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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

No. 985

Ind-VI-BW/2824 (Pt. IV) /19-20

Dt. 22.06.2020

Speed Post/ Email

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 Delhi-110 002

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

Ref : Email of Dt. 29.02.2020

Sir,

In inviting a reference to above subject, the Monthly Progress Report for the month of May -2020 and April-2020 in compliance to the Proceedings of the 2nd Central Monitoring Committee are enclosed herewith for your kind information and necessary action.

Yours faithfully,

Encl : As above


Member Secretary

Memo No. 986

Date : 22.06.2020

Copy forwarded to Dr. J.C. Babu, Addl. Director, WQM-I Division, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi -110032 for kind information and necessary action.

Encl : As above

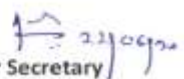

Member Secretary

Memo No. 987

Date : 22.06.2020

Copy forwarded to the Director, Env.-cum-Spl. Secy. To Government, Forest and Environment Department, for kind information and necessary action.

Encl : As above


Member Secretary

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 : May, 2020

Sl 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. Information on identification of drains contributing pollution to these river stretches are given in Annexure-2.
(ii)	Status of STPs, I & D and sewerage networks, Details of Existing infrastructure, Gap Analysis, Proposed along with completion timeline	Information given in Annexure-3
(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 is given in Annexure-4.
(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.
(v)	Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;	Latest water quality status during May, 2020 is given in Annexure-6 (a) . Comparison of Status of polluted river stretches during the period 2017 -2020 as on date is given in Annexure-6 (b). Summary of number of polluted river stretches under different category during the period 2017-2019 is given in Annexure-6 (c).

(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.	<p>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.</p> <p>Bar-code System has been implemented in the following four Common Facilities (CBWTDF) :</p> <ol style="list-style-type: none"> 1) M/s. Sani Clean Pvt. Ltd., Khurda, 2) M/s Medaid Marketing Services, Bhubaneswar at SCB Medical College and Hospital, Cuttack 3) M/s Medaid Marketing Services, Bhubaneswar at Rourkela Govt. Hospital, Rourkela 4) M/s. Bio-Tech Solutions, at VSS Medical College and Hospital Burla, Sambalpur.
(vii)	Ground Water Regulation	Information given in Annexure-7 (a) and 7(b).
(viii)	Adopting Good Irrigation practices	
(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	
(xiii)	Setting up of biodiversity parks on flood plains by removing encroachment	

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

Polluted 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 (along Talcher, Rengali)	Priority-V
8	Bheden (along Bheden)	Priority-V
9	Brahmani (Rourkela to Biritol)	Priority-V
10	Budhabalanga (Mahulia to Baripada)	Priority-V
11	Kusumi (along Talcher)	Priority-V
12	Mahanadi (Sambalpur to Paradeep)	Priority-V
13	Mangala (Along Puri)	Priority-V
14	Nagavali (Jaykaypur to Rayagada)	Priority-V
15	Luna (along Bijipur)	Priority-V
16	Ratnachira (Along Bhubaneswar, Puri)	Priority-V
17	Rushikulya (Pratappur to Ganjam)	Priority-V
18	Sabulia (Jagannathpatna, Rambha)	Priority-V
19	Serua (Khandaeta to Sankhatrasa)	Priority-V

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

Sl. No.	Name of the Polluted River Stretch	Drain	Type Domestic/ Industrial/ Mixed	Quantity (MLD)	BOD*(mg/L)	FC* (MPN/ 100 mL)
1.	Gangua River (Along Bhubaneswar)	10 Nos.	Domestic			
			Drain Name			
			Patia	17.00	160	-
			Sainik School	1.55	127	-
			OAP area	3.55	120	-
			Vani Vihar	16.40	100	-
			Laxmisagar area	4.45	120	-
			Baragada Area	3.45	140	-
			Kedargouri	5.45	140	-
			Airport area	14.30	24	-
			Ghatikia	28.8	60	-
Nicco Park	12.3	100	-			
2.	Guradih nallah (Rourkela)	1 No.	Industrial	-	-	-
3	Kathajodi (Cuttack to Urali)	3 Nos.	Domestic			
			Outlet of STP at CDA-Bidanasi area	-	5.02	29692
			Wastewater discharge to Kathajodi river through sluice gate at Khannagar	-	42.9	160000
			Outlet of STP at Mattagajpur discharge to Kathajodi river *	-	11.4	160000
4	Nandira Jhor (D/s of Talcher)	1 No.	Kisindajhor, a natural storm water drain carrying treated industrial discharge	-	1.1	1569

* Average data for 2019

Sl. No.	Name of the Polluted River Stretch	Drain	Type Domestic/ Industrial/ Mixed	Quantity (MLD)	BOD*(mg/L)	FC* (MPN/ 100 mL)
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5	Daya (Bhubaneswar to Bargarh)	1 No.	Gangua nallah , a natural storm water drain, carrying domestic wastewater	-	10.4	160000
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	-	5.4	64117
10	Budhabalanga (Mahulia to Baripada)	2 Nos.	Sarali Nallah and Jarli nallah, two natural storm water drains carrying domestic wastewater	-	-	-
11	Kusumi (along Talcher)	-	No drain	-	-	-
12	Mahanadi (Sambalpur to Paradeep)	<p>Sambalpur : Domestic wastewater of Sambalpur Municipal Corporation flows through four natural streams such as Tangana nallah, Dhobijhore, Haradajhor and Malatijhor which ultimately discharge into Mahanadi river</p> <p>Sonepur : One major drain carrying domestic wastewater of the town</p> <p>Cuttack : One major drain carrying domestic wastewater of a part of Cuttack city</p> <p>Paradeep : One major drain carrying domestic wastewater of the town through Atharabanki creek</p>				
13	Mangala (Along Puri)				15.9	15025

14	Nagavali (Jaykaypur to Rayagada)	-	Treated wastewater of STP and ETP at Jaykaypur, Rayagada			
15	Luna (along Bijipur)	-	No drain	-	-	-
16	Ratnachira (Along Bhubaneswar, Puri)	-	No drain	-	-	-
17	Rushikulya (Pratappur to Ganjam)	-	No drain	-	-	-
18	Sabulia (Jagannathpatna, Rambha)	-	No drain	-	-	-
19	Serua (Khandaeta to Sankhatrasa)	As in Sl. No. 3				



Orissa water supply & sewerage board

(A Govt. of Odisha Undertaking)
 Satyanagar, Bhubaneswar-751007 Phone: (0674)2571341 /2571185 Fax:2571348,
 Mail- msowssb@gmail.com & msowssb@outlook.com

No. 1991 (V.P.) /dt. 1.5.2020
 W-12/15(2)

To

The Member Secretary,
 SPCB, Bhubaneswar.

Sub: Submission of Monthly Progress Report (April 2020) for compliance of direction of the Honble' NGT passed in OA No.673/2018 vide order dated 6.12.2019.

Ref: Letter No. 2120 dated 24.02.2020 addressed to H&UD Department.

Sir,

With reference to the subject cited above, the monthly progress report (April 2020) relating to compliance of direction of Hon'ble NGT passed in OA No.673/ 2018 vide order dated 6.12.2019 relating to OWSSB is furnished herewith in the prescribed format for information and necessary action.

Encl: as above.

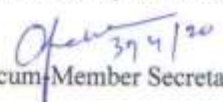
Yours faithfully,


 EIC-cum-Member Secretary.

Memo No. 1992 OWSSB

Date. 1.5.2020

Copy with copy of enclosure forwarded to the Additional Secretary to Govt & Additional Mission Director, SBM (U), H&UD Department for information and necessary action with reference to letter No. 7349 dated 16.3.2020.


