

**STATUS REPORT OF COMPLIANCE AND  
IMMEDIATE FUTURE PLANS OF DAMAN AND DIU**

**Submitted to  
Hon'ble National Green Tribunal,  
Principal Bench,  
New Delhi**

**UT ADMINISTRATION OF DAMAN AND DIU**

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<b>A</b>	UT Level Advisory Body constituted vide No. 01/IT/DDEWS/File No. 445/2018-19/03/25/ITDMN/2018 dated 03.05.2018
<b>B</b>	Daman Municipality Solid Waste Management Bye Laws, 2018 notified vide notification No. 3/1-518/DMC/18-19/1356 dated 04.09.2018
<b>C</b>	Diu Municipality Solid Waste Management Bye Laws, 2018 notified vide Notification No. DD/DMC/Bye Laws/01/2018/6727 dated 26.7.2018
<b>D</b>	Daman and Diu Waste Management and Sanitation Policy, 2018 notified vide No. UD/DMN/WMSP/2018/1428 dated 12/09/2018
<b>E</b>	Standard Operating Procedure (SOP) for Swachh Campus and Office Solid Waste Management issued vide No. COL/DMN/EST/2018-19/8081 dated 20/09/2018.
<b>F</b>	User fee from stakeholders is being levied align with property tax and resolution to this effect has already been passed in the Daman Municipal Council.
<b>G</b>	MoU signed with Ultra Tech Cements on 1.3.2018 by Diu Municipal Council for lifting waste from Diu for the Narmada Cement Jafarabad Works.
<b>H</b>	The UT Administration of Daman & Diu order on blanket ban on the use, sale and storage of all kinds of plastic bags in the U.T. of DD & DNH.
<b>I</b>	Constitution of UT Level Advisory Body for Daman & Diu and Dadra Nagar Haveli vide No. PCC/DDD/Plastic(W,M&H) Rules,2011/11-12/664 and PCC/DDD/Plastic (W,M&H) Rules,2011/11-12/663 dated 11/01/2012.
<b>J</b>	Action Plan on Bio-medical Waste Management in
<b>K</b>	Annual Report on Bio Medical Waste Management.
<b>L</b>	District Level Monitoring Committee on Bio Medical Waste Management.

<b>M</b>	Report on Bio Medical Waste Management by Department of Health & Family Welfare in Daman & Diu.
<b>N</b>	Notification of River Rejuvenation Committee (RRC) constituted under the chairmanship of Director, Municipal Administration, Daman & Diu vide no. PCC/NGT-673/2018/18-19 dated 08/01/2019.
<b>O</b>	Revised Action Plan on rejuvenation of Damanganga River resubmitted to CPCB.

## **Introduction :**

The Hon'ble National Green Tribunal (NGT), Principal Bench, New Delhi vide order dated 12.09.2019 in Original Application No. 606/2018 in the matter related to compliance of Municipal Solid Waste Management Rules, 2016, directed the Chief Secretaries/Advisor to Administrators of all States and UTs to review the progress on all the below issues.

- Compliance to Solid Waste Rules including Legacy Waste.
- Compliance to Bio-medical Waste Rules.
- Compliance to Construction & Demolition Waste.
- Compliance to Hazardous Waste Rules.
- Compliance to E-waste Rules.
- 351 Polluter Stretches in the country.
- 122 Non-attainment cities.
- 100 industrial clusters.
- Status of STPs and re-use of treated water.
- Status of CETPs/ETPs including performance.
- Ground water extraction/contamination and re-charge.
- Air pollution including noise pollution.
- Illegal sand mining.
- Rejuvenation of water bodies.

Accordingly, State Level Committee under the Chairmanship of Advisor to the Administrator, Daman and Diu and Dadra Nagar Haveli has been constituted vide Notification No. PCC/DDD/NGT-606 (2018) (DMN)/18-19/39 dated 19.02.2019. Advisor to Administrator reviewed all the issues related to compliance of Waste Management Rules on 20.2.2019 and 9.4.2019. The status

report and the immediate future Plan for UT of Daman and Diu is prepared and finalised. The report deals with compliances and immediate actions under SWM, Plastic Waste Management, Bio Medical Waste Management, E- Waste Management, Hazardous Waste Management, Sewage Treatment and Sewerage Networking, Damanganga River Rejuvenation Plan, Ambient Air Quality Monitoring and others.

## **I. Compliance to Solid Waste Management Rules :**

For effective implementation of the Solid Waste Management Rules, 2016 UT Administration of Daman & Diu has notified the following.

- a) UT Level Advisory Body vide Notification No. 01/IT/DDEWS/File No. 445/2018-19/03/25/ITDMN/2018 dated 03.05.2018 (**Annexure A**).
- b) Daman Municipality Solid Waste Management Bye Laws, 2018 notified vide Notification No. 3/1-518/DMC/18-19/1356 dated 04.09.2018 (**Annexure B**).
- c) Diu Municipality Solid Waste Management Bye Laws, 2018 notified vide Notification No. DD/DMC/Bye Laws/01/2018/6727 dated 26.7.2018 (**Annexure C**).
- d) Daman and Diu Waste Management and Sanitation Policy, 2018 notified vide Notification No. UD/DMN/WMSP/2018/1428 dated 12/09/2018 (**Annexure D**).
- e) Standard Operating Procedure (SOP) for Swachh Campus and Office Solid Waste Management issued vide No. COL/DMN/EST/2018-19/8081 dated 20/09/2018 (**Annexure E**).

### **1. Status of SWM in Daman:**

#### **a) Daman Municipal Council (DMC) Area:**

- There are 15 wards in Daman Municipal Council and has a population of 50,000 people. Door to Door collection, segregation

and disposal of solid wastes is being carried out regularly and effectively in DMC areas and the details are in Table 1 as under.

**Table 1: Waste Management in DMC Area**

Sr. No.	Data for Solid Waste Management	Existing Status	Remark
1.	Quantity of legacy waste in existing old dumping / landfill sites.	50,370 Tone	---
2.	Total Quantity of Waste Generation/ Ward Wise Waste Generation	24 Ton per Day from 15 wards	---
3.	Number of Transportation vehicles involved in the SWM along with capacity and number of trips in a day.	07 Tippers (0.75 Tone each) 06 Tractors (1 Tones each) (Frequency - 2 times/day)	---
4.	Number of informal waste collectors/ waste picker/ other informal agencies authorized by the local body to handle waste	80	---
5.	Door to Door Collection (Ward Wise)	100 % Door to Door collection from 15 Wards	---
6.	Segregation of Collected Wastes at Source (Ward Wise)	60 % of collected wastes is being segregated at Source	Rest of the waste segregated at processing facility.
7.	Quantity of Recyclable Waste (segregated non-biodegradable solid waste which can be transformed into new material or product or as raw material for producing new products which may or may not be similar to the original products)	5.5 Ton per Day (Approx.)	---
8.	Quantity of Combustible Waste (non-biodegradable, non-recyclable, non-reusable, non-hazardous solid waste having minimum calorific value exceeding 1500 kcal/kg and	03 Ton per Day (Approx.)	---

	excluding chlorinated materials like plastic, wood pulp, etc.)		
9.	Quantity of Sanitary Waste (wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste)	0.05 Ton per Day (Approx.)	---
10.	Quantity of Domestic Hazardous Waste Generation (i.e. discarded paint drums, pesticide cans, CFL bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and contaminated gauge, etc., generated at the household level)	0.05 Ton per Day (Approx.)	---
11.	Quantity of Waste Suitable for Stabilization (biodegradable waste)	13 Ton per Day (Approx.)	---

- This plant will have both composting and material recovering facilities and all non biodegradable wastes including plastics will be segregated and disposed of appropriately to vendors.
- More than 80 waste pickers have been registered in Daman and integrated in Solid Waste Management System.
- DMC has already stopped dumping waste at landfill site.
- Daman is having plastic recycling industries which utilise plastics, PET bottles scraps and waste polyester yarns as raw materials to manufacture recycled plastic granules and fibres.
- All the bulk waste generators (Hotels and Restaurants) have been identified and it has been made compulsory for them to process

their own waste. 80% Hotels/Restaurants are sending their wastes for processing at compost plant at Magarwada.

- The remaining small hotels/restaurants are persuaded to process their waste.
- User fee from different stakeholders is being levied along with property tax and a resolution to this effect has already been passed in the Daman Municipal Council (**Annexure F**).

**b) Daman District Panchayat Area:**

- Daman Rural areas include 11 Panchayats, having a population of 1.47 lakhs people. 52 MT of Solid wastes are generated on daily basis in the rural areas of Daman. Door to Door collection, segregation and disposal have been initiated and the details are in Table 2 as under.

**Table 2: Waste Management in Rural Areas of Daman**

Sr. No.	Data for Solid Waste Management	Existing Status	Remark
1.	Quantity of legacy waste in existing old dumping/ landfill sites.	50,370 Tone	There is only one dumping site which used both Daman Municipal Council and District Panchayat.
2.	Total Quantity of Waste Generation/ Ward Wise Waste Generation	52 Ton per Day from 11 Gram Panchayats	---

3.	Number of Transportation vehicles involved in the SWM along with capacity and number of trips in a day.	Tractors - 27 Tipping Trucks – 15 Compactors – 03 Tricycles – 20 (Frequency - 2 times/day)	100% collection will be achieved by June 2020
4.	Number of informal waste collectors/ waste picker/ other informal agencies authorized by the local body to handle waste.	Not identified, however 2-3 in each Gram Panchayat	Survey & Registration will be completed by January, 2020
5.	Door to Door Collection (Ward Wise)	90%	---
6.	Segregation of Collected Wastes at Source (Ward Wise)	100 %	---
7.	Quantity of Recyclable Waste (segregated non-biodegradable solid waste which can be transformed into new material or product or as raw material for producing new products which may or may not be similar to the original products)	10 Ton per Day (Approx.)	---
8.	Quantity of Combustible Waste (non-biodegradable, non-recyclable, non-reusable, non-hazardous solid waste having minimum calorific value exceeding 1500 kcal/kg and excluding chlorinated	Not identified yet.	Will be completed by January, 2020.

	materials like plastic, wood pulp, etc.)		
9.	Quantity of Sanitary Waste (wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste)	Not identified yet.	Will be completed by January, 2020.
10.	Quantity of Domestic Hazardous Waste Generation (i.e. discarded pain drums, pesticide cans, CFL bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and contaminated gauge, etc., generated at the household level)	Not identified yet.	Will be completed by January, 2020.
11.	Quantity of Waste Suitable for Stabilization (biodegradable waste)	20 TPD	---

- The generated solid waste sent to the processing facility of DMC.
- The tender for development of Integrated Rural Solid Waste Management System (Collection and Processing of Garbage) for District Panchayat, Daman was floated. Only one bidder had filed online tender, therefore the technical bid was not processed. The tender has been re-invited.

The immediate future plan for implementation of SWM Rules along with the time schedule is given separately for both Daman Municipal Council and Daman District Panchayat Areas in Table 3 and Table 4 as under.

**Table 3: Future Plans for Implementation SWM Rules in Daman Municipal Council (DMC) Area**

<b>Sr. No.</b>	<b>Actions to be taken for implementation of SWM Rules, 2016</b>	<b>Existing Status of implementation</b>	<b>Targeted time line for complete implementation of SWM Rules, 2016.</b>
1.	Clearing legacy waste from existing dumping/landfill sites.	It will be converted to scientific dump site.	January, 2020
2.	Computerization of Waste Collection Process.	Under process	January, 2020
3.	Penalty provisions	Implemented	Rs. 26,87,500/- released as penalty for violators. (Approx.)
4.	Centralized Waste Stabilization Facilities with Capacity (i.e. Windrow/ Microbial Composting, Vermi - Composting, Bio - Methanation, Anaerobic Digestion or any other appropriate processing for Bio-Stabilization of Biodegradable Wastes)	One Centralized plant based on composting capacity of 100 TPD	--
5.	Scientific Landfill Site with Capacity	Under process.	June, 2020

**Table 4: Future Plans for Implementation of SWM Rules in Daman  
Rural Areas**

Sr. No.	Actions to be taken for implementation of SWM Rules, 2016	Existing Status of implementation	Targeted time line for complete implementation of SWM Rules, 2016.
1.	Clearing legacy waste from existing dumping/landfill sites.	It will be converted to scientific dump site.	January, 2020
2.	Computerization of Waste Collection Process.	Under process	January, 2020
3.	Penalty provisions	Penalty is being collected in similar lines as DMC.	--
4.	Centralized Waste Stabilization Facilities with Capacity (i.e. Windrow/ Microbial Composting, Vermi - Composting, Bio Methanation, Anaerobic Digestion or any other appropriate processing for Bio-Stabilization of Biodegradable Wastes)	One Centralized plant based on composting capacity of 100 TPD	--
5.	Scientific Landfill Site with Capacity	Under process.	June, 2020

## 2. Status of SWM in Diu :

### a) Municipal Council (DMC)

- Diu Municipal Council is having a population of about 24,000 spread in 13 wards. Door to Door collection, segregation and disposal of solid wastes are being carried out regularly and the details are in Table 5 as under.

**Table 5: Waste Management in Diu Municipal Council Area**

Quantity of waste generation per day	Status of door to door collection	Status of segregation at source	Quantity of recyclable waste collected	Quantity of waste being processed	Details of the waste processing facility
14 MT per day	100 %	100 %	07 MT/Day	Dfid - TASC is preparing a SWM plan, and DPR for development of infrastructure.	1. DMC has mandated all the bulk-waste generators, eq. hotels, to process their waste on-site.  2. Dfid - TASC is preparing a SWM plan, and DPR for development of infrastructure.

- All the bulk waste generators (Hotels/Restaurants) are 100% compliant and process their biodegradable waste through compost units and dispose other recyclable wastes through identified vendors.
- Solid Waste Management Plan for Diu under Smart City is prepared and DPR for the same is under preparation to float the tender.
- MoU is signed with Ultra Tech Cements on 1.3.2018 by Diu Municipal Council and municipal solid wastes are being lifted by the industry directly from the dumpyard at Diu for the Narmada Cement Jafarabad Works (**Annexure G**).

- 80 MT of wastes have been transported to the factory location at Babrkot/ Kovaya to use it as alternate fuel in the kilns of the cement factory. The Industry is responsible for handling, loading, covering the vehicle and transporting of the waste material to the cement plant.
- Rs 50,200.00 has been realised by way of imposing penalty on the violators so far since implementation of the SWM Rules.

**b) Diu District Panchayat Area**

- The Rural areas of Diu include 4 Villages and 39 wards having a population of about 28,000 people. Nearly 20 MT of Solid wastes are generated on a daily basis and the details of collection, segregation and processing are in Table 6 as under.

**Table 6: Waste Management in Rural Areas of Diu**

<b>Quantity of waste generation per day</b>	<b>Status of door to door collection</b>	<b>Status of segregation at source</b>	<b>Quantity of recyclable waste collected</b>	<b>Quantity of waste being processed</b>	<b>Details of the waste processing facility</b>
20 MT	100%	Dispose of dumping yard at malala	30 %	0 %	-

The immediate future plan for implementation of SWM Rules along with the time schedule is given separately for both Diu Municipal Council and Diu District Panchayat Areas in Table 7 and Table 8 as under.

**Table 7 : Future Plans for Implementation of SWM Rules in Diu  
Municipal Council Area**

Sr. No.	Actions to be taken for implementation of SWM Rules, 2016	Existing Status of implementation	Targeted time line for complete implementation of SWM Rules, 2016.
1.	Clearing legacy waste from existing dumping/landfill sites.	Waste being sent for co-processing.	--
2.	Computerization of Waste Collection Process.	In process	January, 2020
3.	Penalty provisions	Being implemented	Rs. 25,000 has been realised through fines so far.
4.	Centralized Waste Stabilization Facilities with Capacity (i.e. Windrow/ Microbial Composting, Vermi - Composting, Bio - Methanation, Anaerobic Digestion or any other appropriate processing for Bio-Stabilization of Biodegradable Wastes)	Nil	Waste being sent for co-processing, directly from dump yard to the Narmada Cement, Jafarabad Works.
5.	Scientific Landfill Site with Capacity		To be done by Diu Municipal Council

**Table 8: Future Plans for Implementation of SWM Rules in Diu Rural Areas**

Sr. No.	Actions to be taken for implementation of SWM Rules, 2016	Existing Status of implementation	Targeted time line for complete implementation of SWM Rules, 2016.
1.	Clearing legacy waste from existing dumping/landfill sites.	Waste being sent for co-processing.	--
2.	Computerization of Waste Collection Process.	In process	January, 2020
3.	Penalty provisions	Being implemented	Rs. 25,000 has been realised through fines so far.
4.	Centralized Waste Stabilization Facilities with Capacity (i.e. Windrow/ Microbial Composting, Vermi - Composting, Bio - Methanation, Anaerobic Digestion or any other appropriate processing for Bio-Stabilization of Biodegradable Wastes)	Nil	Waste being sent for co-processing, directly from dump yard to the Narmada Cement, Jafarabad Works.
5.	Scientific Landfill Site with Capacity		To be done by Diu Municipal Council

## II. Compliance to the Plastic Waste Management Rules :

- The UT Administration of Daman & Diu has imposed a blanket ban over the use, sale and storage of all kinds of plastic bags in the U.T. of Daman (**Annexure H**).
- No supplier will supply any kind of plastic carry bags to any vendor. No manufacturer will sell any kind of plastic carry bags to anyone.
- All the shopkeepers, hoteliers, bars, restaurants, commercial establishments, hospitals, institutions, street vendors, fruits and vegetable vendors, and any other establishments are restricted from use of any kind of plastic carry bags.
- UT Administration has constituted UT Level Advisory Body for Daman & Diu vide No. PCC/DDD/Plastic (W,M&H) Rules,2011/11-12/664 dated 11/01/2012. (**Annexure I**).
- Following activities have been carried out in compliance of the order dated COL/DMN/EST/2017/8429 dated 19/09/2017 regarding ban on usage, sale and storage of Plastic carry bags in Daman. Various IEC activities listed under have been carried out by PCC and respective local bodies to create awareness among all walks of life.
  - Published advertisements in the Local News paper of Daman and Dadra Nagar Haveli regarding the ban on use of plastic bags.
  - Hoardings and banners have been displayed at various places of public importance to create awareness among public and visitors on plastic pollution and ban on plastic carry bags.
  - Self adhesive stickers on “No to Plastics” have been distributed to all the retail shop keepers to sensitise them about the ill effects of plastic carry bags.
  - Panchayats have been asked to take up awareness programmes on plastic pollution and ban on use of plastic carry bags.

- Cloth bags, jute bags and paper bags have been distributed to public by PCC and Industries through CSR as part of Swacchata Mission to promote use of cloth/Jute bags instead of plastic carry bags.
- Regular meetings have been held by Collector/Member Secretary, PCC with various stakeholders viz. Industries, Shopkeepers, traders, PRI members, and Govt. Departments to implement the blanket ban on use, sale and storage of Plastic carry bags.
- Enforcement drive has been carried out by flying squad in market areas and tourist places of Daman & Diu.
- An amount of Approx. Rs, 60,000/- has been realised as penalty till date.
- Many Awareness programs have been conducted on theme 'Say No to Plastic Movement'.
- Open Burning of plastic has been banned as part of Solid Waste Management Bye Laws and being enforced strictly.
- Framing of Bye Laws for effective implementation of plastic Management Rules, 2016 is under process. It will be notified on or before July 2019.

### III. Compliance to the Bio-Medical Waste Management Rules :

The Bio medical Management Rules, 2016 is being implemented in the UT of Daman and Diu very effectively. The status of Health Care Facilities, the waste generated and the steps taken by the Administration in compliance of the said rules are presented in Table 9, Table 10 and Table 11 as under.

**Table 9: Status of Health Care Facilities in Daman & Diu**

Sr. No.	HCF Category	No. of HCFs in Daman & Diu
a.	Bedded Hospitals	15
b.	Non-bedded Hospitals	32
c.	Others (Veterinary hospitals/Research Organizations etc.)	8
	Total	55

**Table 10 : Bio Medical Waste generation in Govt. Hospitals of Daman & Diu**

Health Unit	Monthly Average (in Kgs)				Yearly (in Kgs)			
	Red	Yellow	Sharp Container	Blue	Red	Yellow	Sharp Container	Blue
<b>Daman</b>								
Marwad Hospital daman	0.99	1.00	40.00	2.01	12	12	480	24
Kachigam	34.83	75.92	5.08	4.33	418	911	61	52
Bhimpur	5.00	2.92	0.42	3.33	60	35	5	40
Dabhel	16.08	15.83	0.00	8.33	193	190	0	100
Moti Daman	213.83	89.67	13.16	43.25	2566	1076	158	519
<b>Total</b>	<b>270.74</b>	<b>185.33</b>	<b>58.66</b>	<b>61.26</b>	<b>3249</b>	<b>2224</b>	<b>704</b>	<b>735</b>
<b>Diu</b>								
VanakBara	16.08	19.50	0.83	8.00	193	234	10	96
Ghoghla	32.21	44.21	26.58	26.58	386.5	530.5	319	319
<b>Total</b>	<b>48.29</b>	<b>63.71</b>	<b>27.42</b>	<b>34.58</b>	<b>579.5</b>	<b>764.5</b>	<b>329</b>	<b>415</b>
<b>Grand Total</b>	<b>329.03</b>	<b>259.04</b>	<b>86.08</b>	<b>95.84</b>	<b>3828.5</b>	<b>2988.5</b>	<b>1033</b>	<b>1150</b>

**Table 11 : Total Bio-medical waste generation in DD & DNH as per CBMWTF**

Sr. No.	Category of waste	Generation of waste	Treatment
1	Yellow Category (Includes Human and Animal anatomical waste, Soiled waste, Expired and discarded medicines, Chemical waste, Laboratory-microbiology waste)	5337 kg/month	Incinerated
2	Red Category (Contaminated waste recyclable)	4417 kg/month	Autoclave
3	White Category (Waste sharps)	184 kg/month	Shredder needle tip cutter
4	Blue Category (Glass ware)	1028 kg/month	Disinfection or autoclaving

**a) Steps taken at UT level for effective compliance with Bio-Medical Waste Management Rules, 2016.**

- Action Plan for compliance of Bio Medical Waste Management Rules, 2016 which includes inventory for the year 2018-19 was prepared and submitted to the CPCB vide letter No. PCC/DMN/NGT/710/2017/18-19/34 dated 15/04/2019 (**Annexure J**).
- Annual Report for the year 2018-19 of the Biomedical Waste Management Rules, 2016 had been submitted to the Central Pollution Control Board, New Delhi vide letter No. PCC/DDD/BMW/19-20/433 dated 17/07/2019 (**Annexure K**).
- District Level Monitoring Committee under the Bio Medical Waste Management Rules, 2016 is constituted for the UT of Daman & Diu (**Annexure L**).
- There are total 55 HCFs (includes bedded & non-bedded) in the UT of Daman out of which 50 are having valid authorization under

BMW Rule, 2016 and against rest of 05 HCFs action is under progress.

- Pollution Control Committee, DD & DNH regularly monitor all the HCFs once in quarter (once in every three months) to ensure segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc.
- Organized a workshop on centralized Bio-Medical waste disposal through environmentally sound practices in coordination with M/s En-cler (En-vision) Bio-Medical Waste Pvt. Ltd.
- Pollution Control Committee has authorized M/s En-Cler Bio-Medical Waste Pvt Ltd., Surat (Common Bio-Medical Waste Treatment Facility-(CBMWTF)) to collect, process & dispose of the Bio-medical waste generated in the UT of DD & DNH.
- The HCFs of Daman have engaged Common BMW Treatment Facility (CBMWTF), M/s En-cler Bio-Medical Waste Pvt Ltd, Gokul Nagar, Near SMC Solid Waste Disposal site, Azad Nagar Road, Bhatar, Surat for transportation and final disposal of BMW.
- Pollution Control Committee, DD & DNH had directed CBMWTF (M/s. En-cler Bio-Medical Waste Pvt. Ltd.) and all the HCFs to adopt Bar code system as required under the BMWM Rules, 2016.
- Department of Health and Family Welfare, U.T of Daman & Diu has submitted report on Bio Medical Waste Management in Daman and Diu (**Annexure M**).
- Pollution Control Committee in coordination with CBMWTF imparted training to all the Nursing staff and other workers who are engaged in the BMW on handling, segregation and safe packing of bio medical waste for disposal.

#### **IV. Compliance to the E-Waste Management Rules:**

- In compliance of E-Waste Management Rules, 2016, Pollution Control Committee has identified the units which are manufacturing electronic and electrical products. Notices have been issued to all the units with the direction to apply and obtain authorization under the E- Waste Management and Handling Rules, 2016.
- PCC has issued a circular to Industrial Association Daman along with the categories of electric and electronic equipment including their components, consumables, parts and spares covered under the rules and the list of authorized E- waste recyclers and dismantlers located in the adjoining states of Maharashtra and Gujarat.
- A list of 20 E- waster dismantlers/recyclers from Gujarat and 22 E-waste dismantlers/recyclers from Maharashtra have been provided to the Industries Association.
- The vendors who are interested in handling the e-wastes in the territory are being identified who have not obtained EPR authorization.
- E- wastes generated in Govt. departments are being inventorised and directions have been issued to write off/condemn the unserviceable/obsolete materials as per procedure in vogue.
- Sensitization/Awareness programs will be organized to create awareness among the public and other stakeholders in effective disposal of e-wastes.
- Bimonthly review is proposed to strengthen the monitoring for strict enforcement.

## **V. Compliance to the Hazardous Waste Management Rules :**

- There is an Integrated Common Hazardous Waste Treatment, Storage & Disposal Facility (ICHWTSDf) located at Sr. No. 9/1, Village-Mota Randha, Dadra & Nagar Haveli (having a Secured Landfill and an Incinerator) for the disposal & treatment of hazardous waste generated from the UT of Daman & Diu and Dadra Nagar Haveli.
- M/s. Green Gene Enviro Protection and Infrastructure Private Limited is issued with Consent to Operate for operating ICHWTSDf at Sr. No. 9/1, Village-Mota Randha, UT of Dadra & Nagar Haveli vide No. PCC/DDD/ICHWTSDf/05-03/52 dated 10/10/2006 subject to condition that the unit shall comply with the conditions of the Environmental Clearance to be issued by MoEF, Government of India.
- Consent to Operate has been renewed from time to time and the latest Consent to Renewal was issued vide No. PCC/DDD/O-2350/ICHWTSDf/05-06/795 dated 17/03/2016 which is valid upto 31/08/2020 for collection, storage, transportation and safe disposal of hazardous waste at ICHWTSDf.
- The ICHWTSDf at Sr. No. 9/1, Village - Mota Randha, UT of Dadra & Nagar Haveli is having one secured land fill site of capacity 2 Lakh MT/Annum and one incinerator of capacity 12 MT/Day.
- The unit has created the escrow account in March 2019 and as per the Escrow Agreement the operator of the CHWTSDf (M/s. Green Gene Enviro Protection and Infrastructure Private Limited) will deposit the 5% of the annual turnover of the secured landfill facility in the Escrow Account within 30 days from the closing of accounts of the company for the relevant financial year.
- The Cumulative hazardous waste disposed of so far into the landfill Site was 12352.204 MT and the total hazardous waste incinerated was 18422.572 MT at the facility since 2006

- In 2017-18 the facility received hazardous waste of 2136.775 MT of landfillable waste and 1620.891 MT of incinerable waste from 233 industries.

## **VI. Compliance to the Construction & Demolition Waste Management**

### **Rules :**

- In the UT of Daman & Diu, quantity of construction and demolition waste is very small, approximately 0.5 Ton per day.
- The generated construction and demolition waste is collected and stored at landfill site.

**VII. 351 Polluted Stretches in the country :**

**(NGT order dated 20.09.2018 in the News Item published in “The Hindu” authored 25 by Shri Jacob Koshy Titled “More river stretches are now critically polluted: CPCB in O.A. No. 673/2018).**

- The UT Administration of DD & DNH has constituted River Rejuvenation Committee (RRC) under the chairmanship of Director, Municipal Administration, Daman & Diu vide Notification No.PCC/NGT-673/2018/18-19 dated 08/01/2019 (**Annexure N**).
- The Action Plan for Rejuvenation of polluted stretch of Damanganga River is prepared and a Revised Action Plan was submitted to the CPCB after approval of the River Rejuvenation Committee for the UT of DD & DNH vide No. PCC/DDD/NGT-673/2018/18-19/473 dated 24/07/2019. (**Annexure O**).
- Damanganga River has been put in Priority I category. However, it is submitted that the river stretch falls in category II and III based upon the water quality monitoring carried out in the last two years.
- Pollution Control Committee, Daman & Diu and Dadra & Nagar Haveli along with the Gujarat State Pollution Control Board and M/s. Vapi Green Enviro Ltd. (commonly known as CETP, Vapi) carries out joint monitoring the entire stretch of Damanganga River starting from Madhuban Dam in Dadra & Nagar Haveli till confluence of Damanganga River in Arabian Sea at Moti Daman jetty, Daman on monthly basis.
- During the monitoring river water samples are being collected from various 14 locations which are listed as below:

**Table 8 : Details of Sampling Locations in Damanganga River**

<b>Location Code</b>	<b>Sampling Location in Damanganga River</b>
R-01	At Madhuban dam canal, DNH
R-02	At Naroli bridge, Silvassa, DNH, 1903 m u/s of drain discharge from Piparia Industrial Estate, Piparia, DNH
R-03	At Lavachha village, Gujarat, 100 m dis of drain discharge flowing adjacent to Rameshwari temple
R-04	Adjacent to New Surat Brewerage, Dadra, 3670 m u/s of drain discharge from Dungra village, Gujarat
R-05	Vapi weir over flow from GIDC, Vapi
R-06	At Namdha village, Gujarat, 4408 m d/s of treated effluent discharge from CETP, Vapi and 1546 m u/s of Zari Cause Way, Daman
R-07	At Zari Cause Way (Left channel), Daman, 985 m u/s of drain discharge from Kachhigam village, Gujarat
R-08	100 m d/s of confluence of treated effluent discharge from Khemani Distilleries Pvt. Ltd, and Daman Ganga river, Daman
R-09	At Moti Daman jetty, Daman (3675 m d/s of treated effluent discharge from Khemani Distilleries Pvt. Ltd and 12159 m d/s of treated effluent discharge from CETP, Vapi)
R-10	Drain near Vapi Weir (Drain flowing from Nani Sulpad, Khanki Falia)
R-11	Outlet of CETP, Vapi
R-12	Outlet of GHCL, Bhilad
R-13	100 meter downstream of outlet of CETP, Vapi (from river)
R-14	100 meter downstream of GHCL, Bhilad (from river)

- There are 22 nallahs which drain into Damanganga River and the details are given in Table 12 as under

**Table 12 : Details of Nallahs drain into Damanganga River**

<b>Sr. No</b>	<b>District/ Town</b>	<b>Location number</b>	<b>Location detail</b>
1.	Dadra Nagar	D-01	Drain from Rakholi industrial Estate, Silvassa, DNH
2.	Haveli	D-02	Drain from Masat village, Silvassa, DNH
3.	(DNH)	D-03	Drain from near Govt. industrial estate, Masat

			Ambapadia village, Silvassa, DNH
4.		D-04	Drain from Govt. Industrial Estate, Piparia Silvassa, DNH
5.		D-05	Drain from Piparia Industrial Estate, Piparia Silvassa, DNH
6	Gujarat (Vapi)	D-06	Drain from Lawachha village flowing adjacent to Rameshwari temple, Lawachha
7		D-07	Drain from Dadra at Dungra village, Vapi, Gujarat
8		D-08	Drain from Borigaon village opp. Dungra village, Gujarat
9		D-09	Pipe discharge at Vapi weir, Vapi, Gujarat
10		D-10	Drain from Nani Sulpad, Khanki Phalia, Vapi, Gujarat
11		D-12	Drain from Nahuli village flowing adjacent to industry Neestech Pvt. Ltd, Vapi,
12		D-13	Drain from Vapi Industrial Area, Vapi, Gujarat
13	Daman	D-14	Drain from Shree Ganesh Industrial Estate and Daman Industrial Estate, Daman
14		D-15	Drain from Kabra Industrial Estate, 50 m u/s of Zari Cause Way, Daman
15		D-16	Drain from Kachigam village, Daman
16		D-17	Drain from Nalia Pardi village Daman, Tribute Jharia Ashram School, Daman
17		D-19	Drain from Makat Falia village, Daman
18		D-20	Drain from Varkhund village, Daman (Somnath Industrial Estate, Bhenslore Industrial Estate, Ringanwada Industrial Estate)
19		D-21	Drain from Nani Daman Near bus stand, Daman
20		D-22	Drain from Moti Daman near Rajiv Gandhi bridge, Daman

- All the industries located along the drains and adjacent areas will be directed to go for Zero Liquid Discharge.
- The industries located in these areas will not allowed to discharge treated or un-treated wastewater outside their industrial premises and strictly directed to utilise wastewater generated within the premises only.
- Regular checks and inspections are being carried out to ensure the same. Works related to sewerage network in Nani Daman is underway and once it is completed, untreated sewage will be prevented.

- The Sewage Treatment Plant of capacity 16 MLD proposed at Nani Daman area, will cover the entire Nani Daman area and nearby rural area.
- Plans have been chalked out by DMC to use the treated sewage water from STP established at Moti Daman effectively. The treated water from STP, Moti Daman will not be dumped into the sea or Damanganga River.
- Also, there is a proposal to construct a Sewage Treatment Plant of capacity 54 MLD for the rural areas by the Daman District Panchayat and is expected to be taken up by June, 2020

### **VIII. 122 Non-attainment cities :**

**(News Item Published in “The Times of India’ Authored by Shri Vishwa Mohan Titled “NCAP with Multiple timelines to Clear Air in 102 Cities to be released around August 15” dated 08.10.2018)**

- Daman, Diu, and Dadra Nagar Haveli does not fall under the non-attainment cities.
- However, the Pollution Control Committee, DD & DNH is monitoring the ambient air quality by establishing Ambient Air Quality Monitoring (AAQM) stations at three locations in Daman under National Ambient Air Quality Monitoring programme (NAMP) through the MoEF & CC recognized laboratory, M/s Unistar Environment & Research Labs P. Ltd., Vapi, Gujarat.
- The location include 03 in Daman at (i) Mashal Chowk, Nani Daman (Residential cum Commercial), (ii) M/s Prima Plastic, Village Kadaiya, Nani Daman (Industrial area), and (iii) Makat Faliya/Ambavadi, Moti Daman (Rural area).
- Total eight (08) parameters are analyzed which include Particulate Matter (PM10), Particulate Matter (PM2.5), Oxide of Nitrogen (NOx), Sulphur Dioxide (SOx), Carbon Monoxide (CO), Ammonia, Ozone and Lead.
- The said parameters are within the limit in all six (06) locations except for Particulate Matter (PM). The Particulate Matter (PM10) is slightly above locations due to heavy vehicle transportation and dusty road.
- The UT administration is taking efforts to increase the green cover in the form of Road side/Avenue plantation, median plantation and plantation in Forest/Government land to reduce the level of (PM10) in atmosphere.
- In addition, parameters like Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene (BaP), Arsenic (As) and Nickel (Ni) are being analysed since May, 2018. All the parameters are Below Detection Limit (BDL) at all three locations mentioned above.

- The analyzed data for all the locations are sent through e-mail on monthly basis to CPCB, Delhi regularly.
- Further, no industry is allowed to generate high Sulphur in order to improve the air quality and banned the use of coal, lignite & pet coke as fuel in the UT of Daman &Diu. Only agro based briquettes, LDO, FO, diesel are allowed as fuel in Boiler, Thermic Fluid Heater & D.G. Set, etc.
- It is decided to persuade the industries to develop green cover along the boundaries and also in the vacant plots in industrial premises so as to reduce the level of Particulate Matter (PM10).

## **IX. 100 industrial cluster :**

**(Status of Action Plan with regard to identification of polluted industrial clusters in O.A. No. 1038/2018, News item published in “The Asian Age” Authored by Sanjay Kaw Titled “CPCB to rank industrial units on pollution levels” dated 13.12.2018.)**

- CPCB has developed Comprehensive Environmental Pollution Index (CEPI) to find out an index value to characterize quality of the environment. This index is developed with an objective to assess the environment quality in the country.
- The CPCB has revised CEPI concept in concurrence with MoEF & CC and subsequently issued directions to SPCB/PCC having Critically Polluted Areas (CPAs) for adoption of the revised CEPI concept.
- The UT of Daman & Diu and Dadra Nagar Haveli does not fall under Critically Polluted Areas as per CPCB report.
- All the Industries have installed the ETP to treat the industrial waste water and STPs have been established in Hotels and Resorts. Daman Municipal Council has established an STP at Nani Daman.
- The functioning of ETPs and STPs will be closely monitored to ensure desired outcome.

**X. Status of STPs and re-use of treated water :  
(NGT order dated 27.11.2018 in O.A. No. 148/2016 in the matter of  
Mahesh Chandra Saxena Vs South Delhi Municipal Corporation &  
Ors.)**

- The total No. of households in Moti Daman and Nani Daman are 4500 and 15500 respectively. The quantum of sewage generated in Moti Daman is about 1.5 MLD. The quantum of sewage generated in Nani Daman is about 06 MLD.
- The Sewage Treatment Plant (STP) with 4.21 MLD capacity has already been constructed at Moti Daman and is operational.
- All the households in Moti Daman have been connected to a Sewerage Networking System and the total length of the sewerage networking is 18 KM for Moti Daman.
- For Nani Daman a Sewerage Networking System based on vacuum suction is being taken up on a pilot basis in two wards i.e. ward no. 3 & 15, which are adjacent to Damanganga River. The total Sewerage Networking length in the said two wards is 8 KM and the sewer line is being connected to STP in Moti Daman.
- Rest of the Nani Daman Municipal area will also be covered subsequently and the sewerage system for Nani Daman area is scheduled to be completed by March 2020 with a separate STP of 16 MLD capacity at Nani Daman.
- In Diu, work related to sewerage networking has been taken up in two phases. In phase I, it is proposed to take up 42 km length of sewerage network, of which nearly 14 km length of sewerage line has been completed. In phase II, 17 Km length of sewerage network has to be taken up, of which 2 km has been completed so far.
- It is proposed to construct 07 MLD Sewage Treatment Plant in Diu for which tenders have been floated 4 times. Only one bid is received and the same is under evaluation.
- Action Plan for the use of treated wastewater from STP by Daman Municipal Council has already been submitted to CPCB.

**XI. Status of CETP<sub>s</sub>/ETP<sub>s</sub> including performance :  
(NGT order in OA No. 593/2017 in the matter of Paryavaran  
Suraksha Samiti & Anr. Vs. Union of India & Ors)**

- In the UT of Daman & Diu, there are 90 industrial units which generates wastewater from its manufacturing process. All the industries have installed Effluent Treatment Plant (ETP) to treat the wastewater.
- No industrial units are permitted to discharge treated or un-treated wastewater outside their premises and strictly directed to utilise wastewater within the premises only.
- Regular inspections, monitoring and sampling is carried out of treated and untreated wastewater to check the adequacy of the installed Effluent Treatment Plant (ETP).
- If any industry fails to comply the directions and consent conditions, strict actions taken on immediate bases.
- In the UT of Daman & Diu, no Common Effluent Treatment Plant (CETP) installed.
- The status report of ETP<sub>s</sub>/STP<sub>s</sub>/CETP<sub>s</sub> is provided to CPCB on monthly basis through online portal India-E-Track.

## **XII. Ground water extraction/ contamination and re-charge :**

- Pollution Control Committee, DD & DNH carry out Ground Water Monitoring at 06 different locations on the UT of Daman.
- In the UT of Daman & Diu, for extraction of ground water, it is mandatory to obtain No Objection Certificate (NOC) from the Central Ground Water Authority (CGWA).
- Large scale industries were directed to setup rain water harvesting system to re-charge the ground water and to reduce the raw water consumption.

### **XIII. Air pollution including Noise pollution :**

- In the UT of Daman & Diu, industries are not allowed to generate high Sulphur in order to improve the air quality and banned the use of Coal, Lignite & Pet Coke as fuel. Only agro based briquettes, LDO, FO, diesel are allowed to use as a fuel in Boiler, Thermic Fluid Heater & D.G. Set, etc.
- The Pollution Control Committee, DD & DNH is monitoring the ambient air quality by establishing Ambient Air Quality Monitoring (AAQM) stations at three locations in Daman under National Ambient Air Quality Monitoring programme (NAMP) through the MoEF & CC recognized laboratory, M/s Unistar Environment & Research Labs P. Ltd., Vapi, Gujarat.
- There are 03 location in Daman at (i) Mashal Chowk, Nani Daman (Residential cum Commercial), (ii) M/s Prima Plastic, Village Kadaiya, Nani Daman (Industrial area), and (iii) Makat Faliya/Ambavadi, Moti Daman (Rural area).
- Total eight (08) parameters are analyzed which include Particulate Matter (PM10), Particulate Matter (PM2.5), Oxide of Nitrogen (NO<sub>x</sub>), Sulphur Dioxide (SO<sub>x</sub>), Carbon Monoxide (CO), Ammonia, Ozone and Lead. The said parameters are within the limit in all.
- The UT administration is taking efforts to increase the green cover in the form of Road side/Avenue plantation, median plantation and plantation in Forest/Government land to reduce the level of (PM10) in atmosphere

#### **XIV. Illegal sand mining :**

**(NGT order in O.A. No. 173 of 2018, Sudarsan Das v. State of West Bengal & Ors. Order dated 04.09.2018.)**

- The matter is related to illegal sand/gravel mining from the river beds. In the UT of Daman & Diu there are no sand or gravel mining activities from the River bed.

#### **XV. Rejuvenation of Water Bodies:**

- For rejuvenation of River Damaganga Action Plan is prepared and submitted to CPCB and also Performance Guarantee of Rs. 5,00,00,000/- is submitted to the CPCB on 27/09/2019.

#### **XVI. Total amount collected from erring industries on the basis of 'Polluter Pays' principle, 'Precautionary principle' and details of utilization of funds collected.**

- Hon'ble NGT has directed to impose fine on erring industry on basis of Polluter Pay Principle & Precautionary Principle.
- In this connection, it is to inform that total amount of Rs. 1,26,25,000 /- is collected so far from the industries in Daman & Diu based on Polluter Pay Principle and precautionary principle.

25/ETDMN/2018

c12

No. 01/17/00001/File No. 446/2018-19/03  
Office to Deputy Secretary,  
Urban Development Department,  
Daman & Diu,  
Daman.

Dated:- 03/05/2018

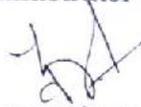
**NOTIFICATION**

In exercise of the powers conferred by sections 3, 6, and 25 of the Environment (Protection) Act, 1986 and in pursuance of the Government of India notification number S. O. 1357(E) New Delhi the 08<sup>th</sup> April, 2016 of the Solid Waste Management Rule, 2016 and as per rule 23 of the said notification, The U.T. Administration of Daman & Diu is hereby pleased to constitute Union Territory Level Advisory Body to monitor the implementation of these rules comprising of the following members:

Sr No	Designation	Member
1	The Secretary, Department of Urban Development	Chairman
2	The Secretary-cum-Director, Rural Development, Panchayati Raj & Community Development	Member
3	The Collector, Daman	Member
4	The Zonal Officer, CPCB Vadodara, West Zone	Member
5	The Member Secretary, Pollution Control Committee Daman & Diu	Member
6	The Associate Town Planner, Daman	Member
7	The President District Panchayat, Daman	Member
8	The President District Panchayat, Diu	Member
9	The President Daman Municipal Council	Member
10	The President, Diu Municipal Council (Representatives from Local Bodies)	Member
11	The Chief Officer, District Panchayat, Daman	Member
12	The Chief Officer, District Panchayat, Diu	Member
13	The Chief Executive Officer, Daman Municipal Council	Member
14	The Chief Executive Officer, Diu Municipal Council (Subject Experts)	Member
15	The Zonal Agriculture Officer, Daman	Member

16	The Zonal Agriculture Officer, Diu	Member
17	The Labour Inspector, Daman	Member
18	The President, Lions Club, Daman (Representative from Non-Governmental Organization)	Member
19	The President Daman Industries Association (Representative from Industries of Daman.)	Member

By order and in the name of the  
Advisor to Administrator of Daman & Diu.



Deputy Secretary  
Urban Development Department  
Daman & Diu.

To,

- 1) The Advisor to Administrator, Secretariat, Daman.
- 2) The Secretary (Urban Development) Secretariat, Daman.
- 3) The Additional Secretary (Urban Development) Daman.
- 4) The Collector, Daman.
- 5) The Director, Municipal Administration, Daman
- 6) The Chief Conservator of Forest, Daman & Diu..
- 7) The Chief Officer, Municipal Council, Daman & Diu.
- 8) The Chief Executive Officer, District Panchayat Daman & Diu.
- 9) The Deputy Director (Planning and Statistics). Govt. Printing Press, Moti Daman with a request to publish the same in the Official Gazette.
- 10) The Assistant Director (Official Language) Daman with a request for translation in Hindi.
- 11) Guard File.
- 12) All concerned.

श्रेणी : II  
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Daman 7<sup>th</sup> September, 2018 16 Bhadra, 1940 (Saka)

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No.

# सरकारी राजपत्र

## OFFICIAL GAZETTE



सत्यमेव जयते  
भारत सरकार  
Government of India

### संघ प्रदेश दमण एवं दीव प्रशासन

U.T. ADMINISTRATION OF DAMAN & DIU

प्राधिकरण द्वारा प्रकाशित  
PUBLISHED BY AUTHORITY

No. ADE/DP/DPK/2018-19/653  
U. T. Administration of Daman & Diu,  
Office of the Assistant Director of Education,  
District Panchayat,  
Moti Daman – 396 220.

Dated : 30/08/2018.

### ORDER

On the basis of the Birth records of Daxaben Prabhubhai Kodrawala, Primary School Teacher, Government Upper Primary Model School, Nani Daman, it is hereby ordered that the name of Daxaben Prabhubhai Kodrawala in her Government Records be read as "DAXA BAGAN" being her actual name as per her Birth Certificate instead of Daxaben Prabhubhai Kodrawala being presently officiating.

This is issue with the approval of the Hon'ble Administrator Daman & Diu and DNH vide diary No. 399149 dated 06/08/2018.

Sd/-  
Director of Education  
Daman & Diu,  
Daman.

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SERIES II No. : 35

DATED : 7<sup>TH</sup> SEPTEMBER, 2018.

**No. ADE/DP/SR/2018-19/654  
U. T. Administration of Daman & Diu,  
Office of the Assistant Director of Education,  
District Panchayat,  
Moti Daman – 396 220.**

**Dated : 30/08/2018.**

## ORDER

On the basis of the Birth records of Patel Nareshbhai Natubhai, Primary School Teacher, Government Primary Model School, Nailal Pardi, Moti Daman, it is hereby ordered that the name of Patel Nareshbhai Natubhai in his Government Records be read as "**NARESH NATU**" being his actual name as per his Birth Certificate instead of Patel Nareshbhai Natubhai being presently officiating.

This is issue with the approval of the Hon'ble Administrator Daman & Diu and DNH vide diary No. 399193 dated 06/08/2018.

Sd/-  
Director of Education  
Daman & Diu,  
Daman.

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- 3 -

SERIES II No. : 35

DATED : 7<sup>TH</sup> SEPTEMBER, 2018.

Administration of Daman & Diu, Union Territory.  
Urban Development Department

**Notification**

No.DMN/DMC/BYE LAWS/18/2018

No. 3/1-518/DMC/18-19/1356

Dt. : 04/09/2018

**Bye-Laws**

In exercise of the powers conferred by sub-sections (1) & (2) of Section 307 read with Sections 223 and 225 of the Daman & Diu Municipalities (Amended) Regulation, 2018 the Daman Municipal Council hereby makes the following Bye-Laws. By powers vested in me as Collector cum Director (Municipal Administration), Daman under Sub-Section (1) of Section 307 of the said Regulation, I hereby sanction the draft Bye-Laws namely;

**1. Short title and Commencement.** 1.1 These Bye-Laws may be called the Daman Municipal Council Solid Waste (Handling and Management) Bye-Laws, 2018.

1.2 They shall come in to force from the date of their publication in the Official Gazette.

1.3 They shall remain in force unless amended in accordance with The Daman & Diu Municipalities (Amended) Regulation, 2018

**2. Applicability.**

It extends to the whole of the Municipal areas including public places, private places, dwellings, trade and commercial centers. This Bye-Law shall apply to every generator of Municipal Solid Waste and to every premise under the ownership or occupation of any person within the limits of Daman Municipal Council. It will be applicable to any government or non-government premises or organization operating within the premises of Daman Municipal Council.

**3. Definitions**

In this Bye-Law, unless the context otherwise requires the following words shall have meaning herein defined:-

3.1 "Aangan"/premises/place means the public place in front of, or adjacent on any side of any premises, extending to the road, kerb side including the footpath kerb, drain, nala, plot or premises.

3.2 "aerobic composting" means a controlled process involving microbial decomposition/breaking down of organic matter in the presence of oxygen;

3.3 "Agency/Agent" means any entity/person appointed or authorized by Municipal Corporation/Council/Municipality/Daman Municipal Council to act on its behalf, for discharge of duties or functions i.e. sweeping of streets, collection of waste, collection of charges / fines, and other such delegated responsibilities etc.;

3.4 "anaerobic digestion" means a controlled process involving microbial decomposition/breaking down of organic matter in absence of oxygen;

3.5 "authorisation" means the permission given by the State Pollution Control Board or Pollution Control Committee, as the case may be, to the operator of a facility or urban local authority, or any other agency responsible for processing and disposal of solid waste;

3.6 "Bio-degradable waste" means any organic material that can be degraded by microorganisms into simpler stable compounds; for example the waste of plant and animal origin e.g. kitchen waste, food & flower waste, leaf litter, garden waste, animal dung, fish/meat waste and any other material that gets degraded/decomposed by the action of microorganisms;

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DATED : 7 <sup>TH</sup> SEPTEMBER, 2018.

