National Mission for Clean Ganga (NMCG)

Format for Submission of Monthly Progress Report by States / UTs'
(for the month ending July 2020)
(*Hon'ble NGT Order dated 06th December 2019 in a matter of O.A. 673 of 2018*)

Sr. No.	Activity to be monitored	Timeline	Submission of Progress Report by State / UT-Compliance Status
1	Ensure 100% treatment of sewage at least in-situ remediation	31.03.2020	Complied-with in respect of the sewage, *as received at Sewage Treatment Plant (STP)*, is treated (*i.e. 100 % treatment*) and treated effluent complies with the prescribed norms from major towns (*i.e. Panaji / Margao & Vasco – Mormugao*) having proper sewerage system. Sewerage system in Ponda, Mapusa, Calangute, Colva & Porvorim are in-progress. Further, whenever underground sewer network is not existing, conventional method of septic-tank / soak-pit is adopted by individual housing /complexes. In village or hinterland-areas (*i.e. pocket settlement areas*), stand alone soak-pit / septic-tanks system ensures effective treatment of domestic-sewage.
	Commencement of setting-up of STPs' and connecting all the drains and other sources of generation of sewage to the STPs' must be ensured.	31.03.2020	Status and progress of STPs' are enclosed in **Annexure – A**.
2	Timeline for completing all steps of action plans including completion of setting up STPs' and their commissioning.	31.03.2021	Follow-up progress in respect of all action-plans is proposed to be reviewed during the RRC-Goa meeting scheduled on 4th August 2020 chaired by Secretary (Environment).
5	Chief Secretaries may set	22.01.2020	

	up appropriate monitoring mechanism at State level. a. Specifying accountability of nodal authorities not below the Secretary level. b. Chief Secretaries may have an accountable person attached in their office for this purpose.		Secretary (Environment) is a Nodal Authority. Director, Department of Environment, Goa to assist O/o Chief Secretary.
	c. Monitoring at State-level must take place	Fortnightly commencing 21.12.2019	Noted and is being complied-with.
6	Progress report may be furnished by the State /UTs' to – 1. Secretary, Ministry of Jal Shakti 2. Member Secretary, CPCB	Monthly (*preferably before 20th of every month*)	This is the MPR for the month ending July 2020.
6.1	Progress Report may be comprised of details along with completion timelines on:		
	(i) <u>Identification of polluting sources</u> including drains contributing to river		Completed. There are no drains, *per se*, that contribute to river pollution but, natural streams

	pollution and action as per NGT Order on in-situ treatment. (ii) <u>Status of STPs', I&D and sewerage networks</u>. Details of existing Infrastructure, Gap Analysis, Proposed along with completion timelines. (iii) <u>Status of CETPs'</u> Details of existing CETP and ETP infrastructure, Gap Analysis, Proposed along with completion timeline, Number of Industries and complying status. (iv) <u>Status of Solid Waste Management & Details of Processing</u>		which are mainly dry except during monsoon season (*i.e. seasonal*). **Refer Annexure – A** (*submitted as a part of compliance against sr.no.(1) & (2) above*). The State does not have any Common Effluent Treatment Plant (ETPs'). Further, there are no industrial units located within the catchment of any of the polluted river-stretches. Kindly refer **Annexure - B**

	Facilities. Details of existing Infrastructure, Gap Analysis, Proposed along with completion timelines.		
	(v) Latest water quality of polluted rivers, its tributaries, drains with flow details and groundwater quality in the catchment of polluted rive;		**Kindly refer Annexure - C** (*as per the discussions held during the 4th Central Monitoring Committee held on 30th July 2020, river-stretch wise water-quality for last one-year is tabulated*)
	(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic wastes and decentralising waste processing, including waste generated from hotels, ashrams, etc.,		Being addressed.

	(vii) Ground water Regulation.		Same as referred in the last-MPR.
	(viii) Adopting good irrigation practices,		Same as referred in the last-MPR.
	(ix) Protection and management of Flood Plain Zones (FPZ),		Same as referred in the last-MPR.
	(x) Rain water harvesting,		Same as referred in the last-MPR.
	(xi) Maintaining minimum environmental flow (e-flow)		Water Resources Department (WRD) has informed that in all the rivers of Goa the demand water being a small percentage of the available yield, apparent e-flows were always maintained.
	(xii) Plantation on both sides of the river.		Not applicable.
	(xiii) Setting up Biodiversity Park on flood-plains by removing encroachments.		Same as referred in the last-MPR.

