National Mission for Clean Ganga - NMCG

Format for submission of Monthly Progress Report (MPR) in the NGT Matter O.A. No. 673 of 2018 *(in compliance to NGT order dated 24.09.2020)*

NGT has disposed-off the said matter vide its Order dated 22nd February 2021

State of GOA

Overall status of the State:

I. Total Population: Urban Population & Rural Population separately.

Urban Local Bodies (ULBs') Population:- 4,82,355 (*Census 2021*)

II. Estimated Sewage Generation (MLD): **52.09 MLD** (*Urban area only*)

III. Details of Sewage Treatment Plant:

- Existing no. of STPs and Treatment Capacity (in MLD): **09 STPs' with 78.35 MLD capacity**
- Capacity Utilization of existing STPs: **37.51 MLD**.
- MLD of sewage being treated through Alternate technology: In state of Goa where sewer network is not available, Septic-tank- Soak-pit arrangement is adopted. Many Hotels and residential buildings (*with 50 rooms / flats & above*) have their own Treatment Plant (*as mandated under the TCP Act 2010*). Sulabh toilets (PWD) are provided for group of houses/community and Bio-toilets have been provided under Open Defecation Free (ODF) policy in the State.
- Gap in Treatment Capacity in MLD: **Negligible**.
- No. of Operational STPs': **09 nos.**
- No. of Complying STPs': **09 nos.**
- No. of Non-complying STPs': **NIL**

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.	Shirvodem, Navelim.	20 - MLD	**12.10 - MLD**	Operational	Complied-with
2.	Vasco	20 – MLD	**5.35 - MLD**	Operational	Complied-with
3.	Durbhat	01 – MLD	0.40 – MLD	Operational	Complied-with
4.	Goa Medical College (GMC)	1.35 MLD	0.50 – MLD	Operational	Complied-with

5.	Sancoale	01 – MLD	1.00 – MLD	Operational	Complied-with
6.	Sanquelim	0.8 – MLD	0.15 – MLD	Operational	Complied-with
7.	Tonca, Panaji	12.5 – MLD	**7.28 – MLD**	Operational	Complied-with
8.	Tonca, Panaji	15 – MLD	**4.63 – MLD**	Operational	Complied-with
9.	Shirvodem-Navelim	6.7 – MLD	**6.10 – MLD**	Operational	Complied-with
Total		**78.35 MLD**	**37.51 MLD** *Last-month, capacity being utilised was 35.29 MLD*		

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
1	Kavlem, Ponda	15 –MLD	**99%** (*no change since last-month*) of civil works STP completed and Electrical / Mechanical works **99%** (*no change since last-month*) completed. Around **99%** (*+1% change since last-month*) of the sewer-network is completed.	House Sewer-connection works are Tendered and road-crossing work in in-progress.	**March 2023**
2	Colva	7.5 – MLD	**93%** (*+1% change since last-month*) of sewer-network is completed. STP trial-run completed and work of effluent disposal line is completed and yet to be commissioned.	-------	
3	Patto, Panaji	02 – MLD	**100%** completed physical progress.	100% completed	**Completed and under trial-run**
4	Mapusa	5.4 – MLD	**98%** (*no change since last-month*)	House Sewer-connection works in Mapusa are tendered and Road-crossing has commenced. Baga House-sewer connections	**March 2023**
5	Baga	5.6 – MLD	100% Completed.		**Completed**

				work is in progress.	

** Above data does not include any packaged treatment plants /sulabh-toilets and Bio-toilets*

IV. Details of Industrial Pollution:

- No. of industries in the State: 8,611
- No. of water polluting industries in the State: *Nil*
- Quantity of effluent generated from the industries in MLD:
- Quantity of Hazardous Sludge generated from the Industries in TPD:
- Number of industrial units having ETPs: 209
- Number of industrial units connected to CETP: *State does not have any CETP*
- Number and total capacity of ETPs (*details of existing/ under construction / proposed*)
- Compliance status of the ETPs: 208
- Number and total capacity of CETPs (details of existing/ under construction / proposed) *: State does not have any CETP*
- Status of compliance and operation of the CETPs : Not Applicable in view of above.

