DISTRICT ENVIRONMENT PLAN
for
Jaisalmer District

Submitted by:
District Collector and District Magistrate
Jaisalmer

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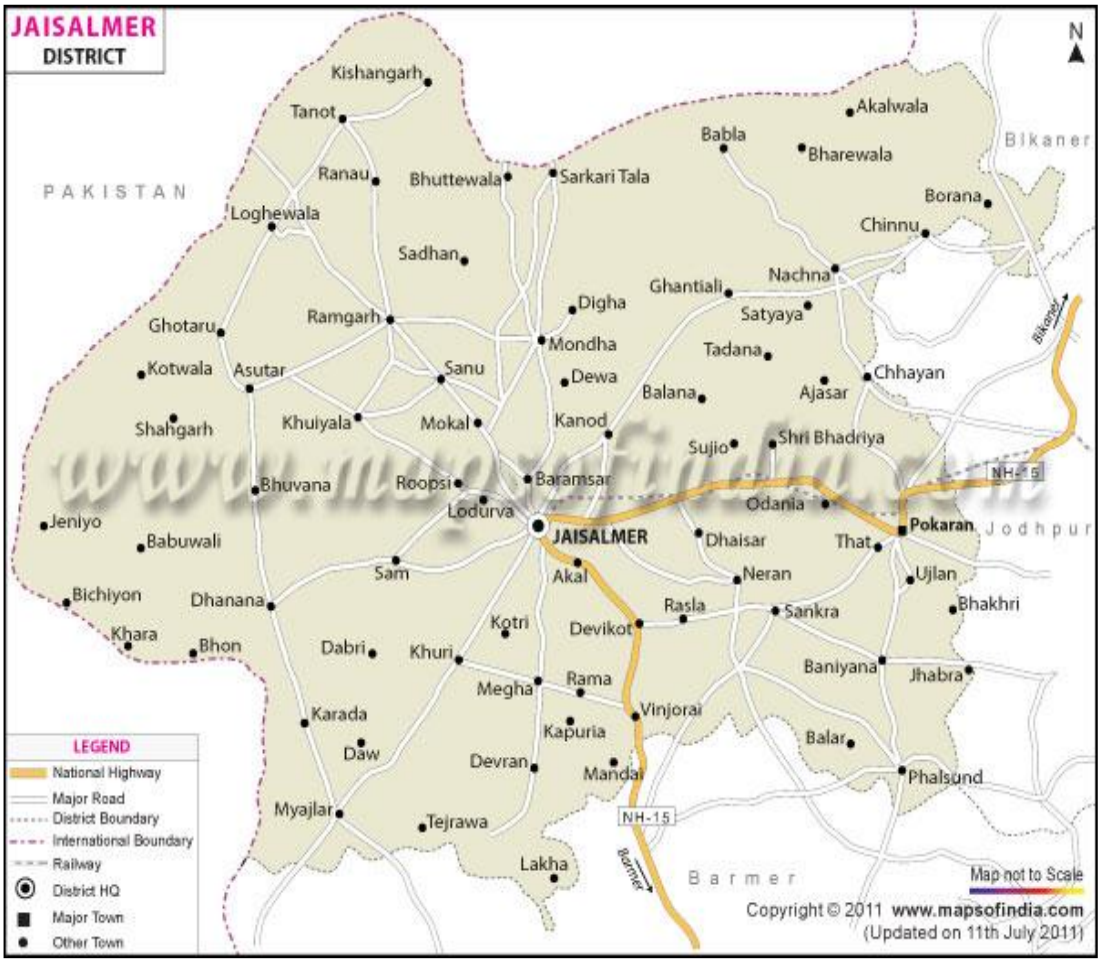
ABOUT THE DISTRICT

Jaisalmer is a city in the Rajasthan province of India. Jaisalmer was established in the Thar desert in the far west of India by Rawal-Jaisal, a descendant of Yaduvanshi Bhati, around the beginning of the medieval period of Indian history. The descendants of Rawal Jaisal ruled here for 60 years without breaking the lineage until the change in the Republic of India, which is an important event in itself. The District of Jaisalmer has witnessed and endured many periods of India's history. Passing through the history of the Sultanate period of about 300 years, this District was able to maintain its existence for almost 300 years even in the Mughal Empire. Even after the establishment of English State in India, till the end, this District kept its dynastic pride and importance as it was. After the Independence of India, it merged into the Indian Republic. At the time of the merger in the Indian Republic, its geographical area was spread over a vast land area of 16,062 square miles. Due to the uneven conditions of the desert, the population here was only 7,255 at the beginning of the twentieth century. The land area of Jaisalmer district was famous as 'Maddhara' or 'Vallabhamandal' in ancient times. After the war of Mahabharata, a large number of Yadavs moved towards this place and settled here. There are many beautiful havelis and groups of Jain temples, which were built between the 12th to 15th century.



Topography :

Jaisalmer District, a part of the Great Indian Thar Desert, is sandy, dry and scorched. The terrain around, within a radius of about 60 kms is stony and rocky. The area is barren, undulating with its famous sand dunes and slopes towards the Indus valley and the Runn of Kutch. The soil here is grateful even to a little rain and turns lush green during mansoon. There is no perennial river in the district. The underground water level is very low. Geographically this district is spread over in 38,401 sq. kms which is one of the largest district and almost equal to the state of Kerala. The general shape of the district is of an irregular polygon of seven sides, the longest axix beiong 337.96 Kms or 210 miles in length. There are no plateaus in the district because the land is a desert. The area is a sandy plain with few rocky patches and many sand dunes. The district lies in the west of Rajasthan. It is sandy, dry and ill watered, unkind to all forms of life, animal and plant. The ridges usually are parallel to the prevailing direction of the wind No other part of Rajasthan is as lifeless and forbidding in appearance. The blown sand forms into shifting sand-dunes. The little

stationary sand hills in the west are covered with the Phog (Colligonum Playgonoides) bushes and those in the east with tufts of long grass. The largest trees are found in Ramgarh and some sub-tehsils. Most of it appears to be stable mountains. The land adjacent to Dedha and about half of the Pokhran tehsil is barren stone. 61 to 107 m in Pokhran tehsil, there are hills of high altitude which are covered with Khejri and Sacks.

Location & Geographical Area :

District Jaisalmer is located within a rectangle lying between 26°.4’ –28°.23' North parallel and 69°.20'-72°.42' east meridians. It is the largest district of Rajasthan and one of the largest in the country, having an area of 38,401 Sq. Kms. The breath (East-West) of the district is 270 Kms and the length (North-South) is 186 Kms. On the present map, district Jaisalmer is bounded on the north by Bikaner, on the west & south-west by Indian border, on the south by Barmer and Jodhpur, and on the east by Jodhpur and Bikaner Districts. The length of international border attached to District Jaisalmer is 471 Kms.

Climate :

The Jaisalmer region has a climate of high temperature, severe drought with strong southwesterly winds. The relative humidity is low, high evaporation rate and very little rainfall, due to which the vegetation cover in this region is very low. Autumn is very cold here. In winter, the mercury reaches the freezing point. Strong hot winds (loo) move in summer. The maximum temperature ranges from 39° C to 49° C in summer, while, the minimum temperature varies from 2°C to 10°C in winter. The main reason behind the lack of rains in this region is that, the impulse for the southwest monsoon, which comes from the Arabian Sea and the southeast monsoon that rises from the Bay of Bengal, is very low. Although there has been a cloud burst in the past years, but due to the heterogeneous climate, there has not been much increase in the growth of vegetative cover. Rainfall in this region is very less and its distribution is also very uneven. Average annual rainfall here is 164 mm. During summer, walking blind is a common practice. The velocity of these winds reaches 60–90 km per hour.

Climate data for Jaisalmer (1981–2010, Extremes 1948–2012)													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Record high °C (°F)	35.8 (96.4)	37.8 (100.0)	42.3 (108.1)	45.8 (114.4)	48.0 (118.4)	49.2 (120.6)	47.0 (116.6)	43.3 (109.9)	43.3 (109.9)	42.2 (108.0)	38.8 (101.8)	34.4 (93.9)	49.2 (120.6)
Average high °C (°F)	23.8 (74.8)	27.3 (81.1)	33.3 (91.9)	39.1 (102.4)	41.9 (107.4)	40.9 (105.6)	38.1 (100.6)	36.6 (97.9)	37.1 (98.8)	36.5 (97.7)	31.3 (88.3)	25.4 (77.7)	34.3 (93.7)
Average low °C (°F)	9.1 (48.4)	12.4 (54.3)	18.1 (64.6)	23.5 (74.3)	26.4 (79.5)	27.6 (81.7)	27.0 (80.6)	25.9 (78.6)	25.0 (77.0)	21.8 (71.2)	15.9 (60.6)	10.5 (50.9)	20.3 (68.5)
Record low °C (°F)	−5.9 (21.4)	−4.4 (24.1)	3.4 (38.1)	10.6 (51.1)	15.1 (59.2)	17.2 (63.0)	20.1 (68.2)	19.1 (66.4)	12.9 (55.2)	8.3 (46.9)	2.0 (35.6)	−0.6 (30.9)	−5.9 (21.4)
Average rainfall mm (inches)	1.3 (0.05)	5.2 (0.20)	3.3 (0.13)	7.2 (0.28)	7.2 (0.28)	21.0 (0.83)	59.2 (2.33)	72.2 (2.84)	19.3 (0.76)	3.0 (0.12)	0.7 (0.03)	2.1 (0.08)	201.6 (7.94)
Average rainy days	0.2	0.6	0.4	0.5	0.6	1.2	3.3	3.2	1.4	0.3	0.1	0.2	12.0
Average relative humidity (%) (at 17:30 IST)	31	26	22	19	21	29	45	50	39	26	27	31	

Demography :

According to the 2011 census, Jaisalmer district has a population of 6,69,919 of which male and female are 3,61,708 and 3,08,211, respectively. The district has a population density of 17 inhabitants per square kilometer. Its population growth rate over the decade 2001-2011 was 32.22%. Jaisalmer has a sex ratio of 849 females for every 1000 males, and a literacy rate of 58.04%. At the time of the 2011 Census of India, 95.09% of the population in the district spoke Hindi, 2.56% Sindhi, 1.02% Urdu and 0.40% Punjabi as their first language.