 EIC-cum-Member Secretary

FORMAT FOR SUBMISSION OF MONTHLY PROGRESS REPORT BY OWSSB (HONBLE
NGT IN THE MATTER OF OA. 673/2018 DATED 6.12.2019) ENDING MARCH 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 total 367 mld sewage generated in 6 ULBs of the State by Dec'2020. Quantity of sewage treated in ULBs as on March 2020 i. Puri - 14 mld ii. Cuttack- 40 mld iii. Talcher - 2 mld Total - 56 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 STP 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 STP 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.	31.03.2020	<table border="1"> <thead> <tr> <th colspan="2">Bhubaneswar Sewerage District-I</th> </tr> </thead> <tbody> <tr> <td>Sewerage Treatment Plant (STP) – 1 No (56 mld)</td> <td>46% Completed.</td> </tr> <tr> <th colspan="2">Bhubaneswar Sewerage District-II</th> </tr> <tr> <td>Sewerage Treatment Plant (STP) – 1 No (28 mld)</td> <td>23% Completed.</td> </tr> <tr> <th colspan="2">Bhubaneswar Sewerage District-III</th> </tr> <tr> <td>Sewerage Treatment Plant (STP) – 1 No (43.5 mld)</td> <td>58% Completed.</td> </tr> <tr> <th colspan="2">Bhubaneswar Sewerage District-IV</th> </tr> <tr> <td>Sewerage Treatment Plant (STP) – 1 No (8.5 mld)</td> <td>29% Completed.</td> </tr> <tr> <th colspan="2">Rourkela City</th> </tr> <tr> <td>Sewerage Treatment Plant (STP) – 1 No (40 MLD)</td> <td>92% Completed.</td> </tr> <tr> <th colspan="2">Sambalpur City</th> </tr> <tr> <td>Sewerage Treatment Plant (STP) – 1 No (40 mld)</td> <td>91% Completed.</td> </tr> </tbody> </table>	Bhubaneswar Sewerage District-I		Sewerage Treatment Plant (STP) – 1 No (56 mld)	46% Completed.	Bhubaneswar Sewerage District-II		Sewerage Treatment Plant (STP) – 1 No (28 mld)	23% Completed.	Bhubaneswar Sewerage District-III		Sewerage Treatment Plant (STP) – 1 No (43.5 mld)	58% Completed.	Bhubaneswar Sewerage District-IV		Sewerage Treatment Plant (STP) – 1 No (8.5 mld)	29% Completed.	Rourkela City		Sewerage Treatment Plant (STP) – 1 No (40 MLD)	92% Completed.	Sambalpur City		Sewerage Treatment Plant (STP) – 1 No (40 mld)	91% Completed.
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6.1	Progress report may be comprised of details along with completion timeline on	Dec. 2021	Polluting sources i.e. drains contributing to river pollution have been identified and detail information is being compiled.																								

	<p>i. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in situ treatment.</p> <p>ii. <u>Status of STP (I&D) and Sewerage network.</u></p> <p>Details of existing infrastructure, gap analysis, proposed along with completion timeline.</p>	Dec.2021	<p>At present proven technology is not available for in situ treatment of waste water in drain.</p>																																								
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		Dec.2021	Cuttack	
			Rourkela City	
			Sewer network	150.99 km (80% completed)
			Sewerage Treatment Plant (STP) – 1 No (40 MLD)	92% Completed.
			Sewage Pumping Station	4/6 Nos (65% completed).
			Sambalpur City	
			Sewer network	88.17 km (35% completed)
			Sewerage Treatment Plant (STP) – 1 No (40 mld)	91% Completed.
			Sewage Pumping Station	5/8 Nos (37% completed).

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.

B. 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. 1) Rourkela Steel Plant, Rourkela has installed new ETP of capacity 1100m ³ for recirculation of Lagoon effluent in Hot Strip mill. 2) Neelachallspat Nigam Ltd, Jajpur – has modified it's BOD plant. 3) Emami Paper Mills Ltd., Balasore has upgraded ETP. 4) Grasim Industries Ltd., Ganjam has upgraded ETP. 5) Vedanta Ltd., (Smelter and CPP) Jharsuguda installed new ETP of 50m ³ /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. 1) M/s. Jindal Stainless Ltd., Kalinganagar Jajpur - installed 50m ³ /hr RO plant at CPP to completely reuse the cooling blow down water. 2) M/s. Rourkela Steel Plant, Rourkela – recycled it's effluent from lagoon by treating in ETP and reused in Hot Strip Mill (1100m ³ /hr) out of 1975m ³ /hr. 3) M/s. Neelachallspat Nigam Ltd., Jajpur – utilized 150m ³ /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. Detailed list enclosed as per Annexure-a.
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 (list enclosed).

Annexure -a

Sl. No.	Name of the industry	Treatment facility provided	Recipient water bodies	Connectivity of CEQMS to SPCB/ CPCB server	Remarks
1)	M/s. Bhusan Power & Steel Ltd., At- Thekoloji, Po - Lapanga, Rengali, Dist - Sambalpur-768212	ETP	Bheden River	4 nos. of CEQMS	The unit has been directed to adopt ZLD by 31.03.2020
2)	M/s. Neelachallspat Nigam Ltd., Kalinga Nagar Industrial Complex, Po - Duburi, Dist - Jajpur-755026	ETP for BOD plant	Ganda Nallah / lead to Brahmani	2 nos. of CEQMS	The unit has been directed to adopt ZLD by 31.12.2019
3)	M/s Tata Steel Limited, Kalinga Nagar Industrial Complex, Duburi - 755 026, Dist. - Jajpur	ETP	Ganda Nallah/ lead to Brahmani	3 nos. of CEQMS	The unit has adopted ZLD.
4)	M/s. Jindal Steel and Power Ltd., Chhendipada Road, (SH-63), At/Po - Jindal Nagar, Dist - Angul - 759111	ETP	Kurudibahali nallah	3 nos. of CEQMS	The unit has adopted ZLD.
5)	Jindal Stainless Limited (JSL), Kalinganagar Industrial Complex, Village Jakhpura	ETP	Ganda Nallah/ lead to Brahmani	1 no. of CEQMS	The unit has adopted ZLD.
6)	M/s.Rourkela Steel Plant, At- Rourkela Steel Plant, Dist - Sundargarh	ETP	Guradhi Nallah / Brahmani river	7 nos. of CEQMS	The unit recycled it's effluent from lagoon by treating in ETP and reused in Hot Strip Mill (1100m3/hr) out of 1975m3/hr and directed to adopt ZLD by Dec, 2020
7)	M/s. Tata Steel BSL Ltd., At: Narendrapur PO: Kusupanga Via: Meramandali Dist.: Dhenkanal Pin.759121, Odisha	ETP	Effluent discharged to Kisinda nallah	6 nos. of CEQMS	The unit has adopted ZLD.
8)	M/s. NTPC -SAIL Power Company Pvt. Ltd., (CPP-II), Administrative Building, RSP Complex, Rourkela, Dist - Sundargarh	ETP	Guradhi Nallah / Brahmani River	--	The unit has adopted ZLD.