Town	**No. of industries**	**Industrial discharge**	**Status of ETPs**	**Status of CETPs (*existing, under construction & proposed*)**
Not Applicable				

V. Solid Waste Management:

- Total number of Urban Local Bodies and their Population: *As referred in last-MPR.*
- Current Municipal Solid Waste Generation: **766 tons per day (TPD)** – *as per the waste characterization report, 2018.* Solid waste treatment plant with 250 tons per day capacity is fully operational at Saligao which caters to the waste being generated from coastal-stretch of North Goa district among other selective areas.
- Number, installed capacity and utilization of existing MSW processing facilities in TPD (*bifurcated by type of processing e.g.- Waste to Energy (Tonnage and Power Output*), Compost Plants (*Windrow, Vermi, decentralized pit composting*), biomethanation, MRF etc., *(related to 'centralised' solid waste sorting, baling and onward processing facilities operated by the Goa Waste Management Corporation (GWMC)* **Refer Annexure – A**. Status from Urban Local Bodies (ULBs') is referred at Annexure E while, status from village panchayats is referred at Annexure F.

- Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%): **Refer Annexure – B** *(related to setting-up of common waste-treatment facilities including Hazardous / Biomedical / Construction and Debris / E-waste facilities).*

- No. and capacity of C&D waste processing plants in TPD (*existing, proposed and under construction*): State has proposed 500-TPD capacity C & D waste processing plant at Cudchirem in Bicholim, North Goa district. **Meanwhile, pending demarcation of land from the O/o SDM (Bardez), GWMC has also initiated process for identifying an alternate land for C&D facility.**

- Total no. of wards, no. of wards having door-to-door collection service, no. of wards practicing segregation at source (*village Panchayat-level*): *As referred in Annexure F.*

- Details of MSW treatment facilities proposed and under construction (*no., capacity, and technology*): **Refer Annexure – B.**

- No. and area (*in acres*) of uncontrolled garbage dumpsites and Sanitary Landfills.: **N.A.**

- No. and area (*in acres*) of legacy waste within 1-km buffer of both sides of the rivers: **Nil.**

- No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers: Nil.

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
As referred in MPR for the month ending-November 2022.					

VI. Bio-medical Waste Management: *As per Annual report*

- Total Bio-medical generation: 2,992 kgs. per day (*bio-medical waste*) / 17,179 kgs. per day (*sanitary waste*).

- No. of Hospitals and Health Care Facilities: **Refer Annexure – C.**

- Status of Treatment Facility / CBMWTF: Common Biomedical waste treatment facility is operational at Kundaim.

VII. Hazardous Waste Management:

- Total Hazardous Waste generation:
  (a) Incinerable waste : 39,379.80 TPA
  (b) Land-fillable waste : 3,385.21 TPA
  (c) Recyclable waste : 33,095,57 TPA
  Total : 77,056.58 TPA.

- No. of Industries generating Hazardous waste : **1,628 nos.**

- Treatment Capacity of all TSDFs : **16,846 metric tons per year.**

- Avg. Quantity of Hazardous waste reaching the TSDFs and Treated: Currently, majority of the HW-generated is disposed through Inter-State movement by recycling / utilization / disposal at common secured landfill site / common incinerator / co-processing to neighbouring States under valid agreement. **Landfilable waste (*about 250 MT*) is being disposed-off (*since March 2021*) through a secured landfill site set-up in common HW facility at Pissurlem**.

- Details of on-going or proposed TSDF : **The State has set-up Common Hazardous Waste Treatment Facility at Pissurlem Industrial Estate and phase-I is operational**. **While, Phase-II is 98% completed.**

VIII. <u>Plastic Waste Management:</u>

- Total Plastic Waste generation: **80.66 Tons per day (TPD)** – *as per the waste characterization report, 2018.*

- Treatment/ Measures adopted for reduction or management of plastic waste: Establishment of Common Material Recovery facility (MRF) as well as Baling facilities at Verna / Cacora and Bicholim (*03 nos.*).

IX. Details of Alternate Treatment Technology being adopted by the State/UT: **The State has set-up Plastic-to-Fuel plant at Pernem Municipal Council (*North Goa*).** However, currently, it is not-working and under repairs.

X. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment: **There is no industrial discharge within any of the polluted river-stretches.**

XI. Details of Nodal Officer appointed by Chief Secretary in the State/UT: **Secretary, Environment is a Nodal Officer to be assisted by Director, Department of Environment & Climate Change (DoE & CC), Goa.**

XII. Details of meetings carried under the Chairmanship Chief of Secretary in the State/UT: **The State, in compliance to the NGT Order in a matter of 606 of 2018 (*SWM-related matters & Ors.*,), has constituted the State Level Committee (SLC) under the Chairmanship of Chief Secretary who takes the review on regular-basis.** Last such review (*i.e. 23rd SLC-Goa meeting*) was taken in the month of April 2022. As per the latest NGT Order dated 31st May 2022, the State of Goa, through the Chief Secretary, has to appear before the NGT, Principal Bench through VC on 02nd March 2023. 24th SLC-Goa meeting was convened on 8th November 2022 to review the solid waste related matters followed by 25th SLC-Goa meeting on 17th November 2022 to review sewage related matters under the Chairmanship of Chief Secretary.

XIII. Latest water quality of polluted river, its tributaries of polluted river; **refer Annexure – D.**

XIV. Ground water regulation: (a) Ground Water Act, 2002 is enacted in the State of Goa, (b) Ground water extraction is being monitored, (c) It is mandatory to register all the ground water structures in the State, (d) Commercial ground water extraction is levied with water tax, (e) Goa is declared as 'Safe zone' under the Ground water development by the Central Ground Water Board (CGWB), (f) guidelines issued by the Central Ground Water Board (CGWB) is implements. **Compliance – 100%.**

XV. Good irrigation practices being adopted by the State: Water User Associations (WUAs') are formed to economise the use of water. - Expected level of compliance: 80%, **Actual compliance: 65% (***No change since September 2021***). Target – May 2023** *(target revised from August 2022 to May 2023)*

XVI. Rain Water Harvesting: Industries are being encouraged. Due to excessive rainfall – i.e. average 160 inches a year, shortage of land and groundwater being in ample quantity, not many takers. Expected level of compliance 50%. Actual compliance: 50%. **Target – May 2023** (*target revised from December 2022 to May 2023*).

XVII. Demarcation of Floodplain and removal of illegal encroachments - Expected level of compliance: 100%, **Actual compliance: 100%,** (floodplain d*emarcation completed*).

XVIII. Maintaining minimum e-flow of river: Rivers are perennial. **There is no issue of e-flow in major rivers.**

XIX. **Plantation activities along the rivers**: *No change since last-month*.

XX. **Development of Biodiversity Park**: *No change since last-month*.

XXI. **Reuse of Treated Water**: *No change since last-month*.

XXII. **Model River being adopted by the State** & Action Proposed for achieving the bathing quality standards: River Sal and River Valvonti. Polluting drains joining the river have been identified, treated / filtered. De-weeding and desilting is being proposed including aeration of the stored water. Expected level of compliance 100 %. **Actual Compliance by Water Resources Department (WRD) - 100%.**

XXIII. **Status of Preparation of Coastal Action Plan**: All the action plans have been prepared for eleven polluted river-stretches, *including action plan for 06-coastal rivers.* Accordingly, Action Plan Strategies (APSs'), *referred in these action plans*, are being regularly reviewed by the Secretary, Environment in the capacity as Chairman, RRC-Goa. Accordingly, the Action plans to address the coastal and marine pollution have already been submitted to the CPCB, New Delhi in September 2021 in respect of six coastal-rivers.

Subsequently, the CPCB, based on water-quality (*i.e. Biochemical Oxygen Demand – BOD*), of rivers for years 2019 and 2021, has compiled / revised the polluted river stretches in August 2022. Accordingly, it has been reported that State of Goa has reduced number of such stretches (i.e. 06 nos.) as compared to 11 nos. which were based on data compiled during 2016 – 17. In response to the same, Goa Sate Pollution Control Board (GSPCB) has responded to the CPCB informing about the mismatch in the water-quality data reported in the revised river-stretches and thereby further conveying that the total number of PRS has been reduced to 5 nos. only.

