FEBRUARY 2022

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 Population:- 9,37,788 and Rural Population:-5,20,757. (*Census 2011*)

II. Estimated Sewage Generation (MLD): **112.53 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: **32.35 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	09 - MLD	Operational	Complied-with
2.	Vasco	20 – MLD	06.50 - MLD	Operational	Complied-with
3.	Durbhat	01 – MLD	0.4 – MLD	Operational	Complied-with
4.	Goa Medical College	1.35 MLD	0.5 – MLD	Operational	Complied-with

	(GMC)				
5.	Sancoale	01 – MLD	01 – MLD	Operational	Complied-with
6.	Sanquelim	0.8 – MLD	0.15 – MLD	Operational	Complied-with
7.	Tonca, Panaji	12.5 – MLD	10 – MLD	Operational	Complied-with
8.	Tonca, Panaji	15 – MLD	**04 – MLD**	Operational	Complied-with
9.	Shirvodem-Navelim	6.7 – MLD	0.8 – MLD	Operational	Complied-with
Total		**78.35 MLD**	**32.35 MLD** *: Last-month, capacity being utilised was 30.15 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	**97%** (*no change since last-month*) of civil works STP completed and **Electrical / Mechanical works 80%** (*+2% changes since last-month*) **completed**. Around **95%** (*no change since last-month*) of the sewer-network is completed.	House Sewer-connection works are Tendered and road-crossing work in in-progress.	**May 2022** *(revised from December 2021)*
2	Colva	7.5 – MLD	**85%** ***(****no change since last-month****)*** of sewer-network is completed. STP trial-run completed and awaiting for the completion of work of effluent disposal line which is in-progress *(3.12 kms. Completed).*	**House Sewer-connection works started.**	
3	Patto, Panaji	02 – MLD	**91%** (*+1% change since last-month***)** completed physical progress.	100% completed	
4	Mapusa	5.4 – MLD	**98%** (+1% *change since last-month***)** progress	**House Sewer-connection works in Mapusa are**	

5	Baga	5.6 – MLD	100% completed during last-month only.	**tendered and Road-crossing yet to commence (***awaiting road-cutting permission***). Baga House-sewer connections work started.**	**April 2022** *(revised from December 2021)*

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
1.	Undir, Bandora	15 – MLD	STP work could not be started due to local issues. Around 65% *(no change since last-month)* of the sewer-network is completed.	16-months time-period required from start of work.
2.	Curti, Ponda	08- MLD	STP work could not be started due to local issues. Around 92% *(no change since last-month)* of the sewer-network is completed.	
3.	Porvorim	20 – MLD	STP work could not be started due to local issues. Around 80% *(no change since last-month)* of the sewer-network is completed.	

** 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: 207
- 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 MPR for the month ending December 2020.*
- Current Municipal Solid Waste Generation: **766 tons per day (TPD)** – *as per the waste characterization report, 2018.*
- 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., **Refer Annexure – A** *(related to 'centralised' solid waste sorting, baling and onward processing facilities operated by the Goa Waste Management Corporation (GWMC).*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.
- Total no. of wards, no. of wards having door-to-door collection service, no. of wards practicing segregation at source: As referred in MPR for the month ending November 2020.
- 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 2020.					

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: **Refer Annexure – B.**

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 neighboring States under valid agreement**.

- Details of on-going or proposed TSDF : **The State has initiated the process to set-up Common Hazardous Waste Treatment Facility at Pissurlem Industrial Estate**.

VIII. Plastic Waste Management:

- 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 Material Recovery facility (MRF) as well as Baling facilities (*03 nos.*).**

IX. Details of Alternate Treatment Technology being adopted by the State/UT: **The State has proposed to set-up Plastic-to-Fuel plant at Pernem Municipal Council (*North Goa*) on a trial-basis.**

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 was taken in the month of September 2021.**

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. Expected level of compliance – 100%, **Actual compliance – 100%,** Target – **Target –** *achieved*.

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 2022** (*target revised from December 2021 to May 2022 due to COVID-19 restrictions*).

