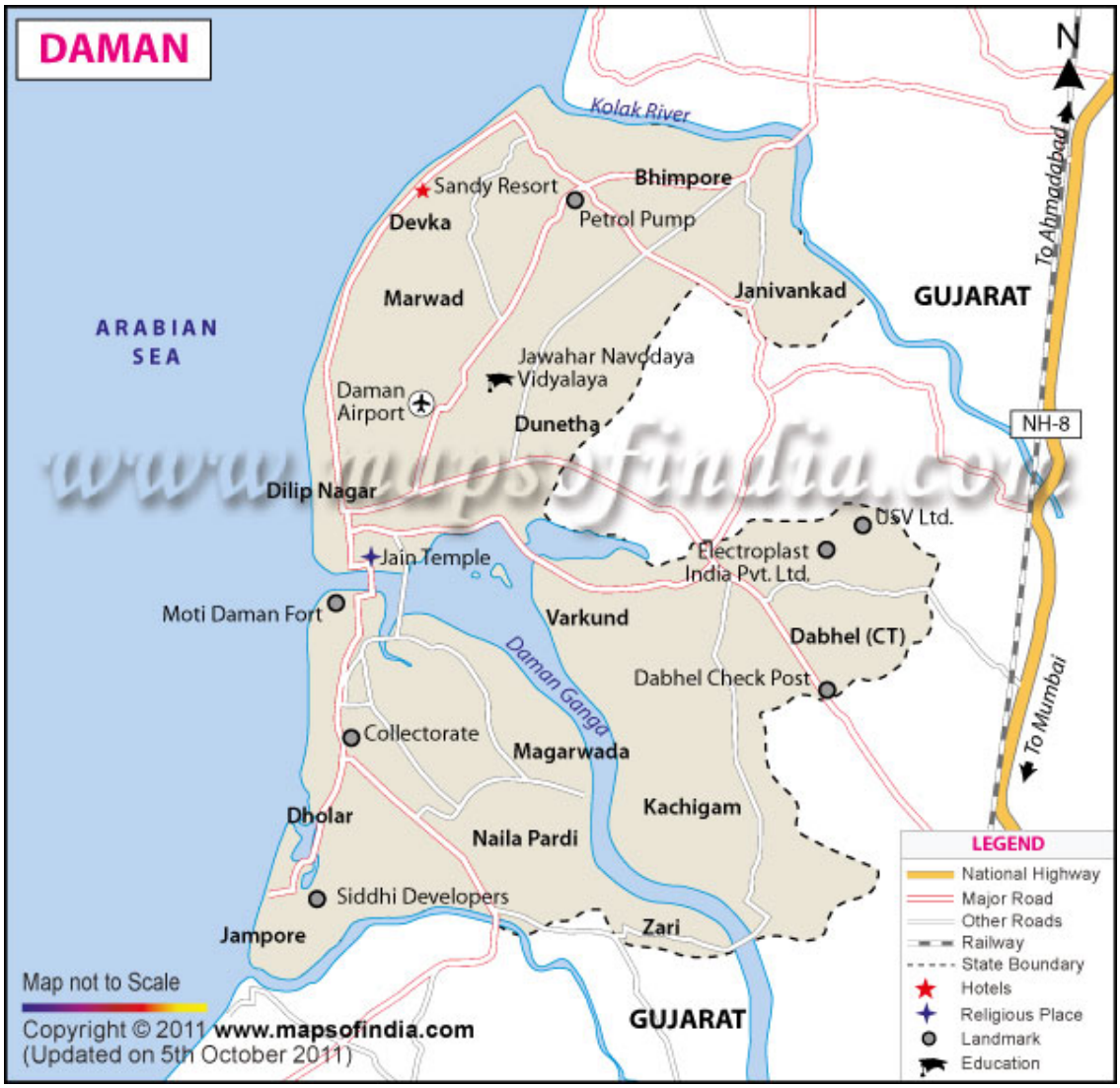
District Environment Plan for Daman

Union Territory of Daman, Diu and Dadra Nagar Haveli



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DAMAN DIU & DADRA NAGAR HAVELI TOURISM

SMALL IS BIG

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Preamble

Hon'ble National Green Tribunal in O.A.No. 360/2018, dated 26/09/2019 ordered regarding constitution of District Committee (as a part of District Planning Committee under Article 243 ZD) under Articles 243 G, 243 W, 243 ZD read with Schedules 11 and 12 and Rule 15 of the Solid Waste Management Rules, 2016.

In the above said order, it is stated that among others

'Chief Secretaries may personally monitor compliance of environmental norms (including BMW Rules) with the District Magistrate once every month. The District Magistrate may conduct such monitoring twice every month. We find it necessary to add that in view of Constitutional provisions under Articles 243 G, 243 W, 243 ZD read with Schedules 11 and 12 and Rule 15 of the Solid Waste Management Rules, 2016 it is necessary to have a District Environment Plan to be operated by a District committee (as a part of District Planning Committee under Article 243 ZD)

In this regard, Central Pollution Control Board vide F. No. B-31011/BMW(42.55)/2021/WMD-I/5329 Dated August 19, 2021 instructed the District Magistrate to prepare District Environmental Plans by constituting District Environment Committee (as a part of District Planning Committee) with representatives from Panchayats, Local Bodies, Nodal Officers, State PCB which may in turn be chaired and monitored by the District Collector/ District Magistrate.