Description	2011	2001
Population	6.70 Lakhs	5.08 Lakhs
Actual Population	669,919	508,247
Male	361,708	279,101
Female	308,211	229,146
Population Growth	31.81%	24.39%

Economy :

The business and economy of Jaisalmer, the Golden City of Rajasthan, is mostly dependent on the travel and tourism industry of the place.

During 1955-56, the Indian Government started divisional geographic expedition for petroleum in the Jaisalmer district. A voluminous source of Natural Gas was found by Oil India Limited in the Jaisalmer plateau in 1988. The culture of the city largely contributes to the tourism industry of it. The city is home to some of the popular singers and dancers who visited various countries in the world. Singers from Manganyar have charmed the world. Queen Harish, one of the famous performers of the State, was on a world trip in 2010 and has performed in many foreign movies. The city is famous for its leather industry. The messenger bags made of wild camel leather are quite popular. These camels are indigenous creatures of the territory. Jaisalmer business and economy relies on the industries and businesses of the district to a significant degree. Currently, the major industries in Jaisalmer district are: Stone-cutting and sculpturing, travel and tourism, Mineral-oriented industry, Khadi industry, etc.

- **Tourism Industry :-** Tourism industry of Jaisalmer is one of the booming sectors of the city. The natural beauty of the city set amidst the desert lures international and national tourists to visit it. The city earns foreign exchange from the huge number of international tourists who flock the city every year. The government of the Rajasthan State has provided with adequate infrastructure to support tourism industry. Accommodation facilities are available in various hotels established in

the city. The city is also well connected with roads, railways and air to the major cities of the country. The scenic beauty of the city lures tourists to visit it. The industry of tourism in Jaisalmer has emerged as one of the most profiting industries of the region.

- **Mining :-** There are plenty of opportunities for mining-oriented sectors in the Jaisalmer district. It is expected that big cement manufacturing factories and mining-oriented sectors would flourish in the area quite promptly. The district is substantially rich in mineral deposits and a range of valuable minerals are available in the area, which includes : Gypsum, Marble, Sandstone, Yellow marble, Dolomite, Granite, Siliceous rock, Rock phosphate, Bentonite, Jasper, Masonry stone, etc. The limestone region is the most significant region of this district and it is full of high quality limestone at the upper layer and cement grade limestone at the bottom portion. Currently, the Rajasthan State Mineral Development Corporation (RSMDC) and Rajasthan State Mines and Minerals Limited (RSMM) are making use of limestones at Sanu, which is closely located to Ramgarh.
- **Minerals :-** The District is very rich in minerals and has an important placeas regard to availability of mineral resources. The minerals like yellowmarble, gypsum, Lime stone, siliceous earth, sandstone, Rockphosphate, dolomite etc. are found in good quality. The huge deposits of natural gas and oil are also available in district. A few data available on major mineral deposits in the district are as given under :-

Mineral	Reserves (in Million Tones)	Area
Gypsum	12.4	Mohangarh, Phalsoond, Chandhan, Nokh, Chinu,Nachana, Sundra, Lakha, Madasar, Rohida ki talai (Nachana), Hariar.
Rock Phosphate	4.4	Fatehgarh, Birmania
Bentonite	1 to 2	
Siliceous earth	1.2	Dharvi, Khurd, Mandai, Sajit Naimba, Kapuria, Binyasar
Glass Sand	14.4	Lathi, Devikot, Pokran, Chacha, Pokran, Ramdeora, Phalsoond, Dantal, Phoolsager, Tulsi ram ki dhani, mandha
Jaspar	No estimate	Odania

Volcanic ash	No estimate	Phalsoond, Dantal, Phoolshar, Swami ji ki dhani
Yellow marble limestone flooring	No estimate	Mool sagar, amarsagar, choondhi, manpiya, sipla, Jethwai, Hadda.

- **Working Force and Occupational Pattern.** The total working force in Jaisalmer district is 1,27,471 which constitutes 25.08 percent of the total population. Amajority of the working force is cultivators sand agricultural labourers. They constitute about 64 percent of the total working force; only 3 per cent of the working force is engaged in household industry and construction activities.

Working Force and Occupational Pattern in the district.

S. No.	Occupation	No. of Persons	Percentage
1	Cultivators	45527	61.00
2	Agricultural Labourers	2598	3.00
3	Household Industry Servicing and	2251	3.00
4	Other Workers	24160	33.00

- **Agricultures :-** Jaisalmer district forms part of what is known as the Thar section of the western plains of Rajasthan. The district is almostan arid sandy plain intersected with ranges of sand hills, presenting a sight of desolate barrenness with patches of wild vegetation. The soil is generally higher and sandy and is quite fertile when watered fairly. In the north-east around Bap and Bikaner border and in some places adjacent to Jaisalmer town, the soil is firmer and water can be stored without much seepage. In the absence of any regular system of irrigation, the scanty and erratic rainfall provides the only source of water for a few rain crops grown in the north-eastern part. This has forced the people of the area to resort raining only inferior crops. Another factor for preference for inferior crops like Jowar is their high fodder content, which is essential for the large cattle population in the area. In the north-west, in parts of Tanot, Kishangarh, Barawa - Builiand the west in Shahgarh - Ghatoru, there is practically no rain. Crop failures due to elusive rains are most common andcattle breed king provides an alternative source of subsistence for most cultivators, though few. Under such

conditions of the district, unlike 13 all other districts of Rajasthan and most parts of the country, agriculture is not the predominant occupation of the people.

Area and Production of Major Crops

(area in hectares and production in M.T.)

S. No.	Crops	Production	Area
1	Bajra	1656	181143
2	Jowar	252.30	2877
3	Moong	1291	4609
4	Wheat	3833.20	5347
5	Gram	61660.40	9402
6	Taramira Mustard	56759.30	30090
7	Guar	63069.60	356411
8	Bariay	0.75	16
9	Groundnut	1605	3311
10	Esabgol	156.88	8798
11	Cumin	262.53	12798

INTRODUCTION :

In the process of development, the issues confronting today, are achieving desired development for economic or social reasons on one hand and safeguarding the environment and maintaining good quality of life on the other. The developmental activities being haphazard and uncontrolled are leading to congestion, incompatible land use and poor living conditions. The problems of environmental pollution are becoming complex and are creating high environmental risk.

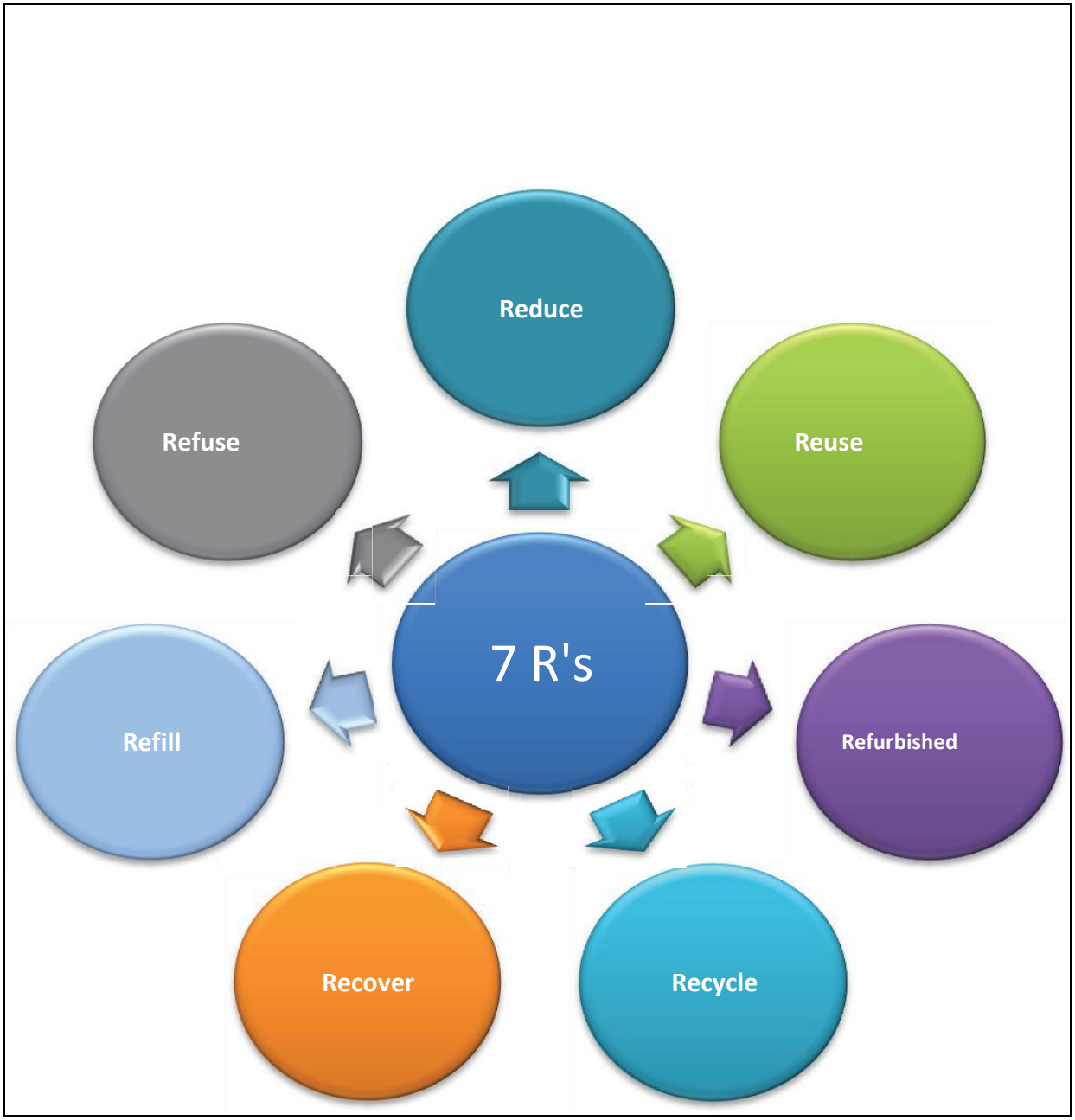
- Conventionally, the environmental pollution problems are solved by introducing environmental management techniques such as control of pollution at source, provision of sewage treatment facilities, etc.
- The environmental aspects are to be induced into each of the developmental activities at the planning stage itself and are to be well co-ordinated and balanced.
- For all developmental activities, a crucial input is land 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 inter dependencies such as industry with transport, housing, etc.

