

# District Environmental Management Plan

**District: Sirohi**

**State: Rajasthan (India)**

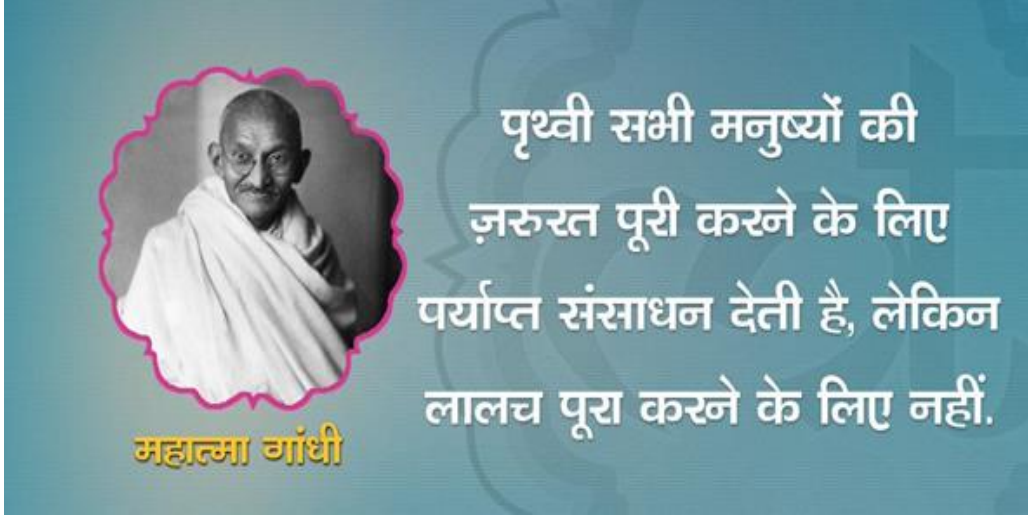
**For the year: 2021-2036-2051**



**Submitted by: Bhagwati Prasad IAS**  
**District Collector Sirohi**

**Prepared By: Dr. Suresh Kumar Singh**  
**Professor**  
**Civil Engineering Department**  
**Faculty of Engineering & Architecture**  
**Jai Narian Vyas University Jodhpur ( Raj)**

**2021**



### **List of Officers & Staff supported the task**

- |                                |   |
|--------------------------------|---|
| 1. Sh. Bhagirath Vishnoi       | CEO Jila Parishad Sirohi                  |
| 2. Sh. Gitesh Maviya           | Ad. District Magistrate ( Dev) Sirohi     |
| 3. Sh. Prakash Chandra Kumawat | Dy. Forest Conservator , Sirohi           |
| 4. Sh. Prakash Chandra         | Executive Engineer, PHED Sirohi           |
| 5. Sh. Rajesh Kumar            | C.M.H.O. Sirohi                           |
| 6. Sh. Kuldeep Dhadich         | R.M., RIICO Sirohi                        |
| 7. Sh. Manji Ram               | DTO, Sirohi                               |
| 8. Sh. Praveen Kumar Agarwal   | Mining Engineer, Sirohi                   |
| 9. Sh. Mahendra Singh          | Commissioner, Nagar Parishad Sirohi       |
| 10. Sh. Ram Kishore            | Commissioner, Nagar Palika Mt Abu         |
| 11. Sh. Neel Kamal             | Executive Officer , Nagar Palika Sheoganj |
| 12. Ms. Deepika Veerwal        | Executive Officer , Nagar Palika Pindwara |
| 13. Sh. Vinod Bansal           | Executive Officer , Nagar Palika Abu Road |

### **Special Cooperation:**

- |                           |  |
|---------------------------|--|
| 1. Sh. Sunil Gupta        | ACF Sirohi   |
| 2. Sh. Ratan Singh Parmar | Assistant Admin Officer (Dev.) Collectorate Sirohi |
| 3. Sh. Navodit Singh      | A.En Nagar Palika Mt Abu                           |

## **Acknowledgement**

To express on paper is indeed a difficult task to acknowledge the contributions of officers and staff of all the concern departments, who have always been ready to support and provided the available data/ information. But I wish to avail this opportunity to express my deep sense of gratitude towards all the persons who have directly or indirectly supported in preparation of DEMP of Sirohi District.

I am grateful to Dr. S.K. Singh, Professor, Civil Engineering, Faculty of Engineering & Architecture (M.B.M. Engineering College), Jai Narain Vyas University Jodhpur for accepting this task and preparing the DEMP of Sirohi District, on the basis of limited available data/ information.

**Bhagwati Prasad IAS**  
**District Collector Sirohi**

## Contents

S.N	Particulars	Page No.
1.	<b>Acknowledgement</b>	3
2.	<b>Contents</b>	4
3.	<b>Preface</b>	5
4.	<b>Chapter-1: Present Scenario of Environmental Attributes</b>	7
	1.1 Introduction 1.2 Objectives of DEMP 1.3 NGT Directions 1.4 Issues to be addressed in DEMP 1.5 Base line Data for EMP	
5	<b>Chapter-2 : Solid Waste Management Plan</b>	40
	2.1 Analysis of present available data & Analysis 2.2 Future Assessment of Solid waste 2.2.1 Municipal Solid Waste 2.2.2 Biomedical Waste 2.2.3 Plastic Waste 2.2.4 E- Waste 2.3 Role & Responsibilities of authorities & Action Plan	
6	<b>Chapter-3 : Waste Water Management Plan</b>	47
	3.1 Analysis of present available data & Analysis 3.2 Future Assessment of Domestic waste water generation 3.3 Future Assessment of industrial waste water generation 3.4 Role & Responsibilities of authorities & Action Plan	
7	<b>Chapter-4 : Air &amp; Noise Quality Management Plan</b>	52
	4.1 Analysis of present available data & Analysis 4.2 Role & Responsibilities of authorities & Action Plan	
8	<b>Chapter-5 : Mining Activities Management Plan</b>	55
9	<b>Chapter-6 : Concluding Remarks</b>	58
10	<b>Annexure: Act &amp; Rules</b>	

## **Preface**

Development in each sector is the need for the economic and social development of the country and all developmental activities contribute pollution in one way or in other way. Hence a Environmental Management Plan is always required to address the environmental issues associated with the developmental activities. Broadly developmental activities can be divided in:

- Industrial Sector
- Agricultural sector
- Infrastructure sector (Residential, Institutional, commercial, transportation etc.)

### **It means:**

District environmental management plan (DEMP) is not a compilation of existing data for various related attributes but truly speaking it is a “Basic Guiding Document for any level (i.e. national level/ state level/ district level/ city level/ village level) for the future social and economic development” and associated environmental issues.

Hence a unique composite plan is needed at District level to cover all issues related to micro level environment management. As this plan deals with environmental conservation planning, pollution mitigation, management of wastes, conservation of natural resources including wetlands and ground water and necessary measures for ecological balance with the “Principles of Sustainable Development”. This plan is also required to restore the ecological balance of all the cities/ districts through smart planning for waste minimization, control of different types of pollution and intense drive for tree plantation.

Hon’ble NGT has given direction to prepare DEMP for each district and CPCB has also issued some guidelines for preparation of DEMP.

Planning always indicates the probable future activity. Hence DEMP must contain present status of various environmental attributes and probable future environmental issues required to be addressed for future planned developmental activities. DEMP of Sirohi District is prepared on the basis of availability of local resources and future scope of development in the district.

*The DEMP is prepared for the year 2036 & 2051 considering 2021 as base year. As developmental activities in any area depends upon the requirement at any time, hence this DEMP is to be updated accordingly after every 5 years.*

# Chapter-1

## Present Scenario of Environmental Attributes



## **1.1 Introduction:**

Sirohi district is situated in the south-west part of Rajasthan between the parallel of 24°20' and 25°17' North Latitude and 72°16' and 73°10' East Longitude. The total area of the district is about 5136 Sq. Km., which is about 1.52 percent of the total area of Rajasthan State. Sirohi is the third smallest district of Rajasthan. Sirohi district lies in the Aravalli range. The granite massif of Mount Abu divides the district into two portions, running from north-east to south-west. The south and south-east part of the district, which lies between Mount Abu and the main spine of the Aravallis, is mountainous and rugged, and is drained by the West Banas River. Abu Road, a station on the main Delhi-Ahmedabad rail line, lies in the valley of the West Banas. The dry deciduous forest is common in this part of the district, and the higher elevations of Mount Abu are covered with conifer forests. Abu Road is the largest town of Sirohi district.

The portion of the district west and north of Mount Abu is drier, lying in the rain shadow of the mountain, which blocks the southwest monsoon. The southwest corner of the district is drained by the Sukri River, an intermittent stream that drains the western slope of Mount Abu. The north-western portion of the district is drained by tributaries of the Luni River. The North-western thorn scrub forests cover the western and northern portion of the district.