This plan has been prepared in line with the model District Environment Plan (DEP) of CPCB and covers following thematic areas:

1. Waste Management Plan
   (i) Solid Waste management
   (ii) Plastic Waste management
   (iii) C&D Waste Management
   (iv) Biomedical Waste Management
   (v) Hazardous Waste Management
   (vi) E-Waste Management
2. Water Quality Management Plan
3. Domestic Sewage Management Plan
4. Industrial Wastewater Management Plan
5. Air Quality Management Plan
6. Mining Activity Management Plan
7. Noise Pollution Management Plan

1.0 District Profile:

History: After Liberation on 19th December, 1961 from Portuguese Rule of more than four centuries, Daman and Diu became a part of the U.T. of Goa, Daman and Diu under Government of India. After delinking of Goa, which attained statehood, U.T. of Daman and Diu came into existence on 30th May, 1987.

Brief history of Daman and Diu Districts are furnished below as per District Census Hand Book of Census of India, 1981.

Location: U.T. of Daman and Diu comprises two districts namely Daman and Diu. Both Districts are situated on western coast of India at a distance of about 700 kms. Daman is the head Quarter of this U.T.

Daman is on main land near southern portion of Gujarat State. Vapi is the nearest Railway Station (13 kms) which is on Western Railway between Mumbai and Surat. Vapi is 167 kms from Mumbai Central and 95 kms from Surat.

Daman District is situated nearly 200 kms north from Mumbai and is surrounded by Valsad District of Gujarat State in North, East and South. Daman Ganga River coming from Nasik passes through middle of Daman District dividing it into two parts namely Moti Daman and Nani Daman.

The District of Daman is situated on the western at coast of India between the of latitude north and between the meridians"- 00' and 20Ëš- 22"- 58'parallels 20Ëš- 27 of longitude east of Greenwich. Its length from the"- 43' and 72Ëš- 54"- 42'72Ëš-49 extreme north to south measures 11 kms and width from east to west, measures 8 kms. The altitude is 12 metres above the sea level.

Demography: The district has a population of 191173 as per 2011 census. The district has a population density of 2,655 inhabitants per square kilometre. Daman has a sex ratio of 533 females for every 1,000 males and a literacy rate of 88.06%.

Natural Resources:

Water Bodies: The Damanganga River originates from Sahyadri Hills near Valveri village in Nasik district of Maharashtra. The river flows a distance of 131.30 km from East to West along with its tributaries and passing through the hilly areas of Maharashtra, Gujarat and Union Territories (UT) of Dadra & Nagar Haveli (DNH) and Daman & Diu (DD) before draining into the Arabian Sea.

Climate: Daman has a tropical savanna climate with two distinct seasons: a long sunny dry season from October to May and a hot, very humid and extremely wet monsoon season from June to September.

2.0 Indicative Gap Analysis and Action Plans for complying with Waste Management Rules

(i) Solid Waste Management

Solid-waste management, the collecting, treating, and disposing of solid material that is discarded because it has served its purpose or is no longer useful. Improper disposal of municipal solid waste can create unsanitary conditions, and these conditions in turn can lead to pollution of the environment and to outbreaks of vector-borne disease—that is, diseases spread by rodents and insects. The tasks of solid-waste management present complex technical challenges. They also pose a wide variety of administrative, economic, and social problems that must be managed and solved.

a. Current status related to solid Waste management

	Urban Local bodies	No of Wards	No of Households	Population	Solid Waste Generated per day
1	Municipalities (Nagar-Palikas)	15	20,122	44,282	39 TPD

	Local Bodies	No of Village panchayats / Blocks	No of Households	Population	Solid Waste Generated per day
1	Village/Gram Panchayats	14 Panchayats	60,000	1,46,891	120 TPD

b. Identification of gaps and Action plan:

S. No.	Action points For villages / blocks/ town municipalities / City corporations	Identification of gap	Action Plan	Responsible agencies	Timeline for completion of action plan

1	Segregation of waste at source	30%	IEC activity like Nukkad Natak, Banners, Camps, Demonstration	M/s. C.D Transport	December 2021
2	Sweeping				
(i)	Manual Sweeping	100%	Compiled	Daman Municipal Council/ M/s. C.D Transport	NA
(ii)	Mechanical Road Sweeping and Collection	100%	Road sweeping to be purchased	Daman Municipal Council	December 2021
3	Waste Collection				
(i)	100% collection of solid waste	Nil	Compiled	M/s. C.D Transport	NA
(ii)	Arrangement for door-to-door collection	Nil	Compiled	M/s. C.D Transport	NA
(iii)	Waste Collection trolleys with separate compartments	Nil	Compiled	M/s. C.D Transport	NA
(iv)	Mini Collection Trucks with separate compartments	Nil	Compiled	M/s. C.D Transport	NA
(v)	Waste Deposition centres (for Domestic hazardous wastes)	Nil	Compiled	M/s. C.D Transport	NA
4	Waste Transport				
(i)	Review existing infrastructure for waste Transport	Nil	Compiled	M/s. C.D Transport	NA
(ii)	Bulk Waste Trucks	Nil	Yes, provided	Daman Municipal Council	NA
(iii)	Waste Transfer points	NA		M/s. C.D Transport	NA

5	Waste Treatment and Disposal				
(i)	Wet-waste Management: On-site composting by bulk waste generators	Nil	Complied	M/s. C.D Transport	NA
(ii)	Wet-waste Management: Facility for central Biomethanation /Composting of	Nil	Complied	M/s. C.D Transport	NA
(iii)	Dry-Waste Management: Material Recovery for dry-waste fraction.	Nil	Complied	M/s. C.D Transport	NA
(iv)	Disposal of inert and non-recyclable wastes: Sanitary Landfill	Daman: 20% inert has been deposit at sanitary landfill site.	As per the agreement, the agency has to plan for scientific land	M/s. C.D Transport	31st March, 2022
(v)	Remediation of historic / legacy dumpsite	Nil	Under Process	M/s. C.D Transport	
(vi)	Involvement of NGOs	NA	NA	NA	NA
(vii)	EPR of Producers: Linkage with Producers/ Brand	NA	NA	NA	NA
(viii)	Authorisation of Waste Pickers	Yes	Under Process	Daman Municipal Council	31st March, 2022
(ix)	Preparation of own by-laws to comply with SWM Rules 2016	Yes	Complied	Daman Municipal Council	NA

