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STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]
Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,
Bhubaneswar – 751 012

IND-VI-8W/2824 (Pt.V)/19-20

No.

8923

Dt. 18.09.20

To

Dr. D. P. Mathuria, Executive Director, National Mission for Clean Ganga Department for Water Resources, River Development & Ganga Rejuvenation. Ministry of Jal Shakti, 1st Floor, Major Dhyan Chand National Stadium, India Gate, New Detni – 110 002

Sub: Submission of Monthly Progress Reports related to Control of River Pollution – Reg.

Sir,

In inviting a reference to above subject, the Monthly Progress Report for the month of August, 2020 in compliance to the Proceedings of the 5th Central Monitaring Committee is enclosed herewith for your kind information and necessary action.

Yours faithfully,

Encl: As above

Mama No 8924 18.09.20

Copy forwarded to Dr. J. C. Babu, Addl. Director, WQM-I Division, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110 032 for kind information and necessary

action.

Encl: As above

8925

18.09.20

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Copy forwarded to the Director, Env.-cum-Spi, Secretary to Government, Forest and Environment Department, Govt. of Odisha for kind information and necessary action.

Encl: As above

Member Secretary

Compliance of Minutes of 5th Meeting of Central Monitoring Committee held on 31.08.2020 through Video Conferencing

Suggestions of 5 th CMC Meeting	Compliance by OSPCB
1) Information regarding identified drains (18 nos) discharging into polluted river stretches and the status of insitu remediation for these drains, need to be provided.	Requested to Housing and Urban Development Department to furnish details of drains vide letter No. 7536 dated 20.08.2020. Information is yet to be received. Water quality of drains with respect to BOD and Fecal Coliform durig August, 2018 is given in Annexure-2 at p. 5-7.
2) Further, amount of sewage being treated by STP and FSTP needs to be provided separately. Similarly, progress made in on-going and proposed projects of STP and FSTP to be provided separately.	Amount of sewage being treated by STP are given in Annexure 3(a) at p. 8-10 Amount of sewage being treated in Septage Treatement Plant (FSTP) are given in Annexure-3 (b) at p. 11-15.

National Mission for Clean Ganga

Format for Submission of Monthly Progress Report by States/ UTs (Hon'ble NGT in the matter of OA No. 673/2018 dated 06.12.2019)

State: Odisha Month: August, 2020

SI No.	Information sought for	Replies
6.1 (i)	identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment	List of Polluting stretches and their priority category are given in Annexure-1. (Page-4) Information on identification of drains contributing pollution to these river stretchesare given in Annexure-2. (Page-5-7)
(ii)	Status of STPs. I&D and sewerage networks, Details of Existing infrastructure, Gap Analysis, Proposed along with completion timeline	Information on status of STPs constructed/ to be constructed to treat domestic wastewater is given in Annexure-3(a) (page-8-10). Septage Treatment Plants have been constructed to treat the septage generated in the city in the Plant instead of being discharged to the drains. Information on status of SeTPs constructed/ to be constructed is given in Annexure-3(b) (page-11-15).
(iii)	Status of CETPs, Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status	There is no CETP in the State. Industries have installed captive ETPs for treatment of Industrial Effluent. Detail status of management of Industrial Effluent (17 categories) is given in Annexure-4 (Page-16).
(iv)	Status of Solid Waste Management and Details of Processing facilities and Existing infrastructure, Gap analysis, Proposed alongwith completion timeline	Information given in Annexure-5 (Page- 17,18).
(v)	Latest water quality of polluted river, its tributaries, drains with flow details and ground	Latest water quality status of polluted river stretches during August,2020 with respect to six

		<u> </u>
	water quality in the catchment of polluted river;	parameters such as pH, DO, BOD, Total Coliform, Fecal Coliform and Fecal Streptococcus is given in Annexure-6 (a) (Page-19- 27).
		Comparison of priorities of polluted river stretches during the period 2017 -2020(as on August, 2020) is given in Annexure-6 (b) (Page- 28).
		Summary of number of polluted river stretches under different category during the period 2017-2020 (upto August, 2020) is given in Annexure-6 (c) (Page-29).
		Latest water quality of rivers in whole of the State with respect to six parameters such as pH, DO, BOD, Total Coliform, Fecal Coliform and Fecal Streptococcus during August, 2020 is given in Annexure-6(d) (Page- 30- 36).
		Water quality status has been uploaded in RRC website of the Board (weblink: https://www.rrcodisha.org/water-quality-station/)
(vi)	Preventing dumping of waste and scientific waste management including bio-medical wastes, plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams, etc.	Bio-medical wastes generating from the health care establishments are being managed either through common biomedical waste treatment and Disposal (CBWTDF) facilities or by deep-burial practice.
		Bar-code System has been implemented in the following four Common Facilities (CBWTDF): 1) M/s. Sani Clean Pvt. Ltd., Khurda, M/s Mediaid Marketing Services, Bhubaneswar at SCB Medical College and Hospital,

		Cuttack
		2) M/s Mediaid Marketing
		Services, Bhubaneswar at
		Rourkela Govt. Hospital,
		Rourkela
		4) M/s. Bio-Tech Solutions, at
		VSS Medical College and
		Hospital Burla, Sambalpur.
		Biomedical Waste generation
		and management in the
		Municipalities along the
		polluted river stretches is
		given in Annexure-7
7	0 1111	(Page-37-38)
(vii)	Ground Water Regulation	Information given in Annexure-8.
(viii)	Adopting Good Irrigation practices	(Page-39-40)
(ix)	Protection and Management of Flood Protection	
	Zones (FPZ)	
(x)	Rain water harvesting	
(xi)	Maintaining minimum environmental flow in	
	river	
(xii)	Plantation on both sides of the river	
	Setting up of biodiversity parks on flood plains by	
(xiii)	removing encroachment	

Annexure-I

List of Polluted River Stretches as identified by CPCB and their priority Category (during 2017)

Pollut	red River Stretches identified by CPCB	Priority Category of Polluted River stretch
1.	Gangua River (Along Bhubaneswar)	Priority-I
2.	Guradih nallah (Rourkela)	Priority-III
3	Kathajodi (Cuttack to Urali)	Priority-III
4	Nandira Jhor (D/s of Talcher)	Priority-III
5	Daya (Bhubaneswar to Bargarh)	Priority-IV
6	Kuakhai (Along Bhubaneswar)	Priority-IV
7	Banguru nallah	Priority-V
	(along Talcher, Rengali)	
	(Corrected as Along Talcher)	
8	Bheden	Priority-V
	(along Bheden)	
9	Brahmani (Rourkela to Biritol)	Priority-V
10	Budhabalanga (Mahulia to Baripada)	Priority-V
11	Kusumi	Priority-V
	(along Talcher)	
	(Corrected as Along Tangi)	
12	Mahanadi (Sambalpur to Paradeep)	Priority-V
13	Mangala (Along Puri)	Priority-V
14	Nagavali (Jaykaypur to Rayagada)	Priority-V
15	Luna	Priority-V
	(along Bijipur)	
16	Ratnachira (Along Bhubaneswar,	Priority-V
	Puri)	
17	Rushikulya (Pratappur to Ganjam)	Priority-V
18	Sabulia (Jagannathpatna, Rambha)	Priority-V
19	Serua	Priority-V
	(Khandaeta to Sankhatrasa)	

Details of drains contributing to polluted river stretches (River stretch-wise) (August, 2020)

