

National Mission for Clean Ganga
Submission of Monthly Progress Report in the NGT Matter OA No. 673 of
2018 for the month of December 2023
(In compliance to NGT order dated 24.09.2020)

For the UT of Dadra Nagar Haveli (DNH) and Daman & Diu

Overall status of the State:

I.	Total Population	Daman Population : - Urban : 44282 - Rural : 146891 (As per population census 2011) Diu Population : - Urban : 31000 - Rural : 28000 (As per population census 2011) Silvassa (DNH) Population : - Urban : 98265 - Rural : 343709 (As per population census 2011)
II.	Estimated Sewage Generation (MLD) :	Daman: 6.44 Diu: 3.77 Dadra Nagar Haveli: 10.61
III.	Details of Sewage Treatment Plant	
	Existing no. of STPs and Treatment Capacity (in MLD)	01 no. of STPs, in Daman there is 4.21 MLD, 01 no. of STPs in Dadra Nagar Haveli 13.0 MLD, in Diu the STP is under construction with 7 MLD Capacity.
	Capacity Utilization of existing STPs	4.21 MLD in Daman, 3.51 MLD in Dadra Nagar Haveli & in Diu nil
	MLD of sewage being treated through Alternate technology	In rural areas, sewage is treated and disposed through Soak pit and Septic tank.
	Gap in Treatment Capacity in MLD	5.25 MLD in Daman, 7.10 MLD in DNH
	No. of Operational STPs	02 nos. (1 – nos. in Daman & 1 - nos. in DNH)

	No. of Non-complying STPs	Nil
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Details of each existing STP in the State

No.	Location	Existing STP Capacity	Capacity Being Utilized	Operational Status of STP	Compliance Status of STP
1	Near Rajiv Gandhi Setu, Fort Area, Moti Daman.	4.21 MLD	4.21 MLD	Operational	Complying
2	Survey No. 202/P, Near Pipariya Industrial Area, Silvassa-396230	13 MLD	3.51 MLD	Operational	Complying

Details of under construction STPs in the State

No.	Location	Capacity of the plant in MLD	Physical Progress in %	Status of I&D or House sewer connections	Completion Timeline
01	Diu	7.0 MLD	90 %	Under Construction	01/04/2024

Details of proposed STPs in the State

No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
01	At Khariwad, Behind Hotel Presidency, Nani Daman	10 MLD	Work Awarded to Jayanti Super Construction Private Limited, Mehsana (at execution stage)	January-2025

IV.	Details of Industrial Pollution :	
	No. of industries in the State	6637 (Approx.)
	No. of water polluting industries in the State	262 (Approx.)
	Quantity of effluent generated from the industries in MLD	6542.74 KLD (Approx.)
	Quantity of Hazardous Sludge generated from the Industries in TPA	1682.430 MTPA (Approx.)
	Number of industrial units having ETPs	262 (Approx.)
	Number of industrial units connected to CETP	Not applicable
	Number and total capacity of ETPs (details of existing/ under construction / proposed)	262 Nos. of ETPs and Total Capacity of ETPs: 11409.2 KLD
	Compliance status of the ETPs	Complied
	Number and total capacity of CETPs (details of existing/ under construction / proposed)	Nil

- Status of compliance and operation of the CETPs : Not Applicable

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (existing, under construction & proposed)
Daman	3970	Nil	Complied	Nil
Dadra Nagar Haveli	4343	Nil	Complied	Nil

V.	Solid Waste Management	
	Total number of Urban Local Bodies and their Population	03 nos. of Urban Local Bodies i.e. Daman Municipal Council, Diu Municipal Council, Silvassa Municipal Council, & Total Population is 173547

