getting approved Mining Plan, Environmental Clearance and Water & Air consent. In cases of excavation without statutory permissions or excavation in excess quantity than permitted quantity, 100% cost of the excavated mineral and amount of compensation towards **environmental damage** is recoverable from the contractor.

6.1.7 However some bottlenecks still exist , and an action plan for removing them has been placed at **APPENDIX 1.**

6.2 POLLUTED INDUSTRIAL CLUSTERS :

6.2.1 As per the order dated 10.07.2019 passed in O.A. No. 1038/2018, the CPCB has submitted the latest **CEPI Scores** for 100 polluted industrial areas/clusters monitored during 2018. According to which none of the areas in the State was asked by CPCB to prepare plans under critically or severely polluted category.

6.2.2 Later during the video conferencing conducted by CPCB with all SPCBs on 07.01.2020, CPCB directed that since Singrauli falls under UP as well as MP, and MPPCB shall also prepare an action plan for the "Severely Polluted Area [SPA], Singrauli, MP". Thereafter MPPCB has prepared the action plan for CEPI Singrauli (MP area) and submitted it to CPCB on 15.07.2020 and further information as required was sent to CPCB on 09.09.2020.

6.2.3 The CEPI score for the Singrauli region, which falls in the administrative jurisdiction of MP as well as UP, has been worked out by CPCB as 62.59, which falls under the criteria for SPA. However the State, through MPPCB has represented its case before CPCB that as per the guidelines for the formulation of CEPI scores, the CEPI scores for the portion of Singrauli region which falls in MP comes out to be 42.43, which as per CEPI scoring guidelines is not a polluted area.

6.2.4 Reply from CPCB in this regard is awaited.

6.3 RAIN WATER HARVESTING:

6.3.1 Sustainable Development Goal 6 (SDG6) envisages availability and sustainable management of water for all by 2030. Addressing water scarcity requires concentrated efforts for conservation, restoration, recharge and reuse of water. To address the scarcity of the water Jal Shakti Abhiyan was launched by the Ministry of Jal Shakti (MoJS) GoI from July 1st 2019 for conservation, restoration, recharge and reuse of water. Areas identified as water-stressed were covered in the first phase of the project.

6.3.2 There are 378 ULBs in the State and the Nodal department responsible for the implementation of Rain Water Harvesting policies in the State is the Urban Administration Department (UADD). The UADD mainly undertakes the RWH works by the way of roof top water harvesting. The building bye-laws about RWH have been incorporated in the **MP Bhumi Vikas Niyam, 2012 (MP Land Development Rules, 2012).** Rule 81 (4) of these rules provides that:

> *"Rule 81(4): Rain / Roof water harvesting method shall have to be provided on all types of buildings having plot more than 140 square meters as per options mentioned in APPENDIX- H1, H2 and H3".*

6.3.3 Ministry of Jal Shakti under Jal Shakti Abhiyan has selected 29 ULBs of 11 districts of the State. The scope of the Abhiyan has been extended to the whole of the State as Akshay Jal Sanchay Yojna. The current number of the RWH structures in the State are more than 47,500 and those under construction are more than 5600. The total number of buildings that have been taken into consideration for the Abhiyan are around 2,95,000.

6.3.4 Apart from the UADD, another department i.e. the Public Health Engineering Department (PHED), which is responsible for the water supply in the villages and rural areas not covered by ULBs, runs water supply schemes, for which bore wells are dug and water is supplied. To augment the water availability in the area, PHED undertakes the construction of various water retention structures like Pits and trenches, Check dams, Percolation Tanks, Roof Top Harvesting etc. The department has made around 19250 such structures.

6.3.5 Also under Rajiv Gandhi Catchment Area Management Mission implemented by Panchayat and Gramin Vikas Department, around

800 percolation tanks and 255 ground water recharge structures have been created since 2011-12 till date.

6.3.6 The creation of rain water harvesting and water recharge structures, development of micro water shed and repair / rejuvenation, renovation and protection of water bodies of the State is being practiced regularly in the State of MP. District administration undertakes these works through Panchayat & Rural Development Department, WRD, local bodies, MGNREGS, PHED etc.

6.3.7 The State of MP has thus made conscious efforts in the realm of Rain Water Harvesting and will continue to do so in future also. The Action Plan is thus being submitted on behalf of the State of MP at **APPENDIX 1**.

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Environmental Action Plan For Madhya Pradesh

Environmental Sector	Subsector	Issues / Gaps	Proposed Action Plan
SOLID WASTE MANAGEMENT	**1. Municipal Solid Waste**	• Non Compliance with the provisions of Rule 22 of SWM Rules by ULBs including 100% segregation of waste at source and door to door collection	• The decision making process for the development of ULBs on ISWM / DSWM model to be expedited • Rule 22 of SWM in all ULBs to be fully implemented at the earliest in compliance with NGT directions. • Public awareness creation / penalty for non segregation of waste at source. • Increasing efficacy of ULB for 100% door to door collection by enhancement of man & machines, engaging third parties / outsourcing, increase in municipal charges. • Procurement of additional vehicles in ULBs for waste collection & transportation.
		• Bio-mining & Disposal of legacy waste	• Bio mining & Legacy waste disposal in the ULBs to be completed at the earliest in compliance with NGT directions. • Capping of the existing landfills to be completed at the earliest in compliance with NGT directions. • Additional landfills to be created for inert disposal. • Proper MRF creation for bio-mining sites so as to harness the benefits of recycling.

		• Quantification / Inventorisation of waste	• Proper weighment mechanism to be placed instead of using thumb rules like trolley counts etc. • SOP for waste quantification (including domestic hazardous waste) and quality assessment to be developed and ULBs to be made conversant with it.
		• Development of Advanced Infrastructure	• Use of modern technology / methods for resource generation from waste like gas production, solid and liquid manure production, transfer stations, waste reduction methods, use of AI and digitisation of ULB's waste management practices
	2. C&D Waste	• Strengthening of Collection mechanism	• Procurement of more vehicles for C&D waste collection. • Levying of user charges from C & D waste generators. • Penalty for indiscriminate dumping of waste at public places / roads etc.
		• Quantification / Inventorisation of waste	• Proper weighment mechanism to be placed instead of using thumb rules like trolley counts etc. • SOP for waste quantification to be developed and ULBs to be made conversant with it.
		• Development of Advanced Infrastructure	• Use of modern technology / method for segregation of like-portion of the wastes for proper recycling.

		• Resource Recycling	• Construction tenders / documents of building, roads, low lying area fillings etc. to be developed to encourage the contractors to use C&D recyclables. • Providing the recyclables to the interested citizens at subsidized prices. • Provision of C&D helpline for citizens • Development of waste banks and intercity waste transfer mechanism to ensure effective recycling.
	3. Plastic Waste	• Combating Single Use Plastic	• The action plan has already been prepared and can be seen at **Annexure 7.**
		• Compliance of PWM Rules	• Provisions of PWM Rules being implemented to get impetus in the State once the notification on SuP becomes effective.
		• Waste Recycling	• Enough capacity in State already exists for the recycling of waste plastic in cement kilns. • State to endeavour to use more waste plastic in urban & rural road construction.
	4. E- Waste	• Waste Recycling	• Encouraging more entrepreneurs in the field of e- waste collection. • Encouraging installation of more facilities for the recycling / dismantling/ refurbishing of e waste as per the provisions of the rules.
		• Inventorisation of waste	• Ensuring inventorisation of e- waste in every district every two years.

		• Issues related to the Rules	• Issues related to the registration of dealers of E&E appliances and filing of annual returns by them with State PCB to be taken up with CPCB.
	5. Bio-medical Waste	• Inventorisation of waste & HCFs	• Inventorisation is a continuous process. To be ensured on a yearly basis. • Authorisation to 100% govt HCFs, veterinary and Ayush clinics at the earliest.
		• Waste collection and disposal	• Ensuring 100% collection of BMW generated from the remote HCFs and disposal through CBWTF at the earliest. • To endeavour to stop disposal of BMW by deep burial in the HCFs and connecting them to CBWTFs at the earliest as far as practicable. • Bar coding of the wastes to be ensured 100% by all HCFs by at the earliest.
		• Improvisation in CBWTFS	• Two second residence time in secondary chambers of all CBWTFs to be ensured at the earliest. • Number of CBWTFs to be increased in State and as far as possible as per CPCB guidelines. • 100% use of GPS enabled BMW collecting vehicles and their tracking by the Environmental Surveillance Centre of MPPCB at the earliest.
	6. Hazardous Waste	• Inventorisation of waste & waste generators	• Inventorisation is a continuous process and shall be ensured on a yearly basis. • All inventorized HW generators to be brought under the net of Authorisation.

		• Creation of additional CTSDFs in the State	• The State will endeavour to attract entrepreneurs to develop CTSDF (s) at the regional level.
		• Disposal of orphan HW lying in the State and contaminated site remediation	• The orphan waste lying dumped at places in MP to be disposed and the related matters to be taken up with CPCB & MoEF&CC for finalization of the process of disposal. • Issues related to completion of the investigation of the contaminated sites to be taken up with MoEF&CC.
WATER QUALITY MANAGEMENT	**1. Treatment of domestic sewage**	• Treatment Capacity Utilization	• The State to endeavour for increasing the sewerage network to utilize existing treatment capacity fully.
		• Addressing the gap in the treatment capacity	• The State to endeavour for the installation of additional STPs / FSTPs to address the gap for 100% treatment of the sewage at the earliest.
		• Treated sewage utilization for beneficial purposes	• The treated sewage from the existing as well as proposed STPs to be utilized for beneficial purposes, keeping in view the health and hygiene of the citizens, for plantation, green belt development, cleaning and wherever possible for industrial / agricultural uses. • Effort to be made to make the STPs sustainable by way of producing manure and treated sewage for commercial utilization.

	2. Rejuvenation of Polluted River Stretches	• Implementation of the Action Plan	• The implementation of the action plan for the polluted river stretches to be expedited to operationalise the STPs under construction / proposed at the earliest. • Laying of sewerage network for the collection and conveyance of the sewage to be given impetus so that the river stretches become pollution free at the earliest.
		• Creation of additional treatment capacity	• The gap in the treatment capacity of the sewage to be addressed and new STPs for the same to be planned and commissioned at the earliest.
		• Development of Real Time Monitoring Network	• The State to install Real Time Water Quality Monitoring Stations at strategic locations of the important rivers. • In the first phase, 10 such stations are proposed throughout the length of flow of river Narmada.
	3. Industrial Effluent Treatment	• Adhering to the policy of Zero Discharge	• The State to continue to adhere to its policy of zero discharge outside the premises for the industries and committed to ensure that no industrial effluent is discharged in natural water bodies. • To endeavour that more industries, especially Red category water polluting units adopt the ZLD status where ever it is technologically possible.

			• More number of polluting industries to install IP Cameras at their STPs / ETPs and provide connectivity to the MPPCB's Environment Surveillance Centre, to check their intentional discharges into natural water bodies.
		• Strengthening of Real Time Monitoring Network	• The State to enforce all the water polluting industries in the State to install CEQMS, where ever required through consent mechanism. • The STPs installed by ULBs also to install CEQMs and IP Cameras as far as practicable.
AIR QUALITY MANAGEMENT	**1. Ambient Air Quality Monitoring in cities and towns;** **&** **2. Pollution Control in Non Attainment Cities**	• Strengthening of Real Time Monitoring Network	• Regular vigil of the ambient air quality of 18 district head quarters is presently being done at Environmental Surveillance Centre of State PCB. The State to further endeavour to bring remaining district headquarters and prominent town under the Real Time Monitoring Network as early as practicable. • The number of CAAQMS stations to be increased in million plus cities as per the availability of the resources and funds. In the first phase 9 CAAQMS are proposed to be installed, 3 each in Bhopal & Gwalior and 1 each in Indore, Jabalpur & Sagar. • The State to implement the approved action plans and micro action plans and to endeavour to bring down the levels of PM_{10} & $PM_{2.5}$ in non attainment cities within the prescribed timelines. • For the control of vehicular pollution in the

			cities, GoMP has already framed a policy Madhya Pradesh Electric Vehicle (EV) Policy, 2019 and all the electric vehicles mentioned in it will be levied 1% motor vehicle tax.
	3. Industrial Air Pollution Monitoring & Control	• Strengthening of Real Time Monitoring Network	• The State to pursue all the air polluting industries in the State to install CEMS, and CAAQMS where ever required through consent mechanism.
		• Industrial Air Pollution Control and augmentation	• Up-gradation and updation of APC in the industries although it is a continuous process, State to continue to adhere to its policy of adoption of state of the art APC by industries through consent mechanism. • Air pollution control from Stone Crushers and modernisation of APC to be ensured. • Fugitive air pollution control from mining operations to be intensified. • Air pollution from loading and unloading operations on railway goods siding to be given impetus. • Norms of emissions for industries in the Non attainment cities to be tightened where ever required.
	4. Control of Noise Pollution	• Real Time Monitoring Network for noise quality monitoring	• The State intends to install real time noise monitoring equipments at strategic locations in its million plus cities to exercise better intervention of the implementing agencies for the control of noise.

			• In the first phase 4 Real Time Ambient Noise Monitoring Stations are proposed to be installed in Bhopal covering residential, industrial, commercial and silence zones.
		• Reduction in Noise levels	• The action plan for the improvement of noise levels in the State is already in place. • The State agencies are implementing the provisions related to loudspeakers, pressure horns, no noise zones in the State, which needs to be further strengthened.
OTHER ENVIRONMENTAL ISSUES	**1. Mining Management**	• Sand Mining and Mining of other minerals	• For enforcement of the provisions of the sustainable sand mining guidelines and Sand(Mining, Transportation, Storage & Trading) Rules, 2019, GPS enabled vehicles will be promoted for sand mining. • The vigilance for control of illegal sand mining, more men and machinery will be deployed. • The aspect of control of dust pollution due to transportation of mined minerals, loading and unloading of minerals at railway sidings etc to be given impetus. • Plantation at the OB dumps of mines shall be increased for the general improvement of environment.
	2.Rain Water Harvesting		• Continuous Process, being implemented in the State regularly and District Collectors are regularly undertaking the works of rain water harvesting in their respective jurisdictions.

मध्यप्रदेश शासन
सामान्य प्रशासन विभाग
मंत्रालय
वल्लभ भवन, भोपाल–462004

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:: आदेश ::

भोपाल दिनांक 16 जून, 2020

क्रमांक एफ 19–33/2020/1/4 :: माननीय राष्ट्रीय हरित अधिकरण मुख्य बैंच, नई दिल्ली द्वारा प्रकरण क्रमांक 606/2018–मुनसिपल सोलिड वेस्ट मेनेजमेंट रूल्स, 2018 के कियान्वयन के संबंध में दिनांक 25/02/2020 को पारित आदेश के परित आदेश के परिपालन में मुख्य सचिव कार्यालय में Environment Monitoring Cell की स्थापना की जाती है, जिसमें निम्नांकित विभागों के अधिकारियों को नामांकित किया जाता है:–

1	अपर मुख्य सचिव, म.प्र. शासन, पंचायत एवं ग्रामीण विकास विभाग
2	प्रमुख सचिव, मध्यप्रदेश शासन, गृह विभाग
3	प्रमुख सचिव, मध्यप्रदेश शासन, परिवहन विभाग
4	प्रमुख सचिव, मध्यप्रदेश शासन, पशुपालन विभाग
5	प्रमुख सचिव, मध्यप्रदेश शासन, पर्यावरण विभाग
6	प्रमुख सचिव, मध्यप्रदेश शासन, लोक स्वास्थ्य एवं यांत्रिकी विभाग
7	प्रमुख सचिव, मध्यप्रदेश शासन, वन विभाग
8	प्रमुख सचिव, मध्यप्रदेश शासन, खाद्य एवं नागरिक आपूर्ति विभाग
9	प्रमुख सचिव, मध्यप्रदेश शासन, आयुष विभाग
10	प्रमुख सचिव, मध्यप्रदेश शासन, उद्योग विभाग
11	प्रमुख सचिव, मध्यप्रदेश शासन, नगरीय विकास एवं आवास विभाग
12	प्रमुख सचिव, मध्यप्रदेश शासन, जल संसाधन विभाग
13	प्रमुख सचिव, मध्यप्रदेश शासन, स्वास्थ्य विभाग
14	प्रमुख सचिव, मध्यप्रदेश शासन, खनिज संसाधन विभाग
15	सदस्य सचिव, मध्यप्रदेश प्रदूषण नियंत्रण बोर्ड

2/ उपरोक्त माननीय एनजीटी द्वारा समय–समय पर पारित आदेश/निर्देशों का कियान्वयन कर, प्रगति प्रतिवेदन से मुख्य सचिव को अवगत करायेगें।

मध्यप्रदेश के राज्यपाल के नाम से
तथा आदेशानुसार
(डी. के. नागेन्द्र) 15/6/2020
उप सचिव
मध्यप्रदेश शासन,
सामान्य प्रशासन विभाग

Preface

Having the largest geographical area in the country, forest cover and natural resources in abundance, Madhya Pradesh has often been called a rich State with poor people. In order to alleviate poverty and backwardness of the State, development activities are being pursued with vigor. Therefore, over the years, there has been considerable pressure on the environment, the alarming consequences of which are beco9ming evident in increasing proportions in certain areas of the State.