As the district lies in Aravalli Range, hence number of natural rivers are flowing in the district, but all these rivers are seasonal rivers and water flows only during the monsoon. The major rivers of Sirohi district are, Jawai, Sukhadi, Khari, Bodi, Krishnavati, Kapalganga, and Banas. Major Dams in the district are, Banas, Oda, Danta, Chandela, Girwar, Niboda, Javal, Karodi Dwaj, and Angor.

The district has total 577 villages and 9 town but 5 ULB. The average population density of the district is about 201 person / km<sup>2</sup>. About 80% population of the district lives in villages and their livelihood depends upon agriculture or activities related to agriculture. Major crops grown in the district includes Millets, Pulses, Sesame, and Red Chillies etc.

The developmental activities being haphazard and un-controlled are leading to overuse, congestion, incompatible land use and poor living conditions. The problems of environmental pollution are becoming complex and are creating high risk environment.

Presently, the environmental degradation aspects are not usually considered while preparing master plans or regional plans and the process is skewed towards developmental needs. For all developmental activities, a crucial input is land and available resources and depending



on the activity a specific land use is decided. The environmentally related land use such as trade and industry, housing construction, mining etc. is likely to have some impact on the environment. These land uses need proper planning and integration as some of the activities have interdependencies such as industry with transport, waste water generation, air pollution, housing etc.

Conservation of Bio-diversity and wetlands are an integral part of environment planning. The rationale for the biological diversity planning is basically to underpins ecosystem functioning and the provision of ecosystem services essential for human well-being. It provides food security, human health, the provision of clean air and water; it contributes to local livelihoods, and economic development, and is essential for the achievement of the Millennium Development Goals, including poverty reduction.

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs hence sustainability defines the models necessary to ensure the survival of the human race and planet Earth. This includes ways to slow or reverse pollution, conserve natural resources and protect our environment.

**Causes of pollution can be listed as:**

- Unplanned Industrial/ Commercial/ Residential Growth
- Use of Outdated Technologies
- Inefficient Waste treatment & Disposal
- Poor implementation of control policies
- Lack of Policies to Control Pollution
- Lack of will power to implement control policies

**Pollution Control Objective:** Minimize the concentration of pollutants to be released in environment within the assimilation capacity of nature. Various actions/ steps to achieve objective are:

- Planning of Industrial / commercial /Institutional/ residential areas as per the local condition.
- Limiting the activities which are enhancing the problem.
- Limiting the types/ number of industries.
- Installation of control devices of appropriate technology

- Process modification
- Floor Management
- Effective implementation of rules & regulations

**Pollution Control Philosophy:**

- Reduction
- Recovery
- Reuse
- Recycling
- Proper O & M of facility

**1.2 Objectives of DEMP:**

Followings are the objectives of District Environmental Management Plan:

- a. To ensure conservation of environment and natural resources at district level.
- b. Restore ecological balance.
- c. To achieve the Sustainable Development Goals and district level targets within the prescribed timeline.
- d. To ensure sustainability at district level following the principles of resource efficiency.
- e. To ensure decentralized micro level planning, execution and monitoring regarding environment conservation.
- f. To incorporate all facets of environmental conservation in micro level planning.
- g. To harness active participation of all stakeholders in planned environment conservation actions.
- h. Assess, Mitigate and monitor adverse impacts of various pollution sources at district level.
- i. Capacity building of stakeholder, department, agencies, organizations and individuals at district level to understand and implement micro level environmental conservation actions.
- j. To harness inter-departmental coordination for implementation of action plans.
- k. To develop local knowledge centers and expertise for developing environmental conservation strategies at district level.
- l. To develop and implement micro monitoring system at district level.

### **1.3 N.G.T. Directions:**

- (a) Hon'ble NGT in last one year has issued several directions in various matters which have been based on status brought out by the CPCB on their website and status reports filed before the Tribunal.
- (b) The directions issued by the Tribunal which are to be executed on pan-India basis.
- (c) Hon'ble National Green Tribunal (NGT) has ordered Pan-India Directions on various issues relating to environment management and these are to be executed by the Central and State Governments and concerned institutions. Further, the Directions are required to be executed at District Level covering all cities, towns and villages.
  - i. The role and responsibilities of enforcement are with District Collectors/Magistrates, Pollution Control Boards, Municipal Bodies, Public Health Engineering Departments and others.
  - ii. The present state level execution and monitoring mechanism on various State and Central Government's Schemes are monitored by Chief Ministers/ Chief Secretaries with DMs/DCs.
  - iii. Various Directions of NGT to be covered in District Environment Management Plan (DEMP).

### **1.4 Issues to be addressed in DEMP ( As applicable for District):**

- (a) **Waste Management**
  - a) Municipal Solid Waste (MSW) including remediation of legacy waste dump sites.
  - b) Plastic waste management
  - c) Bio-medical waste management
  - d) Construction and demolition waste
  - e) Hazardous Waste Management
  - f) E-waste Management
- (b) **Restoration of 351 polluted river stretches and also those which are not presently included in the polluted stretches.**
- (c) Maintaining ambient **air quality in 122 non-attainment cities** and in other non-identified towns where levels of PM<sub>10</sub> and PM<sub>2.5</sub> are exceeding.

- (d) **Industries to comply with Water (Prevention and Control of Pollution) Act, 1974** ensuring proper functioning of common effluent treatment plants (CETPs). Environment Compensation (EC) on “Polluter Pays” Principle is required to be imposed to utilize for restoration of environment.
- (e) Ensure cities, towns and villages provide **proper sewage management facilities** in a time-bound manner or else will be liable to pay EC in case of default and further required to ensure **utilization of treated sewage for non-potable purpose**.
- (f) Regulation of **sand mining** to check illegal sand mining and recover compensation. Proper restoration of exhausted mining sites as per ENV Plan.
- (g) For conservation and protection of water sources, undertake **Rejuvenation of water bodies, conserving ground water** and promote **rain water harvesting**.

## 1.5 Baseline Data for Environmental Management plan

### 1.5.1 Baseline Data for Municipal Solid Waste Management plan

Population Data: Table-A

S.N	Year	District Pop.	Rural Pop.	ULB-1 Sheoganj Pop.	ULB-2 Sirohi Pop.	ULB-3 Pindwara Pop.	ULB-4 AbuRoad Pop.	ULB-5 Mt. Abu Pop.
1	1971	423815	348098	12029	18774	9743	25331	9840
2	1981	542049	445048	16767	23903	12338	31280	12713
3	1991	654029	526447	19866	28117	15185	39802	15593
4	2001	851107	700217	24789	35544	20765	47640	22045
5	2011	1036346	827692	28053	39229	24487	55509	22943
6	2021	1142875	947591	31556	45414	28173	63922	26219
7	2036	1366298	1127440	39153	56700	33702	78170	31133
8	2051	1595350	1307288	48020	70395	39231	94369	36047

**Table- 1: Report on Inventory of Total Municipal Solid Waste Generation**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Urban Area	Rural area	Sirohi District
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	195284	947591	1142875
SW1a	Total Domestic solid waste Generation	MT/Day	13.9	12.5	5.3	21.57	9.7	62.97	78.27	141.24
SW1b	Qty. of Dry Waste segregated	MT/Day	8.40	7.2	3	10.38	5.5	34.48	78.27	112.75
SW1c	Qty. of Wet Waste segregated	MT/Day	5.20	4.8	2	9.23	4	25.23	0	25.23
SW1d	Qty. of C&D Waste segregated	MT/Day	0.30	0.5	0.3	1.96	0.2	3.26	0	3.26
SW1e	Qty. of Street Sweeping	MT/Day	NA	NA	NA	NA	NA	NA	NA	NA
SW1f	Qty. of Drain Silt	MT/Day	NA	NA	NA	NA	NA	NA	NA	NA
SW1g	Qty. of Domestic Hazardous Waste(DHW) collected	MT/Day	NA	NA	NA	NA	NA	NA	NA	NA
SW1h	Qty. of Other Waste (Horticulture, sanitary waste, etc.)	MT/Day	NA	NA	NA	NA	NA	NA	NA	NA
SW1i	No of Old dump sites	Nos or None	None	1	1	1	1	4	0	4
SW1j	Qty stored in dumpsites	MT or Not estimated	0	NA	1088.04	NA	3400	4488.4	NA	4488.4
SW1k	No of Sanitary landfills	Nos or None	0	1	1	1	1	4	0	4
SW1l	No of wards	Nos	35	35	25	40	25	160	NA	NA