- 3.7 "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 thereto or in the production or testing of biological, and including categories mentioned in Schedule IV of the Bye-laws ;
- 3.8 "bio-methanation" means a process which entails enzymatic decomposition/ breaking down of the organic matter by microbial action to produce methane-rich biogas;
- 3.9 "brand owner" means a person or company who sells any commodity under a registered brand label.
- 3.10 "buffer zone" means zone of no-development to be maintained around solid waste processing and disposal facility, exceeding 5 TPD of installed capacity. This will be maintained within the total area allotted for the solid waste processing and disposal facility.
- 3.11 "Bulk Waste Generator" means the owner, occupier or any other person representing owners and occupiers of House(s)/Flat(s), Group of Houses/Flats, housing society(s) / complex(s), Restaurant(s); Hotel(s), Market(s), Industrial Estate(s) and Shopping Complex(s) / Mall(s) and includes buildings occupied by the Central Government Ministries, Departments or Undertakings, State Government Departments or Undertakings, Local Bodies, Public Sector Undertakings or Private Companies, Hospital(s), Nursing Home(s), School(s), College(s), University(s), Other Educational Institutions, Hostel(s), Hotel(s), Commercial Establishment(s), Places of Worship, Stadiums and Sports complexes, clubs, gymkhanas, marriage halls, recreation/ entertainment complexes having an average waste generation rate exceeding 100kg per day; or any other establishment sources / premises that are specifically identified and notified by the Chief officer of Daman Municipal Council to be so;
- 3.12 "Bulk garden and horticultural waste" means bulk waste from parks, gardens, traffic islands, road medians etc. including grass & wood clippings, weeds, woody 'brown' carbon-rich material such as pruning, branches, twigs, wood chipping, straw or dead leaves and tree trimmings, which cannot be accommodated in the daily collection system for bio-degradable waste;
- 3.13 "Rules/bye-laws" means regulatory framework notified by State / Daman Municipal Council, census town and notified area townships for facilitating the implementation of these rules /bye-laws in their jurisdiction.
- 3.14 "census town" means an urban area as defined by the Registrar General and Census Commissioner of India;
- 3.15 "Collection" means lifting and removal of municipal solid waste from designated collection points or any other location;
- 3.16 "Collection at Source" means the collection of municipal solid waste by Daman Municipal Council directly from the premises of any building or common premises of a group of buildings. This is also referred to as "point to point collection";
- 3.17 "combustible waste" means non-biodegradable, non-recyclable, non-reusable, nonhazardous solid waste having minimum calorific value exceeding 1500 kcal/kg and excluding chlorinated materials like plastic, wood pulp, etc;
- 3.18 "Composting" means a controlled process involving microbial decomposition/degradation/breaking down of organic matter including vermi-composting - which is a process of using earthworms for conversion of biodegradable waste into compost;
- 3.19 "Community Service" means to serve the community by sweeping of road, cleaning of walls, tree guard portion etc.;
- 3.20 "contractor" means a person or firm that undertakes a contract to provide materials or labour to perform a service or do a job for service providing authority;

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DATED : 7 <sup>TH</sup> SEPTEMBER, 2018.
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- 3.21 **"Construction and Demolition waste"** means waste from building materials, debris and such rubble resulting from construction, re-modelling, repair and demolition operations;
- 3.22 **"co-processing"** means use of non-biodegradable and non-recyclable solid waste having calorific value exceeding 1500kcal as raw material or as a source of energy or both to replace or supplement the natural mineral resources and fossil fuels in industrial processes;
- 3.23 **"decentralised processing"** means establishment of dispersed facilities for localised processing of biodegradable waste and recovery of recyclables closest to the source of generation so as to minimize transportation of waste for processing or disposal;
- 3.24 **"Delivery"** means handing over any category of solid waste to a Daman Municipal Council worker or any other person appointed, authorized or licensed by the Daman Municipal Council for taking delivery of such waste;
- 3.25 **"disposal"** means the final and safe disposal of post-processed residual solid waste and inert street sweepings and silt from surface drains on land as specified in Schedule I to prevent contamination of ground water, surface water, ambient air and attraction of animals or birds;
- 3.26 **"domestic hazardous waste"** means discarded paint drums, pesticide cans, CFL bulbs, tube lights, medicines including expired medicines, broken mercury thermometers, batteries, used needles and syringes and contaminated gauge, etc., generated at the household level;
- 3.27 **"door to door collection"** means collection of solid waste from the door step of households, shops, commercial establishments, offices, institutional or any other non-residential premises and includes collection of such waste from entry gate or a designated location on the ground floor in a housing society, multi storied building or apartments, large residential, commercial or institutional complex or premises;
- 3.28 **"Door-to-Door collection system Municipal vehicle"** means the bell-ringing or such vehicle (includes a carriage, cart, van, dray, truck, hand-cart, bicycle, cycle-rickshaw, auto-rickshaw, motor vehicle and every wheeled conveyance which is used or is capable of being used on a street) provided by Daman Municipal Council or an agency authorised by Daman Municipal Council for point to point collection of Municipal Solid Waste.
- 3.29 **"Dry waste"** means waste other than bio-degradable waste and inert street sweepings and includes recyclable and non-recyclable waste, combustible waste and sanitary napkin and dlapers, etc;
- 3.30 **"Dry Waste"** means the category of municipal solid waste referred to at No.5.1 (6) of these Bye-laws;
- 3.31 **"Dry Waste Sorting Centre"** means any designated land, shed, kiosk, or structure located on any municipal or Government land or in a public space which is authorized to receive and sort dry waste;
- 3.32 **"dump sites"** means a land utilized by local body for disposal of solid waste without following the principles of sanitary land filling;
- 3.33 **"extended producer responsibility"** (EPR) means responsibility of any producer of packaging products such as plastic, tin, glass and corrugated boxes, etc., for environmentally sound management, till end-of-life of the packaging products;
- 3.34 **"facility"** means any establishment wherein the solid waste management processes namely segregation, recovery, storage, collection, recycling, processing, treatment or safe disposal are carried out;
- 3.35 **"fine"** means penalty imposed on waste generators or operators of waste processing and disposal facilities under the bye-laws for non-compliance of the directions contained in these rules and/or bye- laws;
- 3.36 **"Generator of waste"** means any person generating municipal solid waste within the limits of Daman Municipal Council;

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- 3.37 **"handling"** includes all activities relating to sorting, segregation, material recovery, collection, secondary storage, shredding, baling, crushing, loading, unloading, transportation, processing and disposal of solid wastes;
- 3.38 **"Hazardous waste"** means any waste, which by reason of any of its physical, chemical, reactive, toxic harmful, explosive or corrosive characteristics causes danger or is likely to cause danger to health or environment, whether alone or when in contact with other wastes or substances and shall include wastes specifically listed in Schedule III of these Bye-laws.
- 3.39 **"House-gully"/lane/Service Lane** means a passage or strip of land, constructed, set apart or utilized for the purpose of serving as a drain or of affording access to the latrine, urinal, cesspool or other receptacle for filthy or other polluted matter by persons employed in the removal of cleaning thereof or in the removal of such matters there from;
- 3.40 **"incineration"** means an engineered process involving burning or combustion of solid waste to thermally degrade waste materials at high temperatures;
- 3.41 **"inerts"** means wastes which are not bio-degradable, recyclable or combustible street sweeping or dust and silt removed from the surface drains;
- 3.42 **"Inert Solid Waste"** means any solid waste or remnant of processing whose physical, chemical and biological properties make it suitable for sanitary land filling;
- 3.43 **"informal waste collector"** includes individuals, associations or waste traders who are involved in collection, sorting, sale and purchase of recyclable materials;
- 3.44 **"Landfill"** means a waste disposal site for the deposit of residual solid waste in a facility designed with protective measures against pollution of ground water, surface water and air fugitive dust, windblown litter, bad odour, fire hazard, bird menace, pests or rodents, greenhouse gas emissions, slope instability and erosion;
- 3.45 **"leachate"** means the liquid that oozes and seeps through solid waste or other medium and has extracts of dissolved or suspended material from the media;
- 3.46 **"Litter"** means all refuse and other such waste material which, tends to create nuisance, dirt, insanitary conditions, ugliness and endangers cleanliness, public orderliness & movement, environment, public health, safety, life and welfare if dropped, thrown, scattered, deposited or left un-cleaned or unpicked as against the prohibition under these Bye-laws;
- 3.47 **"Littering"** means carelessly spreading litter so that falls, descends, blown, seeps, percolates or otherwise escapes or is likely to fall, descend, blown, seep, percolate or otherwise escape into or onto any public or private place; Or causing, permitting or allowing litter to fall, descend, blow, seep, percolate or otherwise escape into or onto any public or private place;
- 3.48 **"local body"** for the purpose of these rules means Daman Municipal Council or Village Panchayat as the case may be.
- 3.49 **"Lysometer"** means a device which is used to measure the movement of water in or through the medium of soil layer or which is used to collect the leached water for qualitative analyses.
- 3.50 **"Market"** includes any place where persons assemble for the sale of, or for the purpose of exposing of sale, meat, fish, fruits, vegetables, animals intended for human food or any other articles of human needs whatsoever, with or without the consent of the owner of such place notwithstanding that there may be no common regulation for the concourse of buyers and sellers and whether or not any control is exercised over the business of, or the person frequenting, the market by the owner of the place or by any other person;
- 3.51 **"materials recovery facility"** (MRF) means a facility where non-compostable solid waste can be temporarily stored by the local body or any other entity mentioned in rule 2 or any person or agency authorised by any of them to facilitate segregation, sorting and recovery of recyclables from various components of waste by authorised informal sector of waste pickers, informal recyclers or any other work force engaged by the local body or entity mentioned in rule 2 for the purpose before the waste is delivered or taken up for its processing or disposal;

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- 3.52 "Chief Officer" means Chief Officer of Daman Municipal Council.
- 3.53 "Municipal Council" means Daman Municipal Council established Daman Municipal Council Regulation for Daman area.
- 3.54 "Municipal Solid Waste" includes commercial and residential wastes generated in a Municipal or Notified Local Body in either Solid or Semi -Solid form excluding industrial hazardous waste but including properly and fully treated bio-medical waste( as per applicable rules);
- 3.55 "non-biodegradable waste" means any waste that cannot be degraded by micro-organisms into simpler stable compounds;
- 3.56 "Nuisance" includes any act, omission, place, animal or thing which causes or is likely to cause injury, danger, annoyance or offense to the sense of sight, smell, hearing, breath, modesty and dignity or disturbance to movement, work, rest or sleep, or which is or may be dangerous to life or injurious to health or property;
- 3.57 "Nuisance Detectors" (NDs) means those employees of Municipal Corporation/Council/Municipality/Daman Municipal Council, who are appointed by Municipal Corporation/Council/Municipality/Daman Municipal Council to detect acts of Public nuisance etc. under the Bye laws;
- 3.58 "Occupier" includes- (a) any person who for the time being is paying or is liable to pay to the owner the rent or any portion of the rent of the land or building in respect of which such rent is paid or is payable; in occupation of, or otherwise using, any land or building or part thereof, for any purpose whatsoever;  
 (b) an owner in occupation of, or otherwise using his land or building;  
 (c) a rent- free tenant of any land or building;  
 (d) a licensee in occupation of any land or building; and  
 (e) any person who is liable to pay to the owner damages for the use and occupation of any land or building;  
 (f) the custodian of evacuee property in respect of evacuee property vested in him under the Administration of Evacuee Property Act  
 (g) the General Manager of a Railway and the head of a Govt. Department, in respect of properties under their respective control;
- 3.59 "operator of a facility / operator of concession" means a person or entity, who owns or operates the concession for handling, collection, sorting, storage, transportation, processing and disposal of municipal solid waste and it also includes any other agency appointed by the local body / municipal authority for management and handling of municipal solid waste in its area and any other entity or agency appointed by the local body;
- 3.60 "Pellet forming" means a process used to make pellets, which will be small cubes/cuboids or cylindrical pieces from solid waste and will also include fuel pellets which is obtained from garbage.
- 3.61 "Person" means any person or persons and shall include any shop or establishment or firm or company or association or body of individuals whether incorporated or not and their agents; assignee etc; and shall mean to include Government and its offices and employees.
- 3.62 "Point to Point Collection" means the system of collection of municipal solid waste from specific pick-up points as designated by Daman Municipal Council up to which the generator must bring the collected and stored waste for delivery in vehicles so provided/appointed/permited by the Daman Municipal Council.
- 3.63 "Premises" means any land or building or part of a building and includes-  
 (a) The garden, ground and out- houses, if any, appertaining to a building or part of a building;  
 (b) Any fittings affixed to a building or part of a building for the more beneficial enjoyment thereof;

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- 3.64 "primary collection" means collecting, lifting and removal of segregated solid waste from source of its generation including households, shops, offices and any other non-residential premises or from any collection points or any other location specified by the local body;
- 3.65 "Processing" means any scientific process by which solid waste is treated for processing for the purpose of reuse, recycling or transformation into new products or making it suitable for land filling;
- 3.66 "Public Nuisance" means any act, omission, offence or wrong-doing which causes or is likely to cause nuisance ( as defined) in any public place;
- 3.67 "Public place" means any place which is open to the use and enjoyment of the public, whether it is actually used or enjoyed by the public or not;
- 3.68 "Rubbish" includes ashes, broken bricks, broken glasses, dust, malba, mortar and refuse of any kind which is not filth;
- 3.69 "Receptacle" means container, including bins and bags, used for the storage of any category of municipal waste as prescribed by Municipal Corporation/Council/Municipality/Urban Local Body from time to time;
- 3.70 "Recycling" means the process of transforming segregated non-biodegradable solid waste into raw materials for producing new products, which may or may not be similar to the original products;
- 3.71 "redevelopment" means rebuilding of old residential or commercial buildings at the same site, where the existing buildings and other infrastructures have become dilapidated;
- 3.72 "refuse derived fuel"(RDF) means fuel derived from combustible waste fraction of solid waste like plastic, wood, pulp or organic waste, other than chlorinated materials, in the form of pellets or fluff produced by drying, shredding, dehydrating and compacting of solid waste ;
- 3.73 "Refuse" means any waste matter generated out of different activities, processes, either degradable/non-degradable garbage and rubbish /inert in nature in either solid or semi-solid form which cannot be consumed, used or processed by the generator in its existing form;
- 3.74 "Repeated offence" means when an offence under these bye-laws has been repeated five times by the same person it will be called repeated offence.
- 3.75 "residual solid waste" means and includes the waste and rejects from the solid waste processing facilities which are not suitable for recycling or further processing;
- 3.76 "sanitary land filling " means the final and safe disposal of residual solid waste and inert wastes on land in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants slope instability and erosion;
- 3.77 "Sanitation" means the promotion of hygiene and the prevention of disease and other Causes of ill health related to environmental factors. However, the relevant provisions in respect of sanitation and health in any other rules, act or bye laws shall continue to prevail as usual.
- 3.78 "sanitary waste" means wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste;
- 3.79 "Schedule" means the Schedule appended to these Bye-laws;
- 3.80 "secondary storage" means the temporary containment of solid waste after collection at secondary waste storage depots or MRFs or bins for onward transportation of the waste to the processing or disposal facility;
- 3.81 "segregation" means sorting and separate storage of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non-biodegradable wastes including recyclable waste, non-recyclable combustible waste, sanitary waste and non recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes;

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- 3.82 "service provider" means an authority providing public utility services like water, sewerage, electricity, telephone, roads, drainage, etc;
- 3.83 "solid waste" means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, biomedical waste and e-waste, battery waste, radio-active waste generated in the area under the local authorities and other entities mentioned in rule 2;
- 3.84 "sorting" means separating various components and categories of recyclables such as paper, plastic, cardboards, metal, glass, etc., from mixed waste as may be appropriate to facilitate recycling; means separating organic, inorganic, recyclable and hazardous wastes into categories to facilitate recycling;
- 3.85 "stabilizing" means the biological decomposition of biodegradable wastes to a stable state where it generates no leachate or offensive odours and is fit for application to farm land, soil erosion control and soil remediation;
- 3.86 "State board or Committee" means, as applicable, the State Pollution Control Board of a state or the Pollution Control Committee of a Union Territory.
- 3.87 "street vendor" means any person engaged in vending of articles, goods, wares, food items or merchandise of everyday use or offering services to the general public, in a street, lane, side walk, footpath, pavement, public park or any other public place or private area, from a temporary built up structure or by moving from place to place and includes hawker, peddler, squatter and all other synonymous terms which may be local or region specific; and the words "street vending" with their grammatical variations and cognate expressions, shall be construed accordingly;
- 3.88 "Source" means the premises from which waste is generated.
- 3.89 "Stabilized biodegradable waste" means the biologically stabilized (free of pathogens) waste resulting from the mechanical / biological treatment of biodegradable waste; only when stabilized such waste can be used with no further restrictions;
- 3.90 "Storage" means the temporary containment of municipal solid waste in receptacles; prevent littering, attraction to vectors, stray animals and excessive foul odour;
- 3.91 "Street" includes any way, road, lane, square, court, alley, gully, passage, whether a thoroughfare or not and whether built upon or not, over which the public have a right of way and also the roadway or footway over any bridge or causeway.
- 3.92 "tipping fee" means a fee or support price determined by the local authorities or any state agency authorised by the State government to be paid to the concessionaire or operator of waste processing facility or for disposal of residual solid waste at the landfill;
- 3.93 "transfer station" means a facility created to receive solid waste from collection Local Body and transport in bulk in covered vehicles or containers to waste processing and, or, disposal facilities;
- 3.94 "transportation" means conveyance of solid waste, either treated, partly treated or untreated from a location to another location in an environmentally sound manner through specially designed and covered transport system so as to prevent the foul odour, littering and unsightly conditions and accessibility to vectors, animals and birds;
- 3.95 "treatment" means the method, technique or process designed to modify physical, chemical or biological characteristics or composition of any waste so as to reduce its volume and potential to cause harm;
- 3.96 "user fee" means a fee imposed by the local body and any entity mentioned in rule 2 on the waste generator to cover full or part cost of providing solid waste collection, transportation, processing and disposal services.

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- 3.97 "Vadose water" means the water situated between top soil and ground water table level, i.e. in the unsaturated soil strata.
- 3.98 "vermi composting" means the process of conversion of bio-degradable waste into compost using earth worms;
- 3.99 "waste generator" means and includes every person or group of persons, every residential premises and non-residential establishments including Indian Railways, Defence establishments, which generate solid waste;
- 3.100 "waste hierarchy" means the priority order in which the solid waste is to should be managed by giving emphasis to prevention, reduction, reuse, recycling, recovery and disposal, with prevention being the most preferred option and the disposal at the landfill being the least;
- 3.101 "Waste picker" means a person or groups of persons informally engaged in collection and recovery of reusable and recyclable solid waste from the source of waste generation the streets, bins, material recovery facilities, processing and waste disposal facilities for sale to recyclers directly or through intermediaries to earn their livelihood.
- 3.102 Words and expressions used herein but not defined, but defined in the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act, 1974, Water (Prevention and Control of Pollution) Cess Act, 1977 and the Air (prevention and Control of Pollution) Act, 1981 and all the Waste Management Rules shall have the same meaning as assigned to them in the respective Acts/Rules

#### 4. Prohibition of littering, and other nuisances and ensuring "Clean Aangan/Premises/Place".

- 4.1 Littering in/or on any public/private place: No person shall throw or deposit litter in any occupied/unoccupied/open/vacant public or private place except in authorized public or private litter receptacles.
- 4.2 Littering from vehicles: No person shall throw or deposit litter upon any street, road, sidewalk, playground, garden, traffic island or other public/private place from any vehicle either moving or parked.
- 4.3 Litter from waste carriage vehicles: No person shall drive or move any truck or other vehicle filled with litter unless such vehicles are so designed to cover the litter and loaded as to prevent any litter from being blown off or deposited upon any road, sidewalks, traffic islands, playground, garden or other public place.
- 4.4 Creating Public Nuisance: No person shall cook, bathe, spit, urinate, defecate, feed animals / birds or allow their droppings/poop, wash utensils or any other object or keep any type of storage in any public place except in such public facilities or conveniences specifically provided for any of these purposes
- 4.5 Daman Municipal Council reserves the right to ban sale, purchase and use of any items including but not limited to polythene, plastic bags, poisonous spray within Daman Municipal Council area, so as to regulate solid waste disposal, and manage any threat to the environment. Provided that any such resolution shall be sent to the Director, who shall have the authority to annual any such resolution in general public interest. No person shall indulge in production, distribution, storage, sale and use of banned items.
- 4.6 Temporary toilets shall be provided by the bulder at construction sites, where a labour force is deployed for carrying out construction activities to prevent open defecation. Making of such prior provision should be one of the conditions while granting building permission and must be adhered to.
- 4.7 It shall be the responsibility of the owner of any premises to provide adequate toilets and sanitation facility for the residents or occupier of the said premises. Failure to do so shall invite penalties as specified in the schedule.
- 4.8 Daman Municipal Council through Chief Officer is authorized to seal any premises where toilet/sewerage/septic tank facilities have not been provided by the owners or occupiers. Provided that no

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such order of sealing shall be made without giving the owner one month's notice. Provider further that any such seal shall be opened on directions of Standing Committee on providing such facilities and payment of Rs. 10,000/-.

- 4.9 Daman Municipal Council, through Chief Officer, may request any other department including electricity, road, PWD, water etc to cut-off the supply of essential services to the occupier who has refused comply with the directions of Chief Officer regarding Solid waste disposal/management/toilets/sewerage. The concerned department, on receipt of such request, shall within seven days of such request, comply with the same

#### 5. Segregation, storage, delivery and collection of Municipal Solid Waste

- 5.1 Segregation of waste into separate specified groups: Every generator of Municipal Solid Waste shall separate the waste at source of generation into the following categories as applicable and shall store separately, without mixing it for segregated storage in authorized storage bins, private/public receptacles for handing over or delivering to authorized waste pickers or waste collectors as directed by the Daman Municipal Council from time to time;
- 1) Bio-degradable (wet) waste,
  - 2) Specified domestic hazardous waste,
  - 3) Fully treated Bio-medical waste (as per applicable rules),
  - 4) Construction and demolition waste,
  - 5) Bulk garden and horticulture waste including tree and plant trimmings,
  - 6) All other non- biodegradable (dry) waste including recyclable and non-recyclable waste. Sanitary waste like napkins, diapers, tampons etc shall be securely wrapped in pouches provided by the manufacturers or brand owners or in suitable wrappers as instructed by the official / authority and shall be stored with the dry waste for handing over.
  - 7) All bulk generators shall manage the waste at their premises as per instructions notified by the Daman Municipal Council from time to time.
- 5.2 Daman Municipal Council may separately notify different stages for implementation of the rules/ byelaw taking into account the level of awareness among generators of waste as well as availability of infrastructural support in their operational Local Body.
- 5.3 Daman Municipal Council shall separately notify from time to time the mandatory colour coding and other specifications of receptacles prescribed for storage and delivery of different types of solid waste to enable safe and easy collection without any mixing or spillage of waste, which generators of different types of solid waste shall have to adhere to.
- 5.4 Delivery of segregated premises waste: It shall be the duty of every generator of municipal solid waste, either owner or occupier of every land and building to collect or cause to be collected from their respective land, premises and building, to segregate waste and to store and deliver the same to the municipal worker/vehicle/waste picker / waste collector deployed by the Daman Municipal Council for the purpose.
- 5.5 Bio-degradable waste: Segregated Bio-degradable Municipal Solid Waste (as per the illustrative list in Schedule II if not composted by the generator, shall be stored by them within their premises and its delivery shall be ensured to the municipal worker/vehicle/waste picker / waste collector or to the bio-degradable waste collection vehicle provided for specified commercial generators of bulk bio-degradable waste at such times as may be notified from time to time.
- 5.6 Composting by all generators: Local composting or processing of waste shall be promoted to minimize transportation of waste. It shall be mandatory for the bulk generators to do in house processing of waste.
- 5.7 Specified household hazardous waste: (as listed in Schedule III) shall be stored and delivered by every generator of waste to the collection vehicle, which shall be provided

- weekly by Daman Municipal Council or any other Agency authorized by the Daman & Diu Pollution Control Committee (PCC), for collection of such waste, or to a centre designed for collection of such waste for disposal in a manner that is mandated by the Government of Union Territory of Daman & Diu or Daman & Diu Pollution Control Committee (PCC).
- 5.8 Untreated bio-medical waste (as listed in Schedule IV) shall be collected & stored in specified type of covered receptacles and delivered by every generator of such waste to the collection vehicle which shall be provided weekly by Daman Municipal Council or any other Agency authorized by the Daman & Diu Pollution Control Committee (PCC) for collection of such waste, or to a centre designed for collection of such waste for disposal in a manner that is mandated by the Government of Union Territory of Daman & Diu or Daman & Diu Pollution Control Committee (PCC) in accordance with the Bio-Medical Waste (Management & Handling) Rules, 2016.
- 5.9 Construction and Demolition waste shall be stored and delivered separately at such spot and at such time as notified by Daman Municipal Council or its agent from time to time for collection of such waste. Small generators (household level) shall be responsible to segregate the Construction & Demolition waste at source by contacting a local help-line of Daman Municipal Council or the Agent who shall then send a vehicle to pick up such segregated construction & demolition waste on payment of necessary charges by the said generator and transport this waste to a processing centre. The details of local Help line of Daman Municipal Council shall be available in the Office of Daman Municipal Council and on their website.
- 5.10 All other Non-biodegradable ("Dry") waste – both recyclable and non-recyclable – shall be stored and delivered by every generator of waste to the dry waste collection vehicle, which shall be provided Daman Municipal Council or its Agents at such spots and at such times as may be notified by them from time-to-time for collection of such waste.
- 5.11 Bulk garden and horticultural waste shall be kept un-mixed and composted at source. Daman Municipal Council shall also notify Instructions/ guidelines with regard to pruning of trees and storage and delivery of tree trimmings including segregated garden and horticultural waste by charging suitable fees as notified by it from time to time, for collection and transport to its facility.
- 5.12 Burning of waste: Disposal by burning of domestic, hazardous and commercial solid waste at roadsides, or at any private or public property is prohibited.
- 5.13 If such owner or occupier fails to comply with any direction contemplated by this Bye law, he / she shall be guilty of an offence punishable under section 223, 224 and 225 of regulations and the Daman Municipal Council may remove, or cause to be removed dispose of or treat such hazardous waste in any suitable manners and recover the expenses incurred in doing so from such owner or occupier.

## 6) Obligatory duties of Daman Municipal Council

- 6.1 **Action against Transport Contractors, agents or Employees of Municipal Council:** Daman Municipal Council shall take action against the Transport Contractor and/or Agents/employees of Daman Municipal Council, if any worker of the contractor or any employee of Daman Municipal Council mixes segregated waste at any point of collection, or fails to pick up waste as per the specified time schedule.
- 6.2 **Infrastructure facilities:** Daman Municipal Council shall provide adequate infrastructure facilities to assist citizens' compliance with these Rules/Bye-laws. In addition to waste collection services, litter bins, dry waste sorting centers, and composting centers shall be set up, wherever possible and essential, in consultation with local citizens. Adequate community toilets shall be provided in slum localities with the participation of Community Based Organizations to prevent nuisance such as defecating/urinating, washing and bathing in public places.
- 6.3 **Citizen Resource Base:** The Daman Municipal Council shall facilitate information about composting as well as recycling of dry waste through composting centres and dry waste sorting centers listing them on its website.

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- 6.4 **Bio-degradable puja articles:** The Daman Municipal Council shall authorise interested organizations to collect bio-degradable 'puja' articles(flowers, leaves, fruits etc.) at certain designated sites near water-bodies such as beaches,lakes, ponds, etc. in notified receptacles. The collection from such receptacles shall preferably be composted at a suitable location.
- 6.5 **Point-to-Point waste collection services:** The Daman Municipal Council shall provide for the collection of the municipal solid waste from specific pick-up points on a public or private road up to which the generator must bring the collected, segregated and stored waste for delivery to municipal worker/vehicle/waste picker / waste collector provided by Daman Municipal Council according to the route plans at such times and at such spots as notified by the concerned Chief Officer/Health Officer/ any other authorised official in advance for specified types of waste for different localities.
- 6.6 **Collection at source:** Daman Municipal Council shall provide for the collection of municipal solid waste from premises of a building or group of buildings from waste storage receptacles kept on the premises to which Daman Municipal Council shall be provided access at such times as may be notified by the Council.
- 6.7 **Data about waste received at landfill:** Daman Municipal Council shall release publicly, the monthly data about the quantity of waste going to the different landfills and waste processing sites. Such information shall be available at the Office and on Daman Municipal Council website.
- 6.8 **Community Bins in public places:**
- a) Daman Municipal Council shall provide and maintain suitable community bins on public roads or other public spaces, as determined by the Daman Municipal Council itself or through an Agent as an interim arrangement till Daman Municipal Council makes provision for collection at source or point-to-point collection at the required frequencies and shall notify the same on Daman Municipal Council website from time to time.
  - b) Segregated waste shall be delivered by the concerned generators to such community bins, and thereafter collected by Daman Municipal Council. Daman Municipal Council or its Agents have to ensure compliance of segregation and avoidance of public nuisance and health hazards from these community bins. Every community bin shall be separate for bio-degradable and non-bio-degradable waste. Details of all such places including the arrangements and schedules of waste collection from such places shall be available at the Office and on Council's website.
  - c) Officials/authority of Daman Municipal Council shall ensure that at no point of time the community bins are not overflowing nor exposed to open environment and prevent their scattering by rag pickers, stray animals or birds etc.
- 6.9 **Dry waste sorting centers / Material Recovery Facilities:** In order to regulate and facilitate the sorting of the recyclable and non-recyclable waste, Daman Municipal Council shall provide for as many dry waste sorting centers as possible and required. These dry waste sorting centers shall be on Daman Municipal Council land or land belonging to the Government or other bodies, made available especially for this purpose, or in the form of sheds or kiosks provided at suitable public places and shall be manned/operated by registered cooperative societies of waste pickers / licensed recyclers or any other Agents authorised / appointed by Daman Municipal Council. The non-recyclable waste, which remains after sorting shall be further, transported from such sorting centers from time-to- time to waste disposal sites for processing or land-filling. Such center shall be fenced/ screened in such a way that waste shall not be visible to passersby.
- 6.10 **Time schedule and route of collection:** The daily and weekly time schedules and routes, in Daman Municipal Council for collection of different types of municipal solid waste shall be fixed and notified in advance by the concerned official/authority. Details shall be available at all Offices and on the Council's website.
- 6.11 Similarly, the arrangements for the collection of construction and demolition waste, and garden and horticultural waste by Daman Municipal Council or its licensees shall be made available to the public as well as to the bulk generators of waste by the Chief Officer/Health Officer/ any other authorised official as the case may be.

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- 6.12 **Surprise checks:** Any authorized Officer / Agent of Daman Municipal Council shall have right to enter, at all reasonable times, with such assistance as he considers necessary, any place for the purpose of (i) performing any of the functions entrusted to him by Daman Municipal Council or (ii) determine whether, and if so, in what manner, any such functions are to be performed, or whether any provisions of these Bye-laws have been complied with.
- 6.13 **Nuisance Detectors:** The Chief Officer/Health Officer/ any other authorised official shall provide and strengthen the system of Nuisance Detectors by providing suitable uniforms and vehicles to Nuisance Detectors.
- 6.14 **Publicity:** Citizen Information Services: Daman Municipal Council shall publicize the provision of the Bye-laws through the media of signs, advertisement, leaflets, announcement on radio and televisions, newspapers and through any other appropriate means, so that all citizens are made aware about the statutory duties of citizens and Daman Municipal Council for services, recycling, anti-litter and anti-nuisance penalties and fines.
- 6.15 **Designated officers and periodic reports:** The Chief Officer/Health Officer/ any other authorised official concerned shall designate officers under their control who shall be responsible for implementing the obligatory responsibilities of Daman Municipal Council specified under these Bye-laws in accordance with the plans and time schedules for implementation. The specific plans and time schedules and achievements against the same along with reasons for short falls, if any, shall also be shared publicly by the official/authority through the Daman Municipal Council website.
- 6.16 **Transparency and Public Accessibility:** To ensure greater transparency and public accessibility, the Daman Municipal Council shall provide all necessary information that is required to be publicized through its website.
- 6.17 **Co-ordination with Government Bodies:** Daman Municipal Council shall co-ordinate with other government agencies and authorities, to ensure compliance of these Bye-law.
- 6.18 The Daman Municipal Council shall ensure arrangements for cleaning daily or at set intervals and all the year through at all the public roads, places, colonies, slums, Local Body, markets and tourism places, parks of the urban body, cremation grounds etc. and the Daman Municipal Council shall be committed to collect and carry the garbage from these places door to door or from the nearest garbage bin/container/facility and transport it from there to the final disposal place in closed vehicles.
- 6.19 The Daman Municipal Council shall utilize its own/outsourced/contract sanitation workers and vehicles in carrying out sanitation and solid waste management functions for full or partial daily cleaning work, so that the urban body is able to keep its area neat and clean in public interest.
- 6.20 In order to manage the complete daily cleaning system of the city, the Daman Municipal Council shall establish a ward office (complaint center) in each ward, garbage bin/container at suitable places as required, public toilets/urinals, transfer stations to transport the garbage to the landfill for final disposal, processing unit, etc.
- 6.21 **User charges:** The Daman Municipal Council shall levy user charges from the households / premises for the waste management services rendered as per the table given below as determined from time to time. For this purpose, the Daman Municipal Council shall appoint its staff/designated persons in all the regions/Local Body/wards of the corporation/council/municipality to collect garbage from every home/premises in compliance with Solid Waste Management Rules, 2016.
- 6.22 A time will be fixed compulsorily in each area to collect garbage from each house/premises/Aangan. Usually, the time will be from 7.00 to 11.00 in the morning but can vary. But the Daman Municipal Council should ensure compliance with the timed fixed for any special cleaning purpose. A bell/horn/announcement (whose sound must not be over the permissible sound limit) should be fitted on the vehicle of garbage collection/blown by worker so that the residents can be made aware of collection being undertaken.

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- 6.23 The time for garbage collection from commercial establishments/shops/markets shall be from 9.00 to 12.00 in the morning in general but can vary.
- 6.24 The Rates/User Charges/Fees for collecting garbage from home and establishments for Garbage Collection are fixed as follows: -

Category of customer	Amount (from each premises) per month
Houses up to 50 sq. m. built-up area	Rs. 20/-
Houses over 50 sq. m. built-up area up to 300 sq. m.	Rs. 80/-
Houses with over 300 sq. m. built-up area	Rs. 150/-
Commercial establishments, shops, eating places (Dhaba/sweet shops/coffeehouse etc)	Rs. 250/-
Guest House	Rs. 500/-
Hostel	Rs. 500/-
Hotel Restaurant (Unstarred)	Rs. 500/-
Hotel Restaurant (Up to 3 star)	Rs. 1000/-
Restaurant (Non-AC)	Rs. 200/-
Restaurant (AC)	Rs. 500/-
Hotel Restaurant (over 3 star)	Rs. 2000/-
Commercial offices, government offices, Bank, Insurance offices, coaching classes, education institutes etc.	Rs. 750/-
Clinic, dispensary, Hospital (up to 50 beds)	Rs. 2000/-
Laboratories	Rs. 500/-
Clinic, dispensary, laboratories (more than 50 beds)	Rs. 4000/-
Small and cottage industry workshops (only non hazardous), waste upto 10 Kg per day	Rs. 500/-
Go-downs, cold storages (only non-hazardous) waste	Rs. 1000/-
Marriage halls, exhibition and fairs upto 3000 sq. m.	Rs. 1000/-
Marriage halls, exhibition and fairs over 3000 sq. m.	Rs. 3000/-
Other places not marked as above	As assessed by the urban body

- The user charges shall be levied one month after the house-house collection has come into force. The above rates will be increased by at least 5 percent every year. Daman Municipal council, subject to subsequent approval of the Director Municipal Administration, is authorised to change these user charges by a resolution. Such resolution shall have to be published in at least 3 local newspapers. Such resolution shall come in force as soon as the same is approved by Daman Municipal Council.
- 6.25 The charges for door to door or point garbage collection as above shall be collected only by the authorized institution/person/agency of each ward/area. The above rates shall be properly advertised by the Daman Municipal Council and the rates shall also be displayed on the Waste Management Vehicles. The Chief Officer shall also write the name of the authorized institution/person on the Waste Management Vehicles.
- 6.26 The waste shall not be handled manually. But, due to some unprecedented circumstances, if the waste material has to be manually handled and lifted using manual labour, in such circumstances manual labour would be used with all due care and precautions of personal safety gear.

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- 6.27 If the waste material is not disposed by any person on the designated sites, waste bins, litter bins, containers kept on the road and parks by the concerned municipal council/corporation and is disposed by any person/party elsewhere waste disposal is prohibited, in such circumstances, fine / compounding charges can be levied on the concerned person/party in addition to fine.
- 6.28 Daman Municipal Council may by a resolution relax collection of fine or user charge from any charitable, Government or religious organisation.

**7) Obligatory Responsibilities of Daman Municipal Council and /or generators of waste in case of some specific categories/situations:** Keeping in mind the particular nature of some situations, the following responsibilities are specifically mandated:

#### 7.1. Slums

- 7.1.1 The Chief Officer/Health Officer/ any other authorised official shall extend solid waste management to the uncovered areas within their jurisdiction.
- 7.1.2 Where applicable, Daman Municipal Council shall extend door-to-door collection system at fixed times at a point outside the slum, for collection of segregated solid waste.
- 7.1.3 In exceptional cases, until the services of a door-to-door collection system at required frequencies are provided at designated spots on a public road or any other public place for the time being, manned community waste storage bins shall be maintained by Daman Municipal Council, where segregated waste shall be deposited by the generator, and from where Daman Municipal Council shall collect such waste.
- 7.1.4 Cleanliness drives shall be conducted by Daman Municipal Council with the help of local councillors, Citizens organizations, Government bodies / Corporates etc for the cleanliness inside the slums, from time to time.

#### 7.2 Poultry, Fish and Slaughter Waste (From all areas other than designated slaughter houses and markets)

- 7.2.1 Every owner / occupier of any premises other than designated slaughter houses and markets, who generates poultry, fish and slaughter waste as a result of any commercial activity, shall store the same separately in closed, hygienic condition and deliver it at a specified time, on a daily basis to Daman Municipal Council collection vehicle provided for this purpose. Deposit of such waste in any community bin is prohibited and shall attract fines as indicated in the schedule of Fines.
- 7.2.2 The Chief Officer/Health Officer/ any other authorised official of Daman Municipal Council shall be responsible for repair/re-modelling of civic facilities in the markets to provide maximum hygiene and sanitary conditions in the market premises.

#### 7.3 Vendor/Hawkers:

All vendors/hawkers shall keep their biodegradable and other waste unmixed in containers / bins at the site of vending for segregated storage of waste generated by that vending activity. It shall be the responsibility of the generator/ vendor to deliver this waste duly segregated to the Municipal Collection Vehicle of Daman Municipal Council or to the nearest designated community bins as directed. Failing which fine shall be imposed as per the Schedule of Fines. Each Vendor/hawker shall be responsible to maintain their 'Clean Aangan'.

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DATED : 7<sup>TH</sup> SEPTEMBER, 2018.**7.4 House /gullies/Service Lanes:**

- 7.4.1 It shall be the responsibility of the owner/occupier of premises within house-gullies to ensure that no waste is dumped or thrown in the house-gully, and to segregate and deliver any solid waste to the waste collection vehicle which shall be provided by Daman Municipal Council at such spots and at such times as may be notified by official/authority.
- 7.4.2 Where owners/occupiers of such premises wish to avail of the services of Daman Municipal Council for the cleaning of the house gully, they must apply to the concerned Office of Daman Municipal Council and pay suitable prescribed charges as notified by Daman Municipal Council from time to time. It shall be the responsibility of the owners/occupiers to provide access to the house gully for cleaning purposes.

**7.5 Litter by owned / pet animals**

It shall be the responsibility of the owner of any pet animal to promptly scoop/clean up any poop/litter/faecal matter created by any owned/pet animals on the street or any public place, and take adequate steps for the proper disposal of such waste in their own sewage or other such sanitary system.

**7.6 Public Gatherings and Events:**

- 7.6.1 For Public Gatherings and Events, organised in public places for any reason (including for processions, exhibitions, circus, fairs, political rallies, commercial, religious, socio-cultural events, protests and demonstrations, etc.) where Police and/or Daman Municipal Council's permission is required, it shall be the responsibility of the Organiser of the event or gathering to ensure the cleanliness of that area as well as all appurtenant area immediately after the event.
- 7.6.2 A Refundable Cleanliness Deposit: The Organiser of the event shall pay required deposit with the concerned office for the duration of the event, which shall be refundable on the completion of the event on notifying that the said public place has been restored back to a clean state, and any waste generated as a result of the event has been collected and transported to designated sites, to the satisfaction of Chief Officer/Health Officer/ any other authorised official concerned. This deposit shall be only for the cleanliness of the public place and does not cover any damage to property. This section shall also, apply to various other events which are being organized outside the Municipal Parks i.e. on roads/lanes etc. In case the Organizers of the event wishes to avail of the services of Daman Municipal Council for the cleaning, collection and transport of waste generated as a result of that event, they shall apply in advance to the concerned Office of Daman Municipal Council and pay the necessary charges in advance as may be fixed for this purpose by Daman Municipal Council. Such cleanliness deposit and charges shall be such as are decided by council from time to time. So long as council does not pass any resolution, the cleanliness deposit and cleanliness charges shall be equal to Rs. 50 for every gathered person. If any party conducts an event without giving security deposit, the cleanliness deposit shall be recovered as a fine from them.

**7.7 Receptacles on private property:**

Every owner or occupant of private property shall maintain authorized refuse receptacles on private premises provided the receptacles are neither visible from public street/roads and sidewalks nor accessible to animals.

**7.8 Other public places.**

The Government / Semi-government, statutory bodies shall be responsible for implementation of these Bye-laws within the public premises owned/occupied by them.

**8) Penalties for contravention of these Bye-laws**

8.1. Whosoever contravenes any of the provisions of these Byelaws or fails to comply with the requirements made under any of these Byelaws shall be punished with a fine as mentioned in Schedule-I appended to these Bye-laws, failing which, the said defaulter shall be liable to do the community service for at least one hour like road sweeping or graffiti cleaning etc. as directed / ordered by the Nuisance Detector or Implementing Authority or any person authorised to do so. The fines can be recovered in the same manner and to the same extent as property tax. The schedule of fine can be amended by Daman Municipal Council by a resolution passed by 2/3<sup>rd</sup> majority. Any such resolution shall come in to effect as soon as the same is approved by Director Municipal Administration. Any such resolution shall be published in three local newspaper.

8.2 The owner/ occupier shall be deemed to be guilty of the offence and shall pay the fine, if the responsible person for dumping waste in a private place is unidentified.

8.3 If it becomes necessary on the part of the Daman Municipal Council to remove or process the waste, which was the responsibility of any other agency to remove or process then the responsible person or entity shall be liable to pay the expenses to the Daman Municipal Council at the rate of 5 times the charges prescribed or Rs. 5000/- per incidence whichever is higher.

8.4 Nothing in these bye-laws prevents Daman Municipal Council to recover—in addition to the fine prescribed under Daman and Diu Municipalities (Amended ) Regulation 2018 under any rules or bye-laws made there under—administrative charges for any extra expense incurred on removal or disposal of waste because of non-cooperation of any person.

8.4.1 These Administrative Charges shall be such as decided from time to time by Daman Municipal Council by a Resolution passed, by at least two-third majority, in its general body meeting

8.4.2 The Administrative charges shall not exceed ~ 5000 per day per violation.

8.4.3 The Administrative charges can be recovered only one week after they have been published. They can be recovered in addition of fine.

8.4.4 The Administrative charges shall not be challenged in any court of law on the ground that they do not represent actual costs of removal or disposal of waste, or that they cannot be levied in addition to fine.

8.4.5 The Administrative charges shall be published once they are approved by Director (Municipal Administration)

8.5 The dues under these bye-laws shall be recovered in the same manner and to the same extent as property tax. Provided that no such recovery Proceedings shall be initiated unless the defaulter has been given one month's time to pay the dues.

**9) Miscellaneous provisions:**

9.1 Bio medical waste and Industrial waste shall not be mixed with urban solid waste and the collection of such waste shall be made as per the rules/byelaws specified separately for the purpose. Common Bio Medical Waste Treatment Facility (CBWTF) services shall be availed for disposal of bio medical waste as per rules/byelaws. Disposal of such hazardous waste will have to be ensured at the Common Bio Medical Waste Treatment Facility (CBWTF) plant at the prescribed charges.

9.2 Stray animals shall not be allowed to roam freely around waste dumps or at other places in the city and arrangement will have to be made for restraining them at authorized area/place only.

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- 9.3 No one will collect or throw waste water, muddy water, night soil, dung, excreta etc. from his/her building, institution or commercial establishment to pollute the atmosphere and ground with its stench and harm public health or obstruct traffic, failing which, administrative charges or fine shall be levied on the spot for spreading such waste, and case can be brought against them in court.
- 9.4 If a person is found spreading pollution or filth in public parks etc. by throwing dead animal/cattle or its parts, it will be a punishable offense and administrative charges shall also be levied
- 9.5 It shall be the duty of Daman Municipal Council to protect all waste handlers from the ill-effects of their occupation and should be given annual medical examination and monitoring, given appropriate health education and free medical treatment if it is felt that the illness is occupation – related. Daman Municipal Council shall provide person protection equipment's and monitor that the same is used by the workers.
- 9.6 The Daman Municipal Council shall develop a management information system for effectively taking corrective measures as well as proper planning for future. Geographic Information System (GIS) shall be introduced and MIS may be integrated in this system. There should be route maps and duty charts with each of the supervisory staff, who should check whether work on site is going as per schedule and whether vehicles and manpower are giving their optimum output.

#### 10) Responsibility of Urban local bodies --

- 10.1 Transport of the municipal solid waste: - The vehicles used for the transport of solid waste are to be duly closed so that the waste should not be visible to the public and the waste is not scattered elsewhere on the road during transportation, the following standards should be maintained during the transportation of the solid waste.
- 10.2 The solid waste would be collected and cleaned as per schedule from the established waste collectors. Along with the waste, the surrounding area of the disposal site should also be kept clean.
- 10.3 The design of the transport vehicles will be such that the waste will not be allowed to touch ground until it reaches its final processing/disposal site, and thus the recurring handling of the waste will not be allowed.

#### 11) Recycling of the municipal solid waste - To process the solid waste collected in the Local Body of Municipal Corporation/ council as useful materials, various solid waste disposal units approved by the pollution control board/PCC and different techniques of such solid waste should be applied so that the dependency of waste disposal on the landfills can be minimized. Following standards should be applied for the expected results:-

- 11.1 For the processing of the bio-degradable waste, various techniques can be used such as vermicomposting, composting, mechanized composting, bio-methanation etc. Also the waste can be degraded using the other natural methods/resources by obtaining the required authorisations.
- 11.2 For the waste material mixed with the recyclable/renewable resources as a mixture, the method of recycling should be used. In some cases the waste resources can be used to generate energy. Such plants with the technology should be authorised by the pollution control board.

#### 12) Prosecution and Penalties: -As provided in these byelaws, for any breaching of the said byelaws, prosecutions and penalties can be rendered as levied down in these byelaws or in The Daman & Diu Municipalities (Amended) Regulation, 2018. Further, as per the Environment Protection Act of 1986, cases can be filed against them.

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DATED : 7 <sup>TH</sup> SEPTEMBER, 2018.

**13. RESPONSIBILITY OF ELECTED MEMBERS AND CHIEF OFFICER**

- 13.1 The administrative powers to implement the provisions of this Byelaw and the resolutions passed by a Council shall be vested in the Chief Officer and he/she shall be directly responding for the proper discharge of the functions imposed by or under this bye law.
- 13.2 The Chief Officer shall-
- Supervise and control the acts done and steps taken by the officers and employees of the Daman Municipal Council in solid waste management.
  - Exercise such other powers and perform such other functions that may be conferred or entrusted under the provisions of this Bye law or the rules made there under.
  - The President, the Chief Officer, the Health Officer may, in emergent circumstances, direct the execution of any work or performance of any act related to solid waste management, in respect of which sanction of the Council is necessary and in his/her opinion the immediate execution or performance of which is necessary for the safety of the public and may also direct that the expenses incurred for the execution of such work or performance of such act be paid from the fund of the Daman Municipal Council.
- 13.3 The elected members of the council shall have the responsibility to ensure that the provisions of these bye laws are followed in letter and spirit in their respective areas.

**14. Repeal and saving of Orders:-**

- 14.1 Before these bye-laws are brought into force, any actions taken according to the previous rules/byelaws will not be considered as void, due to these byelaws coming into effect, provided that such actions do not violate these byelaws.
- 14.2 Such repealing shall not be affecting on any action taken by ULB before these bye-laws are implemented.
- 14.3 Such repealing will not affect anything or any action taken, or any acquired or incorporated rights, privilege, obligation or responsibility, approved sanction on going or completed investigation or pending action.

**15 . Appeal.** There shall be no appeal against fine when the total amount of fine does not exceed Rs. 10,000/- per incidence. Appeal against any other order of Chief Officer or any other official of Daman Municipal Council shall lie with standing committee whose decision shall be final.

**16. Recovery of fine or other dues**

In addition to the procedure specified in the Daman and Diu Municipalities (Amended) regulation 2018 it shall be lawful for Chief Officer to order sealing attachment / sale of property where sum total of fine/other dues exceed Rs, 50000/-, it shall also be lawful for Chief Officer to order cancellation of basic services of the defaulter in the manner provided in Bye-Law 4.9

Provided no such sealing, attachment or sale of distressed property shall be made without giving the defaulter a reasonable opportunity of being heard and minimum one month's time to pay dues.

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DATED : 7<sup>TH</sup> SEPTEMBER, 2018.**Schedule – I**

**(Schedule of Fines):** It is hereby declared for all intents and purposes that applicable provisions Solid Waste Management Rules 2016, Shall be read as part and parcel of these Bye laws.

Sr. No.	No. of Bye law	Sub-division/ Description of Rule/ Byelaw	Fines for up to 5 offences	Repeated Offense
1.	No.4.1 to 4.3.	Littering in/or on any public/private place, Vehicles, Waste carriage vehicles, Creating Public Nuisance	Rs. 100/-	Rs. 1000/-
2.	No.4.4	Creating Nuisance	Rs. 50/-	Rs. 500/-
3.	No. 4.5	Using banned items	Rs. 100/-	Rs. 1000/-
4.	No. 4.6	Not Providing functional toilets or sanitation facilities at construction sites.	Rs. 1000/-	Rs. 10000/- & Sealing
5.	No. 4.7	Not providing toilet/sanitation facilities	Rs. 500/-	Rs. 5000/-
6.	No 5.1 and 5.2	For delivering waste that is not segregated and not stored in separate bins:	Rs. 50/-	Rs. 500/-
7.		a) individual b) bulk generator	Rs. 500/-	Rs. 5000/-
8.	No. 5.3	For not delivering bio-degradable waste in a segregated manner as specified	Rs. 50/-	Rs. 500/-
9.	No. 5.8	For not storing & delivering Construction and Demolition waste in segregated manner.	Rs. 500/-	Rs. 5000/-
10.	No. 5.9	All other Non-biodegradable Waste	Rs. 50/-	Rs. 500/-
11.	No. 5.10	For not delivering garden waste and tree trimmings as specified	Rs. 50/-	Rs. 500/-
12.	No. 5.11	For Burning waste	Rs. 500/-	Rs. 5000/-
13.	No.6.1	Mixing Segregated Waste	Rs. 500/-	Rs. 5000/-
14.		Putting waste at not specified places	Rs. 200/-	Rs. 2000/-
15.	No. 7.2	For not delivering (non household) fish, poultry and meat waste in a segregated manner, as specified	Rs. 150/-	Rs. 1500/-
16.	No. 7.3	For a vendor / hawker without a container / waste basket	Rs. 150/-	Rs. 1500/-
17.		For a vendor / hawker who	Rs. 150/-	Rs. 1500/-

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		does not deliver waste in a segregated manner as specified		
18.	No. 7.4	For not keeping a house/ gully/ Service lanes clean	Rs. 100/-	Rs. 1000/-
19.	No. 7.5	For littering/defecation by pet / owned animals	Rs. 300/-	Rs. 3000/-
20.	No. 7.6	For not cleaning-up after public gathering / event within 4 hours	Forfeiture of the Cleanliness Deposit. Rs. 100/-	
21.	No. 9	Violation of provisions regarding hazardous waste and bio-medical waste.	Rs. 50/-	Rs. 500/-
22.	No. 13.7	Use, Sale, Storage or distribution of plastic bags is banned in DMC area	Rs. 200/-	Rs. 2000/-

**SCHEDULE – II –****Illustrative list of biodegradable and recyclable waste**

<b>Biodegradable Waste</b> "Biodegradable waste" means "wet" waste of plant and animal origin.	<b>Recyclable waste</b> "Recyclable waste" means "dry" waste that can be transformed through a process into raw materials for producing new products, which may or may not be similar to the original products.
<ul style="list-style-type: none"> <li>•Kitchen Waste including: tealeaves, egg shells, fruit and vegetable peels</li> <li>•Meat and bones</li> <li>•Garden and leaf litter, including flowers</li> <li>•Soiled paper</li> <li>•House dust after cleaning</li> <li>•Coconut shells</li> <li>•Ashes</li> </ul>	<ul style="list-style-type: none"> <li>•Newspapers</li> <li>•Paper, books and magazines</li> <li>•Glass</li> <li>•Metal objects and wire</li> <li>•Plastic</li> <li>•Cloth Rags</li> <li>•Leather</li> <li>•Rexene</li> <li>•Rubber</li> <li>•Wood /furniture</li> <li>•Packaging</li> </ul>

**Schedule III:****Specified hazardous waste:**

<b>Specified Household Hazardous Waste:</b>
<ul style="list-style-type: none"> <li>•Aerosol cans</li> <li>•Batteries and button cells</li> <li>•Bleaches and household kitchen and drain cleaning Agents &amp; its Containers.</li> <li>•Car batteries, oil filters and car care products and consumables</li> <li>•Chemicals and solvents and their containers</li> </ul>

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- Cosmetic items, chemical-based Insecticides and their containers
- Light bulbs, tube-lights and compact fluorescent lamps (CFL)
- Discarded Medicines and its containers,
- Paints, oils, lubricants, glues, thinners, and their containers
- Pesticides and herbicides and their containers
- Photographic audio/video tapers and their containers, chemicals
- Styrofoam and soft foam packaging of furniture, packaging and equipment
- Thermometers and mercury-containing products

**Schedule IV:****List of Bio-medical waste: (Extract from the Bio-Medical Waste Rules)****Bio-medical waste**

"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 thereto or in the production or testing of biological.