Since the adoption of Madhya Pradesh State Environment Policy in 1982, dimensions of environmental concerns have widened significantly and now it is imperative that a comprehensive State Environment Policy be evolved to facilitate development efforts in a liberalized economic environment, yet in a manner which is not detrimental to the environment.

Hopefully, the policy will pave the way for sustainable development by laying down guidelines which will help in weaving environmental considerations into the common man's life style and process of development.

(Digvijay Singh)
Chief Minister Madhya Pradesh

Contents

Preamble

1.1 Life obtains its sustenance from the environment. The quality of life is linked with the quality of environment. Therefore, it is necessary to ensure that the demand on the environment does not exceed its present and future carrying capacity. Such a concept of environmental conservation has been an integral part of Indian culture since time immemorial.

1.2 Provision for environmental protection -has been laid down in the Directive Principles of State Policy in the Constitution of India by assigning the duties for the State and all citizens through Article 48A and Article 51A (g) which state that the `State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife in the country' and `to protect and improve the natural environment including forests, lakes and rivers and wildlife, and to have compassion for the living creatures'.

1.3 The progressive pressure on the environment witnessed in the recent past has worsened the standard of living of the vast multitude of people who are directly dependent on natural resources. In this context, it is imperative to give a new dimension to the environmental conservation programme incorporating action plans in compliance of national and international commitments.

1.4 The State Environment Policy seeks to lay down guidelines that will facilitate development while ensuring environmental conservation yet without hampering the present and future development imperatives.

1.5 It shall be the endeavour of the State and its subordinate State agencies to implement the policy document being, enunciated.

2.0 Challenges & Threats

2.1 Accelerated pace of development in developing economies is largely dependent on rapid consumption of natural resources. Thus, the development process itself is often responsible for most of the visible environmental problems. Such a process is catalyzed by those sections of society who are economically more advanced. However, the problems arising from conditions of poverty and development are probably more critical for a country like India, as these relate to a large section of the country's population. The challenge is that of adapting to modes of sustainable development.

2.2 Population is an important resource for development, yet it is a major source of environmental degradation when it exceeds the threshold limits of the support systems, i.e. its carrying capacity. Madhya Pradesh has 66.14 million population, which is 7.8% of the total population of India. During 1981-91, the growth rates of urban and rural areas in the State were higher than the all India average. Growth rate for urban and rural population were 44.98 and 22.11% respectively as against all India figures of 36.19 and 19.71%. Though the present population density of M P is still lower than the national average, the alarming growth rate calls for immediate action on environmental issues driven by increasing human number.

2.3 Though the recorded forest area of the State is 34.84% of its total geographical area, as against 19.5% for the country, the forest area has decreased at the rate of 473 sq.km. per year from 1956 to 1994. Besides rapid degradation, the uneven distribution of forests in the State (Northern and Western parts have very poor forest cover) also calls for a rational forest management strategy.

2.4 It has been forecast that bio-diversity based industrial activities such as pharmaceuticals, cosmetics, seeds, food processing, waste treatment etc. would come to account for a third or more of the world economy in the 21st Century. India, being one of the world's top 12 mega-diversity countries, is likely to experience growth of such industries led by multinational corporations, who might patent, exploit and may even cause extinction of endemic species. Though there is no designated hot spot of bio-diversity in Madhya Pradesh, .there are a number of potential Biosphere Reserves fit for in situ conservation of its biological wealth -i.e. flora and fauna. Therefore; the region too is likely to experience bio-diversity based industrial growth in future. Such growth may not only affect biological wealth but also the local people, whose sustenance largely depend on the availability of such resources. Since the forests are the main store-house of gene pool, there is greater need for both intensive and extensive efforts for bio-diversity conservation in consonance with National commitment under Bio-diversity Convention (1992), National Forest Policy (1988 and DNCED - 1992 Agreement on Principles of Sustainable Development of Forests.

2.5 Nearly 44.33% of-the land of the entire State is utilized for agriculture with a few variations every year which to a large extent depends upon the onset of monsoon and rainfall variability. Agriculture dominates the State's economy as it provides more than 40.0 % of the net domestic product of the State, and employment to 76.2°/a of the working population. However, migration of rural population for gainful employment is. causing the expansion of

cities requiring diversion of agricultural land. In addition, the development projects also require diversion of productive agricultural land thus reducing gross agricultural production. To increase food production, intensive agriculture based on high yielding varieties, chemical fertilizers and pesticides is being increasingly practiced. However, these practices have brought in various problems, which include salinity of land, pesticide resistance in insect pests and pollution of water resources. Therefore, there is need for ecological agriculture based on environment-friendly frontier technologies, i.e., agriculture based on bio-fertilizer, bio-pesticides which are specific and biodegradable, proper water management practices etc.

2.6 The State has about 3.45% of cultivable wasteland and another 9.96% of the total area is not available for cultivation. These include degraded forests, ravines, mined-out and water-logged areas. A significant portion of this land could be put to productive purposes through reclamation and integrated land management practices, i.e. through soil and water conservation techniques and afforestation, possibly through joint forest management.

2.7 Madhya Pradesh has 48.2 million domesticated animal population, which constitute about 9.24 % of the total domesticated animal population of the country. But only 6.1% of the geographical area of the State is under pasture, which is not enough to sustain this animal population. Moreover, while the animal population is increasing, the grazing land has reduced to 27.09 lakh ha in 1992-93 on account of diversion for agriculture, industries, townships, roads and railways. Consequently about 22 million cattle is reported to graze in the forest areas also. Influx of cattles from neighbouring states during the scarcity period aggravates the problem. These problems have to be tackled through regulated entry of cattles from neighbouring states in drought prone areas as well as through a carrying capacity based animal husbandry programme.

2.8 Madhya Pradesh is the second richest state in mineral resources. The exploitation of mineral resources is the economic backbone of the State as well as a major cause of environmental degradation like loss of forest cover and cropland, accelerated erosion, silting of water bodies, air and water pollution etc.

The mineral exploitation in the State has induced a steady environmental degradation over the last 100 years. As on 01-01-94 there were 1273 mineral concessions spread over an area of 1.92 lakh ha of leasehold. Over the years, the value of minerals produced increased manifold, i.e. from Rs.13.06 crores in 1956 to 3312.32

crores in 1993-94. The major players in the exploitation of mineral resources in the State, for coal, iron-ore, copper, bauxite, etc are Govt.of India under takings. The open cat mining by them in places like Korba, Bailadila and Malanjkhand has caused large scale destruction of some of the best forests of the country. Such adverse impact of mineral exploitation needs to be compensated for on polluter pays principle, wherein State should have a major say in determining such compensations.

2.9 The State Housing Policy has provided for sustainable development of urban centres with proper civic facilities. However, relative poverty, unemployment, a rapid growth of population, high cost of land and buildings and restrictive controls on development which led to a mismatch between affordability for housing and supply of housing have compelled a large number of urban people to live in substandard housing and slums with unhealthy living conditions. These settlements are devoid of adequate and safe water supply, sewage and drainage and waste disposal facilities.

2.10 The State with 5 major river systems, viz Narmada, Tapti, Mahanadi, Chambal and Indravati, has one of the best watersheds of the country. Its wetlands have traditionally been the life line of agrarian societies, specially in Chhattisgarh areas. Unfortunately, our unique wetlands are facing tremendous ecological stress primarily because they are visualized only as a source of water, ignoring their vitality as a holistic biotic system. Incidentally, some of the pockets of major mineral resources are located in the highly fragile origin points of our rivers. Bauxite mining has led to the rapid denudation of the Maikal ranges, the most important watershed in the country, from where rise the Narmada, the Sone(which contributes the largest volume of water to the Ganges) and the Hasdeo, a tributary of the Mahanadi. Extensive deforestation in the hilly regions of the State with consequent erosion of valuable top soil, is not only threatening the livelihood and security of inhabitants of these areas, but is also causing serious damage down stream. Chambal and Tawa Command Areas area facing water logging because of an inadequately planned irrigation system, while the water table is receding because of over exploitation of ground water in several areas of Malwa and Nimar. Urban water bodies which have been climatizers, are degenerating due to anthropogenic pressures. By virtue of its central location, the State is bound to face the issues of exploitation and degradation of inter-state river systems also.

2.11 Industrialization in Madhya Pradesh has mainly been driven by its mineral resource. Mining and processing activities have caused severe environmental problems. Besides, Agro-based industries,

like distilleries, paper and pulp, etc are the main source of pollution of water bodies. The foot-loose industries are also endemically located in areas like Indore, Raipur, Gwalior, Bhopal and Jabalpur. Industrialization is also the driving force behind urbanization, over congestion and excessive pollution, and diversion of population and economic resources from the rural areas on the other hand. Madhya Pradesh has witnessed the worst chemical disaster in the form of Bhopal has tragedy which has been instrumental in creating tremendous environmental awareness all over the world. The problem of common man is compounded in this whole scenario of energy, environment and development imbalance, calling for integration of environmental consideration with industrial development.

2.12 The decennial growth rate (44.98%) of the urban population of the state during 1981-91 was more than the national figure of 37.19%, which is more than double the rate of rural population growth (22.11%). The growth rate in industrialized districts like Indore has been almost 300% higher, i.e., 470 person per sq.km than the average density of the State (i.e. 149 per sq.km). The growth of population in urban areas is driven mainly by the influx of migratory population from villages for gainful employment. Such a rapid growth of town leads to slum expansion, congestion, loss of greenery and urban water bodies, unsanitary conditions, solid waste generation, inadequency of basic amenities, etc. The problem needs to be addressed at the recipient point through well planned urban infrastructural development and at the source of influx through rural employment generation.

2.13 The State being the highest producer of coal in the country, has a major role to play in fossil fuel based energy production and mitigation of consequent contribution to global warming.

2.14 Though the state policy for rehabilitation of oustees has addressed the issue on economic and anthropogenic basis, there can not be one to one relationship between the ecology and economy of one habitat to another. Hence, the issue of rehabilitation must be considered with relation to over all environmental and social impact analysis.

2.15 The current trend of over exploitation and ecological degradation calls for curb on population growth, both human and livestock to contain the debilitating impact of demographic pressure on ecosystems. The environmental problems induced by poverty call for accelerated pace of development; however, the sustainability of the development process can hardly be ignored. The causes and effects of environmental degradation are often interwoven in

complex webs of social, technological and environmental factors. And as such it is difficult to clearly delineate the causes and consequences of environmental degradation in terms of a simple one to one relationship.

3.0 Action Taken

Consequent upon the enhanced awareness after Stockholm Conference on Human Environment in 1972, various regulatory and promotional measures have been taken for environmental protection and sustainable development in the country and in the State, the major ones of which are listed below. The responsibility of implementing most of the Central Acts lies on the State Government.

3.1 Policies

i. The National Forest Policy, 1988

ii. The National Water Policy, 1990

iii. Indian National Policy Statement for Abatement of Pollution, 1992

iv. National Conservation Strategy and Statement on Environment and Development, 1992

v. Madhya Pradesh Industrial Policy and Action Plan, 1994

vi. Madhya Pradesh Housing Policy, 1995

vii. Madhya Pradesh Mineral Policy, 1995

viii. Madhya Pradesh Tourism Policy, 1995

ix. Madhya Pradesh Rehabilitation Policy (Guiding Principles of State Policy for Equitable and Sustainable Development), 1996.

3.2 Legal

i. The Indian Forest Act, 1927

ii. The Motor Vehicles Act, 1939, amended in 1988

iii. Factories Act, 1948, amended in 1987

iv. The M P Public Health Act, 1949

v. The M P Control of Music & Noise Act, 1951

vi. The M P Municipal Corporation Act, 1956; The Municipalities Act, 1961; and the M P Nagar Palik Vidhi (Sansodhan) Adhiniyam, 1995

vii. Mines and Minerals (Regulation and Development) Act 1957, amended in 1986

viii. The Wild-life (Protection)Act, 1972, amended in 1983, 1986 and 1991

ix. The M P Nagar Tatha Gram Nivesh Adhiniyam, 1973 amended in 1994

x. The Water (Prevention and Control of Pollution) Act, 1974, amended in 1988

xi. The M P Slum Area (Improvement & Clearance) Act, 1976

xii. The Water (Prevention and Control of Pollution) Cess Act, 1977, amended in 1991

xiii. The Forest (Conservation) Act, 1980, amended in 1988

xiv. The Air (Conservation) Act, 1980, amended in 1988

xv. The Air (Prevention and Control of Pollution) Act, 1981, amended in 1987

xvi. The Environment (Protection) Act, 1986

xvii. The Public Liability Insurance Act, 1991, amended in 1992

xviii. National Environmental Tribunal Act, 1995.

3.3 Institutions

i. State Environmental Council

ii. Department of Housing & Environment

iii. Environmental Planning & Coordination Organisation

iv. Directorate of Town & Country Planning

v. M P Pollution Control Board

vi. Disaster Management Institute

vii. Department of Forest

viii. Department of Agriculture

ix. M P Council of Science & Technology

x. State Wildlife Advisory Board

xi. Urja Vikas Nigam

xii. Rajeev Gandhi Sanitation Mission

xiii. Rural Development Department-Development of Watershed Area & Wasteland

xiv. Regional Museum of Natural History

xv. Water and Land Management Institute

xvi. State Forest Research Institute

xvii. Department of Water Resources Development

xviii. Department of Public Health Engineering

3.4 Natural Resource Conservation

I. Participation in National Wetland Conservation programme by formulation and implementation of Wetland Conservation scheme for urban water bodies through out the State, including implementation of Bhoj Wetland Project, funded through OECF loan.

II. Watershed and Wasteland development through public participation under Employment Assurance Scheme (EAS) & under Drought Prone Area Programme of Rural Development Department.

III. Restriction of diversion of forest land for non-forest purposes under the Forest (Conservation) Act, 1980.

IV. Implementation of Joint Forest Management and Bio-diversity conservation programme in the State as per commitment under New Forest Policy, 1988.

V. Establishment of network of 11 National Parks and 34 Sanctuaries including 5 Tiger Reserves and formulation of project documents for potential Biosphere Reserves.

VI. Implementation scheme for Urban forestry and degraded forests

VII. Environmental Impact Analysis and rehabilitation of oustees of River Valley Projects.

VIII. Identification and development of wastelands

IX. Eco-development of ravines

X. Implementation of the provisions of Mines & Minerals (Regulation & Development) Act, 1957 (amended in 1986) related to environmental protection including Environmental Management Plan (EMP).

XI. Flood and Drought prone area programmes

XII. Preparation of comprehensive document on Environmental Status of the State.

3.5 Measures for Impact Reduction of Development of Projects & Pollution Control

I. Publication of Environmental Guidelines for siting of polluting industries

II. Establishment of procedure for Environmental Impact

III. Enforcement of standards and system for environmental audit for polluting and hazardous industries

IV. On-site and off-site emergency plans for hazardous industries

V. Implementation of National River Action Plan to prevent pollution of the major rivers and to restore their water quality.

VI. Identification of environmental pressure areas and points

VII. Fiscal incentives for adoption of low waste and no-waste technologies

VIII. Declaration of whole of the State as pollution control area

IX. Establishment of water and air quality monitoring stations in selected areas.

X. Documentation of status of pollution and impact there of.

3.6 Training, Awareness & Other Activities

i. Implementation of National Environmental Awareness Campaign in the State as Regional Resource agency of Govt. of India

ii. Training programmes, workshops and seminars for building up professional competence and for creation of awareness

iii. Constitution of District Paryavaran Vahinis and Environmental Conservation Corps as voluntary action groups

iv. Surveys and Research

v. Preparation of Environmental Status Report of the State periodically

vi. Conservation of sensitive areas around historical monuments

vii. Promotion of Non-conventional energy

4.0 Goal

Integrated conservation and improvement of environment to ensure sustainable development.

