REPORT OF OVERSIGHT COMMITTEE IN COMPLIANCE OF ORDER OF HON'BLE NATIONAL GREEN TRIBUNAL PASSED IN O.A.NO. 200/2014 IN RE: M.C.MEHTA VS UNION OF INDIA, WITH REGARD TO WATER QUALITY, UNTAPPED DRAINS AND STATUS OF STPs IN STATE OF UTTAR PRADESH

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1. Hon'ble National Green Tribunal dealing with the matter of **OA No. 200/2014** in re: *MC Mehta versus Union of India & others,* vide order dated 18.12.2019 found that the information with regard to the quality of water of river Ganga in the stretch falling within the territorial jurisdiction of Uttar Pradesh was not available before the Tribunal at the time of hearing. The present committee directed the U.P. Pollution Control Board (UPPCB) to call for a report from the Regional Officers with regard to the quality of water in different parts of river Ganga originating from the State of Uttarakhand, entering into the State of Uttar Pradesh in district Bijnor. A report has been submitted by the Chief Environment Engineer, UPPCB, Central Laboratory with regard to the water quality of river Ganga in Uttar Pradesh in the months of January, April, August and December, 2019 in different districts from Bijnor to Ghazipur; the quality of water, as reported is as under:

2. The report of the Chief Environmental Officer is annexed with this report as **Annexure-1.**

Water Quality of River Ganga in Uttar Pradesh														
Year-2019														
S. No.	Name of District		Sampling Months											
			Januanry			April			August			December		
			DO (mg/l)	BOD (mg/l	Total Coliform (MPN/100 ml)	DO (mg/l)	BOD (mg/l	Total Coliform (MPN/100 ml)	DO (mg/l)	BOD (mg/l	Total Coliform (MPN/100 ml)	DO (mg/l)	BOD (mg/l	Total Coliform (MPN/100 ml)
1	Bijnor	Average	9.70	1.37	Nil	7.93	1.27	Nil	8.60	1.60	Nil	9.30	1.43	Nil
		Category	B			B			B			B		
2	Hapur	Average	8.75	2.45	510	8.5	1.3	445	8.0	2.0	445	8.80	0.75	1500
		Category	C			B			B			C		
3	Bulandshahar	Average	10.3	2.13	503	7.5	2.1	637	7.4	2.4	517	10.13	0.97	793
		Category	C			C			C			C		

		Average	9.8	2.5	370	10.2	1.4	400	10.6	1.3	350	10.1	0.9	270
4	Badaun	Category		B			B			B			B	
		Average	10.00	2.30	2600	8.2	2.1	2400	6.4	2	2100	10.1	2.4	2400
5	Farrukhabad	Category		C			C			C			C	
		Average	10.40	3.15	3950	7.8	3.0	4350	6.40	2.90	3650	9.70	2.90	4500
6	Kannauj	Category		D			C			C			C	
		Average	10.00	2.83	9357	8.06	4.49	11414	5.64	3.34	12843	9.57	3.39	21029
7	Kanpur	Category		D			D			D			D	
		Average	10.20	3.10	3100	9.90	3.70	3400	7.50	3.60	3900	10.00	3.90	3800
8	Raibareli	Category		D			D			D			D	
		Average	9.20	3.50	3300	11.00	3.50	3300	7.40	3.70	3800	10.20	3.80	3500
9	Pratapgarh	Category		D			D			D			D	
		Average	10.80	3.70	20000	7.60	3.20	24000	7.20	2.80	17000	11.50	3.30	11000
10	Kaushambi	Category		D			D			D			D	
		Average	11.1	2.77	17000	7.97	2.80	17667	7.27	2.40	19333	11.80	2.73	8267
11	Prayagraj	Category		D			D			D			D	
		Average	8.15	3.20	7650	7.75	3.15	9200	6.95	3.55	9850	8.80	2.75	7850
12	Mirzapur	Category		D			D			D			D	
		Average	8.60	3.00	11000	7.80	3.10	13000	6.90	3.80	14000	8.80	3.00	8000
13	Sonebhadra	Category		D			D			D			D	
		Average	7.80	3.15	22150	7.85	3.00	17700	6.85	3.75	16600	8.30	2.95	9550
14	Varanasi	Category		D			D			D			D	
		Average	7.95	3.55	19500	7.80	3.35	20500	6.85	3.85	17000	8.10	3.35	14500
15	Ghazipur	Category		D			D			D			D	

3. Chart with regard to water quality of river Ganga in Uttar Pradesh w.e.f Jan 2019 to Dec 2019, as reported by UPPCB, is as follows:

Water Quality Of River Ganga in UP
Year-2019

Month	SAMPLING LOCATION																															
	1				2				3				4				5				6				7				8			
	U/S Near Railway Bridge Gangaghat Balawali Bijnor				At Madhya Ganga barrage, Bijnor				D/S Near Village Rasoolpur Bhawar,Amroha n/e with Chhoiya River Bijnor				U/S Brij Ghat Garhmukteshwar				D/s Brij Ghat Garhmukteshwar				U/s Anoopshahar, Bulandshahar				D/s Anoopshahar, Bulandshahar				Rajghat D/s Narora			
	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)
Jan-19	9.80	0.9	-	-	9.7	1.4	-	-	9.6	1.8	-	-	8.60	2.1	410	210	8.90	2.8	610	350	10.4	2.4	430	230	9.80	2.6	450	210	10.6	1.4	630	350
Feb-19	9.40	1.0	-	-	9.3	1.3	-	-	9.1	1.6	-	-	8.60	1.2	540	140	8.80	1.4	920	220	9.50	1.5	540	280	9.70	1.0	430	240	9.30	1.1	920	540
Mar-19	9.00	1.2			8.7	1.6	-	-	9.1	1.6	-	-	8.50	1.1	240	170	8.70	1.3	540	350	9.90	1.2	540	250	9.80	1.4	430	230	9.60	1.5	920	550
Apr-19	8.30	1.1	-	-	7.5	1.3	-	-	8.0	1.4	-	-	8.30	1.0	350	240	8.70	1.5	540	480	7.60	1.8	550	230	7.30	2.1	410	220	7.50	2.3	930	530
May-19	8.00	0.9	-	-	7.7	1.3	-	-	7.4	1.4	-	-	8.20	1.5	540	320	8.50	2.7	920	530	7.40	1.2	330	220	7.20	1.4	430	210	7.30	1.5	750	510
Jun-19	8.20	1.2	-	-	7.9	1.4	-	-	7.8	1.8	-	-	8.50	1.8	920	220	8.80	2.6	1600	350	8.00	2.3	350	220	8.30	2.1	280	170	7.70	2.5	920	540
Jul-19	7.50	1.1	-	-	7.9	1.3	-	-	7.3	1.4	-	-	7.30	1.5	1400	240	7.50	2.3	1600	540	8.50	1.1	430	280	8.30	1.4	240	220	8.10	1.3	1600	920
Aug-19	#	#	#	#	8.6	1.6	-	-	#	#	#	#	7.80	1.6	330	110	8.10	2.4	540	220	7.00	2.8	280	170	7.80	2.1	350	220	7.50	2.3	920	540
Sep-19	#	#	#	#	7.6	1.3	-	-	#	#	#	#	7.60	1.7	1600	540	7.50	2.3	1600	920	7.40	1.3	540	240	7.30	1.4	920	430	7.50	1.1	1600	280
Oct-19	#	#	#	#	8.9	1.8	-	-	#	#	#	#	11.5	1.2	2800	1100	10.5	1.6	3500	1700	7.60	2.0	350	240	7.90	1.7	920	280	7.80	1.9	1600	430
Nov-19	8.90	1.2	-	-	9.2	1.5	-	-	#	#	#	#	7.80	1.4	2100	680	8.20	1.5	3300	1700	8.60	1.1	170	110	8.50	1.3	280	220	8.20	1.3	920	540
Dec-19	9.50	1.2	-	-	9.4	1.5			9.0	1.6			8.70	0.6	1400	790	8.90	0.9	1600	920	10.1	1.1	350	140	10.3	0.8	430	210	10.0	1.0	1600	920
Average	8.7	1.1	-	-	8.5	1.4	-	-	8.4	1.6	-	-	8.5	1.4	1054	397	8.6	1.9	1456	690	3.5	1.7	422	218	8.5	1.6	464	238	8.4	1.6	1211	554
Category	B				B				B				C				C				B				B				C			

Sample could not be collected due to flood.

Class of water	–	A	B	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	–
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	–
3	Total Coliform (MPN/100ml), max	50	500	–

A = Drinking water source without conventional treatment but after disinfection

B = Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Water Quality Of River Ganga in UP
Year-2019