Besides, climate change is now affecting every country in every continent. It is disrupting national economies and affecting lives, costing people's living standard, communities, etc. Weather patterns are changing, sea levels are rising, and weather events are becoming more extreme and green house gas emissions are now at their highest levels in history. Without action, the world's average surface temperature is likely to surpass 3° centigrade this century.

Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs. 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.

The principle of 7 R's is essential strategy for achieving the sustainability. It reduces the load and over exploitation on the natural resources and is a key for resource efficiency.


Reduce
Refuse
Reuse
7 R's
Refill
Refurbished
Recover
Recycle

OBJECTIVES :

The Objectives of District Environment and Management Plan (DEMP) are given below:

1. To ensure conservation of environment and natural resources at district level.
2. Restore the ecological balance.
3. To harness active participation of all stakeholders in planned environment conservation actions.
4. To assess, mitigate and monitor adverse impacts of various pollution sources at district level.
5. Capacity building of stakeholder, department, agencies, organizations and individuals at district level to understand and implement micro-level environmental conservation actions.
6. To harness inter-departmental coordination for implementation of action plans.
7. To develop local knowledge centers and expertise for developing environmental conservation strategies at district level.
8. To develop and implement micro monitoring system at district level.

NGT DIRECTIONS :

Hon'ble NGT in last one year has issued several directions in various matters and 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.

The role and responsibilities of enforcement are with District Collector/Magistrate, Pollution Control Board, Municipal Bodies, Public Health Engineering Departments and others.

The present State level execution and monitoring mechanism on various State and Central Government's Schemes are monitored by Chief Minister/ Chief Secretary with District Collector/Magistrate.

3.1 ISSUES REQUIRING ACTIONS :

As per the directions of the Hon'ble NGT, District Collector/Magistrate through District Level Committee is required to act on the following issues :

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 (C&D)
e. Hazardous Waste Management
f. E-waste Management

b) **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.

c) 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.

d) Regulation of sand mining to check illegal sand mining and recover compensation. Proper restoration of exhausted mining sites as per Environmental Plan.

e) For conservation and protection of water sources.

3.2 ACTIONS TO BE TAKEN :

The Tribunal has issued detailed directions on each issue for enforcement which are to be executed in accordance with the Acts/Rules. However, for ensuring visible impactful changes and taking immediate actions on certain issues, following actions are suggested below :

3.2.1 Solid Waste Management

i. Strengthen waste collection, storage and transportation system. Set up surveillance squads/Task Forces at Ward/Circle level. Attend vulnerable sites/locations and clean them.

ii. Prohibiting burning of garbage.

3.2.2 Plastic Waste

Prohibitions on use plastic carry bags.

3.2.3 Bio-Medical Waste

i. Hospitals, Clinics and Nursing Homes whenever generate or provide Bio-medical waste, it should be disposed as CBMWTF.

ii. Cities, towns and villages may tie-up individually or collectively to transport bio- medical waste to the common treatment plants.

3.2.4 Construction and Demolition Waste

i. Public notices may be issued that construction and demolition waste should only be disposed at pre-identified/notified sites.

ii. Setting up construction and demolition waste processing facilities by Municipal Authorities.

3.2.5 Restoration of Polluted River Stretches

i. A river whether seasonal or perennial should not be misused for disposal of sewage, garbage or any other waste into it.

ii. Identify the specifically drains discharging sewage/industrial effluents into the river and intercept them and divert to the sewage treatment plant.

iii. Public awareness and awareness at the schools and colleges levels may be taken up.

3.2.6 Maintaining Air Quality in Cities, Towns and Villages

i. RPCB may under take monitoring of ambient air quality in a phased manner covering all cities and towns for wider coverage.

ii. Surveillance squads/ task forces may be set up at Ward and Circle level to prohibit burning of garbage and other waste by Municipal Authorities.

iii. Open parks, dilapidated roads and other sources of dust pollution should be identified and actions be taken to prevent the suspension of dust from such sources by repairing the roads, etc., by concerned department.

3.2.7 Industrial Pollution Control

i. Rajasthan State Pollution Control Board should ensure that all industries comply with the Water Act-1974, the Air Act-1981 and Environment (Protection) Act-1986.

ii. Industries discharging waste water and not having effluent treatment plant

are closed down as per Water Act-1974 and Air Act-1981, till compliance is achieved.

3.2.8 Sewage Treatment and Utilization

i. Every city and town should have time-bound plan to set up sewage management facility.

ii. Intermediate remedial methods may be employed till sewage drains are intercepted and diverted to STP.

iii. Treated sewage may be utilized for sprinkling on dust emitting sources for gardening and other non-potable purposes.

3.2.9 Regulation of Sand Mining

i. Special Police Forces along with Mining Department personnel may be deployed for patrolling sand mining areas, sand mining/stone quarrying to check illegal mining/quarrying.

ii. Mining's rehabilitation & restoration plans will be ensured and to be complied by Mining department.

3.2.10 Rejuvenation of water bodies/rain water harvesting and ground water conservation

Ponds/water bodies may be cleaned and identified in each city at town and village level and cleaned not allowing sewage and solid waste disposal in such ponds will be check by the Municipal Authorities and at Panchayat level.

State Ground Water Board to ensure ground water quality testing particularly shallow hand pumps, and deep borewells to check fitness for consumption.

3.2.11 Hazardous and other Waste Management

i. Illegal transportation of hazardous may be monitored.

ii. Unauthorized dumping of hazardous must be checked.

3.2.12 E-Waste

i. Setting up of collection centers for e-waste.

ii. Setting up of dismantling and recycling plants either at State or District levels.

3.3 IMMEDIATE ACTIONS :

On urgent basis, to bring visible impact full changes in public, following actions may be considered :

i. Work expeditiously to focus cleanliness with enforcement of waste management rules including thrust on Air and Water Quality Management.
ii. In city and towns, identify garbage littered areas/localities and clean them and publicize them.
iii. Set up construction and demolition waste processing centers.
iv. Clear encroachment from, river banks/lake/pond and beautify them.
v. Vigilance and stop burning of waste and cover dusty areas/activities.
vi. Immediately sensitize schools, colleges and other voluntary organizations for creating awareness. Education department to be involved.

4.0 SEGMENTS OF DISTRICT ENVIRONMENT MANAGEMENT PLAN (DEMP)

4.1 Pollution Control And Resource Management Plan :

"The proposed Model Action Plan for 7 thematic areas "

4.1.1 Waste Management Plan

4.1.1.1 Solid Waste Management Plan (For Each ULB)

Solid Wastes (Management & Handling) Rules, 2016 (SWM Rules) are applicable to every municipal authority for collection, segregation, storage, transportation, processing and disposal of municipal solid waste.

BASELINE DATA FOR SOLID WASTE MANAGEMENT

S.No.	Action Areas	Details of Data Requirement	Units of Measurable Outcome	Please enter Measurable Outcome District	ULB 1	ULB 2
	Name of Urban Local Body (ULB)		[Name of ULB]	Jaisalmer	Jaisalmer	Pokhran
	No of ULBs in the District		[Nos]	2	1	1
SW1	Report on inventory of total solid waste generation					
SW1a		Total solid waste generation	[in MT/Day] or [Not estimated]	30.6	30	0.6
SW1b		Qty. of Dry Waste Segregated	[in MT/Day] or [Collection Not	18.00017	18	0.00017

			initiated]			
SW1c		Qty. of Wet Waste Segregated	[in MT/Day] or [Collection Not initiated]	12.00058	12	0.00058
SW1d		Qty. of C&D Waste Segregated	[in MT/Day] or [Collection Not initiated]	5.00001	5	0.00001
SW1e		Qty. of Street Sweeping	[in MT/Day] or [Not estimated]	Not estimated	Not estimated	Not estimated
SW1f		Qty. of Drain Silt	[in MT/Day] or [Not estimated]	Not estimated	Not estimated	Not estimated
SW1g		Qty. of Domestic Hazardous Waste(DHW) Collected	[in MT/Day] or [No Facility]	No facility	No facility	0.00001 MT/day
SW1h		Qty. of Other Waste (Horticulture, Sanitary waste, etc.)	[in MT/Day] or [Qty not estimated]	Not estimated	Not estimated	0.000001 MT/day
SW1i		No. of old Dump sites	[Nos] or [None]	2	1	1
SW1j		Qty stored in Dump sites	[MT] or [Not estimated]	69978.92	69978.62	0.3
SW1k		No. of Sanitary landfills	[Nos] or [None]	1	None	1
SW1l		No. of Wards	[Nos]	65	45	20
SW2	Compliance by Bulk Waste Generators					
SW2a		No. of BW generators	[Numbers] or [Inventory not done]	18	18	Inventory not done
SW2b		No. of on-site facilities for Wet Waste	[Numbers] or [No data]	4	4	No data
SW3	Compliance in segregated waste (SW) Collection					
SW3a		Total Generation	[Automatic] from SW1a	30.6	30	0.6
SW3b		Wet Waste	[in MT/Day] or [Collection Not initiated]	12.00017	12	0.00017
SW3c		Dry Waste	[in MT/Day] or [Collection Not initiated]	18.00058	18	0.00058
SW3d		C&D Waste	[in MT/Day] or [Collection Not initiated]	5.00001	5	0.00001