SI. No.	Name of the Polluted River Stretch	Drain	Type Domestic/ Industrial/ Mixed	Quantity (MLD)	BOD (mg/L)	FC (MPN/ 100 mL)
1.	Gangua River	10 Nos.	Domestic			
	(Along		Drain Name	-	-	-
	Bhubaneswar)		Patia	-	5.5	7900
			Sainik School	-	13	160000
			OAP area	-	5.9	35000
			VaniVihar	-	17.5	54000
			Laxmisagar	-		
			area		16.5	160000
			Baragada	-		
			Area		17.5	160000
			Kedargouri	-	6.8	92000
			Airport area	-	5	17000
			Ghatikia	-	4.9	54000
			Nicco Park	-	14.5	160000
2.	Guradih nallah (Rourkela)	1 No.	Industrial	-	-	-
3	Kathajodi	3 Nos.	Domestic			
	(Cuttack to Urali)		Outlet of STP	-		
			at CDA-		2.3	<1.8
			Bidanasi area			
			Wastewater	-		
			discharge to			
			Kathajodi		46.6	92000
			river through			
			sluice gate at Khannagar			
			Outlet of STP	_		
			at	_		
			Mattagajpur			
			discharge to		1.8	790
			Kathajodi			
			river			
4	Nandira Jhor	1 No.	Kisindajhor, a	-	1.7	230
	(D/s of Talcher)		natural storm			
			water drain			
			carrying			
			treated			
			industrial			
			discharge			

SI. No.	Name of the Polluted River Stretch	Drain	Type Domestic/ Industrial/ Mixed	Quantity (MLD)	BOD (mg/L)	FC (MPN/ 100 mL)
5	Daya (Bhubaneswar to Bargarh)	1 No.	Gangua * nallah, a natural storm water drain, carrying domestic wastewater	-	5.3	77075
6	Kuakhai (Along Bhubaneswar)	-	No drain	-	-	-
7	Banguru nallah (along Talcher, Rengali)	-	No drain	-	-	-
8	Bheden (along Bheden)		Kharkhari nallah, a natural storm water drain, carrying treated industrial and domestic wastewater	-	-	-
9	Brahmani (Rourkela to Biritol)	-	Guradih nallah, a natural storm water drain, carrying treated industrial and domestic wastewater	-	6.3	17000
10	Budhabalanga (Mahulia to Baripada)	2 Nos.	Sarali Nallah and Jarli nallah, two natural storm water drains carrying domestic wastewater	-	-	-
11	Kusumi (along Tangi)	-	No drain	-	-	-

^{*} Average of four sampling stations on Gangua nallah

12	Mahanadi	Sambalpur : Domestic wastewater of Sambalpur Municipal Corporation				
	(Sambalpur to	flows through four natural streams such as Tangana nallah, Dhobijhore,				
	Paradeep)	Haradajho	r and Malatijhor	which ultimat	ely discharge i	nto Mahanadi
		river				
		Sonepur :	One major drain	carrying domest	ic wastewater o	of the town
		Cuttack :	One major drain	n carrying dome	estic wastewate	er of a part of
		Cuttack cit	у			
		Paradeep	: One major drai	n carrying dome	estic wastewate	er of the town
		through At	harabanki creek			
13	Mangala		Outlet of 15	-	18.0	17000
	(Along Puri)		MLD STP at			
			Mangalaghat,			
			Puri			
14	Nagavali	-	Treated waste	water of STP and	d ETP at Jaykayp	our, Rayagada
	(Jaykaypur to					
	Rayagada)					
15	Luna	-	No drain	-	-	-
	(along Bijipur)					
16	Ratnachira	-	No drain	-	-	-
	(Along					
	Bhubaneswar,					
	Puri)					
17	Rushikulya	-	No drain	-	-	-
	(Pratappur to					
	Ganjam)					
18	Sabulia	-	No drain	-	-	-
	(Jagannathpatna,					
	Rambha)					
19	Serua			As in Sl. No. 3		
	(Khandaeta to					
	Sankhatrasa)					

FORMAT FOR SUBMISSION OF MONTHLY PROGRESS REPORT BY OWSSB (HONBLE NGT IN THE MATTER OF OA. 673/2018 DATED 06.12.2019) ENDING AUGUST 2020

Sl.	Activity to be monitored	Timeline	Progress/ compliance/ status
1.	Ensure 100% treatment of sewage at least in situ remediation	31.03.2020	It is targeted to ensure treatment of 88 MLD sewage generated in 2 ULBs of the State by Dec'2020 and balance 279 MLD sewage generated in 4 ULBs of the state by March-2021. Quantity of sewage treated in ULBs as on July,2020 i. Puri - 14 mld ii. Cuttack - 50 mld iii. Talcher - 2 mld Total - 66 mld
	Commencement of setting up of STPs connecting all the drains and other sources of generation of sewage to the STPs must be ensured	31.03.2020	3 nos. STPs have been constructed for treating drain water of following towns. i. Cuttack: 33 MLD STP at Matgajpur ii. Puri: 5 MLD STP at Bankimuhan iii. Talcher: 2 MLD STP at Mandapal No other STPs are now under construction for treating of drain water.
2.	Timeline for completing all steps of action plans including completion of setting up STPs & their commissioning.	31.03.2021	Bhubaneswar Sewerage District-I Sewerage Treatment Plant 49% work completed. (STP) – 1 No (56 mld) Bhubaneswar Sewerage District-II
			Sewerage Treatment Plant 38% work completed. (STP) – 1 No (28mld)
			Bhubaneswar Sewerage District-III
			Sewerage Treatment Plant 62% work completed. (STP) – 1 No (43.5mld)
			Bhubaneswar Sewerage District-IV
			Sewerage Treatment Plant 45% work completed. (STP) – 1 No (8.5mld)
		June 2021	Bhubaneswar Sewerage District-VI
			Sewerage Treatment Plant 64.67 % work completed
		Dec. 2020	Rourkela City
			Sewerage Treatment Plant 96% work completed. (STP) – 1 No (40 MLD)
		March 2021	Sambalpur City
			Sewerage Treatment Plant 91% work completed. (STP) – 1 No (40mld)

4.1	Progress report may be comprised of details along with completion timeline on	Dec.2021	Polluting sources i.e. dra pollution have been identified being compiled.	
	i) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in situ treatment.		At present proven technology treatment of waste water in di	
	ii) Status of STP (I&D) and Sewerage network.:	Dec.2021	Sewerage Project Under ULBs	Progress as on July 2020.
	Details of existing infrastructure, gap analysis,		Bhubaneswar Sew	erage District-I
	proposed along with completion timeline.		Sewer network	12.44/25.52 km (48.75 % completed)
			Sewerage Treatment Plant (STP) – 1 No (56 mld)	49% Completed.
			Sewage Pumping Station	3/5 (22%) civil work completed.
			Bhubaneswar Sewe	erage District-II
			Sewer network	17.15/27.18 km (63.09 % completed)
			Sewerage Treatment Plant (STP) – 1 No (28 mld)	38% Completed.
			Sewage Pumping Station	11/14 Nos (26% completed.
			Bhubaneswar Sewe	
			Sewer network	19.94/97.11 km (20.53% completed)
			Sewerage Treatment Plant (STP) – 1 No (43.5 mld)	62% Completed.
			Sewage Pumping Station	5/9 Nos (40% completed)
			Bhubaneswar Sew	erage District-IV
			Sewer network	13.42/14.23 km 94.31% completed.
			Sewerage Treatment Pla (STP) – 1 No. (8.5 MLD)	
			Sewage Pumping Station	¾ Nos 49% completed.

June 2021	Bhubaneswar SD-VI	166.34/254 kms (65.52% completed)
March 2021	Sewer network for Cuttack Sewerage District-I, II & III	304.53/382 kms (79.34% completed)
March 2021	Construction of 3 STP in Bhubaneswar & Cuttack	77.11 % completed.
Dec. 2020	Rourkel	a City
	Sewer network	158.68/235 km (67.52% completed)
	Sewerage Treatment Plant (STP) – 1 No (40 MLD)	96% Completed.
	Sewage Pumping Station	4/6 Nos (69% completed)
March 2021	Sambalp	ur City
	Sewer network	89.26/253kms (35.28% completed)
	Sewerage Treatment Plant (STP) – 1 No (40 mld)	91% Completed.
	Sewage Pumping Station	5/8 Nos (38% completed.

Details of Septage Management in the State of Odisha

Coverage of all ULBs under Septage Management System in a phased manner is envisaged to be taken up during the period from 2016-17 to 2021-22 which will lead to improved urban sanitation with positive impact on public health, environment & river water quality. Since the cost of construction and Operation and Maintenance of Septage Treatment Projects is low, such projects are now implemented in different ULBs of the State. The status of Septage Management Plans undertaken in the State of Odisha is given below.