SAMPLING LOCATION

Month	9 Kachhla Ghat, Badaun D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	10 At Farrukhabad D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	11 U/s Kannauj D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	12 D/s Kannauj D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)
Jan-19	9.8	2.5	370	250	10.0	2.3	2600	1700	10.6	2.9	3300	2100	10.2	3.4	4600	3300
Feb-19	9.7	1.2	350	220	10.7	1.9	2100	1400	10.6	2.4	3400	2100	10.1	2.8	4300	3100
Mar-19	9.9	1.1	350	170	9.7	2.0	2100	1400	9.9	2.6	4000	2700	9.2	3.3	4700	3300
Apr-19	10.2	1.4	400	200	8.2	2.1	2400	1400	7.9	2.8	3900	2500	7.7	3.2	4800	2700
May-19	10.5	1.5	460	230	8.5	2.4	2500	1400	6.8	3.4	4100	2500	6.4	4.2	4600	3100
Jun-19	10.1	1.5	230	250	7.8	2.2	2300	1300	6.4	3.2	4600	2600	6.0	3.8	5800	3200
Jul-19	10.0	1.6	340	270	9.3	2.1	1700	<1.8	9.8	2.8	3400	2100	9.1	3.2	4800	2600
Aug-19	10.6	1.3	350	220	6.4	2.0	2100	1300	6.6	2.8	3300	1200	6.2	3.0	4000	2500
Sep-19	10.3	1.2	280	220	7.6	1.7	2500	910	7.0	2.6	3400	1300	6.7	3.2	4300	1700
Oct-19	9.9	1.1	340	220	8.2	2.6	2600	1100	8.1	3.3	3800	1700	7.9	3.6	4300	2200
Nov-19	10.0	1.0	400	270	8.3	2.0	2700	1400	8.4	2.8	4300	2200	8.33	3	4600	2500
Dec-19	10.10	0.9	270	220	10.1	2.4	2400	1100	9.8	2.8	4300	1700	9.6	3.0	4700	2400
Average	10.1	1.4	347	228	8.8	2.1	2333	1310	8.5	2.9	3817	2100	8.1	3.3	4625	2717
Category	B				C				C				D			

Month	13 Bithoor Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	14 At Bhairon Ghat (Bathing Ghat), Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	15 U/s Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	16 At D/s Shuklaganj, Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)
Jan-19	10.6	2.5	4000	2600	10.4	2.6	4300	2700	10.3	2.7	4600	3100	10.0	2.9	5800	4300
Feb-19	10.0	2.3	3300	2100	9.8	2.4	3900	2400	9.7	2.5	4300	2700	9.5	2.7	5800	4100
Mar-19	10.4	2.5	3400	2200	10.1	2.7	3800	2200	10.0	2.9	4300	3100	9.7	3.1	5400	3400
Apr-19	7.5	4.0	3300	2100	7.7	3.5	4000	2500	7.9	3.8	3900	2400	8.7	4.4	7000	4300
May-19	7.4	4.4	3800	2200	7.5	3.8	3700	2000	7.2	4.0	4300	2500	7.5	4.4	3800	4300
Jun-19	6.1	4.0	5800	3300	6.3	3.4	3900	2200	6.5	3.6	4300	2600	6.2	4.2	5400	3900
Jul-19	8.0	3.2	4700	3400	6.8	3.4	4900	3300	7.0	3.6	5800	3400	6.6	4.0	7000	4300
Aug-19	6.1	2.8	4100	2600	5.7	3.2	4600	2700	5.8	3.0	4800	3100	5.4	3.2	5800	3300
Sep-19	6.3	2.8	4100	1400	6.1	3.3	4300	2000	6.5	2.9	3900	1700	6.3	3.1	4600	2000
Oct-19	6.8	3.2	4700	2000	6.5	3.4	4100	2100	6.6	3.3	4300	2000	6.5	3.5	4900	3200
Nov-19	7.5	2.7	3900	1700	7.6	2.5	4300	2200	7.8	3	4700	2100	7.6	2.7	5400	3100
Dec-19	9.8	2.8	4100	1700	9.7	3.1	4300	2100	10.1	2.7	4100	1700	9.9	2.9	4700	2200
Average	8.0	3.1	4100	2275	7.9	3.1	4133	2367	8.0	3.1	4442	2583	7.8	3.4	5633	3533
Category	D				D				D				D			

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	–	–
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	–	–	–
3	Total Coliform (MPN/100ml), max	50	500	5000	–	–	–

A = Drinking water source without conventional treatment but after disinfection

B = Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection.

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Water Quality Of River Ganga in UP
Year-2019