Category No 4 Waste sharps (Needles, syringes, scalpels, blades, glass, etc. that may cause puncture and cuts. This includes both used and unused sharps)

Category No 5 Discarded Medicines and Cytotoxic drugs (waste comprising of outdated, contaminated and discarded medicines)

Category No 6 Solid Waste (Items contaminated with blood, and body fluids including cotton, dressings, soiled plaster casts, lines, beddings, other material contaminated with blood)

Category No. 7 Solid Waste (waste generated from disposable items other than the waste sharps such as tubing's, catheters, intravenous Sets etc)

  
Collector / Director (MA)  
Daman & Diu ,  
Daman

Daman

Dated 07/10/2018

SERIES II No. : 35
DATED : 7 <sup>TH</sup> SEPTEMBER, 2018.

**No. COL/DMN/MAG-18/2018-19/7685  
U. T. Administration of Daman & Diu,  
Office of the Collector, Collectorate,  
Daman.**

**Dated : 05/09/2018.**

**CERTIFICATE OF PRACTICE**

[ See Rule 8 (5) ]

Pursuant to the provisions of the Notaries Act, 1952 Central Act (53 of 1952) read with Rule 8 of Notaries Rules, 1956 made there under, the Administrator of Union Territory of Daman and Diu and Dadra & Nagar Haveli is hereby pleased to order that Shri Terance Jose Sandes, Advocate & Notary who has declared his ordinary professional address to be at 7/745-1, Angustias Road, Near Football Ground, Moti Daman and was duly appointed by this U.T. as a Notary on 23/08/2013, is hereby authorized to practice as a Notary, subject to the Provision of the aforesaid Act and Rules for further period of five years from 23/08/2018 to 22/08/2023 in and throughout the Daman District.

By Order and in the name of the  
Administrator of Daman & Diu  
and Dadra & Nagar Haveli.

Sd/-  
**( Sandeep Kumar Singh )**  
Collector, Daman and  
Competent Authority  
For the District of Daman.

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SERIES II No. : 35

DATED : 7<sup>TH</sup> SEPTEMBER, 2018.

**U. T. Administration of Daman & Diu  
Directorate of Medical & Health Services,  
Community Health Centre Campus,  
Fort Area, Moti Daman, Daman – 396 220.**

No. 11-1(PMRSSM)/26/2018/DMHS/8612

Dated : 05/09/2018

ORDER

The Administrator of Union Territory of Daman & Diu and Dadra & Nagar Haveli is pleased to constitute common "**Union Territory Health Agency (UTHA)**" for implementation of Ayushman Bharat – Pradhan Mantri Jan Arogya Abhiyaan (AB-PMJAA) in both Union Territories of Daman and Diu and Dadra & Nagar Haveli.

The composition of common UTHA for UT of Daman & Diu and Dadra & Nagar Haveli are as under :

Sr. No.	Designation	Position
1.	Advisor to Hon'ble Administrator, UT of DD & DNH	Chairman
2.	Secretary (Health), UT of DD & DNH	Vice-chairman
3.	Finance Secretary, UT of DD & DNH	Member
4.	Secretary (Rural Development), UT of DD & DNH	Member
5.	Secretary (Housing & Urban Affairs), UT of DD & DNH	Member
6.	Secretary (IT), UT of DD & DNH	Member
7.	Secretary (Labour), UT of DD & DNH	Member
8.	Collector, D&NH/Daman/Diu	Member
9.	Director, M&HS, DD & DNH	Member Secretary
10.	Mission Director (NHM), DNH	Member
11.	Mission Director (NHM), DD	Member
12.	Representative of NHA	Special Invitee

The role and responsibilities of UTHA will be as under :

All key functions relating to delivery of services under AB-PMJAA shall be performed by the UTHA viz. data sharing, verification/validation of families and members, awareness generation, monitoring etc. The UTHA shall perform following activities through staff of UTHA.

- Policy related issues of UT Health Protection/Insurance scheme and its linkage to AB-PMJAA
- Convergence of UT scheme with AB-PMJAA

Contd./---

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- Selection of Insurance Company through tendering process
- Awareness generation and demand creation
- Aadhaar seeding and issuing print out of E-card to validated AB-PMJAA beneficiaries
- Empanelment of network hospitals which meet the criteria
- Monitoring of services provided by health care providers
- Fraud and abuse Control
- Punitive actions against the providers
- Monitoring of pre-authorizations which are already approved by Insurer
- Administration of hospital claims which are already approved by Insurer
- Package price revisions or adaptation of AB-PMJAA list
- Adapting AB-PMJAA treatment protocols for listed therapies to state needs, as needed Adapting operational guidelines in consultation with NHA, where necessary
- Forming grievance redressal committees and overseeing the grievances redressal function
- Capacity development planning and undertaking capacity development initiatives
- Development of proposals for policy changes – e.g. incentive systems for public providers and implementation thereof
- Management of funds through the Escrow account set up for purposes of premium release to Insurance Company under AB-PMJAA.
- Data management
- Evaluation through independent agencies
- Convergence of AB-PMJAA with State funded health insurance/protection scheme (s)
- Alliance of State scheme with AB-PMJAA
- Setting up district level offices and hiring of staff for district
- Oversee district level offices
- Preparation of periodic reports based on scheme data and implementation status
- Implementing incentive systems for ASHA worker & public providers in line with national guidance

By order and in the name of  
the Administrator of Daman & Diu  
and Dadra & Nagar Haveli.

Sd/-  
**( Gurpreet Singh )**  
Deputy Secretary (Health)

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SERIES II No. : 35
DATED : 7 <sup>TH</sup> SEPTEMBER, 2018.

**U. T. Administration of Daman & Diu,  
Office of the Executive Engineer,  
Public Works Department,  
Work Division No. 1,  
Daman**

No. EE/PWD/WD-I/DMN/TB/2018-19/5325

Dated : 06/09/2018

NOTIFICATION

The Advisor to Hon'ble Administrator, Daman & Diu and DNH is pleased to constitute the UT Level Committee for assessment of dynamic ground water resources for the UT of Daman and Diu with the following composition.

1.	Secretary (PWD) & Advisor to Hon'ble Administrator, DD & DNH	Chairman
2.	Chief Engineer, PWD, Daman & Diu	Member
3.	Director (Agriculture), Daman & Diu	Member
4.	Director, Department of Industries, Daman & Diu	Member
5.	Secretary (Finance), Daman & Diu	Member
6.	General Manager, NABARD, Usmanpura, Ahmedabad	Member
7.	Collector, Daman	Member
8.	Collector, Diu	Member
9.	Executive Engineer, PWD, Daman	Member
10.	Regional Director, GCWB, Ahmedabad	Member Secretary

1. Terms of Reference : The broad terms of reference to the Committee would be as follow :-
  - (i) To estimate the ground water resources of the UT in accordance with the Ground Water Resources Estimation Methodology.
  - (ii) To estimate the status of utilization of the annual replenishable ground water resources.
2. Time frame : The Committee will submit its report within 2 months from the date of its constitution.
3. Expenditure : Expenditure on account of TA/DA to official members of the Committee will be met from the source from which they draw their salaries.

Contd./---

SERIES II No. : 35
DATED : 7 <sup>TH</sup> SEPTEMBER, 2018.

This is issued with the approval of the Advisor to Hon'ble Administrator vide diary No. 414622 dated 27/08/2018.

By order and in the name of the Advisor to Hon'ble  
Administrator, DD & DNH

Sd/-  
**( Vaibhav Rikhari )**  
Dy. Secretary (PWD)  
Secretariat, Daman

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असाधारण  
EXTRAORDINARY

Daman 27<sup>th</sup> July, 2018, 05 Sravana 1940 (Saka)

सं. : 09  
No.

सरकारी राजपत्र  
OFFICIAL GAZETTE



भारत सरकार  
Government of India

संघ प्रदेश दमण एवं दीव प्रशासन

U.T. ADMINISTRATION OF DAMAN & DIU

प्राधिकरण द्वारा प्रकाशित  
PUBLISHED BY AUTHORITY

No. COL/DMN/EST/2018-19/6728  
Administration of U.T. of Daman & Diu,  
Office of the Collector,  
Collectorate,  
Daman – 396 220.

Dated :- 26/07/2018.

Notification No. DD/DMC/BYE LAWS/01/2018/6727 dated 26/07/2018 with regard to Bye Laws for Diu Municipal Council Solid Waste (Handling & Management) Bye Laws, 2018 is hereby published in the Official Gazette of this U.T. Administration of Daman & Diu for general information.

Sd/-  
( Pooja Jain )  
Collector / Director (MA)  
Daman & Diu, Daman.

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EXTRAORDINARY No. : 09

DATED : 27<sup>TH</sup> JULY, 2018.

Administration of Daman and Diu, Union Territory.  
Urban Development Department

**Notification**

No.DD/DMC/BYE LAWS/01/2018

*1627 Add. 26/7/2018*

**Bye-Laws**

In exercise of the powers conferred by sub-sections (1) and (2) of Section 307 read with section 223 and section 225 of The Daman and Diu Municipalities (Amended) Regulation, 1994, the Diu Municipal Council hereby makes the following Bye-Laws. By powers vested in me as Collector cum Director (Municipal Administration), Daman under Sub-Section 1 of Section 307 of the said Regulation, I hereby sanction the draft Bye-Laws namely;

1. **Short title and Commencement.** 1.1 These Bye-Laws may be called Diu Municipal Council Solid Waste (Handling and Management) Bye-Laws, 2018.  
1.2 They shall come in to force from the date of their publication in the Official Gazette.  
1.3 They shall remain in force unless amended in accordance with The Daman and Diu Municipalities ( Amended) Regulation 1994.

**2. Applicability.**

It extends to the whole of the Municipal areas including public places, private places, dwellings, trade and commercial centers. This Bye-Law shall apply to every generator of Municipal Solid Waste and to every premise under the ownership or occupation of any person within the limits of Diu Municipal Council (DMC). It will be applicable to any government or non-government premises or organization operating within the premises of Diu Municipal Council.

**3. Definitions**

In this Bye-Law, unless the context otherwise requires the following words shall have meaning herein defined:-

- 3.1 "Aangan"/premises/place means the public place in front of, or adjacent on any side of any premises, extending to the road, kerb side including the footpath kerb, drain, nala, plot or premises.
- 3.2 "aerobic composting" means a controlled process involving microbial decomposition/breaking down of organic matter in the presence of oxygen;
- 3.3 "Agency/Agent" means any entity/person appointed or authorized by Diu Municipal Council to act on its behalf, for discharge of duties or functions i.e. sweeping of streets, collection of waste, collection of charges / fines, and other such delegated responsibilities etc.;
- 3.4 "anaerobic digestion" means a controlled process involving microbial decomposition/ breaking down of organic matter in absence of oxygen;
- 3.5 "authorisation" means the permission given by the State Pollution Control Board or Pollution Control Committee, as the case may be, to the operator of a facility or DMC, or any other agency responsible for processing and disposal of solid waste;
- 3.6 "Bio-degradable waste" means any organic material that can be degraded by microorganisms into simpler stable compounds; for example the waste of plant and animal origin e.g. kitchen waste, food & flower waste, leaf litter, garden waste, animal dung, fish/meat waste and any other material that gets degraded/decomposed by the action of microorganisms;
- 3.7 "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 thereto or in the

- production or testing of biological, and including categories mentioned in Schedule IV of the Bye-laws ;
- 3.8 "bio-methanation" means a process which entails enzymatic decomposition/ breaking down of the organic matter by microbial action to produce methane-rich biogas;
- 3.9 "brand owner" means a person or company who sells any commodity under a registered brand label.
- 3.10 "buffer zone" means zone of no-development to be maintained around solid waste processing and disposal facility, exceeding 15 TPD of installed capacity. This will be maintained within the total area allotted for the solid waste processing and disposal facility.
- 3.11 "Bulk Waste Generator" means the owner, occupier or any other person representing owners and occupiers of House(s)/Flat(s), Group of Houses/Flats, housing society(s) / complex(s), Restaurant(s); Hotel(s), Market(s), Industrial Estate(s) and Shopping Complex(s) / Mall(s) and includes buildings occupied by the Central Government Ministries, Departments or Undertakings, State Government Departments or Undertakings, Local Bodies, Public Sector Undertakings or Private Companies, Hospital(s), Nursing Home(s), School(s), College(s), University(s), Other Educational Institutions, Hostel(s), Hotel(s), Commercial Establishment(s), Places of Worship, Stadia and Sports complexes, clubs, gymkhanas, marriage halls, recreation/entertainment complexes having an average waste generation rate exceeding 30kg per day; or any other establishment sources / premises that are specifically identified and notified by the Chief officer of Diu Municipal Council to be so;
- 3.12 "Bulk garden and horticultural waste" means bulk waste from parks, gardens, traffic islands, road medians etc. including grass & wood clippings, weeds, woody 'brown' carbon-rich material such as pruning, branches, twigs, wood chipping, straw or dead leaves and tree trimmings, which cannot be accommodated in the daily collection system for bio-degradable waste;
- 3.13 "Rules/bye-laws" means regulatory framework notified by Diu Municipal Council, for facilitating the implementation of these rules /bye-laws in their jurisdiction.
- 3.14 "census town" means an urban area as defined by the Registrar General and Census Commissioner of India;
- 3.15 "Collection" means lifting and removal of municipal solid waste from designated collection points or any other location;
- 3.16 "Collection at Source" means the collection of municipal solid waste by Diu Municipal Council directly from the premises of any building or common premises of a group of buildings. This is also referred to as "point to point collection";
- 3.17 "combustible waste" means non-biodegradable, non-recyclable, non-reusable, nonhazardous solid waste having minimum calorific value exceeding 1500 kcal/kg and excluding chlorinated materials like plastic, wood pulp, etc;
- 3.18 "Composting" means a controlled process involving microbial decomposition/degradation/breaking down of organic matter including vermi-composting - which is a process of using earthworms for conversion of biodegradable waste into compost;
- 3.19 "Community Service" means to serve the community by sweeping of road, cleaning of walls, tree guard portion etc.;
- 3.20 "contractor" means a person or firm that undertakes a contract to provide materials or labour to perform a service or do a job for service providing authority;
- 3.21 "Construction and Demolition waste" means waste from building materials, debris and such rubble resulting from construction, re-modeling, repair and demolition operations;
- 3.22 "co-processing" means use of non-biodegradable and non-recyclable solid waste having calorific value exceeding 1500kcal as raw material or as a source of energy or both to replace or supplement the natural mineral resources and fossil fuels in industrial processes;

- 3.23 "decentralised processing" means establishment of dispersed facilities for localised processing of biodegradable waste and recovery of recyclables closest to the source of generation so as to minimize transportation of waste for processing or disposal;
- 3.24 "Delivery" means handing over any category of solid waste to a Diu Municipal Council worker or any other person appointed, authorized or licensed by the Diu Municipal Council for taking delivery of such waste;
- 3.25 "disposal" means the final and safe disposal of post-processed residual solid waste and inert street sweepings and silt from surface drains on land as specified in Schedule I to prevent contamination of ground water, surface water, ambient air and attraction of animals or birds;
- 3.26 "domestic hazardous waste" means discarded paint drums, pesticide cans, CFL bulbs, tube lights, medicines including expired medicines, broken mercury thermometers, batteries, used needles and syringes and contaminated gauge, etc., generated at the household level;
- 3.27 "door to door collection" means collection of solid waste from the door step of households, shops, commercial establishments, offices, institutional or any other non-residential premises and includes collection of such waste from entry gate or a designated location on the ground floor in a housing society, multi storied building or apartments, large residential, commercial or institutional complex or premises;
- 3.28 "Door-to-Door collection system Municipal vehicle" means the bell-ringing or such vehicle (includes a carriage, cart, van, dray, truck, hand-cart, bicycle, cycle-rickshaw, auto-rickshaw, motor vehicle and every wheeled conveyance which is used or is capable of being used on a street) provided by Diu Municipal Council or an agency authorised by Diu Municipal Council for point to point collection of Municipal Solid Waste.
- 3.29 "dry waste" means waste other than bio-degradable waste and inert street sweepings and includes recyclable and non-recyclable waste, combustible waste and sanitary napkin and diapers, etc;
- 3.30 "Dry Waste" means the category of municipal solid waste referred to at No.5.1 (6) of these Bye-laws;
- 3.31 "Dry Waste Sorting Center" means any designated land, shed, kiosk, or structure located on any municipal or Government land or in a public space which is authorized to receive and sort dry waste;
- 3.32 "dump sites" means a land utilized by local body for disposal of solid waste without following the principles of sanitary land filling;
- 3.33 "extended producer responsibility" (EPR) means responsibility of any producer of packaging products such as plastic, tin, glass and corrugated boxes, etc., for environmentally sound management, till end-of-life of the packaging products;
- 3.34 "facility" means any establishment wherein the solid waste management processes namely segregation, recovery, storage, collection, recycling, processing, treatment or safe disposal are carried out;
- 3.35 "fine" means penalty imposed on waste generators or operators of waste processing and disposal facilities under the bye-laws for non-compliance of the directions contained in these rules and/or bye-laws;
- 3.36 "Generator of waste" means any person generating municipal solid waste within the limits of Diu Municipal Council;
- 3.37 "handling" includes all activities relating to sorting, segregation, material recovery, collection, secondary storage, shredding, baling, crushing, loading, unloading, transportation, processing and disposal of solid wastes;
- 3.38 "Hazardous waste" means any waste, which by reason of any of its physical, chemical, reactive, toxic harmful, explosive or corrosive characteristics causes danger or is likely to cause danger to health or environment, whether alone or when in contact with other wastes or substances and shall include wastes specifically listed in Schedule III of these Bye-laws.
- 3.39 "House-gully"/lane/Service Lane means a passage or strip of land, constructed, set apart or utilized for the purpose of serving as a drain or of affording access to the latrine, urinal,

- cesspool or other receptacle for filthy or other polluted matter by persons employed in the removal of cleaning thereof or in the removal of such matters there from;
- 3.40 "incineration" means an engineered process involving burning or combustion of solid waste to thermally degrade waste materials at high temperatures;
- 3.41 "inerts" means wastes which are not bio-degradable, recyclable or combustible street sweeping or dust and silt removed from the surface drains;
- 3.42 "Inert Solid Waste" means any solid waste or remnant of processing whose physical, chemical and biological properties make it suitable for sanitary land filling;
- 3.43 "informal waste collector" includes individuals, associations or waste traders who are involved in collection, sorting, sale and purchase of recyclable materials;
- 3.44 "Landfill" means a waste disposal site for the deposit of residual solid waste in a facility designed with protective measures against pollution of ground water, surface water and air fugitive dust, windblown litter, bad odour, fire hazard, bird menace, pests or rodents, greenhouse gas emissions, slope instability and erosion;
- 3.45 "leachate" means the liquid that oozes and seeps through solid waste or other medium and has extracts of dissolved or suspended material from the media;
- 3.46 "Litter" means all refuse and other such waste material which, tends to create nuisance, dirt, insanitary conditions, ugliness and endangers cleanliness, public orderliness & movement, environment, public health, safety, life and welfare if dropped, thrown, scattered, deposited or left un-cleaned or unpicked as against the prohibition under these Bye-laws;
- 3.47 "Littering" means carelessly spreading litter so that falls, descends, blown, seeps, percolates or otherwise escapes or is likely to fall, descend, blown, seep, percolate or otherwise escape into or onto any public or private place; Or causing, permitting or allowing litter to fall, descend, blow, seep, percolate or otherwise escape into or onto any public or private place;
- 3.48 "local body" for the purpose of these rules means Diu Municipal Council.
- 3.49 "Lysometer" means a device which is used to measure the movement of water in or through the medium of soil layer or which is used to collect the leached water for qualitative analyses.
- 3.50 "Market" includes any place where persons assemble for the sale of, or for the purpose of exposing of sale, meat, fish, fruits, vegetables, animals intended for human food or any other articles of human needs whatsoever, with or without the consent of the owner of such place notwithstanding that there may be no common regulation for the concourse of buyers and sellers and whether or not any control is exercised over the business of, or the person frequenting, the market by the owner of the place or by any other person;
- 3.51 "materials recovery facility" (MRF) means a facility where non-compostable solid waste can be temporarily stored by the local body or any other entity mentioned in rule 2 or any person or agency authorised by any of them to facilitate segregation, sorting and recovery of recyclables from various components of waste by authorised informal sector of waste pickers, informal recyclers or any other work force engaged by the local body or entity mentioned in rule 2 for the purpose before the waste is delivered or taken up for its processing or disposal;
- 3.52 "Municipal Commissioner" means Chief Officer of Diu Municipal Council.
- 3.53 "Municipal Council" means Diu Municipal Council established under The Daman and Diu Municipalities (amended) Regulation 1994 for Diu area.
- 3.54 "Municipal Solid Waste" includes commercial and residential wastes generated in a Municipal or Notified Local Body in either Solid or Semi -Solid form excluding industrial hazardous waste but including properly and fully treated bio-medical waste( as per applicable rules);
- 3.55 "non-biodegradable waste" means any waste that cannot be degraded by micro-organisms into simpler stable compounds;
- 3.56 "Nuisance" includes any act, omission, place, animal or thing which causes or is likely to cause injury, danger, annoyance or offense to the sense of sight, smell, hearing, breath, modesty and dignity or disturbance to movement, work, rest or sleep, or which is or may be dangerous to life or injurious to health or property;

- 3.57 **"Nuisance Detectors"** (NDs) means those employees of Diu Municipal Council, who are appointed by Diu Municipal Council to detect acts of Public nuisance etc. under the Bye laws;
- 3.58 **"Occupier"** includes- (a) any person who for the time being is paying or is liable to pay to the owner the rent or any portion of the rent of the land or building in respect of which such rent is paid or is payable; in occupation of, or otherwise using, any land or building or part thereof, for any purpose whatsoever;  
(b) an owner in occupation of, or otherwise using his land or building;  
(c) a rent- free tenant of any land or building;  
(d) a licensee in occupation of any land or building; and  
(e) any person who is liable to pay to the owner damages for the use and occupation of any land or building;  
(f) the custodian of evacuee property in respect of evacuee property vested in him under the Administration of Evacuee Property Act  
(g) the General Manager of a Railway and the head of a Govt. Department, in respect of properties under their respective control;
- 3.59 **"operator of a facility / operator of concession"** means a person or entity, who owns or operates the concession for handling, collection, sorting, storage, transportation, processing and disposal of municipal solid waste and it also includes any other agency appointed by the local body / municipal authority for management and handling of municipal solid waste in its area and any other entity or agency appointed by the local body;
- 3.60 **"Pellet forming"** means a process used to make pellets, which will be small cubes/cuboids or cylindrical pieces from solid waste and will also include fuel pellets which is obtained from garbage.
- 3.61 **"Person"** means any person or persons and shall include any shop or establishment or firm or company or association or body of individuals whether incorporated or not and their agents; assignee etc; and shall mean to include Government and its offices and employees.
- 3.62 **"Point to Point Collection"** means the system of collection of municipal solid waste from specific pick-up points as designated by Diu Municipal Council up to which the generator must bring the collected and stored waste for delivery in vehicles so provided/appointed/permitted by the Diu Municipal Council
- 3.63 **"Premises"** means any land or building or part of a building and includes-  
(a) The garden, ground and out- houses, if any, appertaining to a building or part of a building;  
(b) Any fittings affixed to a building or part of a building for the more beneficial enjoyment thereof;
- 3.64 **"primary collection"** means collecting, lifting and removal of segregated solid waste from source of its generation including households, shops, offices and any other non-residential premises or from any collection points or any other location specified by the local body;
- 3.65 **"Processing"** means any scientific process by which solid waste is treated for processing for the purpose of reuse, recycling or transformation into new products or making it suitable for land filling;
- 3.66 **"Public Nuisance"** means any act, omission, offence or wrong-doing which causes or is likely to cause nuisance ( as defined) in any public place;
- 3.67 **"Public place"** means any place which is open to the use and enjoyment of the public, whether it is actually used or enjoyed by the public or not;
- 3.68 **"Rubbish"** includes ashes, broken bricks, broken glasses, dust, malba, mortar and refuse of any kind which is not filth;
- 3.69 **"Receptacle"** means container, including bins and bags, used for the storage of any category of municipal waste as prescribed by Diu Municipal Council from time to time;
- 3.70 **"Recycling"** means the process of transforming segregated non-biodegradable solid waste into raw materials for producing new products, which may or may not be similar to the original products;

- 3.71 "redevelopment" means rebuilding of old residential or commercial buildings at the same site, where the existing buildings and other infrastructures have become dilapidated;
- 3.72 "refuse derived fuel"(RDF) means fuel derived from combustible waste fraction of solid waste like plastic, wood, pulp or organic waste, other than chlorinated materials, in the form of pellets or fluff produced by drying, shredding, dehydrating and compacting of solid waste ;
- 3.73 "Refuse" means any waste matter generated out of different activities, processes, either degradable/non-degradable garbage and rubbish /inert in nature in either solid or semi-solid form which cannot be consumed, used or processed by the generator in its existing form;
- 3.74 "Repeated offence" means when an offence under these bye-laws has been repeated five times by the same person it will be called repeated offence.
- 3.75 "residual solid waste" means and includes the waste and rejects from the solid waste processing facilities which are not suitable for recycling or further processing;
- 3.76 "sanitary land filling " means the final and safe disposal of residual solid waste and inert wastes on land in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants slope instability and erosion;
- 3.77 "Sanitation" means the promotion of hygiene and the prevention of disease and other Causes of ill health related to environmental factors. However, the relevant provisions in respect of sanitation and health in any other rules, act or bye laws shall continue to prevail as usual.
- 3.78 "sanitary waste" means wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste;
- 3.79 "Schedule" means the Schedule appended to these Bye-laws;
- 3.80 "secondary storage" means the temporary containment of solid waste after collection at secondary waste storage depots or MRFs or bins for onward transportation of the waste to the processing or disposal facility;
- 3.81 "segregation" means sorting and separate storage of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non-biodegradable wastes including recyclable waste, non-recyclable combustible waste, sanitary waste and nonrecyclable inert waste, domestic hazardous wastes, and construction and demolition wastes;
- 3.82 "service provider" means an authority providing public utility services like water, sewerage, electricity, telephone, roads, drainage, etc;
- 3.83 "solid waste" means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, biomedical waste and e-waste, battery waste, radio-active waste generated in the area under the local authorities and other entities mentioned in rule 2;
- 3.84 "sorting" means separating various components and categories of recyclables such as paper, plastic, cardboards, metal, glass, etc., from mixed waste as may be appropriate to facilitate recycling; means separating organic, inorganic, recyclable and hazardous wastes into categories to facilitate recycling;
- 3.85 "stabilizing" means the biological decomposition of biodegradable wastes to a stable state where it generates no leachate or offensive odours and is fit for application to farm land ,soil erosion control and soil remediation;
- 3.86 "State board or Committee" means, as applicable, the State Pollution Control Board of a state or the Pollution Control Committee of a Union Territory.
- 3.87 "street vendor" means any person engaged in vending of articles, goods, wares, food items or merchandise of everyday use or offering services to the general public, in a street, lane, side walk, footpath, pavement, public park or any other public place or private area, from a temporary built up structure or by moving from place to place and includes hawker, peddler,

squatter and all other synonymous terms which may be local or region specific; and the words "street vending" with their grammatical variations and cognate expressions, shall be construed accordingly;

- 3.88 "Source" means the premises from which waste is generated.
- 3.89 "Stabilized biodegradable waste" means the biologically stabilized (free of pathogens) waste resulting from the mechanical / biological treatment of biodegradable waste; only when stabilized such waste can be used with no further restrictions;
- 3.90 "Storage" means the temporary containment of municipal solid waste in receptacles; prevent littering, attraction to vectors, stray animals and excessive foul odour;
- 3.91 "Street" includes any way, road, lane, square, court, alley, gully, passage, whether a thoroughfare or not and whether built upon or not, over which the public have a right of way and also the roadway or footway over any bridge or causeway.
- 3.92 "tipping fee" means a fee or support price determined by the local authorities or any state agency authorised by the State government to be paid to the concessionaire or operator of waste processing facility or for disposal of residual solid waste at the landfill;
- 3.93 "transfer station" means a facility created to receive solid waste from collection Local Body and transport in bulk in covered vehicles or containers to waste processing and, or, disposal facilities;
- 3.94 "transportation" means conveyance of solid waste, either treated, partly treated or untreated from a location to another location in an environmentally sound manner through specially designed and covered transport system so as to prevent the foul odour, littering and unsightly conditions and accessibility to vectors, animals and birds;
- 3.95 "treatment" means the method, technique or process designed to modify physical, chemical or biological characteristics or composition of any waste so as to reduce its volume and potential to cause harm;
- 3.96 "user fee" means a fee imposed by the local body and any entity mentioned in rule 2 on the waste generator to cover full or part cost of providing solid waste collection, transportation, processing and disposal services.
- 3.97 "Vadose water" means the water situated between top soil and ground water table level, i.e. in the unsaturated soil strata.
- 3.98 "vermi composting" means the process of conversion of bio-degradable waste into compost using earth worms;
- 3.99 "waste generator" means and includes every person or group of persons, every residential premises and non-residential establishments including Indian Railways, Defence establishments, which generate solid waste;
- 3.100 "waste hierarchy" means the priority order in which the solid waste is to should be managed by giving emphasis to prevention, reduction, reuse, recycling, recovery and disposal, with prevention being the most preferred option and the disposal at the landfill being the least;
- 3.101 "Waste picker" means a person or groups of persons informally engaged in collection and recovery of reusable and recyclable solid waste from the source of waste generation the streets, bins, material recovery facilities, processing and waste disposal facilities for sale to recyclers directly or through intermediaries to earn their livelihood.
- 3.102 Words and expressions used herein but not defined, but defined in the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act, 1974, Water (Prevention and Control of Pollution) Cess Act, 1977 and the Air (prevention and Control of Pollution) Act, 1981 and all the Waste Management Rules shall have the same meaning as assigned to them in the respective Acts/Rules

4. Prohibition of littering, and other nuisances and ensuring "Clean Aangan/Premises/Place".

- 4.1 **Littering in/or on any public/private place:** No person shall throw or deposit litter in any occupied/unoccupied/open/vacant public or private place except in authorized public or private litter receptacles.
- 4.2 **Littering from vehicles:** No person shall throw or deposit litter upon any street, road, sidewalk, playground, garden, traffic island or other public/private place from any vehicle either moving or parked.
- 4.3 **Litter from waste carriage vehicles:** No person shall drive or move any truck or other vehicle filled with litter unless such vehicles are so designed to cover the litter and loaded as to prevent any litter from being blown off or deposited upon any road, sidewalks, traffic islands, playground, garden or other public place.
- 4.4 **Creating Public Nuisance:** No person shall cook, bathe, spit, urinate, defecate, feed animals / birds or allow their droppings/poop, wash utensils or premises or any other object or keep any type of storage in any public place except in such public facilities or conveniences specifically provided for any of these purposes
- 4.5 Diu Municipal Council reserves the right to ban sale, purchase and use of any items including but not limited to polythene, plastic bags, poisonous spray within Diu Municipal Council area, so as to regulate solid waste disposal, and manage any threat to the environment. No person shall indulge in production, distribution, storage, sale and use of banned items.
- 4.6 Temporary toilets shall be provided by the builder at construction sites, where a labor force is deployed for carrying out construction activities to prevent open defecation. Making of such prior provision should be one of the conditions while granting building permission and must be adhered to.
- 4.7 It shall be the responsibility of the owner of any premises to provide adequate toilets and sanitation facility for the residents or occupier of the said premises. Failure to do so shall invite penalties as specified in the schedule.
- 4.8 Diu Municipal Council through Chief Officer is authorized to seal any premises where toilet/sewerage/septic tank facilities have not been provided by the owners or occupiers. Provided that no such order of sealing shall be made without giving the owner one month's notice. Provided further that any such seal shall be opened on directions of Standing Committee on providing such facilities and penalty of ₹.10,000/-.
- 4.9 Diu Municipal Council, through Chief Officer, may request any other department including electricity, road, PWD, water etc to cut-off the supply of essential services to the occupier who has refused comply with the directions of Chief Officer regarding Solid waste disposal/management/toilets/sewerage/public nuisance. The concerned department, on receipt of such request, shall within three days of such request, comply with the same.

## **5. Segregation, storage, delivery and collection of Municipal Solid Waste**

- 5.1 **Segregation of waste into separate specified groups:** Every generator of Municipal Solid Waste shall separate the waste at source of generation into the following categories as applicable and shall store separately, without mixing it for segregated storage in authorized storage bins, private/public receptacles for handing over or delivering to authorized waste pickers or waste collectors as directed by the Diu Municipal Council from time to time;
  - 1) Bio-degradable (wet) waste,
  - 2) Specified domestic hazardous waste,
  - 3) Fully treated Bio-medical waste (as per applicable rules),
  - 4) Construction and demolition waste,
  - 5) Bulk garden and horticulture waste including tree and plant trimmings,
  - 6) All other non- biodegradable (dry) waste including recyclable and non-recyclable waste. Sanitary waste like napkins, diapers, tampons etc shall be securely wrapped in pouches provided by the manufacturers or brand owners or in suitable wrappers as instructed by the official / authority and shall be stored with the dry waste for handing over.

- 7) All bulk generators shall manage the waste at their premises as per instructions notified by the Diu Municipal Council from time to time. Any false declaration by the bulk generator regarding the per day generation of waste will attract fines as laid down in the schedule of fines.
- 5.2 Diu Municipal Council may separately notify different stages for implementation of the rules/ byelaw taking into account the level of awareness among generators of waste as well as availability of infrastructural support in their operational Local Body.
  - 5.3 Diu Municipal Council shall separately notify from time to time the mandatory colour coding and other specifications of receptacles prescribed for storage and delivery of different types of solid waste to enable safe and easy collection without any mixing or spillage of waste, which generators of different types of solid waste shall have to adhere to.
  - 5.4 **Delivery of segregated premises waste:** It shall be the duty of every generator of municipal solid waste, either owner or occupier of every land and building to collect or cause to be collected from their respective land, premises and building, to segregate waste and to store and deliver the same to the municipal worker/vehicle/waste picker / waste collector deployed by the Diu Municipal Council for the purpose.
  - 5.5 **Bio-degradable waste:** Segregated Bio-degradable Municipal Solid Waste (as per the illustrative list in Schedule II if not composted by the generator, shall be stored by them within their premises and its delivery shall be ensured to the municipal worker/vehicle/waste picker / waste collector or to the bio-degradable waste collection vehicle provided for specified commercial generators of bulk bio-degradable waste at such times as may be notified from time to time.
  - 5.6 **Composting by all generators:** Local composting or processing of waste shall be promoted to minimize transportation of waste. It shall be mandatory for the bulk generators to do in-house processing composting of waste.
  - 5.7 Specified household hazardous waste: (as listed in Schedule III) shall be stored and delivered by every generator of waste to the collection vehicle, which shall be provided weekly by Diu Municipal Council or any other Agency authorized by the Pollution Control Committee (PCC), for collection of such waste, or to a centre designed for collection of such waste for disposal in a manner that is mandated by the Administration of Union Territory of Daman and Diu and Pollution Control Committee (PCC).
  - 5.8 Untreated bio-medical waste (as listed in Schedule IV) shall be collected & stored in specified type of covered receptacles and delivered by every generator of such waste to the collection vehicle which shall be provided periodically by Diu Municipal Council or any other Agency authorized by the Pollution Control Committee (PCC) for collection of such waste, or to a center designed for collection of such waste for disposal in a manner that is mandated by the Administration of Union Territory of Daman and Diu and Pollution Control Committee (PCC) in accordance with the Bio-Medical Waste (Management & Handling) Rules, 2016.
  - 5.9 Construction and Demolition waste shall be stored and delivered separately at such spot and at such time as notified by Diu Municipal Council or its agent from time to time for collection of such waste. Small generators (household level) shall be responsible to segregate the Construction & Demolition waste at source by contacting a local help-line of Diu Municipal Council or the Agent who shall then send a vehicle to pick up such segregated construction & demolition waste on payment of necessary charges by the said generator and transport this waste to a processing centre. The details of local Help line of Diu Municipal Council shall be available in the Office of Diu Municipal Council and on their website.
  - 5.10 All other Non-biodegradable ("Dry") waste - both recyclable and non-recyclable - shall be stored and delivered by every generator of waste to the dry waste collection vehicle, which shall be provided by Diu Municipal Council or its Agents at such spots and at such times as may be notified by them from time-to-time for collection of such waste.
  - 5.11 Bulk garden and horticultural waste shall be kept un-mixed and composted at source. Diu Municipal Council shall also notify Instructions/ guidelines with regard to pruning of trees and storage and delivery of tree trimmings

including segregated garden and horticultural waste by charging suitable fees as notified by it from time to time, for collection and transport to its facility.

- 5.12 Burning of waste: Disposal by burning of domestic, hazardous and commercial solid waste at roadsides, or at any private or public property is prohibited.
- 5.13 If such owner or occupier fails to comply with any direction contemplated by this Bye law, he / she shall be guilty of an offence punishable under section 223, 224 and 225 of regulations and the Diu Municipal Council may remove, or cause to be removed, dispose of or treat such hazardous waste in any suitable manner and recover the expenses incurred in doing so from such owner or occupier.

## 6) Obligatory duties of Diu Municipal Council

- 6.1 **Action against Transport Contractors, agents or Employees of Municipal Council:** Diu Municipal Council shall take action against the Transport Contractor and/or Agents/employees of Diu Municipal Council, if any worker of the contractor or any employee of Diu Municipal Council mixes segregated waste at any point of collection, or fails to pick up waste as per the specified time schedule.
- 6.2 **Infrastructure facilities:** Diu Municipal Council shall provide adequate infrastructure facilities to assist citizens' compliance with these Rules/Bye-laws. In addition to waste collection services, litter bins, dry waste sorting centers, and composting centers shall be set up, wherever possible and essential, in consultation with local citizens. Adequate community toilets shall be provided in slum localities with the participation of Community Based Organizations to prevent nuisance such as defecating/urinating, washing and bathing in public places.
- 6.3 **Citizen Resource Base:** The Diu Municipal Council shall facilitate information about composting as well as recycling of dry waste through composting centres and dry waste sorting centers listing them on its website.
- 6.4 **Bio-degradable puja articles:** The Diu Municipal Council shall authorise interested organizations to collect bio-degradable 'puja' articles (flowers, leaves, fruits etc.) at certain designated sites near water-bodies such as beaches, lakes, ponds, etc. in notified receptacles. The collection from such receptacles shall preferably be composted at a suitable location.
- 6.5 **Point-to-Point waste collection services:** The Diu Municipal Council shall provide for the collection of the municipal solid waste from specific pick-up points on a public or private road up to which the generator must bring the collected, segregated and stored waste for delivery to municipal worker/vehicle/waste picker / waste collector provided by Diu Municipal Council according to the route plans at such times and at such spots as notified by the concerned Chief Officer/Health Officer/ any other authorised official in advance for specified types of waste for different localities.
- 6.6 **Collection at source:** Diu Municipal Council shall provide for the collection of municipal solid waste from premises of a building or group of buildings from waste storage receptacles kept on the premises to which Diu Municipal Council's vehicles/ workers shall be provided access at such times as may be notified by the Chief Officer, Diu Municipal Council.
- 6.7 **Data about waste received at landfill:** Diu Municipal Council shall release publicly, the monthly data about the quantity of waste going to the different landfills and waste processing sites. Such information shall be available at the Office and on Diu Municipal Council website.
- 6.8 **Community Bins in public places:**
- a) Diu Municipal Council shall provide and maintain suitable community bins on public roads or other public spaces, as determined by the Diu Municipal Council itself or through an Agent as an interim arrangement till Diu Municipal Council makes provision for collection at source or point-to-point collection at the required frequencies and shall notify the same on Diu Municipal Council website from time to time.
- b) Segregated waste shall be delivered by the concerned generators to such community bins, and thereafter collected by Diu Municipal Council. Diu Municipal Council or its Agents have to ensure compliance of segregation and avoidance of public nuisance and health hazards from these community bins. Every community bin shall be separate for bio-degradable and non-bio-degradable waste. Details of all such places including the arrangements and schedules of waste collection from such places shall be available at the Office and on Council's website.

- c) Officials/authority of Diu Municipal Council shall ensure that at no point of time the community bins are not overflowing nor exposed to open environment and prevent their scattering by rag/wastepickers, stray animals or birds etc.
- 6.9 **Dry waste sorting centers / Material Recovery Facilities:** To regulate and facilitate the sorting of the recyclable and non-recyclable waste, Diu Municipal Council shall provide for as many dry waste sorting centers as possible and required. These dry waste sorting centers shall be on Diu Municipal Council land or land belonging to the Government or other bodies, made available especially for this purpose, or in the form of sheds or kiosks provided at suitable public places and shall be manned/operated by registered cooperative societies of waste pickers / licensed recyclers or any other Agents authorised / appointed by Diu Municipal Council. The non-recyclable waste, which remains after sorting shall be further, transported from such sorting centers from time-to-time to waste disposal sites for processing or land-filling. Such center shall be fenced/ screened in such a way that waste shall not be visible to passersby.
- 6.10 **Time schedule and route of collection:** The daily and weekly time schedules and routes in Diu Municipal Council for collection of different types of municipal solid waste shall be fixed and notified in advance by the concerned official/authority. Details shall be available at all Offices and on the Council's website.
- 6.11 Similarly, the arrangements for the collection of construction and demolition waste, and garden and horticultural waste by Diu Municipal Council or its licensees shall be made available to the public as well as to the bulk generators of waste by the Chief Officer/Health Officer/ any other authorised official as the case may be.
- 6.12 **Surprise checks:** Any authorized Officer / Agent of Diu Municipal Council shall have right to enter, at all reasonable times, with such assistance as he considers necessary, any place for the purpose of (i) performing any of the functions entrusted to him by Diu Municipal Council or (ii) determine whether, and if so, in what manner, any such functions are to be performed, or whether any provisions of these Bye-laws have been complied with.
- 6.13 **Nuisance Detectors:** The Chief Officer/Health Officer/ any other authorised official shall provide and strengthen the system of Nuisance Detectors by providing suitable uniforms and vehicles to Nuisance Detectors.
- 6.14 **Publicity: Citizen Information Services:** Diu Municipal Council shall publicize the provision of the Bye-laws through the media of signs, advertisement, leaflets, announcement on radio and televisions, newspapers and through any other appropriate means, so that all citizens are made aware about the statutory duties of citizens and Diu Municipal Council for services, recycling, anti-litter and anti-nuisance penalties and fines.
- 6.15 **Designated officers and periodic reports:** The Chief Officer/Health Officer/ any other authorised official concerned shall designate officers under their control who shall be responsible for implementing the obligatory responsibilities of Diu Municipal Council specified under these Bye-laws in accordance with the plans and time schedules for implementation. The specific plans and time schedules and achievements against the same along with reasons for short falls, if any, shall also be shared publicly by the official/authority through the Diu Municipal Council website.
- 6.16 **Transparency and Public Accessibility:** To ensure greater transparency and public accessibility, the Diu Municipal Council shall provide all necessary information that is required to be publicized through its website.
- 6.17 **Co-ordination with Government Bodies:** Diu Municipal Council shall co-ordinate with other government agencies and authorities, to ensure compliance of these Bye-law.
- 6.18 The Diu Municipal Council shall ensure arrangements for cleaning daily or at set intervals and all the year through at all the public roads, places, colonies, slums, Local Body, markets and tourism places, parks of the urban body, cremation grounds etc. and the Diu Municipal Council shall be committed to collect and carry the garbage from these places door to door or from the nearest garbage bin/container/facility and transport it from there to the final disposal place in closed vehicles.
- 6.19 The Diu Municipal Council shall utilize its own/outsourced/contract sanitation workers and vehicles in carrying out sanitation and solid waste management functions for full or partial daily cleaning work, so that the urban body is able to keep its area neat and clean in public interest.

- 6.20 In order to manage the complete daily cleaning system of the city, the Diu Municipal Council shall establish / install, garbage bin/container at suitable places as required, public toilets/urinals, transfer stations to transport the garbage to the landfill for final disposal, processing unit, etc.
- 6.21 **User charges:** The Diu Municipal Council shall levy user charges from the households / premises for the waste management services rendered as per the table given below as determined from time to time. For this purpose, the Diu Municipal Council shall appoint its staff/designated persons in all the wards of the council to collect garbage from every home/premises in compliance with Solid Waste Management Rules, 2016.
- 6.22 A time will be fixed compulsorily in each area to collect garbage from each house/premises/Aangan. Usually, the time will be from 7.00 to 11.00 in the morning but can vary. But the Diu Municipal Council should ensure compliance with the time fixed for any special cleaning purpose. A bell/horn/announcement (whose sound must not be over the permissible sound limit) should be fitted on the vehicle of garbage collection/blown by worker so that the residents can be made aware of collection being undertaken.
- 6.23 The time for garbage collection from commercial establishments/shops/markets shall be from 9.00 to 12.00 in the morning in general but can vary.
- 6.24 The **Rates/User Charges/Fees** for collecting garbage from home and establishments for Garbage Collection are given below. In case an establishment contains a number of below mentioned categories of consumer, the amount to be charged from the establishment will be a sum of charges levied on each of them.

Category of customer	Amount (from each premises) per month
Houses up to 50 sq. m. built-up area	₹. 20/-
Houses over 50 sq. m. built-up area up to 200 sq. m.	₹. 80/-
Houses with over 200 sq. m. built-up area	₹. 150/-
Hand carts/ cabins	₹100/-
Commercial establishments, shops, eating places (Dhaba/sweet shops/coffeehouse etc)	₹. 250/-
Hotel (Category A)	₹. 1500
Hotel category B	₹1300
Hotel category C	₹1000
Hotel category D	₹. 900
Hotel category E	₹800
Restaurant (Non-AC)	₹. 200/-
Restaurant (AC)	₹. 500/-
Commercial offices, government offices, Bank, Insurance offices, coaching classes, education institutes etc.	₹. 750/-
Clinic, dispensary, Hospital (up to 50 beds)	₹. 2000/-
Laboratories	₹. 500/-
Clinic, dispensary, laboratories (more than 50 beds)	₹. 4000/-
Small and cottage industry workshops (only non-hazardous), waste upto 10 Kg per day	₹. 500/-
Go-downs, cold storages (only non-hazardous) waste	₹. 1000/-
Marriage halls, festival halls, exhibition and fairs with area up	₹. 1000/-

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to 3000 sq. m.	
Marriage halls, festival halls, exhibition and fairs with area over 3000 sq. m.	₹. 3000/-
Other places not marked as above	As assessed by the urban body

This user charges shall be levied one month after the house-house collection has come into force. The above rates will be increased by at least 5 percent every year. Diu Municipal council, subject to subsequent approval of the Director Municipal Administration, is authorised to change these user charges by a resolution passed by 2/3<sup>rd</sup> majority. Such resolution shall have to be published in at least 3 local newspapers.

- 6.25 The charges for door to door or point garbage collection as above shall be collected only by the authorized institution/person/agency of each ward/area. The above rates shall be properly advertised by the Diu Municipal Council and the rates shall also be displayed on the Waste Management Vehicles. The Chief Officer shall also write the name of the authorized institution/person on the Waste Management Vehicles.
- 6.26 The waste shall not be handled manually. But, due to some unprecedented circumstances, if the waste material has to be manually handled and lifted using manual labour, in such circumstances manual labour would be used with all due care and precautions of personal safety gear.
- 6.27 If the waste material is not disposed by any person on the designated sites, waste bins, litter bins, containers kept on the road and parks by the concerned municipal council/corporation and is disposed by any person/party at a place where waste disposal is prohibited, in such circumstances, fine / compounding charges can be levied on the concerned person/party in addition to fine.
- 6.28 Diu Municipal Council may by a resolution relax collection of fine or user charge from any charitable, Government or religious organisation.

**7) Obligatory Responsibilities of Diu Municipal Council and /or generators of waste in case of some specific categories/situations:** Keeping in mind the nature of some situations, the following responsibilities are specifically mandated:

#### 7.1. Slums

- 7.1.1 The Chief Officer/Health Officer/ any other authorised official shall extend solid waste management to the uncovered areas within their jurisdiction.
- 7.1.2 Where applicable, Diu Municipal Council shall extend door-to-door collection system at fixed times at a point outside the slum, for collection of segregated solid waste.
- 7.1.3 In exceptional cases, until the services of a door-to-door collection system at required frequencies are provided at designated spots on a public road or any other public place for the time being, manned community waste storage bins shall be maintained by Diu Municipal Council, where segregated waste shall be deposited by the generator, and from where Diu Municipal Council shall collect such waste.
- 7.1.4 Cleanliness drives shall be conducted by Diu Municipal Council with the help of local councillors, Citizens organizations, Government bodies / Corporates etc for the cleanliness inside the slums, from time to time.

#### 7.2 Poultry, Fish and Slaughter Waste (From all areas other than designated slaughter houses and markets)

- 7.2.1 Every owner / occupier of any premises other than designated slaughter houses and markets, who generates poultry, fish and slaughter waste because of any commercial

activity, shall store the same separately in closed, hygienic condition and deliver it at a specified time, on a daily basis to Diu Municipal Council collection vehicle provided for this purpose. Deposit of such waste in any community bin is prohibited and shall attract fines as indicated in the schedule of Fines.

7.2.2 The Chief Officer/Health Officer/ any other authorised official of Diu Municipal Council shall be responsible for repair/re-modelling of civic facilities in the markets to provide maximum hygiene and sanitary conditions in the market premises.

### 7.3 Vendor/Hawkers:

All vendors/hawkers shall keep their biodegradable and other waste unmixed in containers / bins at the site of vending for segregated storage of waste generated by that vending activity. It shall be the responsibility of the generator/ vendor to deliver this waste duly segregated to the Municipal Collection Vehicle of Diu Municipal Council or to the nearest designated community bins installed by the Diu Municipal Council. Failing which fine shall be imposed as per the Schedule of Fines. Each Vendor/hawker shall be responsible to maintain their surroundings clean.

### 7.4 House /gullies/Service Lanes:

7.4.1 It shall be the responsibility of the owner/occupier of premises within house-gullies to ensure that no waste is dumped or thrown in the house-gully, and to segregate and deliver any solid waste to the waste collection vehicle which shall be provided by Diu Municipal Council at such spots and at such times as may be notified by official/authority.

7.4.2 Where owners/occupiers of such premises wish to avail of the services of Diu Municipal Council for the cleaning of the house gully, they must apply to the concerned Office of Diu Municipal Council and pay suitable prescribed charges as notified by Diu Municipal Council from time to time. It shall be the responsibility of the owners/occupiers to provide access to the house gully for cleaning purposes.

### 7.5 Litter by owned / pet animals

It shall be the responsibility of the owner of any pet animal to promptly scoop/clean up any poop/litter/faecal matter created by any owned/pet animals on the street or any public place, and take adequate steps for the proper disposal of such waste in their own sewage or other such sanitary system.

### 7.6 Public Gatherings and Events:

7.6.1 For Public Gatherings and Events, organised in public places for any reason (including for processions, exhibitions, circus, fairs, political rallies, commercial, religious, socio-cultural events, protests and demonstrations, etc.) where Police and/or Diu Municipal Council's permission is required, it shall be the responsibility of the Organiser of the event or gathering to ensure the cleanliness of that area as well as all appurtenant area immediately after the event.

7.6.2 **A Refundable Cleanliness Deposit:** The Organiser of the event shall pay required deposit with the concerned office for the duration of the event, which shall be refundable on the completion of the event on notifying that the said public place has been restored back to a clean state, and any waste generated as a result of the event has been collected and transported to designated sites, to the satisfaction of Chief Officer/Health Officer/ any other authorised official concerned. This deposit shall be only for the cleanliness of the public place and does not cover any damage to property. This section shall also, apply to various other events which are being organized outside the Municipal Parks i.e. on roads/lanes etc. In case the Organizers of the event wishes to avail of the services of Diu Municipal Council for the cleaning, collection and transport of waste generated because of that event, they shall apply in advance to

the concerned Office of Diu Municipal Council and pay the necessary charges in advance as may be fixed for this purpose by Diu Municipal Council. Such cleanliness deposit and charges shall be such as are decided by council from time to time. So long as council does not pass any resolution, the cleanliness deposit and cleanliness charges shall be equal to ₹.10 for every gathered person. If any party conducts an event without giving security deposit, the cleanliness deposit shall be recovered as a fine from them.