(ii) Plastic Waste Management

Plastic waste, or plastic pollution, is 'the accumulation of plastic objects (e.g.: plastic bottles and much more) in the Earth's environment that adversely affects wildlife, wildlife habitat, and humans. While it is an important material for our economy, providing multiple benefits to modern day living, plastic can take thousands of years to biodegrade. It takes up valuable space in landfill sites and is polluting the natural environment, having a significant impact on our oceans. Because plastics and their ingredients are pervading our oceans and waterways, invading the bodies of humans and wildlife, and filling landfills (with new and once recycled plastic) the Ecology Centre recommends eliminating plastics from your life, as much as possible. Plastic sticks around in the environment for ages, threatening wildlife and spreading toxins. Plastic also contributes to global warming. Almost all plastics are made from chemicals that come from the production of planet-warming fuels (gas, oil and even coal).

(a) Current status related to Plastic waste management

	Urban Local bodies	Estimated quantity of Plastic Waste Generated per day
1	Municipalities (Nagar Palikas)	Daman: 3 TPD

	Local Bodies	Plastic Waste Generated per day
1	Village/Gram Panchayats	Daman: 13 TPD

(b) Identification of gaps and Action plan:

S.No.	Action points For village panchayats/ blocks/ municipalities / corporations	Identification of gap	Action plan	Agencies Responsible	Target time for Compliance
1	Door to Door collection of dry waste including PW	Complied	NA	M/s. C.D Transport	NA
2	Facilitate organized collection of PW at Waste transfer point or Material Recovery	Complied Notification No. DMN/DMC/BYE LAWS/02/2021 dated 11.06.2021	NA	M/s. C.D Transport	NA
3	PW collection centres	Complied	NA	M/s. C.D Transport	NA

4	Awareness and education programs implementation	30%	IEC activity like, Nukkad Natak, Banners, Camps, Demonstration.	Daman Municipal Council	NA

(iii) C & D Waste Management

Construction and demolition (C&D) waste is generated from construction, renovation, repair, and demolition of houses, large building structures, roads, bridges, piers, and dams. C&D waste is made up of wood, steel, concrete, gypsum, masonry, plaster, metal, and asphalt. Demolition wastes are heterogeneous mixtures of building materials such as aggregate, concrete, wood, paper, metal, insulation, and glass that are usually contaminated with paints, fasteners, adhesives, wall coverings, insulation, and dirt.

Every waste generator shall be responsible for collection, segregation of concrete, soil and others and storage of construction and demolition waste generated separately, deposit at collection centre so made by the local body or handover it to the authorised processing facilities, ensure that there is no littering.

(a) Current status related to C & D Waste

Details of Data Requirement	**Present Status**
Total C & D waste generation in MT per day (As per data from	1 TPD
Does the District have access to C&D waste recycling	No

(b) Identification of gaps and Action plan:

S. No.	**Action points** for **blocks / town municipalities / City**	**Identification of Gaps**	**Action Plan**	**Responsible agency**	**Timeline for completion of action plan**
1.	Arrangement for separate collection of C&D waste to C&D waste deposition point.	C&D waste and material are dumped at Govt. project landfill site.	Nil	Daman Municipal Council	Nil

2.	Whether local authority have fixed user fee on C&D waste and introduced permission system for bulk waste generators who generate more than 20 tons or more in one day or 300 tons per project in a month?	NA	NA	NA	NA
3.	C&D recycling Facility	Daman: Due to small amount of Quantity it is not possible to set up	NA	Daman Municipal Council	NA
4.	Usage of recycled C&D waste in on-structural concrete, paving blocks, lower layers of road pavements, colony and rural roads	NA	NA	NA	NA

(iv) Biomedical Waste Management

Hospital waste refers to all waste, biological or non- biological that is discarded and not intended for further use. Bio-medical waste means 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. Steps in the management of biomedical waste include generation, accumulation, handling, storage, treatment, transport and disposal.

a. Current Status related to biomedical waste

Inventory of BMW in the District	**Quantity**
Total no. of Bedded Healthcare Facilities	15
Total no. of non-bedded HCF	0
No. of HCFs authorised by SPCBs/PCCs	38
No of Common Biomedical Waste Treatment and Disposal Facilities (CBWTFs)	None, Generated bio-medical waste of Daman is sent to En-cler, Vapi, Gujarat for treatment
Capacity of CBWTFs	Adequate

No. of Deep burials for BMW if any	0
Quantity of biomedical waste generated per day	250 Kg/day
Quantity of biomedical waste treated per day	250 Kg/day

b. Identification of gaps and Action plan:

S. No.	Action points	Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
1.	Inventory and Identification of Healthcare Facilities	Majority of the Healthcare facilities have authorization from PCC	The procedure for obtaining authorization is in process	Pollution Control Committee and respective health care facilities including veterinary hospitals, animal	03 months
2.	Adequacy of facilities to treat biomedical waste	The UT does not have any CBWTF, the treatment of BMW is outsourced to an Agency named Encler Pvt Ltd	NA	NA	NA
3.	Tracking of BMW	Barcode system is implemented in the District Hospital of the UTs.	The Barcode system at other Health Care Facilities will be implemented shortly	Pollution Control Committee and respective health care facilities including veterinary hospitals, animal	
4.	Awareness and education of healthcare staff	All stakeholders of Government Health Care Facilities are trained	Quarterly training are organized	Clinical Establishment in Co ordination with respective healthcare facilities	