**Table- 2: Compliance by Bulk Waste Generators**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Urban Area	Rural area	Sirohi District
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	195284	947591	1142875
SW2a	No of BW Generators	Nos.	Nil	01	0	00	-	1	0	1
SW2b	No of on-site facilities for Wet Waste	Nos.	Nil	0	0	00	0	0	0	0

**Table- 3: Compliance in segregated waste Collection SW Collection**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Urban Area	Rural area	Sirohi District
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	195284	947591	1142875
SW3a	Total Domestic solid waste Generation	MT/Day	13.60	12.0	5.0	19.61	9.5	59.71	78.27	137.98
SW3b	Qty. of Dry Waste segregated	MT/Day	8.40	7.2	3	10.38	5.5	34.48	78.27	112.75
SW3c	Qty. of Wet Waste segregated	MT/Day	5.20	4.8	2	9.23	4	25.23	0	25.23
SW3d	Qty. of C&D Waste segregated	MT/Day	0.30	0.5	0.3	1.96	0.2	3.26	0	3.26

**Table- 4: Solid Waste Management Operations (Process/ system)**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
SW4a	Door to Door Collection	percentage	100	100	100	100	100	NA
SW4b	Mechanical Road Sweeping	percentage	NI	NI	NI	8	20	NA
SW4c	Manual Sweeping	percentage	100	100	100	100	80	NA
SW4d	Segregated Waste Transport	percentage	> 90	40	50	0	50	NA
SW4e	Digesters (Bio-methanation)	Initiated /Not Initiated	NI	NI	NI	1	NI	NA
SW4f	Composting operation	Percentage/ Not Initiated	NI	NI	NI	NI	NI	NA
SW4g	Material Recovery Facility (MRF Operation)		In process	In process	In process	Operative (60 kg/day) capacity	In process	NA
SW4h	Use of Sanitary Landfill	percentage	No SLF ( MSW sent to Sumerpur );90	90	90	90	90	NA
SW4i	Reclamation of old dumpsites	Initiated /Not Initiated	In progress	In process	In process	NA	NA	NA
SW4j	Linkage with Waste to Energy Boilers / Cement Plants	Initiated /Not Initiated	Use of Plastic waste in Cement Plant	Use of Plastic waste in Cement Plant	Use of Plastic waste in Cement Plant	Tender In process	Use of Plastic waste in Cement Plant	NA
SW4k	Linkage with Recyclers	Initiated /Not Initiated	NI	NI	NI	NI	NI	NI
SW4l	Authorization of waste pickers	Initiated /Not Initiated	Initiated	12	NI	NI	14	NI
SW4m	Linkage with TSDF / CBMWTF	Initiated /Not Initiated	NI	NI	10	NI	NI	NI
SW4n	Involvement of NGOs	Initiated /Not Initiated	NI	NI	NI	NI	NI	NI
SW4o	Linkage with Producers / Brand Owners	Initiated /Not Initiated	NI	NI	NI	NI	NI	NI
SW4p	Issuance of ID Cards	Initiated /Not Initiated	Initiated	12	YES	NI	NI	NI



**Table- 5: Solid Waste Management Operations (Equipments/ Facility)**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Urban Area	Rural area	Sirohi District
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	195284	947591	1142875
SW5a	Waste Collection Trolleys	Nos.	9	11	85	100	11	216	NA	216
SW5b	Mini Collection Trucks	Nos.	0	-	6	8	1	15	NA	15
SW5c	Segregated Transport	percentage	Above 90%		100	100	100	>90	NA	NA
SW5d	Bulk Waste Trucks	Nos.	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0
SW5e	Waste Transfer points	Nos.	0	1	1	1	1	4	NA	4
SW5f	Bio-methanation units	Nos. & Capacity	0	0.0	0.0	0.0	0.0			
SW5h	Composting units	Nos.& capacity	0	1.0 of 50 kg capacity		1.0 of 60 kg capacity	1.0 of 500 kg capacity	3	NA	3
SW5i	Material Recovery Facilities	Nos. & capacity	1.0 Constructed at SWM Plant Bharunda	1.0	2	1	1.0	6	NA	6
SW5k	Waste to Energy (if applicable)	Nos.	Construction work is in progress at SWM Plant Bharunda	NA	NA	NA	NA	NA	NA	NA
SW5l	Waste to RDF	Nos.		Tender In process	Tender In process	Tender In process	1.0	1.0	NA	NA
SW5m	Sanitary Land fills	Nos.		0	0	0	0	0	0	0
SW5n	Capacity of sanitary landfills	MT/Day		0	0	0	0	0	0	0
SW5o	Waste Deposit Centers (DHW)	Nos. & capacity		0	0	0	0	0	0	0
SW5p	Other facilities	Nos.			0	0	0	0	0	0

**Table- 6: Notification and Implementation of By-Laws**

S.N.	Attributes	Unit / status	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
SW2a	Notification of By-laws	Nos.	DONE	DONE	DONE	DONE	DONE	NA
SW2b	Implementation of by-laws	Nos.	In progress	DONE	DONE	DONE	DONE	NA

**Table- 7: Adequacy of Financial Status of ULB for MSW Management**

S.N.	Attributes	Unit / status	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
SW7a	CAPEX Required	[INR] / [Not required]	100.00 lacs for Processing plant at dumping yard.	600.00 Lakhs	500. 00 Lakhs	800.00 Lakhs	DPR WORK UNDER PROCESS	NA
SW7b	OPEX	[INR per Year] / [% of requirement]	500 lacs per year for transportation and waste processing	30.00 Lkhs	30. 00 Lkhs	38.00 Lkhs	DPR WORK UNDER PROCESS	NA
SW7c	Adequacy of OPEX	[Yes] / [No]	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>NA</b>

## 1.5.2 Baseline Data for Biomedical Waste Management:

**Table- 8: Inventory of Biomedical Waste Generation**

S.N.	Attributes	Unit / status	RSPCB	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]		31556	45414	28173	63922	26219	947591
BMW1a	Total no. of Bedded Hospitals	Nos	<b>41</b>	Concern to Hospitals	-	-	-	<b>2 (50+84)</b>	
BMW1b	Total no. of non- bedded HCF	Nos	<b>0</b>		-	-	-	-	
BMW1c	Total no. Clinics	Nos	<b>1</b>		-	-	-	<b>3</b>	
BMW1d	No of Veterinary Hospitals	Nos	<b>NA</b>		-	-	-	<b>1</b>	
BMW1e	Pathlabs	Nos	-		-	-	-	<b>1+1+1</b>	
BMW1f	Dental Clinics	Nos	--		-	-	-	<b>1+1</b>	
BMW1g	Blood Banks	Nos	--		-	-	-	-	
BMW1h	Animal Houses	Nos	-		-	-	-	-	
BMW1i	Bio-research Labs	Nos	-		-	-	-	-	
BMW1j	Others	Nos	-		-	-	-	-	

**Table- 9: Inventory of Biomedical Waste Generation**

S.N.	Attributes	Unit / status	RSPCB	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]		31556	44343	28673	59824	24833	978382
BMW2a	Bedded HCFs	[Nos Authorized]	<b>33</b>	Concern to Hospitals	-	-	-	<b>2</b>	
BMW2b	Non-bedded HCFs	[Nos Authorized]	<b>0</b>		-	-	-	<b>3</b>	

**Table- 10: Biomedical Waste Treatment and Disposal Facilities (CBMWTFs)**

S.N.	Attributes	Unit / status	RSPCB	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]		31556	45414	28173	63922	26219	947591
BMW3a	No of CBMWTFs	[Nos] / None	<b>None</b>	Concern to Hospitals	-	-	-	-	
BMW3b	Linkage with CBMWTFs	[Yes] / [no linkage]	<b>YES</b>		-	-	-	-	
BMW3c	Capacity of CBMWTFs	[Adequate] / [Not adequate]	<b>Not Adequate</b>		-	-	-	-	
BMW3d	Requirements of CBMWTFs	[Require] / [not required]	<b>Required</b>		-	-	-	-	
BMW3e	Captive Disposal Facilities of HCFs	[Nos] / [None]	<b>None</b>		-	-	-	-	

**Table- 11: Compliance by CBMWTFs**

S.N.	Attributes	Unit / status	RSPCB	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]		31556	45414	28173	63922	26219	947591
BMW4a	Compliance to standards	[Meeting] / [Not meeting] / [NA]	NA	Concern to Hospital	-	-	-	-	
BMW4b	Barcode tracking by HCFs / CBMWTFs	[100%] / [Partly %] / [None]	None		-	-	-	-	
BMW4c	Daily BMW lifting by CBMWTFs	[Kg / day]	110 kg/ day		-	-	-	-	