XXIV. Regulation of Mining Activities in the State/UT: It is being monitored as per Hon'ble Supreme Court Directives through the Department of Mines and Geology (DMG).

XXV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring: Ground water and river waters are monitored under Goa Ground Water Act, 2002 and Goa Irrigation Act, 1973 respectively by Ground Water and Canal Officers respectively. : Expected level of compliance: 100%, **Actual compliance: 100%,**

Annexure A

Solid waste sorting, baling and onward processing facilities operated by the Goa Waste Management Corporation (GWMC).

1. **MRF facilities**
   i. Verna MRF facility: ~**8 TPD** (*dry waste*)
   ii. Cacora MRF facility: ~**8 TPD** (*dry waste*)
   iii. Bicholim MRF facility: ~**8TPD** (*dry waste*)

2. **Integrated Solid Waste Management Facility (SWMF)** of 150 tons per day (TPD) at Saligao has been enhanced from existing 150-TPD to 250-TPD (+20%).

Annexure B

Sr. No.	Project	Details		Status	Timeline
1	**Integrated Solid Waste Management Facility – Cacora**	Capacity:	100 TPD (+25%)	• Installation of machinery and equipments is completed. • **Current completion status is 100 % of project.** • Trial Operations for dry waste line commenced on 10th May and for wet waste line commenced on 21st May. • Plant currently under trail operations.	**Plant under trial-operations.**
		Catering to :	Sanguem, Dharbandora, Quepem&Canacona Talukas		
		Cost of the Project	173.98 Cr		
2	**Integrated Solid Waste Management Facility- Bainguinim**	Capacity :	250 TPD (+20%)	• **Revised RFQ approved and floated on 13/09/2022 & bid to be opened on 20/12/2022. Bids under scrutiny by committee of GWMC. GWMC has requested clarifications from some bidders regarding their document submitted in bids.** • A Civil Appeal No. 4983 of 2021 with interlocutory application no. 105533 of 2021 (application for stay) has been instituted in Hon'ble Supreme Court of India by Bainguinim Citizen Forum V/s GWMC & others. Hearing was on 17/11/2021 & 21/04/2022 and case has been admitted in Supreme Court.	**Proposed timeline to be decided post verdict of Hon'ble Supreme Court case.**
		Catering to:	Tiswadi & Ponda Talukas		
3	**Solid Waste Management Facility – Verna (*250 TPD + 20%*)**	Capacity	250 TPD (+20%)	• **Awaiting environmental clearance (EC).** • Pre-feasibility study for setting up of Waste to Energy completed by IVL Swedish Research Institute,Sweden and report submitted. • **(No change)**	Upon grant of Environmental Clearance (EC), GWMC shall float tender for SWMF 250 TPD.
		Catering to Mormugao&Salcete Talukas			
4	**Construction & Demolition Waste Management Facility – Bicholim**	Capacity: 500 TPD Land:44,478 sqm Catering to: State of Goa		• Regarding tender for fencing and security-cabin at Bicholim, the tender has been finalized and work order will be issued post demarcation. • **Awaiting Demarcation from Dy. Collector- Bicholim.** • **Meanwhile GWMC has also initiated process for identifying an alternate land for C&D facility**	GWMC was to float tender for setting up C & D Waste Management Facility by December-2021 but due to delay in site clearance from Revenue Department and construction work towards the same has not commenced.

5	**Common Hazardous Waste Treatment Storage and Disposal Facility (*CHWTSD*)**	Capacity	25,000 TPA Secured Landfill (SLF) & 1.5 ton/hr incinerators	• Phase 1: Completed • **Phase 2: 98% completed*(No Change) (only administrative block office is remaining however plant is functional)*** *and* ***in meantime the operator has made alternate arrangements for storage and disposal of Phase 2 incinerable waste through their sister concern at Ranjangaon-Maharashtra.*** • **Work towards Boiler, Incineration system (Phase II) is completed** • **Incinerator has been commissioned and its trail runs are in progress.**	TSDF commissioned on March 2021. **Incinerator commissioned and under trial operations**
6	**Design-Build and Operate an E-Waste Management (*Collection, Storage and Dismantling*)**	Capacity	**15 - TPD**	• Work Order is issued to the contractor dated 27/08/2021. • Since 27/08/2021, the operator has started collection of e-waste from ULBs/RLBs and the same is disposed scientifically to authorized recyclers. • **GIDC has sub-leased the plot to CAM Industrial Services.** • **Construction licence from GIDC received on 26/12/2022. Construction of facility has commenced.**	Collection of e-waste has started from 27/08/2021. **Dismantling facility will be completed and commissioned by *April 2023***