	Current Municipal Solid Waste Generation	Daman Municipal Council: 40 TPD Daman District Panchayat: 54.96 TPD Diu Municipal Council: 13.17 TPD Diu District Panchayat: 18.5 TPD Silvassa Municipal Council: 62.51 TPD Silvassa District Panchayat: 84.0 TPD
	Number, installed capacity and utilization of existing MSW processing facilities in TPD (bifurcated by type of processing eg- Waste to Energy (Tonnage and Power Output), Compost Plants (Windrow, Vermi, decentralized pit composting), biomethanation, MRF etc.	Daman Municipal Council: 1 No. Compost plant of 200 TPD Daman District Panchayat: SPV Agency under DBFOT Model i.e. M/s 9 Star Enviro Management execution works for Integrated Solid Waste Management (Collection, Transportation, Segregation and Disposal) of Waste. Diu Municipal Council: 1 No. Compost plant of 50 TPD Capacity Diu District Panchayat: MoU is signed with Ultra Tech Cements (Narmada Cement Jafarabad Works) 100 % collection is carried out. Silvassa Municipal Council: Number & Installed Plant -1 (Compost plant (Windrow Aerobic Composting) with a capacity of 150 TPD)
	Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%)	Not applicable
	No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction)	Daman Municipal Council: C & D Waste generation is minimal. Hence, the processing plant is not installed. Daman District Panchayat: 150 TPD

		Silvassa Municipal Council: C & D Waste generation is minimal and well managed in the Silvassa Municipal Council area. Hence, the processing plant is not installed.
	Total no. of wards, no. of wards having door to door collection service, no. of wards practicing segregation at source	Daman Municipal Council: No. of wards: 15 Door to door collection: 15 Practicing segregation: 100% Daman District Panchayat: No. of wards: 16 Door to door collection: 16 Practicing segregation: 100% Diu Municipal Council: No. of wards: 13 Door to door collection: 13 Practicing segregation: 100% Diu District Panchayat: No. of wards: 38 Door to door collection: 38 Practicing segregation: 100% Silvassa Municipal Council: No. of wards: 15 Silvassa District Panchayat: 20 No. of Gram Panchayat with 70 villages
	Details of MSW treatment facilities proposed and under construction (no., capacity, and technology)	Daman Municipal Council: Installation of machines in progress. Presently, the plant

		has a trommel plant with capacity 200 TPD. Diu Municipal Council: Nil Silvassa District Panchayat: Rurban Cleantech Pvt. Ltd. (Survey No. 214 & 216, Kharadpada)
	No. and area (in acres) of un-controlled garbage dumpsites and sanitary landfills	Daman Municipal Council: Work under process Daman District Panchayat: Approx. 14 Acres Diu Municipal Council: 0 Diu District Panchayat: 15 Acres Silvassa Municipal Council: A waiting for Environment Clearance for Sanitary Landfill compliance.
	No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers	Daman Municipal Council: There is no legacy waste on either side of the river. Diu Municipal Council: Not applicable as there is no river in DMC area. Silvassa Municipal Council: No Legacy waste on both side of the rivers.
	No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers	Daman Municipal Council: 1 at Khariwad, Nani Daman Diu Municipal Council: Not applicable as there is no river in DMC area. Silvassa Municipal Council: 5 Kotars falling into rivers (64 drains are connected to Kotar). And work for racks / screens to prevent solid waste from falling into the rivers is to be managed under Silvassa Smart City Ltd.

Status of ULB wise Management of Solid Waste

ULB	Total MSW generation in TPD	Total MSW being processed in TPD	Existing MSW facilities	Utilization Capacity of the existing MSW facilities	Proposed MSW Facilities & Completion Timeline
Daman Municipal Council	40 TPD	40 TPD	SWM TREATMENT PLANT	200 TPD	18 Months
Silvassa Municipal Council	62.51 TPD	62.51 TPD	SWM TREATMENT PLANT	150 TPD	-
Diu Municipal Council	18.50 TPD	0	Door to door collection, Segregation & IEC Activities	50 TPD (MRF) Compost	Nil

VI.	Bio-medical Waste Management:	
	Total Bio-medical generation	324 kg/day
	No. of Hospitals and Health Care Facilities	206 Nos.
	Status of Treatment Facility/ CBMWTF	There is no CBMWTF in the U.T. Dadra and Nagar Haveli and Daman & Diu. Pollution Control Committee has authorized CBMWTF, M/s. En-Cler Bio-Medical Waste Pvt. Ltd., Surat for collection, transportation, treatment and disposal.
VII.	Hazardous Waste Management	
	Total Hazardous Waste generation	5617.89 TPA
	No. of Industries generating Hazardous waste	2501 Nos.
	Treatment Capacity of all TSDFs :	Capacity of Landfill site-02 Lakh MT/Annum, Capacity of Incinerator-2.5 M.K. Cal/Hr
	Avg. Quantity of Hazardous waste reaching the TSDFs and Treated	5617.89 TPA