**Table- 12: Status of Compliance by Healthcare Facilities**

S.N.	Attributes	Unit / status	RSPCB	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]		31556	45414	28173	63922	26219	947591
BMW5a	Pre-segregation	[100%] / [partly %] / [None]	100 %	Concern to Hospitals	-	-	-	-	
BMW5b	Linkage with CBMWTFs	[100%] / [partly %] / [None]	22%		-	-	-	-	

### 1.5.3 Baseline Data for Noise Pollution Management:

**Table- 13: Availability monitoring equipment**

S.N.	Attributes	Unit / status	RSPCB	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]		31556	45414	28173	63922	26219	947591
NP1a	No. of noise measuring devices with district administration	Nos	<b>0</b>	0	0	<b>0</b>	<b>0</b>	<b>0</b>	0
NP1b	No. of noise measuring devices with SPCBs	Nos	<b>0</b>	0	0	<b>0</b>	<b>0</b>	<b>0</b>	0

**Table- 14: Capability to conduct noise level monitoring by State agency / District authorities**

S.N.	Attributes	Unit / status	RSPCB	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]		31556	44343	28673	59824	24833	978382
NP2a	capability to conduct noise level monitoring by State agency / District authorities	Yes/ No.	<b>Yes</b>	No	No	<b>No</b>	No	No	No
NP2b	No of complaints received on noise pollution in last 1 year	Nos.	<b>0</b>	0	0	<b>0</b>	0	0	0

**Table- 15: Compliance to ambient noise standards**

S.N.	Attributes	Unit / status	RSPCB	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]		31556	45414	28173	63922	26219	947591
NP3a	Implementation of Ambient noise standards in residential and silent zones	[Regular Activity] / [Occasional] / [Never]	<b>Regular</b>	Never	Never	<b>Never</b>	Never	Never	Never
NP3b	Noise monitoring study in district	[carried out] / [not carried out]	<b>NCO</b>	NCO	NCO	NCO	NCO	NCO	NCO
NP3c	Sign boards in towns and cities in silent zones	[Installed] / [Partial] / [Not Installed]	<b>---xxx---</b>	Not Installed	Not Installed	Not Installed	Not Installed	Not Installed	Not Installed

#### 1.5.4 Baseline Data for Plastic Waste Management:

**Table- 16: Inventory of plastic waste generation**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Urban Area	Rural area	Sirohi District
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	195284	947591	1142875
<b>PW1a</b>	Estimated Quantity of plastic waste generated	[MT/day] / [Not Estimated]	0.90	1.1	Not Estimated	1.4	Not Estimated	3.4	Not Estimated	3.4

**Table- 17: Implementation of Collection**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Urban Area	Rural area	Sirohi District
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	195284	947591	1142875
PW2a	Door to Door collection	[100%] / [partial %] / [not initiated]	100%	100%	100%	100%	100%	100%	NA	NA
PW2b	Segregated Waste collection	[100%] / [partial %]	Above 90%	50%	40%	60%	100%	>70 %	NA	NA
PW2c	Plastic waste collection at Material Recovery Facility	[MRF used] / [not installed]	MRF Used	MRF Used	not installed	MRF Used	MRF Used	NA	NA	NA
PW2d	Authorization of PW pickers	[Nos] / [not initiated]	10	14	6	15	14	59	NA	59
PW2e	PW collection Centers	[Nos] / [not established]	At MRF Centre	NI	NI	NI	NI	NI	NA	NA

**Table- 18: Establishment of linkage with Stakeholders**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Urban Area	Rural area	Sirohi District
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	195284	947591	1142875
PW3a	Established linkage with PROs of Producers	[Nos] / [not established]	not established	not established	not established	not established	not established	--xxxxx--	not established	----xxxx--
PW3b	Established linkage with NGOs	[Nos] / [not established]	not established	not established	not established	not established	not established	--xxxxx--	not established	----xxxx--



**Table- 19: Availability of facilities for Recycling or utilization of PW**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Urban Area	Rural area	Sirohi District
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	195284	947591	1142875
PW4a	No. of PW recyclers	[Nos]	0	0	0	0	0	0	0	0
PW4b	No Manufacturers	[Nos]	0	0	0	0	0	0	0	0
PW4c	No of pyrolysis oil plants	[Nos]	0	0	0	0	0	0	0	0
PW4d	Plastic pyrolysis	[Quantity in MT sent per Month]	0	0	0	0	0	0	0	0
PW4e	Use in road making	[Quantity MT used per Month]	0	0	0	0	0	0	0	0
PW4f	Co-processing in Cement Kiln	[Quantity in MT sent per Month]	0	0.6	0	0.7	0.2	1.5	0	1.5

**Table- 20: Implementation of PW Management Rules, 2016**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
W5a	Sealing of units producing < 50-micron plastic	[All sealed] / [Partial] / [no action]	----xx----	----xx----	----xx----	----xx----	----xx----	----xx----
PW5b	Prohibiting sale of carry bags < 50 micron	[Prohibited] / [Partial] / [no action]	Prohibited	Prohibited	Partial	Prohibited	Prohibited	No Action
PW5c	Ban on Carry bags and other single use plastics as notified by State Government	[Implemented] / [Partial] / [no action] / [No Ban]	Implemented	Implemented	Implemented	Implemented	Implemented	No Action

**Table- 21: Implementation of Extended Producers Responsibility (EPR) through Producers/Brand-owners**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Urban Area	Rural area	Sirohi District
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	195284	947591	1142875
PW6a	No of Producers associated with ULBs	[Nos] / [None]	0	0	0	0	0	0	0	0
PW6b	Financial support by Producers / Brand owners to ULBs	[Nos] / [None]	None	None	None	None	None	None	None	None
PW6c	Amount of PRO Support	[Rs...]	0	0	0	0	0	0	0	0
PW6d	Infrastructure support by Producers / Brand owners to ULBs	[Nos of Producers] / [None]	None	None	None	None	None	None	None	None
PW6e	No of collection centers established by Producers / Brand owners to ULBs	[Nos] / [None]	None	None	None	None	None	None	None	None

### 1.5.5 Baseline Data for Water Resources Management:

**Table- 22: Inventory of water resources in District**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
WQ1a	Rivers	Nos.	1	-	2	1	0	
WQ1b	Length of Coastline	meter	2000	-		7000	0	
WQ1c	Nalas/Drains meeting Rivers	Nos.	0	-	4	8	1	
WQ1d	Lakes / Ponds	Nos.	1	-	1	1	2	
WQ1e	Total Quantity of sewage and industrial discharge in District	MLD	0	-	-		NIL	

**Table- 23: Control of Groundwater Water Quality**

S.N.	Attributes	Unit	Abu Road		Pindwara		Reodar		Sheoganj		Sirohi	
			Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
WQ2a	Estimated number of bore-wells	[Nos]	615	2,500	338	3488	-	9,415	283	2,945	257	4,271
WQ2b	No of permissions given for extraction of groundwater	[Nos]	11	4	1	11	0	14	1	5	0	23
WQ2c	Number of groundwater polluted areas	[Nos]	0	0	0	0	0	0	0	0	0	0
WQ2d	Groundwater Availability	[adequate] / [not adequate]	adequate	adequate	adequate	adequate	adequate	adequate	adequate	adequate	adequate	adequate

**Table- 24: Availability of Water Quality Data**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
WQ3a	Creation of monitoring cell	[Yes] / [No]	NO	NO	NO	NO	NO	NO
WQ3b	Access to Surface water and groundwater quality data at DM office	[Available] or [Not available]	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

**Table- 25: Control of River side Activities**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
WQ4a	River Side open defecation	[Fully Controlled] / [Partly controlled] / [no Measures taken]	Fully Controlled	Fully Controlled	Fully Controlled	Fully Controlled	Fully Controlled	Fully Controlled
WQ4b	Dumping of SW on river banks	[Fully Controlled] / [Partly controlled] / [no Measures taken]	Fully Controlled	Fully Controlled	Fully Controlled	Fully Controlled	Fully Controlled	Fully Controlled
WQ4c	Control measures for idol immersion	[Measures taken] / [Measures taken post immersion] / [No Measures taken]	NA	NA	NA	NA	NA	NA

**Table- 26: Control of Water Pollution in Rivers**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
WQ5a	Percentage of untreated sewage	[%] (automatic SM1g/SM1a)	---	-	-	-	-	NA
WQ5b	Monitoring of Action Plans for Rejuvenation of Rivers	[Monitored] / [Not monitored] [not applicable]	---	-	-	-	-	NA
WQ5c	No of directions given to industries for Discharge of Untreated industrial wastewater in last 12 months	[Nos]	---	-	-	-	-	NA