Annexure C

Total Number of Hospitals & healthcare facilities:

- The State of Goa has 50 public healthcare facilities (*excluding veterinary & dispensaries*) with a total bed capacity of 3159.
- Total number of non-bedded facilities under public healthcare systems are 14 dispensaries.
- Goa has 102 facilities under the category of private healthcare with a total bed capacity of 2443.
- The total beds currently available under both public and private sector are 5602.
- Goa has one dental college under public healthcare and 251 dental clinics across the state under private health care system.
- The state also has 5 veterinary hospitals and 25 clinics under public facilities and 27 pet clinics under the category of private facilities.
- Apart from bedded facilities in private sector the state also has approximately 482 non bedded facilities (excluding dental clinics) that cater to consultations, observation, diagnostics and select treatment.

Annexure D

DATA of 11 Polluted River Stretches for Major Rivers of January 2023

1.RIVER CHAPORA NEAR ALORNA FORT, PERNEM			
Sr.No.	**Parameters**	**Jan-23**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.06	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.4	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1700	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	170	-
Remarks: All parameters are within permissible limit for the month of January 23			

RIVER CHAPORA NEAR SIOLIM BRIDGE			
Sr.No.	**Parameters**	**Jan-23**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.74	6.5-8.5
2	Turbidity(NTU)	7.09	30 NTU
3	Dissolved Oxygen (mg/l)	5.90	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	1100	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	460	-
Remarks:Fecal Coliform is exceeding the permissible limit for the month of January 23			

2.RIVER TIRACOL AT KERI, PERNEM			
Sr.No.	**Parameters**	**Jan-23**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	8.0	6.5-8.5
2	Turbidity(NTU)	2.93	30 NTU
3	Dissolved Oxygen (mg/l)	8.0	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	790	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	49	-
Remarks:Fecal Coliform is exceeding the permissible limit for the month of January 23			

3.RIVER SINQUERIM, CANDOLIM SIDE			
Sr.No.	**Parameters**	**Jan-23**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.67	6.5-8.5
2	Turbidity(NTU)	6.22	30 NTU
3	Dissolved Oxygen (mg/l)	4.0	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	1700	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	350	-
Remarks:Fecal Coliform is exceeding the permissible limit for the month of January 23			

RIVER SINQUERIM, NEAR GANPATI TEMPLE			
Sr.No.	**Parameters**	**Jan-23**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.78	6.5-8.5
2	Turbidity(NTU)	9.32	30 NTU
3	Dissolved Oxygen (mg/l)	4.9	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less

5	Fecal Coliform (MPN/100ml)	940	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	170	-
Remarks: Fecal Coliform is exceeding the permissible limit for the month of January 23			

4.RIVER ZUARI AT MADKAI JETTY			
Sr.No.	**Parameters**	**Jan-23**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.98	6.5-8.5
2	Turbidity(NTU)	7.25	30 NTU
3	Dissolved Oxygen (mg/l)	7.0	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	1700	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	380	-
Remarks:Fecal Coliform is exceeding the permissible limit for the month of January 23			

RIVER ZUARI AT BORIM BRIDGE			
Sr.No.	**Parameters**	**Jan-23**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.30	6.5-8.5
2	Turbidity(NTU)	8.53	30 NTU
3	Dissolved Oxygen (mg/l)	5.20	4 mg/l or more
4	BOD (mg/l)	1.9	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	2200	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	320	-
Remarks:Fecal Coliform is exceeding the permissible limit for the month of January 23			

5.RIVER ASSANORA AT ASSANORA			
Sr.No.	**Parameters**	**Jan-23**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.40	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.6	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1200	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	110	-
Remarks: All parameters are within permissible limit for the month of January 23.			