Annexure - A

Details of Sewage generation and their treatment system adapted in State

Sr no	Name of District	Quantity sewage generation (in MLD)	No of STP's their capacities (in MLD)		Location of STP	Operational status	Technology adapted	Quantity of sewage treated (In MLD)	Gaps in generation and treatment	Remark
			Designed	Operational						
	North Goa									Presently the Sewerage Coverage is about 16% in the state of Goa. In state of Goa 4 Towns/cities i.e. Panaji, Margao and Marmagao (Vasco), Sanquelim (part) are having proper Sewerage system. Sewerage schemes for Ponda, Mapusa, Calangute-Baga, Colva, Porvorim are in progress. Wherever underground sewer network is not existing conventional method of septic tank & soak pit is adopted by individual houses /complexes. Night soil tankers are deployed by PWD offices and privately owned agencies. These tankers caters to septage management for users wherever sewer connection is not available and are using convential method of septic tank and soak pit method. It should be noted that occupancy certificate to all new residential or commercial building are issued by competent authority only after providing proper sewage treatment method. Also many Houses, Hotels, other Establishments have their own STPs same is being monitored by GSPCB on case to case basis.
1	Tiswadi	31.50	12.5	12.5	Tonca, Panaji	Operational	SBR	11	Negligible	
			15	15	Tonca, Panaji	Operational	SBR	8		
			1.35	1.35	GMC,Bambolim	Operational	SBR	0.5		
			2	-	Patto	Under construction	SBR	-		
2	Ponda	23.14	1	1	Durbhat,Ponda	Operational	SBR	0.4	Negligible	
			15	-	Queula,Ponda	Under construction	SBR	-		
			8	-	Curti,Ponda	Proposed	SBR	-		
			15	-	Undir,Ponda	Proposed	SBR	-		
3	Bardez	48.35	15	-	Porvorim	Proposed	SBR	-	Negligible	
			5.4	-	Mapusa	Under construction	SBR	-		
			5.6	-	Baga, Calangute	Under construction	SBR	-		
4	Pernem	9.05	-	-	-	-	-	-	Negligible	
5	Bicholim	12.12	-	-	-	-	-	-	Negligible	
6	Sattari	18.81	0.8	0.8	Sankhlim	Operational	SBR	0.8	Negligible	
	Total	**142.97**	**96.65**	**30.65**				**20.70**		
	South Goa									
1	Mormugao	39.42	20	20	Baina, Vasco	Operational	SBR	8	Negligible	
			1	1	Sancoale	Operational	Phythorid	1		
2	Salcete	56.95	20	20	Shirvodem, Navelim	Operational	SBR	14.9	Negligible	
			6.7	6.7	Shirvodem, Navelim	Operational	SBR	2		
			7.5	-	Colva	Under construction	SBR			
3	Canacona	3.26	-	-	-	-	-	-	Negligible	
4	Quepem	8.42	-	-	-	-	-	-	Negligible	
5	Sanguem	7.76	-	-	-	-	-	-	Negligible	
	Total	**115.81**	**55.20**	**47.70**				**25.90**		
	Grand Total	**258.78**	**151.85**	**78.35**				**46.60**		

Note:- 1) The details of quantity of sewage treated are the latest flow details of June 2020 obtained from the STPs in the state of Goa.

2) Total 9 nos. of STP are installed with Capacity of 78.35 MLD in state of Goa with additional 8 STPS of 73.5 MLD Capacity under construction/proposed.

3) Sewerage scheme for Churchorem is proposed with 7.5 MLD STP.