5.0 Agenda

i Each sectoral policy will promote the cause of environmental conservation and no sectoral policy will be in conflict with the State Environment Policy.

ii Development projects will ensure environmental conservation.

iii Promote positive intervention through public awareness and participation.

iv Encourage Research and Development in eco-technology and environmental conservation.

v Develop man-power and appropriate organizational structure for integrated environmental management.

vi Integrated management of ecosystem to ensure conservation of biological diversity, gene-pool and other resources, viz., land, air and water.

6.0 Strategies for Action

6.1 Check on Demographic Growth

Promote family welfare and female literacy programmes with emphasis on environmental sanitation, health, hygiene and social status of women.

6.2 Natural Resources Conservation (Life Support System)

6.2.1 Water

i. Encourage recycling of waste water and optimise conjunctive use of ground and surface water.

ii. Water budgeting for rational allocation for domestic, agricultural, industrial and other uses; and for rural and urban populations.

iii. Measures against over exploitation of surface and ground water.

iv. Building of a network for assessment and monitoring of surface and ground water quality.

v. Conservation of wetlands for ensuring sustainable ecological and economic benefits.

vi. Ensure a system for integrated management of water resources.

vii. Measures against disposal of dead bodies and inflow of chemical fertilizers and pesticides into the water bodies.

viii. Encourage and improve traditional methods of rain-water harvesting and storage

ix. Maintenance of green buffer zone at the fringe of water bodies

x. Ensure minimum required flow in the down-stream of dams

6.2.2 Land

i. Adoption of a rational land use policy.

ii. Diversion of agricultural land for non-agricultural purposes only when it is absolutely necessary.

iii. Improvement of water-logged and salt-affected lands and command area.

iv. Regulate over-grazing and ensure stall feeding in critical areas for minimizing the impact of over-grazing and consequent land degradation.

v. Conservation of pasture lands.

vi. Ensure public participation in landuse planning, wasteland regeneration, afforestation, soil conservation programmes etc.

vii. Measures to ensure sustainable use of community land.

viii. Restoration and reclamation of degraded areas including ravines,weed infested areas, mined areas, over-grazed lands and degraded forests

6.2.3 Biomass & Biodiversity

i Inventorisation of eco-sensitive zones, biological resources and ethnobiological systems.

ii Creation of protected area network, maintenance of forest corridors between them, and proper rehabilitation of affected rural/tribal population.

iii Regulatory protection of genetic resources with emphasis on indigenous, threatened and endangered species, to be supported by the establishment of a Regional Genetic Resource Centre.

iv Discourage monoculture practices and restrict introduction of exotic species without adequate investigation.

v Encourage biological regeneration of non-forest waste land areas by private sector and Panchayat institutions especially for fuel wood, fodder and timber for rural masses.

vi Incentive for development of alternatives to reduce dependence on fuel wood and for raising bamboo and other species providing small timber for local home construction and agricultural implements

vii Encourage only those wood based industries which can develop their raw material through waste land regeneration.

viii Research and Development for improvement of biological productivity, both terrestrial and aquatic and for development of alternatives to reduce dependence on wood.

ix Encourage research on conservation , propagation and use of **Neem.**

x Participation in biological conservation programme under Convention on Biological Diversity.

xi Encourage **eco-tourism** in protected areas.

6.2.4Atmosphere

i Active participation in national programmes under Convention on Global Climate Change.

ii Rigorous regulatory control on the emissions from industrial and transportation sectors.

iii Extensive plantation in urban and industrial air-polluted zones.

7.0 Environmental Perspectives in Development Activities

7.1 Agrarian Systems (Agriculture, Irrigation and Animal husbandry)

i Promotion of sustainable farming, including organic farming, crop rotation, use of bio-fertilizer and bio-pesticides, etc.

ii Adoption of a system of land capability classification for different use.

iii Strengthening Panchayat Raj Institution for optimal resource management and for contingency planning for drought and flood.

iv Develop a system of microlevel integrated watershed management

v Priority to decentralized network of small irrigation projects through the involvement of Panchayat Raj Institutions.

vi Environmental Impact Assessment (EIA) and continuous monitoring of major and medium irrigation projects

vii Prior public hearing for major dams.

viii Encourage use of non-conventional energy in agricultural sector

Encourage qualitative improvement of domestic cattle and planning animal husbandry programmes on the basis of carrying capacity of the area.

7.2 Forestry

The National Forest Policy (1988) outlines the broad guidelines for conservation based management of forests. However, Madhya Pradesh being one of the richest States with respect to forest resources, the State shall endeavour to join hands with the country to address the issues pointed out in the UN Agreement on Principles of Sustainable Management of Forests and National Forest Policy. The action points are as follows:-

i Ensure participation of local people in forest management through Panchayat Raj institution/Village Forest Protection Committees constituted under Joint Forest Management programme and provide legal mechanism for protection of their traditional rights and concessions.

ii Local communities will be given more secure and meaningful rights over public lands and waters in their own localities following the lead of joint forest management programme.

iii Restriction on diversion of forest land with mandatory provision for compensatory afforestation whenever necessary, and creation of land banks for afforestation.

iv Establishment of fodder banks at the fringe of forests to promote stall feeding of cattles

v Develop time bound programme for bridging the gap between demand and supply of fuel wood.

vi Interpretation Centres at the forests of topical interest, including specially protected areas.

vii Take up massive wasteland afforestation programme through Panchayat Raj Institutions and NGOs on benefit sharing basis under the Waste Land Management Board.

viii In-situ and ex-situ conservation of medicinal and aromatic plants.

ix Eco-cost benefit analysis (Socio-economic and environmental)of all forestry projects.

x Encourage afforestation in private sector under agroforestry, social forestry and sectoral forestry.

7.3 Energy

i Encourage fuel efficient devices, environmentally benign technology and environement friendly substitutes to reduce atmospheric pollutants.

ii Decentralised small projects for rural sectors and promotion of non-conventional renewable energy generation systems.

iii Incentives for conservation and punitive measures for abuse of energy.

iv Introduction of energy audit systems in industrial and commercial establishments and public buildings.

7.4 Industry

i Promotion of no-waste/low waste/recycling based environmentally clean technologies for industries

ii Operationalisation of "polluter pays" principle.

iii Environmentally compatible siting of industries.

iv Identification of areas for establishment of polluting industries.

v Establish common effluent treatment and common incineration systems in cluster of small scale industries, while major and medium industries should be required to install adequate pollution control systems on their own.

vi Enforcement of pollution control norms and introduction of environmental audit, on site emergency planning and public liability insurance

vii Integrate public awareness programmes for environmental safety and hazards from industries with mandatory environmental clearance.

viii Prior public hearing for siting of major hazardous and polluting industries.

ix Setting up of Environmental Cells in industries and ensure their close liaison with regulatory agencies.

x Introduce a system of Environmental Impact Assessment (EIA) through an Impact Assessment Agency for medium and environmentally sensitive small scale industries, on the lines of EIA notification of Govt. of India (for major polluting nits).

xi Mandatory provisions for EIA of major and polluting industrial projects and ensure the use of such EIA reports as a resource for regional and micro-level planning.

xii Incentives and punitive measures to ensure fly-ash utilization.

7.5 Transportation

i Improvement in mass transportation system to reduce increasing use of fuel, traffic congestion and pollution.

ii Regulation of environmental safety in transportation of hazardous substances.

iii Encourage R&D in private sector for replacement of conventional fossil fuel in transportation.

iv Enforcement of smoke standards for containing vehicular exhaust.

v Proper maintenance of roads.

7.6 Mining

i Ensure time bound rehabilitation of mined out areas for productive use and implementation of Environmental Management Plans (EMP) with public participation

ii Ensure effective implementation of EMP through a system of periodical monitoring by the nodal agency.

iii Integration of EIA in mining projects of more than 50 ha and all projects in environmentally sensitive areas.

iv Imposition of environmental conditions to ensure systematic extraction of minerals alongwith environmental conservation.

v Discourage selective mining of high grade ores and encourage recovery of associated low grade ores also.

vi Encourage on-site mineral beneficiation to reduce impact of transportation, processing and utilization.

vii Adoption of environmentally compatible technology and strengthening of enforcement machinery.

viii Regular monitoring of major mining areas.

ix Compensatory afforestation in sites nearest to the site of mining.

x Utilization of suitable abandoned pits for recharge of ground water.

xi Identification and notification of ecologically sensitive/fragile areas and places of cultural heritage to regulate mining activities.

xii Economic evaluation of environmental damage caused by major mining operations for enforcing the "Polluter pays" Principle .

7.7 Human Settlements

i Ensure sustainable development of urban centres as envisaged in the State Housing Policy through environmental/social impact analysis based development planning.

ii Ensure proper management of domestic, commercial and bio-medical solid wastes.

iii Encourage participation of private sector in the collection, treatment and disposal of liquid and solid wastes to support the essential services being provided by the Government sector.

iv Create and strengthen health care facilities and environmental sanitation to contain spread of communicable diseases.

v Time-bound formulation and publication of comprehensive perspective plans for all ten delineated resource regions under the Town & Country Planning Act, 1973. Remote sensing and other advanced technologies will be used for this purpose.

vi Conservation and restoration of natural, the built and the material heritage of the State.

vii Conservation of urban water bodies.

viii Incentives for industrial and job locations in areas other than urban centres and creation of gainful employment opportunities and infrastructure in rural areas, to discourage migration from rural areas.

ix Establish satellite towns for decentralization of urbanization and to ensure the limit of designed population.

x Improve infrastructure facilities and adopt decentralised modular service networks for water supply and sewerage rather than mega systems.

xi Promote use of indigenous building materials and appropriate construction technologies.

xii Assessment of impact of growth of human settlement subsequent to industrial growth.

xiii Measures to contain the misuse of drinking water.

xiv Establish norms for provision for adequate green and open spaces in urban areas.

8.0 Public Participation

i Suitable measures to ensure conservation and management of Common Property Resources for their sustainable use through community control or through Panchayat Raj Institutions.

ii Documentation of traditional knowledge systems and rights with a view to protect them.

iii Introduce a system of natural resource accounting and participatory EIA of all development projects through mandatory public hearings, debates, joint planning and management.

iv Popularise solid waste management technologies such as recycling, reuse, composting, energy generation etc. through public participation.

v Ensure women's participation in all the participatory programmes.

vi Ensure right to information.

9.0 Man Power Planning & Organizational Back-up

i Create a cadre of trained environmental managers.

ii Ensure creation of an Environmental Cell in every Government Department associated with resource utilization and development planning, and an Environmental Awareness Cell

in every major development project which affects a large number of people.

iii Create a Consortium of Voluntary Environmental Action Groups (CVEAG).

iv Strengthen M P Pollution Control Board & Environmental Planning & Coordination Organization (EPCO) with a view to ensuring enforcement of legal provisions for the monitoring and control of pollution.

v For strengthening the system of environmental awareness, research and training, **Environmental Planning and coordination Organisation (EPCO)** will be designated as '**State Eco-Centre**' with the responsibility to coordinate among various State Government Departments, CVEAG, and Field Level people's groups for effective implementation of environmental management programmes through planning, supervision, guidance, funding and feed back..

vi The **Environmental Planning & Coordination Organization (EPCO)** will prepare at least two Environmental Status Reports of the State during a Five year plan period and shall act as nodal agency for monitoring the implementation of the State Environment Policy.

vii Ensure effective input of State Environmental Council in environmental conservation through frequent interaction with the members and create District Environmental Councils as an advisory body for assistance and guidance in planning.

Annexure-3

DISTRICT WISE LIST OF URBAN LOCAL BODIES AND CANTONMENT BOARDS

S.NO	URBAN LOCAL BODY	DISTRICT	NAGAR NIGAM / NAGAR PARISHAD NAGAR PALIKA PARISHAD
1.	Bhopal	**Bhopal**	Nagar Palik Nigam
2.	Berasia		Nagar Palika Parishad
3.	Ashta	**Sehore**	Nagar Palika Parishad
4.	Budni		Nagar Parishad
5.	Ichhawar		Nagar Parishad
6.	Jawar		Nagar Parishad
7.	Kothari		Nagar Parishad
8.	Nasrullaganj		Nagar Parishad
9.	Rehti		Nagar Parishad
10.	Sehore		Nagar Palika Parishad
11.	Shahganj		Nagar Parishad
12.	Ganj Basoda	**Vidisha**	Nagar Palika Parishad
13.	Kurwai		Nagar Parishad
14.	Lateri		Nagar Parishad
15.	Shamshabad		Nagar Parishad
16.	Sironj		Nagar Palika Parishad
17.	Vidisha		Nagar Palika Parishad
18.	Amla	**Betul**	Nagar Palika Parishad
19.	Athner		Nagar Parishad
20.	Betul		Nagar Palika Parishad
21.	Betul-Bazar		Nagar Parishad
22.	Bhainsdehi		Nagar Parishad
23.	Chicholi		Nagar Parishad
24.	Ghodadongri*		Nagar Parishad
25.	Shahpur*		Nagar Parishad
26.	Multai		Nagar Palika Parishad
27.	Sarni		Nagar Palika Parishad
28.	Amarwara	**Chhindwara**	Nagar Palika Parishad
29.	Badkuhi		Nagar Parishad
30.	Bichua		Nagar Parishad
31.	Chand		Nagar Parishad
32.	Chandameta-Butaria		Nagar Parishad
33.	Chaurai Khas		Nagar Palika Parishad
34.	Chhindwara		Nagar Palik Nigam
35.	Damua		Nagar Palika Parishad
36.	Donger Parasia		Nagar Palika Parishad
37.	Harrai		Nagar Parishad
38.	Junnardev Jamai		Nagar Palika Parishad
39.	Lodhikheda		Nagar Parishad
40.	Mohgaon		Nagar Parishad
41.	Neuton Chikhli Kalan		Nagar Parishad
42.	Pandhurna		Nagar Palika Parishad
43.	Piplanarayannwa		Nagar Parishad
44.	Sausar		Nagar Palika Parishad
45.	Bagli	**Dewas**	Nagar Parishad
46.	Bhaurasa		Nagar Parishad
47.	Dewas		Nagar Palik Nigam
48.	Hatpiplya		Nagar Parishad
49.	Kantaphod		Nagar Parishad
50.	Karnawad		Nagar Parishad
51.	Kannod		Nagar Parishad
52.	Khategaon		Nagar Parishad
53.	Loharda		Nagar Parishad
54.	Nemawar		Nagar Parishad
55.	Pipalrawan		Nagar Parishad

56.	Satwas		Nagar Parishad
57.	Sonkatch		Nagar Parishad
58.	Tonk Khurd		Nagar Parishad
59.	Akodia	**Shajapur**	Nagar Parishad
60.	Maksi		Nagar Parishad
61.	Pankhedi(Kalapipal)		Nagar Parishad
62.	Polaykalan		Nagar Parishad
63.	Shajapur		Nagar Palika Parishad
64.	Shujalpur		Nagar Palika Parishad
65.	Alirajpur	**Alirajpur**	Nagar Palika Parishad
66.	Bhabra (CSA Nagar)		Nagar Parishad
67.	Jobat		Nagar Parishad
68.	Badnawar	**Dhar**	Nagar Parishad
69.	Dahi		Nagar Parishad
70.	Dhamnod (Dhar)		Nagar Parishad
71.	Dhar		Nagar Palika Parishad
72.	Dharampuri		Nagar Parishad
73.	Kukshi		Nagar Parishad
74.	Manawar		Nagar Palika Parishad
75.	Mandav		Nagar Parishad
76.	Rajgarh		Nagar Parishad
77.	Sardarpur		Nagar Parishad
78.	Jhabua	**Jhabua**	Nagar Palika Parishad
79.	Meghnagar		Nagar Parishad
80.	Petlawad		Nagar Parishad
81.	Ranapur		Nagar Parishad
82.	Thandla		Nagar Parishad
83.	Ashoknagar	**Asoknagar**	Nagar Palika Parishad
84.	Chanderi		Nagar Palika Parishad
85.	Isagarh		Nagar Parishad
86.	Mungaoli		Nagar Parishad
87.	Shadora		Nagar Parishad
88.	Piprai*		Nagar Parishad
89.	Aron	**Guna**	Nagar Parishad
90.	Chachaura-Binaganj		Nagar Parishad
91.	Madhusudangarh*		Nagar Parishad
92.	Guna		Nagar Palika Parishad
93.	Kumbhraj		Nagar Parishad
94.	Raghogarh-Vijaypur		Nagar Palika Parishad
95.	Badarwas	**Shivpuri**	Nagar Parishad
96.	Bairad		Nagar Parishad
97.	Karera		Nagar Parishad
98.	Khaniyadhana		Nagar Parishad
99.	Kolaras		Nagar Parishad
100.	Narwar		Nagar Parishad
101.	Pichhore		Nagar Parishad
102.	Rannod*		Nagar Parishad
103.	Pohari*		Nagar Parishad
104.	Magrauni*		Nagar Parishad
105.	Shivpuri		Nagar Palika Parishad
106.	Biaora	**Rajgarh**	Nagar Palika Parishad
107.	Boda		Nagar Parishad
108.	Chhapiheda		Nagar Parishad
109.	Jirapur		Nagar Parishad
110.	Khilchipur		Nagar Parishad
111.	Khujner		Nagar Parishad
112.	Kurawar		Nagar Parishad
113.	Machalpur		Nagar Parishad
114.	Narsinghgarh		Nagar Palika Parishad
115.	Pachore		Nagar Parishad
116.	Rajgarh		Nagar Palika Parishad
117.	Sarangpur		Nagar Palika Parishad
118.	Suthaliya		Nagar Parishad