XVI. Rain Water Harvesting: Industries, through the Department of Industries, Trade & Commerce (DITC) are being encouraged to adopt to rainwater harvesting. Due to excessive rainfall (*i.e. 160 inches per year*) shortage of land and groundwater being in ample quantity. Not many takers. In addition, the Town and Country Planning (TCP) Department has made roof-top rainwater harvesting mandatory for multi-dwelling units as well as residential-cum-commercial complexes. - Expected level of compliance: 50%, **Actual compliance: 20%** (*no change since January 2021*)**, Target: May 2022** (*target revised from December 2021 to May 2022 due to COVID-19 restrictions*).

XVII. Demarcation of Floodplain and removal of illegal encroachments - Expected level of compliance: 100%, **Actual compliance: 100%, Target: Achieved** (*Demarcation 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%. Target –** *achieved*.

XXIII. Status of Preparation of Action Plan: All the action plans prepared for eleven polluted river-stretches have been approved by CPCB (*i.e. in case of priority criteria – III : 01 stretch – Sal river*) and RRC-Goa (*i.e. in case of priority criteria IV & V : remaining 10-stretches*). 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.

Further, 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 and have been reviewed by the RRC-Goa and accordingly the compliance to CPCB's comments, *received thereafter*, are being addressed by stakeholder departments-concerned and will be submitted shortly.

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%, Target –** *achieved*.

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: ~**5 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 and currently work is in progress of enhancing from existing 150-TPD to 250-TPD (+20%), present 98% *(no change since December 2021)* is completed. Plant was inaugurated on 20th December 2021 and currently trial-runs of plant are in progress. **From 5th April 2022, performance guarantee run will start.**

Annexure B

Sr. No.	Project	Details		Status	Timeline
1	**Enhancement of Integrated Solid Waste Management Facility – Saligao**	Capacity :	250 TPD (+20%)	Enhancement of Integrated Solid Waste Management Facility (SWMF) from *100 tons per day (TPD) to 150 tons TPD* is completed and currently is in process of enhancing further from 150-TPD to 250-TPD (+20%). • Electro-mechanical equipment installation is completed. • Current completion status is 98% *(no change since last-month).* • Plant was inaugurated on 20th December 2021 and currently trial-runs of plant are in progress. **From 5th April 2022, performance guarantee run will start.** •	**December 2021**
		Catering to :	Bardez, Pernem, Bicholim & Sattari Talukas		
		Cost of the Project	103.87 Cr		
2	**Integrated Solid Waste Management Facility – Cacora**	Capacity :	100 TPD (+25%)	• Foundation works of MSRC shed, digester-tank, STP, gas-engine building completed. • Casting of both Digester-tanks completed and Construction of solar-drying shed completed. • Bag-opener and wind-sifter, digester-mixers, sedimentation-tanks received at site. • MSRC shed civil works in progress. • **Current completion status is 78% of civil works** *(+6% change since last-month).*	**Revised timeline is May 2022.**
		Catering to :	Sanguem, Dharbandora, Quepem & Canacona Talukas		
		Cost of the Project	173.98 Cr		
3	**Integrated Solid Waste Management Facility-Bainguinim**	Capacity :	250 TPD (+20%)	• Environmental Clearance (EC) has been granted. • RFQ has been floated on 21/09/2020 and RFQ bid opened on 15/02/2021. Three bids were received. However, none of the bids are fulfilling the minimum eligible criteria and / or have not submitted all mandatory documents. • Expert Committee meeting was held on 31/05/2021 to finalize the technical specification of the revised RFQ and minutes approved on 20th June 2021. After approval of revised RFQ by GWMC TASC on 20/07/2021, RFQ was floated on 28/07/2021. • Pre application conference was held on 20th August 2021 and minutes / clarification have been uploaded online on 28/09/2021. • RFQ opened on 22/10/2021 and scrutiny of Bidder-documents is in-process. During the scrutiny, internal committee and internal auditor of GWMC raised querries regarding the bid-documents submitted by bidder. • The internal committee opined that further clarification may be sought from bidders	**Proposed timeline to be decided post the verdict of Hon'ble Supreme Court case.**
		Catering to:	Tiswadi & Ponda Talukas		

				considering the project being time bound and monitored by Hon'ble High Court of Bombay at Goa and since this RFQ was re-tendered with relaxed criteria as all bidders were disqualified previously due to non-meeting of the relevant criteria. **With the approval of Chairman-GWMC / Hon'ble CM, clarifications were sought from bidders and scrutiny of the submission is in process.** • 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. **Next hearing on 20 – 01 – 2022 and was adjourned to 24 – 02 – 2022 and further adjourned to 24 – 03 - 2022.**	