No. of ULBs	Total Estimated Project Cost	Plant Capacity (KLD)	Status of (Completion/ Ongoing)
10	25.30	440	Commissioned
26	83.48	450	Work under Progress y PHEO and targeted to complete during the year 2020-21
1	4.48	75	Work under Progress by OWSSB and targeted to complete during the year 2020-21
1	-	12	Work under Progress by Practical Action Team
29	116.63	630	Tender Evaluation is under progress and work targeted to be completed during the year 2021-22.
11	-	-	Identification and verification of land and preparation of DPRs for construction of SeTPs is under progress
Total No. of ULBs = 78		Total Capacity = 1607 KLD	

The details of septage management plants are given in following pages.

i) Status of construction of 10 nos. of SeTPs in 10 Nos. of ULBs.

Sl.	Name of the ULB	Estimated	Plant Capacity	Year of
No.		Project Cost (In Cr.)	(In KLD)	commissioning
1	Baripada	2.54	50	Dec. 2018
2	Berhampur	2.76	40	Oct. 2018
3	Bhubaneswar	3.59	75	-do-
4	Puri	1.73	50	Octo.2017
5	Rourkela	2.25	40	Oct. 2018
6	Sambalpur	1.93	20	Oct2018
7	Dhenkanal	2.85	27	-do-
8	Cuttack	2.20	60	Jan-2020
9	Balasore	2.92	60	-do-
10	Angul	2.53	18	-do-
	Total	25.30	440	

ii) Status of construction of 26 nos. of SeTP in 26 nos. of ULBs

SI.	Name of the ULB	Estimated	Plant Capacity	Status
No.		Project Cost	(In KLD)	
		(In Cr.)		
1	Balangir	3.39	30	Work under
				progress by PHEO
2	Bhawanipatna	2.83	30	& targeted to complete during
3	Titilagarh	2.93	10	the year 2020-21
4	Kesinga	2.83	10	
5	Khariar	2.76	10	
6	Kantabanjhi	2.87	10	
7	Barbil	2.78	20	
8	Joda	2.90	20	

SI. No.	Name of the ULB	Fstimated Project Cost (In Cr.)	Plant Capacity (In KLD)	Status
9	Kamakshyanagar	3.32	10	
10	Aska	2.65	10	
11	Hinjilicut,	2.91	10	
12	Polasara	2.94	10	
13	Sorada	2.94	10	
14	Jatni	2.93	20	
15	Khurda	2.91	20	Work under
16	Paradeep	3.01	20	progress by PHEO & targeted to
17	Banki	2.80	10	complete during
18	Nayagarh	2.80	10	the year 2020 21
19	Nimapara	2.80	10	
20	Jharsuguda,	4.05	40	
21	Brajarajnagar	3.42	30	
22	Sundargarh	3.01	20	
23	Belpahar	2.87	10	
21	Anandapur	2.98	10	
25	Basudevpur	2.74	10	
26	Nilagiri	2.88	10	
	Total	77.29	410	

iii) Status of construction of 2nd SeTP at Rokat, Bhubaneswar and SeTP at Chowdwar.

SI.	Name of the ULB	Estimated	Plant Capacity	Remarks
No.		Project Cost	(In KLD)	
		(In Cr.)		
1	Bhubaneswar	4.48	75	Work under
				progress by OWSSB
				& Targeted to
				complete during
				year 2020-21.
2.	Chowdwar	-	12	Work under
				Progress by
				Practical Action
				Team

iv) Status of Construction of 2 nos. of SeTP at Hirakud & Burla

SI. No.	Name of the ULB	Estimated Project Cost (In Cr.)	Plant Capacity (In KLD)	Status
1	Hirakud	3.05	20	Work under progress by PHFO & targeted to complete during the year 2020-21.
2	Burla	3.14	20	
	Total	6.19	40	

v) Status of construction of 29 nos. of ScTPs in 29 ULBs

SI. No.	Name of the ULB	Estimated Project Cost (In Cr.)	Plant Capacity (In KLD)	Status
1	Baragarh	2.92	30	
2	Biramitrapur	2.50	10	
3	Keonjhar	3.09	30	
4	Talcher	2.74	20	
5	Deogarh	2.51	10	
6	Jeypore	3.29	40	
7	Nabarangpur	2.87	20	
8	Malkangiri	2.81	20	
9	Patnagarh	2.56	10	Tender Evaluation
10	Boudhagarh	2.53	10	Is under progress &
11	Sonepur	2.57	10	work targeted to
12	Vyasanagar	2.76	30	complete during the year 2021-22.
13	Kendrapara	2.85	20	the year 2021 22.
14	Odgaon	2.58	10	
15	Dasapalla	2.56	10	
16	Khandapara	2.61	10	
17	Dhamanagar	3.05	10	
18	Chandabalı	2.97	10	
19	Phulbani	2./4	20	
20	Karanjia	3.00	10	
21	Jagatsinghpur	2.72	20	
22	Rayagada	2.91	30	
23	Sunabeda	2.82	20	
24	Konark	2.56	10	
25	Khalikote	2.59	10	
26	Pattamundai	3.00	10	
27	Rairangpur	2.99	10	

28	Kuchinda	2.83	10	
29	Tarabha	2.88	10	
	Total	80.81	470	

vi) Status of Construction of 12 Nos SeTPs in 12 ULBs

SI. No.	Name of the ULB	Estimated Project Cost (In Cr.)	Plant Capacity (In KLD)	Status
1	Baliguda	2.94	10	
2	G. Udaigiri	3.08	10	
3	Gudari	2.91	10	
4	Gunupur	2.94	10	
5	Kasinagar	2.82	10	Tender Evaluation
6	Paralakhemundi	3.08	20	is under progress &
7	Purusottampur	2.85	10	work targeted to be
8	Rajgangpur	3.13	20	completed during
9	Bhadrak	3.33	30	the year 2021-22.
10	Binika	2.89	10	
11	Rairkhole	2.96	10	
12	Digapahandi	2.89	10	
	Total	35.82	160	

vii) Identification and verification of land and preparation of DPRs for construction of SeTP in rest 11 Nos of ULBs of the State is under progress out of total 92 Nos.

Status on implementation of Action Plans for Restoration of identified Polluted River Stretches for ensuring compliance to Hon'ble NGT orders dated 20.09.2018, 19.12.2018 and 08.04.2019.

Industrial Effluent Management (under 17 Cat.	of Industries in Head Office, Consent Administration)
Identification of non-complying as well as illegal units	Nil
Closure Direction for non-complying and illegal units	Nil
Upgradation of existing captive ETPs or construction of new ETPs by individual industries.	 5 Nos. Rourkela Steel Plant, Rourkela has installed new ETP of capacity 1100m³ for recirculation of Lagoon effluent in Hot Strip mill. Neelachallspat Nigam Ltd, Jajpur – has modified it's BOD plant. Emami Paper Mills Ltd., Balasore has upgraded ETP. Grasim Industries Ltd., Ganjam has upgraded ETP. Vedanta Ltd., (Smelter and CPP) Jharsuguda installed new ETP of 50m³/hr in the smelter plant.
Up-gradation of existing CETPs with state of Art technologies	No CETP in the State of Odisha
Commissioning of new CETPs with State of Art technologies	NA
Interception and diversion of industrial effluent from drains carrying industrial effluents.	Nil
Installation of OCEMS by industries and connectivity of all OCEMS with SPCB/ PCC and CPCB server.	Out of 22 nos. of industries 21 nos. of industries have installed CEQMS and connected to server of SPCB and CPCB. Only M/s. NSPCL, NTPC SAIL Power Corporation Ltd., Rourkela has not installed CEQMS as it has adopted recirculation of cooling tower blow down water of power plant in ash slurry making.
Utilization of treated effluent and reduction of water consumption by the industries.	 3 Nos. M/s. Jindal Stainless Ltd., Kalinganagar Jajpur - installed 50m³/hr RO plant at CPP to completely reuse the cooling blow down water. M/s. Rourkela Steel Plant, Rourkela – recycledit's effluent from lagoon by treating in ETP and reused in Hot Strip Mill (1100m³/hr) out of 1975m³/hr. M/s. Neelachallspat Nigam Ltd., Jajpur – utilized 150m3/hr blow down effluent in pig casting and slag granulation.
Adoption of zero liquid discharge by the industries as per Direction of CPCB.	Out of 22 nos. of industries 12 nos. of industries have already adopted ZLD. 3 nos. of industries have been directed to adopt ZLD. Other 7 nos. of industries discharging to river and sea after meeting prescribed standard.
Notification of PETP standards.	
Awareness of training for the concerned authorities of O &M of ETPs/ CETPs	