119.	Talen		Nagar Parishad
120.	Akoda	**Bhind**	Nagar Parishad
121.	Alampur		Nagar Parishad
122.	Bhind		Nagar Palika Parishad
123.	Daboh		Nagar Parishad
124.	Gohad		Nagar Palika Parishad
125.	Gormi		Nagar Parishad
126.	Lahar		Nagar Parishad
127.	Mehgaon		Nagar Parishad
128.	Roun*		Nagar Parishad
129.	Malanpur*		Nagar Parishad
130.	Mihona		Nagar Parishad
131.	Mau		Nagar Parishad
132.	Phuphkalan		Nagar Parishad
133.	Badoni	**Datia**	Nagar Parishad
134.	Bhander		Nagar Parishad
135.	Datia		Nagar Palika Parishad
136.	Indergarh		Nagar Parishad
137.	Sewdha		Nagar Parishad
138.	Antari	**Gwalior**	Nagar Parishad
139.	Bhitarwar		Nagar Parishad
140.	Bilaua		Nagar Parishad
141.	Mohna *		Nagar Parishad
142.	Dabra		Nagar Palika Parishad
143.	Gwalior		Nagar Palik Nigam
144.	Pichhore		Nagar Parishad
145.	Ambah	**Morena**	Nagar Palika Parishad
146.	Bamor		Nagar Parishad
147.	Jhundpura		Nagar Parishad
148.	Joura		Nagar Parishad
149.	Kailaras		Nagar Parishad
150.	Morena		Nagar Palik Nigam
151.	Porsa		Nagar Palika Parishad
152.	Sabalgarh		Nagar Palika Parishad
153.	Badoda	**Seopurkalan**	Nagar Parishad
154.	Sheopur kalan		Nagar Palika Parishad
155.	Vijaypur		Nagar Parishad
156.	Anjad	**Badwani**	Nagar Parishad
157.	Barwani		Nagar Palika Parishad
158.	Khetia		Nagar Parishad
159.	Palsud		Nagar Parishad
160.	Pansemal		Nagar Parishad
161.	Rajpur		Nagar Parishad
162.	Thikri*		Nagar Parishad
163.	Niwali Bujurg*		Nagar Parishad
164.	Sendhwa		Nagar Palika Parishad
165.	Burhanpur	**Burhanpur**	Nagar Palik Nigam
166.	Nepanagar		Nagar Palika Parishad
167.	Shahpur		Nagar Parishad
168.	Betma	**Indore**	Nagar Parishad
169.	Depalpur		Nagar Parishad
170.	Gautampura (Runji- Gautampura)		Nagar Parishad
171.	Hatod		Nagar Parishad
172.	Indore		Nagar Palik Nigam
173.	Manpur		Nagar Parishad
174.	Mhowgaon		Nagar Parishad
175.	Rau		Nagar Parishad
176.	Sanwer		Nagar Parishad
177.	Chhanera	**Khandwa**	Nagar Parishad
178.	Khandwa		Nagar Palik Nigam
179.	Mundi		Nagar Parishad
180.	Omkareshwar		Nagar Parishad
181.	Pandhana		Nagar Parishad

182.	Badwaha	**Khargone**	Nagar Palika Parishad
183.	Bhikangaon		Nagar Parishad
184.	Khargone		Nagar Palika Parishad
185.	Karahi Padlya Khurd		Nagar Parishad
186.	Kasrawad		Nagar Parishad
187.	Maheshwar		Nagar Parishad
188.	Mandleshwar		Nagar Parishad
189.	Bistan		Nagar Parishad
190.	Sanawad		Nagar Palika Parishad
191.	Baihar	**Balaghat**	Nagar Parishad
192.	Balaghat		Nagar Palika Parishad
193.	Katangi		Nagar Parishad
194.	Lanji		Nagar Parishad
195.	Malajkhand		Nagar Palika Parishad
196.	Waraseoni		Nagar Palika Parishad
197.	Barela	**Jabalpur**	Nagar Parishad
198.	Bhedaghat		Nagar Parishad
199.	Jabalpur		Nagar Palik Nigam
200.	Katangi		Nagar Parishad
201.	Majholi		Nagar Parishad
202.	Panagar		Nagar Palika Parishad
203.	Patan		Nagar Parishad
204.	Shahpura		Nagar Parishad
205.	Sihora		Nagar Palika Parishad
206.	Bamhani	**Mandla**	Nagar Parishad
207.	Bichhiya		Nagar Parishad
208.	Mandla		Nagar Palika Parishad
209.	Nainpur		Nagar Palika Parishad
210.	Niwas		Nagar Parishad
211.	Chichali	**Narsinghpur**	Nagar Parishad
212.	Gadarwara		Nagar Palika Parishad
213.	Gotegaon		Nagar Palika Parishad
214.	Kareli		Nagar Palika Parishad
215.	Narsinghpur		Nagar Palika Parishad
216.	Saikheda		Nagar Parishad
217.	Salichauka		Nagar Parishad
218.	Tendukheda		Nagar Parishad
219.	Barghat	**Seoni**	Nagar Parishad
220.	Lakhnadon		Nagar Parishad
221.	Chhapara*		Nagar Parishad
222.	Kewlari*		Nagar Parishad
223.	Seoni		Nagar Palika Parishad
224.	Barhi	**Katni**	Nagar Parishad
225.	Katni(Murwara)		Nagar Palik Nigam
226.	Kymore		Nagar Parishad
227.	Vijayraghavgarh		Nagar Parishad
228.	Harda	**Harda**	Nagar Palika Parishad
229.	Khirkiya		Nagar Parishad
230.	Timarni		Nagar Parishad
231.	Sirali*		Nagar Parishad
232.	Babai	**Hoshangabad**	Nagar Parishad
233.	Bankhedi		Nagar Parishad
234.	Hoshangabad		Nagar Palika Parishad
235.	Itarsi		Nagar Palika Parishad
236.	Pipariya		Nagar Palika Parishad
237.	Seoni-Malwa		Nagar Palika Parishad
238.	Sohagpur		Nagar Parishad
239.	Badi	**Raisen**	Nagar Parishad
240.	Baraily		Nagar Parishad
241.	Begamganj		Nagar Palika Parishad
242.	Gairatganj		Nagar Parishad
243.	Mandideep		Nagar Palika Parishad

244.	Obedullaganj	**Raisen**	Nagar Parishad
245.	Raisen		Nagar Palika Parishad
246.	Sanchi		Nagar Parishad
247.	Silwani		Nagar Parishad
248.	Sultanpur		Nagar Parishad
249.	Udaipura		Nagar Parishad
250.	Pithampur	**Dhar**	Nagar Palika Parishad
251.	Baag*		Nagar Parishad
252.	Gandhwani*		Nagar Parishad
253.	Baikunthpur	**Rewa**	Nagar Parishad
254.	Chakghat		Nagar Parishad
255.	Govindgarh		Nagar Parishad
256.	Gurh		Nagar Parishad
257.	Hanumana		Nagar Parishad
258.	Mangawan		Nagar Parishad
259.	Mauganj		Nagar Parishad
260.	Naigarhi		Nagar Parishad
261.	Rewa		Nagar Palik Nigam
262.	Semaria		Nagar Parishad
263.	Sirmour		Nagar Parishad
264.	Dabhora*		Nagar Parishad
265.	Teonthar		Nagar Parishad
266.	Churhat	**Sidhi**	Nagar Parishad
267.	Majhauli		Nagar Parishad
268.	Rampur Naikin		Nagar Parishad
269.	Sidhi		Nagar Palika Parishad
270.	Bada Malhera	**Chhatarpur**	Nagar Parishad
271.	Barigarh		Nagar Parishad
272.	Buxwaha		Nagar Parishad
273.	Bijawar		Nagar Parishad
274.	Chandla		Nagar Parishad
275.	Chhatarpur		Nagar Palika Parishad
276.	Dhuwara		Nagar Parishad
277.	Garhi-Malhera		Nagar Parishad
278.	Harpalpur		Nagar Parishad
279.	Khajuraho		Nagar Parishad
280.	Laundi (Lavlkush Nagar)		Nagar Parishad
281.	Maharajpur		Nagar Palika Parishad
282.	Nowgong		Nagar Palika Parishad
283.	Rajnagar		Nagar Parishad
284.	Satai		Nagar Parishad
285.	Damoh	**Damoh**	Nagar Palika Parishad
286.	Hatta		Nagar Palika Parishad
287.	Hindoria		Nagar Parishad
288.	Patera		Nagar Parishad
289.	Patharia		Nagar Parishad
290.	Tendukheda		Nagar Parishad
291.	AjayGarh	**Panna**	Nagar Parishad
292.	Amaganj		Nagar Parishad
293.	Devendra nagar		Nagar Parishad
294.	Kakarhati		Nagar Parishad
295.	Panna		Nagar Palika Parishad
296.	Gunnor*		Nagar Parishad
297.	Pawai		Nagar Parishad
298.	Banda	**Sagar**	Nagar Parishad
299.	Bina-Etawa		Nagar Palika Parishad
300.	Deori		Nagar Palika Parishad
301.	Garhakota		Nagar Palika Parishad
302.	Khurai		Nagar Palika Parishad
303.	Mackronia		Nagar Palika Parishad
304.	Rahatgarh		Nagar Parishad
305.	Rehli		Nagar Palika Parishad

306.	Sagar		Nagar Palik Nigam
307.	Shahgarh		Nagar Parishad
308.	Malthon*		Nagar Parishad
309.	Bandri*		Nagar Parishad
310.	Bilhara*		Nagar Parishad
311.	Surkhi*		Nagar Parishad
312.	Shahpur		Nagar Parishad
313.	Baldeogarh	**Tikamgarh**	Nagar Parishad
314.	Badagaon		Nagar Parishad
315.	Jatara		Nagar Parishad
316.	Jeron Khalsa		Nagar Parishad
317.	Kari		Nagar Parishad
318.	Khargapur		Nagar Parishad
319.	Lidhora Khas		Nagar Parishad
320.	Niwari		Nagar Parishad
321.	Orchha		Nagar Parishad
322.	Palera		Nagar Parishad
323.	Prithvipur		Nagar Parishad
324.	Tarichar Kalan		Nagar Parishad
325.	Tikamgarh		Nagar Palika Parishad
326.	Amarpatan	**Satna**	Nagar Parishad
327.	Birshinghpur		Nagar Parishad
328.	Chitrakoot		Nagar Parishad
329.	Jaitwara		Nagar Parishad
330.	Kotar		Nagar Parishad
331.	Kothi		Nagar Parishad
332.	Maihar		Nagar Palika Parishad
333.	Nagod		Nagar Parishad
334.	New Ramnagar		Nagar Parishad
335.	Rampur Baghelan		Nagar Parishad
336.	Satna		Nagar Palik Nigam
337.	Unchahara		Nagar Parishad
338.	Amarkantak	**Anuppur**	Nagar Parishad
339.	Vangawa (Rajnagar)*		Nagar Parishad
340.	Dola*		Nagar Parishad
341.	Dumarkchhar*		Nagar Parishad
342.	Anuppur		Nagar Palika Parishad
343.	Bijuri		Nagar Palika Parishad
344.	Jaithari		Nagar Parishad
345.	Kotma		Nagar Palika Parishad
346.	Pasan		Nagar Palika Parishad
347.	Dindori	**Dindori**	Nagar Parishad
348.	Shahpura		Nagar Parishad
349.	Beohari	**Shahdol**	Nagar Parishad
350.	Burhar		Nagar Parishad
351.	Dhanpuri		Nagar Palika Parishad
352.	Jaisinghnagar		Nagar Parishad
353.	Khand		Nagar Parishad
354.	Bakho*		Nagar Parishad
355.	Shahdol		Nagar Palika Parishad
356.	Chandia	**Umaria**	Nagar Parishad
357.	Nowrozabad		Nagar Parishad
358.	Manpur*		Nagar Parishad
359.	Pali		Nagar Palika Parishad
360.	Umaria		Nagar Palika Parishad
361.	Singrauli	**Singrauli**	Nagar Palik Nigam
362.	Agar	**Agar**	Nagar Palika Parishad
363.	Badagaon		Nagar Parishad
364.	Badod		Nagar Parishad
365.	Kanad		Nagar Parishad
366.	Nalkheda		Nagar Parishad
367.	Soyatkalan		Nagar Parishad

368.	Susner		Nagar Parishad
369.	Bhanpura	**Mandsaur**	Nagar Parishad
370.	Garoth		Nagar Parishad
371.	Malhargarh		Nagar Parishad
372.	Bhainsoda mandi*		Nagar Parishad
373.	Mandsaur		Nagar Palika Parishad
374.	Nagri		Nagar Parishad
375.	Narayangarh		Nagar Parishad
376.	Piplya Mandi		Nagar Parishad
377.	Shamgarh		Nagar Parishad
378.	Sitamau		Nagar Parishad
379.	Suwasara		Nagar Parishad
380.	Athana	**Neemuch**	Nagar Parishad
381.	Diken		Nagar Parishad
382.	Jawad		Nagar Parishad
383.	Jiran		Nagar Parishad
384.	Kukdeshwar		Nagar Parishad
385.	Manasa		Nagar Parishad
386.	Nayagaon		Nagar Parishad
387.	Neemuch		Nagar Palika Parishad
388.	Rampura		Nagar Parishad
389.	Ratangarh		Nagar Parishad
390.	Sarwania Maharaj		Nagar Parishad
391.	Singoli		Nagar Parishad
392.	Alot	**Ratlam**	Nagar Parishad
393.	Badawada		Nagar Parishad
394.	Dhamnod (Ratlam)		Nagar Parishad
395.	Javra		Nagar Palika Parishad
396.	Namli		Nagar Parishad
397.	Piploda		Nagar Parishad
398.	Ratlam		Nagar Palik Nigam
399.	Sailana		Nagar Parishad
400.	Tal		Nagar Parishad
401.	Badnagar	**Ujjain**	Nagar Palika Parishad
402.	Khachrod		Nagar Palika Parishad
403.	Mahidpur		Nagar Palika Parishad
404.	Makdon		Nagar Parishad
405.	Nagda		Nagar Palika Parishad
406.	Tarana		Nagar Parishad
407.	Ujjain		Nagar Palik Nigam
408.	Unhel		Nagar Parishad

****30 Nagar Parishads are newly notified, which will come into existence after general elections. Hence existing ULBs (408-30)= 37***

SOURCE: Urban Development & Housing Department, GoMP

S.No	District	Cantonment Board
1.	**Gwalior**	**Morar CB**
2.	**Indore**	**Mhow CB**
3.	**Jabalpur**	**Jabalpur (CB)**
4.	**Raisen**	**Panchmari (CB)**
5.	**Sagar**	**Sagar (CB)**

Annexure-4

INTEGRATED SOLID WASTE MANAGEMENT CLUSTERS & ASSOCIATED ULBS		
S.No	**Existing Cluster**	**Associated ULBs**
1	**Jabalpur cluster**	Barela (NP)
2		Bhedaghat (NP)
3		Chichli
4		Gadarwara (M)
5		Gotegaon (NP)
6		Kareli (M)
7		Katangi (NP)
8		Majholi (NP)
9		Narsimhapur (M)
10		Panagar (M)
11		Patan (NP)
12		Saikheda (NP)
13		Salichouka(Bawaikalan)
14		Shahpura (NP)
15		Tendukheda (NP)
16	**Katni cluster**	Barhi (NP)
17		Kymore (NP)
18		Murwara (Katni) (M Corp.)
19		Sihora (M)
20		Vijayraghavgarh (NP)
21	**Rewa Cluster**	Amarpatan (NP)
22		Baikunthpur (NP)
23		Birsinghpur (NP)
24		Chakghat (NP)
25		Chitrakoot (NP)
26		Churhat (NP)
27		Govindgarh (NP)
28		Gurh (NP)
29		Hanumana (NP)
30		Jaitwara (NP)
31		Kotar (NP)
32		Kothi (NP)
33		Maihar (M)
34		Majhauli (NP)
35		Mangawan (NP)
36		Mauganj (NP)
37		Nagod (NP)
38		Naigarhi (NP)
39		New Ramnagar

40	**Rewa Cluster**	Rampur Baghelan (NP)
41		Rampur Naikin (NP)
42		Rewa (M Corp.)
43		Satna (M Corp.)
44		Semaria (NP)
45		Sidhi (M)
46		Sirmour (NP)
47		Teonthar (NP)
48		Unchahara (NP)
49	**Sagar cluster**	Banda (NP)
50		Bina Etawa (M)
51		Deori (M)
52		Garhakota (M)
53		Khurai (M)
54		Makroniya Bujurg
55		Rahatgarh (NP)
56		Rehli (M)
57		Sagar (M Corp.)
58		Shahgarh (NP)
59		Shahpur (NP)
60	**Singrauli cluster**	Singrauli (M Corp.)