6.RIVER VALVANTI AT SANQUELIM			
Sr.No.	**Parameters**	**Jan-23**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.68	6.0-9.0
2	Dissolved Oxygen (mg/l)	8.0	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1500	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	140	-
Remarks: All parameters are within permissible limit for the month of January 23.			

7.RIVER KHANDEPAR, OPA, PONDA			
Sr.No.	**Parameters**	**Jan-23**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.10	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.3	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1300	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	94	-
Remarks: All parameters are within permissible limits for the month of January 23.			

RIVER KHANDEPAR, CODLI			
Sr.No.	**Parameters**	**Jan-23**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.1	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.7	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	790	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	79	-
Remarks: All parameters are within permissible limits for the month of January 23			

8.RIVER BICHOLIM BARAZAN NAGAR, BICHOLIM			
Sr.No.	**Parameters**	**Jan-23**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.19	6.0-9.0
2	Dissolved Oxygen (mg/l)	8.3	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	6300	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	700	-
Remarks:Total Coliform is exceeding permissible limits for the month of January 23			

9.RIVER MANDOVI AT TONCA MARCELA			
Sr.No.	**Parameters**	**Jan-23**	**Limit for class SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.40	6.5-8.5
2	Turbidity(NTU)	3.06	30 NTU
3	Dissolved Oxygen (mg/l)	6.10	4 mg/l or more

4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	790	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	120	-

Remarks:Fecal Coliform is exceeding the permissible limit for the month of January 23.

10.RIVER TALPONA AT CANACONA			
Sr.No.	**Parameters**	**Jan-23**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.69	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.4	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1700	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	210	-

Remarks: All parameters are within permissible limits for the month of January 23

11.RIVER SAL AT KHAREBAND,MARGAO			
Sr.No.	**Parameters**	**Jan-23**	**Limit for class SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.66	6.5-8.5
2	Turbidity(NTU)	16.44	30 NTU
3	Dissolved Oxygen (mg/l)	1.20	4 mg/l or more
4	BOD (mg/l)	25.4	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	4900	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	940	-

Remarks:Dissolved Oxygen is belowand BioChemical Oxygen Demand, Fecal Coliform is exceeding the permissible limits for the month of January 23

RIVER SAL AT MOBOR

Sr.No.	Parameters	Jan-23	Limit for class SW II rivers as per CPCB classification based on designated best use of rivers
1	pH	7.81	6.5-8.5
2	Turbidity(NTU)	4.14	30 NTU
3	Dissolved Oxygen (mg/l)	5.0	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	490	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	170	
Remarks: Fecal Coliform is exceeding the permissible limit for the month of January 23			

NOTE:
1)BDL- Below Detection Limit

Annexure E – Status of compliance to Solid Waste Management (SWM) Rules by Urban Local Bodies (ULBs')

S.N.		Questions	Remarks		
1		Numbers of ULBs	14		
2		Over all waste management status in States/Uts			
a		Quantity of MSW generated (TPD)	204.87		
b		Quantity of MSW collected (TPD)	204.87		
c		Quantity of MSW segregated & transported (TPD)	204.87		
d		Quantity of MSW processed (TPD)	204.87		
e		Quantity of MSW disposed in secured land fill site (TPD)	NIL		
f		Gap in Solid Waste Management Uts (TPD) [1(a)-I(d)-1(e)]	NIL		
g		Solid Waste Management Plan			
3		**Waste Collection**	**Existing**	**Target**	
a		ULBs in which waste door-to-door collection is implemented (No.)	14	14	
b		ULBs in which segregation of waste is implemented (No.)	14	14	
c		ULBs in which transportation of segregation waste is implemented (No.)	14	14	
4		**Waste Processing**			
a		Material Recovery Facilities			
	(i)	Total Capacity (TPD)	93.71	Only upgradation of MRF	
	(ii)	Number	16	to increase in waste ene	
	(iii)	Number of ULBs Covered	14	mentioned at	
b		Recycling			
	(i)	Total Capacity (TPD)	13.435	NIL	