NB: Total 22 nos. of industries identified existing in the polluted river stretches of Odisha

Annexure-5

Management of Municipal Solid Waste in Urban Local Bodies situated along the Polluted
River Stretches

Polluted River Stretches		Name of Urban Local	MSW	Disposal	Waste
	identified by CPCB	Body	generation	Practice	Management
			(TPD)		Process
1	Gangua River (Along	Bhubaneswar	520.34	Open	Biomanure
	Bhubaneswar)	Municipal		Dumping	(MCC)
2	Daya (Bhubaneswar to	Corporation			
	Bargarh)				
3	Kuakhai (Along				
	Bhubaneswar)				
4	Guradih nallah (Rourkela)	Rourkela Municipal	120.0	Open	Partial
5	Brahmani (Rourkela to	Corporation		Dumping	Processing
	Biritol)				(MCC)
6	Kathajodi (Cuttack to Urali)	Cuttack Municipal	366.0	Open	Biomanure
7	Serua	Corporation		Dumping	(MCC)
	(Khandaeta to				
	Sankhatrasa)				
8	Nandira Jhor (D/s of	Talcher Municipality	18.0	Open	Partial
	Talcher)			Dumping	Processing
9	Banguru nallah (along				(MCC)
	Talcher, Rengali)				
10	Bheden	Jharsuguda	29.0	Open	No Processing
	(along Bheden)	Municipality		Dumping	
11	Budhabalanga (Mahulia to	Baripada	50.0	Open	No Processing
	Baripada)	Municipality		Dumping	
12	Kusumi	No large ULB	-	-	-
	(along Tangi)				
13	Mahanadi (Sambalpur to	Sambalpur Municipal	100.0	Open	Partial
	Paradeep)	Corporation		Dumping	Processing
					(MCC)
		Sonepur Municipality	3.5	Open	No Processing
				Dumping	
		Paradeep	57.45	Open	Biomanure
		Municipality		Dumping	(MCC)
14	Mangala (Along Puri)	Puri Municipality	120.0	Open	Partial
				Dumping	Processing
			27.5		(Vermicompost)
15	Nagavali (Jaykaypur to	Rayagada	27.0	Open	No Processing
	Rayagada)	Municipality		Dumping	
16	Luna	No large ULB	-	-	-
	(along Bijipur)				
17	Ratnachira	No large ULB	-	-	-

P	Polluted River Stretches	Name of Urban Local	MSW	Disposal	Waste
	identified by CPCB	Body	generation	Practice	Management
			(TPD)		Process
18	Rushikulya (Pratappur to	Berhampur	143.0	Open	Partial
	Ganjam)	Municipal		Dumping	Composting
		Corporation			(MCC)
		Aska NAC	9.0	Open	Biomanure
				Dumping	(MCC)
		Chhatrapur	8.6	Open	Biomanure
		Municipality		Dumping	(MCC)
19	Sabulia (Jagannathpatna,	No large ULB	-	-	-
	Rambha)				

Latest Water quality of polluted river, its tributaries, drains and ground water quality in the catchment of Polluted river stretches during August, 2020

Polluted River stretch: August, 2020

	ne of polluted r stretch	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
1.	Gangua nallah (D/s	Rajdhani Engineering College	6.9	2.5	5.2	92000	54000	170	NC
	Bhubaneswar)	Palasuni	6.8	2.3	5.4	160000	160000	220	NC
	(Priority-I)	Samantarapur	7.1	3.2	6.3	160000	92000	240	NC
		Vadimula	7.2	4.9	4.2	7900	2300	49	NC
2.	Daya River (Bhubaneswar to Bargarh (Priority-IV)	Bhubaneswar D/s at Kanti	7.3	4.6	3.9	5400	1700	2	NC
		Bhubaneswar FD/s at Manitri	7.3	5.3	2.9	2400	790	<1.8	NC
	(1.1.01.10)	Kanas	7.5	5.5	2.9	35000	17000		NC
3.	Kuakhai River (Urali to	Bhubaneswar FU/s	7.4	7.2	1.1	490	130	<1.8	С
	Bhubaneswar) (Priority-IV)	Bhubaneswar U/s	7.4	7	1.3	1300	330	2	С
(MC	hing Water Quality DEF Notification G 25.09.2000)		6.5- 8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality of Bhubaneswar city along Kuakhai River, Daya River and Gangua nallah

Station Name	Month	рН	BOD, mg/L	Nitrate- mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	
Khandagiri Area	April, 2020	6.1	0.3	n.a.	<1.8	<1.8	
Old town- Samantarapur Area	April, 2020	7.1	0.4	n.a.	33	4.5	
Kalpana-Laxmisagar Area,	April, 2020	6.1	0.3	n.a.	79	4.5	
Chandrasekharpur	April, 2020	6.5	0.3	n.a.	<1.8	<1.8	
Capital Hospital Area,	April, 2020	5.1	0.7	n.a.	<1.8	<1.8	
Secretariate- Govenor House-Old bus stand Area	April, 2020	No sampling as the area declared as Containment Zor contain COVID 19 Pandemic					
Drinking water Specification (IS: 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent	

n.a.: Not analysed

	ne of polluted er stretch	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
4.	Kathajodi River	Cuttack D/s	8	8.4	3.6	54000	24000	11	NC
	(Cuttack to Urali) (Priority-III)	Cuttack FD/s at Mattagajpur	7.5	8.4	3.3	13000	7900	4	NC
5.	Serua River (Khandaeta to Sankhatrasa) (Priority-V)	Cuttack FD/s at Sankhatrasa	7.9	8.1	2.8	54000	22000	13	NC
(MC	Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5- 8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality of Cuttackcity along Mahanadi river, Kathajodi River and Serua river

Stn Name	Month	рН	BOD, mg/L	Nitrate- mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL
Jagatpur	April, 2020	6.8	0.2	n.a.	2	<1.8
Mangalabag	April, 2020	7.3	0.2	n.a.	2	<1.8
Madhupatna-Kalyan Nagar Area	April, 2020	6.9	0.5	n.a.	1.8	1.8
Badambadi Area	April, 2020	7.3	0.6	n.a.	<1.8	<1.8
Bidanasi-Tulsipur Area,	April, 2020	7.6	0.2	n.a.	<1.8	<1.8
Drinking water Specification (IS: 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent

n.a.: Not analysed

Characteristic of Drains falling on Kathajodi river (August, 2020)

SI.	Station Name	Parameters								
No.		рН	BOD,	COD,	TSS,	TC	FC			
			mg/l	mg/l	mg/l	MPN/	100ml			
1	Outlet of STP, Cuttack at CDA-Bidanasi area (36 MLD)	7.4	2.3	11.1	7.0	<1.8	<1.8			
2	Wastewater discharge to Kathajodi river through sluice gate at Khannagar	7.0	46.6	100.8	25.0	1t60000	92000			
3	Wastewater discharge to Kathajodi river at Mattagajpur	6.5	1.8	14.7	5.0	3500	790			

Name of polluted river stretch	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
6. Guradih nallah Along Rourkela (Priority-III)	Rourkela (before confluence with Brahmani river)	7.5	2.7	6.3	54000	17000	350	NC
7. Brahmani (Rourkela to	Panposh D/s at Deogaon	7.2	2.8	5.4	17000	7900	33	NC
Biritola) (Priority-V)	Rourkela D/s at Jalda	7.3	7.9	5.2	14000	3300	49	NC
(Frionty-v)	Rourkela FD/s at Attaghat	7.3	5.6	3.6	11000	3300	17	NC
	Rourkela FFD/s at Biritola	7.3	8.2	3.2	790	330	11	NC
Bathing Water Quality (MOEF Notification G. Dt. 25.09.2000)	S.R. No. 742(E)	6.5- 8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