SOURCE: Urban Development & Housing Department, GoMP

Proposed New Clusters		
S.No	**Proposed Cluster**	**Associated ULBs**
1	**Barwani cluster**	Alirajpur (M)
2		Anjad (NP)
3		Barwaha (M)
4		Barwani (M)
5		Bhavra (NP)
6		Dahi (NP)
7		Dhamnod (NP)
8		Dharampuri (NP)
9		Jobat (NP)
10		KARAHI PADLIYA KHURD
11		Kasrawad (NP)
12		Khargone (M)
13		Khetia (NP)
14		Kukshi (NP)
15		Maheshwar (NP)
16		Manawar (M)
17		Mandav (NP)
18		Mandleshwar (NP)

19	**Barwani cluster**	Palsud (NP)
20		Pansemal (NP)
21		Rajpur (NP)
22		Sendhwa (M)
23	**Bhind cluster**	Akoda (NP)
24		Alampur (NP)
25		Ambah (M)
26		Bhind (M)
27		Daboh (NP)
28		Gohad (M)
29		Gormi (NP)
30		Lahar (NP)
31		Mau (NP)
32		Mehgaon (NP)
33		Mihona (NP)
34		Phuphkalan (NP)
35		Porsa (M)
36		Seondha (NP)
37	**Chhatarpur cluster**	Ajaigarh (NP)
38		Amanganj (NP)
39		Bada Malhera (NP)
40		Badagaon (NP)
41		Baldeogarh (NP)
42		Barigarh (NP)
43		Bijawar (NP)
44		Chandla (NP)
45		Chhatarpur (M)
46		Devendranagar (NP)
47		Garhi - Malhera (NP)
48		Ghuwara (NP)
49		Harpalpur (NP)
50		Jatara (NP)
51		Jeron Khalsa (NP)
52		Kakarhati (NP)
53		Kari (NP)
54		Khajuraho (NP)
55		Khargapur (NP)
56		Lavkush Nagar (NP)
57		Lidhora Khas (NP)
58		Maharajpur (NP)
59		Niwari (NP)
60		Nowgong (M)
61		Orchha (NP)

62	**Chhatarpur cluster**	Palera (NP)
63		Panna (M)
64		Pawai (NP)
65		Prithvipur (NP)
66		Rajnagar (NP)
67		Satai (NP)
68		Tarichar Kalan (NP)
69		Tikamgarh (M)
70	**Chhindwara cluster**	Amarwara (M)
71		Badkuhi (NP)
72		Barghat (NP)
73		Bichua
74		Chand
75		Chandameta- Butaria (NP)
76		Chaurai Khas (M)
77		Chhindwara (M)
78		Damua (M)
79		Dongar Parasia (M)
80		Harrai (NP)
81		Jamai (M)
82		Lakhnadon (NP)
83		Lodhikheda (NP)
84		Mohgaon (NP)
85		Neuton Chikhli Kalan (NP)
86		Pandhurna (M)
87		Piplanarayanwar (NP)
88		Sausar (M)
89		Seoni (M)
90	**Dewas cluster**	Badnagar (M)
91		Bagli (NP)
92		Bhaurasa (NP)
93		Dewas (M Corp.)
94		Hatpiplya (NP)
95		Jawar (NP)
96		Kannod (NP)
97		Kantaphod (NP)
98		Karnawad (NP)
99		Khacharod (M)
100		Khategaon (NP)
101		Loharda (NP)
102		Mahidpur (M)
103		Makdon (NP)
104		Maksi (NP)

105	**Dewas cluster**	Nagda (M)
106		Nemawar
107		Pipalrawan (NP)
108		Satwas (NP)
109		Sawer (NP)
110		Sonkatch (NP)
111		Tarana (NP)
112		Tonk Khurd (NP)
113		Unhel (NP)
114	**Guna cluster**	Aron (NP)
115		Ashoknagar (M)
116		Chachaura-Binaganj (NP)
117		Chanderi (M)
118		Guna (M)
119		Isagarh (NP)
120		Kumbhraj (NP)
121		Mungaoli (NP)
122		Raghogarh -Vijaypur (M)
123		Shadhora
124	**Hoshangabad cluster**	Babai (NP)
125		Budni (NP)
126		Harda (M)
127		Hoshangabad (M)
128		Itarsi (M)
129		Khirkiya (NP)
130		Nasrullaganj (NP)
131		Pipariya (M)
132		Rehti (NP)
133		Seoni-Malwa (M)
134		Shahganj Nagar Parishad
135		Sohagpur (NP)
136		Timarni (NP)
137		Vankhedi
138	**Khandwa cluster**	Bhikangaon (NP)
139		Burhanpur (M Corp.)
140		Chhanera (NP)
141		Khandwa (M Corp.)
142		Mundi (NP)
143		Nepanagar (M)
144		Omkareshwar (NP)
145		Pandhana (NP)
146		Sanawad (M)
147		Shahpur (NP)

148	**Ratlam cluster**	Alot (NP)
149		Badawada (NP)
150		Badnawar (NP)
151		Dhamnod (NP)
152		Dhar (M)
153		Jaora (M)
154		Jhabua (M)
155		Mandsaur (M)
156		Meghnagar
157		Nagri (NP)
158		Namli (NP)
159		Petlawad (NP)
160		Piploda (NP)
161		Pithampur (M)
162		Rajgarh (NP)
163		Ranapur (NP)
164		Ratlam (M Corp.)
165		Sailana (NP)
166		Sardarpur (NP)
167		Sitamau (NP)
168		Tal (NP)
169		Thandla (NP)
170	**Shajapur cluster**	Agar (M)
171		Akodia (NP)
172		Badagaon (NP)
173		Barod (NP)
174		Biaora (M)
175		Boda (NP)
176		Chhapiheda (NP)
177		Jirapur (NP)
178		Kanad (NP)
179		Khilchipur (NP)
180		Khujner (NP)
181		Kurawar
182		Machalpur (NP)
183		Nalkheda (NP)
184		Narsinghgarh (M)
185		Pachore (NP)
186		Pankhedi(Kalapipal)
187		Polaykalan (NP)
188		Rajgarh (NP)
189		Sarangpur (M)
190		Shajapur (M)

191	**Shajapur cluster**	Shujalpur (M)
192		Soyatkalan (NP)
193		Susner (NP)
194		Suthaliya (NP)
195		Talen (NP)
196	**Vidisha cluster**	Badi (NP)
197		Baraily (NP)
198		Basoda (M)
199		Begamganj (M)
200		Gairatganj (NP)
201		Kurwai (NP)
202		Lateri (NP)
203		Raisen (M)
204		Sanchi (NP)
205		Shamshabad (NP)
206		Silwani (NP)
207		Sironj (M)
208		Sultanpur (NP)
209		Udaipura (NP)
210		Vidisha (M)
	Grand Total	**210**

SOURCE: Urban Development & Housing Department, GoMP

Annexure-5

ULBS SHORTLISTED FOR DECENTRALIZED SOLID WASTE MANAGEMENT

S.No	DWSM ULBs
1.	Amla (M)
2.	Athner (NP)
3.	Ashta (M)
4.	Bhopal (M Corp.)
5.	Betul (M)
6.	Betul-Bazar (NP)
7.	Bhainsdehi (NP)
8.	Chicholi (NP)
9.	Berasia (M)
10.	Betma (NP)
11.	Depalpur (NP)
12.	Ichhawar (NP)
13.	Multai (M)
14.	Hatod (NP)
15.	Sarni (M)
16.	Kothri (NP)
17.	Mandideep (M)
18.	Antari (NP)
19.	Badarwas (NP)
20.	Badoda (NP)
21.	Badoni (NP)
22.	Bairad
23.	Bamor (NP)
24.	Bhander (NP)
25.	Bhitarwar (NP)
26.	Bilaua (NP)
27.	Dabra (M)
28.	Datia (M)
29.	Gwalior (M Corp.)
30.	Indergarh (NP)
31.	Jhundpura (NP)
32.	Joura (NP)
33.	Kailaras (NP)
34.	Karera (NP)
35.	Khaniyadhana (NP)
36.	Kolaras (NP)
37.	Morena (M)
38.	Narwar (NP)
39.	Pichhore (NP)
40.	Pichhore (NP)
41.	Sabalgarh (M)
42.	Sheopur (M)
43.	Shivpuri (M)
44.	Vijaypur (NP)
45.	Indore (M Corp.)
46.	Manpur (NP)
47.	Mhowgaon (NP)
48.	Baihar (NP)
49.	Balaghat (M)
50.	Bamhani (NP)
51.	Bichhiya (NP)
52.	Dindori (NP)
53.	Katangi (NP)
54.	Lanji (NP)

S.No	DWSM ULBs
55	Jabalpur (M Corp.)
56	Malajkhand (M)
57	Mandla (M)
58	Nainpur (M)
59	Niwas (NP)
60	Shahpura (NP)
61	Waraseoni (M)
62	Amarkantak (NP)
63	Anuppur (M)
64	Beohari (NP)
65	Bijuri (M)
66	Burhar (NP)
67	Chandia (NP)
68	Dhanpuri (Nargada Hari Dafai) (M)
69	Jaisinghnagar (NP)
70	Jaithari (NP)
71	Khand(Bansagar) (NP)
72	Kotma (M)
73	Nowrozabad (Khodargama) (NP)
74	Pali (NP)
75	Pasan (M)
76	Shahdol (M)
77	Umaria (M)
78	Buxwaha (NP)
79	Damoh (M)
80	Hatta (M)
81	Hindoria (NP)
82	Patera
83	Patharia (NP)
84	Tendukheda (NP)
85	Athana
86	Rau (NP)
87	Runji-Gautampura (NP)
88	Obedullaganj (NP)
89	Bhanpura (NP)
90	Diken (NP)
91	Garoth (NP)
92	Jawad (NP)
93	Jiran (NP)
94	Kukdeshwar (NP)
95	Sehore (M)
96	Malhargarh (NP)
97	Manasa (NP)
98	Narayangarh (NP)
99	Nayagaon
100	Neemuch (M)
101	Piplya Mandi (NP)
102	Rampura (NP)
103	Ratangarh (NP)
104	Sarwaniya Maharaj
105	Shamgarh (NP)
106	Singoli (NP)
107	Suwasara (NP)
108	Ujjain (M Corp.)

SOURCE: Urban Development & Housing Department, GoMP

Annexure-6

ULBs THAT HAVE COMPLETED DUMPSITE REMEDIATION OF LEGACY WASTE

S.No.	Division	ULB Name	S.No.	Division	ULB Name
1.	Bhopal	Basoda	**26**	Jabalpur	Murwara (Katni)
2.	Bhopal	Betul-Bazar	**27**	Jabalpur	Tendukheda
3.	Bhopal	Bhopal	**28**	Rewa	Chandia
4.	Bhopal	Sehore	**29**	Rewa	Jaitwara
5.	Bhopal	Shahganj	**30**	Rewa	Khand
6.	Bhopal	Sironj	**31**	Rewa	Nowrozabad
7.	Gwalior	Bhitarwar	**32**	Rewa	Rampur Naikin
8.	Gwalior	Gwalior	**33**	Rewa	Satna
9.	Gwalior	Morena	**34**	Rewa	Umaria
10.	Gwalior	Pichhore	**35**	Sagar	Garhakota
11.	Indore	Badnawar	**36**	Sagar	Orchha
12.	Indore	Burhanpur	**37**	Sagar	Panna
13.	Indore	Depalpur	**38**	Sagar	Prithvipur
14.	Indore	Dhamnod	**39**	Ujjain	Dhamnod
15.	Indore	Hatod	**40**	Ujjain	Maksi
16.	Indore	Indore	**41**	Ujjain	Mandsaur
17.	Indore	Khargone	**42**	Ujjain	Nagda
18.	Indore	Omkareshwar	**43**	Ujjain	Namli
19.	Indore	Rajgarh	**44**	Ujjain	Rampura
20.	Indore	Rau	**45**	Ujjain	Sailana
21.	Indore	Runji-Gautampura	**46**	Ujjain	Suwasara
22.	Indore	Sendhwa	**47**	Ujjain	Ujjain
23.	Jabalpur	Badkuhi	**48**	Ujjain	Unhel
24.	Jabalpur	Chhindwara	**49**	Gwalior	Guna
25.	Jabalpur	Jabalpur	**50**	Gwalior	Datia

SOURCE: Urban Development & Housing Department, GoMP

ANNEXURE 7

Government of Madhya Pradesh
Department of Environment
Mantralaya, Bhopal

S. No. 906/1781/2021/ MP/PWM/SUP Bhopal, Dated 26/10/21

To,

Shri Naresh Pal Gangwar
Joint Secretary, Government of India,
Ministry of Environment, Forest & Climate Change
Indira Paryavaran Bhavan, Ali Ganj, Jorbagh Road,
New Delhi-110003

Sub: Comprehenshive Action Plan for elimination of Single use Plastic in the State of Madhya Pradesh.

Ref: 1. Office Memorandam issued Vide F. No. 17/6/2021-HSM, Dated 08/07/2021

2. Discussion during the meeting of National Task Force dated 31/08/2021.

*****

In reference to the above, the Comprehenshive Action Plan for elimination of Single use Plastic in the State of Madhya Pradesh has been prepared by the Urban Development Department and Rural Development Department of the State. The Action Plan is attached herewith for information.

Encl: As above.

O/C

(Rakesh Kushre)
Deputy Secretary

Copy to,

1. Principle Secretary, Govt. of Madhya Pradesh, Urban Administration and Development Department, Bhopal, for information.
2. Principle Secretary, Govt. of Madhya Pradesh, Panchyat and Rural Development Department, Bhopal, for information.
3. Member Secretary, Madhya Pradesh Pollution Control Board, Bhopal, for information and necessary action.

COMPREHENSIVE ACTION PLAN FOR ELIMINATION OF SINGLE USE PLASTIC (SUP) IN MP

S. No.	Thematic Area/Activity/Sub-Activity	Budget allocation (if needed) / source of budget	Nature of activity Continuous /short term/medium term/long term	Timeline	Responsible Department/Agency
1	2	3	4	5	6
1	**Policy and Regulatory Framework**				
1.1	Preparation of a comprehensive action plan for elimination of single use plastics	--	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 &2 with time line Jan, 2022 to Dec, 2025.		
1.2	Policy for inclusion of components relating to elimination of Single Use Plastic (SUP) and remediation/management of legacy waste in project proposals under SBM 2.0	SBM 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 &2 2 with time line Jan, 2022 to Dec, 2025.		
1.3	Policy for development of de-centralized recycling infrastructure/End of Life Disposal infrastructure, with special focus on low-value plastics	SBM 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 &2 2 with time line Jan, 2022 to Dec, 2025.		
1.4	Policy for effective enforcement of PWMR through byelaws of local bodies (like spot fines)	--	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2, with timeline 30 Dec, 2021		
1.5	Adoption of sustainable public procurement policy for products and plastic packaging material made of recycled plastics, and alternatives to identified single use plastics, as per applicable standards	--	--		
2	**Institutional Mechanism**				
2.1	Constitution of State Level Special Task Force	As per office Memorandum issued by the Govt of India, MoEF&CC on 16th April, 2021, the State Level Task Force have been constituted on 29/06/2021 under the Chairmanship of Hon'ble Chief Secretary. Already complied with.			
2.2	Identification of nodal department for coordinating the implementation of plastic waste management (for urban as well as rural areas)	The Urban Development Department is Nodal Department for Urban Areas and Rural Department is Nodal Department for rural areas. Already complied with.			