SAMPLING LOCATION

Month	17 At Gola Ghat (Bathing Ghat), Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	18 At Jajmau Bridge (Bathing Ghat), Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	19 D/s Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	20 Dalmau, Raibareli D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)
Jan-19	10.1	2.8	4900	3800	9.5	3.0	7900	5800	9.1	3.3	34000	28000	10.2	3.1	3100	2800
Feb-19	9.6	2.6	4600	3800	9.5	2.8	7000	4800	9.2	3.2	28000	17000	10.4	2.8	3300	2600
Mar-19	9.8	3.0	4800	3000	9.6	3.2	8400	4300	9.4	3.4	31000	22000	10.6	3.3	3200	2700
Apr-19	8.2	4.6	6300	3600	8.7	5.4	9400	5400	7.7	5.6	46000	32000	9.9	3.7	3400	2500
May-19	7.3	4.6	6300	4100	7.0	5.2	8400	4700	6.5	5.5	54000	34000	7.0	4.1	4100	3500
Jun-19	6.0	4.4	6300	4100	5.7	4.8	9400	4900	5.3	5.4	33000	21000	7.8	4.0	3900	3600
Jul-19	5.6	4.6	7900	4800	6.3	4.8	12000	7000	4.6	5.8	38000	22000	7.7	4.0	3800	3100
Aug-19	5.6	3.8	4600	3200	5.6	3.5	26000	17000	5.3	3.8	40000	22000	7.5	3.6	3900	3100
Sep-19	6.0	3.3	4800	2600	5.6	3.6	33000	15000	5.8	3.4	39000	17000	7.2	3.8	3900	2900
Oct-19	6.2	4.2	5400	2300	6.4	4.6	39000	17000	6.1	5.0	43000	21000	7.5	3.8	3500	2700
Nov-19	7.2	2.9	6300	3100	7.6	2.8	46000	25000	5.8	4.0	58000	26000	7.9	3.7	3600	2800
Dec-19	9.1	3.8	13000	5400	9.4	4.0	54000	22000	9.0	4.4	63000	35000	10.0	3.9	3800	2900
Average	7.56	3.7	9267	3650	7.58	3.98	21708	11075	6.93	4.40	42250	24750	8.64	3.65	3625	2933
Category	D				D				D				D			

Month	21 Kala Kankar, Pratapgarh D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	22 Kada Ghat, Kaushambi D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	23 U/s Prayagraj (Rasoolabad Ghat) D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)	24 D/s Prayagraj D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	Faecal Coliform (MPN/100ml)
Jan-19	9.2	3.5	3300	2800	10.8	3.7	20000	11000	11.9	3.0	17000	9300	10.9	2.8	20000	11000
Feb-19	10.8	2.7	3100	2600	10.1	3.9	21000	11000	10.4	3.1	14000	7800	9.8	3.4	17000	9300
Mar-19	10.9	3.2	3100	2700	8.3	3.2	26000	13000	8.7	3.0	16000	9200	8.3	3.3	20000	11000
Apr-19	11.0	3.5	3300	2400	7.6	3.2	24000	14000	8.0	2.8	17000	7000	8.1	2.9	21000	11000
May-19	7.2	3.9	3900	3400	7.3	3.3	26000	13000	7.8	3.2	22000	7800	7.5	3.3	20000	11000
Jun-19	7.9	3.9	3800	3400	7.9	3.1	27000	13000	8.1	2.9	20000	11000	7.8	3.0	22000	11000
Jul-19	6.9	4.1	4000	3200	8.1	3.0	21000	11000	8.2	2.8	24000	14000	8.0	2.7	27000	13000
Aug-19	7.4	3.7	3800	3100	7.2	2.8	7000	7800	7.3	2.5	20000	7800	7.2	2.4	21000	7900
Sep-19	7.3	3.6	3800	2700	6.9	2.0	4000	6300	7.4	2.1	17000	7900	7.1	2.0	14000	6800
Oct-19	7.4	3.9	3800	2900	7.3	2.6	22000	11000	7.5	2.5	20000	11000	6.8	2.3	17000	7800
Nov-19	8.0	3.6	3500	2700	8.3	2.8	5000	7000	8.6	2.7	17000	7800	8.1	2.6	14000	6800
Dec-19	10.2	3.8	3500	2500	11.5	3.3	1000	4600	12.2	2.8	9400	4300	11.5	2.6	8400	3300
Average	8.08	3.62	3575	2867	8.4	3.08	20333	10215	8.84	2.78	17783	8742	8.43	2.78	18450	9158
Category	D				D				D				D			

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	–	–
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	–	–	–
3	Total Coliform (MPN/100ml), max	50	500	5000	–	–	–

A = Drinking water source without conventional treatment but after disinfection

B = Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Water Quality Of River Ganga in UP
Year- 2019