Sl. No.	Name of the industry	Treatment facility provided	Recipient water bodies	Connectivity of CEQMS to SPCB/ CPCB server	Remarks
9)	M/s. OCL India Ltd. (Dalmia Cement Bharat Limited), At. Rajgangpur, Dist. Sundergarh, Odisha	ETP	LiploiNalla / Sankha River / River Brahmani	1 no.	Adopted ZLD
10)	Suidihi Distillery Ltd., LathikathaSundargarh	ETP	River Brahmani	1 no. (Web Cam)	Adopted ZLD
11)	M/s. Talcher Super Thermal Power Station, NTPC, At- Kaniha, Po - Deepsikha, Dist - Angul	ETP	River Brahmani	1 no.	Adopted ZLD
12)	M/s. J.K. Paper Ltd., Jaykaypur, Dist - Rayagada	ETP	River Nagavali	1 no.	The unit has been permitted to discharge 34000KLD of treated Industrial effluent to River Nagavali
13)	M/s Grasim Industries Ltd, (formerly known as Jayshree Chemicals Ltd), At/PO-Jayshree-761 025, Dist-Ganjam	ETP	River Rushikulya	1 no.	Adopted ZLD
14)	M/s. NALCO Ltd., (Smelter Unit) Nalco Nagar, Dist - Angul - 759145	ETP	KisindaJhor	1 No.	The unit has been permitted to discharge 2640KLD of treated Industrial effluent to Kisindajhor only during rainy session
15)	M/s Talcher Thermal Power Stations (TTPS), AT/PO- Talcher Thermal,Dist:Angul-759101.	ETP	Nandira River	1 No.	Adopted ZLD
16)	M/s. Vedanta Ltd., (Smelter & CPP) At/Po - Bhurkhamunda, Dist - Jharsuguda - 768202	ETP	River Bheden	3 Nos.	The unit has been permitted to discharge 50m ³ /hr of treated Industrial effluent to Bheden River only during rainy season

Sl. No.	Name of the industry	Treatment facility provided	Recipient water bodies	Connectivity of CEQMS to SPCB/ CPCB server	Remarks
17)	M/s. Vedanta Ltd., (IPP, Smelter and CPP), At - Bhurkamunda, Po- Sirpura, Dist - Jharsuguda-768202	ETP	River Bheden	1 No.	Adopted ZLD
18)	M/s. COSBOARD Industries Ltd., Jagatpur Industrial Estate, Phase-II, Jagatpur, Dist - Cuttack - 754021	ETP	River Mahanadi	1 no. of CEQMS	The unit has been permitted to discharge 1000 KLD of treated Industrial effluent to River Mahanadi.
19)	M/s. Paradeep Phosphate Ltd, PO- PPL, Township, Paradeep, Dist – Jagatsinghpur-754145	ETP	To Atharbanki Creek	3 nos. of CEQMS	The unit has been permitted to discharge 887 KLD of treated Industrial effluent to Atharbanki Creek only during monsoon.
20)	M/s. Indian Farmers and Fertilizer Co. Operative Ltd., (IFFCO), At- Musadhia, Po - Paradeep, Dist - Jagatsinghpur	ETP	River Mahanadi	1 no. of CEQMS	The unit has been permitted to discharge 7200KLD of treated Industrial effluent to Mahanadi River
21)	M/s. Paradeep Refinery Project, IOCL, At- Paradeep, Po- Jhimani, Via – Kujang, Dist – Jagatsinghpur – 754141	ETP	Deep Sea (bay of Bengal near Paradeep)	1 no.	The unit has been permitted to discharge 8400 KLD of treated Industrial effluent to Deep Sea at distance of 3 km from LTL
22)	M/s. Essar Power (Orissa) Limited, At-Udayabata, PO-Paradeep, Dist- Jagatsinghpur, Odisha	ETP	River Mahanadi	1 no.	Adopted ZLD

Annexure-5

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

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

18	Rushikulya (Pratappur to Ganjam)	Berhampur Municipal Corporation	143.0	Open Dumping	Partial Composting (MCC)
		Aska NAC	9.0	Open Dumping	Biomanure (MCC)
		Chhatrapur Municipality	8.6	Open Dumping	Biomanure (MCC)
19	Sabulia (Jagannathpatna, Rambha)	No large ULB	-	-	-

6.1 (v) Latest Water quality of polluted river, its tributaries, drains and ground water quality in the catchment of Polluted river stretches during May, 2020

Rivers

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Gangua	1	D/s Bhubaneswar (Priority-I)	Near RajdhaniEngg. College	9.4	160000	220	Not conforming
			Palasuni	8.8	160000	170	
			Samantarapur	10.8	160000	220	
			Vadimula	4.2	2100	23	
Daya	2	Bhubaneswar to Bargarh (Priority-IV)	Bhubaneswar D/s at Kanti	3.8	13000	4.5	Not conforming
			Bhubaneswar FD/s at Manitri	3.5	4900	2	
			Kanas	2.8	1400	n.a.	
Kuakhai	3	Urali to Bhubaneswar (Priority-IV)	Bhubaneswar FU/s (at Mancheswar)	1.3	330	2	Conforming
			Bhubaneswar U/s (at Hansapal)	1.5	1700	2	
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				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	pH	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	7.05	0.4	n.a.	33	4.5
Kalpana-Laxmisagar Area,	April, 2020	6.1	0.3	n.a.	79	4.5
Chandrasekharpur	April, 2020	6.54	0.3	n.a.	<1.8	<1.8
Capital Hospital Area,	April, 2020	5.09	0.7	n.a.	<1.8	<1.8
Secretariate- Govenor House-Old bus stand Area,	April, 2020	No sampling as the area falls within Containment Zone to contain COVID 19 Pandemic				
Drinking water Specification (IS : 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent

Details of wastewater drain characteristics in Bhubaneswar falling on Gangua nalla

Drain No.	Drain Name	Length in Km	Drainage area in sq. Km.	Average Discharge (MLD)	Average BOD (mg/l)
1	Patia	4.32	16.93	17.00	160
2	Sainik School	1.13	1.44	1.55	127
3	OAP area	2.42	3.31	3.55	120
4	VaniVihar	5.63	13.67	16.40	100
5	Laxmisagar area	3.13	3.66	4.45	120
6	Baragada Area	2.16	2.89	3.45	140
7	Kedargouri	4.34	9.46	5.45	140
8	Airport area	4.33	12.99	14.30	24
9	Ghatikia	4.24	12.55	28.8	60
10	Nicco Park	5.48	10.28	12.3	100
	Total	37.18	103.23		

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Kathajodi	4	Cuttack to Urali (Priority-III)	Cuttack D/s	1.5	3300	22	Conforming
			Mattagajpur	2.3	2200	21	
Serua	5	Khandaeta to Sankhatrasa (Priority-V)	Sankhatrasa	2.8	490	11	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				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	pH	BOD, mg/L	Nitrate-mg/L	TC, MPN/100 mL	FC, MPN/100 mL
Jagatpur	April, 2020	6.85	0.2	n.a.	2	<1.8
Mangalabag	April, 2020	7.29	0.2	n.a.	2	<1.8
Madhupatna-Kalyan Nagar Area	April, 2020	6.85	0.5	n.a.	1.8	1.8
Badambadi Area	April, 2020	7.33	0.6	n.a.	<1.8	<1.8
Bidanasi-Tulsipur Area,	April, 2020	7.64	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 (May, 2020)

Sl. No.	Station Name	Parameters					
		pH	BOD, mg/l	COD, mg/l	TSS, mg/l	TC	FC
						MPN/100ml	
1	Outlet of STP, Cuttack at CDA-Bidanasi area (36 MLD)	6.6	1.8	13.5	3.0	<1.8	<1.8
2	Wastewater discharge to Kathajodi river through sluice gate at Khannagar	7.0	52.8	144.2	134.0		
3	Outlet of STP at Mattagajpur discharge to Kathajodi river	Not monitored					