4	**Solid Waste Management Facility – Verna (*250 TPD + 20%*)**	Capacity: 250 TPD (+20%) Catering to Mormugao & Salcete Talukas		• Work order to conduct Environment Impact Assessment (EIA) Studies for 250 TPD + 20% Integrated Solid Waste Management Facility & Waste-to-Energy has been issued to M/S Sadekar Enviro Engineers Pvt. Ltd., • Final EIA report submitted on 10-12-2021 **and post-internal scrutiny will be placed in Goa-SEAC for grant of Environmental Clearance.** • The proposal for appointment of IVL Swedish Environmental Research for carrying out pre-feasibility studies for setting up Waste to Energy Facility in Goa for the amount of 35,000 Euros (*exclusive of any value-added tax*) on nomination basis is approved in Cabinet meeting. • Agreement is placed for vetting from legal and treaties division of the Ministry of External Affairs. Vetting at L&T division of MEA has been done and NOC issued by the MEA on 01 – 12 – 2021. Agreement has been signed with IVL in December 2021 and IVL has started its pre-feasibility study. **IVL team visited Goa on 7th and 8th March 2022 and will submit draft-report by first-week of April 2022.**	**Upon grant of Environmental Clearance (EC), GWMC shall float tender for SWMF 250 TPD.**
5	**Construction & Demolition Waste Management Facility – Bicholim**	Capacity: 500 TPD Land:44,478 sqm Catering to: State of Goa		• GWMC has taken the possession of revenue, land under survey no 146/2,3,4,6 and 148/2,6,7 at Curchirem Village in Bicholim taluka. • Whereas it has been observed that there are names in Form I & XIV of the aforementioned survey number under another rights column as lessee. Hence, the matter was placed before Collector North to grant the land free from all encumbrances. • Further matter regarding demarcation of this land is going on before the Dy. Collector Bicholim. Subsequently, 07 hearings (*+2 since last-month*) have been conducted and out of 27 opponents only 2 opponents have been objected. Order to be passed by Dy. Collector of demarcation after which fencing, security-cabin will be set-up. • Meantime, GWMC has requested the District Magistrate, North Goa Collectorate to hand over the said land to GWMC without any encumbrances after following due procedure	GWMC shall float tender for setting up C & D Waste Management Facility by December-2021 due to delay in site clearance from Revenue Department and construction work towards the same shall commence

			prescribed under law, the said matter has been forwarded to the Deputy Collector/SDO Bicholim for necessary action. Awaiting Order from Deputy Collector, Bicholim. • GWMC received objection from VP Ona-Maulinguem, Bicholim dated 23/06/2020 for setting up garbage/MSW facility. Hence, letter has been sent on 12/10/2020 to the VP informing that the plant is not for garbage/MSW and instead for C&D facility. • The Demarcation Order has been passed on 29th January 2021 by Dy. Collector & SDM (Bicholim). The demarcation order has been forwarded to ISLR, Bicholim for inspection and demarcation. The demarcation was fixed on 05/05/2021 at 10.30 a.m. However, due to section 144 imposed and implementation of curfew, the said work was postponed. Demarcation date is fixed on 2nd August 2021 by ISLR Bicholim**.** • On 02/08/2021, however the demarcation had to be suspended due to the objection raised by local village residents during the demarcation process. • Meantime GWMC office has requested ISLR, Bicholim to submit the work status and refix the demarcation date along with police protection. • **Re-demarcation date has been fixed by ISLR on 07-01-2022 along with necessary police protection. But due to objection by locals during demarcation, it had been suspended until further notice.** • Final draft copy of DPR has been submitted by SINTEF on 04.02.2021 which has been approved in Board of Directors meeting held on 15/04/2021. Subsequently, DPR was before TASC for scrutiny and for technical clearance in July and queries raised by TASC committee have been forwarded to SINTEF for clarification. • The District Collector (North) has identified quarry in Tuem for back-filling with inert Construction debris and Demolition wastes (*i.e. C & D waste*). GWMC had constructed portable cabinet at Tuem site and accordingly informed Corporation of Panaji (CCP) to start disposing C & D wastes with proper S.O.P. as issued by the Collector –North Goa district and GWMC. Also, solar based electrical connection provided at security cabin at Tuem. Deposition of C & D waste at Tuem quarry has started from November 2021. • Regarding tender for fencing and security-cabin at Bicholim, the tender has been finalized and work order will be issued post demarcation **(no change)**.	by May- 2022 and to be completed in 18 months i.e., December 2023 after getting the land without any encumbrances including trial operation.