SW4	Waste Management Operations					
SW4a		Door to Door Collection	[100%] / [partial %] / [not initiated]	100%	100%	100%
SW4b		Mechanical Road Sweeping	[100%] / [partial%] / [not initiated]	Not initiated	Not initiated	Not initiated
SW4c		Manual Sweeping	[100%] / [partial%]	100%	100%	100%
SW4d		Segregated Waste Transport	[100%] / [partial %] / [not initiated]	-	40%	100%
SW4e		Digesters (Bio-methanation)	[% of WW] / [not initiated]	Not initiated	Not initiated	Not initiated
SW4f		Composting Operation	[% of WW] / [not initiated]	Not initiated	Not initiated	10%
SW4g		MRF Operation	[MRF used] / [not installed]	Not installed	Not installed	Not installed
SW4h		Use of Sanitary Landfill	[% of SW collected] / [no SLF]	-	No SLF	100%
SW4i		Reclamation of Old Dump sites	[Initiated] / [not initiated]	Not initiated	Not initiated	Not initiated
SW4j		Linkage with Waste to Energy Boilers / Cement Plants	[Initiated] / [not initiated]	-	Not initiated	Partly initiated
SW4k		Linkage with Recyclers	[Initiated] / [not initiated]	-	Not initiated	Partly initiated
SW4l		Authorization of waste pickers	[Initiated] / [not initiated]	-	Not initiated	Initiated
SW4m		Linkage with TSDF / CBMWTF	[Initiated] / [not initiated]	-	Not initiated	Partly initiated
SW4n		Involvement of NGOs	[Initiated] / [not initiated]	-	Not initiated	Partly initiated
SW4o		Linkage with Producers / Brand Owners	[Initiated] / [not initiated]	Not initiated	Not initiated	Not initiated
SW4p		Authorization of Waste Pickers	[Initiated] / [not initiated]	-	Not initiated	Initiated
SW4q		Issuance of ID Cards	[Initiated] / [not initiated]	-	Not initiated	Partly initiated
SW5	Adequacy of Infrastructure					
SW5a		Waste Collection Trolleys	[Nos. Required] / [Nos. Available]	190/190	160/160	30/30
SW5b		Mini Collection Trucks	[Nos. Required] / [Nos. Available]	21/21	15/15	6/6
SW5c		Segregated Transport	[Yes] / [no] / [% area covered]	-	40%	25%

SW5d		Bulk Waste Trucks	[Nos. Required] / [Nos. Available]	16/14	3/1	13/13
SW5e		Waste Transfer points	[Nos. Required] / [Nos. Available] /[Not available]	2	1	1
SW5f		Bio methnation units	[Nos. Required] / [Nos. Available]	Not available	Not available	Not available
SW5g		Composting units	[Nos. Required] / [Nos. Available]	1	Not available	1
SW5h		Material Recovery Facilities	[Used or installed] / [Not available]	-	MRF Used	Not available
SW5i		Waste to Energy (if applicable)	[Required] / [Nos. Available]	2/0	1/0	1/0
SW5j		Waste to RDF	[Required] / [Nos. Available]	2/0	1/0	1/0
SW5k		Sanitary Land fills	[Nos] / [Nos. Available]	2/1	1/0	1/1
SW5l		Capacity of sanitary landfills	[MT] / [Nos. Available]	100	0	100
SW5m		Waste Deposit Centers (DHW)	[Nos. / [Nos. Available]	9/9	8/8	1/1
SW5n		Other facilities	[give or select from list]			
SW6	Notification and Implementation of By-Laws					
SW6a		Notification of By-laws	[Done] / [in progress] / [not initiated]	Done	Done	Done
SW6b		Implementation of by-laws	[Done] / [in progress] / [not initiated]	Done	Done	Done
SW7	Adequacy of Financial Status of ULB					
SW7a		CAPEX Required	[INR] / [Not required]	34 Crore	9 Crore	25 Crore
SW7b		OPEX	[INR per Year] / [% of requirement]	4 Crore	2 Crore/75%	2 Crore
SW7c		Adequacy of OPEX	[Yes] / [No]	-	No	Yes

ACTION PLAN FOR SOLID WASTE MANAGEMENT

S. No.	Action Points	Timelines	Department/ Agencies
1.	Door to door collection of municipal solid waste as per SWM Rules- 2016; Segregation at source of solid waste Regular pest control system	Regular activity	Municipal Authorities
2.	Collection, segregation, transportation and disposal of solid waste in city	Regular activity	Municipal Authorities /Development Authorities/Industries, etc.
3.	Segregation at source of solid waste	Regular activity	Municipal Authorities /Development Authorities/Waste Generator, etc.
4.	Plantation of area by specific types of plants to mitigate pollution. Regular cleaning of drains and disposal of sludge; Disposal of Municipal Solid Waste in industrial areas as per SWM Rules-2016	Regular activity	Department of Industries
5.	Development of new MSW facility, establishment of Bio-compost RDF and waste to energy plant	Immediate	ULB's
6.	Preventing solid waste entering into water bodies–Installation of bar mesh in Nallahas & Drains	Immediate	ULB's
7.	GPS enabled vehicles for waste transportation & user friendly mobile app	Immediate	ULB's
8.	Redressal of complaints	Regular activity	ULB's
9.	Actions against defaulters of Solid Waste Management Rules- 2016	Immediate	ULB's
10.	Information, Education and Communication (IEC) activities for source segregation	Regular activity	ULB's

4.1.1.2 PLASTIC WASTE MANAGEMENT (FOR EACH ULB)

Plastic products have become an integral part of our daily life. That's why plastic has become menace worldwide as plastic polymer is produced at a massive scale worldwide. On an average, production of plastic crosses 150 million tonnes globally per year. It has wide application in packaging, films, wrapping materials, shopping and garbage bags, fluid containers, clothing, toys, household and industrial products, building materials, etc.

BASELINE DATA FOR PLASTIC WASTE MANAGEMENT

S.No.	Action Areas	Details of Data Requirement	Units of Measurable Outcome	Please enter Measurable Outcome District	ULB 1	ULB 2
	Name of ULB		[Name of ULB]	Jaisalmer	Jaisalmer	Pokharan
	Population		[Nos as per 2011 census]	87982	65471	22511
PW1	Inventory of plastic waste generation					
PW1a		Estimated Quantity of plastic waste generated in District	[MT/day] / [Not Estimated]	0.40	0.40	Not estimated
PW2	Implementation of Collection					
PW2a		Door to Door collection	[100%] / [partial %] / [not initiated]	100%	100%	100%
PW2b		Segregated Waste Collection	[100%] / [partial %]	40%	40%	40%
PW2c		Plastic waste collection at Material Recovery Facility	[MRF used] / [not installed]	-	MRF Constructed ; yet to start	MRF under construction
PW2d		Authorization of PW pickers	[Nos.] / [not initiated]	5	Not initiated	5
PW2e		PW collection Centers	[Nos.] / [not established]	5	4	1
PW3	Establishment of linkage with Stakeholders					
PW3a		Established linkage with PROs of Producers	[Nos.] / [not established]	Not established	Not established	Not established
PW3b		Established linkage with NGOs	[Nos.] / [not established]	Not established	Not established	Not established
PW4	Availability of facilities for Recycling or Utilization of PW					
PW4a		No. of PW Recyclers	[Nos]	0	0	0
PW4b		No. of Manufacturers	[Nos]	0	0	0
PW4c		No of Pyrolysis oil Plants	[Nos]	0	0	0

PW4d		Plastic Pyrolysis	[Quantity in MT sent per Month]	0	0	0
PW4e		Use in Road making	[Quantity MT used per Month]	0	0	0
PW4f		Co-processing in Cement Kiln	[Quantity in MT sent per Month]	300 kg	0	300 kg
PW5	Implementation of PW Management Rules, 2016					
PW5a		Sealing of units producing < 50-micron plastic	[All sealed] / [Partial] / [no action]	Not available	Not available	Not available
PW5b		Prohibiting sale of carry bags < 50 micron	[Prohibited] / [Partial] / [no action]	Prohibited	Prohibited	Prohibited
PW5c		Ban on Carry bags and other single use plastics as notified by State Government	[Implemented] / [Partial] / [no action] / [No Ban]	Implemented	Implemented	Implemented
PW6	Implementation of Extended Producers Responsibility (EPR) through Producers/Brand-owners					
PW6a		No. of Producers associated with ULBs	[Nos] / [None]	None	None	None
PW6b		Financial support by Producers / Brand owners to ULBs	[Nos] / [None]	None	None	None
PW6c		Amount of PRO Support	[Rs…]	None	None	None
PW6d		Infrastructure support by Producers / Brand owners to ULBs	[Nos of Producers] / [None]	None	None	None
PW6e		No. of Collection centers Established by Producers / Brand owners to ULBs	[Nos] / [None]	None	None	None

ACTION POINTS FOR PLASTIC WASTE MANAGEMENT

S.N.	Action Points	Timelines	Department/ Agencies
1.	Door to door plastic waste collection	Regular activity	ULB's
2.	Setting up of decentralized waste processing facilities by bulk waste generators	Immediate	ULB's/ Mandi Parishad/ Bus Stand/ Hotels/ Institutions, etc.
3.	Plastic waste segregation at source	Regular activity	ULB's/Waste generators
4.	Management by Waste Generator (Use of plastic carry bags, plastic sheets, cover made of plastic sheets and multi layered packaging, etc.)	Immediate	ULB's/ Panchayati Raj
5.	Utilization of non-recyclable plastic waste (Road construction, waste to fuel, waste to energy alternative uses identification, etc.)	As per requirement	ULB's /PWD
6.	Engaging civil societies working with waste pickers	Immediate	ULB's
7.	Ban on carry bags and other single use plastics as notified by State Government	Immediate	ULB's
8.	Ensuring no open burning and littering	Immediate	ULB's / Panchayati Raj
9.	Submission of Annual Report to CPCB	Annually	RPCB
10.	Preventing plastic waste entering into water bodies – installation of bar mesh in Nallahs & Drains	Immediate	ULB's
11.	Information, Education & Communication (IEC) for plastic waste management	Regular activity	ULB's /NGO's/ Education Department

4.1.1.3 CONSTRUCTION & DEMOLITION (C&D) WASTE MANAGEMENT :

Safe and cost-effective management of construction & demolition wastes is a significant environmental challenge for modern society. Due to rapid urbanization, results have changed in the nature of C&D waste management from a low priority, localized issue to a pervasive social and environmental problem with high risks to public health and environment. Inadequately managed waste disposal has the potential to affect the health and environment. Construction and demolition waste, means waste comprising of building materials, debris and rubble resulting from construction, re-modeling, repair and demolition of any civil structure.