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Guradih nallah	6	Along Rourkela (Priority-III)	Rourkela (before confluence with Brahmani river)	6.1	7900	7.8	Not Conforming
Brahmani	7	Rourkela to Biritola (Priority-V)	Panposh D/s at Deogaon	6.3	3300	22	Not Conforming
			Rourkela D/s at Jalda	3.9	1700	11	
			Rourkela FD/s at Attaghat	3.4	220	7.8	
			Rourkela FD/s at Biritola	2.0	170	7.8	
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Nandira jhor	8	D/s Talcher (Priority-III)	Nandira D/s at Dasnali	0.8	78	<1.8	Conforming
Banguru nallah	9	Along Talcher Rengali (Priority-V)	Along Talcher	0.6	170	n.a.	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

n.a. : Not analysed

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

Stn Name	Month	pH	BOD, mg/l	Nitrate- mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Talcher Town	April, 2020	7.62	0.4	n.a.	<1.8	<1.8
Meramundali area	April, 2020	7.91	0.8	n.a.	<1.8	<1.8
Talcher Thermal area	April, 2020	7.62	0.7	n.a.	<1.8	<1.8
Banarpal	April, 2020	7.24	0.5	n.a.	<1.8	<1.8
Kulad	April, 2020	7.54	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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Mahanadi	10	Sambalpur to Paradeep (Priority-V)	Sambalpur D/s	1.0	490	4	Conforming
			Sambalpur FD/s at Shankarmath	0.8	220	4.5	
			Sambalpur FFD/s at Huma	0.6	170	4.5	
			Sonepur U/s	0.7	78	2	
			Sonepur D/s	0.6	110	4.5	
			Tikarpada	1.1	<1.8	<1.8	
			Narasinghpur	0.7	130	7.8	
			Munduli	0.8	110	4.5	
			Cuttack U/s	0.9	78	<1.8	
			Cuttack D/s	1.0	330	17	
			Cuttack FD/s	0.6	210	13	
			Paradeep U/s	0.4	20	4.5	
			Paradeep D/s	0.6	20	<1.8	
Bheden	11	Along Bheden (Priority-V)	Bheden	0.6	45	n.a.	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

Water quality of Tributaries of Mahanadi River

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Ib River			Sundargarh	0.2	170	n.a.	Conforming
			Jharsuguda	0.4	68	n.a.	
			Brajarajnagar U/s	0.4	330	n.a.	
			Brajarajnagar D/s	0.5	490	n.a.	
Ong River			Dharuakhaman	0.3	45	n.a.	Conforming
Tel River			Monmunda	0.2	20	n.a.	Conforming

n.a. : Not analysed

Ground Water quality

Stn Name	Month	pH	BOD, mg/l	Nitrate- mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Sambalpur town Along Mahanadi River						
Near Panthanivas	April, 2020	7.89	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	7.93	0.8	n.a.	<1.8	<1.8
Paradeep town Along Mahanadi River						
Badapadia market complex	April, 2020	8.34	0.7	n.a.	<1.8	<1.8
Musadiha	April, 2020	8.06	0.3	n.a.	7.8	2
Jharsuguda town in the catchment of Bheden river and Ib river						
Burkhamunda	April, 2020	6.87	0.4	n.a.	<1.8	<1.8
Badamal Industrial Estate	April, 2020	6.45	0.8	n.a.	<1.8	<1.8
Budhipadar	April, 2020	6.44	0.3	n.a.	<1.8	<1.8
Brajarajnagar Mining belt	April, 2020	7.05	0.7	n.a.	<1.8	<1.8
Rampur area (Water tank)	April, 2020	7.11	0.4	n.a.	<1.8	<1.8
Ib thermal power station	April, 2020	7.15	0.3	n.a.	<1.8	<1.8
Belpahar area	April, 2020	7.05	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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Mangala	12	Along Puri (Priority-V)	Mangala D/s at Golasahi	4.6	130	6.8	Not Conforming
Nuna	13	Along Bijipur, Puri (Priority-V)	Bijipur	1.1	1100	13	Conforming
Ratnadhira	14	Along Sakhigopal, Puri (Priority-V)	Kumardihi	0.7	330	6.8	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

Ground Water quality of Puri town along Mangala river

Stn Name	Month	pH	BOD, mg/l	Nitrate-mg/l	TC, MPN/100 ml	FC, MPN/100 ml
Hospital-Bus stand-Mausima temple area	April, 2020	7.91	0.2	n.a.	<1.8	<1.8
Near Jagannath Temple,	April, 2020	7.94	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 (May, 2020)

Sl. No.	Station Name	Parameters					
		pH	BOD, mg/l	COD, mg/l	TSS, mg/l	TC	FC
						MPN/100ml	
1	Outlet of STP, Puri at Mangalaghat 15 MLD)	7.5	10.8	58.8	18.0	630	460

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Nagavali	15	Jaykaypur to Rayagada (Priority-V)	Jayakaypur D/s	1.2	330	11	Conforming
			Rayagada D/s	1.1	220	<1.8	
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Budhabalanga	16	Mahulia to Baripada (Priority-V)	Baripada D/s	1.6	1300	24	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Kusumi	17	Along Angul Talcher (Priority-V) (To be corrected as along Tangi)	Along Tangi	1.2	1400	14	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Rushikulya	18	Pratappur to Ganjam (Priority-V)	Madhopur	1.3	1300	4.5	Conforming
			Potagarh	1.5	1300	7.8	
Sabulia	19	Along Jagannathpatna, Rambha (Priority-V)	Jagannathpatna, Rambha	1.3	1100	13	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				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	pH	BOD, mg/l	Nitrate-mg/l	TC, MPN/100 ml	FC, MPN/100 ml
Near MKCG Medical College	April, 2020	7.24	0.2	n.a.	<1.8	<1.8
Bus stand	April, 2020	7.86	0.4	n.a.	17	4.5
Badabazar	April, 2020	7.07	0.7	n.a.	<1.8	<1.8
Railway station	April, 2020	7.33	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

6.1 (v) Latest Water quality of polluted river, its tributaries, drains and ground water quality in the catchment of Polluted river stretches during May, 2020

Rivers

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Gangua	1	D/s Bhubaneswar (Priority-I)	Near RajdhaniEngg. College	9.4	160000	220	Not conforming
			Palasuni	8.8	160000	170	
			Samantarapur	10.8	160000	220	
			Vadimula	4.2	2100	23	
Daya	2	Bhubaneswar to Bargarh (Priority-IV)	Bhubaneswar D/s at Kanti	3.8	13000	4.5	Not conforming
			Bhubaneswar FD/s at Manitri	3.5	4900	2	
			Kanas	2.8	1400	n.a.	
Kuakhai	3	Urali to Bhubaneswar (Priority-IV)	Bhubaneswar FU/s (at Mancheswar)	1.3	330	2	Conforming
			Bhubaneswar U/s (at Hansapal)	1.5	1700	2	
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				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	pH	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	7.05	0.4	n.a.	33	4.5
Kalpana-Laxmisagar Area,	April, 2020	6.1	0.3	n.a.	79	4.5
Chandrasekharpur	April, 2020	6.54	0.3	n.a.	<1.8	<1.8
Capital Hospital Area,	April, 2020	5.09	0.7	n.a.	<1.8	<1.8
Secretariate- Govenor House-Old bus stand Area,	April, 2020	No sampling as the area falls within Containment Zone to contain COVID 19 Pandemic				
Drinking water Specification (IS : 10500:2012) Desirable limit		6.5-8.5	-	45	Absent	Absent

Details of wastewater drain characteristics in Bhubaneswar falling on Gangua nalla

Drain No.	Drain Name	Length in Km	Drainage area in sq. Km.	Average Discharge (MLD)	Average BOD (mg/l)
1	Patia	4.32	16.93	17.00	160
2	Sainik School	1.13	1.44	1.55	127
3	OAP area	2.42	3.31	3.55	120
4	VaniVihar	5.63	13.67	16.40	100
5	Laxmisagar area	3.13	3.66	4.45	120
6	Baragada Area	2.16	2.89	3.45	140
7	Kedargouri	4.34	9.46	5.45	140
8	Airport area	4.33	12.99	14.30	24
9	Ghatikia	4.24	12.55	28.8	60
10	Nicco Park	5.48	10.28	12.3	100
	Total	37.18	103.23		