**Table- 27: Awareness Activities**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
WQ6a	District level campaigns on protection of water quality	[Nos in previous year]	0	0	0	0	0	0
WQ6b	Creation of District Oil Spill Crisis Management Group	[Created] / [Not Created]	Not Created	Not Created	Not Created	Not Created	Not Created	Not Created
WQ6c	Preparation District Oil Spill Disaster Contingency Plan	[Prepared] / [Not Prepared]	Not Prepared	Not Prepared	Not Prepared	Not Prepared	Not Prepared	Not Prepared

**Table- 28: Protection of Flood plains**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
WQ7a	Encroachment of flood plains is regulated.	[Yes] / [No]	NO	NO	NO	NO	NO	NO
WQ7b	Area affected	Hectare	0	0	0	0	0	0
WQ7c	Population affected	Nos	0	0	0	0	0	0

**Table- 29: Rainwater Harvesting**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
WQ8a	Action plan for Rain water harvesting	[Implemented] / [Not implemented]	Implemented for Govt Buildings	There is rain water harvesting structures at all government buildings	There is rain water harvesting structures at all government buildings	There is rain water harvesting structures at all government buildings	Not implemented	Not implemented

### 1.5.6 Baseline Data for Air Quality Management:

**Table-30**

No.	Action Areas	Details of Data Requirement	Unit/ Status	RPCB
AQ1	<b>Availability of Air Quality Monitoring Network in District</b>			
AQ1a		Manual Air Quality monitoring stations of SPCBs /CPCB	[Nos] / [None]	
AQ1c		Automatic monitoring stations Operated by SPCBs / CPCB	[Nos] / [None]	
AQ2	<b>Inventory of Air Pollution Sources</b>			
AQ2a		Identification of prominent air polluting sources	[Large Industry] / [Small Industry] / [Unpaved Roads] / [Burning of Waste Stubble] / [Brick Kiln] / [Industrial Estate] / [Others] (Multiple selection)	
AQ2b		No of Non-Attainment Cities	[Nos / [None]	
AQ2c		Action Plans for non-attainment cities	[Prepared] / [Not yet prepared]	
AQ3	<b>Availability of Air Quality Monitoring Data at DMs Office</b>			
AQ3a		Access to air quality data from SPCBs & CPCB through Dashboard	[Available] / [Not yet Available]	
AQ4	<b>Control of Industrial Air Pollution</b>			
AQ4a		No of Industries meeting Standards	[Nos]	
AQ4b		No of Industries not meeting discharge Standards	[Nos]	

No.	Action Areas	Details of Data Requirement	Unit/ Status	RPCB
AQ5	<b>Control of Non-industrial Air Pollution sources</b>			
AQ5a		Control open burning of Stubble –during winter	[Nos of fire incidents]	
AQ5b		Control Open burning of Waste – Nos of actions Taken	[Nos]	
AQ5c		Control of forest fires	[SOP available] / [No SoP]	
AQ5d		Vehicle pollution check centers	[% ULBs covered]	Total 16 Vehicle pollution checking centers
AQ5e		Dust Suppression Vehicles	[% ULBs covered]	NO Any vehicles Registered
AQ6	<b>Development of Air Pollution complaint redressal system</b>			
AQ6a		Mobile App / Online based air pollution complaint redressing system of SPCBs.	[Available] / [Not available]	



### 1.5.7 Baseline Data for Sewage Management:

**Table- 31: Inventory of Sewage Management**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
SM1a	Total Quantity of Sewage generated in District from Class II cities and above	[MLD]	NIL	5MLD+1. 7MLD	0	6.9MLD+2. 3MLD	6 MLD	
SM1b	No of Class-II towns and above	[Nos]	NIL	-	0			
SM1c	No of Class-I towns and above	[Nos]	NIL	-	0			
SM1d	No of Towns needing STPs	[Nos]	1	02	0	02		
SM1e	No of Towns STPs installed	[Nos]	Nil	UNDER CONSTR UCTION	0	UNDER CONSTRU CTION	1	
SM1f	Quantity of treated sewage flowing into Rivers (directly or indirectly)	[MLD]	NA	NIL	0	NIL	NIL	
SM1g	Quantity of untreated or partially treated sewage (directly or indirectly)	[MLD]	NA	-	0	-	-	
SM1h	Quantity of sewage flowing into lakes	[MLD]	NA	-	0	-	-	
SM1i	No of industrial townships	[Nos]	NA	-	0	-	-	

**Table- 32: Adequacy of Available Infrastructure for Sewage Treatment**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
SM2a	% sewage treated in STPs	percentage	NA	100%	Sewerage system not available	100%	-	
SM2b	Total available Treatment Capacity	[MLD]	NIL	6.7MLD	0		6	
SM2c	Additional treatment capacity required	[MLD]	NIL	NIL	0	NIL	-	

**Table- 33: Adequacy of Sewerage Network**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
SM3a	No of ULBs having partial underground sewerage network	[Nos]	NIL	WIP	Sewerage system not available	WIP	1	
SM3b	No of towns not having sewerage network	[Nos]	NIL	WIP	Sewerage system not available	WIP	1	
SM3c	% population covered under sewerage network	[percentage]	NIL	WIP	Sewerage system not available	WIP	-	

### 1.5.8 Baseline Data for E-Waste Management:

**Table- 34: Status of facilitating authorized collection of E-Waste**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
EW1a	Does the citizen are able to deposit or provide E-Waste through Toll-free Numbers in the District	[Yes] / [No]	yes	NO	NO	NO	NO	
EW1c	Collection centers established by ULB in District	[Nos] / [None]	NIL	NONE	NONE	NONE	NONE	
EW1d	Collection centers established by Producers or their PROs in the District	[Nos] / [None]	NIL	NONE	NONE	NONE	NONE	
EW1e	Does the district has linkage with authorized E-Waste recyclers / Dismantler	[Yes] / [No]	NO	NO	NO	NO	NO	
EW1f	No authorized E-Waste recyclers / Dismantler	[Nos] / [None]	NO	NO	NO	NO	NO	

**Table- 35: Status of Collection of E-Waste**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
EW2a	Authorizing E-Waste collectors	[Authorized] / [None]	Authorized	NONE	NONE	NONE	NONE	
EW2b	Involvement of NGOs	[Yes] / [No] / [Nos]	Yes	NO	NO	NO	NO	
EW2c	Does Producers have approached NGOs/ Informal Sector for setting up Collection Centers.	[Yes] / [No] / [Nos]	Yes	NO	NO	NO	NO	
EW2d	Does ULBs have linkage with authorized Recyclers / Dismantlers	[Yes] / [No]	Yes	-	NO	NO	-	

**Table- 36: Control E-Waste related pollution**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
EW4a	Does informal trading, dismantling, and recycling of e-waste exists in District	[Yes] / [No]	No	NA	NO	NO	NA	
EW4b	Does the administration closed illegal E-Waste recycling in the District	[Yes] / [No] / [Nos]	No	NA	NO	NO	NA	
EW4c	No of actions taken to close illegal trading or processing of E-Waste	[Nos]	NA	NA	NA	NA	NA	

**Table- 37: Creation of Awareness on E-Waste handling and disposal**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
EW5a	Does PROs / Producers conducted any District level Awareness Campaigns	[Yes] / [No] / [Nos]	NO	NO	NO	NO	NO	NO
EW5b	Does District Administration conducted any District level Awareness Campaigns	[Yes] / [No] / [Nos]	NO	NO	NO	NO	NO	NO

### 1.5.9 Baseline Data for Construction & Demolition Management:

**Table- 38: Inventory of C&D waste generation**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
CD1a	Estimated Quantity	[Kg/Day] / [Not estimated]	300KG	1200 KG	800KG	1800 KG	200KG	---

**Table- 39: Implement scheme for permitting bulk waste generators**

S. N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount abu
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219
CD2a	Issuance of Permissions by ULBs	[Initiated] / [Not initiated]	Not initiated	Not initiated	Not initiated	Not initiated	Not initiated

**Table- 40: Establishment of C&D Waste Deposition centers**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
CD3a	Establishment of Deposition Points	[Yes] / [No]	Yes	NO	NO	NO	YES	---
CD3b	C&D Deposition point identified	[Yes] / [No]	Yes	NO	NO	NO	YES	----

**Table- 41: Implementation of By-Laws for CD Waste Management**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
CD4a	Implementation of By-laws	[notified] / [not notified]	notified	notified	notified	notified	notified	---
CD4b	Collection of Deposition / disposal Charges	[Initiated] / [Not initiated]	Initiated	Not initiated	Not initiated	Not initiated	Not initiated	---