	(ii)	Number	NA (The ULBs do not have recycling facilities however the recyclable fraction collected in most ULBs is channelized/sold to recycling vendors)	NIL	
	(iii)	Number of ULBs Covered	11	NIL	
c		<u>Composting</u>			
	(i)	Total Capacity (TPD)	97.85	NIL	
	(ii)	Number	91 locations (including decentralized)	NIL	
	(iii)	Number of ULBs Covered	14	NIL	
d		<u>Biomethanation</u>			
	(i)	Total Capacity (TPD)	27.275	The work under progress a	
	(ii)	Number	24	mentioned at	
	(iii)	Number of ULBs Covered	10		
e		<u>RDF</u>			
	(i)	Total Capacity (TPD)	47.305	NIL	
	(ii)	Number	NA (The RDF is transported to cement factories)	NIL	
	(iii)	Number of ULBs Covered	12	NIL	
f		<u>Waste to Energy Plants</u>			
	(i)	Total Capacity (TPD)	NIL	NIL	
	(ii)	Number	NIL	NIL	
	(iii)	Number of ULBs Covered	NIL	NIL	
4		**Waste Disposal**			

a		Landfill			
	(i)	Total Capacity (TPD)	32,800 Tonnes	NIL	
	(ii)	Number	4 (Not in use)	NIL	
	(iii)	Number of ULBs Covered	4	NIL	
5		**LegacyWaste Management**			
a		Number of Dumpsites (NO.)	Status may be obained from GWMC		
b		Quantity of Waste dumped at Dumpsites (Tons)			
c		Number of dumpsites cleared (No.)			
d		Number of dumpsites in which biomining has commenced (No.)			
e		Time frame for clearing all dumpsites			
6		**Other Information**			
a		Information regarding development of model towns/cities/villages	Annexure "C" as furnished in the previous quarter ending March 2021		
b		Creation of Environmental cell	All the 14 ULBs have formed Environmental squads to impose fines		
c		Standardization of rates for procurement of services/ equipment (to do away with the tendering process) required for solid waste management	Most of the ULBs have stated that they are following Govt Schedule of rates for procurement of services/equipments		

Improvements Since Last Hearing					
		Item	**Present Satus**	**Status at the time of last hearing**	**Wh dir timeli been a n**
1		Door - to - door collection (%)	99%	Not available	Yes, c
2		Source segregation of waste (%)	97%	Not available	
3		Waste Processing (TPD)	88%	Not available	
4		Dumpsites capped (No.)	NA	Not available	
5		Dumpsites Bio-remediated (No.)	Under Process carried out by GWMC	Not available	Unde (Statu obtai GV

Annexure F – Status of compliance to Solid Waste Management (SWM) Rules by Village Panchayats

Sr.No.		Questions		
1		**Number of RLBs**	191	
2		**Over all waste management status in Status /UTs**		
a		Quantity of MSW generated (TPD)	171.62828	
b		Quantity of MSW collected (TPD)	167.03818	
c		Quantity odf MSW segregated & transported (TPD)	165.04318	
d		Quantity of MSW processed (TPD)	165.04318	
e		Quantity of MSW disposed in secured land fill site (TPD)	1.773	
f		Gap in Solid Waste Management UTs (TPD) [1(a)-I(d)-1(e)]	4.8121	
g		Solid Waste Management Plan	Plan & implementing is in process	
3		**Waste Collection**		
a		RLBs in which door-to-door collection is implementation (No.)	191	
b		RLBs in which segregation of waste is implementation (No.)	191	

c		RLBs in which transportation of segregated waste is implemented (No.)	191	
4		**Waste Processing**		
a		**Material Recovery facilities**		
	(i)	Total Capacity (TPD)	233.9362143	
	(ii)	Number of RLBs	125	
	(iii)	Number of RLBs covered	121	
b		**Recycling**		
	(i)	Total Capacity (TPD)	NA	
	(ii)	Number	NA	
	(iii)	Number of RLBs covered	NA	
c		**Composting**		
	(i)	Total Capacity (TPD)	23.8	
	(ii)	Number	43	
	(iii)	Number of RLBs covered	42	