5.	Adequacy of funds	There is no separate fund for BMW	The BMW management is utilized by the fund allocated to the Health Department	Health Department	
6.	Compliance to Rules by HCFs and CBWTFs	Clinical Establishment monitors the district level compliances of the Hospitals	PCC will make one district level committee	Pollution Control Committee	
7.	District Level Monitoring Committee	Committee has been constituted in all government health care facilities and meetings are also organized quarterly. However, No District Level Monitoring	The department will identify the teams in Coordination with PCC to constitute District Level Monitoring Committee	Health Department	02 Months
8.	Wastewater Treatment	Liquid waste management system is in place at all health care facilities.	ETPs are to be installed in new Infrastructure which is already in plan.	Health Department	

(v) Hazardous Waste Management:

Hazardous waste is waste that is dangerous or potentially harmful to our health or the environment. Hazardous wastes can be liquids, solids, gases, sludge's, discarded commercial products (e.g., cleaning fluids or pesticides), or the by-products of manufacturing processes. Hazardous waste can be treated by chemical, thermal, biological, and physical methods. Chemical methods include ion exchange, precipitation, oxidation and reduction, and neutralization. Among thermal methods is high-temperature incineration, which not only can detoxify certain organic wastes but also can destroy them.

a. Current Status related to hazardous waste

Details of Data Requirement	**Present Status**
No of Industries generating HW	126
Quantity of HW in the district	

(i) Quantity of Incinerable HW	618.51 MT/Annum
(ii) Quantity of land-fillable HW	668.33 MT/Annum
(iii) Quantity of Recyclable / utilizable HW	1674.36 MT/Annum
No of captive/common TSDF	01 no. of integrated TSDF, 01 no. of SLF
Contaminated Sites or probable contaminated sites	Nil

(b) Identification of gaps and action plan:

S. No.	Action points	Identification of Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
1.	Regulation of industries and facilities generating Hazardous Waste	Ongoing activity	PCC should ensure that all hazardous waste industries are authorized and a system of safe disposal is in place.	Pollution control committee	Ongoing activity
2.	Establishment of collection centres	Not applicable	Local authority should ensure that adequate number of collection centres should be established and are linked to common TSDFs.	Green Gene Enviro Protection and Infrastructure private limited (GEPIL) authorized by PCC	Completed
3.	Training of workers involved in handling / recycling / disposal of HW	Not applicable	Action plan to train the workers on safety aspects through Department of Industries as per provisions under HWM Rules 2016	Green Gene Enviro Protection and Infrastructure private limited (GEPIL) authorized by PCC	Completed

4.	Availability/ Linkage with common TSDF or disposal facility	The generators of hazardous wastes have access to common TSDF in the UT.	Action plan to ensure all generators are linked to TSDF	Green Gene Enviro Protection and Infrastructur e private limited (GEPIL) authorized by PCC	Completed
5.	Contaminated Sites	Not applicable	Action plan for identification of probable contaminated site, incidents of HW dumping, responsible parties for contaminated site, etc and to remediate contaminated sites.	Pollution Control Committee	Ongoing activity

(vi) E-Waste Management

Electronic waste is discarded electronic or electrical equipment and devices. Used electronics that are intended for reuse, salvage, resale, disposal, or recycling are also referred to as e-waste. Electronic waste is discarded electronic or electrical equipment and devices. Used electronics that are intended for reuse, salvage, resale, disposal, or recycling are also referred to as e-waste.

a. Current Status related to E-Waste Management

Details of Data Requirement	**Present Status**
Inventory of E-Waste in MT/year	7.022 MT/Year
Collection centers established by ULBs in the District	There are no such units situated in UT of Daman, which are involved in dismantling and recycling of E-waste
Collection centers established by Producers or their PROs	NA
No authorized E-Waste recyclers / Dismantler	NA Note: 6 Generators Generators are disposing by selling to authorised recycler and dismantler of E-waste

b. Identification of gaps and action plan:

S. No.	Action points	Gaps in implementation	Action Plan	Responsible agency	Timeline for completion of action
1.	E-Waste collection points	There is no Collection centre in UT of Daman	NA	Urban Development Department and Rural Development Department	31.05.2022
2.	Linkage among Stakeholders to channelize E-Waste	E-waste generated in the UT of Dadra Nagar Haveli is disposed through the recyclers of Gujarat and Maharashtra	NA	Pollution Control Committee	NA
3.	Regulation of Illegal E- Waste recycling / dismantling	No illegal E-waste recycling/dismantling exists in District	Nil	Pollution Control Committee	NA
4.	Awareness and Education	District level Awareness Campaigns conducted by PCC.	Nil	Pollution Control Committee	Nil

3.0 Air Quality Management

a. Current Status related to Air Quality Management

Details of Data Requirement	Present Status
Number of Automatic Air Quality monitoring stations in the district. - Operated by SPCB / State Govt / Central govt./ PSU agency : - Operated by Industry:	- Operated by SPCB : Nil - Operated by Industry: Nil
Number of manual monitoring Stations operated by SPCBs	03
Name of towns / cities which are failing to comply with national ambient air quality standards	Nil
No of air pollution industries	Nil

Prominent air polluting sources [Large Industry] / [Small Industry] / [Unpaved Roads] / [Burning of Waste Stubble] / [Brick Kiln] / [Industrial Estate] / [Others] (Multiple selection)	Small and medium scale industries and vehicular movement

b. Identification of gaps and action plan:

The Pollution Control Committee, DNH & DD has not setting up Continuous Ambient Air Quality Monitoring Station in the UT of Dadra & Nagar Haveli and Daman & Diu (DNH & DD). However, The Pollution Control Committee, DNH & DD had already sent a proposal for installation of Continuous Ambient Air Quality Monitoring (CAAQM) at OIDC Ltd., Somnath, Daman on 07/12/2017, 16/05/2018 and 23/07/2019 to CPCB, Delhi.