**Table- 42: Establishment of C&D Waste recycling plant or linkage with such facility**

S.N.	Attributes	Unit	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Aburoad	(ULB5) Mount Abu	Rural area
	Population	[Nos as per 2021 forecasted]	31556	45414	28173	63922	26219	947591
CD5a	Establishment CD Waste Recycling Plant	[Established] / [Sent to shared Facility] / [No facility exists]	Deposit at low-laying area	NOT FACILITY EXISTS	NOT FACILITY EXISTS	NOT FACILITY EXISTS	NOT FACILITY EXISTS	
CD5b	Capacity of CD Waste Recycling Plant	[MT/Day] / [Not available]		NA	Not available	Not available	NA	

# Chapter-2

## Solid Waste Management Plan





## **Analysis of Present Available Data & Interpretation:**

Present information / data available to the various agencies are not sufficient for the exact planning of the solid waste processing and disposal in almost all ULB<sup>s</sup>. Information of solid waste generation in rural area is not available at all. In present day scenario efficient solid waste management is not only required in urban centres but also required in rural areas, roads sides (i.e NH, SHW, MDR & Rural Roads) and along railway tracks. In case of Sirohi District presently total generation of solid waste is about 141.24 MT/ day and out of which urban areas contribution is about 62.97 MT/ day. If it is presumed that in urban areas door to door solid waste collection scheme has been implemented. The data indicates that nearly 55 % solid waste (generation from rural areas) is not collected properly. The main observations are:

- a) Data / information analysis indicates that ULB<sup>s</sup> are not having proper data on C&D waste, street sweeping waste drain silt waste and horticulture waste etc. In fact door to door collection system is implemented in all ULB<sup>s</sup>. District has four **sanitary land fill and all are for urban centres. Not a single SLF** is developed in the district to cater rural area.
- b) Huge quantities are stored in dump sites or exact data is not available.
- c) Various Waste management attributes have been initiated or not initiated.
- d) Some ULB<sup>s</sup> has given authorization to waste pickers. As our country is moving towards to achieve the status of developed country and we all are working hard for the same. **In a developed society authorization to waste pickers is a step against the social justice** hence alternative mode of collection is to be implemented.
- e) Waste transfer station are not sufficient as in ULB (except Sheoganj where no transfer station) only one transfer station is available to cater whole town.
- f) **As far as financial condition of ULB<sup>s</sup> are concern, it is well known fact that all ULB<sup>s</sup> are not capable to meet CAPEX OR OPEX or Both. Hence a reasonable government financial aid is required to meet the expenditure on waste management or an alternate workable financial model is to be applied ( DBOOT Mode, Concession, DBFO etc)**

- g) Presently proper data/ information is not available on Biomedical Waste. Even ULB<sup>s</sup> are not having proper information for total number of private clinics operating in their jurisdiction. As State & Central governments are now focusing on various schemes to provide better health services. Hence in future, quantity of biomedical waste is going to increase. ***Presently in Sirohi district no CBMWTF is available. It is reported that only about 110.0 kg/ day biomedical waste is lifting by the CBMWTF operator of other district. RSPCB has reported that about 100 % biomedical waste is segregated and about for 22 % has linkage with CBMWTF. It indicates prevailing “rules for biomedical waste collection and disposal” are not strictly implemented by the authorities.***
- h) Plastic waste which is a major constituent of solid waste in present day life style. Most of the ULB<sup>s</sup> has quantified it but in almost all the ULB<sup>s</sup> the recycling facilities / alternate reuse facility is not available. Plastic waste management rules have been implemented partially in all the ULB<sup>s</sup>. Total present generation of plastic waste is only 3.4 ton/ day.
- i) Per capita total contribution of domestic solid waste in urban area is about 322 gm/ day in which about 119 gm / day is wet waste and about 177 gm / day is dry waste. Remaining waste belongs to C&D waste or any other waste.
- j) Per capita total contribution of domestic solid waste in rural area is about 82.6 gm/ day and which is dry waste. The wet waste is almost negligible in rural area.
- k) Per capita total contribution of plastic waste is about 17.41 gm/ day in urban area (as per data submitted). It can be misleading as for rural area no data is available.
- l) Bulk waste generator is only one which is in ULB Sirohi.
- m) In all the ULB<sup>s</sup> door to door collection system is working with 100 % efficiency (as per data submitted by ULB<sup>s</sup>). But at the time of visit at various places in city/ urban centres at many places domestic solid waste was found on road sides. Hence proper monitoring is needed.
- n) Complete segregation of waste is not done in any ULB.
- o) Reclamation process of old dumping site has been initiated in most of the ULB<sup>s</sup>.

- p) Linkage with waste to energy process (use in boilers/ cement plants etc) has been initiated in most of the ULB<sup>s</sup>.
- q) All most in all ULB<sup>s</sup>, administration is involving NGOs in solid waste management process.
- r) Bye laws has been notified and implemented.
- s) As per data available the physical resources for efficient collection and transportation of municipal solid waste is not sufficient.
- t) No data is available for industrial solid waste generation and means of disposal.

## 2.1 Future Assessment of Solid waste:

**2.2.1. Municipal Solid Waste:** On the basis of present data/ information available the future solid waste generation are given in in table 2.1

**Table: 2.1: Future Assessment of Municipal Solid waste generation**

S.N.	Type of Waste	Urban Area		Rural Area		Total in Sirohi District	
		2036	2051	2036	2051	2036	2051
1	Dry Waste (ton/ day)	42.28	50.99	93.13	107.98	<b>135.41</b>	<b>158.97</b>
2	Wet Waste (ton/ day)	28.42	34.28	NA	NA	<b>28.42</b>	<b>34.28</b>
3	C&D Waste (ton/ day)	6.21	7.49	NA	NA	<b>6.21</b>	<b>7.49</b>
	<b>Total (ton/ day)</b>	<b>76.91</b>	<b>92.76</b>	<b>93.13</b>	<b>107.98</b>	<b>170.04</b>	<b>200.74</b>
<b>Remarks:</b> Future assessment is based on the per capita present contribution in urban and in rural area. It is well known fact that increase in earning leads to generation of more solid waste and as we are moving towards the developing economy our per capita income will also increase.							

**2.2.2. Biomedical Waste:** Government of India has released “New Health Care Policy” in March 2017 to provide better health facilities and services to the whole population of India. According to WHO norms presently country is not meeting the availability of hospital beds for per 1000 population. As per New health care policy total number of beds required in Sirohi district is given in table 2.2. *Presently in Sirohi district total available beds are 1252, whereas requirement is about 2286 and major short fall is in ICU Beds.* The total biomedical waste generation based on the total hospital bed requirement is given in table 2.3.

**Table: 2.2: Requirement of hospital bed**

S.N.	Items	Urban Area		Rural Area		Total in Sirohi District	
		2036	2051	2036	2051	2036	2051
1	ICU Beds	131	158	620	719	<b>751</b>	<b>877</b>
	Other Hospital Beds	347	418	1635	1896	<b>1982</b>	<b>2314</b>
	<b>Total</b>	<b>478</b>	<b>576</b>	<b>2255</b>	<b>2615</b>	<b>2733</b>	<b>3191</b>

**Remarks:** Total requirements of hospital beds are on the basis New health care policy, 2017 and ICU beds requirements is based on the findings of research papers and use of appropriate model. .

**Table: 2.3: Future Assessment of Biomedical waste generation**

S.N.	Type of Waste	Total in Sirohi District	
		2036	2051
1	Biomedical waste (ton/ day)	<b>4.24</b>	<b>4.95</b>

**Remarks:** Future assessment of biomedical waste generation is made on the basis of generation of biomedical waste per bed (as per published research data/ information and use of appropriate model.)

**2.2.3. Plastic Waste:** Collection, segregation and disposal of plastic waste is a serious concern for all of us. In fact government and local authorities has banned some type of plastic even though plastic waste is going to increase in future also because of use of plastic parts various house hold items, industrial items and vehicles etc. On the basis of present data/ information available the future plastic waste generation is given in in table. 2.4.

**Table: 2.4: Future Assessment of Plastic waste generation**

S.N.	Type of Waste	Urban Area		Rural Area		Total in Sirohi District	
		2036	2051	2036	2051	2036	2051
1	Plastic Waste (ton/ day)	6.02	7.26	5.41	6.28	<b>11.43</b>	<b>13.54</b>

**Remarks:** Future assessment is based on the per capita present contribution in urban and in rural area (assessed by field sampling). It is well known fact that increase in earning leads to generation of more plastic waste.

**2.2.4. E-Waste:** Presently collection and disposal of E-Waste is not the focused area for all of us. In India only about 10 % E-Waste was collected in year 2018-19 and it was about 3.5 % in year 2017-18. Use of electrical vehicles, installation of solar panels, Computers, laptops and mobile phones etc will increase in future and that will lead to generate huge quantity of E-Waste and that has to be handled properly. Presently no data is available on E-Waste with the district authority. On the basis of published data future plastic waste generation is given in table 2.5.