			Bardez	**Pernem**	**Bicholim**	**Sa**
1		**Number of RLBs**	33	20	18	
2		**Over all waste management status in Status /UTs**				
a		Quantity of MSW generated (TPD)	109.35	4.859	0.743	0

b		Quantity of MSW collected (TPD)	105.545	4.859	0.743	0
c		Quantity odf MSW segregated & transported (TPD)	103.55	4.859	0.743	0
d		Quantity of MSW processed (TPD)	103.55	4.859	0.743	0
e		Quantity of MSW disposed in secured land fill site (TPD)	1.773	0	0	
f		Gap in Solid Waste Management UTs (TPD) [1(a)-I(d)-1(e)]	4.027	0	0	
g		Solid Waste Management Plan	Plan & implementing is in process	Plan & implementing is in process	Plan & implementing is in process	P imple is in
3		**Waste Collection**				
a		RLBs in which door-to-door collection is implementation (No.)	33	20	18	
b		RLBs in which segregation of waste is implementation (No.)	33	20	18	
c		RLBs in which transportation of segregated waste is implemented (No.)	33	20	18	
4		**Waste Processing**				
a		**Material Recovery facilities**				
	(i)	Total Capacity (TPD)	93	25	1	
	(ii)	Number of RLBs	33	8	2	
	(iii)	Number of RLBs covered	31	8	2	
b		**Recycling**				
	(i)	Total Capacity (TPD)	NA	NA	NA	
	(ii)	Number	NA	NA	NA	
	(iii)	Number of RLBs covered	NA	NA	NA	
c		**Composting**				
	(i)	Total Capacity (TPD)	0	0	0	

	(ii)	Number	0	0	0	
	(iii)	Number of RLBs covered	0	0	0	

Update of the Remediation of Legacy Waste Dump sites in the State of Goa as on 31/12/2022

Sr. No.	Name of the Local Body	Location of dump	Volume remediated till date	Qty of RDF Disposed(m3)	Qty of Inert/Compost Disposed(m3)	Status of Work
1	Corporation of the City of Panaji	Campal- Attachment Point No. 290	5,305.00	3168.00	2070.00	Completed
2	Corporation of the City of Panaji	Behind SBI, EDC, Patto-attachment Point No. 287	2,606.00	308.00	2239.00	Completed
3	Corporation of the City of Panaji	Near Divja Circle, Panaji- Attachment Point No. 288	569.00	89.00	424.00	Completed
4	Margao Municipal Council	Sonsoddo dump site, Margao	1,25,483.00	27856.00	68580.00	Work in progress (60% completed), Remediation work expected to be completed by March 2023
5	Mormugao Municipal Council	Headland Sada dump site, Mormugao	96,530.00	29756.00	47213.00	Remediation Completed, RDF disposal in progress
6	Mapusa Municipal Council	Assagao Dump site, Mapusa	1,55,333.00	42449.00	15395.00	Remediation Completed

7	Cuncolim Municipal Council	Dumpsite at Cuncolim IDC	4834.00	-	-	Remediation Completed, RDF disposal in progress
8	Canacona Municipal Council	Dumpsite at Garbage Treatment Plant at DumaneShristhal	500.00	-	-	Work in progress, Remediation work expected to be completed by March 2023
9	Corporation of the City of Panaji	Curca- Attachment Point No. 289	-	-	-	To be commenced, Remediation work expected to be completed by March 2023
10	Bicholim Municipal Council	Adjacent to the garbage Treatment Plant, Lakherem in Sy. No.109/0.	1000.00	-	-	Work in progress (40% completed), Remediation work expected to be completed by March 2023

11	Pernem Municipal Council	At garbage Treatment Plant of Pernem Municipal Council	-	-	-	Completed
12	Goa Medical College & Hospital Campus waste (Shifted due to upcoming O2 plant)	Shifted & treated at PattoPanjim Dumpsite	~100m3	NA	NA	Completed
13	Village Panchayat Chicalim	Near VP Chicalim MRF shed (Shifted at Assagao dump Mapusa for remediation and remediated)	~1000	-	-	Completed
		Total	**3,93,260.00**	**1,03,626.00**	**1,35,921.00**	

NOTE: Disposal time for RDF is up to January 2025.Remediation time is up to March 2023.