There is no city in Dadra & Nagar Haveli and Daman & Diu which falls in the list of 102 cities identified as 'Non-attainment cities'. However, the PCC, DD & DNH is monitoring six manual ambient air quality monitoring stations i.e. 3 in Daman and 3 in DNH under National Air Quality Monitoring Programme (NAMP), which have been set up and are functional. Further, the average Ambient Air Quality for Dadra & Nagar Haveli and Daman & Diu is well within the prescribed limit and falls under satisfactory level.

The salient features of the Action Plan, indicating the sources of pollution and actions, are as follows:

1. To ensure good air quality throughout the state.
2. To take necessary steps to maintain good air quality and also improve good air quality.
3. The air quality monitoring is being done manually.
4. No Real-time air quality monitoring carried out.

Necessary initiatives to be taken to maintain good air quality and also improve air quality status.

a) Vehicles: CNG is being used for some vehicles and E-rickshaws have also been introduced in DNH & DD. The system of regular checking of vehicular emission and issue of Pollution Control Certification (PUCs) shall be strictly enforced.

b) Road Dust: The action points include regular cleaning of air dust and water spraying, plantations in urban areas.

c) Construction activities: The action points include material handling, conveying and screening operational through water sprinkling, curtains, barriers and dust suppression units, covering of construction sites, transportation of construction material/ debris in covered manner and restriction on storage of construction material along roadside from construction and demolition activities.

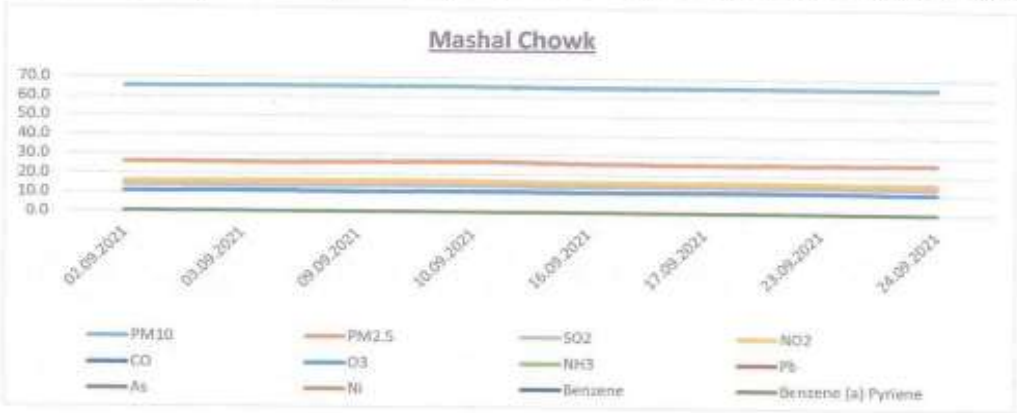
d) Bio-mass and Garbage Burning: There is no open burning of municipal solid waste, bio-mass, plastic, horticulture waste, etc., transportation of municipal solid waste in covered manner and use of PNG (Piped Natural Gas) for cooking purposes by domestic and commercial consumers.

- Most of industries are having own Air Pollution Control Devices to control the air pollutions who have generating air emissions during the process and regularly monitoring to the industries whether APCDs operate or not by the PCC, DNH & DD.
- The Pollution Control Committee, DD & DNH is not allowing to any industry to generate high Sulphur contains i.e. from coal, lignite, pet coke, FO as fuel in the UT of DNH & DD. Only agro base briquettes, LDO, diesel is allowed as fuel in different types of furnace, Boiler, Thermic Fluid Heater, D.G. Set, etc.

Ambient Air Quality Monitoring Data of Daman:

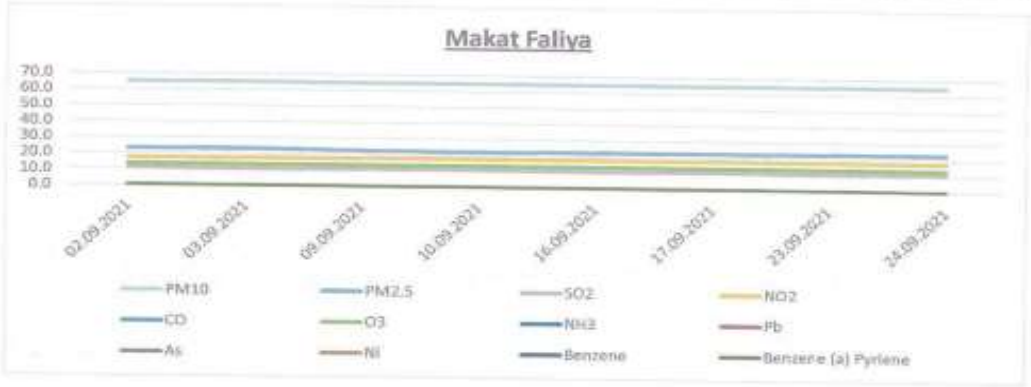
Location Name: Mashal Chowk (N. 20°25'15.977"E. 72°50'24.173")

Date	PM10	PM2.5	SO2	NO2	CO	O3	NH3	Pb	As	Ni	Benzene	Benzene (a) Pyriene
02.09.2021	65.5	26.2	14.0	15.8	0.10	10.8	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
03.09.2021	65.6	25.8	13.7	16.3	0.10	11.2	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
09.09.2021	65.8	26.2	14.1	16.4	0.12	10.8	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
10.09.2021	65.7	26.6	14.0	16.4	0.11	11.2	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
16.09.2021	65.1	25.8	13.7	15.8	0.12	10.8	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
17.09.2021	65.2	25.4	14.0	16.1	0.13	11.2	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
23.09.2021	65.3	25.8	14.0	16.1	0.12	11.2	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
24.09.2021	65.5	26.2	13.7	15.9	0.12	10.8	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)