Annexure - B

Status of Solid Waste Management & Details of Processing Facilities

A. Compliance to Solid waste Rules including Legacy waste			
Sr. No.	**Clause as referred in SWM Rules, 2016**	**Current status**	**Proposal of attending the gap with the timeline**
1	**Clause – 29 / 39 (i) -** Compliance under Rule 22 of Solid Waste Management (SWM) Rules 2016.	**Integrated Solid Waste Management Facility** (SWMF) (*100 tons per day - TPD*) at Saligao has been augmented to 150 TPD for disposal / treatment of solid wastes generated from twenty-seven village Panchayats and further has proposed its **enhancement from existing 150-TPD to 250-TPD (+20%).** **Integrated Solid Waste Management Facility – Cacora (***100 TPD +20%***)** Letter of Award has been issued and the Concession Agreement has been executed. **Integrated Solid Waste Management Facility- Bainguinim (250 TPD +20%) -** Environmental Clearance (EC) has been granted and tender document has been floated. **Solid Waste Management Facility –Verna (250 TPD + 20%)** Tender for conducting Rapid EIA studies was floated and letter of Intent (LoI) to the lowest bidder was issued on 15-06-2020. **Legacy dump and its management** Till date the State has remediated approximately 1,23,000 tons of waste from legacy dumps at Saligao, Cacora and Aradi. GWMC has issued work orders to 3 bidders to remediate 11 legacy waste dumps sites in the State of Goa out which work has commenced at Sonsodo, Headland Sada, Assagao and Campal .	The project was scheduled to commence in March 2020 however, due to administrative and financial approvals, and COVID-19 pandemic and consequent lockdowns, approval is expected to be completed by end of June 2020 where contract agreement will be signed with concessionaire and the project construction is expected to commence effectively post monsoons i.e. Sept 2020 and to be completed in 12 months, for trial operations which requires another 3 months time. Therefore, the timeline for the effective operation of expanded Saligao plant to 250TPD is **Dec 2021** The project was scheduled to commence in the month of March 2020 however, due to COVID-19 pandemic, consequent lockdowns and monsoons, the work shall commence post monsoons in September 2020 and to be completed in 18 months i.e. December 2021, thereafter 03-months of trial-operations. The tender for Solid Waste Management Facility at Bainguinim was proposed to be floated by December 2020 after incorporating estimates of GSR 2019 and tweaking the tender document accordingly and work towards same shall commence in April 2021 and expected to be completed in 18 months i.e. October 2022, which includes 3 months of trial operation GWMC to complete EIA studies by December 2020. Upon grant of EC, GWMC shall float tender for SWMF 250 TPD. Two Years (Excluding Monsoon) from the date of issue of work order i.e. 28/09/2021 and 36 months from issue of work order for disposal of RDF in Cement Factories. i.e. 28/02/2024

1.RIVER CHAPORA NEAR ALORNA FORT, PERNEM			
Sr.No.	**Parameters**	**May -20**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.99	6.0-9.0
2	Dissolved Oxygen mg/l	6.1	4 mg/l or more
3	BOD mg/l	BDL	3 mg/l or less
4	Total Coliform MPN/100ml	2300	5000 or less MPN/100ml
Remarks: All parameters are within permissible limits of Class C in the month of May 2020			

RIVER CHAPORA NEAR SIOLIM BRIDGE			
Sr.No.	**Parameters**	**May -20**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.85	6.5-8.5
2	Turbidity (NTU)	17.10	30 NTU
3	Dissolved Oxygen mg/l	6.0	4 mg/l or more
4	BOD mg/l	2.0	3 mg/l or less
5	Fecal Coliform MPN/100ml	280	100 or less MPN/100ml
Remarks: 1)Fecal Coliform exceeds permissible limits of SW II in the month of May 2020.			

2.TIRACOL AT KERI, PERNEM			
Sr.No.	**Parameters**	**May -20**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.82	6.5-8.5
2	Turbidity (NTU)	6.46	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	130	100 or less MPN/100ml
Remarks: 1)Fecal Coliform exceeds permissible limits of SW II in the month of May 2020			

3.RIVER SINQUERIM, CANDOLIM SIDE			
Sr.No.	**Parameters**	**May -20**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.68	6.5-8.5
2	Turbidity (NTU)	7.51	30 NTU
3	Dissolved Oxygen mg/l	4.7	4 mg/l or more
4	BOD mg/l	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	330	100 or less MPN/100ml
Remarks: 1)Fecal Coliform exceeds permissible limits of SW II in the month of May 2020			

RIVER SINQUERIM, NEAR GANPATI TEMPLE			
Sr.No.	**Parameters**	**May -20**	**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)	6.48	30 NTU
3	Dissolved Oxygen mg/l	6.5	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
Remarks: 1)Fecal Coliform exceeds permissible limits of SW II in the month of May 2020			