**7.7 Receptacles on private property:**

Every owner or occupant of private property shall maintain authorized refuse receptacles on private premises provided the receptacles are neither visible from public street/roads and sidewalks nor accessible to animals.

**7.8 Other public places**

The Government / Semi-government, statutory bodies shall be responsible for implementation of these Bye-laws within the public premises owned/occupied by them.

**8) Penalties for contravention of these Bye-laws**

8.1. Whosoever contravenes any of the provisions of these Byelaws or fails to comply with the requirements made under any of these Byelaws shall be punished with a fine as mentioned in Schedule-I appended to these Bye-laws after serving him with a notice detailing the manner and time in which to comply with the bye-laws.

The fines can be recovered in the same manner and to the same extent as property tax. The schedule of fine can be amended by Diu Municipal Council by a resolution passed by 2/3<sup>rd</sup> majority. Any such resolution shall come in to effect as soon as the same is approved by Director Municipal Administration. Any such resolution shall be published in three local newspapers.

8.2 The owner/ occupier shall be deemed to be guilty of the offence and shall pay the fine, if the responsible person for dumping waste in a private place is unidentified.

8.3 If it becomes necessary on the part of the Diu Municipal Council to remove or process the waste, which was the responsibility of any other agency to remove or process then the responsible person or entity shall be liable to pay the expenses to the Diu Municipal Council at the rate of 5 times the charges prescribed or ₹. 5000/- per incidence whichever is higher.

8.4 Nothing in these bye-laws prevents Diu Municipal Council to recover—in addition to the fine prescribed under The Daman and Diu Municipalities ( Amended) Regulation 1994 or under any rules or bye-laws made thereunder— administrative charges for any extra expense incurred on removal or disposal of waste because of non-cooperation of any person.

8.4.1 These administrative charges shall be such as decided from time to time by Diu Municipal Council by a resolution passed, by at least two-third majority, in its general body meeting.

8.4.2 The administrative charges shall not exceed ₹.5000 per day per violation.

8.4.3 The administrative charges can be recovered only one week after they have been published. They can be recovered in addition of fine.

8.4.4 The administrative charges shall not be challenged in any court of law on the ground that they do not represent actual costs of removal or disposal of waste, or that they cannot be levied in addition to fine.

8.4.5. The Administrative charges shall be published once they are approved by Director (Municipal Administration)

8.5 The dues under these bye-laws shall be recovered in the same manner and to the same extent as property tax. Provided that no such recovery Proceedings shall be initiated unless the defaulter has been given one month's time to pay the dues.

**9) Miscellaneous provisions:**

- 9.1 Bio medical waste and industrial waste shall not be mixed with urban solid waste and the collection of such waste shall be made as per the rules/byelaws specified separately for the purpose. Common Bio Medical Waste Treatment Facility (CBWTF) services shall be availed for disposal of bio medical waste as per rules/byelaws. Disposal of such hazardous waste will have to be ensured at the Common Bio Medical Waste Treatment Facility (CBWTF) plant at the prescribed charges.
- 9.2 Stray animals shall not be allowed to roam freely around waste dumps or at other places in the city and arrangement will have to be made for restraining them at authorized area/place only.
- 9.3 No one will collect or throw waste water, muddy water, night soil, dung, excreta etc. from his/her building, institution or commercial establishment to pollute the atmosphere and ground with its stench and harm public health or obstruct traffic, failing which, administrative charges or fine shall be levied on the spot for spreading such waste, and case can be brought against them in court.
- 9.4 If a person is found spreading pollution or filth in public parks etc. by throwing dead animal/cattle or its parts, it will be a punishable offense and administrative charges shall also be levied
- 9.5 It shall be the duty of Diu Municipal Council to protect all waste handlers from the ill-effects of their occupation and should be given annual medical examination and monitoring, given appropriate health education and free medical treatment if it is felt that the illness is occupation - related. Diu Municipal Council shall provide person protection equipment's and monitor that the same is used by the workers.
- 9.6 The Diu Municipal Council shall develop a management information system for effectively taking corrective measures as well as proper planning for future. Geographic Information System (GIS) shall be introduced and MIS may be integrated in this system. There should be route maps and duty charts with each of the supervisory staff, who should check whether work on site is going as per schedule and whether vehicles and manpower are giving their optimum output.

#### 10) Responsibility of Urban local bodies -

- 10.1 Transport of the municipal solid waste: - The vehicles used for the transport of solid waste are to be duly closed so that the waste should not be visible to the public and the waste is not scattered elsewhere on the road during transportation, the following standards should be maintained during the transportation of the solid waste.
- 10.2 The solid waste would be collected and cleaned as per schedule from the established waste collectors. Along with the waste, the surrounding area of the disposal site should also be kept clean.
- 10.3 The design of the transport vehicles will be such that the waste will not be allowed to touch ground until it reaches its final processing/disposal site, and thus the recurring handling of the waste will not be allowed

#### 11) Recycling of the municipal solid waste - To process the solid waste collected in the Local Body of Municipal Council as useful materials, various solid waste disposal units approved by the pollution control board/PCC and different techniques of such solid waste should be applied so that the dependency of waste disposal on the landfills can be minimized. Following standards should be applied for the expected results:-

- 11.1 For the processing of the bio-degradable waste, various techniques can be used such as vermicomposting, composting, mechanized composting, bio-methanation etc. Also the waste can be degraded using the other natural methods/resources by obtaining the required authorisations.
- 11.2 For the waste material mixed with the recyclable/renewable resources as a mixture, the method of recycling should be used. In some cases the waste resources can be used to generate energy. Such plants with the technology should be authorised by the pollution control board.

#### 12) Responsibility Of Elected Members And Chief Officer:

- 12.1 The administrative powers to implement the provisions of this Byelaw and the resolutions passed by a Council shall be vested in the Chief Officer and he/she shall be directly responsible for the proper discharge of the functions imposed by or under this bye law.
- 12.2 The Chief Officer shall-
- Supervise and control the acts done and steps taken by the officers and employees of the Diu Municipal Council in solid waste management.
  - Exercise such other powers and perform such other functions that may be conferred or entrusted under the provisions of this Bye law or the rules made there under.
  - The President, the Chief Officer, the Health Officer may, in emergent circumstances, direct the execution of any work or performance of any act related to solid waste management, in respect of which sanction of the Council is necessary and in his/her opinion the immediate execution or performance of which is necessary for the safety of the public and may also direct that the expenses incurred for the execution of such work or performance of such act be paid from the fund of the Diu Municipal Council.
- 12.3 The elected members of the council shall have the responsibility to ensure that the provisions of these bye laws are followed in letter and spirit in their respective areas.

**13) Prosecution and Penalties: -**

As provided in these byelaws, for any breaching of the said byelaws, prosecutions and penalties can be rendered as levied down in these byelaws. Further, as per the Environment Protection Act of 1986, cases can be filed against them.

**14) Repeal and saving of Orders: -**

14.1 Before these bylaws are brought into force, any actions taken according to the previous rules/byelaws will not be considered as void, due to these byelaws coming into effect, provided that such actions do not violate these byelaws.

14.2 Such repealing shall not be affecting on any action taken by the Urban Local Body before these byelaws are implemented.

Such repealing will not affect anything or any action taken, or any acquired or incorporated rights, privilege, obligation or responsibility, approved sanction on going or completed investigation or pending action.

**15) Appeal.** There shall be no appeal against fine when the total amount of fine does not exceed ₹. 10,000/- per incidence. Appeal against any other order of Chief Officer or any other official of Diu Municipal Council shall lie with standing committee whose decision shall be final.

**16) Recovery of fine or other dues.** In addition to the procedure specified in the Daman and Diu Municipalities (Amended) regulation, 1994, it shall be lawful for Chief Officer to order sealing, attachment /sale of property where sum total of fine/other dues exceed Rs.50000/-. It shall also be lawful for Chief Officer to order cancellation of basic services of the defaulter in the manner provided in Bye-Law 4.9.

Provided no such sealing, attachment or sale of distressed property shall be made without giving the defaulter a reasonable opportunity of being heard and minimum one month's time to pay dues.

**Schedule - I (Schedule of Fines):** It is hereby declared for all intents and purposes that applicable provisions of Solid Waste Management Rules 2016, shall be read as part and parcel of these Bye laws.

Sr. No.	No. of Bye law	Sub-division/ Description of Rule/ Byelaw	Fines for up to 3 offences	Repeated Offense
1.	No.4.1 to4.3	Littering in/or on any public/private place, Vehicles, Waste carriage vehicles	₹. 100/-	₹. 1000/-
2.	No.4.4	Creating Nuisance	₹. 50/-	₹. 500/-
3.	No. 4.5	Using banned items	₹. 100/-	₹. 1000/-
4.	No. 4.6	Not Providing functional toilets or sanitation facilities at construction sites.	₹. 1000/-	₹. 10,000/- & Sealing
5.	No. 4.7	Not providing toilet/sanitation facilities in premises	₹. 500/-	₹. 5000/-
6.	No 5.1	For individual households delivering waste that is not segregated and not stored in separate bins.	₹. 50/-	₹. 500/-
7.	No 5.1	For bulk generator not managing their waste as per instructions of the DMC	₹. 10,000/-	₹. 100,000/-
8.	No 5.1	false declaration by the bulk generator	₹. 50,000	
9.	No. 5.3	For not delivering bio-degradable waste in a segregated manner as specified	₹. 50/-	₹. 500/-
10.	No. 5.9	For not storing & delivering Construction and Demolition waste in segregated manner.	₹. 500/-	₹. 5000/-
11.	No. 5.10	All other Non-biodegradable Waste	₹. 50/-	₹. 500/-
12.	No. 5.11	For not delivering garden waste and tree trimmings as specified	₹. 50/-	₹. 500/-
13.	No. 5.12	For Burning waste	₹. 100/-	₹. 1000/-
14.	No.6.1	Mixing Segregated Waste	₹. 500/-	₹. 5000/-
15.	No 6.27	Putting waste at not specified places	₹. 200/-	₹. 2000/-
16.	No. 7.2	For not delivering(non-household) fish, poultry and meat waste in a segregated manner, as specified	₹. 150/-	₹. 1500/-
17.	No. 7.3	For a vendor / hawker without a	₹. 150/-	₹. 1500/-

		container / waste basket		
18.		For a vendor / hawker who does not deliver waste in a segregated manner as specified	₹. 150/-	₹. 1500/-
19.	No. 7.4	For not keeping a house/ gully/ Service lanes clean	₹. 100/-	₹. 1000/-
20.	No. 7.5	For littering/defecation by pet / owned animals	₹. 300/-	₹. 3000/-
21.	No. 7.6	For not cleaning-up after public gathering / event within 4 hours	Forfeiture of the Cleanliness Deposit.	
22.	No. 9	Violation of provisions regarding hazardous waste and bio-medical waste.	₹. 50/-	₹. 500/-

These rates are basic rates and shall be increased every year by 10%.

**SCHEDULE – II –**

**Illustrative list of biodegradable and recyclable waste**

<b>Biodegradable Waste:</b> "Biodegradable waste" means "wet" waste of plant and animal origin.	<b>Recyclable waste:</b> "Recyclable waste" means "dry" waste that can be transformed through a process into raw materials for producing new products, which may or may not be similar to the original products.
<ul style="list-style-type: none"> <li>•Kitchen Waste including: tea leaves, egg shells, fruit and vegetable peels</li> <li>•Meat and bones</li> <li>•Garden and leaf litter, including flowers</li> <li>•Soiled paper</li> <li>•House dust after cleaning</li> <li>•Coconut shells</li> <li>•Ashes</li> </ul>	<ul style="list-style-type: none"> <li>•Newspapers</li> <li>•Paper, books and magazines</li> <li>•Glass</li> <li>•Metal objects and wire</li> <li>•Plastic</li> <li>•Cloth Rags</li> <li>•Leather</li> <li>•Rexene</li> <li>•Rubber</li> <li>•Wood /furniture</li> <li>•Packaging</li> </ul>

**Schedule III:**

**Specified hazardous waste:**

<b>Specified Household Hazardous Waste:</b>
<ul style="list-style-type: none"> <li>•Aerosol cans</li> <li>•Batteries and button cells</li> <li>•Bleaches and household kitchen and drain cleaning Agents &amp; its Containers</li> <li>•Car batteries, oil filters and car care products and consumables</li> <li>•Chemicals and solvents and their containers</li> </ul>

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- Cosmetic items, chemical-based Insecticides and their containers
- Light bulbs, tube-lights and compact fluorescent lamps (CFL)
- Discarded Medicines and its containers,
- Paints, oils, lubricants, glues, thinners, and their containers
- Pesticides and herbicides and their containers
- Photographic audio/video tapes and their containers, chemicals
- Styrofoam and soft foam packaging of furniture, packaging and equipment
- Thermometers and mercury-containing products

#### Schedule IV:

#### List of Bio-medical waste: (Extract from the Bio-Medical Waste Rules)

Bio-medical waste
<p>"Bio-medical waste" means any waste, which is generated during the diagnosis,treatment or immunization of human beings or animals or in research activitiespertaining thereto or in the productionor testing of biological matter.</p>
<p>Category No 4 Waste sharps(Needles, syringes, scalpels, blades, glass, etc. that may cause puncture and cuts. Thisincludes both used and unused sharps)</p>
<p>Category No 5 Discarded Medicines and Cytotoxic drugs (waste comprising of outdated,contaminated and discarded medicines)</p>
<p>Category No 6 Solid Waste(Items contaminated with blood, and body fluids including cotton, dressings, soiledplaster casts, lines, beddings, other material contaminated with blood)</p>
<p>Category No. 7 Solid Waste (waste generated from disposable items other than the waste sharps such as tubings, catheters, intravenous sets etc)</p>

  
Collector / Director (MA)  
Daman and Diu  
Diu

Diu  
Dated 26/072018

असाधारण  
EXTRAORDINARY

Daman 12<sup>th</sup> September, 2018, 21 Bhadra 1940 (Saka)

सं. : 12  
No.

सरकारी राजपत्र  
OFFICIAL GAZETTE



भारत सरकार  
Government of India

संघ प्रदेश दमण एवं दीव प्रशासन

U.T. ADMINISTRATION OF DAMAN & DIU

प्राधिकरण द्वारा प्रकाशित  
PUBLISHED BY AUTHORITY

No. UD/DMN/WMSP/2018/1428  
Office of the Deputy Secretary,  
Department of Urban Development,  
Daman.

Dated : 12<sup>th</sup> September, 2018.

NOTIFICATION

The administrator of U.T. of Daman & Diu is pleased to notify "Daman and Diu Waste Management and Sanitation Policy" under rule 11(1) of solid waste management rules 2016 notified by ministry of environment forest and climate change new delhi.

By order and in the name of the  
Administrator of Daman & Diu

Sd/-  
( Vaibhav Rikhari )  
Deputy Secretary Urban Development  
U. T. of Daman & Diu

## 1. ABBREVIATIONS

UDA	Urban Development Authority
BSUP	Basic Services to Urban Poor
CAA	Constitutional Amendment Act
C&D	Construction and Demolition
CBO	Community Based Organization
CEPT	Centre for Environment Planning and Technology University
CPCB	Central Pollution Control Board
CPHEEO	Central Public Health and Environmental Engineering Organization
CSP	City Sanitation Plan
CSR	Corporate Social Responsibility
CSTF	City Sanitation Task Force
CT	Community Toilets
DEWATS	Decentralized Wastewater Treatment Systems
DP	Development Plan
DPR	Detailed Project Report
ESI	Environmental Sanitation Institute
EWS	Economically Weaker Sections
FC	Finance Commission
GoI	Government of India
PCB	Pollution Control Board
IDSMT	Integrated Development of Small and Medium Towns
IEC	Information Education and Communication
IFFCO	Indian Farmers Fertilizer Co-operative Limited
IHHL	Individual Household Latrines
ILCS	Integrated Low Cost Sanitation Scheme
IT	Information Technology
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
KPI	Key Performance Indicators
M&E	Monitoring and Evaluation
MGSM	Mahatma Gandhi Swachhata Mission
MIS	Management Information Systems
MLD	Million Litres per Day

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MoEF	Ministry of Environment and Forests
MoUD	Ministry of Urban Development
MSW	Municipal Solid Waste
NARC	National Advisory and Review Committee
NBA	Nirmal Bharat Abhiyaan
NGO	Non-Governmental Organization
NULM	National Urban Livelihood Mission
NUSP	National Urban Sanitation Policy
O&M	Operation and Maintenance
OD	Open Defecation
ODF	Open Defecation Free
OSS	On-site Sanitation System
PAS	Performance Assessment Systems
PGRS	Public Grievance Redressal System
PPP	Public Private Partnership
PT	Public Toilets
SBM	Swachh Bharat Mission
SDG	Sustainable Development Goals
SEWA	Self Employed Women's Association
SHG	Self Help Groups
SJMMSVY	Swarnim Jayanti Mukhya Mantri Shehri Vikas Yojana
SLAB	State Level Advisory Body
SLB	Service Level Benchmark
SLNA	State Level Nodal Agency
SMUS	State Mission for SBM
SOP	Standard Operating Procedure
STP	Sewage Treatment Plant
SULM	State Urban Livelihood Mission
SWD	Storm Water Drainage
TP	Town Planning Scheme
UIDSSMT	Urban Infrastructure Development Scheme for Small and Medium Towns
UIG	Urban Infrastructure and Governance
ULB	Urban Local Body

EXTRAORDINARY No. : 12
DATED : 12 <sup>TH</sup> SEPTEMBER, 2018.

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UNICEF	United Nations Children's Fund
W&S	Water and Sanitation
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

## 2. Preface

The Sustainable Development Goals that build upon the Millennium Development Goals have laid down 17 Sustainable Development Goals (SDG) and 169 targets by the year 2030. Universal access to clean water and sanitation is one of these goals and aims to ensure universal access to safe and affordable drinking water by 2030 by investing in adequate infrastructure, provision of sanitation facilities and encourage hygiene at every level.

The Union Territory of Daman & Diu has drafted "Daman and Diu Waste Management and Sanitation Policy" as per the frame work of National Urban Sanitation Policy and Solid Waste Management Rules, 2016. The policy document defines the goals and the guiding principles on which the policy is based and the strategies that need to be followed by the urban and rural local bodies for achieving each goal of the policy.

Suggestions received from different agencies like Municipalities, Panchayats, Pollution Control Committee, Industry/hotel associations and Non Government Organizations were incorporated in the policy document. The policy is evolved after consultation with these stakeholders, therefore safeguards that the views of all find place in the document.

### 3. Introduction

The United Nations launched the Millennium Development Goals (MDGs) in 2000. The MDGs had 8 development goals and it enjoins upon the signatory nations to achieve 17 goals to transform the world. One of the 17 goals is to ensure access to water and Sanitation for all by 2030. This targeted mission supported by a world organization has put sanitation and water access in the limelight.

*Inadequate sanitation means much more than just inconvenience. It costs lives, dignity and productivity. In India, approximately 400,000 to 500,000 children below five years of age die due to diarrhea annually (UNICEF, n.d.). India accounts for 90 percent of the total population in South East Asia who defecate in the open and 59 percent of the total world population that defecates in the open (UNICEF, 2014). In urban India, nearly 12 percent or 95 lakh households do not have access to toilet facilities and hence defecate in the open (Census 2011). The situation is better than rural India where 11 crore households (67.3 percent) defecate in the open. The consequences of open defecation are grave leading to child deaths, contamination of water sources, continuation of manual scavenging and aggravating conditions of poverty. Water Aid (2007) in a study found out that every one dollar on sanitation saves at least nine dollars in health, education and economic development. Hence investing in the improvement of sanitation facilities and access to the same has a multiplier effect on a number of sectors including health, education, safety and ultimately economy of the nation.*

As per the Constitution, 'water' and 'sanitation' are classified as state subjects. 'Water' is included in Entry 17 under the List II i.e. the State List of Seventh Schedule. 'Sanitation' is a subject matter included in Entry 6 of the State List as established through Article 246 of Constitution of India.

The Ministry of Environment and Forests (MoEF), GoI enacted the Municipal Solid Waste (Management and Handling) Rules in 2000 that prescribed duties of the State for solid waste management. The Ministry of Urban Development (MoUD), GoI launched the **National Urban Sanitation Policy (NUSP)** in 2008, with an aim of transforming India into a community driven, totally sanitized, healthy and livable cities and towns. **It is also regarded as one of the first and concrete steps towards a holistic development of sanitary conditions in our cities.**

NUSP recognizes that sanitation is a state subject with respect to providing policy direction and funds for large capital investments, whereas the ULBs would be responsible for ensuring efficient delivery systems. NUSP provides guidelines for preparation of state sanitation strategies as well as for city sanitation plans.

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The following components have been suggested to be included in state sanitation strategies:

- Clear assignment of institutional responsibilities at state and city levels.
- Setting standards for environment, health, sanitation processes, service delivery, etc.
- States will devolve funding to ULBs, set tariffs, devise targets for subsidies to poor households, and emphasize introduction of user charges for financial sustainability.
- States will launch awards for best performing cities
- To reach the un-served and urban poor, states will resolve tenure, space and affordability constraints. Provision of basic sanitation will be delinked from land tenure. At least 20% of the funds under the sanitation sector will be used on the urban poor. States may consider cross subsidizing the urban poor in collection of O & M charges.
- States to issue guidelines to support cities in community and participatory approach to community sanitation, rational planning.
- States to make explicit directions with regards to the final accountability of ULBs in service delivery, and accountability of other parastatals, as well as NGOs, CBOs, etc. working in sanitation sector to be accountable to the ULBs.
- Identify agencies that will train state-level, ULB personnel and orient elected representatives. This is also in line with the fact that ULBs will have to develop capacity based on GoI and State government schemes.

The latest policy intervention in the urban sanitation has come with the launch of the **Swachh Bharat Mission (SBM)** in 2014. The Swachh Bharat Mission in urban and rural areas is focused on building individual toilets, community toilets and solid waste management and on public awareness.

The stated objectives of the Swachh Bharat Mission (SBM) Urban are:

- Elimination of open defecation
- Eradication of manual scavenging
- Modern and Scientific Municipal Solid Waste Management
- To effect behavioral change regarding healthy sanitation practices
- Generate awareness about sanitation and its linkage with public health
- Capacity Augmentation for ULBs and panchayats
- To create an enabling environment for private sector participation in Capex (capital expenditure) and Opex (operation and maintenance)

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The Union Territory of Daman and Diu comprises of 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 UT of Daman and Diu which is located on main land near southern portion of Gujarat State. Diu is an island near Una in Gujarat State. The total geographical are of Daman and Diu is 112 sq. km where more than 2,50,000 people resides.

Daman district is a coastal district situated about 178 km north of Mumbai and is surrounded by Valsad District of Gujarat State in North, East and South. Its length from the extreme north to south measures 11 kms and width from east to west, measures 8 kms. The altitude is 12 meters above the sea level. Daman Ganga River flowing from Nasik passes through middle of Daman District dividing it into two parts named Moti Daman and Nani Daman.

Diu District is an island which is joined with Una District of Gujarat State by two bridges over a sea creek. Its length from the extreme north and south, measures 4.6 kms and width from east to west measures 13.8 kms. The altitude is 6 meters above sea level. The topography is generally plain and the hillocks attain maximum height of 30 meters.

The Union Territory of Daman and Diu is a tourist destination and an industrial hub because of which there is a significant migrant and floating population.

Urban area of UT of Daman and Diu consists of two municipal councils named Daman Municipal Council and Diu Municipal Council having 15 and 13 wards respectively. Similarly, the rural areas consist of 11 village panchayats in Daman and 4 in Diu.

#### **About Swachh Bharat Mission in UT of Daman & Diu**

Government of India launched the Swachh Bharat Mission (SBM) with a vision to realize the dream of Mahatma Gandhi that all cities, towns and villages should become clean, have fully functional liquid management system leading to improved health. The people living in cities, towns and villages should get clean living environment.

Ministry of Urban Development and Ministry of Drinking Water and Sanitation are the implementing agencies of the Swachh Bharat Mission (SBM) in urban and rural India. SBM emanates from the vision of the Government for ensuring hygiene, waste management, and sanitation across the country and aims for a Clean India under a collaborative framework of multiple stakeholders. As one of the key mission objectives is to develop modern and scientific solid waste (SW) practices, the ministries intend to support various states and cities in undertaking such projects through providing financial assistance and capacity building support.

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UT of Daman and Diu is working enthusiastically to realize the dream of Mahatma Gandhi. In both urban and rural areas SBM is being implemented with due diligence.

As per census 2011, there are 89,929 households in U.T. of Daman n Diu. The waste management activities are to be carried out in ULBs and panchayats in adherence with the provisions of the Municipal Solid Waste (Management and Handling) Rules, 2016 ("MSW Rules") as amended from time to time.

Approximately 105 Tons of solid waste is generated in UT of Daman and Diu on daily basis. This waste consists of both biodegradable waste and non-biodegradable waste. It is a responsibility of respective ULBs and panchayats to collect, segregate, process and properly dispose this waste in a scientific manner.

**Need for the Daman & Diu waste management and Sanitation Policy**

In order to achieve the goals of SBM and for effective implementation of Solid Waste Management Rules in the territory, there is a need to have a Solid Waste Management and Sanitation policy for Daman and Diu. The policy shall serve as a guiding document to urban/rural local bodies and line departments to prepare and implement their city sanitation plans, service level improvement plans, and achieve the goals under the SBM.

**Defining 'Sanitation'**

The World Health Organization defines sanitation which generally '*refers to the provision of facilities and services for the safe disposal of human urine and faeces*'. It includes '*maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal*'.

The Ministry of Urban Development (MoUD), GoI in the National Urban Sanitation Policy(2008) defines sanitation as '*the safe management of human excreta, including its safe confinement, treatment, disposal and associated hygiene-related practices*'.

The UT of Daman & Diu adopts a wider definition of Sanitation as "**the safe management and disposal of human excreta (urine and faeces) and solid waste generated in all areas including industrial areas within jurisdiction of urban and rural local bodies. Focused attention shall be given for the safe management at each stage viz. containment, collection, transportation, treatment, disposal and reuse at each stage of the value chains to generate revenue from the waste**"

### Applicability of the policy

The policy is applicable to the area under the jurisdiction of statutory urban local bodies (ULBs) and village panchayats in the U.T of Daman & Diu and covers the following sectors.

- ✓ Toilets
- ✓ Solid Waste
- ✓ Liquid waste
- ✓ Storm Water

This policy shall acknowledge and ensure the duties of functionaries of urban and rural local bodies. Within the territory and ULB, this policy has to be adopted by various departments like education, health, tourism, housing, town and country planning and urban development department for compliance.

### Vision

The Union Territory of Daman and Diu endeavors “to make its urban local bodies and village panchayats open defecation free and zero waste by producing wealth out of waste, in a sustainable manner with a special focus on integration of waste pickers, rag pickers, and scrap dealers in the cycle of Solid Waste Management”.

### Guiding Principles

Daman and Diu Waste Management and Sanitation policy is based on the following guiding principles that are grounded in recognition of achieving *safe sanitation across the value chain*, ascertaining *environmental and financial sustainability, transparency and inclusivity*.

1. **Improvements across the value chain of sanitation facilities are crucial to achieve all goals to the Fullest:** Focusing only on the provision of toilet facilities is not adequate, waste must be first captured and stored to avoid any contact with people or contamination of the environment, it must be extracted, transported, treated and disposed safely and potentially be reused. Similarly, in solid waste management, ensuring efficient waste collection is not adequate, solid waste must be transported, treated, disposed safely and potentially be reused.
2. **All infrastructure, systems and policies designed should be to accommodate the needs of all stakeholders:** Gender specific needs to be imbibed in every stage of designing especially in designing of toilets, locating sanitation facilities, creating communication and

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awareness strategies, monitoring mechanisms, occupational involvement in solid waste management, etc. Apart from women, needs of differently-abled and children also needs to be considered.

3. **All efforts will be designed in an environmentally and financially sustainable manner:** For ensuring financial sustainability, the life cycle approach that includes considerations of capital expenditure and operations expenditure will be embedded in all strategies.
4. **Selection of appropriate technologies, systems and processes** will be based on population size and geographical location to ensure that these do not adversely affect the local environment.
5. **Participatory Approach:** ULBs and panchayats should involve all stakeholders at all levels, in the decision-making and implementation process.
6. **Open Access to information:** All information with respect to sanitation will be made available by ULBs and Village Panchayats on public domain for citizens.
7. **Knowledge sharing:** It is important to learn from each other and opportunities for sharing of knowledge between stakeholders will be encouraged and promoted.
8. **Sanitation as livelihood means:** A large number of people depend for their livelihoods on the sanitation sector. This policy acknowledges the work of such people and believes in giving dignity to such people. However, at the same time the policy believes that certain manual jobs, violating human rights need to be abolished.

### Convergence with Other Policies

*The provisions of this Policy are aligned with the provisions made under:*

- i. Daman & Diu Municipalities (Amendment) Regulation, 2018
- ii. The Goa, Daman and Diu town and Country planning Act 1974
- iii. Daman Municipal Council Solid Waste Management and Handling Byelaws, 2018
- iv. Diu Municipal Council Solid Waste Management and Handling Byelaws, 2018
- v. Building and Other Construction Workers Act, 1996
- vi. National Urban Sanitation Policy, 2006
- vii. Hazardous and other wastes (Management and Transboundary Movement) Rules, 2016
- viii. The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013
- ix. CPHEEO Guidelines, 2013
- x. National Policy on Faecal Sludge and Septage Management (FSSM), 2017

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- xi. Swachh Bharat Urban and rural Guidelines,2014
- xii. Guidelines for 'Open Defecation Free Towns' under theMahatma
- xiii. Gandhi Swachhata Mission, 2015
- xiv. Solid Waste Management Rules,2016
- xv. Construction and Demolition Waste Management Rules,2016
- xvi. Plastic Waste Management and Handling Rules,2016
- xvii. Bio-medical Waste Management Rules,2016
- xviii. E-waste (Management) Rules,2016
- xix. Batteries (Management and Handling) Rules,2001

*Any amendments or revisions in the above Acts and Policies shall reflect in the Daman and Diu Waste Management and Sanitation Policy too.*

#### 4. Sanitation Goals

In order to realize the vision statement, the following nine goals have been laid down. Each of these goals highlights an aspect to be achieved in the urban and rural sanitation sector and lays down strategies and guidelines for urban and rural local bodies to follow:

*Goal 1: All residents of UT of Daman and Diu shall have access to safe, hygienic, affordable and user-friendly toilets, backed with a system that provides safe storage, conveyance and disposal to ensure that no one defecates in the open.*

*Goal 2: All waste water generated in the Local Bodies shall be treated as per norms for safe disposal.*

*Goal 3: Union Territory of Daman and Diu shall become 'zero waste territory'*

*Goal 4: Manual scavenging shall be completely eradicated from the Union Territory of Daman and Diu.*

*Goal 5: All Local Bodies shall have 100 percent coverage of storm water drainage system.*

*Goal 6: All Local Bodies shall have data (spatial and non-spatial) related to all water supply and sanitation services and should make it available on public domain through a robust management information systems (MIS).*

*Goal 7: All Local Bodies shall implement targeted awareness campaigns on linkages between sanitation, environment and health.*

*Goal 8: All water bodies of UT of Daman and Diu shall be free of solid and liquid waste*

*Goal 9: All Local Bodies shall designate land in the development plan/ local area plan for sanitation related infrastructure facilities.*

**Goal 1: All Residents of UT of Daman and Diu shall have access to safe, hygienic, affordable and user-friendly toilets, backed with a system that ensures safe storage, conveyance and disposal to ensure that no one defecates in the open.**

Daman and Diu Waste Management policy aims at achieving open defecation free ULBs and villages by giving access to and use of safe and hygienic sanitation facilities to all urban and rural dwellers. It promotes the access to households with safe sanitation facilities, including proper disposal arrangements.

Accordingly, the sub goals for maintaining an open defecation free Union Territory of Daman and Diu are as follows:

### SubGoals

- i. ULBs and Village Panchayats shall maintain 100 percent coverage through provision of individual/public/community toilets.
- ii. ULBs and Village panchayats shall have well maintained public toilets at all public places including bus stand, market, commercial areas and other important places.
- iii. ULBs and Village Panchayats shall provide adequate and well-maintained toilets at construction sites (wherever permanent toilets are not possible mobile/ temporary toilets may be used)
- iv. Adequate and well-maintained toilets shall be made available in all government buildings.

### Current Situation

The target for constructing individual toilets set by Swachh Bharat Mission (Urban) and Swachh Bharat Mission (Rural) for UT of Daman and Diu was 675 and 3003 respectively. Union Territory has already achieved 100 percent physical target and as a result Union Territory of Daman and Diu has already been declared an ODF territory. Although 20% of the toilets are insanitary, that is, they are not connected to the sewerage system or a safe on-site disposal system.

### Strategies

ULBs and Village Panchayats should adhere and follow the strategies to achieve the above stated goal.

- a. **Delinking provision of sanitation facilities and land tenure:** The process of construction of toilets shall be in no way linked to the land tenure where the toilet is to be provided. Having a toilet is one of the most basic right of every individual.
- b. **Preference to individual toilets:** As far as possible, the urban local bodies and village panchayats shall strive to provide individual toilets to households that currently do not have access. Only in special cases where there are constraints of space availability, community/common toilets will be provided. Community toilets will be located within the vicinity of the settlement. These can be provided for both urban and rural households residing in slum-like areas, authorized/ un-authorized colonies and urban villages and who either do not have an individual toilet or have an insanitary toilet. The locations of the community/common toilets must be such that it is accessible to the users throughout the year. The size and the number of seats of the toilet block should be adequate keeping the member

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of individuals in the community.

- c. **Provision of adequate public toilets:** UT of Daman and Diu is a territory that attracts tourists from all over the country and abroad. Therefore, ULBs/Village Panchayats shall ensure adequate public toilets in all public places that attract floating population including but not limited to bus stands, market, commercial places, beaches, gardens, play grounds, exhibition grounds, chowks, markets, transit nodes, streets, highways with appropriate gender considerations (number of seats, design and operations).
- d. **Provision of Temporary toilets at construction sites, special events and for homeless:** ULBs and Village Panchayats shall ensure that there is adequate number of temporary toilets at all construction sites of the ULBs/ Village Panchayats, other government organization, private or non-government organization. The ULBs/ Village Panchayat shall monitor provision of such toilets as part of the building plan permission process.
- e. All **temporary accommodation** (such as night shelters) for migrants and the homeless shall have adequate provision for toilets either on the premises or have access to a public toilet nearby.
- f. **Revival of dysfunctional community and public toilets:** ULBs and Village Panchayats shall refurbish existing dilapidated and dysfunctional public toilets and construct new ones wherever required. ULBs/village panchayats shall conduct a primary survey (and periodically update it) on the number of dysfunctional public toilets within its jurisdiction before approving new constructions.
- g. **Focus on O&M of public/community toilets:** ULBs and Village Panchayats shall ensure well maintained community and public toilets and shall have an O&M strategy at the outset while planning new facilities or up gradation of existing facilities by engaging private contractors/ NGOs for the same. ULBs/Village Panchayats shall develop a robust framework for daily monitoring of O&M of these facilities by including the public grievance redressal system to enable citizens to lodge complaints.
- h. **Making O&M of public toilets self-sustainable:** ULBs and Village Panchayats will try to monetize operation and maintenance of public toilets so that it can become self-sustainable by levying charges for advertisement, pay and use etc.
- i. **Use of technology:** ULBs and Village Panchayats shall ensure that all the public toilets are located on google toilet locator for the convenience of tourists and floating population. A mobile application shall be developed to make it more convenient and user friendly.
- j. **Conversion of existing insanitary to sanitary toilets:** ULBs and Village Panchayats should conduct a survey to identify such insanitary toilets having no safe disposable system and convert them into appropriate safe disposal systems through an on-site or a sewerage system.

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- k. Community Engagement:** ULBs and Village Panchayats shall ensure meaningful community engagement at various stages of the decision making, implementation and monitoring. The women SHGs operating in the under NRLM could be consulted for meaningful engagement of the community.
- l. Skill development:** Availability of adequately skilled human resources such as contractors, masons, plumbers for maintaining ODF in ULBs and villages is a big barrier and shall try to provide these skills under Rashtriya Kaushal Vikas Yojana. Entrepreneurship development programme with focus on financial assistance to individuals/ groups of urban and rural poor for setting up gainful self-employment ventures shall be organized on a regular basis.
- m. Selection of appropriate technology for on-site systems:** In areas that are not yet connected to a centralized sewer network, several criteria such as the geographical location, ground water levels, space availability, cultural habits and availability of skilled human resources shall decide an appropriate on-site system. These could range from a twin-pit system to septic tank connected to a soak pit or new sanitation technologies such as bio-digesters etc. ULBs and village panchayats shall consider these factors and consult with the beneficiaries to arrive at the most appropriate and cost effective technology solution. ULBs and village panchayats shall display models/ pictures for the beneficiaries to view and choose from.
- n. Financing options:** ULBs and Village Panchayats may use ODF funds from Government of India and UT of Daman and Diu for construction of IHHL, community and public toilets. In case of any gap ULBs and village panchayats shall look for alternative funding sources like Corporate Social Responsibility (CSR) funds, Public Private Partnerships, Social Impact Investors and micro-finance institutions to augment their financial capacities for O&M and sustain their IEC activities.
- o. Roles and responsibilities:** Toilet construction is the key responsibility of ULBs and village panchayats. Public Works Department may also help in creating sewerage infrastructure. For ensuring safe faecal sludge management systems both ULBs and village panchayats shall either provide an on-call service and/or empanel private agencies engaged in faecal sludge management. ULBs and Village Panchayats must ensure that all the safety and hygiene SOPs are being followed in this regard.
- p. Maintaining ODF Status of the territory:** The ULBs and Village Panchayats shall strive at maintaining ODF status of territory by providing access to safe and hygienic sanitation facilities arrangements (including safe disposal systems) for all urban and rural dwellers.

Though the territory has already achieved ODF status, ULBs and Village Panchayats shall ensure access of 100% dwellers to toilets through provision of individual/ public/ community toilets in a sustainable way and ensure 100 percent coverage in terms of safe disposal system.

**q. Monitoring and sustaining of ODF status:** To sustain an ODF status, a strong monitoring strategy shall be designed by both urban and rural areas. All public, community and government building toilets shall be brought under daily monitoring routine. Both ULBs and village panchayats shall ensure compliance of all buildings with the building regulations including construction of adequate sanitary toilets with proper sewerage connection or suitable on-site sanitation system. ULBs and Village Panchayats will put in place a monitoring system to track new settlements without toilet facilities, if any.

ULBs typically conduct property tax surveys every four to five years and they shall use this survey as an opportunity to identify buildings without individual toilets. Village panchayat will also conduct a survey like this for timely monitoring. Also, building plan permission shall be given only if all the new constructions that are approved have toilets.

**Goal 2: All waste water generated in the Local Bodies shall be treated as per CPHEEO/MoEF & CC norms for safe disposal**

All the ULBs and Village Panchayats shall ensure that all waste water generated in the city is safely collected, conveyed, treated, disposed and potentially reused in accordance to the guiding principle of making improvements across the value chain. This applies to both centralized sewer systems as well as on-site systems.

### **Existing situation**

In UT of Daman and Diu sewerage system is yet to be made operational. In Daman more than 4000 households shall be connected to sewerage system once a sewerage treatment plant of 4.21 *MLD* becomes operational. Diu has also started with its sewerage project and all the households shall be connected to the sewerage system. In other areas decentralized septage management shall be operationalized.

### **Strategy**

- a. **Collect Baseline data:** All ULBs and Village Panchayats shall conduct a survey to ascertain the disposal mechanism of all existing toilets that are not connected to sewerage systems viz.
  - i. Toilets not connected to any disposal system.

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- ii. Single pit system
  - iii. Twin pit system
  - iv. Septic tank connected to a soak pit
  - v. Septic tank with a discharge in open/closed storm water drains/ waterbodies and
  - vi. Other on-site sanitation system like DEWATS, bio toilets,etc.
- b. ULBs shall provide a sewer connection to all its residents. Panchayats should provide a site specific on site sanitation system.
- c. ULBs shall ensure that the sewerage collected through this network must be treated and disposed as per the CPHEEO norms and Environment (Protection) Amendment Rules,2017.
- d. Village Panchayats shall ensure that on-site sanitation systems as per CPHEEO/MoEF & CC norms have to be put in place in areas not served by sewerage network.
- e. ULBs and Village Panchayats shall ensure conversion of insanitary disposal of waste-water to a sanitary system on a priority basis.ULBs and panchayats shall evaluate the existing septic tank designs for compliance to standards and ensure that the house owners convert the insanitary septic tanks to sanitary system.
- f. ULBs and Village Panchayats shall provide fecal sludge management services including suitable sludge treatment, wherever needed. ULBs andVillagePanchayats shall either have their own fecal management system or empanel private agencies providing fecal sludge management services. ULBs and Village Panchayats shall also ensure that all on-site systems are cleaned/ emptied once in two or three years as per CPHEEO norms. ULBs and Village Panchayats shall also ensure that private agencies treat and dispose the sludge as per CPHEEO norms.
- g. ULBs and Village Panchayats shall reuse their treated domestic waste water as per CPHEEO norms.
- h. *Waste water from small Industrial units:* ULBs and Village Panchayats with the help of Pollution Control Committee (PCC) shall ensure that industrial units do not discharge any industrial effluents or any other wastewater to the public sewer before necessary treatment as prescribed and permitted byPCC.
- i. *Waste water from large commercial and residential properties:* ULBs and Village Panchayats shall prescribe minimum size of commercial and residential properties that required mandatorily construct an on-site packaged treatment unit to treat liquid waste with necessary approvals. ULBs and Village Panchayats shall encourage to prescribe minimum size of commercial or residential properties that need to provide dual plumbing system for

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grey water to be re-used for flushing/ landscaping and other non- potableuses.

- j. **Roles and Responsibility:** ULBs, Village Panchayats and PWD shall work in close coordination and lay sewerage infrastructure in the territory of Daman and Diu.
- k. **Selection of appropriate technology:** The ULBs and Village Panchayats shall choose a cost-effective technology that is appropriate for the quantum of wastewater generated, and does not necessitate requirement of skilled human resources or energy.
- l. **Financing options:** The ULBs and village Panchayats shall strive towards achieving 100 percent cost recovery. The ULBs and village panchayats shall follow the advisory on tariff structure for urban water supply and sewerage services issued by the MoUD. Both ULBs and Village Panchayats shall seek funding under existing schemes, missions and programmes of GoI and UT of Daman and Diu.
- m. **Information, Education and Communication:** The ULBs and Village Panchayats shall design appropriate IEC materials and campaigns to promote adoption of proper design and construction of on- site systems, safe methods of desludging and transportation. The ULBs and Village Panchayats may involve external agencies like NGOs, CBOs, and technical agencies to help in accomplishment of this goal.
- n. **Public Grievance Redressal:** A dedicated helpline shall be setup by ULBs and Village Panchayats to provide support to the residents on all aspects of sanitation including handling services requests for faecal sludge management.
- o. **Record Keeping:** ULBs and Village Panchayats shall issue standard formats to the empaneled agencies for maintaining the records of fecal sludge management. This shall include, but not restricted to, the name of the customer, area details, date for desludging, date of completion, type of septic tank, quantity desludged, user charge collected, next date of desludging and name of STP/Sludge Treatment Plant in which sludge is transferred along with necessary stamps and signatures. This data shall be maintained by the ULB and village panchayats through a computerized MIS platform.
- p. **Capacity Building:** The ULBs and village panchayats shall collaborate with educational and technical agencies for training of their own staff as well as service providers. The contractors, masons and suppliers of septic tanks and pits shall be educated about the new technologies, designs and methods of construction. The operators of collection and transportation shall be trained on use of standard operating procedures (SOP). The employees should be encouraged to undertake professional courses and SBM's e- courses to enhance the knowledge, skills and capabilities.

### **Goal 3: Union Territory of Daman and Diu shall become Zero Waste Territory**

The solid waste management is the responsibility of ULBs and Village Panchayats. The Solid Waste Management Rules, 2016, Plastic Waste Management Rules, 2016 and Construction and Demolition (C&D) Waste Rules, 2016 issued by the Ministry of Environment, Forests and Climate Change, Government of India, under the Environment (Protection) Act, 1986, define the procedures for ULBs and Village Panchayats to undertake solid waste, plastic waste and construction and demolition waste management and process to be followed for collection, segregation, storage, transportation, processing and disposal of solid waste and construction and demolition waste generated within their jurisdiction. The ULBs and Village Panchayats shall comply the directions and oblige the duties as stated in SWM Rules, 2016.

#### **SubGoals**

- i. *100% door to door collection and segregation of solid waste*
- ii. *Further segregation of dry waste into 12 categories of wastes which can be recycled/reused*
- iii. *100% solid waste treatment and/ or processing*
  - o *100% centralized and decentralized processing of bio degradable waste at ward/ zone/panchayat level*
  - o *100% recycling and/ or processing of non-bio-degradable waste*

#### **Existing Situation**

The UT of Daman and Diu generates about 105 ton of solid waste per day of which more than 50% of it is wet waste. Currently 100% door to door collection is operational in urban areas of UT of Daman and Diu. Both the ULBs have also started segregation of waste at source in some of the wards. More than 80% of bulk generators viz. Hoteliers, restaurants are segregating and processing their wet waste and a compost farm is established in Daman. Apart from this about 60% of dry waste is also being reused/recycled through an informal network of scrap dealers and rag pickers. UT of Daman and Diu does not have any scientific landfill site.

## Strategy

The primary strategy for improving management of solid waste is to imbibe the principle of 3R : **Reduce – Reuse – Recycle** by improving the quality of services across the value-chain. ULBs and Village Panchayats need to introduce appropriate and time-tested strategies that encourage reducing waste generation at source, reuse and recovery of waste.

- a. **Ensuring 100% segregation of solid waste at source:** All waste generators shall segregate and safely store the waste generated by them in three separate streams, namely bio-degradable, nonbio-degradable and domestic hazardous waste and hand over the segregated waste to municipal workers, waste collectors and authorized rag pickers.
- b. **Ensuring 100% door to door collection of solid waste:** All ULBs and Village Panchayats shall cover all waste generators through door to door collection. The strategy mandates that no waste shall be thrown on the streets, footpaths, open spaces, drains or water bodies. The waste is to be stored at the source of waste generation in bins/bags. ULBs and Village Panchayats shall collect waste directly from the generators in their respective jurisdiction and transport it to the processing site. ULBs and Village Panchayat shall facilitate formation of Self Help Groups, provide identity cards and encourage integration in SWM including door to door collection of waste.
- c. **Evolving collection mechanisms for different generators:** ULBs and Village Panchayats shall develop micro-plans for efficient collection of waste from all types of generators within their jurisdictions. ULBs and Village Panchayats shall define separate collection mechanism for covering large housing complexes apartments & housing societies, individual houses and slum like areas. Larger vehicles like Auto tippers/ compactors are more suited for collection in areas like housing societies / housing complexes while pushcarts/ tricycles are more appropriate to cover slum like areas and congested localities. Suitable arrangements shall be made by the ULB and Village Panchayat as per the area requirements. The ULBs and Village Panchayats shall ensure that adequate waste collection and storage facilities are available on street-sides, near market places, commercial areas, and other such places of attraction.
- d. **Separate collection & management of Waste from bulk generators:** All hotels, bars and restaurants shall ensure decentralized or centralized processing of solid waste by themselves. All resident welfare and market associations, gated colonies and institutions shall ensure segregation of waste at source, facilitate collection of segregated waste and handover the recyclable material to either the authorized waste pickers/waste collectors or authorized recyclers. The bio- degradable waste from all bulk waste generators including

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vegetable, fruit, flower, meat, poultry and fish market shall be collected on day to day basis, processed, treated and disposed-of through composting or bio-methanation within the premises as far as possible. In case of event organizers holding large scale events of more than 100 persons, the ULB and Village Panchayat shall be informed about the event at least three working days in advance. Such persons or organizers shall ensure segregation at source and hand over it to waste collectors or agencies specified by the ULB and Village Panchayat. All street vendors shall keep suitable containers for storage of waste generated during their course of activity such as food waste, disposable plates, cups, cans, leftover food, vegetables, fruits, etc. and shall deposit the waste at waste storage depot, container or vehicle as notified by the ULB/ Village Panchayats.

- e. **Promote the 3R principle of 'Reduce-Reuse-Recycle' for municipal solid waste:** Wherever possible, ULBs and Village Panchayats shall establish ward/zone level processing units thereby minimizing the cost of transportation of waste to a centralized location for processing or disposal. All ULBs and Village Panchayats shall set up composting units and the compost so produced may be sold or used in gardens/parks and open green spaces. The ULBs and Village Panchayats shall focus on reducing the amount of waste that reaches the land-fill sites.
- f. **Mainstreaming informal waste pickers and waste dealers (Kabadi wallas) into the city's SWM system:** ULBs and Village Panchayats shall ensure mainstreaming of waste pickers by formally engaging them in door to door collection and waste sorting and/or ensure that outsourced service providers also employ waste pickers and provide them safe work environment. This will help in poverty alleviation and generating sustained livelihood for workers.
- g. **Land reservation in statutory plans (including development plans, TP schemes):** Provision of solid waste management utilities/ facilities such as secondary collection bins, sorting centres, centralized/ decentralised processing units/C&D waste management, etc. shall be made in all statutory plans. The building bye laws of both ULBs and Development Control Rules of Village Panchayats must include all large complexes to provide for a separate space for placing of such collection bins and ensure that this space is accessible for collection of waste by workers and waste collectors of ULBs and Village Panchayats.
- h. **Tax and User charges:** Both ULBs have prescribed a user fee for door to door collection of solid waste. Village Panchayat shall also evolve such mechanism. ULBs/ Village Panchayats may provide tax/ user charges discounts to residential societies which undertake local waste processing. ULBs should also implement polluters pay principle for bulk generators and fines and penalties are already notified by both ULBs. Village

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Panchayats shall also adopt similar approach for levying a fee on bulk generators.

- i. Management of E-waste:* As per the E-waste (Management) Rules, 2016 the role of the ULBs and Village Panchayats in management of E-waste is limited to the extent of orphan products collection and channelization to authorized dismantler or recycler. The ULBs and Village Panchayats shall create awareness among the manufacturer, producer, bulk consumer, collection centres, dealers, e-retailer, refurbisher, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment.
- j. Management of Bio-medical waste:* The ULBs and Village Panchayats shall ensure that bio-medical waste does not get mixed with solid waste. It will be the responsibility of institutions producing bio medical waste to dispose it off safely.
- k. Street Sweeping:* The ULBs and Village Panchayats shall ensure that all the roads are regularly swept and the waste collected from sweeping is transported and segregated at designated sites. The ULBs and panchayats shall put in place the street sweeping regime and the roads in commercial areas may be swept on daily basis and collect the waste separately. ULBs and Village Panchayats shall assess feasibility of deploying mechanical sweepers and undertaking night cleaning in arterial and main roads where there is heavy traffic and which are crowded during the daytime. The ULBs and Village Panchayats shall ensure that their employees or persons appointed by the agency providing the outsourced service are provided with proper equipment viz. hand carts and safety gear such as gum boots, hand gloves, masks, etc. The ULBs and Village Panchayats shall direct street sweepers to not to burn tree leaves collected from street sweeping and store them separately and send it to composting unit.
- l. Provision of litter bins:* The ULBs and Village Panchayats shall ensure that litter bins are provided at crowded public places for citizens to get rid of waste conveniently. These litter bins can only be used by the general public, commuters and is strictly not to be used by the commercial shops, residences on the street or by the street sweeping employees and persons to dump the waste collected.
- m. IEC Campaigns:* The ULBs and Village Panchayats shall undertake extensive IEC with all citizens to educate them on 3Rs and zero waste principles and inform them about their role to achieve this goal. This includes segregation at source, use of dustbins, treating waste at source by composting at household/ residential society level, etc. and dissemination of the best practices in Solid Waste Management.
- n. Storm water drain cleaning:* The ULBs and Village Panchayats shall ensure that storm water drainage is cleaned regularly to avoid any stagnation of water, which causes many

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health issues to citizen residing nearby.