**Table: 2.5: Future Assessment of E- waste generation**

S.N.	Type of Waste	Total in Sirohi District	
		2036	2051
1	E- Waste (ton/ year)	1493	2346
<b>Remarks:</b> Future assessment is based on the per capita present contribution with an appropriate percentage increase per year.			

## 2.2 Role, & Responsibilities of Authorities and Action required

S.N.	Action Points	Responsible Authorities	Strategy and approach & Time frame
1.	Collection, Segregation & Treatment of solid waste (MSW, Plastic waste, Biomedical waste & E-Waste / Hazardous waste etc.)	ULBs / Village Panchayat/ all HCF ( as applicable)	Solid waste to be managed in accordance with the prevailing laws. Land is to be identified and acquired within 2 yrs to meet the 2051 requirement. Facilities is to be developed within 2 yrs to meet present requirement.
2.	Strengthening the capacities of the ULBs/ Village Panchayat	ULBs/ Village Panchayat	All staff to be trained to impart adequate knowledge for proper implementation of sustainable SWM within 2 years. Logistic infrastructure to be made available from the Financial allocation made by the Govt in this regard within 2 yrs.
3.	Notification and Implementation of By- Laws	District Collector	ULBs/ Rural development department will frame bye-laws for the management of waste accordingly within one year.
4.	Awareness	ULBs/ NGOs/ Sarpanch/ Head of educational Institute etc.	Public awareness to be created by various suitable means.
5	Establishment of linkage with Stakeholders	ULBs/ Village Panchayat	List of PROs of producers/NGO to be collected and steps to be taken for initiating linkage as per SWMR-2016 and PWMR-2018, within one year.
6	Implementation of Extended Producers Responsibility (EPR) through Producers/ Brand-owners	District Collector	District administration will identify Producers/Brand-owners and will act in accordance with Govt

			policies/notifications in this regard within one year.
7	Preparation of 'Inventory of Biomedical Waste Generation'	RSPCB and CMHO of district Pali	Data on bio-medical waste generation, treatment & disposal which are to be updated quarterly.
8	Capacity building/training of HCFs	RSPCB and CMHO of district Pali	For proper management of the waste in the healthcare facilities the technical requirements of waste handling are needed to be understood and practiced by each category of the staff in accordance with the BMWM Rules, 2016 within one year.
9	Authorization of HCFs	RSPCB and CMHO of district Pali	Every HCFs and Clinical Establishment will get authorization from RSPCB within one year.
10	Biomedical Waste Treatment and Disposal Facilities (CBMWTFs)	District Collector/ RSPCB	Matter relating to setting up a Common Biomedical Waste Treatment and Disposal Facilities (CBMWTFs) in the district will be taken up with District administration/ Health Deptt/RSPCB within one year.
11	Preparation of 'Inventory of Hazardous Waste and industrial Generators'	RIICO/ DIC/ RSPCB	All hazardous and industrial waste generated and its disposal data is to be uploaded quarterly within one year.
12	TSDF for Industrial and hazardous waste	RSPCB/ RIICO/ Industries association etc	Matter relating to setting up a TSDF in the district will be taken up with District administration/ RIICO/ RSPCB within one year.
13	Monitoring and Review	District Collector	District collector will time to time monitor/review the performance of their respective ULB/ Panchayats on solid waste management and may constitute district level expert committee for advice.

# Chapter-3

## Waste Water Management Plan



### **3.1 Analysis of Present Available Data & Interpretation:**

Sirohi district has 6 major rivers and among all ULB's Abu Road, Pindwara and Sheoganj are situated on the bank of rivers. Four rivers are in rural areas. Similarly total 25 major nala's are in the districts and these nala's are ultimately joins the nearby river or large water stream. All rivers flowing in Sirohi district are seasonal and flowing only in rainy season. Presently rivers flowing in the district are almost free from industrial pollution. The discharge of untreated/ partially treated industrial waste water and domestic sewage into any river/ Nala ultimately degrade the quality of underground water along the river reach. Presently no waste water is discharged into any river. But treated/ untreated waste water is discharged in the Nala's. River sides are fully control from any illegal encroachment. Dumping of solid waste on river sides is fully controlled in the district. Presently only Mount Abu has STP. STP's are under construction in Abu Road and Sirohi. All ULB's are situated either on the bank of any river of nala which joins the rivers hence STP's are required in all ULB's of appropriate capacities.

Underground water quality data is not available with the department. As per the data submitted by the concern department 24112 bore wells are extracting underground water for fulfilling the requirement but only 70 bore well has permission for ground water extraction. It may be possible that bore well used for agriculture purpose are extracting water without permission. In Sirohi district adequate quantity of ground water is available but this does not means that it will be available for forever. Hence judicious extraction of underground water is to be ensured. All natural water resources (surface and underground) has to be protected from pollution for future point of view. The concern departments should make a workable mechanism so that every department can have details of every bore well extracting the underground water and for same for surface water.

At various places Nala's river banks are used for dumping of solid waste. ULB's are making efforts to solve the problem.



### 3.2 Future Assessment of Domestic Waste water generation:

Year	(ULB1) Sheoganj	(ULB2) Sirohi	(ULB3) Pindwara	(ULB4) Abu Road	(ULB5) Mount Abu
2021	3.2 MLD	4.5 MLD	2.8 MLD	6.4 MLD	2.6 MLD
2036	3.9 MLD	5.7 MLD	3.4 MLD	7.8 MLD	3.1 MLD
2051	4.8 MLD	7.1 MLD	3.9 MLD	9.5 MLD	3.6 MLD

It is important here that the capacity requirement of STP's in various ULB's for 2021 and 2036 is only varying by 20 % to 25 % , hence SBR technology can be used in these town to meet present requirement and same STP's will meet the requirement of 2036. As in SBR technology based STP's can handle about 20-25 % variation in flow very efficiently without compromising the treated quality of waste water only by changing the cycle duration and oxygen requirement.

### 3.3 Future Assessment of Industrial Waste water generation:

It is very difficult to assess the industrial waste water generation without knowing the industrial development in the region. Industrial development is not only required for the economic growth of the area but also required to meet the social responsibilities in one way or other. Agriculture is the main income source of rural population and which is not sufficient to meet the present need. Hence in the district following step is required for economic growth:

- a. **Identification of type of industries to be established in the district:** In the In Sirohi district still sufficient scope is available to establishing below giving industries with the condition of zero liquid discharge:
  - (i) E- Waste processing Industries
  - (ii) Spinning & weaving industries based on solar power.
  - (iii) Argo industries
  - (iv) Tiles industries etc.
- b. **Establishment of Micro/ Mini Industrial areas or cottage industries:**  
Looking to the various environmental issues, reducing load on urban centre,

reducing travel distances, overall development of district and providing employment opportunities to rural population at door step etc. It is the need of present and future to identified the areas where **Micro/ Mini Industrial / cottage industries (industrial unit about 25/ 50/100)** can be developed with all facilities.

### 3.4 Role, & Responsibilities of Authorities and Action required:

S.N.	Action Points	Responsible Authorities	Strategy and approach & Time frame
1	Inventory of Surface water resources in District	Water Resources Department.	Inventory of water resources in District covering Rivers and other natural water bodies, Nalas/ Drains meeting Rivers Lakes / Ponds, etc which is to be completed within one year.
2	Collection of Water Quality Data	PHED	A monitoring cell with representatives from PHE, WR, and UWS etc will be constituted. The cell will updated action will be taken accordingly.
3	Inventory of Groundwater Water extraction and Quality mapping	Ground water department	Ground water quality mapping is to be done within one year. No of tube wells/ bore wells/ open wells and their use, data of district is to be collected within one year.
4	Control of River side Activities	Dist. Admin / ULBs	River side activities like River Side open defecation, Dumping of SW on river banks, Idol immersion etc. to be controlled and if there is any dumping site is to be removed within one year.
5	Awareness Activities	ULB <sup>s</sup> / Village Panchayat	District level campaigns on protection of water quality and Control of Water Pollution in Rivers.
6	Protection of Flood plains	Dist. Admin/ water resources department	Encroachment of flood plains to be regulated.
7	Rainwater Harvesting	ULB <sup>s</sup> / Village Panchayat	Rain water harvesting is to be implemented in accordance with the Govt policy.
8	Repair and treatment of water bodies/Talab	Dist. Admin/ ULB <sup>s</sup> / Village Panchayat/ water resources department	All natural water bodies is to be rejuvenate / restored in a time frame manner.
9	Inventory of Sewage Management	ULB <sup>s</sup> / Village Panchayat	All ULB <sup>s</sup> / Village Panchayat must do the mapping of sewage generation and disposal system within one year

10	Adequacy of Available Infrastructure for Sewage Treatment	ULB <sup>s</sup> / Village Panchayat	All ULB <sup>s</sup> / Village Panchayat must find out the treatment facility required and available within one year and make a plan for better wastes water management.
11	Inventory of Industrial waste water Management	RSPCB/ RIICO/ District admin.	Mapping of generation of industrial waster in the district, disposal mode, reuse option etc is to be done within one year.
12	Monitoring and Review	District Collector	District collector will time to time monitor/review the performance of their respective ULB/ Panchayats/ RSPCB/ RIICO / PHED/ WRD/ GWD on the respective issues related to concern department and may constitute district level expert committee for advise.