2.3	Constitution of City Level Task Force for million plus cities: under Commissioner of Municipal Corporation or Deputy Commissioner or District Magistrate or any other officer of suitable rank as deemed appropriate by the State/UT Government	City level task force under District Magistrate have been constituted on 08/06/2021 under Sub Divisional Magistrate. Already complied with.	
2.4	Constitution of District Level Task Force (excluding million plus cities) under District Magistrate (for both rural areas and urban areas)	District level task force has been constituted on 08/06/2021 under District Collector. Already complied with.	
2.5	Setting up of a plastic waste management cell at State level (each in Urban and Rural Development Departments or the concerned Departments), District level (in Zila Parishad for all the rural areas), and in each ULB	--	
3	**Management of Littered Single Use Plastic Items**		
3.1	Identification of littering hot spots with respect to SUP items and development of strategy for their collection and further management	SBM 2.0 and Mukhyamantri Shahri Swachhta Mission 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
3.2	Identification of ingress points of littered single use plastic items in surface water bodies and drains and strategy for prevention	SBM 2.0 and Mukhyamantri Shahri Swachhta Mission 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
3.3	Phased plan for cleaning surface water bodies, and drains of floating singles use plastic items and their further management.	SBM 2.0 and Mukhyamantri Shahri Swachhta Mission 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
3.4	Document total quantity of plastic waste present in legacy waste sites and implementation of plan to manage legacy Plastic waste - location-wise.	SBM 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Apr, 2023 to Dec, 2023.
3.5	Activities to be specifically included under Swachh Bharat Mission 2.0 for SUP elimination and management of legacy waste sites, as per guidelines	SBM 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
4	**Plastic Waste Management including Single Use Plastics**		
4.1	Assessment of plastic waste generation in State/UT, District-wise	--	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2, already completed.

4.2	Assessment of infrastructure required for plastic waste management - collection, segregation, recycling, District -wise	--	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2, action is in progress.
4.3	District-wise details of infrastructure at municipal and gram panchayat level for collection, segregation and channelization of plastic waste to recyclers	--	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
4.4	Gap analysis and strategy for development of infrastructure for PWM - District-wise including ULBs	--	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
4.5	Leveraging of funds under Swachh Bharat Mission 2.0, as per guidelines	Rs 907.60 crore under SBM 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
4.6	Strategy for collection and segregation of plastic waste at the municipal and GP level	SBM 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 action is in progress.
4.7	Scheme for registration of Producers/Importers and Brand Owners and Recyclers and Plastic Waste Processors by SPCB/PCC	----	The registration of Producers/Importers and Brand Owners and Recyclers and Plastic Waste Processors has been initiated by MPPCB. The Board have registered 124 Producers/Importers and Brand Owners and 116 Recyclers and Plastic Waste Processors so far, action is in progress.
4.8	Development of database of PIBO implementing EPR	---	The EPR compliance is being ensured through the PRO Module for which there are 19 PROs enlisted in the State by the MPPCB, action is in progress.
4.9	Scheme for verification/audit of recyclers, PIBOs/ End of Life Disposal (EOLD) entities by SPCB/PCC	----	Mechanism has been developed by the Madhya Pradesh Pollution Control Board, action is in progress.
4.10	Strategy for regular data collection with respect to plastic waste and reporting under PWMR by State/UT and ULBs	---	Mechanism has been developed by the Madhya Pradesh Pollution Control Board, action is in progress.
5	**Enforcement of Ban Imposed on the use of identified Single Use Plastic Items at District/ ULB/GP level**		
5.1	Regular enforcement drives and action taken against violations	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 action is in progress.	

5.2	Identification and closure of manufacturing facilities of prohibited SUP items	The manufacturers of the identified Single Use Plastic working the State of Madhya Pradesh are being advised to switchover to some other business before 30/06/2022 i.e. the target date as scheduled in the Plastic Waste Management (Amendment) Rules, 2021 action is in progress.	
6	**Plastic Recycling Infrastructure and End of Life Disposal Facilities**		
6.1	Development of database of recyclers of plastic category wise and also EOLD entities including recycling capacity.	Mechanism for registration of Plastic Recycling Infrastructure and End of Life Disposal Facilities has been developed by the Madhya Pradesh Pollution Control Board action is in progress.	
6.2	Development of plan for setting up recycling facilities	SBM 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
6.3	Incentive scheme for setting up of plastic recycling capacity category-wise.	Uniform policy is proposed to be prepared by the Central Government.	
6.4	Development of industrial composting facilities for compostable plastics.	Uniform policy is proposed to be prepared by the Central Government.	
6.5	Development of infrastructure for EOLD, Waste to oil, waste to energy, road construction, co processing cement kilns.	SBM 2.0	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
6.6	Scheme for promotion of recycling technologies and products made from recycled plastics	Uniform policy is proposed to be prepared by the Central Government.	
7	**Development and Promotion of Alternatives to Prohibited Single Use Plastic Items and Promoting Innovation**		
7.1	Development of scheme for providing assistance in setting up manufacturing capacities of alternatives including for enterprises transitioning away from single use plastics (Number of enterprises, Quantity)	Uniform policy is proposed to be prepared by the Central Government.	
7.2	Providing incentives for penetration of alternatives in the market	Rs 47.20 Crores	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 action is in progress.
7.3	Development of database of producers of alternative products including compostable plastic manufacturing capacity.	Mechanism has been developed by the Madhya Pradesh Pollution Control Board action is in progress.	
7.4	Promotion scheme for alternatives to prohibited single use plastic items	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.	

7.5	Scheme for promoting producers to change design of plastic packaging to reduce use of plastic packaging material	Uniform policy is proposed to be prepared by the Central Government.
7.6	Research and Development on creating alternative packaging materials to plastics.	Uniform policy is proposed to be prepared by the Central Government.
8	**Data Collection and Monitoring Mechanism**	
8.1	Development of online database and monitoring system covering items covered under Comprehensive Action Plan.	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line up to 30th Dec, 2021.
8.2	Online public grievance/complaints Portal	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 already complied with.
8.3	Mechanism to undertake regular quarterly survey for (i) prohibited single-use plastic items in plastic waste and (ii) compositional characterization of plastic waste in the following categories (a) Rigid plastic packaging including multilayered packaging, (b) Flexible (plastic packaging -single layered and multilayered of the plastics only and (c) Multi layered multi material (at least one layer of plastic and at least one layer of other material) plastic packaging	Uniform policy is proposed to be prepared by the Central Government.
9	**Awareness Generation and Capacity Building**	
9.1	Preparation of road map for awareness generation activities at State, District and ULB/GP level for citizens, institutional waste generators, RWAs/Market associations.	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
9.2	Development of a public movement by engaging with youth organizations such as NCC, NSS, NYK and school students.	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
9.3	Strategy for targeted campaign at littering hotspots such as tourist spots, places of religious and cultural importance, weekly markets, urban sprawls against littering, and promoting alternate packaging material.	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
9.4	Capacity building for repurposing and promoting reuse of plastic packaging	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with timeline up to 30the Mar, 2022.

9.5	Capacity building of ULBs and GPs for PWM	Action plan prepared by Urban & Rural development Departments of the State and attached at Annexure-1 & 2 with time line Jan, 2022 to Dec, 2025.
10	**Action taken for reducing/elimination of single use plastic items in State/UT Government offices, attached/ subordinate offices, PSUs/organization**	
10.1	Implementation of actions given in Standard Guidelines for single use plastic issued earlier by the Ministry (enclosed)	❖ The State Govt. has already prohibited use of Plastic carry bags from 24/05/2017 under Madhya Pradesh Jaiv Anashy Apshisht (Niyantran) Adhiniyam. ❖ The State Government issued order dated 04/06/2019 banning Single use plastic during the public programs organized by the State Government Departments. Already complied with.

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Annexure-8

COMMON BIO-MEDICAL WASTE TREATMENT & DISPOSAL FACILITIES (CBWTFS) IN M. P.

S. No.	Name & Address of CBWTFs	Coverage area (Districts)	Remarks
1.	M/s Elite Engineers, Jabalpur	Jabalpur, Katni, Narsinghpur	CBWTF
2.	M/s Hoswin Incinerator Pvt. ltd., Indore	Indore, Barwani, Dhar, Ujjain, Dewas, Shajapur, Jhabua, Alirajpur, Agar Malwa	CBWTF
3.	M/s Indo Water Management & Pollution Control Corporation, Satna	Satna, Panna, Rewa, Chhatarpur, Sidhi, Singrauli	CBWTF
4.	M/s M.P. Bio-Medical Waste Disposal System, Umaria	Shahdol, Anuppur, Umariya & Dindori	CBWTF
5.	M/s. Devis Surgico C/o-Bundelkhand Medical College-Sagar	Damoh, Sagar, Chhatarpur, Niwari & Tikamgarh	CBWTF
6.	M/s. Devis Surgico, Gwalior	Gwalior, Datia & Sheopur	CBWTF
7.	M/s Environmental Protection Corporation, Sehore	Sehore, Betul, Harda, Hoshangabad, Vidisha & Bhopal	CBWTF
8.	M/s JK Medical Waste Management System, Ashok Nagar	Ashok Nagar, Guna, Shivpuri, Rajgarh	CBWTF
9.	M/s. Bio-Medical Waste Management System, Ratlam	Ratlam, Mandsour, Neemuch	CBWTF
10.	M/s Krupa Wastages, Seoni	Seoni, Mandla , Balaghat, Narsingpur & Chindwada	CBWTF
11.	M/s BMW Solutions, Bhopal	Bhopal	CBWTF
12.	M/s India Waste Management Pvt Ltd, Mandideep	Bhopal & Raisen	CBWTF
13.	M/s Medisure Incinerators Khandwa	Burhanpur , khandwa ,Khargone	CBWTF
14.	M/s Hostech Eco management Pvt. Ltd. Ujjain	Ujjain, Dewas, Shajapur & Agarmalwa	CBWTF
15.	M/s People's College of Medical Science & Research Centre, Bhanpur, Bhopal	Captive CBWTF (Peoples Group Hospital, Bhopal)	Captive CBWTF
16.	M/s Sanjay Ganghi Hospital, (Shyam Shah Medical College) Rewa	Captive CBWTF	Captive CBWTF
17.	M/s Bhopal Incinerator Ltd. Bhopal.	Bhopal	Authorized only for Transportation
18.	M/s JRR Waste Management Pvt. Ltd. Agra	Morena & Bhind	Authorized only for Transportation

SOURCE: MPPCB

Annexure 9

WATER QUALITY OF RIVERS YEAR 2020-21

No.	River Name	S. No.	Sampling Location	Category
1	**Anas River**	1	Anas River, Road Bridge, Jhabua $	A
2	**Ajnal River (Harda)**	2	Ajnal River, Upstream, Harda	A
		3	Ajnal River, Down Stream Khandwa Road Bridge, Harda	A
3	**Angred**	4	Angred River, Sagaur Road, Pithampur	B
4	**Asan River**	5	Near Road Bridge, Naurabad, Morena	B
5	**Betwa River**	6	Betwa River, Upstream Mandideep Raisen	A
		7	Betwa River, Down Stream Mandideep Nayapura, Raisen $	C
		8	Betwa River, Near Satlapur Growth Centre, Raisen	B
		9	Betwa River, Near Road Bridge Bhojpur, Raisen $	A
		10	Betwa River, Water Supply Centre, Raisen $	A
		11	Betwa River, Near Road Bridge Paganeshwar, Raisen	A
		12	Betwa River, Upstream Railway Road Bridge, Vidisha	A
		13	Betwa River, Water Supply Centre, Vidisha $	B
		14	Betwa River, Near Charanteerth Ghat, Vidisha $	B
		15	Betwa river, after jointing R iver Bes , Vidisha $	B
		16	Betwa River, Upstream, Mehta Ghat, Agasaud, Bina$	A
		17	Betwa River, J.P. Thermal Power Water Supply Centre, Bina$	A
		18	Betwa River, Rajgat Dam, Near Water Supply Center	A
		19	Betwa River, Near Road Bridge Orchha, Tikamgarh $	A
6	**Bais River**	20	Bais river Road bridge before join the Betwa river, Vidisha	B
7	**Bebus river**	21	Bebus River, Upstream Near Sagar Road Bridge,	A
8	**Bichhiya river**	22	Bichhiya River, PHEB Pumping Station Govindgarh Road Rewa $	C
		23	Bichhiya River, Laxman Bridge Road Rewa	A
		24	Bichhiya River, Near Road Bridge, Rewa	C
9	**Bijul river**	25	Bijul River, Municipal Treatment Plant Inlet and Outlet.	A
10	**Besli river**	26	Besli River, Gohad Dam, Bhind $	B
11	**Banjar river**	27	Banjar River, Near Water Supply Centre, Malajkhand $	A
		28	Banjar river, cremation ground before joining the Narmada river, Mandla	A
		29	Banjar River, Inter State Boundary Near Kharradhar Village, Balaghat $	A
12	**Behar River**	30	Behar River, Near Forest Office, Rewa $	A
		31	Behar River, Babaghat, Rewa	A
		32	Behar River, Near Kuthulia Water Supply Center, Rewa	A
13	**Bawanganga**	33	Bawanganga river, before meet the river Narmada, Bhedaghat	A
14	**Borar River**	34	River Borar Near Badwani	B
15	**Chakrar**	35	Chakrar River, Near Chandan Ghat, Dindori	A

16	**Chillar**	**36**	Chilar River, Sanakkheda, Shajapur $	**A**
17	**Chaupan River**	**37**	Chaupan River, upstream before joining the NFL Nala, Vijaypur$	**A**
		38	100 mt. downstream NFL drain, Vijaypur$	**A**
18	**Chambal River**	**39**	Chambal River, Janapawa Originate, Indore. $	**A**
		40	Chambal River, Ghatabilloud, Dhar.	**A**
		41	Chambal River, Tamalpur, Indore.	**B**
		42	Chambal River, Piploda Dam, Ujjain	**A**
		43	Chambal River, Upstream Water Supply Centre, Inspection Bungalow Birlagram$	**A**
		44	Chambal River, 1 km downstream, Juna Nagda.$	**D**
		45	Chambal River, 3 km Down Stream Lakeside, Ujjain	**D**
		46	Chambal River, 9 km Down Stream Itlawda Ujjain	**D**
		47	Chambal River, 16 km Down Stream Rajgarh, Ujjain	**D**
		48	Chambal River, Near Tal Road Bridge, Ujjain $	**B**
		49	Chambal River, Gandhi Sagar Dam, Neemuch $	**A**
		50	Chambal river, 100 m. Down Stream Gandhi Sagar, Neemuch Inter State Border $	**B**
		51	Chambal River, Near Pali Road Bridge, Sheopur	**A**
		52	Chambal River, Near Useth Dhat, Porsa Morena $	**A**
		53	Chambal River, Near Road Bridge, Phoph-Bhind	**A**
		54	Chambal River, Dholpur Road Bridge, Morena $	**A**
19	**Chhota Tawa river**	**55**	Chhota Tawa, Harsood, Khandwa before joining the Narmada River	**A**
20	**Chhoti Kali sindh**	**56**	Chhoti Kalisindh, A.B. Road Village Bilawali, Dewas	**D**
		57	Chhoti Kalisindh, Mendeki Dakar, Dewas	**D**
21	**Choral river**	**58**	Choral River, Choral Village Indore $	**A**
22	**Chamla River**	**59**	Chamla River, Water Supply Centre, Badnagar, Ujjain $	**A**
		60	Chamla River Kajlana Stop Dam, Badnagar, Ujjain	**D**
23	**Denwa River**	**61**	Denwa River, Near Road Bridge, Pachmarhi, Hoshangabad	**A**
		62	Denwa River, Near Sarani Road Bridge, Betul $	**A**
24	**Dhashan River**	**63**	Dhashan River, Up Stream Railway Road Bridge, Kishanpura, Sagar	**B**
		64	Dhasan River, Up Stream Water Supply Centre, Chhatarpur	**A**
		65	Dhasan River, Up Stream, after meeting Sailaw Nala, Naogaon, Chhatarpur	**A**
25	**Deb river**	**66**	Deb Nadi , Near Barwani, Indore	**A**
26	**Gour River**	**67**	Gour River, Bhogdwar Water Supply Centre, Jabalpur$	**A**
		68	Gour River, Mandla Road Bridge, Jabalpur	**B**
27	**Gambhir river**	**69**	Gambhir River, Kalaria Mau, Indore	**B**
		70	Gambhir River, Near Dam, Ujjain $	**A**
28	**Goi river**	**71**	Goi River, Sendhwa, Barwani	**B**
29	**Gunor River**	**72**	Gunor River, after getting Naharia Mines Water, Chhindwara	**A**
30	**Gopad river**	**73**	Gopad River, Barai, Sidhi	**A**
		74	Gopad River, near dam Nigari Singrauli, River	**A**