SAMPLING LOCATION

Month	25 a/c Tamsa river, Sirsa, Son Barsa				26 U/s Vindhyachal, Mirzapur				27 D/s Mirzapur				28 At Chunar Pontoon Bridge			
	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)
Jan-19	10.6	2.5	14000	7800	8.8	2.7	1300	800	7.5	3.7	14000	8000	8.6	3.0	11000	5000
Feb-19	9.6	2.7	13000	6800	9.2	2.4	1400	800	8.2	3.3	13000	7000	8.8	2.9	8000	5000
Mar-19	8.4	2.8	17000	7800	8.8	2.4	1700	800	7.7	3.4	14000	11000	8.6	2.9	11000	7000
Apr-19	7.8	2.7	15000	7000	8.2	2.8	1400	800	7.3	3.5	17000	11000	7.8	3.1	13000	8000
May-19	7.6	2.9	17000	9300	8.2	2.6	1700	800	7.7	3.3	14000	8000	8.0	3.0	11000	7000
Jun-19	7.5	2.8	17000	7800	8.1	2.7	1700	800	7.6	3.5	14000	8000	7.8	3.2	8000	5000
Jul-19	7.8	2.7	22000	9400	7.4	3.1	2100	1100	7.0	3.8	17000	11000	7.2	3.4	13000	8000
Aug-19	7.3	2.3	17000	7000	7.2	3.2	2700	1300	6.7	3.9	17000	8000	6.9	3.8	14000	5000
Sep-19	7.0	1.8	13000	6800	7.4	3.0	2700	1100	6.7	3.9	21000	8000	7.0	3.6	14000	7000
Oct-19	7.4	2.2	14000	6300	7.5	2.8	2600	1300	6.8	3.8	22000	11000	6.90	3.6	13000	8000
Nov-19	8.3	2.4	#####	5800	8.5	2.3	2200	800	7.80	3.6	17000	11000	8.1	3.3	#####	7000
Dec-19	11.7	2.8	7000	3100	9.2	2.1	1700	800	8.4	3.4	14000	9000	8.8	3.0	8000	5000
Average	8.4	2.6	14833	7075	8.2	2.7	1933	933	7.5	3.6	16167	9250	7.9	3.2	11250	6417
Category	D				C				D				D			

Month	29 U/s Varanasi				30 D/s Varanasi				31 Tarighat D/s Ghazipur				32 a/c Gomti river, Bhusaula			
	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)
Jan-19	8.9	2.2	1300	800	6.7	4.1	43000	23000	7.4	3.9	22000	14000	8.3	3.2	17000	11000
Feb-19	10.0	1.7	1100	500	7.3	3.4	31000	17000	7.6	3.3	23000	13000	9.0	3.0	13000	8000
Mar-19	8.9	2.4	1400	700	7.2	3.6	31000	23000	7.5	3.6	22000	13000	8.5	3.0	14000	8000
Apr-19	8.4	2.4	1400	800	7.3	3.6	34000	22000	7.4	3.6	27000	13000	8.2	3.1	14000	7000
May-19	8.0	2.7	1700	800	7.2	3.6	34000	22600	7.3	3.5	23000	14000	7.9	3.2	13000	8000
Jun-19	8.4	2.6	1400	800	7.4	3.5	27000	17000	7.5	3.6	21000	11000	8.2	3.1	13000	8000
Jul-19	7.9	2.8	2100	1300	7.3	3.8	34000	22000	7.4	3.6	22000	13000	7.5	3.5	13000	8000
Aug-19	7.2	3.3	2200	800	6.5	4.2	31000	17000	6.8	3.9	21000	11000	6.9	3.8	13000	5000
Sep-19	7.3	3.1	2700	1100	6.6	4.2	34000	14000	6.7	4.0	23000	13000	7.0	3.5	14000	7000
Oct-19	7.20	3.2	3400	1700	6.50	4.2	43000	23000	6.60	4.3	31000	17000	6.80	3.8	17000	8000
Nov-19	7.4	3	3100	1700	6.80	4.1	34000	17000	6.5	4.2	27000	13000	7.30	3.4	13000	5000
Dec-19	8.7	2.3	2100	800	7.9	3.6	17000	11000	7.8	3.5	21000	11000	8.4	3.2	8000	5000
Average	8.2	2.6	1992	983	7.1	3.8	32750	19000	7.2	3.6	23583	13000	7.9	3.3	13500	7333
Category	C				D				D				D			

Class of water	*	A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	_	-
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	_	_	-
3	Total Coliform (MPN/100ml), max	50	500	5000	_	_	-

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

4. It reveals that in the year 2019, at the place where river Ganga entered district Bijnor, the BOD level was 1.4 (mg/1) and the water quality, as reported, was 'B', which is fit for outdoor bathing. At the place Garhmukteshwar, the water quality, as reported, is of 'C', but when river Ganga entered the territorial jurisdiction of district Kannauj, the water quality, as reported, is changed from 'C' to 'D' with BOD level 3.3 (mg/1). From Bithoor Kanpur to Prayagraj, the water quality of river Ganga remains in category 'D'. The BOD level of river Ganga in Vindhyachal within the territorial jurisdiction of Mirzapur as reported is categorized as 'C' but again it is converted into 'D' after Mirzapur and remains the same in Ghazipur.