# Chapter-4

## Air & Noise Quality Management Plan



#### **4.1 Analysis of Present Available Data & Interpretation:**

Air and noise pollution is the most neglected areas in pollution control because its effects are chronic and there is no danger of immediate life threatening. Hence neither public nor concern authorities are taking seriously. Delhi air pollution problem is the result of not considering air pollution / noise pollution as a major concern.

In the district only RSPCB has noise and air pollution measuring device. At least every ULB<sup>s</sup> must have noise and air pollution (for some basic pollutants) measuring device or at least one online measuring device with public display board ( installed at most polluted area) is to be installed.

Sirohi District is situated in the South-western part of Rajasthan where generally atmosphere is unstable, with high wind velocity and till date no inversion condition of atmosphere is noticed (as per available records). Hence in rural area air pollution and noise pollution is not of much concern but is to be monitored. In urban areas air/ noise pollution is because of traffic, domestic activities and some industrial activities. Ground level air pollution in urban areas is because of transportation activities, and non- availability of space for dispersion due to less road width and more height of buildings. Hence building bye laws to be updated in relation to air pollution. Minimum height of chimney, maximum discharge and type of pollutants and control devices in industries are to be govern by strict norms. It is required because once air pollutant is discharged on atmosphere it is beyond the control. Control is effectively possible either at source or receptor. Mount Abu is a ULB which is situated at very high altitude (top of Aravalli hill) and area is declared as reserve forest sanctuary and this includes Taleti, Mount Abu and Anadra range. Hence Noise and air pollution is to be checked in this region. Similarly presence of Aravalli hills acts as a barrier for wind from west. Hence in the west side of Aravalli hills air polluting industries should not be permitted, which can lead to high ground level concentration of pollutant because of topographical effects. The villagers living in this areas may face air pollution problem in long run, if air polluting industries are permitted. The reserve sanctuary and adjoin area should be considered as eco sensitive area. Type of industries is to be established / permitted in this region should not be water polluting, air polluting and noise polluting.

## 4.2 Role, & Responsibilities of Authorities and Action required:

S.N.	Action Points	Responsible Authorities	Strategy and approach & Time frame
1	Inventory of air polluting industries in District	RSPCB/ RIICO	Inventory of all air polluting industries is to be mapped along with type of pollutant releasing, discharge, concentration and details of control device within one year.
2	Identification of hot spot	RSPCB/District Admin	Hot spot in relation to air and noise pollution is to be identified within one year and plan is to be made to keep AQI as per norms.
3	Awareness Activities	RSPCB/ RIICO/ District Admin/ educational institute	District level campaigns on effect of air pollution and noise pollution continuously.
4	Installation of online measuring device Management	RSPCB/ District admin/ULB <sup>s</sup>	Online measuring system with public display board is to be installed within one year at least at one place in every ULB.
5	Traffic Movement plan	District admin/ULB <sup>s</sup>	City Traffic movement plan is to be prepared considering air pollution with public acceptability within one year. Bye -pass is to be constructed for movement of heavy vehicles.
6	Noise pollution Monitoring	RSPCB/District Admin	Mapping of City / town noise level is to be prepared within one year and silence zone norms is to be implemented strictly. High pressure horns to be banned in vehicles.
7	Monitoring and Review	District Collector	District collector will time to time monitor/review the performance of their respective ULB/ Panchayats/ RSPCB/ RIICO / PHED/ WRD/ GWD on the respective issues related to concern department and may constitute district level expert committee for advise.

# Chapter-5

## Mining Activities Management Plan



## 5.1 Analysis of Present Available Data & Interpretation:

Presently all mining activities are controlled by mining department Government of Rajasthan. Every mine has to take prior environmental clearance (as required by existing acts/ laws) before start of mine. Sirohi district has very good mineral deposits and mining of these resources along with production of finished product can raise the economic status of district. In fact all mines submit their mine environmental management plan to RSPCB/ Mining department, but most of the mines are not exactly following the said plan. Hence strict supervision is needed in this matter. Sirohi district has number of seasonal rivers with availability of good quality of sand hence illegal mining of sand may be possible, but no data was shared by the concern departments. To prevent illegal mining is not only the solution but quantity of legal sand mining in each river for a specific reach is to be assessed to maintain the river ecology. Some details of mining related information are given in table-5.1

**Table: 5.1 mining related information**

S.N.	Items	Details/ remarks
1	Type of mining Activity	Granite, Mansonary stone, lime Stone, feldspar, Quartz, Calcite, wollastonite, marble, Bajri, lead, zinc and copper
2	No of mining licenses given in The district	375
3	Area covered under mining	19.79 sq km
4	Area of District	5136 sq km
5	Sand mining permitted	Yes
6	Area of sand mining	6.06(Non-reiver deposit) and river bed
7	No of mining areas meeting Environmental clearance conditions	207



## 5.2 Role, & Responsibilities of Authorities and Action required:

S.N.	Action Points	Responsible Authorities	Strategy and approach & Time frame
1	Inventory of sand Mining areas/ rivers in District	RSPCB/WRD/ District Admin	Inventory of all rivers is to be mapped along with availability of sand within one year.
2	Identification of hot spot	RSPCB/District Admin	Hot spot in relation to excessive mining of sand within one year and plan to restore river ecology.
3	Inventory of all Mines in District	RSPCB/Mining Department/ District Admin	Inventory of all Mines is to be mapped along with availability / type of material / Non-confirming MEP etc, within one year. It will help in planning the industrial areas in the district to use the mineral resources of district.
4	Monitoring and Review	District Collector	District collector will time to time monitor/review the performance of their respective ULB/ Panchayats/ RSPCB/ RIICO / PHED/ WRD/ GWD on the respective issues related to concern department and may constitute district level expert committee for advise.

# Chapter-6

## Concluding Remarks



**Clean air and clean water are my right  
No one has right to pollute these natural gifts.**

**Dr. S.K. Singh**

District environmental management plan (DEMP) is not a compilation of existing data for various related attributes but truly speaking it is a “Basic Guiding Document for any level (i.e. national level/ state level/ district level/ city level/ village level) for the future social and economic development” and associated environmental issues.

Hence a unique composite plan is needed at District level to cover all issues related to micro level environment management. As this plan deals with environmental conservation planning, pollution mitigation, management of wastes, conservation of natural resources and necessary measures for ecological balance with the “Principles of Sustainable Development”.

An effort is made to assess the future pollutants generation for year 2036 and year 2051, with limited data/ information. Presently insufficient data is available for exact assessment even then by using various models/ techniques/ research data available assessment has been made.

To manage the district developmental activities in relation to our environment for today and for future, we have to plan future infrastructure requirement today itself.

Hence for Sirohi district following steps is to be taken:

1. Allotment of land for “Integrated Solid Waste Management Site”: This project is to be analysed on technical feasibility, economic viability and social acceptability and for Sirohi district, efficient scientific separate management of Plastic waste, biomedical waste, municipal waste, E-waste & hazardous etc will not be economical viable for any operator. Hence district is to be divided into some parts and some “Integrated Solid Waste Management Site” is to be established looking to the future requirement.
2. Demarcation of Industrial areas: RIICO/ Industry department must identify the areas where mini/ micro industrial areas can be developed which can use local resources.
3. Mapping of all natural surface water resources and plan for restoration.
4. Mapping of all underground bore wells/ tube wells with the quality of water.
5. Preparation of city traffic plan.
6. Allotment / demarcation of STP Land.
7. Preparation of river ecology restoration plan in relation to sand mining.
8. Mapping of mineral resources of district.

Availability of true data/ information are the basic of future modelling hence all concern department must have proper data bank and this plan may be updated after every five years to maintain the sustainable environment of district.

**Dr. S. K. Singh**  
Professor  
Civil Engineering Department  
Faculty of Engineering & Architecture  
Jai Narian Vyas University Jodhpur ( Raj)

**Bhagwati Prasad IAS**  
**District Collector Sirohi**