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Kathajodi	4	Cuttack to Urali (Priority-III)	Cuttack D/s	1.5	3300	22	Conforming
			Mattagajpur	2.3	2200	21	
Serua	5	Khandaeta to Sankhatrasa (Priority-V)	Sankhatrasa	2.8	490	11	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

Ground Water quality of Cuttackcity alongMahanadi river, KathajodiRiver and Serua river

Stn Name	Month	pH	BOD, mg/L	Nitrate-mg/L	TC, MPN/100 mL	FC, MPN/100 mL
Jagatpur	April, 2020	6.85	0.2	n.a.	2	<1.8
Mangalabag	April, 2020	7.29	0.2	n.a.	2	<1.8
Madhupatna-Kalyan Nagar Area	April, 2020	6.85	0.5	n.a.	1.8	1.8
Badambadi Area	April, 2020	7.33	0.6	n.a.	<1.8	<1.8
Bidanasi-Tulsipur Area,	April, 2020	7.64	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 (May, 2020)

Sl. No.	Station Name	Parameters					
		pH	BOD, mg/l	COD, mg/l	TSS, mg/l	TC	FC
						MPN/100ml	
1	Outlet of STP, Cuttack at CDA-Bidanasi area (36 MLD)	6.6	1.8	13.5	3.0	<1.8	<1.8
2	Wastewater discharge to Kathajodi river through sluice gate at Khannagar	7.0	52.8	144.2	134.0		

3	Outlet of STP at Mattagajpur discharge to Kathajodi river	Not monitored
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Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Guradihnallah	6	Along Rourkela (Priority-III)	Rourkela (before confluence with Brahmani river)	6.1	7900	7.8	Not Conforming
Brahmani	7	Rourkela to Biritola (Priority-V)	Panposh D/s at Deogaon	6.3	3300	22	Not Conforming
			Rourkela D/s at Jalda	3.9	1700	11	
			Rourkela FD/s at Attaghat	3.4	220	7.8	
			Rourkela FD/s at Biritola	2.0	170	7.8	
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Nandira jhor	8	D/s Talcher (Priority-III)	Nandira D/s at Dasnali	0.8	78	<1.8	Conforming
Banguru nallah	9	Along Talcher Rengali (Priority-V)	Along Talcher	0.6	170	n.a.	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

n.a. : Not analysed

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

Stn Name	Month	pH	BOD, mg/l	Nitrate- mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Talcher Town	April, 2020	7.62	0.4	n.a.	<1.8	<1.8
Meramundali area	April, 2020	7.91	0.8	n.a.	<1.8	<1.8
Talcher Thermal area	April, 2020	7.62	0.7	n.a.	<1.8	<1.8
Banarpal	April, 2020	7.24	0.5	n.a.	<1.8	<1.8
Kulad	April, 2020	7.54	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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Mahanadi	10	Sambalpur to Paradeep (Priority-V)	Sambalpur D/s	1.0	490	4	Conforming
			Sambalpur FD/s at Shankarmath	0.8	220	4.5	
			Sambalpur FFD/s at Huma	0.6	170	4.5	
			Sonepur U/s	0.7	78	2	
			Sonepur D/s	0.6	110	4.5	
			Tikarpada	1.1	<1.8	<1.8	
			Narasinghpur	0.7	130	7.8	
			Munduli	0.8	110	4.5	
			Cuttack U/s	0.9	78	<1.8	
			Cuttack D/s	1.0	330	17	
			Cuttack FD/s	0.6	210	13	
			Paradeep U/s	0.4	20	4.5	
			Paradeep D/s	0.6	20	<1.8	
Bheden	11	Along Bheden (Priority-V)	Bheden	0.6	45	n.a.	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

Water quality of Tributaries of Mahanadi River

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Ib River			Sundargarh	0.2	170	n.a.	Conforming
			Jharsuguda	0.4	68	n.a.	
			Brajarajnar U/s	0.4	330	n.a.	
			Brajarajnar D/s	0.5	490	n.a.	
Ong River			Dharuakhaman	0.3	45	n.a.	Conforming
Tel River			Monmunda	0.2	20	n.a.	Conforming

n.a. : Not analysed

Ground Water quality

Stn Name	Month	pH	BOD, mg/l	Nitrate- mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml
Sambalpur town Along Mahanadi River						
Near Panthanivas	April, 2020	7.89	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	7.93	0.8	n.a.	<1.8	<1.8
Paradeep town Along Mahanadi River						
Badapadia market complex	April, 2020	8.34	0.7	n.a.	<1.8	<1.8
Musadiha	April, 2020	8.06	0.3	n.a.	7.8	2
Jharsuguda town in the catchment of Bheden river and Ib river						
Burkhamunda	April, 2020	6.87	0.4	n.a.	<1.8	<1.8
Badamal Industrial Estate	April, 2020	6.45	0.8	n.a.	<1.8	<1.8
Budhipadar	April, 2020	6.44	0.3	n.a.	<1.8	<1.8
Brajarajnagar Mining belt	April, 2020	7.05	0.7	n.a.	<1.8	<1.8
Rampur area (Water tank)	April, 2020	7.11	0.4	n.a.	<1.8	<1.8
Ib thermal power station	April, 2020	7.15	0.3	n.a.	<1.8	<1.8
Belpahar area	April, 2020	7.05	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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Mangala	12	Along Puri (Priority-V)	Mangala D/s at Golasahi	4.6	130	6.8	Not Conforming
Nuna	13	Along Bijipur, Puri (Priority-V)	Bijipur	1.1	1100	13	Conforming
Ratnadhira	14	Along Sakhigopal, Puri (Priority-V)	Kumardihi	0.7	330	6.8	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

Ground Water quality of Puri town along Mangala river

Stn Name	Month	pH	BOD, mg/l	Nitrate-mg/l	TC, MPN/100 ml	FC, MPN/100 ml
Hospital-Bus stand-Mausima temple area	April, 2020	7.91	0.2	n.a.	<1.8	<1.8
Near Jagannath Temple,	April, 2020	7.94	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 (May, 2020)

Sl. No.	Station Name	Parameters					
		pH	BOD, mg/l	COD, mg/l	TSS, mg/l	TC	FC
						MPN/100ml	
1	Outlet of STP, Puri at Mangalaghat 15 MLD)	7.5	10.8	58.8	18.0	630	460

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Nagavali	15	Jaykaypur to Rayagada (Priority-V)	Jayakaypur D/s	1.2	330	11	Conforming
			Rayagada D/s	1.1	220	<1.8	
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Budhabalanga	16	Mahulia to Baripada (Priority-V)	Baripada D/s	1.6	1300	24	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Kusumi	17	Along Angul Talcher (Priority-V) (To be corrected as along Tangi)	Along Tangi	1.2	1400	14	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				3.0	500 (Desirable) 2500 (permissible)	100 (Desirable) 500 (Maximum Permissible)	-

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

Rivers

May, 2020

River	Sl. No.	Polluted River stretch with Priority Category	Monitoring station	BOD (mg/L)	Fecal coliform (FC) (MPN/100 mL)	Fecal Streptococci (FS) (MPN/100 mL)	Remark
Rushikulya	18	Pratappur to Ganjam (Priority-V)	Madhopur	1.3	1300	4.5	Conforming
			Potagarh	1.5	1300	7.8	
Sabulia	19	Along Jagannathpatna, Rambha (Priority-V)	Jagannathpatna, Rambha	1.3	1100	13	Conforming
Water quality criteria for Bathing water (GSR 742 (A) Dated 25.12.2000)				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	pH	BOD, mg/l	Nitrate-mg/l	TC, MPN/100 ml	FC, MPN/100 ml
Near MKCG Medical College	April, 2020	7.24	0.2	n.a.	<1.8	<1.8
Bus stand	April, 2020	7.86	0.4	n.a.	17	4.5
Badabazar	April, 2020	7.07	0.7	n.a.	<1.8	<1.8
Railway station	April, 2020	7.33	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