	Details of on-going or proposed TSDF	Nil
VIII.	Plastic Waste Management:	
	Total Plastic Waste generation	Total Plastic Waste generation:- 34.5 TPD
	Treatment/ Measures adopted for reduction or management of plastic waste	Daman Municipal Council: Solid Waste (Handling and Management) Bye-Laws 2018 amended for incorporating ban on Single Use Plastic in 2021. IEC are conducted through nukkad natak, imposition of fines resulting to strict ban on SUP. Ban on SUPs is strictly followed in DMC are through fines and awareness programmes. Cloth bag were distributed to create awareness amongst the citizen towards complete ban on single use plastic. Daman District Panchayat: SW Agency segregating plastics from SW and recycling and reselling the same. Diu Municipal Council: MoU have been done between UltraTech Pvt. Ltd. and DMC, Diu for recycling of Plastic waste. Diu District Panchayat: MoU is signed with Ultra Tech Cements (Narmada Cement Jafarabad Works). 100% collection is carried out.

		Silvassa Municipal Council: Dadra and Nagar Haveli and Daman and Diu Silvassa Municipal Council Solid Waste (Handling and Management) (Amendment) Bye-Laws, 2020' Implemented on 10th January 2020. Enforcement Drive is being Carried Out in SMC Area and IEC Activities such as training of Sanitation department staff, pledge to stop the usage of plastic amongst citizens & students, cleanliness drives across the urban area under “Swachhta hi Seva” campaign to educate, sensitize and spread awareness amongst the citizens. Awareness campaign with cloth bag distribution to public, complete ban of Single Use Plastic, Forbidding the use, sell/storage of all kinds of plastic bags. Silvassa District Panchayat: IEC conducted through various channels, strict ban is observed on SUP & SWM Bye-Laws, 2021 implemented.
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IX. Details of Alternate Treatment Technology being adopted by the State/UT :

- Daman Municipal Council: No
- Daman District Panchayat: At present plastics are separated through trommel screen and manual labour.
- Silvassa Municipal Council: No
- Silvassa District Panchayat:

1. Twin Pit Toilets are installed.
2. Use of cloth bags is encouraged.
3. Strict surveillance is conducted by Field Supervisors on banned products.

- Diu Municipal Council: There are 2 nos. of 2 Vacuum machines vehicles for cleaning sewers, domestic septic tanks, open drains etc. in Diu Municipal Area.

Details of equipment: -Vacuum Tractor (Capacity 10,000 Lit)

-Vacuum Rickshaw (Capacity 5,000 Lit)

- Diu District Panchayat: 4 Nos. of Septic tank emptier vehicles in Diu District i.e., Vanakbara, Saudwadi, Bucharwada and Zolawadi Panchayat to clean and collect the sewage from septic tank of individual households and transport it to trenching method.

- Phyto-remediation and Bioremediation proposal for the identified drain has been received from NEERI and the same is approved. After issuing the work order, NEERI has carried out pre-feasibility survey of the proposed drains (03 Nos.) for installation of In-Situ treatment in Daman.

- In DNH, 7143 number of households have been connected to the sewerage network.

X. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment:

Polluting sources are identified. 13 nallahs / drains have been identified for Phytoremediation and Bioremediation measures. The work is being initiated for in-situ treatment of the drain near Rajiv Gandhi Setu, Daman. Pre-feasibility survey has been carried by the officials of the NEERI.

XI. Details of Nodal Officer appointed by Chief Secretary in the State/UT:

Secretary, Urban Development for municipal area and Secretary, Rural Development for rural areas are the Nodal Authority for compliance in the UT of Dadra Nagar Haveli and Daman & Diu.

XII. Details of meetings carried under the Chairmanship Chief of Secretary in the State/UT:

The Advisor to the Administrator held meeting on regular basis with Urban Development, Rural Development and Pollution Control Committee and asked to comply with the directions related to Solid Waste Management, Sewage Management, Plastic Waste Management, Bio-medical Waste Management and Hazardous Waste Management.

XIII. Latest water quality of polluted river, its tributaries, drains with flow details of polluted river:

Work order to carry River water monitoring (14 locations) programme in the U. T. of DNH & DD has been allotted to outsource Laboratory (NABL, MoEF approved) vide order No. PCC/DMN/Project/R-G/2018-19/214, dated: 27/12/2023, and River Monitoring of the said 14 stations will be started from January 2024.