6	**Common Bio-Medical Waste Treatment Management facility (*CBMWTF*)**	Capacity	200 kgs. Per. hour incinerators.	• The concessionaire has installed and setup the Incinerator, Autoclave, Boiler, shredder, ETP, APCD, Chimney, Plastic Recycling plant to reduce/ recycle the treated plastic scrap and other machinery that are required for treatment of Bio-Medical Waste • Plant has started operations and Bio-Medical waste collection will be started by plant operator within the state of Goa from October 2021. Trial-runs and signing of service-agreements with Health Care Facilities (HCFs') are in-process. • **Currently 100% of project is completed. Approximately 1.5 to 2.0 tons are processed daily.**	**December 2021 (*Project completed within the timeline proposed*)**
7	**Common Hazardous Waste Treatment Storage and Disposal Facility (*CHWTSD*)**	Capacity	25,000 TPA Secured Landfill (SLF) & 1.5 ton/hr incinerators	• Phase 1: Completed, *i.e.* secured landfill - 1 (SLF1), storage shed - 1, weigh bridge, wheel washing, security cabin, laboratory. • GSPCB has granted consent to operate of SLF1 on 31/03/2021. • ETP ready for commissioning. • **Since 31-03-2021, the operator has collected approx. 160 tons of landfillable hazardous wastes.** • Phase 2: 75% completed *(no change since last-month)* 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.**	TSDF is commissioned on March 2021.
8	**Design-Build and Operate an E-Waste Management (*Collection, Storage and Dismantling*)**	Capacity	**15 - TPD**	• Tender for selection of service provider for Design-Build and Operate an E-Waste Management (*Collection, Storage and Dismantling*) for the State of Goa was floated on 06/07/2020. • 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.** • GWMC has executed Deed of Lease Agreement with Goa Industrial Development Corporation (GIDC) on 17-12-2021. **Registration of the same with Sub-registrar Office, Sattari was completed on 8th March 2022.** • **The dismantling facility will be completed and commissioned by *April 2023*.**	**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 February 2022

1.RIVER CHAPORA NEAR ALORNA FORT, PERNEM			
Sr.No.	**Parameters**	**Feb-22**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.14	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.1	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1400	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	130	-
Remarks: All parameters are within permissible limits.			

RIVER CHAPORA NEAR SIOLIM BRIDGE			
Sr.No.	**Parameters**	**Feb-22**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	8.09	6.5-8.5
2	Turbidity(NTU)	6.83	30 NTU
3	Dissolved Oxygen (mg/l)	5.4	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)	240	-
Remarks: Fecal Coliform is exceeding the permissible limit for the month of February 2022			

2.RIVER TIRACOL AT KERI, PERNEM			
Sr.No.	**Parameters**	**Feb-22**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	8.10	6.5-8.5
2	Turbidity(NTU)	6.71	30 NTU
3	Dissolved Oxygen (mg/l)	6.1	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)	110	-
Remarks: Fecal Coliform is exceeding the permissible limit for the month of February 2022			

3.RIVER SINQUERIM, CANDOLIM SIDE			
Sr.No.	**Parameters**	**Feb-22**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.87	6.5-8.5
2	Turbidity(NTU)	BDL	30 NTU
3	Dissolved Oxygen (mg/l)	5.8	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)	130	-
Remarks: Fecal Coliform is exceeding the permissible limit for the month of February 2022			

RIVER SINQUERIM, NEAR GANPATI TEMPLE			
Sr.No.	**Parameters**	**Feb-22**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.89	6.5-8.5
2	Turbidity(NTU)	BDL	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)	700	100 or less MPN/100ml

6	Fecal Streptococci (MPN/100ml)	130	-
Remarks: Fecal Coliform is exceeding the permissible limit for the month of February 2022			