Sl. No.	Polluted River Stretches identified by CPCB	Priority Category of Polluted River stretch				Remarks (As on 2020)
		2017 (BOD mg/l, max)	2018 (BOD mg/l, max)	2019 (BOD mg/l, max)	2020 (upto May) (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 (4.5)	Priority has been reduced from IV to V (Improved)
3	Brahmani (Rourkela to Birtol)	Priority-V (6.0)	Priority-IV (7.6)	Priority-V (5.3)	Priority-V (6.3)	No Improvement
4	Guradih nallah (Rourkela)	Priority-III (11.3)	Priority-IV (10.1)	Priority-IV (8.5)	Priority-V (6.1)	Priority has been reduced from III to V (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 (Jaykaypur to Rayagada)	Priority-V (3.5)	Clean (2.8)	Clean (2.2)	Clean (2.1)	Clean (Improved)
7	Kathajodi (Cuttack to Urali)	Priority-III (11.2)	Priority-V (5.7)	Priority-V (3.9)	Priority-V (3.2)	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)	Clean (2.8)	Clean (Improved)
9	Ratnachira (Along Bhubaneswar, Puri)	Priority-V (3.3)	Priority-V (3.5)	Clean (2.7)	Clean (1.3)	Clean (Improved)
10	Nandira Jhor (D/s of Talcher)	Priority-III (13.0)	Priority-V (3.5)	Clean (1.9)	Clean (1.7)	Clean (Improved)
11	Kuakhai (Along Bhubaneswar)	Priority-IV (7.7)	Clean (1.6)	Clean (1.9)	Clean (1.5)	Clean (Improved)
12	Mahanadi (Sambalpur to Paradeep)	Priority-V (3.2)	Clean (2.3)	Clean (2.3)	Clean (2.7)	Clean (Improved)
13	Rushikulya (Pratappur to Ganjam)	Priority-V (3.4)	Priority-V (3.7)	Clean (2.6)	Clean (1.9)	Clean (Improved)
14	Banguru nallah (Along Talcher, Rengali)	Priority-V (3.2)	Priority-V (3.9)	Clean (1.9)	Clean (1.1)	Clean (Improved)
15	Bheden (Along Bheden)	Priority-V (3.6)	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 (1.2)	Clean (Improved)
17	Nuna (Along Bijipur)	Priority-V (3.1)	Clean (2.7)	Clean (2.5)	Clean (1.1)	Clean (Improved)
18	Sabulia (Jagannathpatna,Rambha)	Priority-V (5.0)	Clean (2.4)	Clean (2.2)	Clean (1.4)	Clean (Improved)
19	Budhabalanga (Mahulia to Baripada)	Priority-V (3.5)	Clean (2.8)	Clean (1.6)	Clean (1.6)	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 May)
Priority-I	1	1	1	Nil
Priority-II	Nil	Nil	Nil	Nil
Priority-III	3	Nil	Nil	1
Priority-IV	2	3	3	Nil
Priority-V	13	7	3	5
		8 (Clean)	12 (Clean)	13 (Clean)
Total :	19	19	19	19

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

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OFFICE OF THE ENGINEER-IN-CHIEF, WATER RESOURCES, ODISHA,
SECHA SADAN, BHUBANESWAR -751001

No. File No. BP&CC-GL-102/2020 8582/WE WE Date 13/03/2020

From
Er. Biswa Mohan Acharya
Chief Engineer, BP&CC

To
The Director, Environment-Cum-Special Secretary to Government,
Forest & Environment Department, Odisha,
Bhubaneswar.

Sub:- Progress Report on NGT- OA No.606/2018 .
Ref: Lr. No. 4725 dtd. 27.02.2020 of SPCB, Odisha.

Central Lab

Sir,

19/3

With reference to the above cited subject, it is to furnish herewith the Progress Report on NGT- OA No.606/2018 for the month of January 2020 for favour of information and necessary action.

Yours faithfully,

Encl : As above .

[Signature]
Chief Engineer, BP&CC 13/3/2020

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Memo No. 8583/WE / Date 13/03/2020

Copy submitted to the Member Secretary, State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for information and necessary action.

Encl: As above

[Signature]
Chief Engineer, BP&CC 13/3/2020

Memo No. 8584/WE / Date 13/03/2020

Copy submitted to the Special Secretary to Government, DoWR, Odisha, Bhubaneswar for information with respect to Lr. No. 6331 dtd 03.03.2020.

Encl: As above

[Signature]
Chief Engineer, BP&CC 13/3/2020

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A copy of this may pl. be sent to Central Lab.
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**MEASURES TAKEN FOR COMPLIANCE TO HON'BLE NGT DIRECTION FOR
CONTROL OF RIVER POLLUTION (NGT ORDER NO.606/2018)**

5. Measures taken for

A. Control of Illegal Groundwater Abstraction - Yes

1. So far no such cases of illegal groundwater abstraction are noticed.
2. Govt. of Odisha has formulated an act for regulation of groundwater namely "The Odisha Groundwater (Regulation, Development and Management) Act, 2011"
3. Central Groundwater Directorate and District Level Evaluation Committee 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-1), 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 flooding of storm water in Bhubaneswar city. This is one of the flood plain zone protection in Odisha in Gangua Nalla.

D. E-Flow maintenance & Watershed Management - Yes

E-flow is maintained.

E. Groundwater recharge/ Rain water harvesting - Yes

Rain water harvesting

2018-19 Rooftop Rainwater Harvesting Structures (RRHS)

	Govt	Private	
2018-19	358 nos.	9438 nos.	(in 11 towns of 9 districts)
2019-20	Nil	Nil	
2020-21	250 Nos	4800 Nos	A provision of Rs. 40 crores has been kept for construction of RRHS.

Groundwater recharge

i) Through Wells	2019-20	nil
	2020-21	234 nos. in 46 blocks of 20 districts
ii) Through Check dams	upto 03/2019	14588 nos. in 30 districts
	2019-20	343 nos. in 30 districts
	2020-21	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.


 Chief Engineer, 13/3/2020
 Basin Planning & Climate Change

Monthly Progress Report on NGT – OA No. 673/2018


Month - February 2020

Action by Water Resource Department

1. Name of the Polluted River Stretch :- Gangua Nalla (Along Bhubaneswar)

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.4	Adoption of good Irrigation Practice	Rotational water supply in Daya West Branch Canal system recharges the ground water as well as river or drain.	In every year, during Kharif crop (1 st July to 15 th Nov). and Rabi crop (1 st week of January to 15 th of May).	Rotational water supply is maintained in Kharif & Rabi crops.	
Item No.5	Flood Plain Zone Protection & it's management	Proposal for construction of a cross regulator at the off taking point of Gangual Nalla to divert the entire flood discharge of Chandaka catchment to Kuakhia river through Budhi Nalla in high flood situation.	128 th TAC of DoWR has approved the construction of cross regulator.		
Item No.6	Rainwater harvesting/ Groundwater recharge aspects	Construction of Rooftop Rainwater Harvesting Structure (RRHS) in Govt. and Private Building in towns of Odisha.	2014-15 to 2018-19 2019-2020 2020-21	RRHS of 131 nos in Govt. Buildings & 4942 nos. in Private Buildings completed in Bhubaneswar. Nil 300 nos in Govt. buildings and 6000 nos in private buildings will be constructed.	Bhubaneswar town Provision for Rs. 37 crores has been kept for the year 2020-21
		Construction of Check Dam.	2019-20 2020-21	513 nos. of Check Dams completed up to Dec-2019 in Khordha Dist.	Provision for Rs. 37 crores has been kept for the year 2020-21