No Ground water quality monitoring in Rourkela city by State Pollution Control Board, Odisha

Name of polluted river stretch	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
8. Nandira jhor D/s	Nandira D/s at							
Talcher	Dasnali	7.8	5.4	1.7	790	230	4	С
(Priority-III)								
9. Banguru nallah	Along Talcher							
Along Talcher		7.9	6	1.6	3500	1700	13	С
(Priority-V)								
Bathing Water Quality (MOEF Notification G.S. Dt. 25.09.2000)	S.R. No. 742(E)	6.5- 8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality of Talcher city along in the catchment of Nandira jhor and Banguru nallah

Stn Name	Month	рН	BOD, mg/l	Nitrate- mg/I	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Talcher Town	April, 2020	7.6	0.4	n.a.	<1.8	<1.8
Meramundali area	April, 2020	7.9	0.8	n.a.	<1.8	<1.8
Talcher Thermal area	April, 2020	7.6	0.7	n.a.	<1.8	<1.8
Banarpal	April, 2020	7.2	0.5	n.a.	<1.8	<1.8
Kulad	April, 2020	7.5	1.1	n.a.	<1.8	<1.8
Drinking water Specification (IS: 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent

n.a.: Not analysed

Name of polluted river stretch	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
10. Mahanadi	Sambalpur D/s	7.6	7	1.9	3500	490	4	С
(Sambalpur to Paradeep) (Priority-V)	Sambalpur FD/s at Shankarmath	7.2	7.2	1.3	2800	1300	17	С
(Priority-V)	Sambalpur FFD/s at Huma	7.5	7.2	1.2	1700	490	11	С
	Sonepur U/s	7.7	7	1	490	130	2	С
	Sonepur D/s	8.2	6.6	1.1	790	230	4	С
	Tikarpada	7.5	6.8	1.6	790	230	11	С
	Narasinghpur	7.5	7.5	1.7	230	78	2	С
	Munduli	7.8	7.4	1	170	45	<1.8	С
	Cuttack U/s	7.5	8.1	0.8	330	130	<1.8	С
	Cuttack D/s	7.7	8.4	1.2	1700	490	11	С
	Cuttack FD/s	7.7	7.5	1	330	130	2	С
	Paradeep U/s	7.9	7	0.9	700	170	11	С
	Paradeep D/s	8.4	6.6	1.5	130	20	4	С
11. Bheden	Jharsuguda	7.8	7.8	1.2	230	45	n.a.	С
Along Bheden								
(Priority-V)								
Bathing Water Quality (MOEF Notification G.: Dt. 25.09.2000)	S.R. No. 742(E)	6.5- 8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Water quality of Tributaries of Mahanadi River (August, 2020)

Name of river	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
Ib River	Sundargarh	7.6	8.2	1.6	1100	230	n.a.	С
	Jharsuguda	8	8.2	1.4	1100	230	n.a.	С
	BrajrajnagarU/S	7.9	8.4	1.1	490	78	n.a.	С
	BrajrajnagarD/S	7.7	7.6	1.4	700	130	n.a.	С
Ong River	Dharuakhaman	8.5	6.8	1.1	170	45	n.a.	С
Tel River	Monmunda	8.3	7	1.2	130	45	n.a.	С
Bathing Water Quality		6.5-	5.0	3.0	-	500	100	
(MOEF Notification G.S.R. No. 742(E)		8.5				(Desirable)	(Desirable)	
Dt. 25.09.2000)	, ,					2500	500	
= =						(permissible)	(Maximum	
							Permissible)	<u> </u>

Ground Water quality

Stn Name	Month	рН	BOD, mg/l	Nitrate- mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml
	Sambalpur	town Along		ver	ı	T
Near Panthanivas	April, 2020	7.9	0.7	n.a.	<1.8	<1.8
Near Railway station	April, 2020	7.4	0.4	n.a.	23	2
Near VSS Medical College, Burla	April, 2020	7.9	0.8	n.a.	<1.8	<1.8
	Paradeep t	own Along N	/Jahanadi Riv	/er		
Badapadia market complex	April, 2020	8.3	0.7	n.a.	<1.8	<1.8
Musadiha	April, 2020	8.1	0.3	n.a.	7.8	2
Jh	arsuguda town in the	catchment	of Bheden ri	ver and Ib riv	ver	ı
Burkhamunda	April, 2020	6.9	0.4	n.a.	<1.8	<1.8
Badamal Industrial Estate	April, 2020	6.5	0.8	n.a.	<1.8	<1.8
Budhipadar	April, 2020	6.4	0.3	n.a.	<1.8	<1.8
Brajarajnagar Mining belt	April, 2020	7.1	0.7	n.a.	<1.8	<1.8
Rampur area (Water tank)	April, 2020	7.1	0.4	n.a.	<1.8	<1.8
Ib thermal power station	April, 2020	7.2	0.3	n.a.	<1.8	<1.8
Belpahar area	April, 2020	7.1	0.2	n.a.	<1.8	<1.8
Drinking water Specification (IS: 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent

n.a.: Not analysed

Name of polluted river stretch	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
12. Mangala (Along Puri) (Priority-V)	Mangala D/s at Golasahi	7.4	6.2	1.3	3500	790	4	С
13. Nuna (Along Bijipur, Puri) (Priority-V)	Luna at Bijipur	7.1	6.8	1.6	54000	22000	130	NC
14. Ratnachira (Along Sakhigopal, Puri) (Priority-V)	Kumardihi	6.7	6.2	1.1	2200	490	4	С
Bathing Water Quality (MOEF Notification G.S. Dt. 25.09.2000)	S.R. No. 742(E)	6.5- 8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality of Puri town along Mangala river

Stn Name	Month	рН	BOD, mg/l	Nitrate- mg/I	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Hospital-Bus stand- Mausima temple area	April, 2020	7.9	0.2	n.a.	<1.8	<1.8
Near Jagannath Temple,	April, 2020	7.9	0.4	n.a.	<1.8	<1.8
Near Sea Beach	April, 2020	8.2	0.3	n.a.	13	<1.8
Baliapanda	April, 2020	7.8	0.4	n.a.	4.5	<1.8
Drinking water Specification (IS: 10500:2012)Desirable limit		6.5-8.5	-	45	Absent	Absent

n.a.: Not analysed

Characteristic of Drain falling on Mangala river (August, 2020)

SI.	Station Name	Parameters						
No.		рН	BOD,	COD,	TSS,	TC	FC	
			mg/l	mg/l	mg/l	MPN/	100ml	
1	Outlet of STP, Puri at Mangalaghat 15 MLD)	8.1	18.0	41.6	39.0	17000	7900	

	me of polluted er stretch	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
15.	Nagavali (Jaykaypur to Rayagada)	Jayakaypur D/s	7.5	6.1	1.7	2200	790	2	С
	(Priority-V)	Rayagada D/s	7.6	7.2	1.3	2200	490	2	С

No Ground water quality monitoring in Rayagada town by State Pollution Control Board, Odisha

Polluted River stretch: August, 2020

Name of polluted river stretch	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
16. Budhabalanga (Mahulia to Baripada) (Priority-V)	Baripada D/s	7.2	6	1.9	7900	2200	79	С
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5- 8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

No Ground water quality monitoring in Baripada town by State Pollution Control Board, Odisha

Name of polluted river stretch	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
17. Kusumi Along	Along Tangi	7.2	6.4	2.0	3500	1300	<1.8	С
Tangi (Priority-V)								
Bathing Water Quality		6.5-	5.0	3.0	-	500	100	
(MOEF Notification G.S.R. No. 742(E)		8.5				(Desirable)	(Desirable)	
Dt. 25.09.2000)						2500	500	
2 20.0 2000 /						(permissible)	(Maximum	
							Permissible)	