5. The Ganga is a holy and historical river of India. The Ganges calls at the join of Devprayag the Bhagirathi and Alaknanda. The basin of Ganga is reported to be the most heavily populated river basin in the world, where population density is of about 1000 inhabitants per square mile. According to a World

Bank sponsored study (State of Environment Report-U.P.) (In: Mallikarjun, 2003), population levels in the Ganga are contributing 9-12% of total disease burden in Uttar Pradesh. The coliform bacteria levels are in excess of 2 lakh MPN as against the national water quality standard of 5000 MPN. As of now, as discussed above, more than 70% of total municipal waste generated in identified towns is discharged into river Ganga. Apart from this sewage, more than 260 MLD of industrial waste water, runoff from 6 million tons of fertilizers and 9000 tons of pesticides used in agriculture within the basin including thousands of animal carcasses and human corpses were being released into river Ganga every day. There are so many industries on the bank of river Ganga. These industries are 20% responsible to water pollution and run off solid waste and liquid waste in the Ganga River. It is very dangers to water quality, their chemical properties and riverine life. Day by day, ratio of pollution in river Ganga is increasing and from this pollution, marine life is going to be lost in near future. This polluted water disturbs the ecosystem of the river. An analysis of the Ganges water in 2006 showed significant associations between water-borne/enteric disease occurrence and the use of the river for bathing, laundry, washing, eating, cleaning utensils and brushing teeth. Exposure factors such as washing clothes, bathing and lack of sewerage, toilets at residence, children defecating outdoors, poor sanitation, low income and low education levels also showed significant associations with enteric disease outcome. Water in the Ganges has been correlated to contracting dysentery, cholera, hepatitis as well as severe diarrhea which continue to be one of the leading causes of death of children in India.

6. Perfluorooctane sulfonate (PFOS) and perfluorooctanoate (PFOA) are the two most well studied fluorochemicals, which are anthropogenic chemicals that have been manufactured and are widely used in a number of industrial and commercial applications, including use as surfactants, surface-protecting

agents, and processing aids for the production of polymers. Several studies have detected these chemicals in the tissues of humans and wildlife (such as fish, birds and marine mammals) globally, including the river Ganga in India. Thus, it is desired that a monitoring network should be set up along the river Ganga, focusing not only PFOS/PFOA, but also on replacement fluorochemicals.

We have also examined the water quality of river Yamuna at Noida, Mathura up to ending point of Prayagraj. Water quality of river Yamuna, as reported by UPPCB, is as follows:

Water Quality of River Yamuna In UP
Year 2019

Month	Sampling Point																			
	1			2			3			4			5			6			7		
	U/S Okhla Barrage, Noida			D/S Village Gharbara/Tilwara, Noida			Shahpur, Mathura			U/s Vrindavan			Kesi Ghat Vrindavan			D/s Vrindavan			U/s Mathura		
	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)
January	1.2	27.0	-	0.5	48.0	-	3.8	13.0	120000	5.4	8.0	-	5.3	9.0	80000	5.3	9.0	80000	5.0	9.0	-
February	1.0	39.0	-	0.0	55.0	-	3.9	15.0	110000	5.0	8.0	-	5.0	10.0	72000	5.00	10.0	72000	4.3	9.0	-
March	3.6	22.5	-	0.0	54.0	-	3.5	16.0	120000	5.00	8.0	-	4.8	11.0	80000	4.80	11.0	80000	5.0	10.0	-
April	3.3	21.0	-	0.0	60.0	-	3,6	18.0	110000	5.1	10.0	85000	5.1	10.0	85000	4.9	9.0	-	4.4	10.0	-
May	2.1	28.5	-	0.0	72.0	-	2.8	15.0	120000	5.1	11.6	88000	5.1	11.6	88000	4.9	11.0	-	4.2	10.0	-
June	0.8	39.0	-	0.0	81.0	-	3.8	16.0	110000	5.5	10.0	-	5.3	11.6	86000	5.3	11.0	86000	4.2	11.0	-
July	4.8	15.0	-	0.0	55.0	-	4.1	11.0	106000	5.1	8.0	-	5.2	8.0	80000	5.2	8.0	80000	5.0	10.0	-
August	5.1	12.0	-	1.3	18.0	-	5.8	11.0	98000	5.2	10.0	76000	5.9	8.0	72000	6.2	8.0	-	5.2	9.0	-
September	4.4	13.5	-	1.6	22.5	-	5.2	10.0	72000	5.8	8.0	-	5.6	8.0	64000	5.6	8.0	64000	5.5	9.0	-
October	1.9	30.0	-	0.0	48.0	-	6.0	9.2	92000	5.2	8.4	-	5.1	8.6	80000	5.1	8.6	80000	4.2	10.6	-
November	1.3	42.0	-	0.0	54.0	-	6.4	8.0	85000	6.4	7.6	-	6.1	7.8	86000	6.1	7.8	86000	6.3	8.4	-
December	1.1	33.0	-	0.0	42.0	-	5.5	8.0	98000	5.4	8.0	-	5.2	8.6	98000	5.2	8.6	88000	3.8	10.0	80000
Average	2.6	26.9	-	0.3	50.8	-	4.8	12.5	103417	5.4	8.8	83000	5.3	9.4	80917	5.3	9.2	79556	4.8	9.7	80000.0
Category	E			E			D			D			D			D			D		