- o. Cleaning of shrubs/grass:* Growth of grasses, weeds and other vegetation are very common in urban and rural areas due to heavy rainfall. The ULBs and Village Panchayats shall ensure that grass cutting activities will be taken up from time to time to maintain the roads, streets and open spaces neat and clean.
- p. Selection of Technologies:* The ULBs and Village Panchayats shall consider the social, environmental and financial aspects while choosing a technology for processing of wastes. The waste generated in the territory is not huge and therefore composting may be a better option for processing of bio degradable waste. Also convergence approach shall be adopted in composting. Departments like forest and agriculture shall utilize the compost so generated in their plantation programmes.
- q. Landfills:* To achieve "zero waste" territory status, ideally no waste should be disposed in the landfills. However, in some case, inert waste which may not have any further use may be disposed at a local or regional pooled landfill site. The ULBs and Village panchayats shall undertake construction, operations and maintenance of sanitary landfill on their own or any other agency as per SWM Rules 2016. The ULBs and village panchayats shall not dispose any other waste, apart from inert waste, in the land fill or any other site in the adjoining villages or sub-urban areas. Non-recyclable waste having calorific value of 1,500 kcl or more shall not be disposed of on landfills and shall only be utilized for generating energy either or through refuse derived fuel or by giving away as feed stock for preparing refuse derived fuel. Wastes with high calorific value shall be used for co-processing in cement and thermal power plants. In absence of the potential for biomining and bioremediation of dump sites it shall be scientifically capped to prevent the damage to the environment.
- r. Financial Sustainability:* The ULBs and Village Panchayats shall opt for financially sustainable implementation mechanisms while engaging private sector for service delivery. The ULBs and Village Panchayats shall develop a robust framework for monitoring the performance of the private contractors and adopt performance based payment mechanism. The ULBs and Village Panchayats with funding support from the SBM and through state programs shall establish infrastructure and procure equipment for collection, segregation and treatment of waste. The ULBs and Village Panchayats shall make adequate budgetary provision for capital investment as well as O&M of SWM services.
- s. Capacity Building:* The ULBs and Village Panchayats shall organize capacity building and also outreach programmes for all stakeholders including residents on SWM from time to time. The ULBs and Village Panchayats shall encourage their staff and employees to

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undergo SBM's e-courses. Trainings shall also be given to waste pickers and other agencies working on Solid Waste Disposal and Management.

- t. **Plastic waste:** The ULBs and Village Panchayats shall develop infrastructure for segregation, collection, storage transportation, processing and disposal of plastic waste either on its own or by engaging external agencies and shall encourage the reuse/recycling of plastic waste.

**Goal 4: Eradication of Manual Scavenging from the UT of Daman and Diu**

It has been observed that despite having appropriate legal framework, progress towards elimination of manual scavenging has shown limited success. The ULBs and Village Panchayats shall take adequate measures to eradicate insanitary latrines & manual scavenging through provision of adequate and sanitary toilets.

**Strategy**

It is essential that all the strategies of achieving the Goal 1: 'Open Defecation Free Cities and Villages' are implemented by all the ULBs and Village Panchayats. Those strategies are a pre-requisite towards eradication of manual scavenging in ULBs & Village Panchayats and take appropriate preventive measures to prevent its occurrence. The ULBs and Village Panchayats shall abide with the following strategies to address the potential areas where manual scavenging may occur:

a. **Addressing manual cleaning of open defecation spots**

- Daman and Diu have already been declared ODF but in future if any OD spot is found, it must be ensured that all the OD spots are cleaned through mechanized means only and shall conform to provision of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013'.

The ULBs and Village Panchayats shall have a mechanism to regularly monitor OD spots to ensure that there is no re-lapse of the practice and that people use toilets.

- The ULBs and Village Panchayats should continue to campaign use of toilets by all members of all the households.
- All the construction sites shall be monitored to ensure that adequate temporary facilities are provided with in accordance with the provisions of the Building and Other Construction Workers Act, 1996'.

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- The ULBs and Village Panchayats must ensure adequacy and accessibility of public toilets.
- b. Manual cleaning of insanitary latrines*
  - As mandated under goal 1, all insanitary latrines must be converted to sanitary latrines.
- c. Manual cleaning of sewer lines and manholes*
  - All the ULBs and Village Panchayats must adhere to the CPHEEO norms for safety measures before and while cleaning man- holes and sewerlines.
  - It is obligatory as the part of for the employers that employees engaged for cleaning septic tanks or man- holes and sewer-lines to provide adequate safety equipment and protective gear & insure their safety.
- d. Manual cleaning of septictanks*
  - The ULBs and Village Panchayats shall conduct survey and maintain a record of properties not connected to underground drainage system and rely on OSS for disposal of waste water. These records must contain details on the type of OSS, its capacity and frequency of cleaning. The ULBs and village panchayats through their building plan permission processes shall also check compliance of OSS with design standards in case of new buildings.
  - The ULBs and Village Panchayats shall conduct an awareness campaign with the property occupants to educate them about the technology and its limitations, and requirements of maintenance as per CPHEEO norms.
  - The ULBs and Village Panchayats must empanel all the private contractors providing septic tank cleaning services, in the territory. This list shall be maintained to monitor and enforce schedules of cleaning septic tanks, according to CPHEEO norms.
  - The ULBs and Village Panchayats shall inventories the equipment available & ensure that requisite equipment is available to provide adequate services when required.
- e. Manual cleaning of faecal matter from the floor in publictoilets*
  - The ULBs and Village Panchayats must ensure that the members of cubicles inside public toilets are adequate, accessible and usable to eliminate chances of defecating on the floor or elsewhere in public toilets. Also, appropriate signages within the toilets must be displayed to educate users about the correct method of using toilets and about keeping the facility clean.

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- The ULBs and Village Panchayats shall conduct regular training programmes for all cleaners and supervisors of public conveniences run by the ULBs and Village Panchayats and/or operated by private contractors.

**Goal 5: All Local Bodies shall revive their natural drains and ensure 100 percent coverage of storm water drainage system, natural and constructed.**

Storm water drains are important as they channelize the surface run to lakes, tanks and rivers. Storm water drains are necessary for augmenting the ground water and also act as flood control devices.

**Existing scenario**

Daman and Diu are connected with three rivers and Arabian sea, which are sufficient to carry all the rain water of the entire area. Most of the streets and roads are provided with the covered rain water drain. Regular cleaning of these drains shall be carried out to ensure that area is not flooded.

**Strategy**

- a. 100% coverage of storm water drainage by constructing storm water drains as well as through natural drains.
- b. The ULBs and Village Panchayats shall ensure that wastewater is not disposed off in the storm water drains.
- c. The ULBs and Village Panchayats shall mandate private and government properties (beyond certain size as prescribed by the ULB) to harvest to install rainwater harvesting structures to use rainwater.
- d. The ULBs and Village Panchayats shall replenish ground water reservoirs as well as lakes and ponds with rainwater collected through the drains. All ULBs and Village Panchayats shall monitor the quality of water at discharge points and treat the water prior to discharge, if required.
- e. Existing ponds and lakes shall be deepened so as to increase storage and improve the ground water level. The ULBs and Village Panchayats shall remove the encroachment from the water body if any and keep the water bodies, nallas and natural drains free from any nuisance.

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- f. The storm water drains carry rainwater during the monsoons only and for the rest of the year, they are prone to get choked by solid wastes. The ULBs and Village Panchayats shall ensure regular and periodic cleaning to prevent any blockage.
- g. Natural drains need to be marked on the Development Plan of the ULBs and Village Panchayats for the prevention and to thus ensure that there is no encroachment.
- h. All storm water drains shall be designed and maintained as per CPHEEO norms.
- i. The ULBs and Village Panchayats shall seek funding under existing schemes, missions and programmes of GoI.
- j. The ULBs and Village Panchayats shall prepare storm water drainage network to inter connect ponds, lakes or other water bodies so as to facilitate sufficient water for all the season.
- k. The ULBs and Village Panchayats shall prepare a master plan for management of water bodies by addressing the cause of water logging area with proper drain network to overcome the problem.

**Goal 6: All Local Bodies shall have data (spatial and non-spatial) related to all water supply and sanitation services and shall make it available on public domain through a robust management information systems (MIS) and GIS mapping**

The SBM requires all the ULBs and Village Panchayats to improve sanitation primarily through provision of adequate infrastructure, and conversion of insanitary toilets to sanitary. Baseline data on the households devoid of toilets is needed to effectively address the issue and to keep pace with rapid urbanization. It is imperative that ULBs and Village Panchayats to have robust IT enabled or conventional Information Systems that provide information on ground scenario with essential data reflecting the current status to make informed decisions.

Also, the database must include both spatial and non-spatial information which will help the ULBs and Village Panchayats to tide over existing situations and also plan effectively to keep pace with the growth of urban and rural areas.

- a. The information systems so developed must at least cover water supply, waste water disposal, and solid waste management and citizen feedback must be integral parts of this information system. There shall be provision for ULBs registration, reporting and redressal of citizens' complaints.
- b. All the maps of the ULBs and villages under all panchayats shall be digitized and inventories should be updated to current situation. Additionally, property tax information

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shall also be integrated with the database. The data shall be used to plan for provision of services for projected growth of urban areas and villages.

- c. Financial systems shall also be realigned with double entry accrual based accounting systems and ensure uniformity across ULBs and Village Panchayats.
- d. Investments required for institution of such systems shall be borne by the Administration based on appraisal of plans prepared by the ULBs and Village Panchayats.

**Goal 7: All Local Bodies should generate targeted awareness about the linkages between sanitation, environment and health**

The recent 'swachhata Survekshan' of cities in India reveal that even the best performers are way below the basic requirements of sanitation. Implementation of only a "mission-mode" campaign might not be sufficient, to alter the behavior of people to get the desired outcome on health and sanitation. Real behavior changes among people require constant motivation at the community's level, which in turn creates proper demand for sanitation and realization about the impact of unhealthy and insanitary practices on the communities. Now when UT has achieved ODF status, it is important to ensure that there is no slippage and that re-occurrence of OD. Hence, there is an imminent need to implement a campaign that focuses on creating demand and covers all WASH aspects (including hand washing and menstrual hygiene management) and make the communities realize the importance of hygiene and sanitation.

**Strategy**

- a. The ULBs and Village Panchayats shall prepare their IEC plans and use specific mediums for successful implementation. The ULBs and Village Panchayats shall design a targeted awareness strategy depending on the characteristics of their population.
- b. For a ULB or Village Panchayat to achieve and sustain safe sanitation, it is important that all ULBs and Village Panchayats shall join hands with other stakeholders to propagate the message of SBM. The ULBs and Village Panchayats shall rope in local NGOs and/or community organizations/ local print media and radio stations to launch a UT-wide sensitization campaign. Involve all outreach agents such as sanitary workers, sanitary inspectors, health officials including ASHA, medical officers and teachers to take the message of safe sanitation to all communities. Initiate targeted campaigns for students of colleges, schools and anganwadis.

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- c. The ULBs and Village Panchayats shall first target the students in their own schools, the ones managed by them. For ensuring behavior change in a sustainable way, the ULBs and Village Panchayats shall explore various options for regular inspections, monitoring and redressal, by sanitary inspectors, community representatives and / or through doctors.

**Goal 8: All water bodies within urban and rural local bodies shall be free of solid and liquid waste**

The domestic and industrial wastewater generated in urban & village areas and the industrial estates shall be treated and disposed of properly. The water bodies in urban areas and villages shall be free of any liquid waste. Proper treatment and disposal of the solid waste shall also be ensured to keep the water bodies clean. This goal will be achieved only when the ULBs and Village Panchayats treat their solid and liquid waste effectively and efficiently.

**Strategy**

- a. The ULBs and village panchayats shall prevent dumping of any waste in the banks of nallas, water bodies, natural drains and storm water drainages.
- b. The ULBs and village Panchayats shall apply polluters pay principle and levy fine on persons/agencies polluting the water bodies

**Goal 9: All Local Bodies shall designate land in the development plan/ local area plan for sanitation infrastructure facilities.**

**Strategy**

The ULBs and village panchayats must mandatorily specify & keep provision for reserve spaces in the development plan for development and sanitation related infrastructure and facilities including attrition of activities of infrastructure or additional. These reservations shall accommodate provisions like public toilets, sorting sheds for solid waste, and places for domestic hazardous waste.

## 5. Institutional Arrangements

Involvement of all stake holders and various organizations at both government and non-government and their coordinated efforts are paramount to achieve the various tenets of this waste management and sanitation policy of Daman & Diu.

There shall be a pool of empaneled agencies to local bodies to prepare local and village specific plans on SWM and help in implementation of the same. The technical support in areas such as planning, designing, implementation may be provided to ULBs and village Panchayats to achieve desired outcome on SWM. The village panchayats shall develop their capabilities and enhance their capacities to deal with issues related to SWM.

The Swachh Bharat Mission, along with its Technical Support Unit shall play an integral role in coordinating with different organizations, bringing out SOPs and best practices providing handholding support to ULBs and Village Panchayats and help in monitoring the performance.

The role of the respective local bodies shall be to deliver these services and work in close coordination with various agencies and government institutes besides. Engagement with local NGOs, CBOs especially women self-help groups, academic institutions to achieve the goals, objectives and missions of SWMs sanitation.

### 5.1 Activities of stakeholders within the government

Though sanitation is primarily the responsibility of the urban and rural local bodies of Daman & Diu, the success and achievement of goals is possible only by integrating and synchronizing the efforts of various other departments of the administration of Daman and Diu.

**Urban Development Department:** All the housing schemes approved and undertaken by the department shall include waste management infrastructure in their plan.

**Education department:** The School Management Committee (SMC) has the overall responsibility of approving and monitoring the construction of toilets in the schools. The regular monitoring of the maintenance of toilet infrastructure in school under the urban local bodies and Zilla Panchayats shall be done by the municipalities and Zilla Panchayats. The students shall be provided with knowledge on the importance of sanitation and its link with improved health and economic conditions. Students shall be exposed to sanitation initiatives at an earlier age through

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formation of Bal Swachhata sainiks in Schools. It will help in nurturing children as message multipliers of good sanitation practices.

**Women and Child Development Department and Social Welfare Department:** These departments shall prioritise women empowerment for sanitation and ensure equity and accessibility to the facilities. The Integrated Child Development Services (ICDS) Scheme operated by the WCD Department shall use anganwadis as a platform for inculcating good hygiene practices amongst children and mothers.

**Tourism Department:** Tourism department shall give highest priority to sanitation as a huge floating population visit both Daman & Diu and add to the solid waste and liquid waste load of the territory. At important places signages and instructions shall be kept on the expected behavior of visitors and importance of cleanliness including Dos and Don'ts. Temporary/ permanent toilets shall be installed during festivals at tourist places.

**Health and Family Welfare Department:** The department shall work closely with the Education department. Regular health camps and check-ups and provision of primary, secondary and tertiary health care services shall be provided to all families. Medical doctors shall provide orientation training and spread the messages on good hygiene practices, sanitation and government initiatives in SBM & SWM. The department shall monitor the hygiene and sanitary conditions in both urban and rural areas and take steps to improve the same.

**Town & Country Planning Department:** The department shall be responsible for drafting the guidelines, policies and standards for urban, rural and regional planning. Sanitation infrastructure and management shall be an integral part of all the planning process.

**Revenue Department:** The revenue department shall be responsible for allocating and accommodating the land for waste management in both urban and rural areas.

## **6. Financing Solid Waste management and Sanitation**

Urban sanitation improvements have been largely funded through GoI and UT plan schemes. Though higher levels of government continue to provide a significant portion of funds for the required capital investments, funding the operation and maintenance of sanitation infrastructure mostly falls under the purview of the Local Bodies. All funds from various central schemes and UT Plan schemes/ programs /missions and CSR contributions shall be properly used for creation, operation and maintenance of infrastructure including activities related to SWM.

The aggregation of investment anticipated under the Local Bodies Sanitation Plans shall indicate financing requirements for implementing total sanitation in the urban and rural areas of Daman & Diu.

Local bodies shall have to make significant efforts to improve their cost recoveries and tax collection efficiencies. This will not only aid sanitation improvements, but also improve the revenue base of the local bodies. Infusing funds from private sector through CSR into waste management service and also the Public Private Partnership mode may be explored.

## **7. Monitoring Solid Waste Management and Sanitation**

Regular monitoring of performance of local bodies in the realm of sanitation shall be integral and vital for achieving and sustaining the improvements. Along with mandated monitoring systems as per the SBM requirements, each local body shall institute a monitoring system integrated within their existing systems. Monitoring protocol with assigned responsibilities at each level has to be devised and implemented. Swachhata Survekshan/sanitation ratings /urban sanitation index/livability index shall be extended to cover all the Local Bodies in the territory and put in public domain. Participation of primary stakeholders i.e. users of services shall be ensured.

**Applications for citizens to lodge their sanitation-related complaints** shall also be developed and launched to reach all sections including telephone-based applications. ULBs and Village Panchayats shall explore the possibilities to develop and install a solid waste monitoring and management system using radio frequency identification (RFID) associated with mobile communication like GSM and geographical information system (GIS) for tracking vehicle position, to monitor the solid waste collection process and management the overall collection process. This will lead to timely collection of solid waste and also overcome the disadvantages

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such as usage of minimum route, low fuel cost, clean environment and available vehicle. The technologies shall be leveraged to ensure proper and perfect solid waste collection process monitoring and management for green environment.

### 8. WayForward

Poor waste management can affect not just the aesthetic beauty of the environment, but can severely impact the resource base, its ecological functions and thus, the health of the environment. With the rise in population, both residential and floating, and the consequent increase in waste generation, the problem will only get compounded in the years to come. This policy thus calls for effective waste management practices to be followed at all levels across Daman and Diu. There is a need to relook at the policy in near future and revise the same in tune with the changing times and situations. There are plenty of opportunities for ULBs, Village Panchayats and Corporates in Waste Management from centralized to decentralized, from investment to CSR, from empathy to engagement, from collection to treatment. Working alongside communities, local bodies and achieving compliance is the best road forward for the territory to achieve zero waste status.

## 9. Glossary of terms

**Agency/Agent/Contractor/Service Provider** means any entity/person appointed or authorized by the Municipal council to act on behalf of the Municipality, for discharge of duties or functions such as collection of waste, collection of charges/taxes/rates, segregation, treatment, disposal etc.

**Community** means a group of interacting people, living in some proximity (i.e., in space, time or relationship) It refers to a social unit larger than a household that shares common values and has social cohesion.

**Community toilets** mean a shared facility provided by and for a group of residents or an entire settlement. Community toilet blocks are used primarily in low-income and/or informal settlements/slums where space and/ or land are constraints in providing a household toilet.

These are for more or less fixed user group. Operation and maintenance of community toilet block rests with the ULB or its appointed contractor. (Source: *Guidelines for 'Open Defecation Free Gujarat, Swachh Bharat Mission*)

**Grey water/ Sullage:** Waste water generated in kitchen, bathroom and laundry. (Chapter 3, *Report of Sub Group of Ministers on Swachh Bharat Abhiyan, Niti Ayog, 2015*)

**Individual toilet** means a toilet which is available within the premises of a household. Operation and maintenance of individual toilet rests with the beneficiary. (Source: *Guidelines for 'Open Defecation Free, Swachh Bharat Mission (Urban),* )

**Industries** mean small and medium size generators of waste that are within the jurisdiction of the ULB and not part of any industrial estate.

**Insanitary latrine** means a latrine which requires human excreta to be cleaned or otherwise handled manually, either in-situ or an open drain or pit into which the excreta is discharged or flushed out before the excreta fully decomposes in such manner as may be prescribed. (Chapter I Section 2(i)(e) *The Prohibition of employment as manual scavengers & their Rehabilitation Act 2013*)

**Manual Scavenging** is a 'the dehumanizing practice of manually cleaning insanitary latrines or handling human faeces or manually cleaning sewer-lines/man-holes'. (Source: *Ministry of Law and Justice, 2013*)

**On-site sanitation:** It is underground waste collection system which is used in the absence of piped sewer system. When the wastes are collected, treated and disposed of at the point of generation, it is

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called an on-site system like pit latrines and septic tank systems. *(Source: Manual on Sewerage and Sewage Treatment Systems Part A Engineering, CPHEEO)*

**Open defecation** means the practice whereby people go out in fields, bushes, forest, open bodies of water or other open spaces rather than using the toilet.

**Open Defecation Free (ODF) territories** are where all dwellers have access to and use safe and hygienic sanitation facilities and arrangements so that no one defecates in the open.

**Public place** includes any road, arch road, viaduct, lane, footway, alley or passage, highway, causeway, bridge, square alley or passage whether a thorough fare or not over which the public have a rite of passage, and such places to which the public has access such parks, garden, recreation grounds, playgrounds, beaches, water bodies, water courses, public plazas and promenades, government and municipal buildings, public hospitals, markets, slaughter houses, courts, etc ;

**Public Toilet** means toilets meant for floating population/ general public in places such as markets/ transit nodes/ tourist places/ office complexes and other public areas with a high number of footfalls. Operation and maintenance of public toilets rests with the ULB or its appointed contractor.

**Sanitation** is not just about building toilets and consists of a series of steps, which are:

1. Capture
2. Storage
3. Transportation
4. Treatment
5. Reuse or disposal

Waste must be captured and stored so that it does not come in touch with people or contaminate the local environment. In densely populated urban areas, waste must be extracted, transported, treated and disposed-off safely.

**Septage:** In cases where underground sewage line is absent and toilets are connected to soak pits or septic tanks, the sewage generated is called as 'septage'. *(Chapter 3, Report of Sub Group of Ministers on Swachh Bharat Abhiyan, Niti Ayog, 2015)*

**Septage management:** The systematic management and disposal of faecal sludge produced in septic tanks. *(Source: National Urban Sanitation Policy, 2008)*

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**Septic tank:** It is an underground structure made up of bricks, cement or concrete. It has 3 or more chambers separated by baffle wall. In different chambers waste as settled and degraded anaerobically and the final effluent is discharged through outlet pipe of septic tank. *(Source: Handbook on Technical options for onsite sanitation, Ministry of Drinking water and sanitation, Govt. of India, May 2012.)*

**Sewage/ Blackwater:** Waste water generated in the toilets contains feces, urine and flush water. *(Chapter 3, Report of Sub Group of Ministers on Swachh Bharat Abhiyan, Niti Ayog, 2015)*

**Sewerage** means a system of sewers, the removal of waste materials by means of a sewer system. *(Chapter 3, Report of Sub Group of Ministers on Swachh Bharat Abhiyan, Niti Ayog, 2015)*

**Storm water drainage** is the process of draining the run off from streets, sidewalks, roofs, buildings, and other areas through either constructed or natural systems which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate, or divert storm water. *(Source: National Disaster Management Guidelines: Management of Urban Flooding, National Disaster Management Authority, Govt. of India, 2010)*

**Community Toilet** is the toilet constructed by ULB's or other agencies, used by the community, maintained by the community in such places which is in congested area, narrow streets. The purpose of this toilet is to provide toilet facilities to those citizens who have no sufficient space for constructing individual toilets in their own premises.

By order and in the name of the  
Administrator of Daman & Diu

Sd/-  
( Vaibhav Rikhari )  
Deputy Secretary Urban Development  
U.T. of Daman & Diu.

No.COL/DMN/EST/2018-19/ 8081  
Administration of U.T. of Daman & Diu,  
Office of the Collector,  
Collectorate, Daman – 396 220.

Phone No.(0260) – 2230698, Fax No. 2230689 email address collector-daman-dd@nic.in

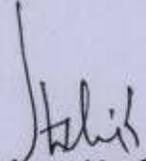
Dated: 20/09/2018.

**C I R C U L A R**

The UT Administration of Daman & Diu is keen to focus on cleanliness in the territory and to create an environment of cleanliness across the UT. As a part of the same, various activities and campaigns were organized in the UT of Daman & Diu.

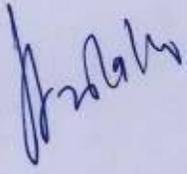
With a view to spread awareness about how to maintain cleanliness in the office as well as office campus, Standard Operating Procedure (SOP) is being forwarded for solid waste management. The scope of the SOP is for maintaining "Swachh Campus" and is for all departments of this Administration and members of the campus (living, visiting and working etc.). All employees, contractors, visitors, residents and others must comply with applicable procedures at all times, when present in the campus. The intent of the SOP is to enable create cleanest, hygienic and environment – friendly working and living conditions for everyone on the campus and adopt the principles of solid waste management that are 'Refuse, Reuse, Recycle, Recover and Regenerate (5Rs)' for managing the waste so as to convert it into "wealth".

All Head of offices are requested to adhere to instructions of the SOP and extend their cooperation in the campaign of cleanliness and let us all join our hands together and make our territory a clean and hygienic place to stay.

  
(Sandeep Kumar Singh)  
Collector / District Magistrate  
Daman.

To,  
All Head of Offices, Daman.

प्रदूषण नियंत्रण समिति  
POLLUTION CONTROL COMMITTEE  
दमण एवं दीव तथा दा.न.ह., वसण  
Daman & Diu and Dabra & Nagar Haveli  
आवक/जावक क्र  
Inward/Outward No. 1969  
पृष्ठ क्र 30 पृष्ठ क्र 57  
E. No. Page No.  
दिनांक 20/09/18  
Date

  
Sandeep

## UT Administration of Daman & Diu

### Standard Operating Procedure (SOP) for a Swachh Campus and Office Solid Waste Management (SWM)

With increasing incidence of waste generation in all Institutions across the country, an endemic problem of waste disposal / management and absence of an appropriate scientific system has called for a systematic approach to Solid Waste Management (SWM), the process of reducing, reusing/recycling the solid waste to convert it into a valuable resource. Solid Waste and Management is a major problem even in the rural areas wherein a proper process and approach is the need of the hour to convert the waste generated into useful forms, thus, moving towards 'Waste to Wealth'.

The outcomes from this action research have been converted into a 'Standard Operating Procedure (SOP)' which will be of use to all the Institutions, both government and private across the country. The SOP if effectively followed, can enable every Institution into "Swachh Campus" with multifarious benefits and can become a model for all to emulate. The SOP has been explained in the following pages.

#### • Scope

The scope of the SOP is for maintaining a "Swachh Campus" and is for all departments of government and members of the campus (living, visiting and working, etc.). All employees, contractors, visitors, residents and others must comply with applicable procedures at all times, when present in the campus. The intent of the SOP is to enable create cleanest, hygienic and environment-friendly working and living conditions for everyone on the campus and adopt the principles of SWM that are 'Refuse, Reuse, Recycle, Recover and Regenerate (5R s)' for managing the waste so as to convert it into 'wealth'.

#### • Responsibility

- (a) The Head of Institute/Office shall be responsible for Swachh Campus.
- (b) Personnel Involved in Waste Management in a Campus: A sanitation team along with a Team leader or the sanitation in-charge of the campus is the owner of this SOP and is responsible to maintain the campus in accordance with the SOP guidelines and take notice of any changes, if they are made in the guidelines. If there is no fulltime team leader, the head of the Institution shall nominate a responsible officer as in-charge Team Leader.
- (c) Managers and Supervisors: The head of the Institution or the designated authority is responsible for ensuring their staff's compliance and regular auditing with the procedure. To ensure compliance, proper training and education on the concept is to be conducted with the most recent version of the SOP and to review, audit and revise as required.

#### Summary of the Procedure

This operating procedure will involve step-by-step guidelines to be followed, starting with the survey of the waste generated to determine the plan to be adopted, sensitization of all stakeholders for active participation, segregate the waste as per the norms and treatment by ultimately following the principle of 'Refuse, Reuse, Recycle, Recover and Regenerate' to achieve the goal of Swachh Campus.

#### Survey of Waste Generation

1. **Assess the Sources:** For making any Institution 'Swachh Campus' there is a need to understand the sources of waste, its type and quantum. In order to assess the sources, a systematic observation-cum-survey is to be conducted. List of all possible sources of waste in an Institution, given in **Annexure-1** can become a basis for assessing.

2. **Type and Quantum of Waste:** The team leader and additional members of the team involved in making the campus 'Swachh Campus' should continuously perambulate / conduct transect walks in the campus for over a period of five days. While doing these transect walks the sources of waste generation in the campus, type and quantum of waste at each source shall be recorded along with the respective stakeholders group.
3. **Segregating and Measuring of Waste:** Depending on the sources of waste generation, different teams constituted for the purpose shall assess the type and quantity of the waste being generated from each source by actually segregating and measuring each type of the waste. The list of items under wet, dry, hazardous and e-waste given in **Annexure-2** can be used as a guide.
4. **Decision for Treatment/Disposal of Waste:** The assigned teams shall segregate and measure the waste from each source continuously for five days. Based on the type and quantity of the waste assessed during the five days, the respective team shall arrive at the total quantity of each type of waste being generated from all the sources in the campus. The quantity of each type of the waste generated from each source will decide the type of treatment / disposal of the waste. **Annexure - 3** provides model forms for survey of waste generation.
5. **Assess Existing System:** The teams shall also record the existing system of collection, segregation, transport and disposal of the waste.
6. **Dump yards in Campus:** The team in-charge shall also locate the dump yard presently being used for disposal of the waste.

## Planning

1. **Drawing Up a Plan for SWM:** The team leader in consultation with the members identifying the sources of waste, its type and quantity generated along with its present system of disposal, shall draw a 'plan' for scientific SWM.
  - (a) The Principles of "Swachh Campus" are to Refuse, Reuse, Recycle, Recover and Regenerate waste for wealth creation. The plan shall have steps touching upon all the principles with ways and means of achieving the ultimate goal.
  - (b) The Plan Design: It shall clearly explain the sources, types, quantum of waste, roles and responsibilities, Do's and Don'ts, awareness generation strategy for the entire institution.
  - (c) Discussion of Draft Plan with Stakeholders: An illustrative list of tasks for sanitation workers, sanitation officer, campus residents, hostel in-charge and bio-medical staff in-charge is given in **Annexure - 4** with strategies to achieve the 5R's (Refuse - Reuse - Recycle - Recover - Regenerate) on the part of each stakeholder group. The draft plan shall be discussed with all the stakeholders either in groups or as one congregation and the firm ed up plan shall be adopted. Such adoption by all stakeholders shall ensure their owning up of the plan.

2. **Training and Redefining the Roles and Responsibilities:** Depending on the quantum of waste, an appropriate sanitation team shall be constituted either by training and redefining the roles and responsibilities of the existing team where additional manpower may be hired if required or outsourcing the activities to an external agency.
3. **Allocation of Area for Sanitation Workers:** Sanitation team shall be assigned their duties appropriately with definite area, jurisdiction and hierarchical supervision, with prominent exhibition of names and phone numbers of the supervisory team at appropriate places for ready reference for anyone to inform / complain about any aspect of the SWM process.
4. **Facilities and Logistics to Aid Implementation:** The plan shall also indicate the equipment facilities and logistics support to aid the plan implementation. Indicative list of equipment is given in **Annexure -5**.
5. **Detailed Cost Estimate:** Based on the campaign strategy a detailed cost estimate is to be prepared for launching the campaign. Thus, prepared estimate is to be managed through the existing budget.

## Awareness Generation and Stakeholder Involvement

- 1. Stakeholder Identification:** Enabling the 'Swachh Campus' would require effective participation of all the stakeholders. The possible stakeholders are all residents, households, all officials working, all visitors, all students, all maintenance staff and other personnel working for various services in the campus.
- 2. Explaining Roles and Responsibilities of all the Stakeholders:** Head of the Institution shall arrange a meeting of all the stakeholders and explain the performance and the outcomes expected out of the campaign for making the institution a 'Swachh Campus'. While explaining the plan of action, the roles and responsibilities of each stakeholder shall also be narrated. In addition, roles and responsibilities in the form of leaflets will also be distributed in this first meeting.
- 3. IEC Strategy and Awareness:** Depending on the type of stakeholders, appropriate IEC strategy and awareness creation as adopted in the SWM plan shall be implemented. The broad steps will be as follows:
  - (a)** Preparation of IEC material and display, and continuous awareness generation activities for each stakeholder group.
  - (b)** Launching awareness generation activities including road shows, skits, posters, pamphlets, group meetings, and assembly announcements, etc.
  - (c)** Display adequate sign boards at appropriate places across the Institution to prompt action and there by lead to continuous involvement of all the stakeholders for the plan to be successful.**Annexure – 6** provides an illustrative IEC strategy for awareness generation in the community.



Figure 1: School children taking part in IEC activities

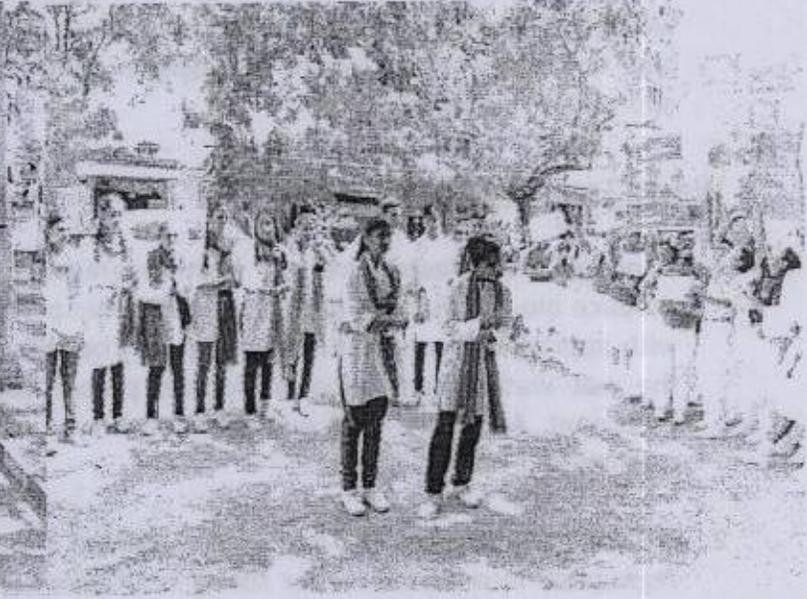
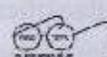


Figure 2: School children spreading the message of SWM through street play

- 4. Regular Discussion on SWM:** It is effective to talk about 'Swachh Campus' at every opportune moment to enable the stakeholders and to generate a sense of pride in the community, for following the principles of SWM and maintaining the cleanliness of the campus
- 5. The activities are to be continued at regular intervals to drive the focus and to keep up the momentum**

## Waste Segregation and Collection

- 1. Say NO to Plastics:** The first and foremost critical element of success of waste management will begin with the stakeholders to desist usage of non-degradable materials such as plastic covers, plastic bottles and replace them with degradable materials such as cloth bags, jute baskets, reusable bags, reusable glass bottles, etc. The success depends on enabling alternative materials/system to replace plastic. An illustrative process for replacing plastic water bottles and plastic bags is given in **Annexure - 7**.
- 2. Segregation is the Way Forward:** Next important element of waste management in any Institution is segregation of the waste at source i.e. primary segregation which will be done at the household level / kitchen of the hostels / the dining halls of the hostels / canteens by putting the waste in the appropriate bins i.e. wet waste in the green bin, recyclable waste in the blue bin and hazardous waste in the red bin. The grouping of the waste into green, blue and red is given in **Annexure - 2**. Appropriate segregation of the type of waste and collection of the same in separate bins for processing will be crucial. **Annexure - 8** provides suggestive guidelines for managing kitchen waste.
- 3.** The teams collecting the waste from each source of waste generation shall also ensure that segregation is happening and any violations should be brought to the notice of the stakeholders. The teams collecting the waste shall segregate and collect waste in these three categories and shall be aggregated into similar bigger bins and carry to the waste segregation shed using cycle cart or electrically driven vehicle or other appropriate transport system.



## Attention

YOU ARE ENTERING  
**No Plastic Zone**



PLEASE DO NOT BRING PLASTIC BAGS  
INTO THIS CAMPUS

## Waste Treatment and Disposal

- 1. Handling Wet Waste:** The wet waste aggregated from various sources shall be sent for processing to produce bio-gas through aerobic or anaerobic processes as designated in the plan or sent for composting with appropriate composting techniques. The success of the campaign is decided by effective handling of the wet waste segregation at source, proper collection/aggregation without mixing and its effective treatment. **Annexure - 10** guides on each type of wet waste treatment and the campus can adopt the method that suits its needs.
- 2. Handling Dry Waste:** The dry waste collected from each source is taken to processing yard and further segregated into next level for sifting recyclable waste (metals, bottles, plastic, etc.). The segregated dry waste will be sent to recycling units or sold to agencies handling such materials. Post resource recovery level segregation, the residual reject from the dry waste will be sent for incineration in an eco-friendly incinerator. This process, depending on quantum of waste, can be leveraged for generation of electrical energy by use of some simple technologies.
- 3. Handling Hazardous Materials:** After recovering the items that can be recycled / or sold to the recyclers, the residual reject which would mainly consist of hazardous material is to be sent for incineration or to designated scientifically prepared sanitary landfills. The method of preparation of landfills is given in **Annexure - 11**.



4. **Treatment of Biomedical Waste:** Storage of segregated biomedical waste in coloured bags / appropriate containers in the premises to be ensured in a safe, ventilated and secured location before sending to common Biomedical Waste Treatment and Disposal Facility operated by specialists.
5. **Handling Construction Debris:** The construction and demolition waste / debris, should be stored in a designated location within the premises by the concerned contractor, till the waste is handed over to authorized processing facilities of construction and demolition waste/debris. Construction and renovation waste / debris if generated more than 20 tonnes in one-day or 300 tonnes per project in a month, the concerned contractor/department shall prepare a plan for waste segregation and management, and get it approved by the head of the Institution along with building plan and follow the same. Some of the components of the construction debris can also be recycled as aggregates for further construction.

### Monitoring and Correctives

1. **Weekly Review:** The in-charge sanitation officer along with his/her team must carry out a weekly review to ensure compliance to the SWM plan of the Institution
2. **Physical Verification:** Weekly visits to the office spaces, households, segregation sheds and all other parts of the Institution to be carried out for physical verification for any lapses in adherence and for taking up rectification steps
3. **Display Contact Numbers of Sanitation Team:** The mobile number of the sanitation in-charge officer is to be clearly mentioned in all key visible areas of the campus and suggestion boxes to be placed at accessible locations for regular feedback from all stakeholders
4. **Monthly Meeting:** A monthly meeting to be held with participation of all stakeholders till the SWM plan gets streamlined
5. **Plastic should be Refused:** As per the 'Refuse' principle of the Waste Management, all plastic poly bags, bottles should be barred from entering/using on campus. The security personnel at the entrance should be trained to perform regular checks on every individual / vehicle entering the institution for any plastic bags/bottles and detain these plastic bags/ bottles for appropriate disposal
6. **Penalisation for Non-Compliance:** Non-compliance in any form from any of the stakeholder should attract penalisation in any format but not limited to fines, public shaming and warnings
7. **Maintain least possible Residual Reject:** Measures have to be taken to reduce and maintain this residual reject to be less than 10% of the total waste by adopting appropriate methods of processing the waste

### Reporting Mechanism

- Records have to be maintained for each type and quantum of waste collected, transported, treated and disposed
- Daily entry has to be made by each team of sanitation workers in the record placed at a common location
- Data on e-Waste and Biomedical Waste: Special care has to be given while recording the data pertaining to e-waste and biomedical waste which has to be reviewed every alternate day
- Analyze the Residual Reject: The amount of residual reject that is sent to landfill post tertiary segregation to be analyzed every month



## ANNEXURES

### Annexure - 1

#### Sources of Waste

- Office Buildings / Blocks
- Library / Auditorium
- Training / Conference Halls / Students Classrooms
- Hostels / Guest Houses
- Dining Halls / Kitchen / Canteen
- Grocery Room and other Store Rooms
- Health Centre
- Playground / Common Areas
- Household Waste
- School (if any, within the campus)
- Other buildings

### Annexure – 2

#### Types of Waste and Colour of Bins for each category

(a) Wet Waste (Green Colour Bin)	(b) Dry Waste (Blue Colour Bin)	(c) Hazardous Waste (Red Colour Bin)
Vegetable peels	Soap covers / pockets / sachets	Mosquito repellent refill bottles/ Mosquito repellent mats
Fruit peels	Empty shampoo bottles	Expired medicines
Rotten fruits and vegetables	Empty perfume bottles / containers of deodorants / shaving creams	Tablet covers / Syrups bottles
Leftover food	Milk covers	Any medical discard
Used tea / tea bags	Used door mats/doormats	Sanitary napkins
Used coffee ground	Used tooth brush	Children's diapers
Egg shells	Chocolate wrappers	Used condoms
Coconut shells (including tender coconut shell)	Butter wrappers	Used razor / razor blades
Mango kernel and any seed	Used mop cloth	Old batteries
Coconut fibre	Ghee / oil pockets / cans	Fused bulbs / tubes / electrical items
Used flowers / dry flowers	Package / polythene covers / plastic covers	Broken glasses / ceramics
Spoiled spices	Newspapers / cardboards	Empty cans of toilet cleaners
Floor sweeping dust	Cosmetics containers	Expired cosmetics
Meat and Non-veg remains	Styrofoam	Cockroach killers / spray cans
Expired bread, biscuits and other food items	Broken stationery like used pens, pencil sharpener	Old printer cartridge / CDs
Hair	Empty cans of floor cleaners	Rusted iron pieces
Garden shrubs	Chips packets	Used odonil bottles
	Unusable shoes Sachets (of shampoo, creams, etc.)	Old electronic items / parts Pieces of wires, old chargers, old pen drives
	Packaged water bottles	Old paints / old household chemicals / cleaners
	Used tooth paste tubes, etc.	Insecticide sprays / leftovers
	Broken household plastic items / and toys	Toxic rejects
	Metal tins and cans (Ex. Pepsi Coke cans) – Aerosol cans	Cotton/ tissue papers used for medical purpose
	Small tubs like the ones used for yogurt, cheese, jam	
	Pieces of aluminum foils	
	Old brooms Iron pieces	
	Paper napkins, Tetra packs	
	Destroyed old cushions	
	Leather, rexene, rubber	

(d) e-Waste (Red Colour Bin)		
Pen drives	PCs	Modems
Cables / Wires	Laptops	GPS units
Phones	Printers	Hubs
Cordless phones	TVs (cathode ray tubes [CRTs] in televisions)	Thermostat flasks
Cell phones	Air coolers	Calculators
Charges	Air-conditioners	Dry cell batteries
Digital cameras	Fridges	Electronic scrap parts
Digital plotters	Freezers	Dehumidifiers
External drives	Fax machines	Fluorescent lamps and tubes
Mouse / Key board such items	Copiers	Incandescent light bulbs
Routers	Digital Thermostats	Smoke detectors
Speakers	CFL tube lights / bulbs	Thermometers
CD/DVDs		

### Annexure – 3

#### Assessment Forms for Waste Survey

#### Recording Type and Quantum of Waste Generated from each source

#### Wet Waste – Kitchen Waste / Dry Waste / Hazardous Waste / E- Waste

Date (WET)	Type of Waste In kgs	Quantity (daily / Weekly) In kgs	Quantity (Monthly) In kgs	Quantity In kgs

### Annexure – 4

#### a) Task Description for Sanitation Inspector

- Supply uniform, green caps and other protective gear to the workers
- Proper training to be given to sanitation workers on collection and segregation methods, usage of incinerator, segregation shed, chopper / crusher tools, bio-methane plant, etc.
- Make periodical plans for assigning workers for various tasks in waste management
- Make sure that the waste transported by trucks / trailers from one place to another is covered properly and transported.
- Arrange with Municipality to send away landfill waste to take to their landfill and sale of recyclable waste.
- Oversee the type and form of waste fed into the bio-methane plant/ incinerator, that the garbage is of acceptable type and in acceptable form.
- Make sure there is no dumping taking place anywhere in the campus by any sanitation worker or any member of the institution.
- Attend to the complaints brought about by the sanitation workers promptly
- Ensure the workers get their wages on time and recommend for incentives from the sale of recyclable items.
- Ensure good health of the workers through periodical health check-ups and ensure their adherence of wearing protective gear while at work.

#### b) Task Description for Team of Sanitation Workers

- The sanitation workers shall collect waste primarily segregated at the household level and handle contents of each bin based on its colour.
- Starting with RED bin, after reaching the Segregation Shed, the sanitation workers feed into the incinerator (combustion chamber) all the diapers, sanitary napkins and such items handed by households wrapped in old newspapers.
- Moving onto the Wet waste in GREEN bin, they will do secondary segregation of the wet waste. During secondary segregation, their main job is to ensure that wet waste does not mix up with other type of waste.
- Post secondary segregation, the wet waste sent will be to the bio-methane plant. Before the wet waste goes into the bio-methane plant, the workers shall do the necessary chopping, crushing (using the tools installed at the segregation shed) so as to make it fit for feeding into the bio-methane plant. This is the

technical arrangement for treating wet waste. While feeding shredded wet waste into the bio-gas plant, plenty of water must also go along with it. Water used for washing the rice or vegetables can be fed into the bio-gas plant. Wastewater from kitchen can be used, provided that no chemicals are used in washing vessels, and never the wastewater from bathroom.

- The workers then do segregation (tertiary segregation) of dry waste. The main task here is sorting various materials like plastics, bottles, papers, cardboards, cosmetic containers and tins separately. Post segregation, these items can be sold to the recyclers and rest to be handed over to municipality for their landfill. This will include other hazardous waste, if any found in this. This covers the BLUE bin.
- For the items picked from the dry waste, a Dry Waste Recovery Centre to store recyclables can be set up in segregation shed. Incinerator should also be part of the Segregation Shed.
- Periodically, it will also be the responsibility of sanitation workers to remove slurry from biogas plant and take it to slurry drying bed. When water is drained and it is partly moist, it can be used either as manure, or be added to any type of composting including vermi.
- Sanitation workers shall inform sanitation inspector regarding houses which do not cooperate.

#### c) Task Description for Residents / Households

The following are responsibilities of households / residents

- Each household shall segregate waste into **wet waste (kitchen waste - GREEN)** and **dry waste (BLUE)** and **Hazardous Waste (RED)** and put in the bin specifically provided for each purpose. This is called primary segregation, which will be the responsibility of the residents. The foundation for success or otherwise of this effort in SWM, absolutely lies at this stage.
- **Wet Waste (GREEN):** Kitchen-refuse such as vegetable peels, fruits, flowers, egg shells, tea leaves, including leftover food, old bread, fish bones, leaves, garden shrubs and others easily degradable items.
- **Dry Waste (BLUE):** plastics, papers, cardboards, shampoo bottles, empty cans/tins/toothpaste tube/ worn out toothbrush/ milk covers, oil covers, glass bottles, pet bottles, broken toys, caps of mineral water bottles, iron pieces, etc.
- **Hazardous Waste (RED):** Under this category items frequently discarded are:
  - (i) used batteries,
  - (ii) children's diapers,
  - (iii) Used-napkins (and such items).
  - (iv) Other items under this category could include household chemicals / cleaners / fused bulbs / tubes, broken mirror and broken ceramic items, residual paint/ indoor and farm pesticides, grease, spray cans, shoe polish, expired medicines and other pharmaceutical items / syringes, needles, sharps, blades and rusted tins, etc.

#### d) Task Description for Hostel In-charge

- To ensure no plastic water bottles are provided and water dispensers filled with purified water is made available at all designated locations in the hostel.
- Ensure that only reusable plates and cups are used in the campus.
- Along with the existing incinerator at the segregation shed, another incinerator can be installed at the girls' hostel. This will be used for incinerating sanitary napkins, children's diapers and paper napkins and oily / butter papers, etc.
- To ensure proper segregation of waste from all sources of waste in hostel (rooms, dining area, kitchen, etc.)
- Recyclable items recovered during segregation shall be kept in the store room available at the segregation shed. If an existing way of disposing them in an acceptable manner is available that is to be continued.

#### e) Task Description for the Staff in-charge of Biomedical Waste

- Make provision within the premises for a safe, ventilated and secured location for handling bio-medical waste and any biomedical waste in the Institution(from health centre, etc.) should be directly transported to this common bio-medical waste treatment facility for appropriate treatment / disposal.
- Ensure that there shall be no secondary handling of bio-medical waste, pilferage or inadvertent scattering or spillage by animals.
- The staff in-charge of waste collection and storage must be aware of the type of bag or container to be used for the storage of various types of medical waste.
- Operate the Incinerator at the Health Centre for disposal of regular medical waste such as used cotton, bandage rolls, etc.

- Use the sterilization or hydroclaving facility for sterilization of some of the waste before they are shredded and sent to landfills.
- Never mix bio-medical waste along with municipal solid waste or other solid waste protection against diseases including Hepatitis B and Tetanus.
- Immunize all healthcare workers and others, involved in handling of bio-medical waste for separate from left over chemicals and tablet strips.
- Waste of different types / nature be kept separately for instance sharp surgical blades.
- Unauthorized reuse of any bio-medical waste should be prevented and necessary systems and actions have to be placed by the in-charge staff.

## Annexure – 5

### Equipment and Logistical Support for SWM

- Waste collection carts or vehicles (Number is as required)
- Uniforms and safety gears for the sanitation workers
- Waste Segregation shed
- Facility for treatment of wet waste and other equipment such as rakes, shovel, hand fork, garden fork, trowel, buckets, wheel barrow, watering can, etc.
- Facility for treatment of dry waste (and the residual reject)
- Facility for treatment of hazardous waste (such as an incinerator)
- Storage place for recyclables until they are passed on to recyclers
- Facility for hand-washing / body washing for the sanitation workers
- Paper bins to be placed under each table in the campus
- Waste bins for households (if any) with three different colour bins – Green, Blue and Red
- Kerb-side (road-side / pavement-side) Drop-off Boxes
- Door-to-door collection bin and collection vehicle of the sanitation workers
- At every 100 metres one 'set of bins' to be placed (set of bins indicate Red, Blue and Green bins)
- Display signs/signage to be placed near every set of bins for easy segregation

## Annexure – 6

### IEC Strategy for Community Preparation for SWM

(Information, Education and Communication (IEC) Campaign)

All the stakeholders of the Institution are key for the success in solid waste management in the campus. First, it requires inscribing in their minds that the administration is serious about it. Secondly, it should be personally convincing for them to play their part and cooperate and thirdly what they witness should gradually strengthen their trust in the process.

- All stakeholders should be habituated to properly segregate waste into three different categories (Wet / Dry / Hazardous) before handing them over to waste collectors.

Information	Education	Communication
(Know what, why and how) Knowledge Awareness Ability	(Self-regulation, Self-correction, Practice, Responsible well-being and civility)	The methods, tools and techniques (media) should be used to pass on information and impact on practice so as to make one behave like an educated person. One can be illiterate but still be 'educated'

### **Suggestive IEC Activities**

1. **Waste Bins Distribution with Handbills:** The Sanitary Inspector shall arrange supplying of three different colour bins to all the residents (if not done already). This must be used as an opportunity to supply a handbill explaining the purpose of three different colour bins and seek residents' cooperation and motivate them (Provide a handbill to all even if the bins are placed before the launch of the campaign).
2. **Cultural Evening:** Cultural evenings with messages on waste management, energy and water conservation to be organized in the campus. At the end of the programme, the head of the Institution shall sum up by asking for the cooperation of residents for conservation of energy and water and for proper management of waste.
3. **SMS Alert:** An SMS alert may be arranged for alerting residents every morning with a message on 'waste segregation'. This should go on at least for 15 days at the launch of the programme or till the members are accustomed to the process and slowly the frequency of SMS can be reduced.
4. **Educating the Users:** The sanitation workers shall educate the residents where they mix up waste (without segregating).
5. **Educative Inspection:** The Sanitation Inspector should regularly inspect/ monitor the work of the sanitation workers and make direct observation on the response of the residents. He can also use that opportunity to educate the residents who are unable to or are unwilling to spend time on segregating.
6. **Announcing Prizes and Gifts:** The residents in the campus who comply 100 per cent with the solid waste management norms and those who constantly reduce the generation of waste must be identified and recognized which may be done for sanitation workers as well to encourage compliance.
7. **Competitions to Encourage Cleanliness:** All members in the campus may be encouraged to participate in competitions like rangoli, gardening and beautification of lanes. This will encourage residents to grow kitchen gardens and facilitate in educating growing gardens using waste water. This will contribute to clean and green campus.