BASELINE DATA FOR CONSTRUCTION & DEMOLITION (C&D) WASTE

S.No.	Action Areas	Details of Data Requirement	Units of Measurable Outcome	Please enter Measurable Outcome District	ULB 1	ULB 2
	Name of ULB		[Name of ULB]	Jaisalmer	Jaisalmer	Pokharan
	Population		[Nos as per 2011 census]	87982	65471	22511
CD1	Inventory of C&D waste generation					
CD1a		Estimated Quantity	[Kg/Day] / [Not estimated]	5250	5000	250
CD2	Implementation of scheme for permitting bulk waste generators					
CD2a		Issuance of Permissions by ULBs	[Initiated] / [Not initiated]	Not initiated	Not initiated	Not initiated
CD3	Establishment of C&D Waste Deposition centers					
CD3a		Establishment of Deposition Points	[Yes] / [No]	Yes	Yes	Yes
CD3b		C&D Deposition Point Identified	[Yes] / [No]	Yes	Yes	Yes
CD4	Implementation of By-Laws for CD Waste Management					

CD4a		Implementation of By-laws	[Notified] / [Not notified]	Notified	Notified	Notified
CD4b		Collection of Deposition / Disposal Charges	[Initiated] / [Not initiated]	Initiated	Initiated	Initiated
CD5	Establishment of C&D Waste Recycling Plant or linkage with such facility					
CD5a		Establishment of CD Waste Recycling Plant	[Established] / [Sent to shared Facility] / [No facility exists]	No facility exists	No facility exists	No facility exists
CD5b		Capacity of CD Waste Recycling Plant	[MT/Day] / [Not available]	Not available	Not available	Not available

ACTION PLAN FOR CONSTRUCTION & DEMOLITION (C&D) WASTE

S.No.	Action Points	Timelines	Department/ Agencies
1.	Approval of Waste Management Plan submitted by Waste Generators before Construction starts	Immediate	ULB's
2.	Proper collection, transportation, processing and disposal of C&D Waste	Immediate	ULB's / Waste Generator
3.	Provisions for using materials made by C&D Waste in construction activity like paving blocks, lower layers of roads pavements, colony and rural road, etc.	Immediate	Urban Development & Housing and Town Planning Department
4.	Information, Education & Communication (IEC) for C&D waste management	Regular activity	ULBs/Development Authority/ NGOs/Education department
5.	Fix rates to be paid by Waste Generators for collection, storage & transportation of Waste	Immediate	ULB's

4.1.1.4 BIOMEDICAL WASTE MANAGEMENT

Biomedical waste is defined as any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or in research activities pertaining there to or in the production or testing of biological. The biomedical waste management and handling has been assuming increasing significance from the past few years. The responsibility of medical administrators with regard to proper handling and disposal of waste has now become a statutory requirement with the promulgation of Government of India.

BASELINE DATA FOR BIO-MEDICAL WASTE MANAGEMENT

S.No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter measurable outcome for district		Rural (other than ULB)	Action to be taken by
				ULB 1	ULB 2		
	Name of ULB		[Name of ULB]	**Municipal council Jaisalmer**	**Municipal council Pokhran**		ALL ULB's (Nagar Parishad/ Nagar Palika)
	Population		[Nos as per 2011 census]	65471	23554	580894	ALL ULB's (Nagar Parishad/ Nagar Palika)
BMW1	Inventory of Biomedical Waste Generation			-			
BMW1a		Total no. of Bedded Hospitals	[Nos] / [No inventory]	09	02	35	CMHO
BMW1b		Total no. of non-bedded HCF	[Nos] / [No inventory]	01	No inventory	01	CMHO
BMW1c		Total no. of Clinics	[Nos] / [No inventory]	05	01	No inventory	CMHO
BMW1d		No. of Veterinary Hospitals	[Nos] / [No inventory]	No inventory	No inventory	No inventory	CMHO
BMW1e		Pathlabs	[Nos] / [No inventory]	9	2	35	CMHO
BMW1f		Dental Clinics	[Nos] / [No inventory]	03	01	No inventory	CMHO
BMW1g		Blood Banks	[Nos] / [No inventory]	01	No inventory	No inventory	CMHO
BMW1h		Animal Houses	[Nos] / [No inventory]	No inventory	No inventory	No inventory	ALL ULB's (Nagar Parishad/ Nagar Palika)
BMW1i		Bio-research Labs	[Nos] / [No inventory]	No inventory	No inventory	No inventory	CMHO
BMW1j		Others	[Nos] / [No inventory]	No inventory	No inventory	No inventory	ALL ULB's (Nagar Parishad/ Nagar Palika)/CMHO
BMW2	Authorization of HCFs by SPCBs / PCCs						
BMW2a		Bedded HCFs	[Nos Authorized]	03	01	27	RPCB, Jodhpur
BMW2b		Non-bedded HCFs	[Nos Authorized]	0	0	0	RPCB, Jodhpur
BMW3	Biomedical Waste						

	Treatment and Disposal Facilities (CBMWTFs)						
BMW3a		No. of CBMWTFs	[Nos] / None	None	None	None	RPCB
BMW3b		Linkage with CBMWTFs	[Yes] / [no linkage]	09	02	35	RPCB
BMW3c		Capacity of CBMWTFs	[Adequate] / [Not adequate]	Adequate	Adequate	Adequate	RPCB
BMW3d		Requirements of CBMWTFs	[Required] / [not required]	Required	Required	Required	RPCB
BMW3e		Captive Disposal Facilities of HCFs	[Nos] / [None]	09	02	35	RPCB
BMW4	Compliance by CBMWTFs						
BMW4a		Compliance to Standards	[Meeting] / [Not meeting] / [NA]	Meeting	Meeting	Meeting	RPCB
BMW4b		Barcode tracking by HCFs / CBMWTFs	[100%] / [Partly %] / [None]	None	None	None	RPCB
BMW4c		Daily BMW lifting by CBMWTFs	[Kg / day]	0	0	0	RPCB
BMW5	Status of Compliance by Healthcare Facilities						RPCB
BMW5a		Pre-segregation	[100%] / [partly %] / [None]	100%	100%	100%	RPCB
BMW5b		Linkage with CBMWTFs	[100%] / [partly %] / [None]	None	None	None	RPCB

ACTION PLAN FOR BIO-MEDICALWASTE

S. No.	Action Points	Timelines	Department/ Agencies
1.	Segregation of Bio Medical Waste (BMW) at source of generation in specified Color Coded bags as per Biomedical Waste Management Rule, 2016	Regular activities	Health Department/ HCFs
2.	GPS enabled vehicles for Biomedical wastes transportation	Immediate	Health Department/RPCB/ CBWTFs
3.	Implementation of Rules in HCFs & Occupiers	Immediate	Health Department/ RPCB
4.	Collection of Solid Waste other than BMW from HCFs	Immediate	CBWTFs
5.	• Authorization to HCFs and occupiers • Submission of Annual Report to CPCB	Immediate	RPCB
6.	Mass awareness campaigns and extensive training programs.	Regular activity	Health Department
7.	• BMW from HCFs transported, treated & disposed off in accordance with Rules • Establishment of Bar coding & Global Positioning system for handling of BMW • Training of all workers and assist occupier in Training • Supply Non-Chlorinated coloured Plastic Bags to occupiers	Immediate	CBWTFs
8.	• Ensure BMW handling as per Rule • Safe, ventilated & secured in house storage of BMW • No mixing of BMW with MSW • Bar code system for Bio-medical waste and collection bags	Regular activity	Occupiers/ HCFs/ CBWTFs
9.	Information, Education & Communication (IEC) for Bio-medical waste management	Regular activity	Health Department/ NGOs/Education Department

4.1.1.5 HAZARDOUS WASTE MANAGEMENT

The improper handling, collection, treatment and disposal of hazardous waste material may cause substantial harm to human health or environment. Hazardous wastes can take the form of solids, liquids, sludges or contained gases and they are generated primarily by chemical production, manufacturing and other industrial activities.

They may cause damage during inadequate storage, transportation, treatment or disposal operations. Improper storage or disposal, frequently contaminates surface and groundwater supplies. People living in homes built near old and abandoned waste disposal sites may be in a particularly vulnerable position. Hazardous wastes are classified on the basis of their biological, chemical and physical properties. These properties generate materials that are toxic, reactive, ignitable, corrosive, infectious, radioactive, etc.