4.RIVER ZUARI AT MADKAI JETTY			
Sr.No.	**Parameters**	**May -20**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.8	6.5-8.5
2	Turbidity (NTU)	8.19	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	790	100 or less MPN/100ml
Remarks: 1)Fecal Coliform exceeds permissible limits of SW II in the month of May 2020			

RIVER ZUARI AT BORIM BRIDGE			
Sr.No.	**Parameters**	**May -20**	**Limit for SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.10	6.5-8.5
2	Turbidity (NTU)	17.70	30 NTU
3	Dissolved Oxygen mg/l	3.8	4 mg/l or more
4	BOD mg/l	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	130	100 or less MPN/100ml
Remarks: 1)Fecal Coliform exceeds permissible limits of SW II in the month of May 2020			

5.RIVER ASSANORA AT ASSANORA			
Sr.No.	**Parameters**	**May -20**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.42	6.0-9.0
2	Dissolved Oxygen mg/l	5.7	4 mg/l or more
3	BOD mg/l	2.2	3 mg/l or less
4	Total Coliform MPN/100ml	1700	5000 or less MPN/100ml
Remarks: All parameters are within permissible limits of Class C in the month of May 2020			

6.RIVER VALVANTI AT SANQUELIM			
Sr.No.	**Parameters**	**May -20**	**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	6.4	4 mg/l or more
3	BOD mg/l	BDL	3 mg/l or less
4	Total Coliform MPN/100ml	2200	5000 or less MPN/100ml
Remarks: All parameters are within permissible limits of Class C in the month of May 2020			

7.RIVER KHANDEPAR, OPA, PONDA			
Sr.No.	**Parameters**	**May -20**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.43	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	220	5000 or less MPN/100ml
Remarks: All parameters are within permissible limits of Class C in the month of May 2020			

RIVER KHANDEPAR, CODLI			
Sr.No.	**Parameters**	**May -20**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.78	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	230	5000 or less MPN/100ml
Remarks: All parameters are within permissible limits of Class C in the month of May 2020			

8.RIVER BICHOLIM BARAZAN NAGAR, BICHOLIM			
Sr.No.	**Parameters**	**May -20**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	6.73	6.0-9.0
2	Dissolved Oxygen mg/l	5.8	4 mg/l or more
3	BOD mg/l	2.0	3 mg/l or less
4	Total Coliform MPN/100ml	4600	5000 or less MPN/100ml
Remarks: All parameters are within permissible limits of Class C in the month of May 2020			

9.RIVER MANDOVI AT TONCA MARCELA			
Sr.No.	**Parameters**	**May -20**	**Limit for class SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.2	6.5-8.5
2	Turbidity(NTU)	6.69	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	680	100 or less MPN/100ml
Remarks: 1)Fecal Coliform exceeds permissible limits of SW II in the month of May 2020			

10.RIVER TALPONA AT CANACONA			
Sr.No.	**Parameters**	**May -20**	**Limit for class C rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.46	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	780	5000 or less MPN/100ml
Remarks: All parameters are within permissible limits of Class C in the month of May 2020			

11.RIVER SALAT KHAREBAND,MARGAO			
Sr.No.	**Parameters**	**May -20**	**Limit for class SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	Sample Not collected due to excessive growth of water hyacinth	6.5-8.5
2	Turbidity(NTU)		30 NTU
3	Dissolved Oxygen mg/l		4 mg/l or more
4	BOD mg/l		3 mg/l or less
5	Fecal Coliform MPN/100ml		100 or less MPN/100ml
Remarks: Not applicable			

RIVER SAL AT MOBOR			
Sr.No.	**Parameters**	**May -20**	**Limit for class SW II rivers as per CPCB classification based on designated best use of rivers**
1	pH	7.72	6.5-8.5
2	Turbidity(NTU)	16.73	30 NTU
3	Dissolved Oxygen mg/l	5	4 mg/l or more
4	BOD mg/l	BDL	3 mg/l or less
5	Fecal Coliform MPN/100ml	1300	100 or less MPN/100ml
Remarks: 1)Fecal Coliform exceeds permissible limits of SW II in the month of May 2020			

NOTE:
1)BDL- Below Detection Limit
2)NA- Sample not analysed