XIV. Ground water regulation:

- Silvassa District Panchayat: Rooftop recharging system installed in all Govt. building 20 Gram Panchayats of DNH district.
- Additional location for recharge of ground water is being identified in each Gram Panchayats and each Gram Panchayats have taken the Rain water Harvesting / Recharge work under their respective Active Plan.
- Daman District Panchayat: Recharging of Government wells and checking misuse.
- Diu District Panchayat: Wells have been successfully recharged through rooftop recharging system in 4 Gram Panchayats of Diu district. Additional location for recharge of ground water is being identified in each Gram Panchayats and each Gram Panchayats have taken the Rain Water Harvesting / Recharge work under their respective Action Plan.
- **In industrial area, all the industries were directed to obtain No Objection Certificate (NOC) from Central Ground Water Authority (CGWA).**

XV. Good irrigation practices being adopted by the State:

- Farm ponds have been created for ground water rejuvenation. Terrace cultivation is being practiced in the undulating terrains of DNH.
- Farm ponds have been maintained to check and reduce runoff.
- Training programs carried out for awareness on micro irrigation projects for Farmers.
- Deepening of ponds have been carried out to improve irrigation, ground water and to conserve rain water.

XVI. Rain Water Harvesting:

- 07 Conventional RWH structures were built under Adarsh Gram Panchayat by PWD, District Panchayat, Daman.
67 Nos. of rooftop rain water harvesting structures have been installed to recharge bore wells and 33 Nos. of open wells in 14 Panchayats of Daman district.
- 02 Ponds have been successfully recharged.
- All new industrial units and construction projects shall provide suitable rainwater harvesting system to reduce dependency over ground water resource or to recharge the ground water table.
- Check dams and percolation tanks have been constructed to reduce runoff and improve the ground water recharge and erosion.
- **District Panchayat, Diu:** Gram Panchayats have undertaken the Rain Water Harvesting / Recharge work under their respective Action Plan. All the government premises located in Panchayat areas are being implemented RWH systems in their premises.
- **Diu Municipal Council:** As per Building bye-laws of Diu Municipal Council it is mandatory to provide the Rain Water Harvesting system for all new buildings with plot area more than 200 sq. mtrs for all uses.
- **Daman Municipal Council:** It is mandatory for any building or houses to install water harvesting system to enrich the ground water. All the building under the control of DMC is fitted with water harvesting system.

- **Silvassa Municipal Council:** Silvassa Municipal Council has completed the work of providing Rain Water Harvesting system in all the SMC related building such as Primary Schools, Community Centers, etc. As per development Control Rule, D&NH, 2014. It is mandatory for any applicant seeking Occupancy Certificate to install Rain Water Harvesting system in the property.

XVII. Demarcation of Floodplain and removal of illegal encroachments:

- The illegal encroachments along the drains / nallahs have been removed by the District Administration.
- Regular inspections by Municipal Council / District Panchayat are being carried out to check the free flow of water & ensure no obstacles.

XVIII. Maintaining minimum e-flow of river:

Minimum environmental flow for the river is maintained at various locations. Developed the Riverfront area along Damanganga river stretch in Silvassa.

XIX. Plantation activities along the rivers:

- Tree plantations were carried out in 300 Ha. of area in Dadra & Nagar Haveli along the nallahs and inlets in upstream area and along the river.
- Plantation near the check dams have been carried out in Dadra Nagar Haveli. Necessary initiatives are being taken by the local bodies and forest department to increase the plantation on both the sides of the river by creating awareness programs. Regular plantation have been carried out at various locations in Dadra Nagar Haveli.
- Bamboo plantation have been carried out in 25 Km area in Dadra Nagar Haveli.
- Roadside plantation, community places & Amrit Sarovars.
- Mangrove plantation in 60 Ha. Has been taken up in Diu and Daman districts. The marshy areas near Damanganga River near Moti Daman have been planted with Mangroves.