BASELINE DATA FOR HAZARDOUS WASTE MANAGEMENT

No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome For District	Action to be taken by
HW1	Inventory of Hazardous Waste				RPCB, Jodhpur
HW1a		No. of HW Generating Industry	[Nos.]	4	RPCB, Jodhpur
HW1b		Quantity of HW	[MT/Annum]	979.8	RPCB, Jodhpur
HW1c		Quantity of Incinerable HW	[MT/Annum]	Nil	RPCB, Jodhpur
HW1d		Quantity of land-fillable HW	[MT/Annum]	200.8	RPCB, Jodhpur
HW1e		Quantity of Recyclable / utilizable HW	[MT/Annum]	Nil	RPCB, Jodhpur
HW2	Contaminated Sites and illegal industrial hazardous waste dumpsites				RPCB, Jodhpur
HW2a		No. of HW dumpsites	[Nos] / [None]	None	RPCB, Jodhpur
HW2b		Probable Contaminated Sites	[Nos] (provide list)	None	RPCB, Jodhpur
HW3	Authorization by SPCBs/PCCs				RPCB, Jodhpur
HW3a		No.of authorized Industries	[Nos]	4	RPCB, Jodhpur
HW3b		Display Board of HW Generation in front of Gate	[Nos]	4	RPCB, Jodhpur

HW4	Availability of Common Hazardous Waste TSDF				RPCB, Jodhpur
HW4a		Common TSDF	[Exists] / [No] / [Sent to Other District within State]	No	RPCB, Jodhpur
HW4b		Industries linkage with TSDF	[Nos.]	4	RPCB, Jodhpur
HW5a		ULBs linked to Common TSDFs for Domestic Hazardous Waste	[Yes] / [No]	No	ALL ULB's (Nagar Parishad/ Nagar Palika)

4.1.1.6 E-WASTE MANAGEMENT

Electrical waste and electronic equipments are becoming major threat to the whole world. Rapid growth of technology, up gradation of technical innovations and a high rate up-gradation by exchanging old electronic items have led to the fastest growing waste in the world. Its toxic emissions mixed with virgin soil and air cause harmful effects to the entire biota either directly or indirectly. Direct impacts include : release of acids, toxic compounds including heavy metals, etc. carcinogenic chemicals ; and indirect ones are : biomagnifications of heavy metals, etc. Many private firms are involved in collecting, dismantling, separation and exporting e-wastes to recyclers

BASELINE DATA FOR E- WASTE MANAGEMENT

No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome For District	Action to be taken by
EW1	Status of facilitating authorized collection of E-Waste				ALL ULB's (Nagar Parishad/ Nagar Palika)
EW1a		Are the citizens able to deposit or provide E-Waste through Toll-free numbers in the District	[Yes] / [No]	No	ALL ULB's (Nagar Parishad/ Nagar Palika)
EW1b		Collection centers established by ULB in District	[Nos] / [None]	None	ALL ULB's (Nagar Parishad/ Nagar Palika)
EW1c		Collection centers established by Producers or their PROs in the District	[Nos] / [None]	None	ALL ULB's (Nagar Parishad/ Nagar Palika)

EW1d		Do the District have linkage with authorized E-Waste recyclers / dismantlers	[Yes] / [No]	No	ALL ULB's (Nagar Parishad/ Nagar Palika)
EW1e		No. of authorized E-Waste recyclers / dismantlers	[Nos] / [None]	None	ALL ULB's (Nagar Parishad/ Nagar Palika)
EW2	Status of Collection of E-Waste				
EW2a		Authorizing E-Waste collectors	[Authorized] / [None]	None	RPCB, Jodhpur
EW2b		Involvement of NGOs	[Yes] / [No] / [Nos]	No	RPCB, Jodhpur
EW2c		Do Producers have approached NGOs/ Informal Sector for setting up Collection Centers ?	[Yes] / [No] /[Nos]	No	RPCB, Jodhpur
EW2d		Do ULB's have linkage with authorized recyclers / dismantlers ?	[Yes] / [No]	No	ALL ULB's (Nagar Parishad/ Nagar Palika)
EW3	Control of E-Waste related pollution				
EW3a		Does informal trading, dismantling, and recycling of e-waste exist in District?	[Yes] / [No]	No	RPCB, Jodhpur
EW3b		Did the administration close illegal E-Waste recycling in the District ?	[Yes] / [No] / [Nos]	No	ALL ULB's (Nagar Parishad/ Nagar Palika)
EW3c		No. of actions taken to close illegal trading or processing of E-Waste	[Nos]	Nil	RPCB, Jodhpur
EW4	Creation of Awareness on E-Waste handling and disposal				ALL ULB's (Nagar Parishad/ Nagar Palika)
EW4a		Did PROs / Producers conduct any District level Awareness Campaigns ?	[Yes] / [No] / [Nos]	No	ALL ULB's (Nagar Parishad/ Nagar Palika)
EW4b		Did District Administration conduct any District level Awareness Campaigns ?	[Yes] / [No] / [Nos]	No	ALL ULB's (Nagar Parishad/ Nagar Palika)

ACTION PLAN FOR E-WASTE MANAGEMENT

S. No.	Action Points	Timelines	Department/ Agencies
1.	Collection, segregation and channelization of e-waste pertaining to orphan products to recyclers/dismantlers	Immediate	ULB's
2.	Segregation of E-waste at source from MSW	Regular activity	ULB's /Waste Generator
3.	• Ensure no illegal e-waste processing • No dumping of e-waste, HW & other wastes on banks of river • No illegal transportation of e-waste	Immediate	District Administration / ULB's/RPCB/RTO
4.	Information, Education & Communication (IEC) for e-waste Management	Regular activity	ULB's /Development Authority/ NGOs/Education Department
5.	Authorization to Manufacturers, Dismantlers, Recyclers and Refurbishers	Immediate	RPCB, Jodhpur
6.	Earmarking or allocation of industrial space or shed, abandoned mills/factories for e-waste dismantling/recycling units in industrial clusters	Immediate	Department of Industries

4.1.2 WATER QUALITY MANAGEMENT PLAN

Systematic management of water resources is utmost important to ensure the required balance between development pressures and the safe guarding of the natural and built in environment for future generations. The purpose of Water Quality Management Plan is to reduce discharge of pollutants into urban run-off from development projects by reducing or eliminating sources of pollutants, managing site run-off volumes and flow rates through best management practices.

BASELINE DATA FOR WATER QUALITY MANAGEMENT

No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome For District	Action to be taken by
WQ1	Inventory of water resources in District				
WQ1a		Rivers	[Nos] and [Length in Km]	No such data is available with this office. As per CGWB Report 2013, there are no major rivers in district except some ephemeral nallahs. As per other data of State, there are three rivers in district, viz. Kakney, Lathi and Dhogdi, but not are perennial. The length of Kakney river is 17 km.	Water Resources Department
WQ1b		Length of Coastline	[in Km]	None	Water Resources Department
WQ1c		Nallahs/Drains meeting Rivers	[Nos]	Not available	Water Resources Department
WQ1d		Lakes / Ponds	[Nos] and [Area in Hectares]	Not available	Water Resources Department
WQ1e		Total Quantity of sewage and industrial discharge in District	[Automatic] (SW1a+SW1b)	Not available	Water Resources Department/RPCB Jodhpur
WQ2	Control of Groundwater Water Quality				
WQ2a		Estimated number of bore-wells	[Nos]	Not available	Ground water department
WQ2b		No. of permissions given for extraction of groundwater	[Nos]	9455	Ground water department

No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome For District	Action to be taken by
WQ2c		Number of groundwater polluted areas	[Nos]	Nil	Ground water department
WQ2d		Groundwater Availability	[Adequate] / [not adequate]	Not adequate	Ground water department
WQ3	Availability of Water Quality Data				
WQ3a		Creation of monitoring cell	[Yes] / [No]	Yes	Ground water department
WQ3b		Access to surface water and groundwater quality data at DM office	[Available] or [Not available]	Not available	Ground water department
WQ4	Control of River side activities				
WQ4a	Control of River side activities	River side open defecation	[Fully Controlled] / [Partly controlled] /[no. of measures taken]	Not applicable	ALL ULB's (Nagar Parishad/ Nagar Palika)
WQ4b		Dumping of SW at river banks	[Fully Controlled] / [Partly controlled] /[No. of measures taken]	Partly controlled	ALL ULB's (Nagar Parishad/ Nagar Palika)
WQ4c		Control measures for idol immersion	[Measures taken] / [Measures taken for post immersion] / [No. of measures taken]	Partly controlled	ALL ULB's (Nagar Parishad/ Nagar Palika)
WQ5	Control of Water Pollution in Rivers				
WQ5a		Percentage of untreated sewage	[%] (automatic SM1g/SM1a)	Not applicable	ALL ULB's (Nagar Parishad/ Nagar Palika)
WQ5b		Monitoring of Action Plans for rejuvenation of rivers	[Monitored] / [Not monitored] [Not applicable]	Not applicable	ALL ULB's (Nagar Parishad/ Nagar Palika)
WQ5c		No. of directions given to industries for discharge of	[Nos]	Nil	RPCB, Jodhpur

No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome For District	Action to be taken by
		untreated industrial wastewater in last 12 months			
WQ6	Awareness Activities				
WQ6a		District level Campaigns on protection of water quality	[Nos in previous year]	3	ALL ULB's (Nagar Parishad/ Nagar Palika)
WQ6b	Oil Spill Disaster Contingency Plan				ALL ULB's (Nagar Parishad/ Nagar Palika)
WQ6c		Creation of District Oil Spill Crisis Management Group	[Created] / [Not created]	Not created	ALL ULB's (Nagar Parishad/ Nagar Palika)
WQ6d		Preparation of District Oil Spill Disaster Contingency Plan	[Prepared] / [Not prepared]	Not prepared	ALL ULB's (Nagar Parishad/ Nagar Palika)
WQ7	Protection of Flood Plains				
WQ7a		Is encroachment of flood plains regulated ?	[Yes] / [No]	Yes	ALL ULB's (Nagar Parishad/ Nagar Palika)
WQ8	Rainwater Harvesting				
WQ8a		Action plan for rain water harvesting	[Implemented] / [Not implemented]	Implemented	ALL ULB's (Nagar Parishad/ Nagar Palika)

4.1.3 DOMESTIC SEWAGE MANAGEMENT PLAN

Domestic sewage is generated by domestic activities such as toilet, bathroom, cloths washing, kitchen clearing, etc. This sewage water contains high level of micro-organisms, chemicals (nutrients) and other contaminants, which are responsible for human illness and thus adversely impacts the local environment.