No Ground water quality monitoring in Tangi town by State Pollution Control Board, Odisha

Polluted River stretch: August, 2020

Name of polluted river stretch	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C) / Non- Conforming (NC)
18. Rushikulya	Madhopur	7.4	7.2	1.6	17000	4900	4	NC
Pratappur to Ganjam (Priority-V)	Potagarh	7.9	6.5	1.3	230	78	4	С
19. Sabulia Along Jagannathpatna, Rambha (Priority-V)	Jagannathpatna, Rambha	7.6	5.8	1.7	2200	1100	<1.8	С
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5- 8.5	5.0	3.0	-	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	

Ground Water quality of Berhampur town in the catchment of Rushikulya river

Stn Name	Month	рН	BOD, mg/l	Nitrate- mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Near MKCG Medical College	April, 2020	7.2	0.2	n.a.	<1.8	<1.8
Bus stand	April, 2020	7.9	0.4	n.a.	17	4.5
Badabazar	April, 2020	7.1	0.7	n.a.	<1.8	<1.8
Railway station	April, 2020	7.3	0.3	n.a.	<1.8	<1.8
Drinking water Specification (IS: 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent

n.a.: Not analysed

Status of Polluted River stretches in the State of Odisha during the period 2017-2020 as on date

SI. No.	Polluted River Stretches identified by	Pric	ority Category o	f Polluted River s	tretch	Remarks (As on 2020)
	CPCB	2017 (BOD mg/l, max)	2018 (BOD mg/l, max)	2019 (BOD mg/l, max)	2020 (upto August) (BOD mg/l, max)	
1.	Gangua River (Along Bhubaneswar)	Priority-I (39.0)	Priority-I (70.8)	Priority-I (39.2)	Priority-III (19.9)	Priority has been reduced from I to III (Improved)
2	Daya (Bhubaneswar to Bargarh)	Priority-IV (7.3)	Priority-IV (7.4)	Priority-IV (7.3)	Priority-V (4.7)	Priority has been reduced from IV to V (Improved)
3	Brahmani (Rourkela to Biritol)	Priority-V (6.0)	Priority-IV (7.6)	Priority-V (5.3)	Priority-IV (6.3)	Priority has been increased from V to IV (Deteriorated)
4	Guradih nallah (Rourkela)	Priority-III (11.3)	Priority-IV (10.1)	Priority-IV (8.5)	Priority-IV (7.6)	Priority has been reduced from III to IV (Improved)
5	Mangala (Along Puri)	Priority-V (5.7)	Priority-V (5.8)	Priority-IV (7.4)	Priority-V (4.6)	No Improvement
6	Nagavali	Priority-V	Clean	Clean	Clean	Clean
7	(Jaykaypur to Rayagada) Kathajodi (Cuttack to Urali)	(3.5) Priority-III (11.2)	(2.8) Priority-V (5.7)	(2.2) Priority-V (3.9)	(2.1) Priority-V (3.6)	(Improved) Priority has been reduced from III to V (Improved)
8	Serua (Khandaeta to Sankhatrasa)	Priority-V (4.8)	Priority-V (5.5)	Priority-V (3.1)	Priority-V (3.8)	No Improvement
9	Ratnachira (Along Bhubaneswar, Puri)	Priority-V (3.3)	Priority-V (3.5)	Clean (2.7)	Clean (1.7)	Clean (Improved)
10	Nandira Jhor (D/s of Talcher)	Priority-III (13.0)	Priority-V (3.5)	Clean (1.9)	Clean (1.9)	Clean (Improved)
11	Kuakhai	Priority-IV	Clean	Čleán	Čleán	Clean
12	(Along Bhubaneswar) Mahanadi (Sambalpur to Paradeep)	(7.7) Priority-V (3.2)	(1.6) Clean (2.3)	(1.9) Clean (2.3)	(1.8) Clean (2.7)	(Improved) Clean (Improved)
13	Rushikulya (Pratappur to Ganjam)	Priority-V (3.4)	Priority-V (3.7)	Clean (2.6)	Clean (2.1)	Clean (Improved)
14	Banguru nallah (Along Talcher, Rengali)	Priority-V (3.2)	Priority-V (3.9)	Clean (1.9)	Clean (1.6)	Clean (Improved)
15	Bheden (Along Bheden)	Priority-V (3.6)	(3.9) Clean (2.8)	Clean (2.0)	Clean (1.8)	Clean (Improved)
16	Kusumi (Along Talcher)	Priority-V (3.2)	Clean (1.7)	Clean (2.6)	Clean (2.0)	Clean (Improved)
17	Nuna (Along Bijipur)	Priority-V (3.1)	Clean (2.7)	Čleán (2.5)	Clean (1.6)	Clean (Improved)
18	Sabulia (Jagannathpatna, Rambha)	Priority-V (5.0)	Clean (2.4)	Clean (2.2)	Clean (1.7)	Clean (Improved)
19	Budhabalanga (Mahulia to Baripada)	Priority-V (3.5)	Clean (2.8)	Clean (1.6)	Clean (1.9)	Clean (Improved)

Summary of Number of Polluted River Stretches under Different Category during the Period 2017-2020 as on date

Category	No. of polluted River stretch (2017)	No. of polluted River stretch (2018)	No. of polluted River stretch (2019)	No. of polluted River stretch (2020) (upto August)
Priority-I	1	1	1	Nil
Priority-II	Nil	Nil	Nil	Nil
Priority-III	3	Nil	Nil	1
Priority-IV	2	3	3	2
Priority-V	13	7	3	4
		8 (Clean)	12 (Clean)	12 (Clean)
Total :	19	19	19	19

N.B.Clean - BOD < 3 mg/l

Annexure-6 (d)

Water quality of Rivers in Odisha during August, 2020

(a) Mahanadi River System

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Ib	1	Sundargarh	7.6	8.2	1.6	1100	230	n.a.	С
	2	Jharsuguda	8	8.2	1.4	1100	230	n.a.	С
	3	BrajrajnagarU/S	7.9	8.4	1.1	490	78	n.a.	С
	4	BrajrajnagarD/S	7.7	7.6	1.4	700	130	n.a.	С
Bheden	5	Jharsuguda	7.8	7.8	1.2	230	45	n.a.	С
Hirakud Reservoir	6	Hirakud	7.7	7.8	1.2	460	170	n.a.	С
Mahanadi	7	Sambalpur U/S	7.4	6.8	1	490	130	n.a.	С
	8	Sambalpur D/S	7.6	7	1.9	3500	490	4	С
	9	Sambalpur FD/S at Shankarmath	7.2	7.2	1.3	2800	1300	17	С
	10	Sambalpur FD/S at Huma	7.5	7.2	1.2	1700	490	11	С
	11	Power Channel U/S	7.6	7	1.1	330	78	n.a.	С
	12	Power Channel D/S	7.4	7.2	1.4	490	130	n.a.	С
	13	Sonepur U/S	7.7	7	1	490	130	2	С
	14	Sonepur D/S	8.2	6.6	1.1	790	230	4	С
	15	Tikarpada	7.5	6.8	1.6	790	230	11	С
	16	Narasinghpur	7.5	7.5	1.7	230	78	2	С
	17	Munduli	7.8	7.4	1	170	45	<1.8	С
	18	Cuttack U/s	7.5	8.1	0.8	330	130	<1.8	С
	19	Cuttack D/s	7.7	8.4	1.2	1700	490	11	С
	20	Cuttack FD/s	7.7	7.5	1	330	130	2	С
	21	Paradeep U/S	7.9	7	0.9	700	170	11	С
Ong	22	Paradeep D/S Dharuakhaman	8.4 8.5	6.6	1.5 1.1	130 170	20 45	4	C C
Ong Tel	24	Monmunda	8.3	6.8 7	1.1	130	45	n.a. n.a.	С
Kathajodi	25	Cuttack U/s	8.1	7.8	0.9	230	78	n.a.	C
Ratifajoai	26	Cuttack D/s	8	8.4	3.6	54000	24000	11	NC
	27	Cuttack FD/s at Mattagajpur	7.5	8.4	3.3	13000	7900	4	NC
	28	Cuttack FFD/s at Kamasasan	8.1	7.1	1	490	230	n.a.	С
Serua	29	Cuttack FD/s at Sankhatrasa	7.9	8.1	2.8	54000	22000	13	NC
Kuakhai	30	Bhubaneswar FU/s	7.4	7.2	1.1	490	130	<1.8	С
	31	Bhubaneswar U/s	7.4	7	1.3	1300	330	2	С