Location Name: Makat Faliya (N. 20°23'42.881"E. 72°50'54.187")

Date	PM10	PM2.5	SO2	NO2	CO	O3	NH3	Pb	As	Ni	Benzene	Benzene (a) Pyriene
02.09.2021	65.1	22.9	11.0	17.3	0.12	13.3	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
03.09.2021	65.3	23.3	10.7	17.6	0.11	13.3	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
09.09.2021	64.9	22.5	11.0	17.8	0.12	13.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
10.09.2021	65.0	22.0	11.0	17.9	0.12	13.3	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
16.09.2021	64.8	22.5	10.7	17.8	0.13	13.3	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
17.09.2021	64.9	22.5	11.0	17.9	0.13	13.5	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
23.09.2021	65.0	22.9	10.7	17.8	0.12	13.3	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
24.09.2021	65.1	23.3	11.4	17.9	0.13	13.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)

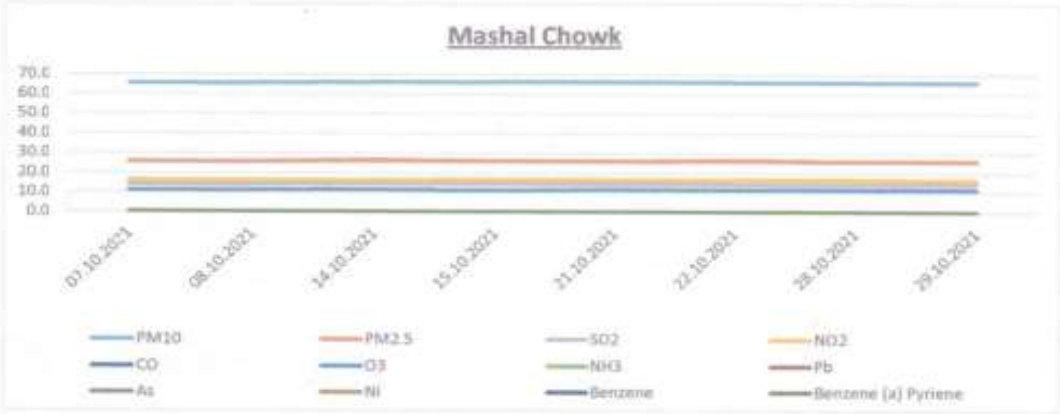


Location Name: Prima Plastics(N. 20°26'32.927"E. 72°51'25.031")

Date	PM10	PM2.5	SO2	NO2	CO	O3	NH3	Pb	As	Ni	Benzene	Benzene (a) Pyriene
07.10.2021	75.2	29.2	17.0	25.0	0.12	14.9	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
08.10.2021	75.5	29.5	17.1	25.2	0.12	15.2	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
14.10.2021	75.8	29.9	17.4	25.8	0.13	15.5	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
15.10.2021	76.0	30.4	17.5	25.5	0.13	15.2	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
21.10.2021	76.3	31.2	17.5	25.8	0.13	15.5	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
22.10.2021	76.4	30.8	17.5	25.8	0.12	15.2	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
28.10.2021	76.6	31.2	17.5	25.5	0.13	15.5	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
29.10.2021	76.7	31.2	17.6	25.8	0.13	15.8	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)

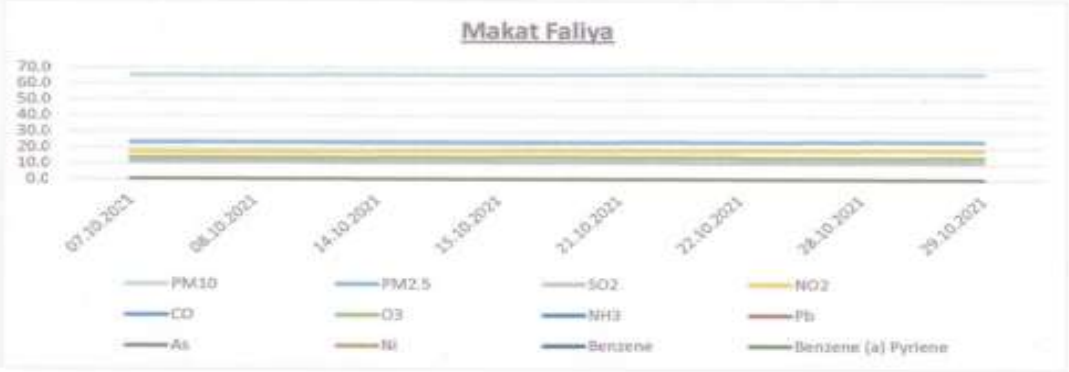
Location Name: Mashal Chowk (N. 20°25'15.977"E. 72°50'24.173")

Date	PM10	PM2.5	SO2	NO2	CO	O3	NH3	Pb	As	Ni	Benzene	Benzene (a) Pyriene
07.10.2021	65.6	25.8	14.0	16.2	0.12	11.0	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
08.10.2021	65.8	25.8	14.1	16.2	0.12	11.3	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
14.10.2021	66.2	26.6	14.8	16.5	0.13	11.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
15.10.2021	66.5	26.2	14.5	16.8	0.13	11.3	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
21.10.2021	66.6	26.2	14.7	16.5	0.13	11.8	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
22.10.2021	66.5	26.6	14.5	16.8	0.13	11.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
28.10.2021	66.2	26.2	14.4	16.8	0.12	11.7	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
29.10.2021	66.4	26.2	14.6	16.4	0.13	11.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)