31	**Hiran river**	**75**	The Hiran River, up stream before join the Pariyat River, Indrana	**A**
		76	Hiran River, Down Stream Pariot River after meeting at Ganiyari Village $	**B**
		77	Hiran River, Near Sihora Jabalpur Road Bridge, Jabalpur	**A**
		78	Hiran River, Near Kantigi Road Bridge, Jabalpur	**A**
		79	Hiran River, Near Patan Road Bridge, Jabalpur	**A**
		80	Hiran River, NH-12 Near Bikrampur Village Road Bridge, Narsinghpur $	**A**
		81	Hiran River, NH-7 Near Sihora Road Bridge, Jabalpur $	**A**
32	**Hathini river**	**82**	Hathini River, Near Water Supply Center, Kakrana, Alirajpur, Dhar	**A**
33	**Jammer river**	**83**	Jammer River, Dhaulabar Dam, Ratlam $	**A**
34	**Johilla**	**84**	Johilla River, Near Naurozabad Road Bridge, Umaria $	**A**
35	**Jamuni River**	**85**	Jamuni River, Upstream Water Supply Centre, Baria Ghat, Tikamgarh $	**A**
36	**Katni River**	**86**	Katni River, Up Stream Municipal Corporation, Near Water Supply Center, Katni $	**B**
		87	Katni River, Down Stream Main Ghat Road Bridge, Katni $	**B**
37	**Kariyari river**	**88**	Kariyari River, before the upstream contaminated water, Rewa $	**A**
		89	Kariyari river, down stream. JP Cement, Rewa $	**A**
38	**Kanhan River**	**90**	Kanhan River, before meeting Borgaon Center Nala, Chhindwara $	**A**
		91	Kanhan River, after meeting Borgaon Growth Center Nala, Chhindwara	**A**
		92	Kanhan River, Nandan Coal Washeries, After getting the Influential Nala, Damua	**A**
		93	Main Dhat, Khappadiwar Sosar, Near Kanhan River Temple	**A**
39	**Kurel River**	**94**	Kurel River, Near Railway Bridge, Bang Road, Ratlam	**B**
40	**Ken river**	**95**	Cane River, Near Railway Bridge, Panna $	**A**
41	**Kaliyasot**	**96**	Kaliyasot River, Near Dame Out Late Dame Gate	**A**
		97	Kaliyasot River, Near Road Bridge, Mandideep, Raisen $	**B**
42	**Kalisindh**	**98**	Kalisindh River Near Sarangpur Road Bridge, Rajgarh $	**A**
		99	Near Kalisindh River State Highway Bridge, Sonkach Dewas	**B**
43	**Kunda river**	**100**	Kunda River, Khargone$	**B**
44	**Kewai River**	**101**	Kewai River, Near Municipality Kotma Water Supply Center, Anuppur	**A**
45	**Kachan River**	**102**	Kachan River, Near Baidhan Road Bridge, Singrauli	**A**
46	**Quari river**	**103**	Quari River, Near Railway Bridge, Morena	**B**
		104	Near Railway Bridge, Bhind	**B**
47	**Khan River**	**105**	Limbodi Tenk Near Limbodi, Indore	**A**
		106	Khan River, Down Stream Limbodi, Shivdham, Indore	**E**
		107	Khan River, Kamala Nehru Park, Indore	**E**
		108	Khan River, North Toda, Indore	**E**
		109	Khan River, Ahilya Ashram, Indore	**E**
		110	Khan River, Bhagirathpura, Indore	**E**
		111	Khan River, Khatipura, Indore	**E**
		112	Khan River, Kavitkhedi Indore $	**E**
		113	Khan River, Sugar Khedi, Indore $	**E**

		114	Khan River, Dhankhedi, Indore	**E**
		115	Khan River, Darjikaradiya, Sanwar, Indore	**D**
		116	Khan River, Sanwar$	**D**
		117	Khan River, Bhadodiakhan, Shahda Bridge	**D**
		118	Khan River, Pipliya Radhav Stop Dam	**D**
		119	Khan River, Ramvasa	**D**
48	**Khuj River**	**120**	Khuj River, Near Dhar	**A**
49	**Kshipra river**	**121**	Kshipra River, Water Supply Centre, AB Road, Dewas$	**A**
		122	Kshipra River, Hawankhedi Nagdaman Nala, Dewas	**E**
		123	Kshipra , Marathi village Mendki , Dewas	**C**
		124	Kshipra River, Stop Dam, Tumni Village, A. B. Road, Dewas	**B**
		125	Kshipra River, Near Indore Road Bridge, Ujjain	**D**
		126	Kshipra River, Gaughat Ujjain $	**D**
		127	Kshipra River, Siddhawat Ghat, Ujjain $	**D**
		128	Kshipra River, Ramghat, Ujjain $	**D**
		129	Kshipra River, 1 km Down Stream Triveni Sangam, Ujjain $	**D**
		130	Kshipra River, Mangalnath, Ujjain	**D**
		131	Kshipra River, Javra Road Bridge Mahidpur, Ujjain $	**B**
50	**Mandakini River**	**132**	Mandakini River, Place of Origin Sati Anasuiya Chitrakoot	**A**
		133	Mandakini River, Crystal Rock, Chitrakoot	**B**
		134	Mandakini River, Arogya Dham, Chitrakoot	**B**
		135	Mandakini River, Janaki Kund, Chitrakoot	**B**
		136	Mandakini River, Pramod Van, Chitrakoot	**B**
		137	Mandakini River, Goyka Dhat, Chitrakoot	**B**
		138	Mandakini River, Radhav Prayag Dhat, Chitrakoot	**B**
		139	Mandakini River, Janki Dhat, Chitrakoot	**B**
		140	Mandakini River, Ramghat Chitrakoot $	**B**
51	**Maleni**	**141**	Maleni River, Javra Dam, Ratlam $	**A**
		142	Maleni river,After meeting Pipalya Khal Nala, Jaynagar, Ratlam	**B**
52	**Mahi river**	**143**	Mahi River, Ranisingh Village, Ratlam $	**A**
		144	Mahi River, Badnawar Dhar $	**A**
		145	Mahi River, Forest Guest House Rajapur Ratlam$	**A**
53	**Mahanadi**	**146**	Mahanadi, Near Barhi Road Bridge, Katni $	**B**
54	**murna river**	**147**	Murna river, before the radio station, Shahdol	**A**
55	**Mayar River**	**148**	Mayar River, Road Bridge Tusakhand, Singrauli	**A**
56	**Machana River**	**149**	Machana River, Up Stream Betul	**A**
		150	Near Machana River Amravati Road Bridge, Betul	**A**
57	**Maheshwari**	**151**	Indore Near Maheshwari River Maheshwari	**A**
58	**Maan river**	**152**	Indore Near Maan River Manpur	**A**
59	**Narmada river**	**153**	Narmada River, Amarkatank Origin point Anuppur (Ramghat) $	**A**
		154	Narmada River, Pushpkar Dam, Amarkantak, Anuppur$	**A**

		155	Narmada River, Kapildhara Amarkantak, Anuppur $	**A**
		156	Near Narmada River, Chandan Ghat Road Bridge $	**A**
		157	Narmada River, Near Up Stream Intake Well Point, Dindori $	**A**
		158	Narmada River, Near Down Stream Water Supply Road Bridge, Dindori $	**A**
		159	Narmada River, Near Crematorium, Mandla $	**A**
		160	Narmada River, Near Road Bridge, Rafta Ghat, Mandla $	**A**
		161	Narmada River Near Bhairab Temple, Sahastradhara, Mandla $	**A**
		162	Narmada River Road Bridge (Down Stream Bargi Dam, Jabalpur $	**A**
		163	Narmada River, Jamtara, Near Railway Bridge, Jabalpur $	**A**
		164	Narmada River, Near Lalpur Water Supply Intake Point, Jabalpur $	**A**
		165	Narmada River, Tilwaraghat, Jabalpur $	**A**
		166	Narmada River, Panchavati Ghat, before meeting upstream Benganga River, Jabalpur $	**A**
		167	Narmada River, Saraswati Ghat, Down Stream after meeting Benganga River, Jabalpur$	**A**
		168	Narmada River, Near Road Bridge, Jhansighat, Jabalpur $	**A**
		169	Narmada River, NH Near 44 Road Bridge, Barmanghat, Nar	**A**
		170	Narmada river, Barmanghat 100 m. Down Stream Main Ghat, Narsinghpur $	**A**
		171	Narmada River, NH 44 Road Bridge Near Jhikoli Grram, Narsinghpur $	**A**
		172	Narmada River, Sadia Ghat Water Supply Centre, Pipariya$	**B**
		173	Narmada River, Up Stream of Jait Village$	**B**
		174	Narmada River, Down Stream of Jait Village $	**B**
		175	Narmada River, Shahganj Guest House Up Stream, Hoshangabad $	**B**
		176	Jahopur, Bandrabhan$ before Narmada river meets Tawa river upstream	**B**
		177	Narmada River Down Stream Ramnagar, Bandrabhan $ After meeting Taba River	**B**
		178	Narmada River Budni Ghat, Budni $	**B**
		179	Narmada River, Korighat, Hoshangabad $	**B**
		180	Narmada River, 50 m. Sethani Ghat, Hoshangabad$	**B**
		181	Narmada river, 100 m. Downstream SPM After getting the drain, Hoshangabad$	**B**
		182	Narmada River Down Stream of Textile Unit Holipura Village-Budni, Sehore$	**B**
		183	The Narmada River, before meeting the Jamar River, Nemavar$	**A**
		184	Narmada River, Nemavar Water Supply Center Ujjain $	**A**
		185	Narmada River, 500 Down Stream, Jain Temple, Nemavar $	**A**
		186	Narmada River, Hanuvantia (Indira Sagar Reservoir) District-Khandwa	**A**
		187	Narmada River, Narmada-Kshipra Sangam, Ujjain, Indore	**A**
		188	Narmada River, Indore Near Punasa Dam, Khandwa $	**A**
		189	Narmada River, Okareshwar Up Stream, Khandwa $	**A**

		190	Narmada River, Okareshwar Down Stream, Khandwa$	**A**
		191	Narmada River, Near Mortakka Bridge, Barwah, Khargone$	**A**
		192	Narmada River, Dhareshwar, Khargone $	**A**
		193	Narmada River, Up Stream Jaloud Pumping Station, Mandleshwar, Khargone $	**A**
		194	Narmada River, Mandleshwar, Down Stream, Khargone$	**A**
		195	Narmada River, Maheshwar, Khargone $	**A**
		196	Narmada River, Sahastradhara (Jalkoti) $	**A**
		197	Narmada River, Khalghat, Khargone $	**A**
		198	Narmada River, Dharampuri (before getting domestic contaminated water), Dhar$	**A**
		199	Narmada River, Dharampuri (after getting domestic contaminated water), Dhar	**A**
		200	Narmada River, Simalda Upstream, Barwani, Dhar	**A**
		201	Narmada River, Raj Ghat Badwani $	**A**
		202	Narmada River, Koteshwar Dhar $	**A**
		203	Narmada River, Kakrana Interstate Border Alirajpur $	**A**
60	**Neewaj river**	**204**	Neewaj River, Near Water Supply Center, Shujalpur $	**B**
		205	Neewaj river, near water supply center, 100 meters upstream Shujalpur	**A**
		206	Neewaj river, near water supply center, 100 meters downstream Shujalpur	**B**
		207	Neewaj River, Near Down Stream Circuit House, Rajgarh	**A**
		208	Neewaj River, Up Stream Water Supply Centre, Rajgarh $	**A**
61	**Niwar river**	**209**	Niwar River, Near Road Bridge Peerbaba, Katni	**B**
62	**Parwati River**	**210**	Parwati River, Near Water Supply Centre, Sehore	**A**
		211	Parwati River, Near Upstream Water Supply Center, Pilukhedi, Rajgarh $	**A**
		212	100 mt down stream Vindhyachal Nala, Pilukhedi, Rajgarh $	**A**
		213	Parwati River, Neemkhedi, Guna$	**A**
		214	Parwati River, M.P. and Rajasthan Road Bridge, Dharnavada $	**A**
63	**Pench**	**215**	Pench River, Near Sangori Road Bridge, Chhindwara $	**A**
		216	Pench River, Near Karikat Village Chaurai, Chhindwara	**A**
		217	Near Pench River Road Bridge, Hallarkhud	**A**
64	**Pariyat river**	**218**	Pariyat River, Ganiyari Village, Before Joining Hiran River, Jabalpur	**C**
		219	Pariyat River, Near Imalia Road Bridge, Jabalpur	**D**
		220	Pariyat River, near Matamar Village, after meeting Khamaria Nala	**A**
65	**Rihand River**	**221**	Rihand River, Near Road Bridge, Singrauli	**A**
		222	Rihand Dam, Near Bilayari, Singrauli	**A**
66	**Satak River**	**223**	Indore near Satak River, Khargone	**A**
67	**Simrar River**	**224**	Simrar River, Up Stream Acc. Water Supply Centre, Katni $	**B**
		225	Simrar River, Down Stream Behind Saraswati School, Katni	**B**
68	**Sarfa Rive**	**226**	Sarfa River, Near Road Bridge, Shahdol	**A**

69	**Sindh River**	**227**	Sindh River, Near Road Bridge, Dabra, Gwalior $	**A**
		228	Near Sindh River, Water Supply Centre, Gaon-Pagara, Guna	**A**
70	**Sonar river**	**229**	Sonar River, Water Supply Centre, Gadhakota, Sagar	**A**
		230	Sonar River, Near Road Bridge, Poth Rehali, Sagar	**A**
71	**Satna River**	**231**	Near Satna River Old Bridge, Satna	**B**
72	**Sukhhad river**	**232**	Sukhhad River, Alirajpur	**A**
73	**Seevan River**	**233**	Seevan River, Near Up Stream Road Bridge, Sehore	**A**
		234	Seevan River, Near Down Stream Road Bridge, Sehore	**A**
74	**Saraswati river**	**235**	Saraswati River, Mandi Bridge, Indore	**D**
		236	Saraswati River, Bijarpur, Indore	**D**
		237	Saraswati River, Rajiv Gandhi Chowk, Indore	**D**
		238	Saraswati River, Badribagh, Indore	**D**
		239	Saraswati River, Karbala Bridge Indore	**D**
		240	Saraswati River, Chandrabhaga, Juni Indore	**D**
75	**Silgi River**	**241**	Silgi river, Dindori near Kotri village	**A**
76	**Seep river**	**242**	Seep River, Up Stream Sheorpur, Gwalior	**B**
		243	Seep River, 100 mt. down stream , Sheorpur	**B**
77	**Sone river**	**244**	Sone River, Originating place Amarkantak, Anuppur$	**A**
		245	Sone River, Down Stream, OPM Amlai, Anuppur $	**A**
		246	Sone, Bhaturaghat 200 m. Down stream, O.P.M.Amalai$	**A**
		247	SoneRiver, Near Jarwahi Road Bridge, Shahdol $	**A**
		248	Sone River, Near Diyapipar Road Bridge, Shahdol	**A**
		249	Sone River, Near Devlod Bansagar Dam, Shahdol $	**A**
		250	Sone River, Up Stream MPEB Pumping Station, Chachai$	**A**
		251	Sone River, Near Chitwal Village, Road Bridge, Singrauli $	**A**
		252	Sone River, Bhanwarsen, Road Bridge after meeting Banas River, Sidhi $	**A**
		253	SoneRiver, Johda, Gharial, Bidig Center Sidhi	**A**
		254	Sone River, Bansangar Canal, Bangwar Village, Toll Plaza, Sidhi $	**A**
		255	Sone River, Churhat District- Sidhi $	**A**
		256	Sone River, Kherpur Village, Inter State Border $	**A**
78	**Shakkar River**	**257**	Shakkar River, Near Kareli Road Bridge, Gadarwara	**A**
79	**Sher River**	**258**	Sher River, Near Road Bridge, Narsinghpur	**A**
80	**Shivna River**	**259**	Shivna River, Near Pashupatinath Temple, Mandsaur	**C**
		260	Shivna River, Near Water Supply Centre, Ramghat, Mandsaur $	**A**
81	**Sank River**	**261**	Sank River, Tigra Reservoir, Noorabad, Morena $	**A**
82	**Tons River**	**262**	Tons River, PHEB Near Pumping Station, Madhavgarh $	**B**
		263	Tons River, Near Bardhiya Ghat, Madhavgarh, Satna$	**B**
		264	Tons River, Vasaman Mama District Rewa $	**A**
		265	Tons River, Patera Road, Rewa	**A**
		266	Tons River, Java Thunder, District Rewa	**A**

		267	Tons River, Chila Thunder District Rewa	**A**
		268	Tons River, before meeting Chakghat Nala, Rewa	**A**
		269	Tons River, after meeting Chakghat Nala, Rewa	**A**
		270	Tons River, Chakghat Ph.B. Pumping Station Rewa $	**A**
		271	Tons River, M.P.U. P. Interstate border at border $	**A**
83	**Tapti River**	**272**	Tapti River, Near Kheda Amravati Road Bridge, Betul $	**A**
		273	Tapti River, 100m Down Stream After meeting Pandhar Nala, Nepanagar $	**B**
		274	Tapti River, Near Nawatha Pumping Station, Nepanagar $	**A**
		275	Tapti River, Hathnoor, Burhanpur. $	**B**
		276	Tapti River, Pipalghat, Burhanpur.	**B**
84	**Tamiya**	**277**	Tamiya River, Near Sarni Road Bridge, Damua	**A**
85	**Timran**	**278**	Timran River, Harda	**B**
86	**Umrar River**	**279**	Umrar River, Near Up Stream Municipality Pumping Station, Umaria.	**A**
		280	Umrar river, downstream before it meets the drain in the city, Umaria	**A**
87	**Udi bhagini**	**281**	Udi Bhagini River, Indore Near Nisarpur	**A**
88	**Wainganga River**	**282**	Wainganga River, Chhapara, Near Water Supply Centre, Seoni $	**A**
		283	Before meeting Wainganga River, Chhapara Road Bridge, Moti and Chamaria Nala, Seoni $	**A**
		284	Wainganga River, Near Lakhanwara Bathing Ghat, Seoni	**A**
		285	Wainganga River, Near Keolari Irrigation Pumping Station	**A**
		286	Wainganga River, 100 m. Down Stream, Jagpur Ghat, Balaghat $	**A**
		287	Wainganga River, Budana Inter State Boundary, Balaghat $	**A**
Rivers : 88		**Sampling Locations: 287**		

NOTE:- $ -LOCATIONS UNDER NWMP.