Class of water	
1	Dissolved oxygen (mg/l), min
2	Biochemical oxygen demand (mg/l), max
3	Total Coliform (MPN/100ml), max

A	B	C	D	E	Below E
6.0	5.0	4.0	4.0	-	-
2.0	3.0	3.0	-	-	-
50	500	5000	-	-	-

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organized)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Water Quality of River Yamuna In UP
Year 2019

Month	Sampling Point 8 – Vishram Ghat, Mathura			9 – D/s Mathura			10 – U/s Kailashghat, Agra			11 – U/s Waterworks, Agra			12 – D/s Tajmahal, Agra			13 – U/s Firozabad			14 – D/s Firozabad		
	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)
January	4.9	11.0	80000	4.8	10.0	-	4.9	15.2	35000	4.8	16.4	49000	4.2	17.2	11000	7.6	12.4	-	7.8	17.0	-
February	4.8	12.0	82000	4.0	10.0	-	4.6	12.9	30000	4.2	13.6	32000	3.7	17.2	92000	-	20.5	-	-	32.0	-
March	4.4	14.0	88000	5.0	16.0	-	6.9	11.6	35000	6.2	12.4	49000	5.8	15.6	92000	-	20.5	-	-	25.8	-
April	4.6	13.0	80000	4.3	11.0	-	6.9	12.4	35000	6.3	15.6	54000	5.1	16.4	120000	-	23.0	-	-	31.0	-
May	4.8	12.0	90000	4.0	12.0	-	5.4	12.4	35000	5.2	12.8	54000	5.0	13.6	140000	-	19.2	-	-	20.8	-
June	4.4	12.0	85000	4.0	12.0	-	7.1	11.2	54000	5.9	13.5	120000	4.7	15.6	240000	-	19.2	-	-	20.8	-
July	5.2	9.0	101000	4.9	10.0	-	6.4	9.6	35000	6.0	12	54000	5.3	13.20	120000	-	12.4	-	-	13.6	-
August	5.2	10.0	76000	5.0	10.0	-	6.3	9.6	37000	5.8	11.2	48000	5.2	13.2	110000	-	14.8	-	-	16.0	-
September	5.4	9.0	70000	5.4	10.0	-	5.9	10.4	33000	5.7	11.2	48000	5.4	12.8	92000	-	13.2	-	-	16.4	-
October	3.9	11.0	110000	3.8	10.8	-	5.3	8.8	35000	5.1	10.4	52000	5.0	12.0	92000	-	14.8	-	-	17.6	-
November	6.2	8.6	94000	6.2	8.6	-	4.5	10.8	35000	4.1	12.4	48000	3.9	13.6	110000	-	15.2	-	-	16.0	-
December	3.4	10.8	110000	3.4	10.8	98000	5.9	10.4	35000	5.0	10.6	48000	4.3	13.6	92000	-	15.5	-	-	16.5	-
Average	4.8	11.0	88833	4.6	10.9	98000	5.8	11.3	36333	5.3	12.7	54667	4.8	14.5	109250	7.4	16.7	-	7.8	20.3	-
Category	D			D			D			D			D			D			D		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	-	-
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	-	-	-
3	Total Coliform (MPN/100ml), max	50	500	5000	-	-	-

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Water Quality of River Yamuna In UP
Year 2019

Month	Sampling Point 15 – U/s Etawah			16 – D/s Etawah			17 – U/s Water Intake, Allahabad			18 – D/s Balua Ghat Prayagraj			19 – D/s Chhachhar wala, Prayagraj			20 – D/s Emergency Outfall, Prayagraj		
	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)
January	5.8	14.5	-	5.9	16.5	-	9.8	2.1	3900	9.7	2.6	11000	9.5	2.8	7900	9.6	2.6	7000
February	-	-	-	-	-	-	9.9	2.2	4600	9.3	2.4	12000	9.4	2.7	11000	9.7	2.4	12000
March	-	-	-	-	-	-	8.5	2.0	4900	8.1	2.5	11000	8.0	2.5	9400	8.1	2.3	8400
April	-	17.5	-	-	19.5	-	7.6	2.1	4300	7.5	2.3	13000	7.1	2.7	9200	6.9	2.4	7900
May	-	17.2	-	-	18.4	-	7.5	2.0	4100	7.3	2.5	14000	7.2	2.6	9400	7.0	2.5	11000
June	-	16.0	-	-	18.4	-	7.7	1.9	3400	7.5	2.4	13000	7.5	2.4	7900	7.2	2.7	8400
July	-	16.0	-	-	20.8	-	7.9	2.0	5800	7.3	2.5	11000	7.6	2.3	13000	7.4	2.5	11000
August	-	10.4	-	-	12.4	-	6.9	1.8	4300	7.2	2.4	21000	6.6	2.1	9400	6.7	2.2	8400
September	-	11.2	-	-	12.8	-	7.0	1.9	5800	7.0	1.9	7000	6.8	2.0	8400	6.6	2.0	7000
October	-	12.8	-	-	13.6	-	7.4	1.8	6300	7.1	2.2	7900	7.1	2.2	7900	6.9	2.1	7900
November	-	13.6	-	-	14.8	-	8.4	2.0	5800	7.8	2.4	7000	8.2	2.2	7900	8.1	2.3	8400
December	-	11.6	-	-	12.8	-	12.1	2.1	3300	11.7	2.4	4600	11.9	2.3	4000	11.8	2.5	4100
Average	5.8	14.1	-	5.9	16.0	-	8.4	2.0	4708	8.1	2.4	11042	8.1	2.4	8783	8.0	2.4	8458
Category	D			D			C			D			D			D		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	-	-
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	-	-	-
3	Total Coliform (MPN/100ml), max	50	500	5000	-	-	-