Location Name: Makat Faliya (N. 20°23'42.881"E. 72°50'54.187")

Date	PM10	PM2.5	SO2	NO2	CO	O3	NH3	Pb	As	Ni	Benzene	Benzene (a) Pyriene
07.10.2021	65.4	23.3	11.1	17.6	0.12	13.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
08.10.2021	65.6	23.7	11.5	17.6	0.12	13.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
14.10.2021	65.9	23.3	11.2	17.9	0.12	13.9	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
15.10.2021	65.7	23.3	11.1	18.2	0.13	14.2	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
21.10.2021	66.1	23.7	11.4	18.4	0.13	14.3	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
22.10.2021	66.3	23.7	11.1	18.6	0.13	14.2	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
28.10.2021	66.4	24.1	11.2	18.9	0.12	13.9	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
29.10.2021	66.5	24.2	11.5	18.9	0.13	14.2	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)



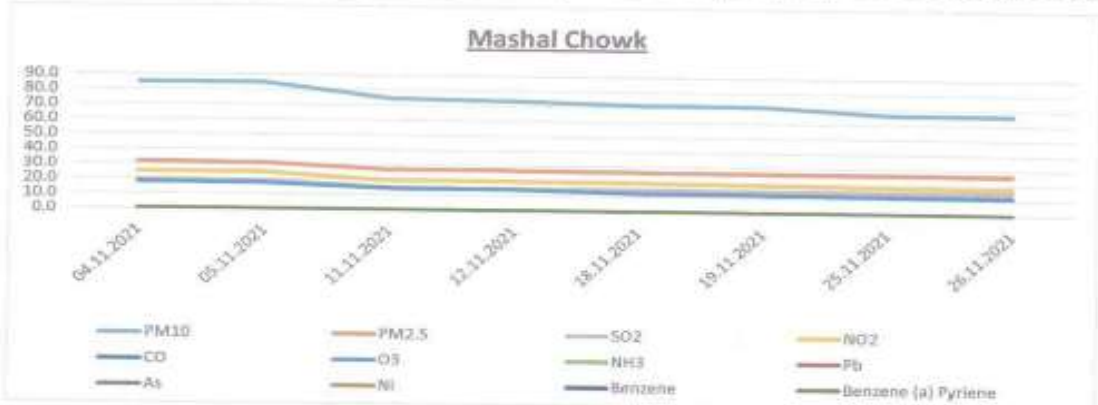
Location Name: Prima Plastics(N. 20°26'32.927"E. 72°51'25.031")

Date	PM10	PM2.5	SO2	NO2	CO	O3	NH3	Pb	As	Ni	Benzene	Benzene (a) Pyriene
04.11.2021	89.2	35.4	23.4	29.2	0.24	19.8	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
05.11.2021	88.8	35.0	22.8	28.9	0.24	18.7	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
11.11.2021	80.7	32.5	18.7	26.2	0.18	16.5	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
12.11.2021	80.6	32.1	18.6	25.9	0.17	16.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
18.11.2021	79.4	31.2	18.5	25.6	0.15	15.8	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
19.11.2021	79.1	31.0	18.3	25.6	0.14	15.8	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
25.11.2021	77.0	30.8	18.5	25.6	0.15	15.7	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
26.11.2021	76.6	30.8	18.7	26.0	0.16	15.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)

Note : BQL= Below Quantification Limit
QL= Quantification Limit

Location Name: Mashal Chowk (N. 20°25'15.977"E. 72°50'24.173")

Date	PM10	PM2.5	SO2	NO2	CO	O3	NH3	Pb	As	Ni	Benzene	Benzene (a) Pyriene
04.11.2021	85.1	31.7	19.4	25.1	0.20	18.1	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
05.11.2021	84.8	31.2	19.0	24.8	0.18	17.7	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
11.11.2021	74.8	27.1	15.2	19.8	0.16	14.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
12.11.2021	73.5	27.1	14.7	19.9	0.17	14.4	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
18.11.2021	71.5	26.7	15.0	19.5	0.15	12.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
19.11.2021	71.4	26.4	14.5	18.9	0.14	12.3	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
25.11.2021	66.6	26.2	14.6	18.0	0.13	11.9	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
26.11.2021	66.5	26.2	15.0	17.8	0.14	11.7	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)



Note : BQL= Below Quantification Limit
QL= Quantification Limit

GREEN MECHANISM PVT. LTD. ANKLESHWAR

Location Name: Makat Faliya (N. 20°23'42.881"E. 72°50'54.187")

Date	PM10	PM2.5	SO2	NO2	CO	O3	NH3	Pb	As	Ni	Benzene	Benzene (a) Pyriene
04.11.2021	81.7	32.1	16.0	22.0	0.18	17.7	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
05.11.2021	81.5	32.5	16.3	21.7	0.18	17.4	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
11.11.2021	75.2	26.2	13.2	19.2	0.17	16.3	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
12.11.2021	74.9	25.8	13.1	18.9	0.16	15.9	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
18.11.2021	72.6	25.0	12.1	18.7	0.15	14.7	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
19.11.2021	72.4	24.8	11.9	18.7	0.14	14.6	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
25.11.2021	69.4	24.6	11.7	18.9	0.14	14.5	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)
26.11.2021	68.9	24.2	11.7	18.9	0.13	14.4	BQL(QL=5)	BQL(QL=0.001)	BQL(QL=1)	BQL(QL=5)	BQL(QL=2.5)	BQL(QL=0.5)

Note : BQL= Below Quantification Limit
QL= Quantification Limit

4.0 Water Quality Management

Water quality management generally: involves the authorization of discharges of dangerous substances for which monitoring of discharges of effluents to surface water is essential. Effluents are the main source of direct and continuous input of pollutants into the aquatic ecosystems. Water quality objectives are designed for the substances or conditions of concern in a watershed so that their attainment will protect the designated uses. Based on the preceding discussions, the water uses to be protected should include drinking water, irrigation, primary-contact recreation, aquatic life and wildlife.