SOURCE: MPPCB

DETAILS OF STPS IN 22 POLLUTED RIVERS STRETCHES OF M.P.

S.NO.	POLLUTED RIVER STRETCHES	EFFLUENT GENERATION	EXISTING TREATMENT	PROPOSED/ UNDER CONSTRUCTION STPS	DETAIL OF STPS	STATUS (TILL LAST REVIEW)	PRESENT STATUS	PROGRESS UNTIL OCT 2021
PRIORITY-I								
1	River Khan at Indore from Nimboli tank to Triveni Sangam, Ujjain (72 Km)	Sewerage 350 MLD	3STPs 335 MLD + 6 new STPs 77 MLD Total 412 MLD	-	1.Radha Swami-6 MLD 2.Naharbhandara-11 MLD 3.Zoo - 35 MLD 4.CP Shekhar Nagar (Harsiddhi)- 10 MLD 5. Prateek Setu-8 MLD (under AMRUT) 6. Bizalpur(under AMRUT) -7 MLD	Operational (March 2021) Operational (March 2021) Operational (March 2021) Operational (March 2021) Functional Functional	Operational (March 2021) Operational (March 2021) Operational (March 2021) Operational (March 2021) Functional Functional	1.Sewer Network of 235km completed 2. House Service Connection 1800 completed out of 5000.
2	River Kshipra at Ujjain from Triveni to Siddhvat at Ujjain (10 Km)	Sewerage 90 MLD	01STP 83.0 MLD (Under-National River Conservation Plan)	01STP 92.5 MLD	Salasa Village – 92.50 MLD:	Civil work 80% completed. Expected date of commissioning is June 2022.	Civil work 88% completed. Expected date of commissioning is June 2022.	1.Sewer Network 135 km out of 434 km completed 2. Proposed House Service Connection is 80320, HSC work not started yet.

S.NO.	POLLUTED RIVER STRETCHES	EFFLUENT GENERATION	EXISTING TREATMENT	PROPOSED/ UNDER CONSTRUCTION STPS	DETAIL OF STPS	STATUS (TILL LAST REVIEW)	PRESENT STATUS	PROGRESS UNTIL OCT 2021
3	River Chambal at Nagda from Nagda to Rajgarh (16 Km)	Sewage 8.0 MLD	Nil	-	Bioremediation Plant	Work Complete	Work Complete	-
		Industrial - 11.5 MLD	Grasim Industry Nagda (Effluent Treatment Plant up-gradation required for Zero Liquid Discharge)	-	-	-	ETP upgraded, Practicing Zero Liquid Discharge since September 2021	-
PRIORITY-II								
4	River Betwa from Mandideep to Vidisha (51 Km)			Mandideep				
		Sewage - 2.5 MLD	Nil	-	Bioremediation Plant	90% work completed. Expected date of completion 30th Nov 2021.	94% work completed. Expected date of completion Nov 2021.	-
				Bhopal				
		Sewage - 80 MLD	8 STPs 60.01 MLD	4 STPs (66.50 MLD)	1.Sunkhedi-32 MLD 2. Makshi – 20.50 MLD	Civil work 100%completed. Expected date of completion is Dec 2021. Work in progress. Civil work 70% completed. Expected date of completion Mar 2022.	Operational (Aug 2021) Work in progress. Civil work 80% completed. Expected date of completion Mar 2022.	1.Sewer Network 140 km out of 200 km completed 2. House Service Connection 400 completed out of 55551,

								Work is in Progress
					3 Bansal Hospital- 9.5 MLD. 4.Charimli - 4.5 MLD	Civil work 80% completed. Expected date of completion is 31st March 2022. Civil work 100% completed. Expected date of completion is Dec 2021.	Civil work 95% completed. Expected date of completion is 31st March2022. Operational (Aug 2021)	1.Sewer Network 68 km out of 102 km completed 2. House Service Connection 500 completed out of 25932, Work is in Progress
		Vidisha						
		Sewage 22.25 MLD	1STP 7.2 MLD (Under-National River Conservation Plan)	1 STP 22.25 MLD	5. Haripur Peria Nallah – 22.25 MLD	Operational in May 2021	Operational in May 2021	1.Sewer Network 173 km out of 179 km completed 2. House Service Connection 17170 completed out of 26000, Work is in Progress

S.NO.	POLLUTED RIVER STRETCHES	EFFLUENT GENERATION	EXISTING TREATMENT	PROPOSED/ UNDER CONSTRUCTION STPS	DETAIL OF STPS	STATUS (TILL LAST REVIEW)	PRESENT STATUS	PROGRESS UNTIL OCT 2021
PRIORITY-III								
5	River Sone at Bhatura Ghat at 200 m. Down Stream of OPM (Along Bhatura Ghat)	-	-		River water quality is meeting the desirable levels. No sewage is being discharged in the river. OPM Industry at Amlai has been provided UP and zero discharge from premises is maintained. The industries are being closely monitored for any discharges in the river.		-	-
PRIORITY-IV								
6	River Kaliyasot (Kolar) from Suraj Nagar to Shirdipuram (8 km)	Kolar(Bhopal) Sewage 18 MLD	-	STP 32 MLD &6MLD	1. Sunkhedi- 32 MLD.	Civil work 100% completed. Expected date of completion is 31st July2021.	Operational (Aug 2021)	1.Sewer Network 140 km out of 200 km completed 2.House Service Connection 400 completed out of 55551, Work is in Progress
					2. Neelbad -06 MLD.	Civil work 100% completed. Expected date of completion is 31st July2021.	Operational (Aug 2021)	1.Sewer Network 68 km out of 102 km completed 2. House Service Connection 500 completed out of 25932, Work is in Progress

S.NO.	POLLUTED RIVER STRETCHES	EFFLUENT GENERATION	EXISTING TREATMENT	PROPOSED/ UNDER CONSTRUCTION STPS	DETAIL OF STPS	STATUS (TILL LAST REVIEW)	PRESENT STATUS	PROGRESS UNTIL OCT 2021
7	River Tapti from Nepanagar to Burhanpur (28Km)	Sewage 11 MLD	-	1 STP 21 MLD	Boharda – 21 MLD	Operational March 2021	Operational March 2021	1.Sewer Network 215 km out of 215 km completed. 2. House Service Connection 23520 completed out of 26700
8	River Gohad at Gohad Dam (Along Gohad Dam)	Dam water quality is meeting the desirable levels	-	-	-	-	-	-
PRIORITY-V								
9	River Bichhia at Rewa (Along Rewa)	River water quality is meeting the desirable levels		1 STP 12 MLD & 7 STPs of 25 MLD	-	1 STP 12 MLD complete but not Operational & 7 STPs (3 No's 1 MLD each, 2 no's 6.5 MLD, 1 no 3 MLD & 1 no 6 MLD) under construction, expected date of completion is March 2023. Work completed in one 6.5 MLD is 15% and in another 6.5 MLD is 15%..	Work terminated Retendering in Process	1. Sewer Network 128 km out of 395 km completed. 2. House Service Connection 798 completed out of 42437, Work is in Progress

S.NO.	POLLUTED RIVER STRETCHES	EFFLUENT GENERATION	EXISTING TREATMENT	PROPOSED/ UNDER CONSTRUCTION STPS	DETAIL OF STPS	STATUS (TILL LAST REVIEW)	PRESENT STATUS	PROGRESS UNTIL OCT 2021
10	River Katni at Katni (Along Katni)	River water quality is meeting the desirable levels		3 STPs of 24.5 MLD	-	In two STPs, work progress is 18% in 7.5MLD, 8% in 6 MLD and 8% in 11 MLD. Sewer Network work are in progress. Expected date of completion is Dec 2022.	In two STPs, work progress is 18% in 7.5MLD, 8% in 6 MLD and 8% in 11 MLD. Sewer Network work are in progress. Expected date of completion is Dec 2022.	1. Sewer Network 96 km out of 219 km completed. 2. Proposed House Service Connection is 29000 work not started yet.
11	River Kunda at Khargone (Along Khargone)	River water quality is meeting the desirable levels		1 STP 17.6 MLD	-	Operational in May 2021.	Operational in May 2021.	1. Sewer Network 129 km out of 129 km completed. 2. House Service Connection 7600 completed out of 11349
12	River Maleni at Jaora (Along Jaora)	River water quality is sometimes not meeting the desirable levels		-	-	Survey & DPR under preparation	Survey & DPR under preparation	-

S.NO.	POLLUTED RIVER STRETCHES	EFFLUENT GENERATION	EXISTING TREATMENT	PROPOSED/ UNDER CONSTRUCTION STPS	DETAIL OF STPS	STATUS (TILL LAST REVIEW)	PRESENT STATUS	PROGRESS UNTIL OCT 2021
13	River Mandakini at Ramghat Chitrakut (Along Ramghat)	River water quality is sometimes not meeting the desirable levels		1 STP 4.7 MLD	-	Work in progress under MPUDC, 30% civil work completed Expected date of completion is Mar 2022	Work in progress under MPUDC, 30% civil work completed Expected date of completion is Mar 2022	1.Sewer Network 24 km out of 65 km completed. 2. House Service Connection 350 completed out of 5000
14	River Newaj at Shujalpur (Along Khagone)	River water quality is sometimes not meeting the desirable levels		-	-	Survey & DPR under preparation	Survey & DPR under preparation	-
15	River Sirmar at Katni (Along Katni)	River water quality is meeting the desirable levels		-	-	-	-	-
16	River Tons at Chakghat (Along Chakghat)	River water quality is meeting the desirable levels		-	-	Not required, the dilution in the river is substantial and the town is very small.	-	-

S.NO.	POLLUTED RIVER STRETCHES	EFFLUENT GENERATION	EXISTING TREATMENT	PROPOSED/ UNDER CONSTRUCTION STPS	DETAIL OF STPS	STATUS (TILL LAST REVIEW)	PRESENT STATUS	PROGRESS UNTIL OCT 2021
17	River Wainganga at Chhapara near road Bridge after mixing Moti & Chamaira Nala (Along Chhapra)	River water quality is meeting the desirable levels		-	-	-	-	-
18	Kaliasot at Mandideep (Along Samardha)	-	-		Action plan is included in Betwa River action plan		-	-
19	River Chamla at Badnagar(Along Chamla dam)	-	-		River water quality is meeting the desirable levels & The sewage/industrial effluent is not meeting the river at the designated stretch		-	-
20	River Parvati at Pilukhedi (Along Pilukhedi)	-	-		River water quality is meeting the desirable levels. No sewage is being discharged in the river. Industries at Industrial are Pilukhedi have been provided ETPs and zero discharge from premises is maintained. The industries are being closely monitored for any discharges in the river.		-	-
21	River Chopan at Vijaypur Along Vijaypur)	-	-		River water quality is meeting the desirable levels. No sewage is being discharged in the river. Industries at Vijaypur, Guna have been provided ETPs and zero discharge from premises is maintained The industries are being closely monitored for any discharges in river.		-	-
22	River Kanha at Chhindwada District Boundary (Along Boregaon)	-	-		River water quality is meeting the desirable levels. No sewage is being discharged in the river. Industries at Industrial area Boregaon have been provided ETPs and zero discharge from premises is maintained. The industries are being closely monitored for any discharges in the river.		-	-

SOURCE: Urban Development & Housing Department, GoMP & MPPCB

AIR QUALITY INDEX (AQI) OF DISTRICT HEAD QUARTERS
(Year 2019-20 & 2020-21)

S.No	District	2019-20	2020-21	Status
1	Agar	75.22	63.77	Decrease
2	Alirajpur	87.65	75.03	Decrease
3	Anuppur	93.42	67.09	Decrease
4	Ashoknagar	82.46	70.44	Decrease
5	Balaghat	76.57	82.67	Increase
6	Barwani	107.10	77.05	Decrease
7	Betul	107.61	82.90	Decrease
8	Bhind	114.42	114.14	Decrease
9	Bhopal	118.06	123.29	Increase
10	Burhanpur	127.68	96.17	Decrease
11	Chhatarpur	97.00	82.98	Decrease
12	Chhindwara	89.80	75.00	Decrease
13	Damoh	88.21	97.92	Increase
14	Datiya	102.76	74.89	Decrease
15	Dewas	75.59	72.55	Decrease
16	Dhar	114.18	105.47	Decrease
17	Dindori	87.49	56.10	Decrease
18	Guna	90.57	67.72	Decrease
19	Gwalior	124.95	176.99	Increase
20	Harda	109.68	167.25	Increase
21	Hoshangabad	101.59	142.60	Increase
22	Indore	82.74	87.47	Increase
23	Jabalpur	73.45	88.27	Increase
24	Jhabua	93.36	89.82	Decrease
25	Katni	96.90	118.16	Increase
26	Khandwa	120.62	88.35	Decrease
27	Khargone	128.46	84.17	Decrease
28	Mandla	77.09	70.47	Decrease
29	Mandsore	97.85	61.41	Decrease
30	Morena	90.77	143.03	Increase
31	Narsingpur	65.64	66.55	Decrease
32	Neemach	78.61	75.99	Decrease
33	Niwari	87.33	74.62	Decrease
34	Panna	88.94	70.46	Decrease
35	Raisen	94.19	157.03	Increase
36	Rajgarh	81.89	81.60	Decrease
37	Ratlam	85.34	84.14	Decrease
38	Rewa	111.13	100.88	Decrease
39	Sagar	97.11	85.23	Decrease
40	Satna	123.95	85.92	Decrease
41	Sehore	100.55	102.21	Increase
42	Seoni	73.86	73.67	Decrease
43	Shahdol	93.60	59.63	Decrease
44	Shajapur	79.34	71.81	Decrease
45	Sheopur	84.66	117.76	Increase
46	Shivpuri	83.53	84.04	Increase
47	Sidhi	105.76	86.38	Decrease
48	Singrouli	112.69	159.3	Increase
49	Tikamgarh	86.69	72.91	Decrease
50	Ujjain	87.59	108.10	Increase
51	Umariya	95.22	53.89	Decrease
52	Vidisha	95.84	88.44	Decrease

SOURCE: MPPCB

AQI	Category
401-500	SEVERE
301-400	VERY-POOR
201-300	POOR
101-200	MODERATE
51-100	SATISFACTORY
0-50	GOOD