**Annexure – 7**

### **Process for Replacing Plastic Bottles and Bags**

1. Assess the current usage of plastic bottles and bags through a survey form, observation from the collected waste and general usage across the Institution
2. Initiate by giving a week time for everyone in the Institution to eliminate all their current non-recyclable plastic bottles and bags and not to carry any plastic bottles or bags into the campus
  - Arrange collection points at all convenient places to collect discarded bottles and bags
3. Arrange cloth and paper bag counters across the Institution for everyone to purchase if required (The handmade paper unit in NIRD&PR can be contacted for a counter to be setup)
4. The Principles of 'Refuse' and 'Reuse' to be promoted for eliminating usage of plastic in the Institution
5. All the bags to be scouted at the entrances of the Institution for any possible plastic bags or bottles being brought in which have to be replaced with paper or cloth or jute bags
  - The members of the Institution should carry paper/jute/cloth bags while going out for purchase of anything.
  - Refuse any plastic bags being provided and use your bags to carry everything.
  - A handmade paper unit maybe setup in the campus which can also function as a stall selling paper bags. The below links provide a detailed project report on setting up a manufacturing and conversion unit of handmade paper and the contact details for handmade paper unit in RTP, NIRD&PR. [http://nird.org.in/nird\\_docs/rtpprojectreport060917.pdf](http://nird.org.in/nird_docs/rtpprojectreport060917.pdf) & <http://www.gandhihandmadepaper.com/>

6. Replace plastic bottles and 'use and throw cups' with glass/ceramic bottles and tumblers across in all areas of the utility in the Institution
  - Promote the idea of 'Reuse' through these bottles and tumblers and 'Refuse' to use any non-biodegradable materials
7. Place these glass/ceramic bottles and tumblers specifically in the conference rooms and meeting points and promote their usage at every opportune moment
8. Conduct regular drives across the Institution to make every member entering it aware of the 'No-Plastic' Policy of the Institution
9. Before any new member enters the Institution, all the brochures and entry kit being given to them should consist of these "Dos and Don'ts" to be followed as part of the "No-Plastic Policy"
10. To improve the compliance towards this policy, a nominal penalty of \$50 may be imposed for every non-compliance incident.

**Annexure - 8**

### **Kitchen Waste Management (and Kitchen Sanitation)**

All areas consisting of kitchen and dining halls, produce waste and store it temporarily before disposal. Waste must not be allowed to accumulate in working areas or the surrounding environment but to be treated in the following way:

- Food waste (i.e. food scraps) is to be kept in sealed containers.
- Ensure waste containers are emptied regularly.
- Provide an adequate number of bulk waste storage containers with sufficient capacity.
- Ensure waste containers are solidly constructed and can be easily cleaned when emptied. Clean (and where necessary sanitise) waste containers regularly
- Ensure gratings are in place to prevent solid matter entering and blocking drainage
- Ensuring local authority trade waste bye-laws are complied with, if any
- Staff to be trained in good hygienic practices when handling waste
- Regular visual inspection should be done to ensure adherence of all above rules
- Observation (e.g. staff dispose of waste appropriately and follow good practices – i.e. washing hands after handling waste, staff responsible for removing waste from food areas and cleaning containers carry out their duties appropriately). This includes observations with regard to pest control as well.

**Annexure - 10**

### **Wet Waste Treatment**

Waste especially from kitchen, such as vegetable refuses, food scraps, etc., are called wet waste. They are to be sent for composting using one of the methods such as aerobic or anaerobic methods.

- **Aerobic Method:** Windrow composting, vermi-composting, NADEP composting are some of the popular methods. A list of useful guides that can explain each of these methods is provided in the web links below:
  - [http://nrega.nic.in/Circular\\_Archive/archive/MGNREGA\\_manualjuly.pdf](http://nrega.nic.in/Circular_Archive/archive/MGNREGA_manualjuly.pdf)
  - [http://www.indiaenvironmentportal.org.in/files/file/Solid\\_Liquid\\_Waste\\_Management.pdf](http://www.indiaenvironmentportal.org.in/files/file/Solid_Liquid_Waste_Management.pdf)
  - <http://vikaspedia.in/agriculture/farm-based-enterprises/vermicomposting>
  - <http://ecoursesonline.iasri.res.in/mod/page/view.php?id=149590>
  - <http://www.fao.org/docrep/007/y5104e/y5104e07.htm>
  - <http://www.fao.org/docrep/007/y5104e/y5104e08.htm>
  - [http://unoss1.undp.org/GSSDAcademy/SIE/Docs/Vol4/Nadep\\_method.pdf](http://unoss1.undp.org/GSSDAcademy/SIE/Docs/Vol4/Nadep_method.pdf)
- **Anaerobic Method:** Methane gas generation from kitchen refuse is one widely known method of anaerobic composting methods. Converting food waste into methane gas (especially from the hostels and dining halls waste) is possible. In addition, the kitchen refuse staff quarters and hostel dining halls can also be fed into an

anaerobic composting plant, from which can produce methane for use as cooking gas. Action to set up this plant to be initiated by Sanitation Team. The web links given below provide detailing on the process of setting up a Bio-Gas Plant and organization which can support in the process:

- <http://www.build-a-biogas-plant.com/>
- [http://mnre.gov.in/schemes/off grid/biogas-2/](http://mnre.gov.in/schemes/off%20grid/biogas-2/)
- <http://barc.gov.in/publications/nl/2002/200201-02.pdf>
- <http://www.biotech-india.org/>

## Annexure - 11

### Preparation of Sanitary Landfill

Landfill needs to be scientifically made without affecting the groundwater and the environment. There are certain types of non-bio-degradable wastes that cannot be recycled. They are to be sent to sanitary landfills. The main consideration while planning for a sanitary landfill is prevention of negative impacts on human health and environment. A low-lying site away from human settlement to be selected, a gravel bed is made so as to prevent leaching, if any and not to contaminate the soil nearby or water. After every filling or in periodical intervals a sand cap or clay cap should be put on that, which prevents gases such as methane / carbon dioxide from causing air pollution.

**Note: Dump sites and Sanitary Landfills are not to be assumed as same**

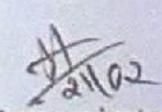
No. 1/1-1/2016-DMC/18-19/1070

Dated :-21<sup>st</sup> February, 2019.

OFFICE NOTE

The extract of the resolution No. 1 of the Standing Committee Meeting dated 06.12.2018 is circulated herewith with a directive to initiate necessary steps thereon and submit the action taken report through Chief Officer within 7 days of receipt hereon.

1. The Chief Officer informed the committee that as per the decision of the Govt. of India, the Municipal Council has to levy additional user charges as part of house tax for sanitation from all the householders situated within the municipal areas w.e.f. October, 2018 to March, 2019. The Chief Officer further informed that from the financial year 2019-2020, the user charges will be levied as a part of house tax / property tax. The committee agreed with the proposal and directed the Chief Officer to do the needful in the matter.

  
i/c. Superintendent

To,  
The Taxation Section,  
Daman Municipal Council,  
Daman.

INDIA NON JUDICIAL  
Government of Gujarat

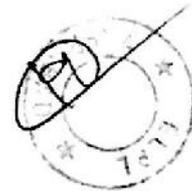
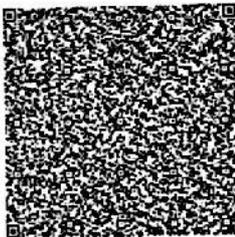


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Rs.  
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**Certificate of Stamp Duty**

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Certificate Issued Date : 07-Mar-2018 11:48 AM  
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Unique Doc. Reference : SUBIN-GJGJELIMP1079933136570811Q  
Purchased by : ULTRATECH CEMENT LIMITED  
Description of Document : Article 4 Affidavit  
Description : FOR PURPOSE AFFIDAVIT  
Consideration Price (Rs.) : 0  
(Zero)  
First Party : ULTRATECH CEMENT LIMITED  
Second Party : NA  
Stamp Duty Paid By : ULTRATECH CEMENT LIMITED  
Stamp Duty Amount(Rs.) : 100  
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**Statutory Alert:**

1. The authenticity of this Stamp Certificate should be verified at "www.shoestamp.com". Any discrepancy in the details on this Certificate and as mentioned on the website renders it invalid.  
2. This certificate is made available to all the users of the website.  
3. The Government of Gujarat is not responsible for the consequences of any misuse of this certificate.

# MEMORANDUM OF UNDERSTANDING

This MEMORANDUM OF UNDERSTANDING (MOU) is made on 9th March' 2018.

**Between**

**UltraTech Cement Limited**, Unit: Narmada Cement Jafarabad Works (NCJW), at Village- Babrkot, Tal- Jafarabad, Distt- Amreli and Unit: Gujarat Cement Works (GCW), at Village-Kovaya , Tal- Rajula, Distt- Amreli, State: Gujarat hereby called as 'Buyer'.

**AND**

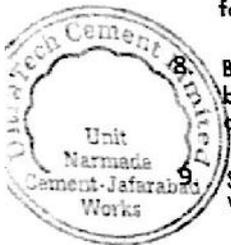
**Diu Nagarpalika (Municipal Council), Diu as "Seller"**

It is hereby agreed between the two parties is as below: -

1. Buyer approached the Seller for lifting & transportation of Municipal Solid Waste i.e. MSW (Non Hazardous Waste) from the Seller dump yard at Diu on continue basis or as per generation and quantity available from dump yard for the usage as Alternate Fuel in Kilns of Buyer plant located at Babrkot/Kovaya.
2. Seller has informed that "At present there is no fund provision at Diu Nagar Palika for segregation & transport of MSW from dump yard to NCJW/GCW Cement Plant"
3. Seller shall give permission to Buyer to load and transport the Municipal Waste (Non Hazardous Waste) from the Seller's dump yard at Diu at "Free of Cost".
4. The Seller will provide the required space to Buyer at Seller's municipal waste stock yard for primary segregation & intermediate storage of segregated waste.
5. The Seller will allow Buyer's machinery & waste handling equipment for placing at Seller municipal waste stock yard and provide the electricity connection for machinery on their cost, if required.
6. Seller informed to Buyer that all necessary arrangements for segregation, collecting, loading & transport of material from Seller stock yard to Buyer plant location will be in Buyer scope.
7. Seller informed to Buyer that all necessary arrangements for segregation, collecting, loading & transport of material from Seller stock yard to Buyer plant location will be on Buyer scope. The Seller will provide the required space to Buyer at Seller stock yard for primary segregation & intermediate storage of segregated waste.

Buyer informed to Seller that they will segregate & lift only usable material which can be burn in their Cement Kiln. Other material which is not usable for co-processing in cement kiln shall not be lifted by Buyer from Seller Stock yard.

Seller shall allow Buyer to lift, load & transport the Municipal Waste (Non Hazardous Waste) material during the Day time.

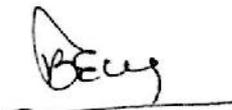


*[Handwritten signatures]*

10. Seller will issue a loading slip to Buyer as a proof of loading of material from their stock yard.
11. Buyer will take responsible for proper handling, loading and covering of vehicles as per norms and transport the material to Buyer plant located at Babrkot/Kovaya.
12. Buyer shall be responsible for storage and use of the material as an Alternate Fuel in their Kilns at their cement plant.
13. Records of quantity receipt and quantity consumption shall maintain by Buyer and copy of the same will be submitted to Seller on monthly basis.
14. This MOU will be come in force subject to acceptance of both parties for the above terms and duly signed. MOU shall be withdrawn by both parties with a one-month notice from either end.
15. MOU validity is from 01/03/2018 to 31/03/2019.

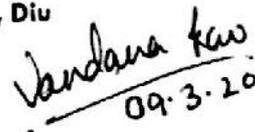
The parties hereto have signed this MOU by their respective representatives on the day month and year herein above written in good faith and shall make all efforts to successfully execute the same.

**For UltraTech Cement Limited**  
(Unit: Narmada Cement Jafarabad Works)

- 1) Sh. Vijay Ekre  
(Unit Head) 
- 2) Sh. Dilip Mishra  
(HOD-Admin) 
- 3) Sh. Mukesh Doshi  
(HOD-Materials) 
- 4) Sh. P V Ramana  
(HOD-Quality Control) 



**For Diu Nagar Palika, Diu**

- 1) Vandana Rao  
Chief Officer, DMC.   
09.3.2018
- 2) Hitesh G. Solanki  
President, DMC   
04.3.2018
- 3)
- 4)



----- 0 -----

No.COL/DMN/EST/2017/ 8429  
Administration of U.T. of Daman & Diu,  
Office of the Collector,  
Collectorate, Daman – 396 220.

Phone No.(0260) – 2230698, Fax No. 2230689 email address [collector-daman-dd@nic.in](mailto:collector-daman-dd@nic.in)

Dated: 17/09/2017.

## ORDER

**WHEREAS**, the UT Administration of Daman & Diu has imposed a blanket ban over the use, sale and storage of all kinds of plastic bags in the U.T. of Daman & Diu under Section 5 of the Environment (Protection) Act, 1986 vide Notification No.PCC/DMN/Plastic Bags/12-13/473 dated 24/01/2014.

**AND WHEREAS**, the ban was imposed after considering the adverse effects of the plastic carry bags on the environment and local ecology where the plastic carry bags are littered irresponsibly and having detrimental effect on the environment.

**AND WHEREAS**, the usage of plastic carry bags causes blockage of gutter, sewage system and drain thereby resulting in serious environmental and health related problems to both human and livestock.

**AND WHEREAS**, the above mentioned Notification was issued after considering the objections and suggestions received from the public in general.

**AND WHEREAS**, it is still observed that plastic carry bags are being used rampantly by the hotels, resorts, restaurants, hospitals, shops, fruits & vegetable outlets, retail outlets etc. in both urban and rural areas. The plastic carry bags are haphazardly littered on the roadside, gardens, parks, beaches, tourism areas and in the water bodies including rivers, canals, reservoirs, ponds, lakes, nalas etc.

**AND WHEREAS**, it is utmost necessary to enforce the ban imposed by the above mentioned Notification for the protection of environment and all the stake holders need to follow the directions issued under the Notification by a way of refraining from use, sale and storage of all kinds of plastic carry bags in Daman District with immediate effect.



**THEREFORE**, it is hereby directed that in Daman District :

1. No supplier will supply any kind of plastic carry bags to any vendor.
2. No manufacturer will sale any kind of plastic carry bags to anyone.
3. All the shopkeepers, hoteliers, bars, restaurants, commercial establishments, hospitals, institutions, street vendors, fruits and vegetable vendors, or any other establishments are restricted from the usage of any kind of plastic carry bags.
4. There shall be blanket ban over the usage of plastic carry bags by the general public at any location including the tourist places, gardens, parks, households, etc.

If anybody is found to violate the directions issued as mentioned above shall be liable to be penalized under **Section 15 of the Environment (Protection) Act, 1986**, wherein it is mentioned that :

*"(1) Whoever fails to comply with or contravenes any of the provisions of this Act, or the rules made or orders or directions issued there under, shall, in respect of each such failure or contravention, be punishable with imprisonment for a term which may extend to five years with fine which may extend to one lakh rupees, or with both, and in case the failure or contravention continues, with additional fine which may extend to five thousand rupees for every day during which such failure or contravention continues after the conviction for the first such failure or contravention continues after the conviction for the first such failure or contravention.*

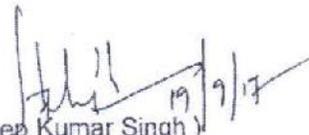
*(2) If the failure or contravention referred to in sub-section (1) continue beyond a period of one year after the date of conviction, the offender shall be punishable with imprisonment for a term which may extend to seven years."*



The following officers are hereby authorized to take action against the violators after taking cognizance under **Section 19 of the Environment (Protection) Act, 1986** :-

1)	Member Secretary, PCC	All the Industrial Establishments and Sectors within the jurisdictions of Daman District.
2)	CEO, District Panchayat, Daman.	All Rural areas of Daman District.
3)	Deputy Collector (HQ) / SDM, Daman	In whole of Daman District.
4)	Civil Supplies Officer and Food Inspector & Senior Inspector (Weights & Measures)	All Food Stores / shops, retailers, provisional stores etc. and all such related establishments.
5)	Chief Officer, DMC, Daman	Daman Municipal Area
6)	Director Medical & Health Services, PHC, Daman.	All Health Institutions, pharmacies, private hospitals etc.
7)	Mamlatdar, Daman	Moti Daman Area
8)	B.D.O., Daman	Nani Daman Area

The Chief Executive Officer, District Panchayat, Daman the Chief Officer, DMC, Daman will be the Nodal Officer to implement this order in their respective jurisdictions. The Pollution Control Committee will carry out necessary IEC activities to aware general public about the same.

  
( Sandeep Kumar Singh )  
Collector / District Magistrate  
Daman.

Copy for favour of information to :-

- 1) The PS to Hon'ble Administrator, DD&DNH, Secretariat, Daman.
- 2) The P.A. to Advisor to Administrator, DD&DNH, Secretariat, Daman.
- 3) The Finance Secretary, DD&DNH, Secretariat, Daman.
- 4) The Secretary (Tourism), DD&DNH, Secretariat, Daman.
- 5) The Deputy Inspector General of Police, Police Department, DD&DNH, Daman.
- 6) The Member of Parliament, Daman & Diu, Daman.
- 7) The President, District Panchayat, Daman.
- 8) The President, DMC, Daman.
- 9) All Members of District Panchayat, Daman (Through B.D.O., Daman)
- 10) All Councilors of DMC, Daman (Through C.O., DMC, Daman)

Copy for necessary action to :

- 1) All Head of Offices in Daman District.
- 2) The Superintendent of Police, Police Department, Daman.
- 3) The Superintendent of Police (HQ), Police Department, Daman.
- 4) The C.E.O., District Panchayat, Daman.
- 5) The Deputy Collector (HQ), Daman.
- 6) The Deputy Collector (Gen) / Civil Supply Officer, Daman.
- 7) The Chief Officer, DMC, Daman.
- 8) The DMHS, Daman.
- 9) The Mamlatdar, Daman.
- 10) The B.D.O., Daman.
- 11) The Food Inspector, PHC, Daman.
- 12) The Senior Inspector (Wt.& Measures), Weight & Measures Department, Daman.
- 13) The SHO's, Police Department, Daman.
- 14) The President, District Industries Association, Daman.
- 15) The President, Wine Shop Association, Daman.
- 16) The President, Hoteliers Association, Daman.
- 17) The President, Transport Association, Daman.
- 18) All Sarpanch's of Gram Panchayats, Daman (Through BDO, Daman)
- 19) The Town Vending Association, Daman (Through C.O., DMC, Daman)
- 20) The Field Publicity Officer, Daman for vide publicity in local news papers and electronic media.

*[Handwritten signature]*

Dated: - ) /01/2012.

C/664

**NOTIFICATION**

In exercise of the powers conferred by the sub-section (3) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) and in pursuance of the Government of India notification number S.O. 249(E) New Delhi, the 4<sup>th</sup> February, 2011 of the Plastic (Waste Management and Handling) Rules, 2011 as per para 11 of the said notification the U.T. Administration of Daman & Diu is hereby pleased to constitute the Union Territory Level Advisory Body to monitor the implementation of these rules comprising of the following members;

**For the UT of Daman & Diu:**

- |    |   |          |
|----|---|----------|
| 1) | Secretary, Department of Urban Development                                      | Chairman |
| 2) | Collector, Daman.   | Member   |
| 3) | Collector, Diu.   | Member   |
| 4) | Deputy Conservator of Forests. Daman & Diu.                                     | Member   |
| 5) | Environmental Engineering, Pollution Control Committee, DD & DNH.               | Member   |
| 6) | Chief Officer, DMC, Daman.  | Member   |
| 7) | One expert from Non-Governmental Organization (to be nominated by the Chairman) | Member   |
| 8) | President Daman Industries Association  | Member   |
| 9) | Principal Government Polytechnic, Daman.  | Member   |

By order and in the name of the  
Administrator of Daman, Diu &  
Dadra and Nagar Haveli.

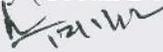
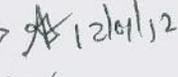
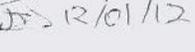
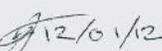
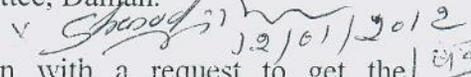
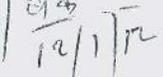
o/c.



Joint Secretary (Environment & Forest),  
Daman.

To,  
The Assistant Director (Planning and Statistics) /  
Head of Office of Govt. Printing Press,  
Moti Daman with a request to publish  
the notification in the next issue of the official  
Gazette.

Copy to,

- 1) The Secretary (Urban Development), DD & DNH, Daman. 
- 2) The Additional Secretary (Urban Development), DD & DNH, Daman. 
- 3) The Collector, Daman. 
- 4) The Collector, Diu.
- 5) The Deputy Conservator of Forests, Daman & Diu, Daman. → 
- 6) The Chief Officer, Daman Municipal Council, Daman. 
- 7) The Chief Officer, Diu Municipal Council, Diu.
- 8) The Principal, Government Polytechnic, Daman. 
- 9) The Environmental Engineer, Pollution Control Committee, Daman.
- 10) The President, Daman Industries Association, Daman. 
- 11) The Assistant Director (Official Language), Daman with a request to get the  
Notification translated in Hindi language. 
- 12) Guard File.





# **Action Plan for compliance of Bio-Medical Waste Management Rules, 2016**



**Pollution Control Committee  
Daman & Diu and Dadra & Nagar Haveli**

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# 1. Inventory of Healthcare Facilities (HCFs)

## a. Current Status of Health Care Facilities situated in the U.T. of DD & DNH.

All healthcare facilities present in both Daman & Diu (DD) and Dadra & Nagar Haveli (DNH) have been classified into these categories- i) bedded hospitals, ii) non-bedded hospitals and iii) others.

The current status of existing healthcare facilities as per the records present with the Pollution Control Committee, DD & DNH is given in Table 1 below:

Sr. No.	HCF Category	No. of HCFs in Daman & Diu	No. of HCFs in Dadra Nagar Haveli
a.	Bedded Hospitals	15	21
b.	Non-bedded Hospitals	32	56
c.	Others (Veterinary hospitals/Research Organizations etc.)	8	8
		55	85
	Total	140	

**Table 1: Existing HCFs in DD & DNH**

## b. Details regarding number of beds at HCFs in DD & DNH.

As per the applications received by respective HCFs for grant of authorization under BMWM Rules, 2016, the following are the details pertaining to the bedded facilities present in DD & DNH.

Sr. No.	Details	Number of beds in HCFs
a.	Govt. HCFs of Daman	253
b.	Govt. HCFs of Diu	150
c.	Private HCFs of Daman & Diu	60
	<b>Total</b>	<b>463</b>

**Table 2-Details regarding number of beds at HCFs in Daman & Diu**

Sr. No.	Details	Number of beds in HCFs
a.	Govt. HCFs of D.N.H	470
b.	Private HCFs of D.N.H.	128
	<b>Total</b>	<b>598</b>

**Table 3-Details regarding number of beds at HCFs in DNH**

**c. Status of authorization of all Healthcare Facilities including non-bedded HCFs**

A total of 140 HCFs exist in DD & DNH. Most of these have been covered and authorization has been issued to 48 of such units. A few applications are under process and action has been initiated against non-compliant HCFs leading to closure of almost 6 units.

A brief of the status of authorization of HCFs including non-bedded HCFs have been given in Table 4.

<b>S. No.</b>	<b>Details</b>	<b>Govt. HCFs of Daman &amp; Diu</b>	<b>Private HCFs of Daman &amp; Diu</b>	<b>Total</b>
1.	Total number of HCFs	10	45	55
2.	Total number of HCFs authorized	9	35	44
3.	Number of applications under process	0	4	4
4.	Total number of HCFs without authorisation	1	4	5
5.	Action taken against unauthorized HCFs	1	4	5
6.	Total number of notices given to unauthorized HCFs	1	4	5
7.	Total number of HCFs closed	0	6	6

**Table 4-Status of existing HCFs in Daman & Diu**

<b>S. No.</b>	<b>Details</b>	<b>Govt. HCFs of Daman &amp; Diu</b>	<b>Private HCFs of Daman &amp; Diu</b>	<b>Total</b>
1.	Total number of HCFs	13	72	85
2.	Total number of HCFs authorized	2	13	15
3.	Number of applications under process	11	3	14
4.	Total number of HCFs without authorisation	0	56	56
5.	Action taken against unauthorized HCFs	0	56	56
6.	Total number of notices given to unauthorized HCFs	0	5	5

**Table 5-Status of existing HCFs in Dadra & Nagar Haveli**

**d. Total Bio-medical waste generation, treatment & disposal in the DD & DNH as per the current scenario.**

The common biomedical waste treatment facility (CBMWTF) has been identified in Surat -M/s En-cler Biomedical Waste Pvt. Ltd.(approx. travel time by road is 2 hours). It submits an annual report for the treated waste which forms the basis of inventorisation of biomedical waste generated, treated and disposed.

The status of this waste as per the annual report of CBMWTF in 2017-18 is given in Table 6 as follows:

<b>Sr. No.</b>	<b>Category of waste</b>	<b>Generation of waste</b>	<b>Treatment</b>
<b>1</b>	Yellow Category (Includes Human and Animal anatomical waste, Soiled waste, Expired and discarded medicines, Chemical waste, Laboratory-microbiology waste)	5337 kg/month	Incinerated
<b>2</b>	Red Category (Contaminated waste recyclable)	4417 kg/month	Autoclave
<b>3</b>	White Category (Waste sharps)	184 kg/month	Shredder, needle tip cutter
<b>4</b>	Blue Category (Glass ware)	1028 kg/month	Disinfection or autoclaving

**Table 6-Status of Total Bio-Medical Waste generation in the DD & DNH as per the CBMWTF Annual Report 2017-18.**

It is seen that the total quantity of waste collected, generated and disposed is 131,592 kg/year, amounting to approximately 365 kg/day of biomedical waste.

However, this data is in the process of being cross-verified through annual reports submitted by the Department of Health & Family Welfare (DoHFW) in DD & DNH which is the implementing agency for BMWM Rules, 2016.

The status of biomedical waste generated as per the DoHFW is given in Table 7 as follows:

<b>Category of Waste</b>	<b>Generation of waste in kg/year</b>			<b>Total</b>
	<b>Daman</b>	<b>Diu</b>	<b>DNH</b>	
<b>Yellow</b>	2224 kg/year	764.5 kg/year	35634.36 kg/year	<b>38622.86 kg/year</b>
<b>Red</b>	3249 kg/year	579.5 kg/year	27736.8 kg/year	<b>31565.3 kg/year</b>

<b>White</b>	704 kg/year	329 kg/year	1060.14 kg/year	<b>2093.14 kg/year</b>
<b>Blue</b>	735 kg/year	415 kg/year	7340.94 kg/year	<b>8490.94 kg/year</b>

**Table 7- Status of Total Bio-Medical Waste generation in the DD & DNH\***

The waste that is generated at these health facilities of Daman and DNH are segregated at the point of generation itself and then it is sent to the CBMWTF (M/s En-cler Biomedical Waste Pvt. Ltd., Surat) for treatment and disposal. Similarly, that of HCFs in Diu is sent to the CBMWTF (M/s Girnar Bio-Medical Waste Services, Junagarh)

\*Please note that these figures are only from those HCFs which have submitted annual reports. Therefore, the “waste, generated” is not matching with “waste, treated” data by CBMWTF.

## **2. Submission of Annual Reports to CPCB for the year 2017-18**

- As per the Rule-13, Annual Report for the year 2017-18 under Bio-Medical Waste Management Rules, 2016 has already been compiled, reviewed and analyzed and sent to the Central Pollution Control Board (CPCB). A copy of Annual Report is also attached. (Annexure-1)
- As per the annual report submitted by the CBMWTF for the year 2017-18, a total of 181 facilities have been covered, including industries. Hence, it is seen that all HCFs are sending their waste to CBMWTF.
- **Presently, the information received from CBMWTF is being cross-verified with the information present with these facilities so that any discrepancy between “waste generated” and “waste recycled” is removed.**
- The annual report for the year 2018-19 will also be sent to CPCB on or before 31<sup>st</sup>July 2019 thereby complying with the deadline given under BMWM Rules, 2016.

### 3. Constitution of State or District Level Advisory Committees

A state level advisory committee has been formed as per the Rule 12 for the monitoring of implementation of the rules in health care facilities on dated 16/05/2017 (Annexure-2 is attached).

Accordingly, the members of the above committee are as follows:

- |   |                    |
|---|--------------------|
| a. District Magistrate, Daman                     | : Chairman         |
| b. Representative from PCC                        | : Member           |
| c. Assistant Engineer, PWD, Daman                 | : Member           |
| d. Representative from municipal council          | : Member           |
| e. Representative from Indian Medical Association | : Member           |
| f. CEO, M.s En-cler Bio Medical Waste, Surat      | : Member           |
| g. Representative from registered NGOs            | : Member           |
| h. Medical Officer, PHC, Daman                    | : Member Secretary |

As seen above, there are a total 8 members in the committee. Wherein, District Magistrate, Daman is the chairman of the committee and Medical Officer, (PHC-Primary Health Centre), Daman is the Member Secretary of the Committee.

The District Level Monitoring Committee meeting has been conveyed on 25/09/2018 in the chairmanship of the Collector/District Magistrate, Daman to check various compliances and to oversee the biomedical waste management in the U.T. of Daman and Diu, difficulties faced on implementation of BMW Rules, 2016 and general points related to Bio-Medical Waste Management. Separate copy of the Notification of the District Level Monitoring Committee and Minutes of the meetings are attached as Annexure-2.

The meeting had detailed discussions on two important issues:

1. **Awareness strategies** to be adopted so that more HCFs come under the ambit of BMW Rules, 2016
2. **Regulation and monitoring strategies** for existing identified HCFs

The HCFs were made aware of the guidelines and mandatory requirement of maintaining a register for biomedical waste was conveyed.

For DNH, it is to inform that at functional level a committee by the name of Biomedical Waste Committee is already in place at each HCFs. However, it is required to notify a committee as the District Level Monitoring Committee which has not been done yet, but will be complied with within one month as per rule 12 of the BMW Rules, 2016.

## 4. Implementation status of Barcode system

- In the DD & DNH, there are total approximately 140 Health Care Facilities including all bedded, non-bedded and small clinics. They are sending their Bio-Medical waste to the CBMWTF facility M/s En-clerBio-medical Waste Pvt. Ltd.,(the Common Bio-Medical Waste Treatment Facility-CBMWTF) at Surat (Gujarat) to collect, process & disposeoff the biomedical waste generated in the DD & DNH.
- The CBWTF has provided them **colour-coded bags** and containers and the waste is also transported in **dedicated vehicles** as specified in BMWM Rules, 2016.
- This CBMWTF falls under the jurisdiction of Gujarat State and hence, under the purview of Gujarat Pollution Control Board (GPCB).
- A meeting was conveyed under the chairmanship of Member Secretary, PCC (DD) with the CBMWTF facility M/s En-cle rBio-medical Waste Pvt. Ltd., Surat on 31/08/2018 and the directions have been given to kindly start with barcode system at the CBMWTF level itself.
- Individually, no health care facilities have started with barcoding of wastes.
- However, CBMWTF has not intimated anything about the launch of bar coded based waste management system.
- Once barcode system is implemented in the CBMWTF in Surat, it will automatically be implemented in the UT of DD and DNH.

## 5. Monitoring the Compliance of BMWM Rules, 2016 by Healthcare Facilities(HCFs)

Pollution Control Committee is in process to strengthen the monitoring of compliance of various provisions and conditions of authorization. There are total 140 HCFs under the jurisdiction of PCC, DD & DNH, including all bedded and non-bedded hospitals and others.

In a view to implement the new BMW Rules, 2016, PCC DD & DNH has issued a letter regarding implementation of these rules to all the Health Care Facilities of Daman Diu & Dadra Nagar Haveli for their information/awareness. (Annexure 3)

To strengthen the compliance of these rules, a sample “Inspection Report” has been formalized by Pollution Control Committee under Bio-Medical Waste Management Rules,2016. (Annexure-II).

As per the new inspection report format, the criteria of monitoring inspection within a stipulated time period along with the target to authorize all the HCFs framework is as follows:

Sr.No.	Area	Total Number of HCFs	Target to authorize all the HCFs within following stipulated time	Monitoring compliance at all the HCFs within following stipulated time
1	Daman & Diu	55	Within 30 days	Within 60 days
2	Dadra & Nagar Haveli	85	Within 60 days	Within 90 days

**Table 8-Target and Monitoring Compliance at HCFs**

As per the above, a compliance report of every HCF will be send to the CPCB before July 31, 2019.

## **6. Coverage of Common Biomedical Waste Treatment Facilities (CBWTFs) and Compliance of CBWTFs to new emission standards prescribed under BMWM Rules, 2016.**

**Presently, there are no Common Bio-Medical Waste Treatment Facilities (CBMWTF) in the U.T. of DD & DNH.** There is no local treatment facility for the biomedical waste generation in the DD & DNH as the generation is approximately 350-370 kg/day. The biomedical waste generated is collected, processed & disposed off by M/s En-cler Bio-Medical Waste Pvt. Ltd., Surat.

All the HCFs of Daman & DNH send their biomedical waste to the CBMWTF- M/s En-cler Bio-Medical Waste Pvt. Ltd for the treatment at their own cost. This treatment facility is situated at Gokul Nagar, Near SMC Solid Waste Disposal site, Azad Nagar Road, Bhatar, Surat, Gujarat. This CBMWTF falls under the purview of the Gujarat Pollution Control Board, GPCB.

- i. CBMWTF has obtained authorization from GPCB and which is valid up to: 31/05/2020.
- ii. Hence, the compliance with respect to new emission standards may be provided by GPCB itself.
- iii. As per the recent Annual Report of CBMWTF for the year 2017-18, it has covered total 181 HCFs of U.T. of DD & DNH.

Similarly, all biomedical waste from Diu is sent to M/s Girnar Bio-Medical Waste Services, Junagarh which is also under the purview of GPCB.

## 7. Action taken at State level for efficient compliance of Bio-Medical Waste Management Rules, 2016.

- Letters have been issued to all the HCFs for effective implementation of the Bio-medical Waste Management Rules, 2016 notified under the EPA, 1986 by the MoEF. (sample letter attached as Annexure-3)
- For effective implementation of the BMW Rules, 2016 PCC has compiled the data and submitted the same in annual report to Central Pollution Control Board for the year 2017-18 (same is also attached Annexure-1)
- PCC has issued Notice of Direction (NOD) under Section-5 of Environment Protection Act, 1986 to HCFs who have not applied for authorization under Bio-Medical Waste Management Rules, 2016.
- PCC has granted authorization to Health Care Facilities who have submitted application **within 30 days** of application.
- Letter has been issued to Common Bio-medical Waste Treatment Facility (CBMWTF) regarding implementation of Bio Medical Waste Management Rule, 2016. A meeting was convened under the chairmanship of Member Secretary, PCC (DD) with CBMWTF, Surat on 31/08/2018. They were assured of **full cooperation from the administration and implementing agencies**. They were also instructed to inform if any HCF was not cooperating with them. Through this initiative, most HCFs are complying with the direction of the new rules.
- PCC has organized a **workshop on centralized bio-medical waste disposal** through environmental sound practices in collaboration with M/s En-cler (En-vision) Bio-Medical Waste Pvt. Ltd. on 01/09/2015 for all the HCFs located in Daman and DNH made aware categorization of biomedical waste and how it has to be handles from source to the facilities. The Member Secretary, PCC DD & DNH urged all the representative of the HCFs that all the statutory requirements are required to be followed to avoid any penal action by PCC. M/s En-cler biomedical waste Pvt. Ltd. made a presentation on the biomedical waste & its treatment facilities along with segregation of the waste as per color coding system.
- The health care facilities manage bio-medical waste from their own fund and no separate fund is allotted from PCC. PCC has previously allotted treatment equipments like incinerator to Govt. Marwad Hospital, Nani Daman which was dismantled in 2013 because now they too are sending their biomedical waste to CBMWTF (Surat) facility.
- Identified violators were sent NOD/letters as per rules. This is still under process and discussed in detail later in the next point.

## 8. Steps to be taken for further compliances of the Bio-Medical Waste Management Rules, 2016.

### a. Awareness & Training:

The main problem in the region in general is that the occupiers are not aware that they have to take authorization from PCC and for that PCC has also organized meetings with all the occupiers and guided them on how to apply for authorization.

PCC has also directed them to provide **training to the nursing staff as well as those who are engaged in the BMW handling regarding segregation of bio medical wastes**. However, a formal training as per rules is yet to be provided. This will be done within 2 months.

They were also directed to immunize health care workers and also to ensure and establish a barcode system irrespective of the CBMWTF.

PCC will also organize training programs to staff of health care facilities and SPCB on segregation, collection, storage, transportation, treatment and disposal of BMW within the next three months.

### b. Action against violators:

As a part of taking action against the health care facilities for violation of BMW Rules, 2016, PCC has issued NOD/letters to the identified HCFs as follows:

Sr. No.	Area	No. of NODs/Letters issued to violators
1	Daman & Diu	5
2	Dadra Nagar Haveli	56
	Total	61

**Table 9-Action against the violators**

Out of 61 letters/NOD given, 6 replies have been received. A reminder with strict warning is being sent to defaulters. If reply is still not received within 15 days, PCC will make conditional show cause notices absolute and impose penalty with the help of implementing agency i.e. Department of Health and Family Welfare (DoHFW), both in DD as well as DNH.

### c. Levy of fees from Clinics/Dispensaries and HCFs in DD & DNH

At present, PCC is not levying any processing fees from the clinics/dispensaries and Health Care Facilities. These Health Care Facilities are also required to be visited to check the compliance of Bio-Medical Waste Management Rules, 2016.

Therefore, it was **proposed to levy processing fees** from the clinics/dispensaries and Health Care Facilities for granting authorization under Rule 10 of Bio-Medical Waste Management Rules, 2016

The proposed fee structures was as follows:

Sr. No.	Type of Health Care Facility	Fees in Rupees.
1	Clinics/ Dispensaries without beds	5,000/- (One time)
2	HCF having less than 50 beds	5,000/- per year
3	HCF having 50 and above beds but less than 200 beds	10,000/- per year
4	HCF having 200 and above beds	15,000/- per year

**Table 10- Proposed fee structure**

This proposal was placed before the PCC Committee meeting for necessary deliberations and decisions. During the committee meeting the Member Secretary briefed to the Committee regarding levy processing fees from the clinics/dispensaries and Health Care Facilities for granting authorization under Rule 10 of Bio-Medical Waste Management Rules,2016.

After detailed discussion, the committee resolved to maintain the status quo and continue the services of issuing authorization to HCFs free of cost till further decision. However, CPCB may look into this and give necessary guidance on the same.

#### **d. Updation of Websites**

PCC, DD & DNH has prepared a checklist for authorization and this is also placed on website: [pccdaman.info](http://pccdaman.info) along with all the forms and new Bio-Medical Waste Management Rules, 2016 for application.

Recently, PCC has also started new Online Consent Management and Monitoring Facility i.e. [ddnocmms.nic.in](http://ddnocmms.nic.in) which is fully functional.

After completion of online consent management system, PCC will start online portal for registration of Health Care Facilities. It will also start online authorization and application facilities for Biomedical waste Authorization on our online portal software- Online Consent Management and Monitoring System (OCMMS).

#### **e. Way forward**

PCC is processing authorization for grant and renewal, suspension or refusal/cancellation or of authorization under these rules within 30 days period time. This time bound disposal will continue and verification/inspections will be increased.

PCC has issued a letter to all the HCFs for the following compliances:

- Safe collection sheds, allocation of budget for such collection.
- Pre-treatment waste guidelines.
- Phasing out of plastic bags, gloves and blood bags.

PCC will ensure implementation of these rules in all health care facilities or occupiers along with the implementing authorities.

## **Conclusion**

It is observed that most of the healthcare facilities and units have been sensitized to the new Biomedical Waste Management Rules, 2016. It has been tried to bring all these units under the ambit of PCC and inventorisation is almost completed.

Further, compliance with respect to annual reports and other periodic reports have been achieved but the reliance on data given by units and CBMWTF is to be reduced in the future by cross-verification of individual units by PPC and implementing agencies. This is being done now.

Further guidance to implement these rules in a better manner and also for the collection of the compensation which is to be recovered from the polluters for violations of this rule is also much needed from Central Pollution Control Board.

# Annexure - 1

## Annual Report for the year 2017-18

No. PCC/DMN/79/98-99/916  
Office of the Member Secretary,  
Pollution Control Committee,  
First Floor, Udyog Bhavan,  
Bhenslore, Nani Daman.  
Daman.

Date:- 05/12/18

To,  
Shri Prashant Gargava,  
The Member Secretary,  
Central Pollution Control Board,  
Parivesh Bhavan, East Arjun Nagar,  
New Delhi 110 032.

**Sub:-** Annual report on Bio Medical Waste Management for the year 2017-18 as per Bio Medical Waste Management Rules 2016– reg.

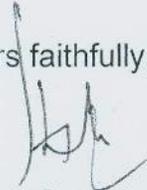
**Ref:-** Your letter No. B- 31011(BMW)(2.22)/2018/WMD-I/10239 dated 11/09/2018.

Sir,

With reference to your letter on the subject cited above kindly find enclosed herewith the annual report on Bio Medical Waste Management for the Year 2017-18 pertaining to the UT of Daman and Dadra Nagar Haveli as per the prescribed format for your needful please.

This is for your information please.

Yours faithfully,



Member Secretary,  
Pollution Control Committee,  
DD & DNH,  
Daman

Copy to :- Shri B. Vinod babu, AD & DH WMD-I, Central Pollution Control Board,  
Parivesh Bhavan, East Arjun Nagar, New Delhi 110 032.

Encl: As above

## SUMMARY SHEET ON BIO-MEDICAL WASTE MANAGEMENT SCENARIO IN THE STATE/UT

(1) Name of the SPCB/PCC & Contact person with Telephone No. /Mobile No. :Pollution Control Committee-DD & DNH, 0260-2262524.

(2) No. of HCFs :

S. No.	HCF category	No. Of HCFs require authorisation under BMW Rules	No. Of HCFs does not require authorisation under BMW Rules
(a)	Bedded Hospitals	23	-
(b)	Non-bedded Hospitals	99	08
(c)	Others (Veterinary Hospitals/Research Organisations etc.)	04	-

(3) Total No. of Beds in HCFs :760

(4) Status on Consents under Water Act & Air Act :

- a) No. of HCFs applied for Consents under Water & Air Acts :NIL  
 b) No. of HCFs obtained Consents under Water & Air Acts :NIL  
 c) No. of applications under consideration :NIL  
 d) No. of applications rejected :NIL

(5) Status on Authorization under BMW Rules :

- a) No. of HCFs applied for Authorization :75  
 b) No. of HCFs obtained Authorization :63  
 c) No. of applications under consideration :05(Q/L)  
 d) No. of applications rejected :NIL

(6) Details on On-Site treatment equipments installed by HCFs : (enclose details as annexure separately if required):

Sl. No.	No. of HCFs	On-site Deep Burial		On-site Incinerator		On-site Autoclave		On-site Microwave		On-site Hydroclave		On-site Shredder	
		Nos	Total installed capacity in Kg/day	Nos	Total installed capacity in Kg/day	Nos	Total installed capacity in Kg/day	Nos	Total installed capacity in Kg/day	Nos	Total installed capacity in Kg/day	Nos	Total installed capacity in Kg/day
1.	--	--	--	--	--	--	--	--	--	--	--	--	--

- a) Total Bio-medical waste generated & treated by HCFs (on-site/captive facilities) in Kg/day: NIL  
 b) Total recyclable treated bio-medical waste sold off by HCFs in Kg/day :NIL  
 c) Total treated Bio-medical waste disposed off by HCFs in Kg/day :NIL

(7) No. of On-Site Incinerator (s) in operation installed by HCFs :NIL  
 a) With APCD :NIL  
 b) Without APCD :NIL

(8) Details on Common Bio-medical Waste Treatment Facility (CBWTF) :

- a) Total No. of CBWTFs in operation :01  
 b) Total No. of CBWTFs under construction :NIL  
 c) Total No. of Incinerators installed by CBWTFs :01  
 I. With APCD :01  
 II. Without APCD :NIL

(9) Details of CBWTFs (enclose details as annexure separately if required) :

Sl. No.	Name of the CBWTF with complete address	No. of member HCFs	Incinerator		Autoclave		Microwave		Hydroclave		Shredder	
			Nos	Total installed capacity in Kg/day	Nos	Total installed capacity in Kg/day	Nos	Total installed capacity in Kg/day	Nos	Total installed capacity in Kg/day	Nos	Total installed capacity in Kg/day
1.	En - cler	169	01	200 Kgs/hr	01	125 Kgs/hr					04	400 kg/hr

- a) Total Bio-medical waste collected & treated by CBWTFs in Kg/day :322 kgs/day  
 b) Total recyclable treated bio-medical waste sold off by CBWTFs in Kg/day :NIL  
 c) Total Bio-medical waste disposed off by CBWTFs in Kg/day :322kgs/day

(10) Action taken against HCFs/CBWTFs for violation of provisions :  
 a) No. of Show-cause notices issued to HCFs :26  
 b) No. of Show-cause notices issued to CBWTFs :nil  
 c) No. of HCFs closed during the year 2015 :nil  
 d) No. of CBWTFs closed during the year 2015 :nil

(11) Details on Bio-medical Waste Management Scenario :

- a) Total Bio-medical Waste Generation in Kg/day :322 kgs/day  
 I. Incinerable :116 kgs/day  
 II. Recyclable (after autoclaving followed by shredding) :206 kgs/day  
 III. Disposable in secured landfill/deep burial/sanitary landfill :NIL  
 b) Total Bio-medical Waste Collected in Kg/day :322 kgs/day  
 c) Total Bio-medical Waste Treated & Disposed in Kg/day :322 kgs/day

(12) Steps taken by SPCB/PCC for improvement in Bio-medical Waste Management scenario in the State/UT (pl. use Annexure for detail) during the year 2015 :

Note: Strike off whichever is not applicable

Annexure-II

Information on Common Bio-medical Waste Treatment Facilities (CBWTFs)  
(for the Year 2017)

Name of the State Pollution Control Board ( or) Pollution Control Committee:							: Pollution Control Committee-Daman							
Name of the Nodal Officer with contact telephone no. & mobile no.							: PCC, Daman (0260) 2262524, 2260975							
Sr. No.	Name & Address of the CBWTF with contact person name and telephone no.	Name of the cities/ areas covered by CBWTF	Total no. of HCFs being covered	Total no. of beds covered	Total Quantity of BMW collected, treated and disposed of (in Kg/day)	Cost of treatment of BMW charged by the CBWTF operator (.....Rs. per Kg or .....Rs per Day or .....Rs. per bed per day)	Treatment equipment/ facilities installed at CBWTF			Air Pollution Control Systems attached with the incinerator(s)	Method of Disposal of treated wastes (Incineration Ash/Sharps/Plastics)	Compliance Status		
							Equipment	Nos.	Total installed capacity in kg/day					
1	En-Cler Bio medical Waste Pvt Ltd, Gokul Nagar, Nr. SMC Solid waste Disposal Site, Bhatar, Surat. 0261-2262516-17, Mr.Nirav Thakkar-CEO	Daman & DNH	169	760	322 kg/day	-	Incinerator:	1	200 kg/hr	-	Incineration Ash:	No. of Show-cause notices/ Direction issued: -		
							Autoclave:	1	125 kg/hr					
							Hydroclave:	-	-				Sharps:	No. of Court cases: -
							Microwave:	-	-					
							Shredder:	4	400 kg/hr				Plastics:	Others: -
							ETP:	-	-					
							Deep burial:	-	-					

Station: Daman  
Date:

Signature of the authorised official & seal

**Format for Submission of the Annual Report on Bio-medical Waste Management by SPCB/PCC (For the Year 2017-18)**

Name of the State Pollution Control Boards/Pollution Control Committee													Pollution Control Committee, DD & DNH, Daman							
Name of the Nodal Officer with contact telephone no. & mobile no.													PCC, Daman (0260) 2262524, 2260975							
Hospitals & Nursing Homes (HCFs) in village/town/city as per Schedule VI  (1)	Total no. of HCFs irrespective of no. of patients treated  (2)	Total no. of Beds  (3)	No. of HCFs applied for Authorisation  (4)	No. of HCFs Granted Authorisation  (5)	No. of HCFs having own treatment and disposal facilities  (6)	Total no. of captive treatment equipment installed by the HCFs (i.e excluding CBWTF)  (7)					No. of CBWTF (Please specify if a hospital treatment facility is also used by other HCF)  (8)		No. of HCFs which are utilising CBWTFs  (9)	Total quantity of BMW generated (kg/day)  (10)	Total quantity of BMW treated (kg/day)  (11)	No. of Facilities violated BMW Rules  (12)		Total No. of Show Cause Notices/ Directions issued to defaulter Facilities  (13)		
						No. of Incinerators		No. of Autoclave	No. of Microwave	No. of Hydroclave	No. of Shredder	In operation				Under construction	HCFs	CBWTFs	HCFs	CBWTFs
						With APCD	Without APCD													
<b>I. Bio-medical Waste Management scenario reported for the period upto 2010</b>																				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>II Annual Report on Bio-medical Waste Management scenario for the year 2017 (01.01.2017 to 31.12.2017)</b>																				
A) HCFs in town with population of 30 lakhs and above	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B) HCFs in town with population below 30 lakhs: (i) with 500 beds and above	NIL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NIL	NIL	NIL	NIL
ii) with 200 beds and above but less than 500 beds	01	300	01	01	NIL	NIL	NIL	NIL	NIL	NIL	NIL	01	NIL	01	Approx. 322 Kgs/day	Approx. 322 Kgs/day	NIL	NIL	NIL	NIL
iii) with 50 beds and above but less than 200 beds	04	225	03	03	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	04	-	-	NIL	NIL	NIL	NIL
iv) with less than 50 beds	18	235	11	08	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	18	-	-	26	NIL	26	NIL
C) All others institutions generating bio-medical waste not included in A) and B) above	98	NIL	NIL	42	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	98	-	-	NIL	NIL	NIL	NIL
<b>Sub-total</b>	121	760	15	54	-	-	-	-	-	-	-	01	-	121	-	-	26	-	26	NIL
<b>Total (I + II)</b>	As above	As above	As above	As above	As above	As above	As above	As above	As above	As above	As above	As above	As above	As Above	As above	As above	As above	As above	As above	As above

Station: Daman  
Date:

Signature of the authorised official & seal

# Annexure - 2

## Notification of District Level Monitoring Committee and minutes of the meeting

UT ADMINISTRATION OF DAMAN & DIU AND DADRA & NAGAR HAVELI,

SECRETARIAT, FORT AREA, MOTI DAMAN

### NOTIFICATION

PCC/DMN79/98-99/45

Dated:-16/05/2017

- READ** (1) Notification No. G.S.R. 343(E) dated 28/03/2016  
 (2) Letter No. B-31011 (BMW)/30/93/2014/HWMD/3701-6738 dated 25/10/2016 from the Central Pollution Control Board, Ministry of Environment and Forest and Climate Change, Government of India.

In exercise of the powers conferred by Rule 12 of the Bio-Medical Waste Management Rules, 2016, the Union Territory of Daman & Diu Administration is hereby please to constitute an District Level Monitoring Committee comprising of following members:

- |  |                  |
|--|------------------|
| 1. District Magistrate, Daman  | Chairman         |
| 2. Representative from PCC   | Member           |
| 3. Assistant Engineer, PWD, Daman  | Member           |
| 4. Representative from municipal council   | Member           |
| 5. Representative from Indian Medical Association  | Member           |
| 6. CEO, M/s En- Cler Bio Medical Waste P. Ltd., Surat, Common Bio Medical Waste treatment facility.                      | Member           |
| 7. Representative from registered non - governmental organizations working in the field of bio-medical waste management. | Member           |
| 8. Medical Officer, PHC, Daman   | Member Secretary |

As and when required, the Committee shall advise the Union Territory Administration and the Prescribed Authority about the matters related to implementation of the Bio- Medical Waste Management Rules, 2016 in the Union Territory of Daman and Diu.

By order and in the name of  
the Administrator,  
Daman and Diu  
Deputy Secretary (Environment),

OK

Copy:-

- All Secretaries, Administration of Daman/Diu
- The Chairman, Pollution Control Committee, DD & DNH.
- The Collector, Daman/Diu.
- The Director of Industries, Daman/Diu.
- The Member Secretary, Pollution Control Committee, DD & DNH.
- The Director, Medical and Public Health, Daman/Diu.
- The Superintendent Engineer, PWD, Daman/Diu.
- The Chief Officer, Municipal Council, Daman/Diu.
- The President, Indian Medical Association, Daman/Diu.
- The CEO, En-Cler Bio Medical Waste P. Ltd., Surat
- The Manager, Government printing Press with a request to publish the same in the official Gazette of Administration of Daman/Diu.