4.1 Water Quality Monitoring

a. Current Status related to Water Quality Management

Details of Data Requirement	**Present Status**
Rivers	Name - Damanganga River Length – 15.5 Km
Length of Coastline (if any)	6 KM
Nalas/ Drains/Creeks meeting Rivers	06 Nos
Lakes / Ponds	06 Nos and 11.42 Hectares
Total Quantity of sewage from towns and cities in	7.5 MLD
Quantity of industrial wastewater	2.02 MLD
Percentage of untreated sewage	55 %
Groundwater polluted areas if	Nil
Polluted river stretches if any	41.5 Km

b. Identification of gaps and action plan for water quality monitoring:

S. No.	**Action points**	**Gaps and Action Plan**	**Responsible agency**	**Timeline for completion of action plan**
1.	Inventory of water bodies	An environmental monitoring cell shall maintain data of all water bodies (rivers/ canals/ natural drains/ creeks/ estuaries/ groundwater/ ponds/ lakes etc.) in district including its water quality.	Pollution control committee	Complied, regular monitoring is being carried out

2.	Quality of water bodies in the district	Create a district level monitoring cell for periodic monitoring of water bodies for specific parameters in association with SPCBs. It is also necessary to disseminate information pertaining to water quality in the form of hoardings on river banks, official	Pollution Control Committee	Complied, Regular monitoring is being carried out.
3.	Hotspots of water contamination	Establish a system or separate cell to monitor water quality. Implement action points for restoration of water quality in association with SPCBs and department of environment	Pollution Control Committee	Complied, Regular monitoring is being carried out.
4.	Protection of river / lake water front	Action plan should be prepared for control river side open defecation, dumping of Solid waste on river banks, for idol	Pollution Control Committee	Complied, Action plan prepared and regular monitoring is carried
5.	Inventory of sources of water pollution	Inventory of all sewage and wastewater discharge points into water bodies in the district. Action plan to complete	Pollution Control Committee	Complied, Regular monitoring is being carried out.
6.	Oil spill disaster management (for coastal districts)	Whether district oil spill crisis management group and District Oil Spill Disaster Contingency Plan has been created? If not, create District Oil Spill Crisis Management Group and District Oil Spill Disaster Contingency Plan for	State Disaster Management Authority, Daman (Disaster Management Cell,)	31.05.2022
7.	Complaints redressal system	A complaint redressing system based on Mobile App/Online should be available at district level.	Pollution Control Committee	Under process, 28.02.2022

4.2 Domestic Sewage

a. Current status related to domestic sewage

Details of Data Requirement	Present Status
No of Class-II towns and above	01 Nos
No of Towns STPs installed	01 Nos
No of Towns needing STPs	Nil
No of ULBs having partial underground sewerage network	01 Nos
No of towns not having sewerage network	Nil
Total Quantity of Sewage generated in District	7.5 MLD
Quantity of sewage flowing into lakes	Nil
Total available Treatment Capacity	4.21 MLD

b. Identification of gaps and action plan for treatment of domestic sewage:

S. No.	Action points	Gaps and Action Plan	Responsible agency	Timeline for completion of action plan
1.	Sewage Treatment Plants (STPs)	Action plan for additional treatment capacity required should be prepared in association with ULBs/ department of	Daman Municipal Council and District Panchayat, Daman	Complied
2.	Underground sewerage network	Action plan for laying of sewerage network in town and cities. The project may be executed through ULBs and	Daman Municipal Council and District Panchayat, Daman	Under progress

5.0 Industrial wastewater management

a. Current Status related to Industrial Wastewater Management

Number of Red, Orange, Green and White industries in the District	Red industries – 21 Orange industries - 792, Green industries – 2783 White industries - 433
No of Industries discharging wastewater	97 Nos.
Total Quantity of industrial wastewater	2.02 MLD
Quantity of treated industrial wastewater discharged into Nalas / Rivers	Nil
Common Effluent Treatment Facilities	Nil
No of Industries meeting Standards	97 Nos
No of Industries not meeting discharge	Nil

b. Identification of gaps and action plan for industrial wastewater:

S. No.	Action points	Gaps and Action Plan	Responsible agency	Timeline for completio
1.	Compliance to discharge norms by Industries	Necessary action be initiated through SPCBs against the industries not meeting the standards	Pollution control committee	Ongoing activity
2.	Complaint redressal system	a complaint redressing system based on Mobile App / Online portal may be prepared at district level.	Under process	28.02.2022

6.0 Mining Activity Management plan

a. Current Status related to Mining Activity Management

Details of Data Requirement	Existing Mining operations
Type of Mining Activity	Not applicable
No of licenced Mining operations in the District	Nil
% Area covered under mining in the District	Nil
Area of Sand Mining	Nil
Area of sand Mining	Nil

7.0 Noise Pollution Management plan

a. Current Status related to Noise Pollution Management

<table>
<tr><th>Details of Data Requirement</th><th>Measurable Outcome</th></tr>
<tr><td>No. of noise measuring devices available with various agencies in district</td><td>AS far as Daman district is concerned, there is no noise measuring devices available with Daman Police Department</td></tr>
<tr><td>Number of noise measuring device required/ demand</td><td>Police station-wise requirement is as under:
<table>
<tr><td>Nani Daman PS</td><td>Moti Daman PS</td><td>Kadaiya PS</td><td>Traffic Branch</td><td>Total</td></tr>
<tr><td>05</td><td>04</td><td>05</td><td>02</td><td>16</td></tr>
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