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.7	Maintaining E-flows and Watershed management.	It is a storm water drain. The minimum flow in Gangua Nalla in non-monsoon is maintained by inletting water from river Mahanadi through Daya West Branch Canal.	In 2019 - 60 Cusecs released. Water released to Gangua Nalla from Daya West Branch Canal from 16.02.2020 to 26.02.2020 with maximum release of 77 cusecs on 21.02.2020.		Release of water to Gangua Nalla is enclosed.
Item No.8	Setting up bio-diversity parks	-	-	-	
Item No.9	Removal of encroachments to maintain natural flow in drains	-	-	-	
Item No.10	Greenery or plantation on both sides of the river	4900 seeding has been sown along the drainage canals by Khurda Drainage Division during monsoon of 2018.	During Monsoon 2018.	1979 Nos. of plants are alive.	
Item No.11	Capping of contaminated Ground Water Sources, Hand pump, Tube wells and alternate Water Supply Arrangement for drinking purpose in GW affected areas.	-	-	-	


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2. Name of the Polluted River Stretch :- Daya (Bhubaneswar to Baragada)

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.4	Adoption of good Irrigation Practice	Rotational water supply in Puri Main Canal system recharges the ground water as well as river or drain.	In every year, during Kharif crop (1 st July to 15 th Nov.) and Rabi crop (1 st week of January to 15 th of May).	Rotational water supply is maintained in Kharif & Rabi crops.	
Item No.5	Flood Plain Zone Protection & it's management				
Item No.6	Rainwater harvesting/ Groundwater recharge aspects	Construction of Rooftop Rainwater Harvesting Structure (RRHS) in Govt. and Private Building in towns of Odisha.	2014-15 to 2018-19	RRHS of 131 nos in Govt. Buildings & 4942 nos. in Private Buildings completed in Bhubaneswar.	Bhubaneswar town
			2019-2020	Nil	
			2020-21	300 nos in Govt. buildings and 6000 nos in private buildings will be constructed.	Provision for Rs. 37 crores has been kept for the year 2020-21
		Construction of Check Dam.	2019-20	513 nos. of Check Dams completed up to Dec-2019 in Khordha Dist.	Provision for Rs. 37 crores has been kept for the year 2020-21
			2020-21		

Sl. NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.7	Maintaining E-flows and Watershed management.	E-flows maintained.	During lean period from Nov to May.	Maintained.	
Item No.8	Setting up bio-diversity parks	-	-	-	
Item No.9	Removal of encroachments to maintain natural flow in drains	-	-	-	
Item No.10	Greenery or plantation on both sides of the river	11865 seeding has been sown along the canal colony office premises by Prachi Division during monsoon of 2018.	Monsoon of 2018.	-	By Prachi Division, Bhuteswar
Item No.11	Capping of contaminated Ground Water Sources, Hand pump, Tube wells and alternate Water Supply Arrangement for drinking purpose in GW affected areas.	-	-	-	


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3. Name of the Polluted River Stretch :- Bramhani (Rourkela to Biritol)

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.4	Adoption of good Irrigation Practice		-	-	
Item No.5	Flood Plain Zone Protection & it's management		-	-	
Item No.6	Rainwater harvesting/ Groundwater recharge aspects	Construction of Rooftop Rainwater Harvesting Structure (RRHS) in Govt. and Private Building in towns of Odisha.	2014-15 to 2018-19	RRHS of 07 nos. in Govt. Buildings & 76 nos. in Private Buildings completed.	Rourkela town
			2019-20	Nil	Provision for Rs. 37 crores has been kept for the year 2020-21
			2020-21	300 nos in Govt. buildings and 6000 nos in private buildings will be constructed.	
	Construction of Check Dams.		2019-20	720 nos. of Check Dams completed up to Dec-2019 in Sundargarh Dist.	
			2020-21		Provision for Rs. 37 crores has been kept for the year 2020-21

Sl. NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2 Maintaining E-flows and Watershed management.	3 E-flows maintained.	4 During lean period from Nov to May.	5 Maintained.	6
Item No.7	Setting up bio-diversity parks				
Item No.8	Removal of encroachments to maintain natural flow in drains				
Item No.9	Greenery or plantation on both sides of the river				
Item No.10	Capping of contaminated Ground Water Sources, Hand pump, Tube wells and alternate Water Supply Arrangement for drinking purpose in GW affected areas.	27373 nos. of sapling & seeding have been sown along the canal by Sundergarh Irr. Division & 17944 nos. of sapling & seeding have been sown along the canal by Rukura canal Division during monsoon of 2018.	Monsoon of 2018.		By Sundergarh Irrigation Division & Rukura Canal Division, Rourkela.
Item No.11					


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4. Name of the Polluted River Stretch :- Gurudih Nallah (Rourkela)

SL. NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.4	Adoption of good Irrigation Practice				
Item No.5	Flood Plain Zone Protection & it's management				
Item No.6	Rainwater harvesting/ Groundwater recharge aspects	Construction of Rooftop Rainwater Harvesting Structure in Govt. and Private Building in towns of Odisha.	2014-15 to 2018-19 2019-20 2020-21	RRHS of 07 no.s of Govt. Building & 76 no.s of Private Building completed Nil 300 nos in Govt. buildings and 6000 nos in private buildings will be constructed.	Rourkela town Provision for Rs. 37 crores has been kept for the year 2020-21

Sl. NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
		Construction of Check Dams,	2019-20	720 nos. of Check Dams completed up to Dec-2019 in Sundargarh Dist.	Provision for Rs. 37 crores has been kept for the year 2020-21
Item No.7	Maintaining E-flows and Watershed management.	E-flows maintained.	During lean period from Nov to May.	Maintained.	
Item No.8	Setting up bio-diversity parks				
Item No.9	Removal of encroachments to maintain natural flow in drains				
Item No.10	Greenery or plantation on both sides of the river	27373 no.s of sapling & seeding have been sown along the canal by Sundergarh Irr. Division. & 17944 no.s of sapling & seeding have been sown along the canal by Rukura canal Division during monsoon of 2018.	Monsoon of 2018.		By Sundergarh Irrigation Division & Rukura Canal Division, Rourkela

Sl. NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present status of pendency in terms of %age	
1	2	3	4	5	6
Item No.11	Capping of contaminated Ground Water Sources, Hand pump, Tube wells and alternate Water Supply Arrangement for drinking purpose in GW affected areas.				


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5. Name of the Polluted River Stretch :- Mangala (Along Puri)

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.4	Adoption of good Irrigation Practice	-	-	-	
Item No.5	Flood Plain Zone Protection & it's management	-	-	-	
Item No.6	Rainwater harvesting/ Groundwater recharge aspects	Construction of Rooftop Rainwater Harvesting Structure (RRHS) in Govt. and Private Buildings in towns of Odisha.	2014-15 to 2018-19 2019-20 2020-21	RRHS of 34 nos in Govt. Buildings & 529 nos. in Private Buildings completed. Nil 300 nos in Govt. buildings and 6000 nos in private buildings will be constructed.	Part town Provision for Rs. 37 crores has been kept for the year 2020-21.

NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.7	Maintaining E-flows and Watershed management.	Construction of Check Dams.	2019-20 2020-21	115 nos. of Check Dams completed up to Dec-2019 in Puri Dist.	Provision for Rs. 37 crores has been kept for the year 2020-21.
Item No.8	Setting up bio-diversity parks	E-flows maintained.	During lean period from Nov to May.	Maintained.	
Item No.9	Removal of encroachments to maintain natural flow in drains				
Item No.10	Greenery or plantation on both sides of the river	1700 sapling has been sown along the canal colony, office premises by Puri Irr. Division during monsoon of 2018.	Monsoon of 2018.		By Puri Irr. Division, Puri
Item No.11	Capping of contaminated Ground Water Sources, Hand pump, Tube wells and alternate Water Supply Arrangement for				

NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2 drinking purpose in GW affected areas.	3	4	5	6


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Name of the Polluted River Stretch :- Nagavali (JK Pur to Rayagada)

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.4	Adoption of good Irrigation Practice	-	-	-	
Item No.5	Flood Plain Zone Protection & it's management	-	-	-	
Item No.6	Rainwater harvesting/ Groundwater recharge aspects	Construction of Rooftop Rainwater Harvesting Structure (RRHS) in Govt. and Private Buildings in towns of Odisha. Construction of Check Dams.	2019-20 2020-21 2019-20	Nil 300 nos in Govt. buildings and 6000 nos in private buildings will be constructed. 801 nos. of Check Dams completed up to Dec-2019 in Rayagada Dist.	Provision for Rs. 37 crores has been kept for the year 2020-21

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.7	Maintaining E-flows and Watershed management.	E-flows maintained.	2020-21 During lean period from Nov to May.		Provision for Rs. 37 crores has been kept for the year 2020-21
Item No.8	Setting up bio-diversity parks				
Item No.9	Removal of encroachments to maintain natural flow in drains				
Item No.10	Greenery or plantation on both sides of the river	5160 nos. of sapling has been sown in Rayagada district by Rayagada Minor Irr. Division during monsoon of 2018.	Monsoon of 2018.		By Rayagada Minor Irr. Division

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.11	Capping of contaminated Ground Water Sources, Hand pump, Tube wells and alternate Water Supply Arrangement for drinking purpose in GW affected areas.	-	-	-	-


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7. Name of the Polluted River Stretch :- Kathajodi (Cutback to Uralli)

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.4	Adoption of good Irrigation Practice	No irrigation water recharges river Kathajodi (from Cutback to Uralli).	-	-	
Item No.5	Flood Plain Zone Protection & it's management		-	-	
Item No.6	Rainwater harvesting/ Groundwater recharge aspects	Construction of Rooftop Rainwater Harvesting Structure (RRHS) in Govt. and Private Building in towns of Odisha.	2014-15 to 2018-19 2019-20 2020-21	RRHS of 07 nos in Govt. Buildings & 123 nos. in Private Buildings completed Nil 300 nos in Govt. buildings and 6000 nos in private buildings will be constructed.	Cuttack town Provision for Rs. 37 crores has been kept for the year 2020-21

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
		Construction of Check Dams.	2019-20 2020-21	659 nos. of Check Dams completed up to Dec-2019 in Cuttack Dist.	Provision for Rs. 37 crores has been kept for the year 2020-21
Item No.7	Maintaining E-flows and Watershed management.	E-flows maintained.	During lean period from Nov to May.	Maintained.	
Item No.8	Setting up bio-diversity parks	-	-	-	
Item No.9	Removal of encroachments to maintain natural flow in drains	-	-	-	
Item No.10	Greenery or plantation on both sides of the river	3250 no.s of sapling has been sown along the canal colony, office premises by Mahanadi South Division-1 & 10610 no.s of sapling has been sown along the canal colony, office premises by Mahanadi Barrage Division, Cuttack during	Monsoon of 2018.	-	By Mahanadi South Division-1 & by Mahanadi Barrage Division.

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
		monsoon of 2018.			Cuttack.
Item No.11	Capping of contaminated Ground Water Sources, Hand pump, Tube wells and alternate Water Supply Arrangement for drinking purpose in GW affected areas.				


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8. Name of the Polluted River Stretch :- Serua(Khandaeta to Sankhatrasa) River

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.4	Adoption of good Irrigation Practice	Rotational water supply in Kakatpur Branch Canal system recharges the groundwater as well as river or drain.	In every year, during Kharif crop (1 st July to 15 th Nov. and Rabi crop (1 st week of January to 15 th of May).	Rotational water supply is maintained in Kharif & Rabi crops.	
Item No.5	Flood Plain Zone Protection & it's management				
Item No.6	Rainwater harvesting/ Groundwater recharge aspects	Construction of Rooftop Rainwater Harvesting Structure (RRHS) in Govt. and Private Building in towns of Odisha.	2014-15 to 2018-19 2019-20 2020-21	RRHS of 07 nos of Govt. Building & 123 nos. of Private Building completed. Nil 300 nos in Govt. buildings and 6000 nos in private buildings will be constructed.	Cuttack town Provision for Rs. 37 crores has been kept for the year 2020-21

Sl. NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
		Construction of Check Dams.	2019-20	659 nos. of Check Dams completed up to Dec-2019 in Cuttack Dist.	
			2020-21		Provision for Rs. 37 crores has been kept for the year 2020-21
Item No.7	Maintaining E-flows and Watershed management.	E-flows maintained.			
Item No.8	Setting up bio-diversity parks				
Item No.9	Removal of encroachments to maintain natural flow in drains				
Item No.10	Greenery or plantation on both sides of the river	3250 no.s of sapling has been sown along the canal colony, office premises by Mahanadi South Division-1 & 4260 nos. of sapling and seeding have been sown along the canal colony, office premises by Jagatsinghpur Irr. Division, Jagatsinghpur during monsoon of 2018.	Monsoon of 2018.		By Mahanadi South Division-1 & by Jagatsinghpur Irr. Division, Jagatsinghpur

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.11	Capping of contaminated Ground Water Sources, Hand pump, Tube wells and alternate Water Supply Arrangement for drinking purpose in GW affected areas.	-	-	-	


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 9. Name of the Polluted River Stretch :- Ratnachira(Along Bhubaneswar)

SL NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2	3	4	5	6
Item No.4	Adoption of good Irrigation Practice	Rotational water supply in Sakhigopal Branch Canal, Puri Main Canal and Gobardhanpur Barrage recharges the ground water as well as river or drain.	In every year, during Kharif crop (1 st July to 15 th Nov. and Rabi crop (1 st week of January to 15 th of May).	Rotational water supply is maintained in Kharif & Rabi crops.	
Item No.5	Flood Plain Zone Protection & it's management				
Item No.6	Rainwater harvesting/ Groundwater recharge aspects	Construction of Rooftop Rainwater Harvesting Structure (RRHS) in Govt. and Private Building in towns of Odisha.	2014-15 to 2018-19 2019-20 2020-21	RRHS of 34 nos of Govt. Building & 529 nos. of Private Building completed Nil 300 nos in Govt. buildings and 6000 nos in private buildings will be constructed.	Puri town Provision for Rs. 37 crores has been kept for the year 2020-21

Sl. NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2.	3	4	5	6
Item No.7	Maintaining E-flows and Watershed management.	Construction of Check Dams.	2019-20	513 nos. of Check Dams completed up to Dec-2019 in Khurdha Dist.	Provision for Rs. 37 crores has been kept for the year 2020-21
Item No.8	Setting up bio-diversity parks	E-flows maintained.	-	During lean period from Nov to May.	-
Item No.9	Removal of encroachments to maintain natural flow in drains	-	-	-	-
Item No.10	Greenery or plantation on both sides of the river	1700 sapling has been sown along the canal colony, office premises by Puri Irr. Division during monsoon of 2018.	Monsoon of 2018.	-	By Puri Irr. Division, Puri
Item No.11	Capping of contaminated Ground Water Sources, Hand pumps, Tube wells and alternate Water Supply Arrangement for	-	-	-	-

S.L. NO.	Key Components of Proposed Action Plan for restoration of identified polluted river stretch in the state	Proposed Achievable Target	Proposed Time Targets for compliance	Present Status or pendency in terms of %age	Remarks
1	2 drinking purpose in GW affected areas.	3	4	5	6


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