12) N.I.C.

Katy 17/5/17

**MINUTES OF THE DISTRICT LEVEL MONITORING COMMITTEE**  
**MEETING HELD AT COLLECTORATE, DAMAN ON 26<sup>TH</sup> SEPTEMBER**  
**AT 3.30 PM**

A meeting of District level monitoring committee was held at Collectorate, Daman on 26<sup>th</sup> September, 2018 at 3.30 pm in the chamber of the the Collector, Daman.

The following Officers were present in the meeting:

Dr. Sangeeta Joshi - Member Secretary  
Dr. Vaishya - IMA President  
Shri Vaibhav Rikhari - CEO Municipality  
Shri. Mayank Rana - AE, PWD  
Shri. Jayesh - CEO En – Clear

The following points were discussed:

1. All Hospitals / Clinics / Veterinary Hospitals / Laboratory Clinics have to apply for authorization to pollution control committee.
2. An annual report has to be submitted by all the units by 15<sup>th</sup> June 2018.
3. PCC will give authorization by first week of October.
4. A register has to be maintained by all Health Care Facilities in a given format as per Bio Medical Waste Management Rules, 2016.
5. CEO, DMC was requested to spread awareness regarding separate disposal of sanitary napkins and diapers. Collection will be done by municipality staff and it will be handed over to the nearest Health Care Facility for disposal as bio medical waste.

  
(Dr Sangeeta Joshi)

# Annexure - 3

## Sample letter reg Implementation of this rule to HCFs

No. PCC/<sup>BMD</sup>~~DD~~/79/98.99/931  
Office of the Member Secretary,  
Pollution Control Committee,  
First Floor, Udyog Bhavan,  
Bhenslore, Nani Daman

Date:- 21/02/2017

To,  
M/s PHC,  
Khanvel, DNH.

**Sub:-** Implementation of the Bio-Medical Waste Management Rules, 2016 notified under the Environment (Protection) Act, 1986 by the Ministry of Environment, Forests and Climate Change (MoEF & CC) – Steps taken for ensuring implementation of the BMW Rules, 2016 – reg.

**Ref:-** CPCB letter No. B-31011(BMW)(58)/2016/HWMD/22539 dated 01/02/2017.

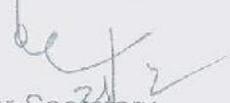
Sir,

The Bio – Medical Waste Management Rules, 2016 have been notified under the Environment (Protection) Act, 1986 by the Ministry of Environment, Forests and Climate Change (MoEF & CC) and effective from 28/03/2016. In this connection, it is to inform you that some of the provisions are newly introduced when compared to the Bio – Medical Waste (Management & Handling) Rules, 1998 as amended and requires action in a time bound manner as given below:

1. Phasing out of chlorinated plastic bags, gloves and blood bags within two years;
2. Pre-treatment of laboratory waste, microbiology waste, blood bags and blood samples through on-site disinfection or sterilization;
3. Bar code system and GPS is required to be established, within one year, by the occupier or Operator of a CBWTFs whichever is applicable;
4. The liquid waste is required to be treated and disposed by all the occupier or operator of a CBWTF in accordance with the Water Act, 1974.

In this regard you are requested to take necessary action on above aspects for ensuring effective management of Bio- Medical Waste Management Rules, 2016 and submit report to this office at the earliest so as to send the same to CPCB.

Yours faithfully,



Member Secretary,  
Pollution Control Committee,  
DD & DNH,  
Daman

No. PCC/DDD/BMW/19-20/896  
Office of the Member Secretary  
Pollution Control Committee,  
First Floor, Udyog Bhavan,  
Bhenslore, Nani Daman.  
Daman.

Date:- 14/10/19

To,  
Shri Prashant Gargava,  
The Member Secretary,  
Central Pollution Control Board,  
Parivesh Bhavan, East Arjun Nagar,  
New Delhi 110 032.

**Sub:-** Observation on Annual report Information on Bio Medical Waste Management for the year 2018-Clarification- reg.

**Ref:** Your letter dated: F.No.B-31011/BMW (2.23)/2019/WMD-I/7135 dated: 30/09/2019.

Sir,

With reference to the subject cited above kindly find enclosed herewith the updated annual report on Bio Medical Waste Management for the Year 2018 pertaining to the UT of Daman and Dadra Nagar Haveli as per the prescribed format for your needful please.

This is for your information please. Same has been send via an Email also.

Yours faithfully,



Member Secretary,  
Pollution Control Committee,  
DD & DNH,  
Daman

Copy to :- Shri B. Vinod babu, AD & DH WMD-I, Central Pollution Control Board,  
Parivesh Bhavan, East Arjun Nagar, New Delhi 110 032.

Encl: As above

## Form IV A

[See rule 13(2)]

Format for submission of the Annual Report information on Bio-medical Waste Management

### Part-1 (Summary of Information)

1. Name of the Organization: Pollution Control Committee, DD & DNH.
2. Name of the Nodal Officer : -
3. Total no. of Health Care Facilities/ Occupiers:
  - i. Bedded Hospitals and Nursing Homes(bedded): 36
  - ii. Clinics, dispensaries: 88
  - iii. Veterinary institutions: 16
  - iv. Animal houses: -
  - v. Pathological laboratories: -
  - vi. Blood banks: -
  - vii. Clinical establishment: -
  - viii. Research Institutions: -
  - ix. AYUSH: -
4. Total no. of beds: 1061
5. Status of authorization:
  - i. Total number of Occupiers applied for authorization: 105
  - ii. Total number of Occupiers granted authorization: 81
  - iii. Total number of application under consideration: 19
  - iv. Total number of applications rejected: -
  - v. Total number of Occupiers in operation without applying for authorization: -
6. Quantity of Bio-medical Waste Generation(in kg/day)  
(please enclose District Wise Bio-medical Waste Generation as per Part-2)
  - i. Bio-medical waste generation by bedded hospitals (in kg/day): 331  
kgs/day for both bedded and non-bedded.
  - ii. Bio-medical waste generation by non-bedded hospitals (in kg/day): -
  - iii. Any other: -

Total: 331 kg/day
7. Bio-medical waste treatment and disposal
  - a. By Captive bio-medical waste treatment and disposal by Health Care Facilities  
(please enclose details as per part-3)
    - i. Number of Health Care Facilities having captive treatment and Disposal facilities: NIL
    - ii. Total bio-medical waste treated and disposed by captive treatment facilities in kg/day: NIL
  - b. Bio-medical waste treatment and disposal by Common Bio Medical Waste Treatment Facilities (please enclose details as per part-4)
    - i. Number of Common Bio Medical Waste Treatment Facilities in Operation: 01
    - ii. Number of Common Bio Medical Waste Treatment Facilities under constructions: NIL
    - iii. Total bio-medical waste treated in kg/day: 331 kgs/day
    - iv. Total treated bio-medical waste disposed through authorized recyclers (in Kg/day): 154 kgs/day

8. Total no. of violation by:
  - i. Health Care Facilities(bedded and non-bedded): NIL
  - ii. Common Bio Medical Waste Treatment Facilities:NIL
  - iii. Others (please specify):NIL
9. Show cause notices/directions issued to defaulters:
  - i. Health Care Facilities(bedded and non-bedded):92
  - ii. Common Bio Medical Waste Treatment Facilities: NIL
  - iii. Others (please specify):NIL
10. Any other relevant information:
  - i. Number of workshops/training conducted during the year: -
  - ii. Number of occupiers installed liquid waste treatment facility: NIL
  - iii. Number of captive incinerators complying to the norms: NIL
  - iv. Number of occupiers organized trainings: All PHCs conducted training programs for their staffs on every year.
  - v. Number of occupiers constituted Bio-medical Waste Management Committees: NIL
  - vi. Number of occupiers submitted Annual Report for the previous calendar year: 36
  - vii. Number of occupiers practicing pre-treatment of lab microbiology and Bio-technology waste: 04
  - viii. Number of Common Bio Medical Waste Treatment Facilities that have installed Continuous Online Emission Monitoring Systems :1

**PART-2 DISTRICT WISE BIO MEDICAL WASTE GENERATION (FOR THE PREVIOUS CALENDAR YEAR 2019)**

Sr. No.	Name of the State/Union Territory	Name of the District	Bio-medical Waste Generation (in Kg/day)	Existing Total bio-medical waste treatment capacity (both captive and CBMWTF) in kg/day		
				Equipment	Nos.	Total installed capacity in kg/day
1	Pollution Control Committee, Daman Diu and Dadra Nagar Haveli	Daman & Dadra Nagar Haveli	200 to 250 Kg/day	Equipment		
				Incinerator:	1	200Kg./Hour
				Autoclave:	1	125Kg./Hour
				Hydroclave:	No.	Nil
				Microwave:	No.	Nil
				Shredder:	4	400Kg./Hour
EIP:	1	20000 Liter / Day				
				Deep burial:	No.	Nil

**PART-4**  
**INFORMATION ON COMMON BIO-MEDICAL WASTE TREATMENT FACILITIES (CBWTFs)**  
**(FOR THE YEAR 2018)**

Name & Address of the CBWTF with contact person name and telephone no.	GPS Coordinates & Coverage area in KMs	Name of the cities/ areas covered by CBWTF	Total no. of HCFs of being covered	Total no. of beds covered	Total Quantity of BMW collected, treated and disposed of (in Kg/day)	Capacity of Treatment equipments installed by CBWTF			Air Control Systems attached with the incinerator(s)	Method of Disposal of treated wastes (Incineration Ash/Sharps/Plastics)
						Equipment	Nos.	Total installed capacity in kg/day		
En-Cler Bio medical waste pvt.ltd. Gokul Nagar, Nr. SMC Solid Waste Disposal Site, Azad Nagar Road, Bhatar, Surat. Phone : 0261-2262516-17-18 Mr. Nirav Thakkr ( C.E.O.) +919687619003 , 9909968272 niravtgr2013@yahoo.com	—	Daman & Dadra Nagar Haveli	145	491	200 to 250 Kg/day	Incinerator:	1	200Kg./Hour	Yes Ventury Scrubber, Droplet Separator.	Incineration Ash: TSDf (BEIL)
						Autoclave:	1	125Kg./Hour		
						Hydroclave:	No.	Nil		
						Microwave:	No.	Nil		
						Shredder:	4	400Kg./Hour		
						ETP:	1	20000 Liter / Day		
						Deep burial:	No.	Nil		
<b>Sharps: Sharp pit &amp; Secure landfill site</b>  <b>Plastics: Recycle</b>										

UT ADMINISTRATION OF DAMAN & DIU AND DADRA & NAGAR HAVELI,  
SECRETARIAT, FORT AREA, MOTI DAMAN  
NOTIFICATION

PCC/DMN79/98-99/45

Dated:-16/05/2017

- READ** (1) Notification No. G.S.R. 343(E) dated 28/03/2016  
 (2) Letter No. B-31011 (BMW)/30/93/2014/HWMD/3701-6738 dated 25/10/2016 from the Central Pollution Control Board, Ministry of Environment and Forest and Climate Change, Government of India.

In exercise of the powers conferred by Rule 12 of the Bio-Medical Waste Management Rules, 2016, the Union Territory of Daman & Diu Administration is hereby please to constitute an District Level Monitoring Committee comprising of following members:

- |    |   |                  |
|----|---|------------------|
| 1. | District Magistrate, Daman  | Chairman         |
| 2. | Representative from PCC   | Member           |
| 3. | Assistant Engineer, PWD, Daman  | Member           |
| 4. | Representative from municipal council   | Member           |
| 5. | Representative from Indian Medical Association  | Member           |
| 6. | CEO, M/s En- Cler Bio Medical Waste P. Ltd., Surat, Common Bio Medical Waste treatment facility.                      | Member           |
| 7. | Representative from registered non - governmental organizations working in the field of bio-medical waste management. | Member           |
| 8. | Medical Officer, PHC, Daman   | Member Secretary |

Office of the Collector, Daman  
17/5/17

J.P. Mishra  
17/05/17

As and when required, the Committee shall advise the Union Territory Administration and the Prescribed Authority about the matters related to implementation of the Bio- Medical Waste Management Rules, 2016 in the Union Territory of Daman and Diu.

By order and in the name of  
the Administrator,  
Daman and Diu  
Deputy Secretary (Environment),  
15/05/17

OK

Copy:-

- 1) All Secretaries, Administration of Daman/Diu
- 2) The Chairman, Pollution Control Committee, DD & DNH.
- 3) The Collector, Daman/Diu.
- 4) The Director of Industries, Daman/Diu.
- 5) The Member Secretary, Pollution Control Committee, DD & DNH.
- 6) The Director, Medical and Public Health, Daman/Diu.
- 7) The Superintendent Engineer, PWD, Daman/Diu.
- 8) The Chief Officer, Municipal Council, Daman/Diu.
- 9) The President, Indian Medical Association, Daman/Diu.
- 10) The CEO, En-Cler Bio Medical Waste P. Ltd., Surat
- 11) The Manager, Government printing Press with a request to publish the same in the official Gazette of Administration of Daman/Diu.
- 12) N.I.C.

17/05/17

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17/5/17

J.P. Mishra  
17/05/17

17/5/17

17/5/17

## Report on Bio Medical Waste Management, Department of Health and Family welfare, District Diu, U.T of Daman and Diu

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### Definitions

"**Bio-medical waste**" means any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps

"**Health care facility**" means a place where diagnosis, treatment or immunization of human beings is provided irrespective of type and size of health treatment system, and research activity pertaining thereto. In pretext to these guidelines these health care facilities includes District Hospitals, Sub Divisional Hospitals, Community Health Centres, Primary Health Centres and Sub centres

"**Management**" includes all steps required to ensure that bio- medical waste is managed in such a manner as to protect health and environment against any adverse effects due to handling of such waste;

### Classification of Healthcare Waste

Health Care Facilities (HCFs) are primarily responsible for management of the healthcare waste generated within the facilities, including activities undertaken by them in the community. The health care facilities, while generating the waste are responsible for segregation, collection, in-house transportation, pre-treatment of waste and storage of waste, before such waste is collected by Common Bio-medical Waste Treatment Facility (CBWTF) Operator. Thus, for proper management of the waste in the healthcare facilities the technical requirements of waste handling are needed to be understood and practiced by each category of the staff in accordance with the BMWM Rules, 2016.

Waste generated from the healthcare facility is classified as:

- Bio Medical waste
- General waste
- Other Waste

### Bio Medical Waste

**Bio-medical waste** means any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps. Bio-Medical waste includes all the waste generated from the Health Care Facility which can have any adverse effect to the health of a person or to the environment in general if not disposed properly. All such waste which can adversely harm the environment or health of a person is considered as infectious and such waste has to be managed as per BMW Rules, 2016.

The quantity of such waste is around 10% to 15% of total waste generated from the Health Care Facility. This waste consists of the materials which have been in contact with the patient's blood, secretions, infected parts, biological liquids such as chemicals, medical supplies, medicines, lab discharge, sharps metallic and glassware, plastics etc.

Bio Medical Waste Management Rules, 2016 categorises the bio-medical waste generated from the health care facility into four categories based on the segregation pathway and colour code. Various types of bio medical waste are further assigned to each one of the categories, as detailed below:

1. Yellow Category
2. Red Category
3. White Category
4. Blue Category

These categories are further divided as per the type of waste under each category as follows:

CATEGORY	TYPE OF WASTE
<b>YELLOW</b>	<b>Human Anatomical Waste</b> Human tissues, organs, body parts and fetus below the viability period (as per the Medical Termination of Pregnancy Act 1971, amended from time to time).
	<b>Animal Anatomical Waste</b> Experimental animal carcasses, body parts, organs, tissues, including the waste generated from animals used in experiments or testing in veterinary hospitals or colleges or animal houses.
	<b>Soiled Waste</b> Items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs and bags containing residual or discarded blood and blood components.
	<b>Discarded or Expired Medicine</b> Pharmaceutical waste like antibiotics, cytotoxic drugs including all items contaminated with cytotoxic drugs along with glass or plastic ampoules, vial etc.
	<b>Chemical Waste</b> Chemicals used in production of biological and used or discarded disinfectants

	<b>Chemical Liquid Waste</b> Liquid waste generated due to use of chemicals in production of biological and used or discarded disinfectants, Silver X -ray film developing liquid, discarded Formalin, infected secretions, aspirated body fluids , liquid from laboratories and floor washings, cleaning, house - keeping and disinfecting activities etc
	<b>Discarded linen, mattresses, beddings contaminated with blood or body fluid, routine mask &amp; gown.</b>
	<b>Microbiology, Biotechnology and other clinical laboratory waste (Pre-treated)</b> Microbiology, Biotechnology and other clinical laboratory waste: Blood bags, Laboratory cultures, stocks or specimens of microorganisms, live or attenuated vaccines, human and animal cell cultures used in research, industrial laboratories, production of biological, residual toxins, dishes and devices used for cultures.
	Wastes generated from disposable items such as tubing, bottles, intravenous tubes and sets, catheters, urine bags, syringes without needles, fixed needle syringes with their needles cut, vaccutainers and gloves
<b>WHITE</b>	Waste Sharps including metals Needles, syringes with fixed needles, needles from needle tip cutter or burner, scalpels, blades, or any other contaminated sharp object that may cause puncture and cuts. This includes both used, discarded and contaminated metal sharps
<b>BLUE</b>	Broken or discarded and contaminated glass including medicine vials and ampoules except those contaminated with cytotoxic wastes.

**General Waste**

General waste consists of all the waste other than bio-medical waste and which has not been in contact with any hazardous or infectious, chemical or biological secretions and does not includes any waste sharps. This waste consists of mainly:

- (i) News paper, paper and card boxes (dry waste)
- (ii) Plastic water bottles (dry waste)
- (iii) Aluminium cans of soft drinks (dry waste)
- (iv) Packaging materials (dry waste)
- (v) Food Containers after emptying residual food (dry waste)
- (vi) Organic / Bio-degradable waste - mostly food waste (wet waste)
- (vii) Construction and Demolition wastes

These general wastes are further classified as dry wastes and wet wastes and should be collected separately.

This quantity of such waste is around 85 % to 90 % of total waste generated from the facility. Such waste is required to be handled as per Solid Waste Management Rules, 2016 and Construction & Demolition Waste Management Rules, 2016, as applicable.

**Status of District DIU( U.T of DAMAN and DIU)**

Department of Health and Family Welfare, District Diu of UT of Daman and Diu has already adopted the Biomedical Waste Rules 2016 which includes 01 District Hospital, 01CHCs, 01 PHCs, and 06 Sub Centres. The Waste that is generated at these health facilities is segregated at the point of generation itself. The department has engaged Common BMW Treatment Facility 'Girnar Bio Medical Waste Services, Junnagarh' for transportation and final disposal of BMW.

The Biomedical Waste Committee for each of these facilities is formed. The meetings and reviews are held on regular basis. The staff of the facilities including Consultants, Medical Officers, Paramedical Staff, SafaiKaramcharis and the waste handlers are trained from time to time. The periodic Medical examination and immunization is also conducted for all the employees. The BMW Committee conducts Audit to check the compliance of the process on regular frequency.

Sl. No.	Particulars		
1	Name of the Organisation		Directorate Of Medical & Health Services
3	Total no. of Health Care Facilities / Occupiers		1 DH, 1 CHC, 1PHC, 06Sub-Centers
4	Particulars of the Occupier	:	
	(i) Name of the authorised person (occupier or operator of facility)	:	Dr. V.K Das
	(ii) Name of HCF or CBMWTF	:	Directorate Of Medical & Health Services
	(iii) Address for Correspondence	:	Dr. V.K Das
	(iv) Address of Facility		CHC Moti Daman, Fort Area, Daman
	(v) Tel. No, Fax. No	:	
	(vi) E-mail ID	:	dmhs-daman-dd@nic.in
	(vii) URL of Website		<a href="http://www.diu.nic.in">www.diu.nic.in</a>
	(viii) GPS coordinates of HCF or CBMWTF		
	(ix) Ownership of HCF or CBMWTF	:	Government
5.	Type of Health Care Facility	:	
	(i) Bedded Hospital	:	No. of Bed: 96
6.	Details of CBMWTF	:	Girnar Bio Medical Waste Services, SorathTabbisangh, Plot 1746, GIDC,

			Junagarh
	(i) Number healthcare facilities covered by CBMWTF	:	
	(ii) No of beds covered by CBMWTF	:	96
7.	Quantity of waste generated or disposed in Kg per annum (on monthly average basis)	:	Yellow Category : 2969.53 Red Category: 2311.4 White: 88.345 Blue Category : 611.745 General Solid waste:
	*Note: Health Institute wise breakup is attached below		
8	Details of the Storage, treatment, transportation, processing and Disposal Facility		
	(i) Details of the on-site storage facility	:	Available at all Health care Facilities
9	Do you have bio-medical waste management committee?		Yes
10	Details trainings conducted on BMW		Yes
	(i) Number of trainings conducted on BMW Management.		4
	(v) whether standard manual for training is available?		Yes
11	Liquid waste generated and treatment methods in place. How many times you have not met the standards in a year?		Yes
12	Is the disinfection method or sterilization meeting the log 4		Yes

**Health Care Facility wise including Sub-center Bio Medical Waste generation**

Health Unit	Monthly Average (in Kgs)				Yearly(in Kgs)			
	Red	Yellow	Sharp Container	Blue	Red	Yellow	Sharp Container	Blue
VanakBara	16.08	19.50	0.83	8.00	193	234	10	96
Ghoghla	32.21	44.21	26.58	26.58	386.5	530.5	319	319
<b>Total</b>	<b>48.29</b>	<b>63.71</b>	<b>27.42</b>	<b>34.58</b>	<b>579.5</b>	<b>764.5</b>	<b>329</b>	<b>415</b>

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## Report on Bio Medical Waste Management, Department of Health and Family welfare, District Daman, U.T of Daman and Diu

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### Definitions

**"Bio-medical waste"** means any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps

**"Health care facility"** means a place where diagnosis, treatment or immunization of human beings is provided irrespective of type and size of health treatment system, and research activity pertaining thereto. In pretext to these guidelines these health care facilities includes District Hospitals, Sub Divisional Hospitals, Community Health Centres, Primary Health Centres and Sub centres

**"Management"** includes all steps required to ensure that bio- medical waste is managed in such a manner as to protect health and environment against any adverse effects due to handling of such waste;

### Classification of Healthcare Waste

Health Care Facilities (HCFs) are primarily responsible for management of the healthcare waste generated within the facilities, including activities undertaken by them in the community. The health care facilities, while generating the waste are responsible for segregation, collection, in-house transportation, pre-treatment of waste and storage of waste, before such waste is collected by Common Bio-medical Waste Treatment Facility (CBWTF) Operator. Thus, for proper management of the waste in the healthcare facilities the technical requirements of waste handling are needed to be understood and practiced by each category of the staff in accordance with the BMW Rules, 2016.

Waste generated from the healthcare facility is classified as:

- Bio Medical waste
- General waste
- Other Waste

### Bio Medical Waste

**Bio-medical waste** means any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps. Bio-Medical waste includes all the waste generated from the Health Care Facility which can have any adverse effect to the health of a person or to the environment in general if not disposed properly. All such waste which can adversely harm the environment or health of a person is considered as infectious and such waste has to be managed as per BMW Rules, 2016.

The quantity of such waste is around 10% to 15% of total waste generated from the Health Care Facility. This waste consists of the materials which have been in contact with the patient's blood, secretions, infected parts, biological liquids such as chemicals, medical supplies, medicines, lab discharge, sharps metallic and glassware, plastics etc.

Bio Medical Waste Management Rules, 2016 categorises the bio-medical waste generated from the health care facility into four categories based on the segregation pathway and colour code. Various types of bio medical waste are further assigned to each one of the categories, as detailed below:

1. Yellow Category
2. Red Category
3. White Category
4. Blue Category

These categories are further divided as per the type of waste under each category as follows:

CATEGORY	TYPE OF WASTE
<b>YELLOW</b>	<b>Human Anatomical Waste</b> Human tissues, organs, body parts and fetus below the viability period (as per the Medical Termination of Pregnancy Act 1971, amended from time to time).
	<b>Animal Anatomical Waste</b> Experimental animal carcasses, body parts, organs, tissues, including the waste generated from animals used in experiments or testing in veterinary hospitals or colleges or animal houses.
	<b>Soiled Waste</b> Items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs and bags containing residual or discarded blood and blood components.
	<b>Discarded or Expired Medicine</b> Pharmaceutical waste like antibiotics, cytotoxic drugs including all items contaminated with cytotoxic drugs along with glass or plastic ampoules, vials etc.
	<b>Chemical Waste</b> Chemicals used in production of biological and used or discarded disinfectants

	<p><b>Chemical Liquid Waste</b> Liquid waste generated due to use of chemicals in production of biological and used or discarded disinfectants, Silver X -ray film developing liquid, discarded Formalin, infected secretions, aspirated body fluids , liquid from laboratories and floor washings, cleaning, house - keeping and disinfecting activities etc</p>
	<p><b>Discarded linen, mattresses, beddings contaminated with blood or body fluid, routine mask &amp; gown.</b></p>
	<p><b>Microbiology, Biotechnology and other clinical laboratory waste (Pre-treated)</b> Microbiology, Biotechnology and other clinical laboratory waste: Blood bags, Laboratory cultures, stocks or specimens of microorganisms, live or attenuated vaccines, human and animal cell cultures used in research, industrial laboratories, production of biological, residual toxins, dishes and devices used for cultures.</p>
	<p>Wastes generated from disposable items such as tubing, bottles, intravenous tubes and sets, catheters, urine bags, syringes without needles, fixed needle syringes with their needles cut, vacutainers and gloves</p>
<b>WHITE</b>	<p>Waste Sharps including metals Needles, syringes with fixed needles, needles from needle cutter or burner, scalpels, blades, or any other contaminated sharp object that may cause puncture and cuts. This includes both used, discarded and contaminated metal sharps</p>
<b>BLUE</b>	<p>Broken or discarded and contaminated glass including medicine vials and ampoules except those contaminated with cytotoxic wastes.</p>

**General Waste**

General waste consists of all the waste other than bio-medical waste and which has not been in contact with any hazardous or infectious, chemical or biological secretions and does not includes any waste sharps. This waste consists of mainly:

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- (iii) Aluminium cans of soft drinks (dry waste)
- (iv) Packaging materials (dry waste)
- (v) Food Containers after emptying residual food (dry waste)
- (vi) Organic / Bio-degradable waste - mostly food waste (wet waste)
- (vii) Construction and Demolition wastes

These general wastes are further classified as dry wastes and wet wastes and should be collected separately.

This quantity of such waste is around 85 % to 90 % of total waste generated from the facility. Such waste is required to be handled as per Solid Waste Management Rules, 2016 and Construction & Demolition Waste Management Rules, 2016, as applicable.

#### Status of District Daman (U.T of DAMAN and DIU)

Department of Health and Family Welfare, District Daman of UT of Daman and Diu has already adopted the Biomedical Waste Rules 2016 which includes 01 District Hospital, 01 CHCs, 03 PHCs, and 20 Sub Centres. The Waste that is generated at these health facilities is segregated at the point of generation itself. The department has engaged Common BMW Treatment Facility 'En-cler Biomedical Waste Pvt Ltd, Surat' for transportation and final disposal of BMW.

The Biomedical Waste Committee for each of these facilities is formed. The meetings and reviews are held on regular basis. The staff of the facilities including Consultants, Medical Officers, Paramedical Staff, Safai Karamcharis and the waste handlers are trained from time to time. The periodic Medical examination and immunization is also conducted for all the employees. The BMW Committee conducts Audit to check the compliance of the process on regular frequency.

Sl. No.	Particulars		
1	Name of the Organisation		Directorate Of Medical & Health Services
3	Total no. of Health Care Facilities / Occupiers		1 DH, 1 CHC, 3 PHC, 20 Sub-Centers
4.	Particulars of the Occupier	:	
	(i) Name of the authorised person (occupier or operator of facility)	:	Dr. V.K Das
	(ii) Name of HCF or CBMWTF	:	Directorate Of Medical & Health Services
	(iii) Address for Correspondence	:	Dr. V.K Das
	(iv) Address of Facility		CHC Moti Daman, Fort Area, Daman
	(v) Tel. No, Fax. No	:	0260-
	(vi) E-mail ID	:	dmhs-daman-dd@nic.in
	(vii) URL of Website		
	(viii) GPS coordinates of HCF or CBMWTF		
	(ix) Ownership of HCF or CBMWTF	:	Government
5.	Type of Health Care Facility	:	
	(i) Bedded Hospital	:	No. of Bed: 185
6.	Details of CBMWTF	:	En-cler Biomedical Waste Pvt. Ltd

	(i) Number healthcare facilities covered by CBMWTF	:	25
	(ii) No of beds covered by CBMWTF	:	185
7.	Quantity of waste generated or disposed in Kg per annum (on monthly average basis)	:	Yellow Category : 185.33 Red Category: 270.74 White: 58.66 Blue Category : 61.26 General Solid waste:
	*Note: Health Institute wise breakup is attached below		
8	Details of the Storage, treatment, transportation, processing and Disposal Facility		
	(i) Details of the on-site storage facility	:	Available at all Health care Facilities
9	Do you have bio-medical waste management committee?		Yes
10	Details trainings conducted on BMW		Yes
	(i) Number of trainings conducted on BMW Management.		35
	(v) whether standard manual for training is available?		Yes
11	Liquid waste generated and treatment methods in place. How many times you have not met the standards in a year?		Yes
12	Is the disinfection method or sterilization meeting the log 4		Yes

**Health Care Facility wise including Sub-center Bio Medical Waste generation**

Health Unit	Monthly Average (in Kgs)				Yearly (in Kgs)			
	Red	Yellow	Sharp Container	Blue	Red	Yellow	Sharp Container	Blue
Marwad Hospital daman	0.99	1.00	40.00	2.01	12	12	480	24
Kachigam	34.83	75.92	5.08	4.33	418	911	61	52
Bhimpur	5.00	2.92	0.42	3.33	60	35	5	40
Dabhel	16.08	15.83	0.00	8.33	193	190	0	100
Moti Daman	213.83	89.67	13.16	43.25	2566	1076	158	519
<b>Total</b>	<b>270.74</b>	<b>185.33</b>	<b>58.66</b>	<b>61.26</b>	<b>3249</b>	<b>2224</b>	<b>704</b>	<b>735</b>

5/MEMSEC/PCC/2019  
No.PCC/DDD/NGT-673/2018/18-19  
Office of the Member Secretary,  
Pollution Control Committee,  
DD & DNH,  
Daman.

Dated: 08/01/2019.

### NOTIFICATION

As per the order issued by the Hon'ble National Green Tribunal (Principal Bench), New Delhi dated 20<sup>th</sup> September, 2018 in Original Application No. 673/2018 in the matter of news item published in "The Hindu" Titled "More river stretches are now critically polluted: CPCB", UT of Daman & Diu is directed to prepare action plan for bringing the polluted river stretch to be fit at least for bathing purpose (i.e. BOD < 3 mg/l and FC < 500 MPN/100 ml) within six months from the date of finalization of the action plan and as per the directions mentioned in para 50 (ii) of the order, the U.T. Administration of Daman & Diu is hereby pleased to constitute the "River Rejuvenation Committee" (RRC) to prepare, monitor and execute the action plan. The committee will comprise of the following members;

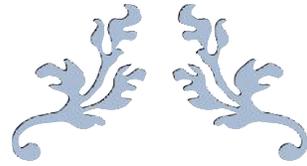
Sr. No.	Designation	Member
1	Director, Municipal Administration	Chairman
2	Deputy Director, Industries	Member
3	Conservator of Forest, Department of Environment & Forest	Member
4	Member Secretary, Pollution Control Committee, DD & DNH.	Member

  
Member Secretary  
Pollution Control Committee,  
Daman and Diu,  
Daman

To,

Copy to,

- 1) The Secretary, Department of Urban Development, Daman.
- 2) The Additional Secretary (Urban Development), Daman.
- 3) The Chief Conservator of Forest, DD & DNH.
- 4) The Collector, Daman.
- 5) The Collector, DNH.
- 6) Chief Officer, Daman Municipal Council, Daman.
- 7) Chief Officer, Diu Municipal Council, Diu.
- 8) The Assistant Director (Official Language), Daman with a request to get the Notification translated in Hindi language.
- 9) Guard file.



# Action Plan for Damanganga River



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U.T. Administration of Daman & Diu

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# 1. Introduction:

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. The river basin is situated in the Western Ghats region between 19°51' to 20°28'N latitude and 72°50' to 73°38'E longitude. The Madhuban Dam, constructed on the upstream of the river in Gujarat state is the major water resource. The stretch of the river from Madhuban Dam upto its confluence with the Arabian sea is ~41.56 km. Large, medium and small scale industries are located along the stretch of the river in the industrial cluster of Dadra & Nagar Haveli, Vapi (Gujarat) and Daman. Domestic wastewater from the catchment area is also discharged into the river.

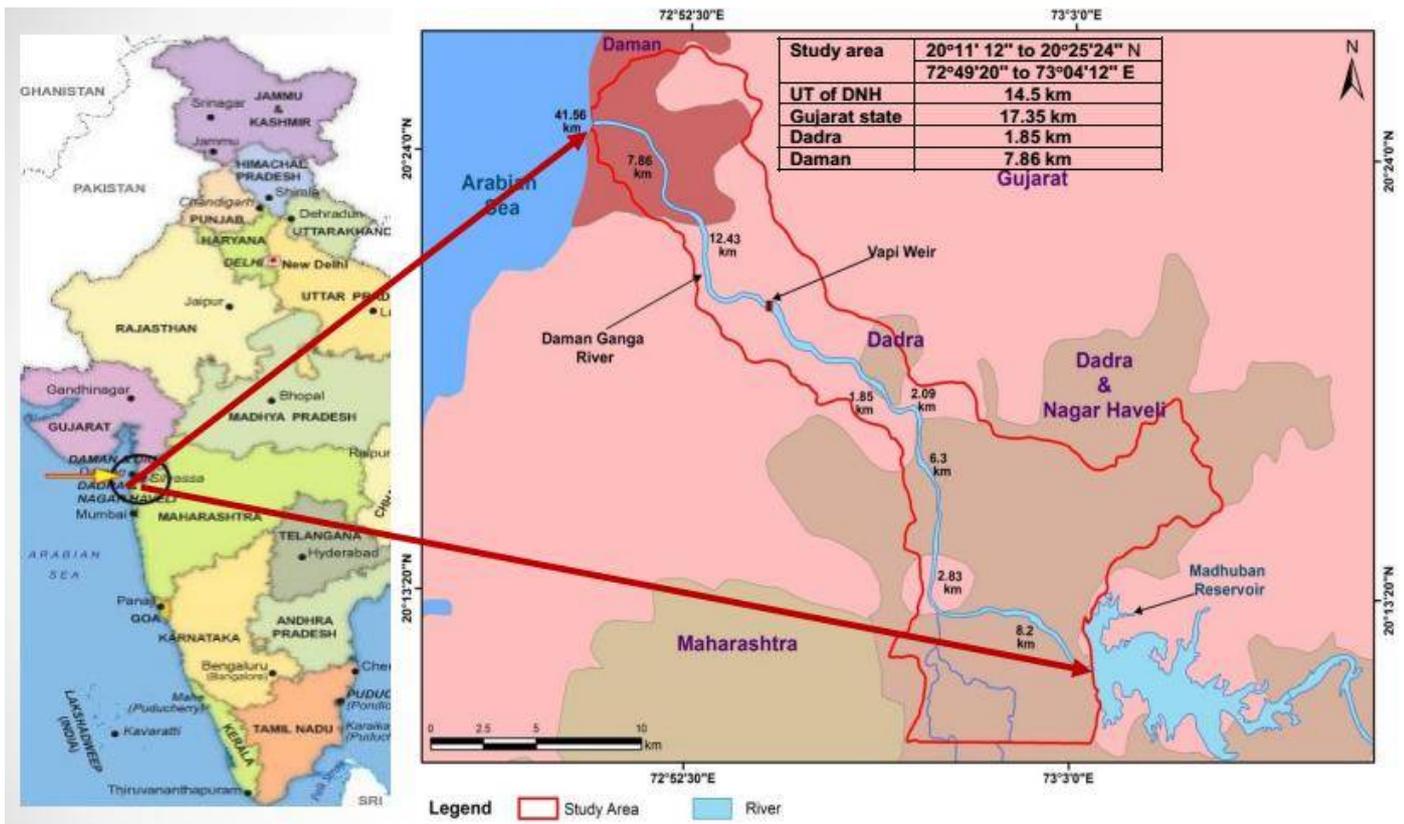


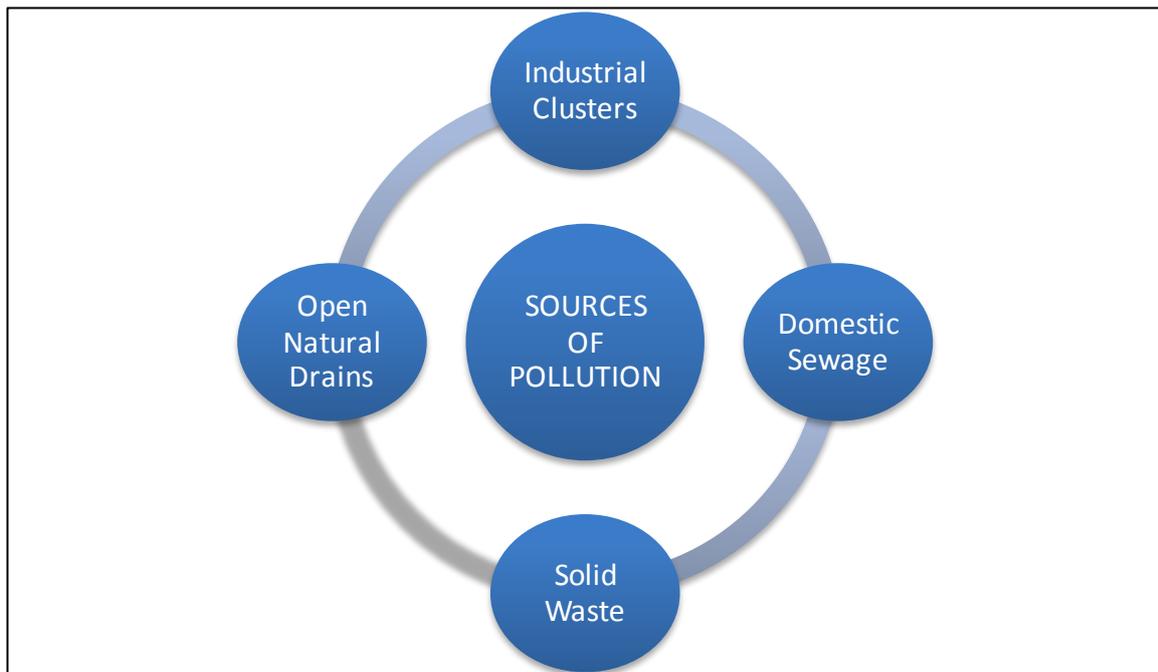
Fig 1: Location of River Damanganga

The level of pollution in the river is of major concern from the point of view of healthy flow of stream and the flora and fauna supported by the river. The major sources of wastewater discharges into Damanganga River through various drains include the disposal of industrial effluents from the industrial units/clusters in DNH, Vapi (Gujarat), and Daman as well as domestic sewage from towns/cities and settlements along the bank of the river. The major industrial effluents discharged into river and its estuary are from the Common Effluent Treatment Plant (CETP) of the GIDC, Vapi and Gujarat Heavy Chemicals Limited (GHCL), Bhilad. The treated effluent from CETP, Vapi is discharged into the river, downstream of the check dam constructed on the river at Vapi. The river water downstream of CETP, Vapi discharge location is highly coloured, an indicator of severe pollution, which persists till the confluence of the river with Arabian sea.

The UT Administration of Daman, Diu and Dadra & Nagar Haveli through CSIR National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur conducted a study on the pollution status of Damanganga River for the river stretch of ~42 km starting from Madhuban Dam to its confluence with Arabian Sea at Daman and prepare a feasibility report for delineating pollution abatement strategies for rejuvenation of the river. This action plan is prepared largely on the base of NEERI report and the monitoring carried out by the PCC subsequently from time to time.

## 2. Identifying Issues:

The major source of wastewater discharged into River Damanganga is through various drains including the disposal of industrial effluents from the industrial units / clusters in Dadra Nagar Haveli, Gujarat Industrial Development Corporation (GIDC), Vapi and Daman as well as untreated domestic sewage from the towns/ cities and settlements along with the bank of the river.



**Fig. 2 : Major Sources of Pollution of River Damanganga**

The major industrial effluents discharged into river Damanganga and its estuary are the Common Effluent Treatment Plant (CETP), Vapi, Gujarat; and Gujarat Heavy Chemical Limited (GHCL), Bhilad, Gujarat. There was a discharge of industrial effluent from Khemani Distilleries Pvt. Ltd., Kachigam, Daman, which was discontinued and the pipeline was removed from the river. In addition to this, they have upgraded and installed a Zero Liquid Discharge (ZLD) system, hence there is no discharge from their plant into Damanganga River now.

It is widely observed that the river water downstream of the CETP, Vapi discharge location has a high colour intensity that persists further downstream till the confluence of the river with Arabian Sea. Dumping of solid waste on the bank of river and nearby open natural drains (which ultimately meet the river) is also a major problem.

### 3. Municipal Sewage Generation and Treatment:

Much of the water quality deterioration is caused by disposal of sewage from the townships of Silvassa (DNH), Vapi (Gujarat), Daman and nearby settlements of the River Damanganga. The domestic wastewater generated from the towns is disposed directly into the river, without any treatment. But, it is of particular importance that in the above mentioned townships, projects on establishment of sewage treatment plants are under process. Once established, they will considerably decrease the prevalence of major pollutants which are presently being dumped into the River untreated.

**Table 1: Status of STPs near River Damanganga**

Sr. No	District/Town	Total Sewage Generation	Details of Sewage Treatment Plant
1	Dadra Nagar Haveli (DNH)	-	13 MLD near River Damanganga is under construction
2	Vapi, Gujarat (Vapi Nagarpalika)	-	1. Capacity - 14 MLD. Under Construction at Namdha village, will be completed by December, 2019. 2. Capacity - 29 MLD. Under planning stage (Land allotment issue)
3	GIDC Notified Area	-	1. Capacity – 10 MLD 2. Capacity – 05 MLD Both are under planning stage and have land allotment issue.
3	Daman, Daman Municipal Council	7.5 MLD	1. 4.2 MLD at Moti Daman. (Started in January, 2019). 2. 16 MLD at Nani Daman, (Under planning stage).

#### 4 Status of Industrial Wastewater:

No industrial units are permitted to discharge treated or untreated wastewater within or outside their premises. For the compliance of this condition, regular monitoring of wastewater generating industries is carried out. Regular sampling of treated and untreated wastewater is also carried out to check the adequacy of the installed effluent treatment plant (ETP).

Industries, situated in Daman and Dadra Nagar Haveli are strictly directed to reuse or utilize the wastewater generated within the premises. If any industry fails to comply the directions and consent conditions, strict actions taken on immediate bases.

In spite of this, there are two major industrial discharges present in river Damanganga, 1) Common Effluent Treatment Plant (CETP), Vapi, Gujarat; and 2) Gujarat Heavy Chemical Limited (GHCL), Bhilad, Gujarat.

**Table2: Status of industrial wastewater discharged in River Damanganga.**

<b>Sr. No.</b>	<b>Location detail</b>	<b>Flow per day (in MLD)</b>
1	Treated effluent discharge from CETP, Vapi, Gujarat	55-60
2	Treated effluent discharge from ETP of GHCL, Vapi, Gujarat	2.5



**Fig. 3: Industrial discharge in River Damanganga**

**Table 3: Quality of industrial Wastewater discharged in River Damanganga.**

Sr. No	Year	Location detail	Parameters			
			pH	BOD	COD	FC
1	Aug-18	Treated effluent discharge from CETP, Vapi, Gujarat	7.49	52	290	350
	Sep-18		7.36	131	434	240
	Oct-18		7.24	42	262	220
	Nov-18		7.41	48	282	94
	Dec-18		7.53	32	242	1600
2	Aug-18	Treated effluent discharge from ETP of GHCL, Vapi, Gujsarat	7.5	44	276	540
	Sep-18		7.34	38	183	350
	Oct-18		7.53	12	46	920
	Nov-18		7.42	65	316	220
	Dec-18		7.83	38	152.2	1600

## 5 Drain Outfalls in River Damanganga:

The towns/ cities and settlements located nearby the river are discharging untreated sewage to the river. There are three major towns located on the bank of River Damanganga, UT of Dadra Nagar Haveli (DNH); Vapi, Gujarat; and UT of Daman.

Based on the reconnaissance survey of the river stretch, 20 drains were identified in River Damanganga along the 41.56 km stretch from Madhuban Dam to its confluence with Arabian sea. Out of these 20 drains, 05 fall in UT of DNH, 07 fall in Gujarat (Vapi), and 08 fall in Daman. Details of drains along with its flow is provided in Table-4.



**Fig. 4: Drain from Nani Daman, Near Bus Stand**



**Fig. 5: Drain near Kabra Industrial Estate**

**Table 4: Status of drain-out falls in River Damanganga.**

Sr. No	District/ Town	Location number	Location detail	Flow per day(in MLD)
1.	Dadra Nagar Haveli (DNH)	D-01	Drain from Rakholi industrial Estate, Silvassa, DNH	43
2.		D-02	Drain from Masat village, Silvassa, DNH	06
3.		D-03	Drain from near Govt. industrial estate, Masat Ambapadia village, Silvassa, DNH	66
4.		D-04	Drain from Govt. Industrial Estate, Piparia Silvassa, DNH	65
5.		D-05	Drain from Piparia Industrial Estate, Piparia Silvassa, DNH	161
6	Gujarat (Vapi)	D-06	Drain from Lawachha village flowing adjacent to Rameshwari temple, Lawachha	31
7		D-07	Drain from Dadra at Dungra village, Vapi, Gujarat	6
8		D-08	Drain from Borigaon village opp. Dungra village, Gujarat	1
9		D-09	Pipe discharge at Vapi weir, Vapi, Gujarat	
10		D-10	Drain from Nani Sulpad, Khanki Phalia, Vapi, Gujarat	57
11		D-12	Drain from Nahuli village flowing adjacent to industry Neestech Pvt. Ltd, Vapi,	1.12
12		D-13	Drain from Vapi Industrial Area, Vapi, Gujarat	
13	Daman	D-14	Drain from Shree Ganesh Industrial Estate and Daman Industrial Estate, Daman	19
14		D-15	Drain from Kabra Industrial Estate, 50 m u/s of Zari Cause Way, Daman	
15		D-16	Drain from Kachigam village, Daman	
16		D-17	Drain from Nalia Pardi village Daman, Tribute Jharia Ashram School, Daman	Seasonal
17		D-18	Pipe discharge from Khemani Distillery, Daman.	Removed
18		D-19	Drain from Makat Falia village, Daman	Seasonal
19		D-20	Drain from Varkhund village, Daman (Somnath Industrial Estate, Bhenslore Industrial Estate, Ringanwada Industrial Estate)	2.43
20		D-21	Drain from Nani Daman Near bus stand, Daman	
21		D-22	Drain from Moti Daman near Rajiv Gandhi bridge, Daman	

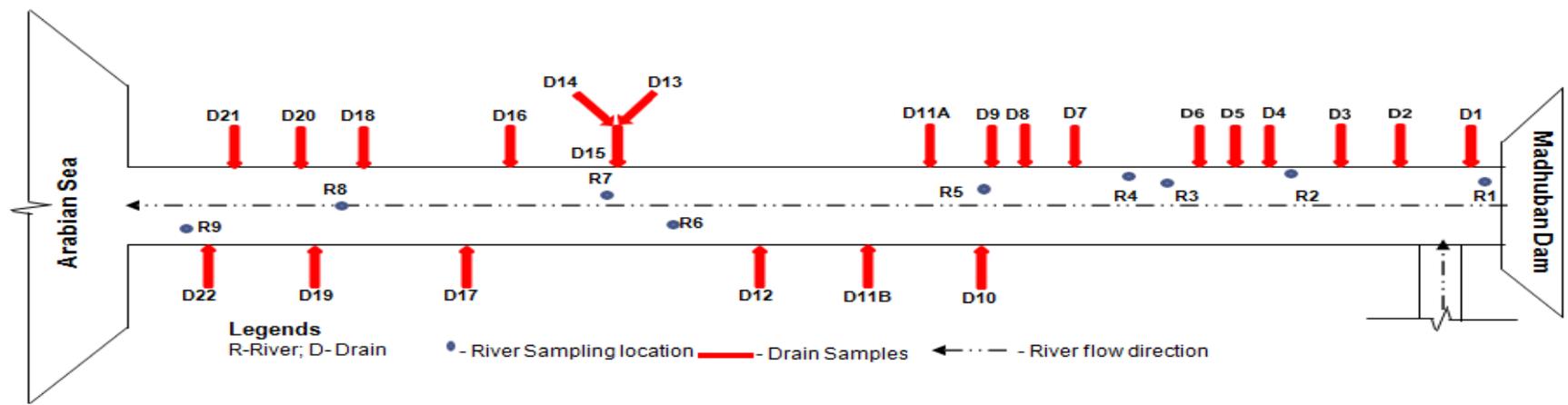
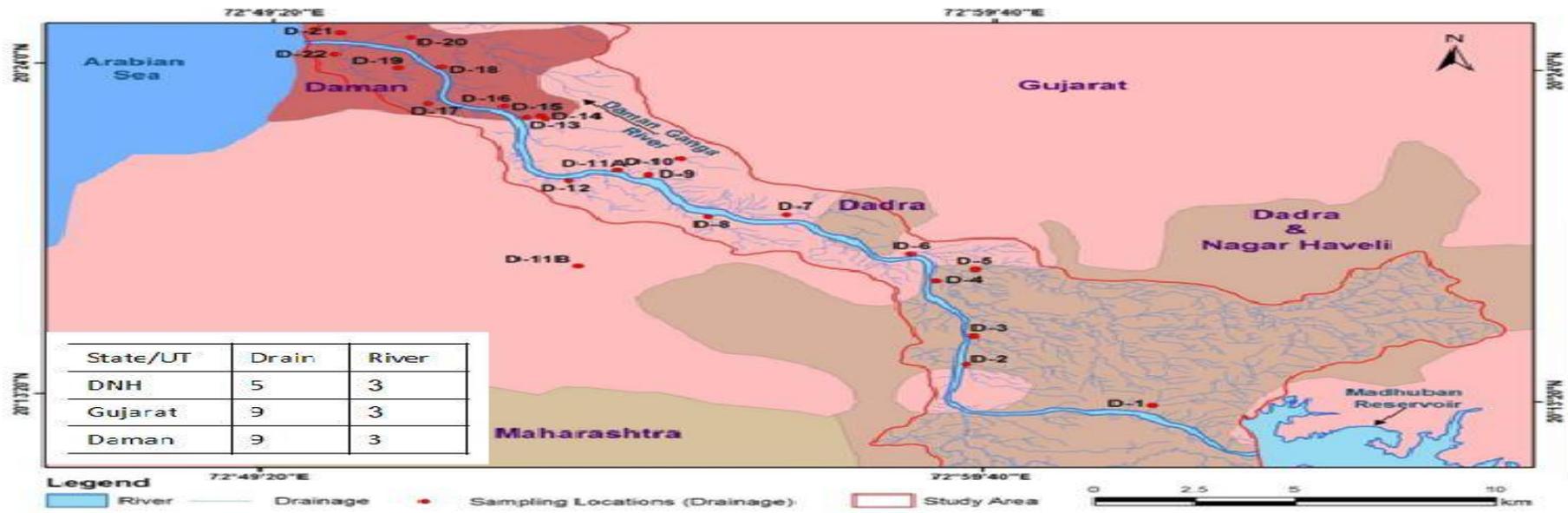


Fig. 6: Location of Drain out-fall in Damanganga River

**Table 5: Status of water quality of drains**

Sr. No	District / Town	Location number	Location detail	Parameters				Remarks
				pH	BOD	COD	FC	
1.	Dadra Nagar Haveli (DNH)	D-01	Drain from Rakholi industrial Estate, Silvassa, DNH	7.4	<1	<5	120	Low Concentration wastewater Drains
2.		D-02	Drain from Masat village, Silvassa, DNH	7.5	6	31	540	
3.		D-03	Drain from near Govt. industrial estate, Masat Ambapadia village, Silvassa, DNH	7.98	<1	<5	240	
4.		D-04	Drain from Govt. Industrial Estate, Piparia Silvassa, DNH	7.46	18	63	350	
5.		D-05	Drain from Piparia Industrial Estate, Piparia Silvassa, DNH	7.47	<1	<5	140	
6	Gujarat (Vapi)	D-06	Drain from Lawachha village flowing adjacent to Rameshwari temple, Lawachha.	7.46	< 1	<5	350	
7		D-07	Drain from Dadra at Dungra village, Vapi, Gujarat.	7.58	11	45	34	
8		D-08	Drain from Borigaon Village opp. Dungra village, Gujarat.	7.9	<1	<5	240	
9		D-09	Pipe discharge at Vapi weir, Vapi, Gujarat.	6.96	10	42	350	
10		D-10	Drain from Nani Sulpad, Khanki Phalia, Vapi, Gujarat	7.28	18	48	280	
11		D-12	Drain from Nahuli Village flowing adjacent to industry Neestech Pvt. Ltd, Vapi,	7.39	<1	<5	49	
12		D-13	Drain from Vapi Industrial Area, Vapi, Gujarat.	7.41	6	23	110	
13	Daman	D-14	Drain from Shree Ganesh Industrial Estate and Daman Industrial Estate, Daman.	7.47	<1	<5	430	
14		D-15	Drain from Kabra Industrial Estate, 50 m u/s of Zari Cause Way, Daman.	6.86	190	622	1600	High Concentration wastewater drain
15		D-16	Drain from Kachigam Village, Daman.	7.38	5	22	350	Low Concentration wastewater Drains

16	D-17	Drain from Nalia Pardi village Daman, Tribute Jharia Ashram School, Daman.	-	-	-	-	Seasonal drain
17	D-18	Pipe discharge from Khemani Distillery, Daman.	-	-	-	-	Removed
18	D-19	Drain from Makat Falia Village, Daman.	-	-	-	-	Seasonal drain
19	D-20	Drain from Varkhund village, Daman (Somnath Industrial Estate, Bhenslore Industrial Estate, Ringanwada Industrial Estate).	7.12	14	62	170	Medium Strength wastewater drain
20	D-21	Drain from Nani Daman Near bus stand, Daman.	7.13	58	199	79	
21	D-22	Drain from Moti Daman near Rajiv Gandhi bridge, Daman.	6.87	22	80	170	

**Table 6: All the Twenty-three drains have been categorized into low, medium & high strength wastewater based on their characteristics:**

<b>Drain Discharge</b>	<b>Strength of Effluent/Wastewater</b>
D-01 to D-10, D-12, D-13, D-14 & D-16	Low strength wastewater
D-20, D-21 & D-22	Medium strength wastewater
D-17 & D-19	Seasonal Drains
D-18	Removed
D-11A, D-11B and D-15	High strength wastewater

## 6 Prioritization of Polluted Stretch based on Present River Water

### Quality:

To assess the water quality of river and impact of various drains on River Damanganga, samples were collected on monthly bases.