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Daya	32	Gelapur	7	4.7	1.4	2400	790	n.a.	С
	33	Bhubaneswar D/s	7.3	4.6	3.9	5400	1700	2	NC
	34	BhubaneswarFD/s	7.3	5.3	2.9	2400	790	<1.8	С
	35	Kanas	7.5	5.5	2.9	35000	17000	n.a.	NC
Birupa	36	Choudwar	7.7	6.2	1	1100	490	n.a.	С
Gangua nallah	37	Rajdhani Engineering College	6.9	2.5	5.2	92000	54000	170	NC
	38	Palasuni	6.8	2.3	5.4	160000	160000	220	NC
	39	Samantarapur	7.1	3.2	6.3	160000	92000	240	NC
	40	Vadimula	7.2	4.9	4.2	7900	2300	49	NC
Kushabhadra	41	Bhingarpur	7.3	5.7	2.1	17000	7900	n.a.	NC
	42	Nimapara	7.4	5.8	2	13000	4900	n.a.	NC
	43	Gop	7.2	5.3	2.1	22000	13000	n.a.	NC
Gobari	44	Kendrapada U/s	8.2	6	0.7	230	20	n.a.	С
	45	Kendrapada D/s	8.2	5.8	0.9	490	45	n.a.	С
Mangala	46	Mangala U/s at Malatipatpur	7.3	6.8	0.8	1700	330	n.a.	С
	47	Mangala D/s at Golasahi	7.4	6.2	1.3	3500	790	4	С
Bhargavi	48	Chandanpur	7.3	6.5	1.4	2200	330	n.a.	С
Devi	49	Machhagaon	8.2	7	0.9	170	20	n.a.	С
Luna	50	Luna at Bijipur	7.1	6.8	1.6	54000	22000	130	NC
Sabulia	51	Rambha, Jagatnnathpatna	7.6	5.8	1.7	2200	1100	<1.8	С
Kusumi	52	Tangi	7.2	6.4	2	3500	1300	<1.8	С
Kansari	53	Banapur	7.5	6	1.1	1100	490	n.a.	С
Badasankha	54	Langalaeswar	7.7	6.1	1.6	330	130	n.a.	С
Ratnachira			6.7	6.2	1.1	2200	490	4	С
Bathing Wate (MOEF Notific 25.09.2000)	-	.S.R. No. 742(E) Dt.	6.5- 8.5	5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

n.a. : Not analysed

(B) Brahmani River system

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non-
									Conforming (NC)
Brahmani	1	Panposh U/S	7.3	8.4	1.2	2400	490	n.a.	С
	2	Panposh D/S	7.2	2.8	5.4	17000	7900	33	NC
	3	Rourkela D/S at Jalda	7.3	7.9	5.2	14000	3300	49	NC
	4	Rourkela FD/s at Attaghat	7.3	5.6	3.6	11000	3300	17	NC
	5	Rourkela FFD/s atBiritola	7.3	8.2	3.2	790	330	11	NC
	6	Bonaigarh	7.4	8.5	1.4	490	130	n.a.	С
	7	Rengali	7.4	5.8	1	130	<1.8	n.a.	С
	8	Samal	7.2	5.6	1.3	1300	330	n.a.	С
	9	Talcher FU/S	7.4	6.8	0.9	490	130	<1.8	С
	10	Talcher U/s	7.5	6.6	1	790	170	2	С
	11	Mandapal	7.6	6.6	1	490	170	n.a.	С
	12	Talcher D/S	7.9	6.6	1.4	1100	220	4	С
	13	Talcher FD/S	7.6	6.8	1.3	490	110	<1.8	С
	14	Dhenkanal U/s	7.9	5.8	1.5	330	78	n.a.	С
	15	Dhenkanal D/s	7.8	5.4	1.7	790	230	4	C C
	16	Bhuban	7.5	6	1.3	790	170	2	C
	17 18	Kabatabandha Dharmasala U/s	7.7 7.5	6.4 5.8	1.1	230 330	78 130	n.a.	C
	19	Dharmasala D/s		6.8			1	n.a.	С
	20	Pottamundai	8.1 7	7.4	1.8 1.6	1300 3500	330 1300	n.a.	C
Kharasrota	21	Khanditara	7.4	7.4	1.6	2400	1300	n.a.	C
Kildiasiota	22	Binjharpur	7.4	7.7	1.9	3500	1700	n.a.	С
	23	Ali	7.7	6.8	1.5	3500	790	n.a. n.a.	C
Nandira jhor	24	Nandira U/s	7.6	7.6	1.8	1700	490	n.a.	C
Nandira jiloi	25	Nandira D/s	7.8	7.5	0.8	1300	330	n.a.	C
Kisindajhor	26	Kisindajhor	7.9	7.2	1	330	78	n.a.	C
Sankh	27	Sankh U/s	7.4	8.5	0.8	1300	330	n.a.	C
Koel	28	Koel U/s	7.4	8.1	1.6	3500	790	n.a.	C
Guradi nallah	28	Rourkela (before confluence with Brahmani river)	7.5	2.7	6.3	54000	17000	350	Drain
Badajhor	30	Badajhor	7.7	5.4	1.4	3500	790	n.a.	С
Damsala	31	Dayanabil	7.3	7.4	1.4	790	220	n.a.	С
Gondanallah	32	Marthapur	7.1	7.3	1.6	1100	330	n.a.	C

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Karo	33	Barbil	7.5	6.8	1.3	790	130	n.a.	С
Lingra	34	Lingira U/s	8.1	6.8	1.5	230	78	n.a.	С
	35	Lingira D/s	8.1	6.6	1.3	490	130	n.a.	С
Ramiala	36	Kamakhyanagar	7.7	6.4	1.2	1700	790	n.a.	С
Bangurunallah	37	Bangurunallah	7.9	6	1.6	3500	1700	13	С
Singadajhor	38	Singadajhor	7.3	4.6	1.1	790	130	n.a.	С
Tikira	39	KanihaU/s	8.1	6	1.1	790	220	n.a.	С
	40	KanihaD/s	7.7	6.2	1.3	2800	790	n.a.	С
Bangurusingadajhor	41	Bangurusingadajhor	7.8	5.8	1.6	1300	220	n.a.	С
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)				5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

(C) Baitarani River system

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Kundra nallah	1	Joda	7.2	4.9	1.6	790	130	n.a.	С
Kusei	2	Deogaon	7.8	5.8	1.2	1700	330	n.a.	С
Baitarani	3	Naigarh	7.2	5.9	1.5	1100	460	n.a.	С
	4	Unchabali	7.4	5.8	1.3	1700	490	n.a.	С
	5	Champua	7.6	6.3	1.8	1300	330	n.a.	С
	6	Tribindha	7.5	5.8	1.6	490	130	n.a.	С
	7	Joda	7.7	6.2	1.6	790	170	n.a.	С
	8	Anandpur	7.5	5.6	1.5	2200	490	n.a.	С
	9	Jajpur	7.8	7.7	1	790	230	n.a.	С
	10	Chandbali U/s	7.4	6	0.9	1300	330	n.a.	С
	11	Chandbali D/s	7.7	6.4	1	2200	790	n.a.	С
Dhamra	12	Dhamra	7.8	6.4	1.1	2400	490	n.a.	С
Salandi	13	Bhadrak U/s	7.4	6	1.2	1700	700	n.a.	С
	14 Bhadrak D/s				2	2400	790	n.a.	С
_	Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

n.a.: Not analysed

(D) Rushikulya River system

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Russelkunda Reservoir	1	Russelkunda Reservoir	7.2	7.2	1.6	9200	5400	n.a.	NC
Badanadi	2	Aska	8	7.2	1.1	3500	1300	n.a.	С
Rushikulya	3	Aska	7.6	6.5	0.9	1100	230	n.a.	С
	4	Nalabanta	8.2	7.7	1	3500	1100	n.a.	С
	5	Madhopur	7.4	7.2	1.6	17000	4900	4	NC
	6 Potagarh		7.9	6.5	1.3	230	78	4	С
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			6.5- 8.5	5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