XX. Development of biodiversity park:

Following bio-diversity parks had been setup in the Damanganga River catchment area:

1. Nakshatra Van.

2. City Park.
3. Butterfly Garden
4. Precedent Garden

XXI. Reuse of Treated Water:

- **Daman Municipal Council:** Treated water is used for watering the football ground, filling the moat, and watering the plant and trees in the periphery of the fort, Moti Daman.
- **Diu Municipal Council:** The work of contraction of STP is under Progress, hence, not applicable.
- **Silvassa Municipal Council:** Used for the purpose of gardening and plantation, flushing of Storm water drains along the road side, filled soil compaction and flow test for the Sewerage network.
- **Silvassa District Panchayat:** As there is No STP in any rural areas of Dadra & Nagar Haveli. Thus, the information with respect to District Panchayat, DNH may be treated as NIL.
- Treated water from STP is being reused daily for works such as road washing, horticulture, soil compaction, irrigation etc.
- Operators of the STPs at Daman and Silvassa started use of mobile based application developed by CPCB and regularly update the status of the STP.

XXII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards:

There is only one river Damanganga in the U.T. of Dadra Nagar Haveli and Daman & Diu, which is under Priority III as per the State-wise & Priority wise number of Polluted River Stretches as identified in 2022 by CPCB. Actions are already proposed and steps towards achieving bathing quality are taken.

- Polluted river stretches are divided in five priority categories i.e. I, II, III, IV, V depending upon the BOD level:
 - i. Criteria for Priority I: BOD concentration 30 mg/l or more.
 - ii. Criteria for Priority II: BOD between 20 – 30 mg/l
 - iii. Criteria for Priority III: BOD between 10-20 mg/l

- iv. Criteria for Priority IV: BOD between 6-10 mg/l
- v. Criteria for Priority V: BOD between 3-6 mg/l
- Now, the quality of the river is improved and all the monitoring locations have BOD - 3 mg/l or less.
- River water monitoring will be carry out from January 2024.

XXIII. Status of Preparation of Action Plan by the 13 Coastal States:

- Integrated Coastal Zone Management plan for Daman & Diu is proposed under ENCORE project funded by World Bank and MoEF & CC.
- The Ghoghla beach in Diu is among the 8 beaches in the country awarded with Blue Flag Certification.
- India has also bagged 3rd prize under the International Best Practices in pollution abatement in coastal regions.
- The National Centre for Sustainable Coastal Management, Chennai has been requested for preparation of action plan for Management of Coastal areas of Daman and Diu as per directions of CPCB.
- National Institute of Oceanography (NIO), Mumbai has carried out monitoring of Jampore and Devka beach in UT of Daman in 2018. As per the report, it is concluded that there is no evidence for significant deterioration of environmental quality of the beaches investigated except for high Faecal Coliform counts which is common in coastal waters of India.
- **There was an issue with the notification from Daman & Diu coastal management Authority which has been done in December 2023 from the Ministry of Environment Forest & Climate Change (MoEF & CC) subsequently, the 2019 notification map will be finalized and thereafter, implementation of Integrated Coastal Management Plan will follow. Public hearing for the same is under process.**

XXIV. Regulation of Mining Activities in the State/UT:

There is no mining activity carried out in the U.T. of Dadra Nagar Haveli and Daman & Diu.

XXV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring.

- **Daman Municipal Council:** Regular monitoring and inspections are being carried out to identify the polluters and any law violators in the U. T. For violations, appropriate directions / notices are being issued as laid down in the Daman Municipal Council Solid Waste (Handling and Management) Bye-laws 2018.
- **Daman District Panchayat:** Under Plastic Waste Management (for violation of plastic waste orders) and SWM Bye Laws (for littering, pen fires etc.) fines are being imposed to violators.
- **Silvassa Municipal Council:** Ward wise Supervisors, Monitors and Swachhata Praharis are assigned to monitor the violations under the Bye-Laws (Dadra and Nagar Haveli and Daman and Diu Silvassa Municipal Council Solid Waste (Handling and Management) (Amendment) Bye-Laws, 2020) and enforce the fines against the violators, and Plastic Waste Management Cell is also formed in Silvassa Municipal Council.
- **Silvassa District Panchayat:** Regular monitoring and inspections are being carried out to identify the polluters and any law violators in the U. T. For violations, appropriate directions / notices are being issued with environmental compensation based on polluter pay principle.
- **Diu Municipal Council:** Regular monitoring and inspections are being carried out to identify the polluters and any law violators in the U. T. For violations, appropriate directions / notices are being issued with environmental compensation based on polluter pay principle.
- **Diu District Panchayat:** Regular monitoring and inspections are being carried out to identify the polluters and any law violators in the U. T. For

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