Under the **National Water Quality Program (NWMP)**, water quality of River Damanganga was assessed at 09 different locations from Madhuban Dam to its confluence with the Arabian sea at Moti Daman Jetty. Based upon the assessed river water quality it had been identified that the polluted stretch of Damanganga River begins after Vapi Weir, Vapi, Gujarat till the river confluence with the Arabian sea at Moti Daman Jetty, Daman.

Based upon the assessed water quality of Damanganga River during the period of 2017 to 2018, river stretch after Vapi Weir, Vapi, Gujarat had been categorized as **Priority - III** (length - 9.06 km ) polluted stretch till discharge of distillery (Daman) in Damanganga River and afterwards as **Priority – II** (length - 4.25 km) polluted stretch. Priority wise categorization of polluted stretch of Damanganga River had been described through Table No. 7, 8, 9 & 10 and Figure no. 07, based upon the assessed water quality from the period of 2017 to 2018.

Damanganga River receives 07 drains after Vapi Weir (Gujarat) till discharge point of Distillery (at Daman) which cause the deterioration of the river water quality to Priority - III polluted stretch (however, discharge line of the distillery was completely removed and achieved ZLD) i.e. D-11A (Treated effluent discharge from CETP, Vapi, Gujarat), D-11B (Treated effluent discharge from ETP of GHCL, Vapi, Gujarat), D-12 (Drain from Nahuli village flowing adjacent to industry Neestech Pvt. Ltd, Vapi), D-13 (Drain from Vapi Industrial Area, Vapi, Gujarat), D-14 (Drain from Shree Ganesh Industrial Estate and Daman Industrial Estate, Daman), D-15 (Drain from Kabra Industrial Estate, 50 m u/s of Zari Cause Way, Daman) & D-16 (Drain from Kachigam village, Daman).

Further in downstream, Damanganga River receives another 03 domestic wastewater drains after discharge point of Distillery (at Daman) till Moti-Daman Jetty (Daman) which causes further deterioration of the river water quality to Priority - II polluted stretch i.e. D-20 (Drain from Varkund village, Daman), D-21 (Drain from Nani Daman Near bus stand, Daman) and D-22 (Drain from Moti Daman near Rajiv Gandhi bridge, Daman).

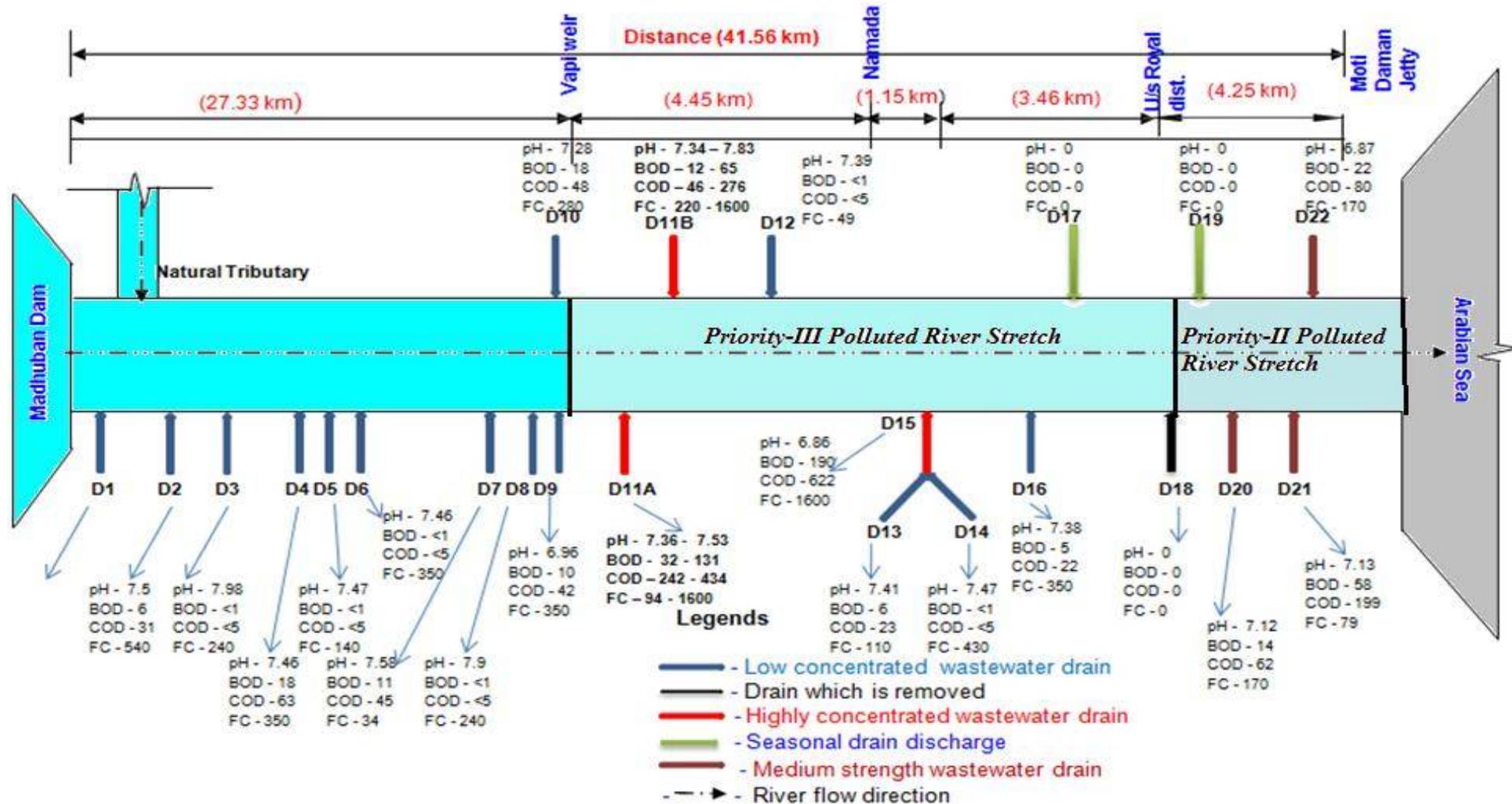
<b>Table 7: Priority wise categorization of polluted stretch of Damanganga River based upon the water quality during the year 2017</b>														
<b>Sampling Location</b>	<b>Parameter</b>	<b>1/17</b>	<b>2/17</b>	<b>3/17</b>	<b>4/17</b>	<b>5/17</b>	<b>6/17</b>	<b>7/17</b>	<b>8/17</b>	<b>9/17</b>	<b>10/17</b>	<b>11/17</b>	<b>12/17</b>	<b>Priority</b>
<b>Madhuban Dam (DNH)</b>	<b>COD</b>	10	5	5	5	20	5	5	5	5	12	5	5	Does not fall under polluted stretch criteria
	<b>BOD</b>	1	1	1	1	5	1	1	1	1	3	1	1	
	<b>DO</b>	6	6.7	6.4	6.6	6.3	6.4	6.95	6.8	6.4	5.6	7.7	5.5	
	<b>FC</b>	23	17	150	17	17	12	130	10	7.8	10	17	350	
<b>Naroli Bridge (DNH)</b>	<b>COD</b>	5	5	5	5	10	5	5	5	5	5	5	5	Does not fall under polluted stretch criteria
	<b>BOD</b>	1	1	1	1	1	1	1	1	1	1	1	1	
	<b>DO</b>	5.8	6.6	5.6	5.8	7.25	6	6.2	6.4	5.9	5.6	8	5.6	
	<b>FC</b>	170	94	240	100	1600	210	17	1600	17	1.8	94	76	
<b>Lawacha Temple (Gujarat)</b>	<b>COD</b>	18	5	5	16	10	8	5	5	5	14	28	5.4	Does not fall under polluted stretch criteria
	<b>BOD</b>	4	1	1	3	1	1	1	1	1	3	5	8	
	<b>DO</b>	5.2	6.9	6.4	5.8	5.7	6.2	6.4	6.5	5.8	5.8	6	1	
	<b>FC</b>	170	49	540	50	1600	540	49	49	14	170	140	240	
<b>Surat Beverages (DNH)</b>	<b>COD</b>	5	5	5	5	10	5	5	5	5	5	9	5	Does not fall under polluted stretch criteria
	<b>BOD</b>	1	1	1	1	1	1	1	1	1	1	1	1	
	<b>DO</b>	5.8	6.6	6.2	5.8	4.5	5.6	5.9	5.75	6.2	5.6	5.6	6.1	
	<b>FC</b>	110	430	240	430	920	32	50	130	12	120	350	920	
<b>Vapi Weir (Gujarat)</b>	<b>COD</b>	14	5	5	16	20	14	5	5	10	24	19	6	Does not fall under polluted stretch criteria
	<b>BOD</b>	4	1	1	4	6	3	1	1	2	8	1	1	
	<b>DO</b>	6.2	6.8	6.2	6.4	6.7	6.6	7.2	7.1	6.8	6.4	4.6	5.5	
	<b>FC</b>	540	46	350	540	920	40	120	50	31	63	79	240	

<b>Table 8: Priority wise categorization of polluted stretch of Damanganga River based upon the water quality during the year 2018</b>														
<b>Sampling Location</b>	<b>Parameter</b>	<b>1/18</b>	<b>2/18</b>	<b>3/18</b>	<b>4/18</b>	<b>5/18</b>	<b>6/18</b>	<b>7/18</b>	<b>8/18</b>	<b>9/18</b>	<b>10/18</b>	<b>11/18</b>	<b>12/18</b>	<b>Priority</b>
<b>Madhuban Dam (DNH)</b>	<b>COD</b>	5	5	5	9	5	5	5	5	8	5	10	<2	Does not fall under polluted stretch criteria
	<b>BOD</b>	1	2	1	2	1	1	1	1	3	1	2	<1	
	<b>DO</b>	6.1	5.8	5.2	6.3	4.5	6.4	5.9	4.9	5.6	5.8	5.1	6.7	
	<b>FC</b>	94	84	33	130	170	26	33	70	79	33	79	2	
<b>Naroli Bridge (DNH)</b>	<b>COD</b>	5	5	10	5	5	5	5	5	10	5	14	8.1	Does not fall under polluted stretch criteria
	<b>BOD</b>	1	1	3	1	1	1	1	1	1	1	3	1.3	
	<b>DO</b>	7	6.2	5.4	6	5.1	6.1	6.2	5.6	5.6	6.4	5.7	6	
	<b>FC</b>	120	46	49	140	140	170	46	49	920	1600	110	27	
<b>Lawacha Temple (Gujarat)</b>	<b>COD</b>	18	12	9	5	5	5	5	5	5	10	12	7	Does not fall under polluted stretch criteria
	<b>BOD</b>	6	5	2	1	1	1	1	1	1	3	4	1.2	
	<b>DO</b>	6.1	6.2	4.8	5.9	5.2	6.4	6.2	5.7	5.9	5.4	6.1	6.7	
	<b>FC</b>	120	33	79	350	280	70	34	64	41	26	280	40	
<b>Surat Beverages (DNH)</b>	<b>COD</b>	5	10	8	12	5	18	5	11	5	5	5	8	Does not fall under polluted stretch criteria
	<b>BOD</b>	1	3	2	5	1	4	1	4	1	1	1	1.1	
	<b>DO</b>	5.2	6.3	5.4	5.8	7	5.5	6.5	5.1	5.8	5.4	6	6.3	
	<b>FC</b>	220	120	94	79	220	140	70	84	170	350	34	60	
<b>Vapi Weir (Gujarat)</b>	<b>COD</b>	8	7	5	18	5	6	5	10	16	20	21	<2	Does not fall under polluted stretch criteria
	<b>BOD</b>	2	2	1	4	1	2	1	3	5	6	3	<1	
	<b>DO</b>	6	5.8	5.4	5.9	5.7	6.1	5.5	6.2	5.6	5.9	4.9	6.5	
	<b>FC</b>	180	70	170	540	220	58	64	34	920	170	140	50	

Table 9: Priority wise categorization of polluted stretch of Damanganga River based upon the water quality during the year 2017														
Sampling Location	Parameter	1/17	2/17	3/17	4/17	5/17	6/17	7/17	8/17	9/17	10/17	11/17	12/17	Priority
Namdha Village (Gujarat)	COD	48	27	31	24	13	15	5	15	5	36	97	80	Priority - III
	BOD	12	10	10	8	1	4	1	1	1	10	25	19	
	DO	4.4	6.8	6.2	7.2	8.6	6.6	5.55	5.7	6.2	5.9	3.2	5.6	
	FC	48	23	130	250	240	21	23	33	33	22	120	540	
At Zari Causeway (Daman)	COD	98	59	65	62	53	44	9	45	18	72	232	53	Priority - III
	BOD	24	17	18	18	13	12	1	8	5	28	60	12	
	DO	5.8	4.8	4.2	5.2	4.2	5.6	6.6	6.4	5.8	6.2	4.9	6	
	FC	94	79	1600	720	920	920	49	440	210	13	130	240	
At D/s discharge of Distillery (Daman)	COD	18	16	28	-	53	44	-	64	58	28	102	26	Priority - III
	BOD	5	1	10	-	15	12	-	17	20	8	33	5	
	DO	5.2	5.9	6.2	-	5.35	5.8	-	5.95	5.8	5.6	5.1	3.6	
	FC	280	170	240	-	540	130	-	240	220	34	170	240	
Moti Daman Jetty (Daman)	COD	32	16	20	46	80	56	24	28	36	42	206	160	Priority - II
	BOD	10	4	1	12	22	16	8	4	10	15	58	46	
	DO	5.2	5.8	5.9	5.2	5.4	6.2	6.8	6.75	5.4	5.4	4.4	5.6	
	FC	26	17	170	440	510	240	540	240	17	12	920	240	

<b>Table 10: Priority wise categorization of polluted stretch of Damanganga River based upon the water quality during the year 2018</b>														
<b>Location</b>	<b>Parameter</b>	<b>1/18</b>	<b>2/18</b>	<b>3/18</b>	<b>4/18</b>	<b>5/18</b>	<b>6/18</b>	<b>7/18</b>	<b>8/18</b>	<b>9/18</b>	<b>10/18</b>	<b>11/18</b>	<b>12/18</b>	<b>Priority</b>
<b>Namdha Village (Gujarat)</b>	<b>COD</b>	64	48	53	10	20	5	28	5	28	46	70	28	<b>Priority - III</b>
	<b>BOD</b>	<b>14</b>	<b>12</b>	<b>15</b>	1	1	1	6	1	<b>8</b>	<b>19</b>	<b>24</b>	2.7	
	<b>DO</b>	4.9	5.6	6	6.6	5.8	6.4	5.6	5.95	5.6	6.1	5.5	4.5	
	<b>FC</b>	350	140	<b>920</b>	240	70	220	46	120	79	<b>920</b>	220	1600	
<b>At Zari Causeway (Daman)</b>	<b>COD</b>	42	68	74	80	70	16	12	11	28	50	38	32	<b>Priority - III</b>
	<b>BOD</b>	<b>18</b>	<b>20</b>	<b>28</b>	<b>19.1</b>	<b>18.5</b>	4	3	2	<b>9</b>	<b>14</b>	<b>8</b>	2.9	
	<b>DO</b>	5.2	6	5.2	5.9	6.6	6.4	6.6	6.1	6.4	5.8	6.1	3.5	
	<b>FC</b>	94	70	49	70	350	84	46	170	26	170	90	1600	
<b>At D/s discharge of Distillery (Daman)</b>	<b>COD</b>	31	44	-	25	29	8	-	-	44	-	-	19	<b>Priority - III</b>
	<b>BOD</b>	<b>10</b>	<b>14</b>	-	<b>6</b>	<b>8</b>	3	-	-	<b>12</b>	-	-	1.6	
	<b>DO</b>	4.4	5.6	-	5.9	6.8	6.6	-	-	6.2	-	-	5.9	
	<b>FC</b>	220	70	-	33	350	130	-	-	240	-	-	26	
<b>Moti Daman Jetty (Daman)</b>	<b>COD</b>	120	156	378	76	13	22.6	66	202	53	80	62	21	<b>Priority - II</b>
	<b>BOD</b>	<b>34</b>	<b>48</b>	<b>108</b>	<b>20</b>	2.01	6	<b>14</b>	<b>64</b>	<b>10</b>	<b>22</b>	<b>18</b>	1.8	
	<b>DO</b>	6.1	5.2	6.4	5.9	7.2	6.2	5.8	5.7	5.4	6.1	5.8	6.1	
	<b>FC</b>	280	220	140	70	10	46	49	220	130	94	41	50	

Fig. 7: Priority wise categorization of polluted stretch of Damanganga River



This is the most important source of information that is being considered while prioritising the areas where action has to be taken first for rejuvenation of the polluted stretch of Damanganga River.

**Table 11: Drains contributing in Priority-III and Priority – II polluted stretch of Damanganga River**

Sr. No	District/ Town	Location Code	Location detail	Wastewater Flow in MLD	Drains in Polluted stretch
1	Gujarat (Vapi)	D-11A	Treated effluent discharge from CETP, Vapi, Gujarat	55 – 60	<b>Priority – III</b>
2		D-11B	Treated effluent discharge from ETP of GHCL, Vapi, Gujarat	2.5	
3		D-12	Drain from Nahuli Village flowing adjacent to industry Neestech Pvt. Ltd, Vapi,	1.12	
4		D-13	Drain from Vapi Industrial Area, Vapi, Gujarat		
5	Daman	D-14	Drain from Shree Ganesh Industrial Estate and Daman Industrial Estate, Daman	19	
6		D-15	Drain from Kabra Industrial Estate, 50 m u/s of Zari Cause Way, Daman		
7		D-16	Drain from Kachigam village, Daman		
8		D-17	Drain from Nalia Pardi village Daman, Tribute Jharia Ashram School, Daman	Seasonal	
		D-18	Pipe discharge from Khemani Distillery, Daman.	Removed	
9		D-19	Drain from Makat Falia Village, Daman	Seasonal	
10		D-20	Drain from Varkhund village, Daman (Somnath Industrial Estate, Bhenslore Industrial Estate, Ringanwada Industrial Estate)	2.43	
11		D-21	Drain from Nani Daman Near bus stand, Daman.		
12	D-22	Drain from Moti Daman near Rajiv Gandhi bridge, Daman.			

## 7 Plan of Action:

### a. Strategies for pollution abatement in River Damanganga:

The aim is to restore the natural flow of River Damanganga by multiple interventions. Thus, ecological river restoration will be the foremost aspect of Damanganga River management. Restoration of any degraded river can be done by reconstructing the structure and function of the pre-disturbance of the ecosystem. It is also to note that river restoration will only be sustainable if it is undertaken within a process-driven and strategic framework with inputs from a wide range of specialists. Such an approach needs to be reviewed constantly.

For practical purposes, past and current human intervention should be taken into account to achieve a more natural sustainable river habitat/rich status. Any planning and design should interface between the urban area and the course of the river to ensure that it can be protected and restored as a natural resource.

We propose five criteria for measuring the success with which the entire plan of action, with special emphasis on an ecological perspective, is delivered. First, the design of an ecological river restoration project is based on a specified guiding image of a more dynamic, healthy river that could exist at the site. Secondly, the river's ecological condition must be **measurably** improved. Thirdly, the river system must be more self-sustaining and resilient to external perturbations so that only minimal follow-up maintenance is needed. Fourthly, during the action phase, no lasting harm should be inflicted on the ecosystem. Fifthly, both pre- and post-assessment must be completed and data made publicly available.

The CPCB has carried out water quality assessment activities, on long term basis, has provided information on the segment of rivers that are not meeting water quality criteria and have been identified as polluted. Monitoring locations not meeting the water quality criteria have been identified as polluted and sources of the pollution are identified for intervention to contain the discharges.

As per direction from CPCB, river water is considered to be fit for bathing when it meets the criteria of having Bio-chemical Oxygen Demand (BOD) - 3.0 mg/l or less, Dissolved Oxygen (DO) – 5 mg/l or more, and Faecal coliform bacteria – 500 MPN/100 ml or less. In this action plan, the ultimate aim will be to reach to this level of BOD in all stretches of river with careful interventions within a span of two years.



Fig. 8: (Source: **Standards for ecologically successful river restoration, British Ecological Society**)

Keeping the above in mind, the strategies for developing management plan for Damanganga River are:

- Implementing specific measures for the progressive reduction of discharge and solid waste disposal into the river and the cessation or phasing-out of discharges and solid waste disposal into the river.
- Preventing further deterioration, protecting and enhancing the status of aquatic ecosystems by improving water quality of the river.
- Promoting the concept of “sustainable water” based on long-term protection of available water resources.
- Integration of urban growth with existing natural systems in order to create a sustainable and holistic development of the adjoining areas.

**b. Strategies for Priority – III Polluted River Stretch :**

- As shown in Fig. 7, Priority – III stretch (length 9.06 km) covers 07 drains i.e. D-11A, D-11B, D-12, D-13, D-14, D-15 & D-16 from which 04 drains (D-11A, D-11B, D-12, D-13) fall in Vapi, Gujarat state and 03 drains (D-14, D-15, D-16) fall in Daman district.
- Action plan and strategy for the 04 drains from Gujarat will be worked out by GPCB and Gujarat Government.
- Remaining 03 drains in Daman District will be monitored on monthly basis.
- Wastewater generating industries from these industrial areas have already installed effluent treatment plant.
- Major industrial areas i.e. Kabra Industrial area, Shree Ganesh Industrial Area, Premier Industrial Estate, will be monitored on monthly basis.

**Table 12: Action Plan for rejuvenation of the Priority – III polluted stretch of Damanganga River**

Sr. No	District/ Town	Location Code	Location detail	Action Plan	Financial Closure Budget	Targeted Time Period	Implementing Agency
1	Daman	D-14	Drain from Shree Ganesh Industrial Estate and Daman Industrial Estate, Daman.	Sewage networking project is under process. STP of capacity 54 MLD (approx) will be planned.	To be planned	June, 2020	District Panchayat, Daman
2		D-15	Drain from Kabra Industrial Estate, 50 m u/s of Zari Cause Way, Daman.				
3		D-16	Drain from Kachigam village, Daman.				
4		D-17	Drain from Nalia Pardi village Daman, Tribute Jharia Ashram School, Daman.	Seasonal	-	-	-

\*\*The Drains D-11A, D-11B, D-12, D-13 are fall in Gujarat State. Action plan for the same will be prepared by Gujarat State.

**c. Strategies for Priority – II Polluted River Stretch :**

- As shown in Fig. 7, Priority – II stretch (length 4.25 km) covers 03 drains i.e. D-20, D-21, D-22.
- For the drains, D-21 and D-22, sewage treatment plant of capacity 4.21 MLD had been installed and operational at Moti Daman.
- To cover the gap in sewage treatment, another sewage treatment plant of capacity 16 MLD is proposed at Nani Daman area, which will cover the entire Nani Daman area and nearby rural area.
- The drain, D-20 carries domestic wastewater as well as industrial wastewater from the Somnath, Ringanwada, and Dabhel area.
- The industries located in these areas are not allowed to discharge treated or un-treated wastewater outside their industrial premises and strictly directed to utilise generated wastewater within the premises only. Regular checks and inspections are carried out to ensure the same. These will be intensified further.
- **Inventorization** will be taken on priority basis in these areas to make sure that there is no discharge of treated or untreated wastewater to nearby drainage line.

**Table 13: Action Plan for rejuvenation of the Priority – II polluted stretch of Damanganga River**

Sr. No	District / Town	Location Code	Location detail	Action Plan	Financial Closure Budget	Targeted Time Period	Implementing Agency
1	Daman	D-18	Pipe discharge from Khemani Distillery, Daman.	Removed	-	-	-
2		D-19	Drain from Makat Falia Village, Daman.	Seasonal	-	-	-
3		D-20	Drain from Varkhund village, Daman (Somnath Industrial Estate, Bhenslore Industrial Estate, Ringanwada Industrial Estate)	Sewage networking project is under process. STP of capacity 54 MLD (approx) will be planned.	To be planned	June, 2020	District Panchayat, Daman
4		D-21	Drain from Nani Daman Near bus stand, Daman.	Proposed STP of 16 MLD capacity. Sewage networking project in Nani	For now, total budget allotted for STP and	Sewage networking project is scheduled to	Daman Municipal Council

				Daman area is undergoing.	Sewage Networking project is around 30 Crore.	be completed by 31/12/2020 and construction of STP will be completed 31/12/2020.	
5		D-22	Drain from Moti Daman near Rajiv Gandhi bridge, Daman.	The STP of 4.21 MLD capacity has already been constructed at Moti Daman and it will take care all the sewerage being generated in the nearby areas of Nani Daman and Moti Daman.			Daman Municipal Council

## 8 Implementation:

### a. Interception of sewage and industrial effluent discharges:

For abatement of pollution in the River Damanganga, inflow of untreated wastewater into the river is proposed to be intercepted. Under any circumstances the raw wastewater (both domestic and industrial) will not be allowed to get discharged into the river.

To accomplish this, the drains having the worst water quality parameters are identified and accordingly a priority list has been made so as to target them first. (Refer to Table 5) It is seen that drain D15 (Drain from Kabra Industrial Estate, 50 m u/s of Zari Cause Way, Daman) is having the worst quality parameters and hence, industries and establishment all along this drain will be of primary focus. The Action Plan as specified earlier will be strictly adhered to monitored and properly documented so as to ensure maximum compliance.

### b. Establishment of sewage network including rehabilitation of old sewerage system:

The status of sewerage system can also lead to pollution when the river watershed areas have inadequate or not properly maintained or no sewerage system. Therefore, the existing sewerage system facilities have to be improved to reduce the risk of sewage seepage into the river, especially during rainy season. Provision

should be made to capture entire sewage generated within the watershed areas. For effective interception of wastewater and to bring untreated sewage / effluent to the treatment plant, it is imperative that a **comprehensive sewerage network plan** including augmentation of existing sewerage systems be delineated so that all discharges in the catchment area be tapped and conveyed to the proposed wastewater treatment facilities. Taking advantage of the natural slope the wastewater conveyance system should preferably be based on gravity flow, whenever possible. Detailed status of sewage networking system connected with wastewater treatment plants are given under point c below.

**c. Establishment of new wastewater treatment plants including upgradation of existing facilities:**

The gap between wastewater generation and its proper management has to be reduced by establishing new wastewater treatment plants and adopting appropriate treatment technology in the proposed treatment plants. This will facilitate the removal of organics, inorganics, solids, nutrients, pathogens and other toxic pollutants including heavy metals from the wastewater/effluent. Treated water can either be used for horticulture or in industrial process or for any other purposes to achieve the clean water goal.

The Daman Municipal Council, Daman has proposed Sewerage Networking and Sewerage Treatment Plant for Moti Daman & Nani Daman. The households of Moti Daman are 4500 and the quantity of sewerage generated is around 1.5 MLD. To process all the sewerages (liquid waste), all the households in Moti Daman have been joined to a Sewerage Networking System and the length of the sewerage networking is 18 KM for the Moti Daman, Daman Municipal Council area. The work of Sewerage Networking in Moti Daman has already been completed. Apart from this, a Sewerage Treatment Plant of 4.21 MLD capacity has been constructed for processing of liquid waste and is operational.

The households of Nani Daman are 15500 and the quantity of sewerage generated around 06 MLD. On similar lines, to process all the sewerages (liquid waste) in this area as well, a **Sewerage Networking System based on vacuum system** is being started in Nani Daman area as a pilot project in two wards, which are adjacent to

Damanganga River. Ward no. 3 & 15 have been taken in first phase of the project and the Sewerage Networking length is 8 KM and the sewer line has connected to STP Moti Daman. Rest of the Nani Daman Municipal area will also be covered subsequently and the sewerage system for Nani Daman area is scheduled to be completed by March 2020. Liquid waste processing system a stake of all sewerage which is controlling pollution of Damanganga River.

**d. Management of Industrial Effluent:**

Industrial pollution can be controlled through proper planning of industrial areas based on environmental impact assessment. The large scale industries should treat their effluent within the industrial premises aiming at zero liquid discharge. The small and medium scale industrial units shall provide individual effluent treatment facility.

However, tapping and monitoring of these units is a challenge that will be taken up as a part of this Action Plan. Inventorisation and management of waste generated in these units will be taken up on priority basis to make sure that they are connected to the sewerage network system. In addition to this, stricter penalties for violations will be charged and especially those industries lying in the worst polluted zone will be held accountable in case of any irregularity found at their end.

**e. Treatment and tapping of discharges:**

It was observed that the domestic sewage, agricultural & storm water runoffs and partially treated or untreated industrial effluent were directly discharged into the river through different open drain discharges. These drain discharges imperil the river water. Details of various drain out-falls in River Damanganga are mentioned in Table 4.

This is the most challenging activity as it requires a multi-pronged approach involving active participation of communities, industries as well as administrative stakeholders. Awareness programmes are already going on in densely populated *chawls* and residential areas for reducing dumping of waste in drains. Open drains in these areas which are susceptible to any kind of solid waste have now been covered and are discharged only into notified nalas or septic tanks. Similarly, NGOs are teaming

up with PCC to raise awareness about plastic and e-waste and its collection. These efforts will help reduce non-biodegradable and toxic wastes in the river.

With respect to storm water, there are no specific guidelines or manual provided by CPCB. But, for the optimization of the performance of wastewater treatment plants it is required to construct a separate line for the storm water run-off and domestic/ municipal wastewater line, which meets to its treatment system without access load. It will help to eliminate sewer over flow which in turn helps to prevent pollution specifically in a heavy rain and flood plain zones. Much work is needed to be done in this regard but this has to be parallel with the development of STPs. This direction was well taken by implementing agencies and necessary storm water drains have been proposed in annual budgets. However, complete coverage will take another 2 years.

Collaboration meeting of implementing agencies namely, District Panchayat and Daman Municipal Council with the Pollution Control Committee will also help to achieve this objective. On similar lines, co-ordination meetings between implementing agencies in Gujarat, Dadra & Nagar Haveli and Daman & Diu with regional committee of PCC will also help.

**f. Ban on deleterious anthropogenic activities and disposal of municipal waste or solid waste dumping into the river or on the bank:**

- Washing of clothes, utensils, vehicles and bathing by the nearby communities in the River Damanganga, these activities have to be stopped immediately because it contributes inorganic, organics, detergents and biological contaminants to the river water. Presence of detergent causes significant foaming at turbulence site which may hamper the oxygen diffusion rate and also affect various aquatic biological processes.
- Disposal of garbage, semi-solid and solid wastes into river leads to significant depletion of dissolved oxygen and affects biotic community in the river. Therefore, disposal of such waste into river and its tributaries including drain discharges should be restricted. This waste must be scientifically treated and disposed off to secured landfill.

- Awareness drives have been carried out extensively in densely populated areas along the river. It has also covered proper disposal of garbage and sewage. It is being monitored proactively with the help of citizens initiatives.

<b>Time-Based Activity Chart and Action Points as Suggested by the CPCB for Damanganga River Action Plan</b>		
<b>Sl. No.</b>	<b>Activity</b>	<b>Status</b>
1	Mapping of every municipal sewer and every natural drain meeting to the River Damanganga.	On-going. It will take one week to complete the mapping.
2	Strengthening of inspection and monitoring of wastewater generating industrial units.	Completed. Action taken against 35 units (Approx.) including closure direction.
3	Industries will not be allowed to discharge treated effluent as well as domestic wastewater outside their own premises.	Clear directions have been issued to all the industries. However, zero discharge will take some time as many small unit clusters are present which need sewerage networking for domestic wastewater.
4	Strict enforcement with respect to industrial effluent discharge norms / All industrial units should be asked to achieve ZLD status and no industrial wastewater partial/	All the trade effluent generating industries in the UT of Daman and Dadra & Nagar Haveli shall be directed to achieve Zero Liquid Discharge or to install mechanism for reutilizing the treated effluent in process/ gardening/ flushing based upon the concentration of effluent, manufacturing process, product, developed green belt area in the industrial premises and location of the industry with reference

	fully treated be allowed to discharge in the River.	to the general effluent standards.
5	Adoption of good irrigation practices /utilization of treated sewage to minimize abstraction of groundwater or use of surface water:	<p><b><u>Daman:</u></b></p> <p>The total No. of households in Moti Daman and Nani Daman are 4500 and 15500 respectively. The quantum of sewage generated in Moti Daman is about 1.5 MLD. The quantum of sewage generated in Nani Daman is about 06 MLD.</p> <p>The Sewage Treatment Plant (STP) with 4.21 MLD capacity has already been constructed at Moti Daman and is operational since February, 2019. Rest of the Nani Daman Municipal area will also be covered subsequently and the sewerage system for Nani Daman area is scheduled to be completed by December 2020 with a separate STP of 16 MLD capacity at Nani Daman.</p> <p>Action Plan for the use of treated wastewater from STP by Daman Municipal Council has already been prepared and shared with the CPCB.</p> <p><b><u>Dadra Nagar Haveli:</u></b></p> <p>The Silvassa Municipal Council, Dadra Nagar Haveli has proposed underground Sewerage Networking and Sewage Treatment Plant for Silvassa-Amli Town in two phases. Phase-I covers the core area of the Silvassa. All the households are joined to a Sewerage Networking System and the length of the sewerage networking is 29.51 KM. 85% of the work of Sewerage Networking in phase – I has already been completed. Sewage Treatment Plant (STP) with a capacity of 13 MLD has already been constructed for processing of liquid waste.</p>

		<p>Survey for the quantity of sewage generation (liquid waste) from the existing household is not completed yet. Phase-II covers the remaining areas, which are on the periphery of the core area. The length of the sewerage networking is about 30.67 KM. STP with a capacity of 11 MLD will be constructed near the existing STP of capacity 13 MLD.</p> <p>Action Plan for the use of treated waste water from STP by Silvassa Municipal Council has already been prepared and shared with the CPCB.</p>
6	Properly channelizing all the wastewater generated from residential settlements to its treatment facility.	Sewage system in being laid down. Will take one year to be fully integrated.
7	Stopping dumping of solid waste nearby river bank and drainage line.	Awareness Programmes and community mobilisation is being carried out. The intensity will have to be increased. The District Panchayat and Daman Municipal Council are the nodal agencies for carrying out these activities on a regular basis.
8	Flood Plain Zone protection and its management.	Forest department had constructed 29 check dams in the catchment area of Damanganga River for flood plain zone protection. Detailed status of these Check dams will be collected from the Forest Department, DNH.
9	Rainwater harvesting /ground water recharge aspects.	All the upcoming construction and industrial projects shall be issued a strict guideline/instruction for providing a suitable rain water harvesting system to reduce dependency over ground water resource or to recharge the ground water table.
10	Maintaining E-flows and Watershed Management	Minimum environmental flow (e-flow) for the river that has to be maintained at various locations. Uninterrupted flow of water in any river is important

		<p>to keep it clean through its natural ecological functions and processes. Any dam or structure meant for diversion of river flows for the purpose of irrigation 10 %, hydro-power and domestic or industrial use will have to maintain the minimum E-flow.</p> <p>Regular cleaning of the various drains joining the river shall be done at a fixed interval, for this all the local bodies shall be directed to carry out regular cleaning of all the drains in their respective areas.</p>
11	<p>Setting up of bio diversity parks including removal of encroachment, plantation on both sides of the river.</p>	<p>Following bio diversity parks had been setup in the Damanganga River catchment area:</p> <ol style="list-style-type: none"> <li>1. Nakshtra Van</li> <li>2. City Park</li> <li>3. Butterfly Garden</li> </ol> <p>Direction shall be issued to all the local bodies for removal of encroachment from the river basin area. All necessary initiatives shall be taken by the local bodies and forest department to increase the plantation on both side of the river by creating awareness programs.</p>

## Action plan of Municipal Solid Waste Management

Sr. No.	Activity	Status	
		Daman	Dadra & Nagar Haveli
1.	Notify buffer zone for the solid waste processing and disposal facilities of more than five tons per day in consultation with the PCC.	31 <sup>th</sup> October, 2019	31 <sup>st</sup> May, 2019
2.	Clearing existing dumps/landfills sites.	30 <sup>th</sup> December, 2019	31 <sup>st</sup> December, 2020
3.	Door to Door Collection.	100% implemented	31 <sup>st</sup> March,2019
4.	Source Segregation.	30 <sup>st</sup> June, 2019	31 <sup>st</sup> March,2019
5.	Processing of waste.	100% processing will be achieved till July, 2019	100% processing will be achieved till March 2019
6.	Computerization of waste collection process.	GPS already installed in vehicles, Vehicles are compartmentalized	31 <sup>st</sup> May, 2019
7.	Develop Scientific Landfill Site.	30 <sup>th</sup> October, 2019	31 <sup>st</sup> December, 2020
8.	Penalty provisions.	Implemented	Implemented

-- The End --

**MINUTES OF THE 1<sup>ST</sup> MEETING OF THE "STATE LEVEL COMMITTEE" IN  
COMPLIANCE OF THE ORDER OF THE NGT (PB), DELHI IN OA NO. 606/2018  
DATED 16/01/2019.**

A meeting of the State Level Committee was held on 20/02/2019 at 16:00 Hrs in the Conference Hall, Secretariat, Daman under the chairmanship of the Advisor to the Administrator, UT of DD & DNH to discuss about the progress of compliances made on various agenda points mentioned as Annexure-I. The following were present during the meeting:

1. Shri S. S. Yadav, IAS, Advisor to Administrator, UT of DD & DNH.
2. Dr. K. Ravichandran, IFS, Secretary, Environment & Forest / Chief Conservator of Forest, UT of DD & DNH.
3. Shri Sandeep Kumar Singh, IAS, Collector, Daman / Member Secretary, PCC, Daman & Diu.
4. Ms. Sonalika Jiwani, IAS (P), Assistant to Collector, Daman.
5. Shri Vaibhav Rikhari, Chief Officer, DMC, Daman.
6. Shir D. R. Damania, BDO, Daman.
7. Shri P. M. Makvana, Extension Officer, Village Panchayat, District Panchayat, Daman.

Member Secretary, Pollution Control Committee welcomed the Chairman & the members of the committee and explained about purpose of the meeting. Thereafter, agenda wise discussion was held & the following was decided as under.

**1) Status of compliance of Solid Waste Management Rule, 2016:**

It was informed that

- UT Administration of Daman & Diu has notified a UT Level Advisory Body, and put in place a Solid Waste Management Policy for effective implementation of the Solid Waste Management Rules, 2016 in the Union Territory of Daman & Diu and Dadra & Nagar Haveli.
- In compliance to the Solid Waste Management Rule, 2016, ULB wise action plan has been prepared.
- More than 35 waste pickers have been registered and integrated in solid waste management system.
- In Daman, a compost plant has been installed with an input capacity of 5 MT.
- New tenders had been floated and finalized which covers collection, segregation, processing, and disposal to recyclers of waste in Daman.
- The sewage treatment plant of capacity 4.21 MLD has already been constructed at Moti Daman. Sewage networking project in Nani Daman is undergoing and All the wards and areas located along the Daman Ganga River will be joined with the existing sewage treatment plant at Moti Daman. Once the sewage networking

in other areas are completed, the work on establishment of a sewage treatment plant of 16 MLD capacity for Nani Daman area will be taken up.

The Chairman asked the DMC to expedite the works in ward No. 3 and 13 covering the areas located along the Damanganga river and connect with the Sewage treatment plant at Moti Daman at the earliest. The Chariman also asked the DMC and District Panchayats to ensure that 100 % collection, segregation of solid wastes at house hold level and ensure all the organic wastes are sent to compost plant/yard.

**2) Status of compliance of Plastic Waste management Rule, 2016:**

It is mentioned that U.T. Administration of Daman & Diu had completely banned on usage of plastic carry bags and constituted the State Level Advisory Body for effective implementation of the Plastic Waste Management Rules, 2016. The estimated plastic waste generation is Approx.1944 Tons/Annum and 219 registered plastic manufacturing/ recycling industries in DD & DNH.

The Chairman asked to go for enforcement drive in all market places and strictly enforce the rules. He also asked the DMC and PCC to organize more awareness programmes to encourage the use of cloth bags and paper bags and discourage the use of single use plastics.

**3) Status of compliance of Bio medical Waste Management Rules, 2016:**

The Member Secretary, PCC informed about the details of category of wastes, quantity generated and the treatment proposed for different biomedical wastes as under.

Sr. No.	Category of waste	Generation (kg/month)	Treatment
1	Yellow Category (Includes Human and Animal anatomical waste, Soiled waste, Expired and discarded medicines, Chemical waste, Laboratory-microbiology waste)	4859	Incineration
2	Red Category (Contaminated waste recyclable)	3918	Autoclave
3	White Category (Waste sharps)	355	Shredder needle tip cutter
4	Blue Category (Glass ware)	529	Disinfection or autoclaving

Further, the committee is informed that:

- a) UT Administration of DD & DNH had authorized M/s. En-cler (En-vision) Bio-Medical Waste Pvt. Ltd. to collect and transport all the generated biomedical waste from the UT of Daman and Dadra Nagar Haveli to the Common Biomedical Waste Treatment Facility situated at Gokul Nagar, Near Surat

Municipal Corporation Solid Wastes Disposal Site, Azad Nagar Road, Bhatar, Surat, Gujarat.

- b) M/s. En-cler (En-vision) Bio-Medical Waste Pvt. Ltd. is authorized to operate Common Biomedical Waste Treatment Facility at Surat by the Gujarat Pollution Control Board.
- c) UT Level Advisory Committee is constituted under Rule No. 12 of the Bio-medical Waste Management Rules, 2016.

The chairman pointed out that instances have been noticed that some hospitals are not disposing of the biomedical wastes properly and as per Rules. The Director, Medical Health Service, DD & DNH has been asked to monitor all the hospitals & ensure proper disposal of biomedical wastes generated by the hospitals in DD & DNH.

**4) Status of the Action Plan in compliance vide order dated 20.09.2018 in the News Item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB (Original Application No. 673/2018).**

In this regard, it was informed that UT Administration, DD & DNH has constituted the "River Rejuvenation Committee (RRC)" for the preparation of an Action Plan for Damanganga River. The committee will also monitor the execution of the activities proposed in the Action plan on polluted river stretch of River Damanganga.

The action plan on the polluted river stretch of River Damanganga has been prepared and was presented before the at CPCB, Delhi on 12/02/2019. CPCB provided some suggestions & the same are being incorporated. The final Action Plan on Damanganga River will be submitted at the earliest.

**5) Status of functioning of Committees constituted in News Item Published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with Multiple timelines to Clear Air in 102 Cities to be released around August 15" dated 08.10.2018.**

It was informed that the issues pertaining to the status of monitoring air quality in non-attainment cities and Daman, Diu, and Dadra Nagar Haveli does not fall under the non-attainment cities.

However, the Pollution Control Committee, DD & DNH is monitoring the ambient air quality by establishing Ambient Air Quality Monitoring (AAQM) stations at six locations under National Ambient Air Quality Monitoring programme (NAMP) through the MoEF & CC recognized laboratory, M/s Unistar Environment & Research Labs P. Ltd., Vapi, Gujarat.

The location include 03 in Daman at (i) Mashal Chowk, Nani Daman (Residential cum Commercial), (ii) M/s Prima Plastic, Village Kadaiya, Nani Daman (Industrial area), (iii) Makat Faliya/Ambavadi, Moti Daman (Rural area) and 03 in DNH at (i) M/s Chetan Guest House, Piperia, Silvassa (Residential cum Commercial), (ii) Baldevi, Dandul Faliya, Silvassa, DNH (Rural area) & (iii) M/s Shivom Industries, Village Khadoli, Silvassa, DNH (Industrial area).

Total eight (08) parameters are analyzed which include Particulate Matter (PM<sub>10</sub>), Particulate Matter (PM<sub>2.5</sub>), Oxide of Nitrogen (NO<sub>x</sub>), Sulphur Dioxide (SO<sub>x</sub>), Carbon Monoxide (CO), Ammonia, Ozone and Lead. The said parameters are within the limit in all six (06) locations except for Particulate Matter (PM). The Particulate Matter (PM<sub>10</sub>) is slightly above the prescribed limit at four (04) locations due to heavy vehicle transportation and dusty road.

The UT administration is taking efforts to increase the green cover in the form of Road side/Avenue plantation, median plantation and plantation in Forest/Government land to reduce the level of (PM<sub>10</sub>) in atmosphere.

In addition, PCC, DD & DNH is also analyzing parameters like Benzene (C<sub>6</sub>H<sub>6</sub>), Benzo (a) Pyrene (BaP), Arsenic (As) and Nickel (Ni), they are Below Detection Limit (BDL) since May, 2018 at all six locations mentioned above.

The analyzed data for all six locations are sent through e-mail on monthly basis to CPCB, Delhi regularly.

Further, PCC, DD & DNH is not allowing any industry to generate high Sulphur in order to improve the air quality and banned the use of coal, lignite & pet coke as fuel in the UT of Daman, Diu and Dadra Nagar Haveli. Only agro based briquettes, LDO, FO, diesel are allowed as fuel in Boiler, Thermic Fluid Heater & D.G. Set, etc.

It is decided that the PCC and Industries department to persuade the industries to develop green cover along the boundaries and also in the vacant plots in industrial premises so as to reduce the level of Particulate Matter (PM<sub>10</sub>)

**6) Status of Action Plan with regard to identification of polluted industrial clusters in O.A. No. 1038/2018, News item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels" dated 13.12.2018.**

It was informed that, CPCB has developed Comprehensive Environmental Pollution Index (CEPI) to find out an index value to characterize quality of the environment. This index is developed with an objective to assess the environment quality in the country.

The CPCB has revised CEPI concept in concurrence with MoEF & CC and subsequently issued directions to SPCB/PCC having Critically Polluted Areas (CPAs) for adoption of the revised CEPI concept. The UT of Daman & Diu and Dadra Nagar Haveli does not fall under Critically Polluted Areas as per CPCB report.

However, the pollution in Damanganga River is cause of concern. Efforts are on monitor the pollution level in Damanganga River by collecting water samples at drainage points & some locations at River joint sampling is collected & analyzed by PCC, CPCB, & GPCB regularly. All the Industries have installed the ETP to treat the industrial waste waster and STPs have been established in Hotels and Resorts. The functioning of ETPs and STPs needs to be closely monitored to ensure desired outcome.

**7) Status of the work in compliance of the directions passed in O.A. No. 173 of 2018, Sudarsan Das v. State of West Bengal & Ors. Order dated 04.09.2018.**

It was informed that Hon'ble NGT issued an order dated 04/09/2018 in O.A. No. 173 of 2018 in the Sudarsan Das v. State of West Bengal & Ors. where in the NGT has directed to impose fine on erring industry on basis of Polluter Pay Principle & Precautionary Principle. The details of amount so collected & utilized so far have to be furnished to Hon'ble NGT. In this connection, it is informed that no amount is collected so far from the industries in DD & DNH based on Polluter Pay Principle. The same will be implemented henceforth on erring industries.

**8) Total amount collected from erring industries on the basis of 'Polluter Pays' principle, 'Precautionary principle' and details of utilization of funds collected.**

No amount collected from the industries on the basis of Polluter Pay Principle or Precautionary principle.

**9) Status of the identification and development of Model Cities and Towns in the State in the first phase which can be replicated later for other cities and towns of the State.**

It was informed to that the identification of model cities and towns will be decided in the next meeting.

The Chairman of the Committee in his closing remarks directed the concerned authority viz. Municipal council of Daman, Diu & Silvassa and District Panchayat, Daman, Diu and DNH to prepare & update the status report, take necessary steps to implement the various activities envisaged in relation to solid waste management, plastic waste management, biomedical waste management and action plan on

2

Damanganga River. Also, asked the PCC to take appropriate actions and interventions wherever necessary and implement the directions of Hon'ble NGT.

It was been decided to fix the next meeting during last week of month. All the agencies have been directed to submit an updated report well in advance.

The meeting ended with vote of thanks to the Chair.



Member Secretary,  
Pollution Control Committee,  
Daman & Diu,  
Daman.

No. PCC/DDD/NGT-606(2018)(DMN)/18-19/96

Date:- 01/04/19

To,

All Concerned.

No.PCC/DDD/NGT-606(2018)(DMN)/18-19/39  
Office of the Member Secretary,  
Pollution Control Committee,  
DD & DNH,  
Daman.

Dated: 19/02/2019

**READ:** Hon'ble National Green Tribunal (Principal Bench), New Delhi dated 16/01/2019 in O.A. No. 606/2018 in the matter of Compliance of Municipal Solid Waste Management Rules, 2016.

### **NOTIFICATION**

In order to compliance of the National Green Tribunal (Principal Bench), New Delhi order dated 16/01/2019, the Administrator of Daman & Diu and Dadra Nagar Haveli is pleased to constitute the "State Level Committee" consisting of the following members:

Sr. No.	Designation	Member
1	Advisor to Administrator, Daman & Diu.	Chairman
2	Secretary, Urban Development	Member
3	Secretary, Environment and Forest	Member
4	Secretary, Rural Development	Member
5	Secretary, Health	Member
6	Shri B. R. Naidu, Regional Director, CPCB, Vadodara.	Member
7	Member Secretary, PCC, Daman & Diu	Member Secretary

  
Member Secretary  
Pollution Control Committee,  
Daman and Diu,  
Daman

Copy to,

- 1) The Collector, Daman.
- 2) The Collector, DNH.
- 3) Chief Officer, Daman Municipal Council, Daman.
- 4) Chief Officer, Diu Municipal Council, Diu.
- 5) The Assistant Director (Official Language), Daman with a request to get the Notification translated in Hindi language.
- 6) Guard file.