4.RIVER ZUARI AT MADKAI JETTY			
Sr.No.	**Parameters**	**Feb-22**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.35	6.5-8.5
2	Turbidity(NTU)	21.1	30 NTU
3	Dissolved Oxygen (mg/l)	5.2	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)	230	-
Remarks: Fecal Coliform is exceeding the permissible limit for the month of February 2022			

RIVER ZUARI AT BORIM BRIDGE			
Sr.No.	**Parameters**	**Feb-22**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.83	6.5-8.5
2	Turbidity(NTU)	8.37	30 NTU
3	Dissolved Oxygen (mg/l)	5.4	4 mg/l or more
4	BOD (mg/l)	BDL	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	2700	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	460	-
Remarks: Fecal Coliform is exceeding the permissible limit for the month of February 2022			

5.RIVER ASSANORA AT ASSANORA			
Sr.No.	**Parameters**	**Feb-22**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.82	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.9	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1400	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	170	-
Remarks: All parameters are within permissible limits.			

6.RIVER VALVANTI AT SANQUELIM			
Sr.No.	**Parameters**	**Feb-22**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.75	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.2	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)	170	-
Remarks: All parameters are within permissible limits.			

7.RIVER KHANDEPAR, OPA, PONDA			
Sr.No.	**Parameters**	**Feb-22**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.89	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.8	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)	280	-
Remarks: All parameters are within permissible limits.			

RIVER KHANDEPAR, CODLI			
Sr.No.	**Parameters**	**Feb-22**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.72	6.0-9.0
2	Dissolved Oxygen (mg/l)	7.0	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	1400	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	240	-
Remarks: All parameters are within permissible limits.			

8.RIVER BICHOLIM BARAZAN NAGAR, BICHOLIM			
Sr.No.	**Parameters**	**Feb-22**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.82	6.0-9.0
2	Dissolved Oxygen (mg/l)	10.5	4 mg/l or more
3	BOD (mg/l)	BDL	3 mg/l or less
4	Total Coliform (MPN/100ml)	7000	5000 or less MPN/100ml
5	Fecal Streptococci (MPN/100ml)	790	-
Remarks: Total Coliform is exceeding the permissible limit for the month of February 2022			

9.RIVER MANDOVI AT TONCA MARCELA			
Sr.No.	**Parameters**	**Feb-22**	**Limit for class SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.25	6.5-8.5
2	Turbidity(NTU)	4.56	30 NTU
3	Dissolved Oxygen (mg/l)	5.4	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 February 2022			

10.RIVER TALPONA AT CANACONA			
Sr.No.	**Parameters**	**Feb-22**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	5.96	6.0-9.0
2	Dissolved Oxygen (mg/l)	6.5	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)	70	-
Remarks: All parameters are within permissible limits.			

11.RIVER SAL AT KHAREBAND,MARGAO			
Sr.No.	**Parameters**	**Feb-22**	**Limit for class SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.64	6.5-8.5
2	Turbidity(NTU)	20.9	30 NTU
3	Dissolved Oxygen (mg/l)	BDL	4 mg/l or more
4	BOD (mg/l)	6.1	3 mg/l or less
5	Fecal Coliform (MPN/100ml)	4900	100 or less MPN/100ml
6	Fecal Streptococci (MPN/100ml)	1300	-
Remarks: DO is below permissible limit , BOD and Fecal Coliform is exceeding the permissible limit for the month of February 2022			

RIVER SAL AT MOBOR			
Sr.No.	**Parameters**	**Feb-22**	**Limit for class SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.42	6.5-8.5
2	Turbidity(NTU)	20.5	30 NTU
3	Dissolved Oxygen (mg/l)	6.0	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)	240	
Remarks: Fecal Coliform is exceeding the permissible limit for the month of February 2022			

NOTE:

1)BDL- Below Detection Limit

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

1		Numbers of ULBs	14			
2		**Over all waste management status in States/Uts**				
a		Quantity of MSW generated (TPD)	213.17			
b		Quantity of MSW collected (TPD)	208.17			
c		Quantity of MSW segregated & transported (TPD)	208.17			
d		Quantity of MSW processed (TPD)	208.17			
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)]	5			
g		Solid Waste Management Plan	Annexure ' A' as furnished in the last quarterly report for quarter ending for March 2021			
3		**Waste Collection**	**Existing**	**Target**	**Gap**	**Timeframe**
a		ULBs in which waste door-to-door collection is implemented (No.)	14	14	NIL	—
b		ULBs in which segregation of waste is implemented (No.)	14	14	NIL	—
c		ULBs in which transportation of segregation waste is implemented (No.)	14	14	NIL	—
4		**Waste Processing**				
a		Material Recovery Facilities				
	(i)	Total Capacity (TPD)	105.06	only upgradation of MRF is under process in order to cater to the increase in waste generation in ULBs		30st December 2021
	(ii)	Number	17			
	(iii)	Number of ULBs Covered	14			
b		Recycling				
	(i)	Total Capacity (TPD)	12.778	NIL	NIL	NIL

	(ii)	Number	6	NIL	NIL	NIL
	(iii)	Number of ULBs Covered	6	NIL	NIL	NIL
c		Composting				
	(i)	Total Capacity (TPD)	226.94	NIL	NIL	NIL
	(ii)	Number	29	NIL	NIL	NIL
	(iii)	Number of ULBs Covered	14	NIL	NIL	NIL
d		Biomethanation				
	(i)	Total Capacity (TPD)	34.025	The works under progress along with timelines are mentioned at Annexure 'B'		
	(ii)	Number	19			
	(iii)	Number of ULBs Covered	5			
e		RDF				
	(i)	Total Capacity (TPD)	37.26	NIL	NIL	NIL
	(ii)	Number	15	NIL	NIL	NIL
	(iii)	Number of ULBs Covered	9	NIL	NIL	NIL
f		Waste to Energy Plants				
	(i)	Total Capacity (TPD)	5.5	NIL	NIL	NIL
	(ii)	Number	2	NIL	NIL	NIL
	(iii)	Number of ULBs Covered	2	NIL	NIL	NIL
4		**Waste Disposal**				
a		Landfill				
	(i)	Total Capacity (TPD)	116461.43 cubic mtrs	NIL	NIL	NIL
	(ii)	Number	5	NIL	NIL	NIL
	(iii)	Number of ULBs Covered	5	NIL	NIL	NIL
5		**LegacyWaste Management (*located within MUNICIPAL limits ONLY*)**				
a		Number of Dumpsites (NO.)	8			
b		Quantity of Waste dumped at Dumpsites (Tons)	239,645.1Tonnes			
c		Number of dumpsites cleared (No.)	3			
d		Number of dumpsites in which biomining has commenced (No.)	3			

e		Time frame for clearing all dumpsites	2022
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 fo rates for procurement of services/equipments

Sr.No	Improvements Since Last Hearing			
	Item	**Present Satus**	**Status at the time of last hearing**	**Whether directed timelines have been adhered or not?**
1	Door - to - door collection (%)	100%	Not Available	Yes, in most cases
2	Source segregation of waste (%)	95%	Not Available	Yes, Except Pernem Municipal Council which has Implemented segregation of waste at the site
3	Waste Processing (TPD)	88%	Not Available	Yes
4	Dumpsites capped (No.)	Nil	Not Available	under process
5	Dumpsites Bio-remediated (No.)	4	Not Available	under process

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)	**144.394858**
b		Quantity of MSW collected (TPD)	**142.282288**
c		Quantity odf MSW segregated & transported (TPD)	**142.223288**
d		Quantity of MSW processed (TPD)	**15.448**
e		Quantity of MSW disposed in secured land fill site (TPD)	**3.5**
f		Gap in Solid Waste Management UTs (TPD) [1(a)-I(d)-1(e)]	**2.07533**
g		Solid Waste Management Plan	**All 191 VPs have Prepared Plan & implementation is in progress**
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)	**1048.535509**
	(ii)	Number of RLBs	**112**
	(iii)	Number of RLBs covered	**112**
b		**Recycling**	**NIL**
	(i)	Total Capacity (TPD)	

	(ii)	Number	
	(iii)	Number of RLBs covered	
c		**Composting**	
	(i)	Total Capacity (TPD)	**23.512259**
	(ii)	Number	**83**
	(iii)	Number of RLBs covered	**64**