BASELINE DATA FOR DOMESTIC SEWAGE MANAGEMENT

S. No.	Action Areas	Details of Data Requirement	Units of Measurable Outcome	Please enter Measurable Outcome District	ULB 1	ULB 2
SM1	Inventory of Sewage Management				Jaisalmer	Pokhran
SM1a		Total Quantity of Sewage generated in District from Class II cities and above	[MLD]	7	3	4
SM1b		No. of Class-II towns and above	[Nos]	0	0	0
SM1c		No. of Class-I towns and above	[Nos]	0	0	0
SM1d		No. of Towns needing STPs	[Nos]	1	0	1
SM1e		No. of Towns in which STPs are installed	[Nos]	1	1	0
SM1f		Quantity of treated sewage flowing into Rivers (directly or indirectly)	[MLD]	Nil	Nil	Indirectly
SM1g		Quantity of untreated or partially treated sewage (directly or indirectly)	[Automatic]	Nil	Nil	Nil
SM1h		Quantity of sewage flowing into lakes	[MLD]	Nil	Nil	Nil
SM1i		No. of industrial townships	[Nos]	2	2	0

SW2	Adequacy of Available Infrastructure for Sewage Treatment					
SM2a		% of sewage treated in STPs	[Automatic]	-	100%	None
SM2b		Total available treatment capacity	[MLD]	10	10	0
SM2c		Additional treatment capacity required	[MLD]	0	0	0
SM3	Adequacy of sewage network					
SM3a		No. of ULB's having partial underground sewerage network	[Nos]	2	1	1
SM3b		No. of towns not having sewerage network	[Nos]	1	0	1
SM3c		% of population covered under sewerage network	[Automatic]	-	17.26%	60%

ACTION POINT FOR SEWAGE MANAGEMENT

a. Short Term Action Point

S. No.	Action Point	Timeline	Implementing Department/ Agency
1	Estimation of total sewage generation from city/towns where sewage treatment facility does not exist and preparation of DPR for treatment of sewage		ULB's
2	Measurement of flow and load of all the drains contributing pollution load in Rivers		ULB's
3	Installation of bar-meshes in the drains, regular cleaning and disposal of solid waste from them		ULB's
4	Completion and commissioning of under construction STPs		ULB's/Working Agencies
5	Obtaining consent to operate/establish hazardous authorization from RPCB		ULB's/Operating Govt. Agencies
6	Sewage management in the areas where sewerage network does not exist		ULB's

b. LONG TERM ACTION POINT

S. No.	Action Point	Timeline	Implementing Department/ Agency
1	Laying of sewerage network and connection of households to the sewage line in order to utilize the installed capacity of existing STPs		ULB's
2	Establishment of sewage treatment plants of adequate capacity		ULB's
3	Infrastructural development in irrigation/horticulture/ sprinkling/industrial use, etc. and ensuring use of treated water		ULB's
4	Ensuring open defecation free in all the villages situated along the river		Gram Panchayat Panchayati Raj, Rural Development Departments, Rastriya Swachta Mission-Gramin, etc.

4.1.4 INDUSTRIAL WASTEWATER MANAGEMENT PLAN

Industrial waste water is one of the important and major pollution sources of water. A huge amount of industrial wastewater is discharged into rivers and lakes, which results in serious pollution problems in the water ecosystem and causes negative effects to the human ecosystem and life. There are many types of industrial waste water based on different industries and contaminants. Each sector produces its own particular combination of pollutants.

BASELINE DATA FOR INDUSTRIAL WASTEWATER MANAGEMENT

Sr. No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome for District	Action to be taken by
IWW1	IWW1 Inventory of industrial wastewater generation in District				
IWW1a		No. of industries discharging wastewater	[Nos]	40	RPCB, Jodhpur

IWW1b		Total Quantity of industrial wastewater generated	[MLD]	Not available	RPCB, Jodhpur
IWW1c		Quantity of treated IWW discharged into Nallhas / Rivers	[MLD]	Nil	RPCB, Jodhpur
IWW1d		Quantity of un-treated or partially treated IWW discharged into lakes	[MLD]	Nil	RPCB, Jodhpur
IWW1e		Prominent type of industries	[Agro based] / [Chemical – Dye, etc.] / [Metallurgical] / [Pharma] / [Pesticide] / [Power Plants] / [Mining] / [Automobile] : Multiple selection based on size of operation and number	Dairy Saras (01) , Hotels , Stone cutter , Mining , Stone cruser, Mineral water plant (01).	RPCB, Jodhpur
IWW1f		Common effluent treatment facilities	Nos] / [No. of CETPs]	Nil	RPCB, Jodhpur
IWW2	Status of compliance by industries in treating wastewater				RPCB, Jodhpur
IWW2a		No. of industries meeting standards	[Nos]	Nil	RPCB, Jodhpur
IWW2b		No. of industries not meeting discharge standards	[Automatic]	Nil	RPCB, Jodhpur
IWW2c		No. of complaints received or number of recurring complaints against industrial pollution in last 3 months	[Nos]	Nil	RPCB, Jodhpur
IWW3	Status of action taken for not meeting discharge standards				
IWW3a		No. of industries closed for exceeding standards in last 3 months	[Nos]	Nil	
IWW3b		No. of industries where Environmental Compensation was imposed By SPCBs	[Nos]	Nil	RPCB, Jodhpur

ACTION POINT FOR INDUSTRIAL WASTE MANAGEMENT

S.No.	Action Point	Timeline	Implementing Department/Agency
1	Monitoring of water polluting industries and ensuring closure of industries, which are operating without consent or non-compliant	Quarterly	RPCB, Jodhpur
2	Closure of illegal water polluting industries	Regular activity	District Administration, Police, RPCB, ULB's Power Corporation, Department of Industries, etc.

4.1.5 AIR QUALITY MANAGEMENT PLAN

Air quality affects our health, the life of our cities and towns, and our environment. It is particularly due to human activity. It can cause health problems that affect the heart and lungs, which laheven cause cancer. Even short-term exposure to it can cause health problems. Children, the elderly and people with existing heart and lung conditions are especially affected by air pollution. Air quality management refers to all the activities which regulatory authority undertake to help to protect human health and the environment from the harmful effects of air pollution.

BASELINE DATA FOR AIR QUALITY MANAGEMENT

No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome for District	Action to be taken by
AQ1	Availability of Air Quality Monitoring Network in District				
AQ1a		Manual Air Quality Monitoring Stations of SPCBs /CPCB	[Nos] / [None]	None	RPCB, Jodhpur
AQ1b		Automatic Monitoring Stations operated by SPCBs / CPCB	[Nos] / [None]	None	RPCB, Jodhpur
AQ2	Inventory of Air Pollution Sources				

No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome for District	Action to be taken by
AQ2a		Identification of prominent air polluting sources	[Large industry] / [Small industry] / [Unpaved & roads] / [Burning of waste stubble] / [Brick & Kiln] / [Industrial estate] / [Others] (Multiple selection)	Air borne pollution from slurry of stone cutters, stone crushers , brick kiln ,unpaved road, etc.	RPCB, Jodhpur
AQ2b		No. of non-attainment cities	[Nos / [None]	None	RPCB, Jodhpur
AQ2c		Action Plans for non-attainment cities	[Prepared] / [Not yet prepared]	Jaisalmer is not covered under non- attainment city	RPCB, Jodhpur
AQ3	Availability of Air Quality Monitoring Data at DMs Office				
AQ3a		Access to air quality data from SPCBs & CPCB through dashboard	[Available] / [Not yet Available]	Not yet avilable	RPCB, Jodhpur
AQ4	Control of Industrial Air Pollution				
AQ4a		No. of industries meeting standards	[Nos]	Nil , AAQMS is not installed	RPCB, Jodhpur
AQ4b		No. of industries not meeting discharge standards	[Nos]	Nil , AAQMS is not installed	RPCB, Jodhpur
AQ5	Control of Non-Industrial Air Pollution Sources				
AQ5a		Controls open burning of stubble –during winter taken on	[Nos of fire incidents]	Nil	RPCB, Jodhpur
AQ5b		Control taken on open burning of waste – Nos of actions taken	[Nos]	Nil	RPCB, Jodhpur

No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome for District	Action to be taken by
AQ5c		Control of forest fires	[SOP available] / [No SoP]	SOP not available	Forest, Jaisalmer
AQ5d		Vehicle pollution check centers	[% ULBs covered]	Nil	RTO, Jaisalmer
AQ5e		Dust suppression vehicles	[% ULBs covered]	Nil	RTO, Jaisalmer
AQ6	Development of Air Pollution Complaint Redressal System				
AQ6a		Mobile app / online based air pollution complaint redressing system of SPCB	[Available] / [Not available]	Available : "SAMEER" app for air pollution complaint redressing system	RPCB, Jodhpur

ACTION PLAN FOR AIR QUALITY MANAGEMENT PLAN

(i) Vehicular Emission Control

a. Short Term Action Plan: Reduce Congestion

S. No	Action Points	Timeframe for Implementation	Action Required to be Taken by Responsible Departments
1.	Launch of extensive drive against polluting vehicles for ensuring strict compliance	As regular activity	RTO/Traffic Police
2.	Launches of public awareness campaign for air pollution control, vehicle maintenance, minimizing use of personal vehicles, lane discipline, etc.	As regular activity	R.T.O/ Traffic Police
3.	Prevention of parking of vehicles in the non-designated areas	As regular activity	Traffic Police/ULB's
4.	Prepare and implement plan for widening of road and improvement of infrastructure for de-congestion of road		PWD
5.	Steps for promoting battery operated vehicles including establishment of charging stations		Transport Department/ ULB's & Development Authorities
6.	Synchronize traffic movements/ Introduce intelligent traffic systems for lane-driving.		Traffic Police
7.	Installation of remote sensor based PUC system		Traffic Police

b. LONG TERM ACTION PLAN: REDUCE CONGESTION

S. No	Action Points	Timeframe for Implementation	Action Required to be Taken by Responsible Departments
1.	Plying of electric buses, e-rickshaws for public transport including establishment of sufficient charging stations.		Transport Department
2.	Arrangement of multi-level parking facilities		ULB's/Development Authorities
3.	Development/ strengthening of bike zone/cycle zone at metro/railways/bus stations from where travelers hire bicycle to reach the destination.		ULB's/Development Authorities