(F) Subarnarekha River system

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Subarnarekha	1	Rajghat	8.1	6.8	1.3	790	170	n.a.	С
_	Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)		6.5- 8.5	5.0	3.0	1	500 (D) 2500 (P)	100 (D) 500 (P)	-

n.a.: Not analysed

(G) Budhabalanga River system

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Budhabalanga	1	Baripada D/s	7.2	6	1.9	7900	2200	79	С
	2	Balasore U/s	7.8	6.8	1	1100	330	n.a.	С
	3	Balasore D/s	7.5	6	1.6	3500	1300	n.a.	С
	4	Hatiagond (Sona)	7.7	6.4	1.4	330	78	n.a.	С
_	Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

(K) Bahuda River system

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Bahuda	1	Damodarpally	7.9	6.2	1.8	3500	1300	n.a.	С
Bathing Water Quality (MOEF Notification G.S.R. No. 742(E) Dt. 25.09.2000)			6.5- 8.5	5.0	3.0	-	500 (D) 2500 (P)	100 (D) 500 (P)	-

n.a.: Not analysed

(E) Nagavali River system

Name of River	SI. No.	Name of Monitoring Station	pН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Nagavali	1	Penta U/s	7.5	6.2	1.1	1100	330	n.a.	
	2	Jayjkaypur D/s	7.5	6.1	1.7	2200	790	2	
	3	Rayagada D/s	7.6	7.2	1.3	2200	490	2	

(H) Vansadhara River system

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Vansadhara	1	Muniguda	7.3	6.9	1.1	1700	330	n.a.	
	2	Gunupur	7.6	6.7	0.9	1400	490	n.a.	

(I) Kolab River system

Name of River	SI. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Kerandi	1	Sunabeda	7.3	7.3	0.9	2400	490	n.a.	

(J) Indravati River system

Name of River	Sl. No.	Name of Monitoring Station	рН	DO, mg/L	BOD, mg/L	TC, MPN/ 100 mL	FC, MPN/ 100 mL	FS, MPN/ 100 mL	Water Quality Status (Conforming (C)/ Non- Conforming (NC)
Indravati	1	Nawarangpur	7.5	7.1	1.2	3500	490	n.a.	

INFORMATION ON BIOMEDICAL WASTE MANAGEMENT

Name of the District	* Name of Urban Local Body	Total number of Health care establishm ents (In the district)	Biomedical waste generation	Treatment/ Disposal Practice	Gaps in treatment	Commissioning of new Common Biomedical Waste Treatment and Disposal Facilities) (Please indicate the appropriate one and provide details)	Ensuring disposal of Biomedical waste through captive measures by the Healthcare Facilities where there is CBMWTDF	Implementation of Barcode system by Healthcare facilities and CBMWTDF	Upgradation of existing CBMWTDF
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Khurda	1. Bhubaneswar Municipal Corporation	218	3731.8	CBWTDF & Captive	Gaps analysis not made.		Yes	Bar-code system has been implemented in CBWTDF & some HCFs. Implementation in other HCFs availing the services of CBWTDF is in progress.	Yes
Cuttack	2. Cuttack Municipal Corporation	518	5355.6	CBWTDF & Captive			Yes	Bar-code system has been implemented in CBWTDF & some HCFs. Implementation in other HCFs availing the services of CBWTDF is in progress.	Partly. (One out of two CBWTFs upgraded)
Sambalpur	3. Sambalpur Municipal Corporation	124	926.6	CBWTDF & Captive			Yes	Bar-code system has been implemented in CBWTDF & some HCFs. Implementation in other HCFs availing the services of CBWTDF is in progress.	

Sundargarh	4. Rourkela Municipal Corporation	264	1323.82	CBWTDF & Captive		Yes	Bar-code system has been implemented in CBWTDF & some HCFs. Implementation in other HCFs availing the services of CBWTDF is in progress.	
Ganjam	5. Berhampur Municipal Corporation, Aska NAC &Chhatrapur Municipality	264	264.922	CBWTDF & Captive	One, M/s. Mediaid Marketing Services, vill: Arakhapada, Tehsil- Seragada, Dist: Ganjam.	Yes	Bar-code system implementation in CBWTDF & HCFs is in progress.	
Jharsuguda	6. Jharsuguda Municipality	62	464.536	Captive		Yes		
Puri	7. Puri Municipality	116	296.828	Captive		Yes		
Rayagada	8. Rayagada Municipality	80	264.922	Captive		Yes		
Angul	9. Angul Municipality & Talcher Municipality	129	581.993	Captive		Yes		
Subarnapur	10. SonepurMunicip ality	32	119.145	Captive		Yes		
Jagatsinghpur	11. Paradeep Municipality	68	243.351	Captive		Yes		
Mayurbhanj	13. BaripadaMunici pality	128	519.78	Captive		Yes		
Balasore	14. Balasore Municipality	162	526.463	Captive		Yes		

J. Measures taken for

A. Control of Illegal Groundwater Abstraction

Yes

- 1. So far no such cases of illegal groundwater abstraction are noticed.
- Govt. of Odisha has formulated an act for regulation of groundwater namely "The Odisha Groundwater (Regulation, Development and Management) Act, 2011"
- 3. Central Ground Water Board (CGWB) and District Level Evaluation Committee(DLEC) strictly control the groundwater abstraction by the industries.
- 4. Chief Engineer and Director, Groundwater Development, Bhubaneswar monitors the fluctuation of the groundwater level in all 30 districts in 10 years interval.

B. River Catchment/ Basin Management

Yes

Inflow from the catchment and outflow from the river of the basins are managed effectively by the Chief Engineer and Basin Managers for 11 Nos. of river basins of Odisha.

C. Flood Plain Zone Protection

Yes

Out of 9 Nos. of polluted river stretches, in Gangua Nalla (Priority No-I), a proposal for construction of a cross regulator at the off taking point of Gangua Nalla has been approved in 128th TAC of DOWR to divert the flood discharge of Chandaka Catchment to Kuakhia river (Approximately 30% of flood water) through Budhi Nalla in order to save the urban flooding of storm water in Bhubaneswar city. This is one of the flood plain zone protection work in Gangua Nalla to be executed by DoWR. It is under tendering process.

D. E-Flow maintenance & Watershed Management

Yes

E-flow is maintained.

Watershed Management – Integrated Watershed Management Programme is executed throughout the State by Odisha Watershed Development Mission.

E. Groundwater recharge/ Rain water harvesting

Yes

Rain water harvesting.

Rooftop Rainwater Harvesting Structures (RRHS)

	<u>Govt</u>	Private	
2018-19	358 nos.	9438 nos.	(in 11 towns of 9 districts)
2019-20	Nil	Nil	
2020-21 (Provisio	300 Nos on)	6000 Nos	A provision of Rs. 37 crores has been kept for construction of RRHS.

Ground Water Recharge

i) Through Wells

2019-20

nil

(recharge shaft on Tanks and pond)

2020-21

65 nos. in 11 districts (work will be completed

in 2020-21)

ii)Through Check dams

up to 03/2020

15612 nos. in 30 districts

up to 07/2020

15740 nos. in 30 districts (A provision of

Rs. 67 crores has been kept for construction

of check dams in 30 districts)

F. Setting up of Biodiversity Parks, Greenery/

Plantation along the banks of river stretch

Yes

1094699 nos. of sapling and seedling have been planted during monsoon 2018 along the bank of the rivers, dam sites, barrage sites and canal sites, out of which 329962 nos. of plants are alive (30.14% - Survival Status)

G. Removal of encroachments

No cases of encroachment have been noticed so far.