(ii) OTHER STEPS TO CONTROL AIR POLLUTION

a. Short Term Action Plan

S. No.	Action Points	Timeframe for Implementation	Action Required to be Taken by Responsible Departments
1.	Engage with concerned authorities on continual basis for maximizing coverage of LPG/PNG for domestic and commercial cooking with target of 100% coverage *(Under Pradhan Mantri Ujjwala Yojana in Urban areas)*		District Supply Officer
2.	Street vendors to be controlled strictly in respect of removing their wastes and debris before leaving the site of operation		ULB's
3.	Complete ban on littering of streets with municipal solid wastes (MSW). Segregation and source collection at source of MSW to be implemented		ULB's

b. LONG TERM ACTION PLAN

S. No.	Action Points	Timeframe for Implementation	Action Required to be Taken by Responsible Departments
1.	Installation of CEMS by polluting units/institutions, etc. under "Polluters Pay Principles"	Already installed by all 17 categories units	RPCB, Jodhpur
2.	Tree plantation for mitigation of air pollution based open location of pollution sources and wind rise data		Forest Department

(iii) CONTROL OF AIR POLLUTION FROM CONSTRUCTIONS AND DEMOLITION ACTIVITIES

S. No.	Action Points	Timeframe for Implementation	Action Required to be Taken by Responsible Departments
1.	Enforcement of Construction & Demolition Rules 2016; so fine should be imposed on defaulting units		ULB's/Development Authorities
2.	Control measures for fugitive emissions from material handling, conveying and screening operations through water sprinkling, curtains barriers and dust suppression units		ULB's/Development Authorities
3.	Ensure carriage of construction material in closed/covered vessels		Development Authorities/ Regional Transport Department
4.	Builders should leave 33% area for green belt in residential colonies		Development Authorities/ Housing companies
5.	All construction areas must be covered to avoid dispersion of particulate matter		ULB's/Development Authorities

(IV) CONTROL OF EMISSIONS FROM BIOMASS/CROP RESIDUE/GARBAGE/MUNICIPAL SOLID WASTE BURNING FOREST FIRES

S. No.	Action Points	Timeframe for Implementation	Action Required to be Taken by Responsible Departments
i)	Launch of extensive drive against open burning of bio-mass, crop residue, garbage, leaves, etc.		ULB's
ii)	Regular check and control of burning of municipal solid wastes and use of fire extinguisher for control of fire in municipal solid waste and biomass		ULB's
iii)	Proper collection of horticulture waste (biomass) and its disposal following composting-cum-gardening approach as material for plantations		ULB's
iv)	Ensure ban on burning of agricultural waste and crop residue and its implementation		Agriculture Department
v)	Door to door collection of segregated waste by agency and then its disposal directly in plant without dumping it on land		ULB's
vi)	Establishment of composting pits in parks/ residential societies, etc. for management of biodegradable waste		ULB's
vii)	No. of plots should be left open more than 02 years and planting of trees must be mandatory on vacant plots		ULB's

(V) ACTION POINTS FOR CONTROL OF INDUSTRIAL EMISSIONS

a. Short Term Action Plan

S. No.	Action Points	Timeframe for Implementation	Action Required to be Taken by Responsible Departments
1.	Identification of brick kilns and their regular monitoring including use of designated fuel and closure of unauthorized units		Local Administration/RPCB, Jodhpur
2.	Bank guarantee should be taken for the compliance of conditions imposed in CTO/CTE for control of environmental pollution from industries. The bank guarantee shall be forfeited in case of any violation. Verification of these conditions to be carried out by RPCB	Already intimated	RPCB, Jodhpur

b. LONG TERM ACTION PLAN

S. No.	Action Points	Timeframe for Implementation	Action Required to be Taken by Responsible Departments
1	Installation of appropriate air pollution control devices in factory units/industries	Already installed in 17 categories units and GPI. Regular verification of performance of pollution control devices being carried out	RPCB, Jodhpur

4.1.6 BASELINE DATA FOR MINING ACTIVITYMANAGEMENT

No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome for District	Action to be Taken by
MI1a	Inventory of Mining in District				
MI1a		Type of Mining Activity	[Sand Mining] / [Iron Ore] / [Bauxite] / [Coal] /	Limestone LD Grade - 2 Siliceous earth - 16 Limeston(Dimensonal)- 252 Marble - 46 Masonary Stone - 41 Granite - 104	Mining Department

			Other [specify]	Gypsum - 3 Silica Sand - 36 Dolomite - 1 Yellow Ochre - 1 Red Ochre - 2 Bajri - 2 China Clay - 7	
			Multiple selection in order of magnitude of operations	--	
MI1b		No of mining licenses given in the District	[Nos]	Total Mining license – 513	Mining Department
MI1c		Area covered under mining	[Sq Km]	41.00 sq km	Mining Department
MI1d		Area of District	[Sq Km]	38401.0 sq km	Mining Department
MI1e		Sand Mining	[Yes] / [No]	Yes	Mining Department
MI1f		Area of sand Mining	[River bed] / [Estuary] / [Non -river deposit]	River bed (In compliance of Hon'ble Supreme Court order, Mining operation is closed since 17.05.2018)	Mining Department
MI2	Compliance to Environmental Conditions				
MI2a		No.of mining areas meeting environmental clearance conditions	[Nos]	480	Mining Department
MI2b		No.of Mining areas meeting consent conditions of SPCBs / PCCs	[Nos]	350 of lease holder having consent to operate presently	Mining Department

MI3	Mining related Environmental Complaints				
MI3a		No. of pollution related complaints against Mining Operations in last 1 year	[Nos]	Nil	RSPCB
MI4	Action against Non-Complying Mining Activity				
MI4a		No. of mining operations suspended for violations to environmental norms	[Nos]	Nil	Mining Department
MI4b		No. of directions issued by SPCBs	[Nos]	Nil	RSPCB, Jodhpur

ACTION POINTS FOR LAND DEGRADATION – MINING

S. No.	Action Points	Timeline	Concerned Department
1.	Adoption of sustainable and systematic mining practices	Regular activities	Mining Dept./ Indian Bureau of Mines
2.	Enforcing strict control measures against air pollution	Immediate	RSPCB
3.	Enforcing strict control measures against water pollution	Regular activities	RSPCB
4.	Enforcing strict control measures against noise pollution	Regular activities	RSPCB
5.	Establishment of Greenbelt in and around mining lease areas and planting of rows of trees along road sides to hold the spread of dust over larger areas	Regular activities	Mining/Forest Dept.
6.	Adoption of appropriate soil and moisture conservation measures in the mining lease area to hold run-off and increase in filtration		Concerned Mines Owner/Mining Dept./ Indian Bureau of Mines
7.	Stabilization and consolidation of inactive dumps through engineering and vegetative measures		Concerned Mines Owner/Mining Dept./ Indian Bureau of Mines

8.	Strict implementation of reclamation and rehabilitation measures both within and outside the mining lease areas		Concerned Mines Owner/Mining Dept./ Indian Bureau of Mines

4.1.7 BASELINE DATA FOR NOISE POLLUTION MANAGEMENT

No.	Action Areas	Details of Data Requirement	Measurable Outcome	Please enter Measurable Outcome for District	Action to be taken by
NP1	Availability Monitoring Equipment				
NP1a		No. of noise measuring devices with District Administration	[Nos] / [None]	5	Police
NP1b		No. of noise measuring devices with SPCBs	[Nos] / [None]	2	RPCB
NP2	Capability to conduct noise level monitoring by State agency / District Authorities				
NP2a		Capability to conduct noise level monitoring by State agency / District Authorities	[Available] / [Not available]	Available	Police
NP3	Management of Noise Related Complaints				
NP3a		No. of complaints received on noise pollution in last 1 year	[Nos] / [Not available]	30	Police
NP3b		No. of complaints redressed	[Nos]	30	Police
NP4	Compliance to Ambient Noise Standards				
NP4a		Implementation of Ambient Noise Standards in residential and silent zones	[Nos.]	Action is being taken against the offenders as per Noise pollution Act.	Police
NP4b		Noise monitoring study in District	[Carried out /Not carried out]	Carried out	RPCB, Jodhpur
NP4c		Sign boards in towns and cities in silent zones	[Installed /Not installed]	Not installed	ALL ULB's (Nagar Parishad/ Nagar Palika)

ACTION POINTS FOR NOISE POLLUTION

S. No.	Action Points	Timeline	Concerned Department
1.	Impose restrictions in traffic hours	Regular activities	RTO /Traffic Police
2.	To restrict the vehicular honking	Regular activities	RTO /Traffic Police
3.	Establish suitable buffer zones around residential areas in order to insulate from noise emanating areas such as commercial, industrial road, etc.	Immediate	Development Authority
4.	Impose restriction on any sound creating activities in the silent zone	Regular activities	District Administration / District Police
5.	Enforce the Noise Pollution (Regulation and Control) Rules, 2000	Immediate	District Administration / District Police
6.	Loudspeaker or a public address system will not be allowed without prior permission from the authority	Regular activities	District Administration / District Police
7.	Loudspeaker/any other musical instrument or a public address system will not be used during night has (10.00 pm. to 6.00 am.)	Regular activities	District Administration/ District Police
8.	No person will be allowed use, operate or permitted the use or operation of a loud speaker in any public places or within distance of 200 meters from any public places or in any place of public entertainment	Regular activities	District Administration/ District Police

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