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

7. A perusal of the report reveals that BOD level of river Yamuna at point Gharbara/Filwara, Noida is 50.8 mg/1 and the water quality is reported to be 'E', which can be used for irrigation, industrial cooling and controlled waste disposal. The BOD level at Vrindavan and Mathura is reported to be about 8 or 9 mg/1 with water quality of category 'D'. The river maintains this water quality from Mathura to Etawah. When the river enters the water intake, Allahabad, the quality of water is reported to be 'C' and after Balua Ghat Prayagraj, it is reported to be 'D'.

8. **Saryu / Ghaghra,** also called Karnali is a perennial trans-boundary river originating on the Tibetan Plateau near Lake Mansarovar. It is the largest tributary of the Ganges by volume and the second longest tributary of the Ganges by length after Yamuna. It joins the Sharda River at Brahmaghat in India. The main source of pollution in river Saryu at Ayodhya is reported to be the sewage generation from the city. The water quality of river Saryu, as reported by the UPPCB is under category 'D'. The BOD level as examined and reported by UPPCB in the year 2019 is reproduced below:

Water Quality of River Saryu in UP
Year 2019

SNo.	Month	Saryu at Ayodhya		
		DO (mg/L)	BOD (mg/L)	Total coliform (MPN/100mL)
1	January	10.8	2.6	5100
2	February	10.6	2.8	4600
3	March	10.3	3.0	3900
4	April	10.8	3.2	3800
5	May	9.2	3.3	3500
6	June	9.0	3.4	3600
7	July	9.2	3.2	31000
8	August	9.5	3.0	3100
9	September	9.2	2.9	3200
10	October	9.0	3.0	3400
11	November	9.5	3.0	3600
12	December	10.0	2.8	3800
	Average	9.76	3.02	6050
	Category	D		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	--	--
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	--	--	--
3	Total Coliform (MPN/100ml), max	50	500	5000	--	--	--

A = Drinking water source without conventional treatment but after disinfection
B= Outdoor bathing (organised)
C = Drinking water source after conventional treatment and disinfection
D = Propagation of wild life and fisheries.
E = Irrigation, Industrial cooling, controlled waste disposal
Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

9. The water quality of river **Gomti,** as examined and reported by UPPCB is as below:

Water Quality of River Gomti in UP
Year 2019

S.No.	Month	SAMPLING POINT																	
		1			2			3			4			5			6		
		Dadhnamau Ghat, Sitapur			Manjhighat, Lucknow			U/s Water Intake, Gaughat, Lucknow			Kudiyaghat, Lucknow			D/s Mohan Meakins, Lucknow			Nishatganj Bridge, Lucknow		
		D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)
1.	January	11.2	2.0	920	11.5	2.2	2000	11.3	2.6	3400	4.6	5.2	13000	3.2	8.0	14000	3.0	9.4	39000
2.	February	10.5	1.8	940	9.5	2.4	2100	9.0	3.0	4000	3.4	5.6	14000	2.3	8.8	17000	2.6	10.0	48000
3.	March	9.0	2.0	1700	10.2	2.0	2200	8.8	3.0	4700	4.1	4.8	13000	2.6	9.0	14000	3.1	9.8	33000
4.	April	8.4	2.2	1300	7.4	2.6	2300	6.2	3.2	5800	1.5	7.2	14000	1.2	9.0	22000	2.9	8.5	49000
5.	May	7.7	2.6	2400	7.0	2.4	3500	6.4	3.1	5400	1.1	8.8	21000	0.4	18.0	130000	2.1	9.2	46000
6	June	7.5	3.0	3500	7.8	3.0	1700	6.6	3.2	7000	1.8	19.0	920000	1.9	13.0	920000	3.0	10.4	160000
7	July	3.3	4.0	1730	6.9	3.2	9400	5.0	3.6	16000	1.3	12.0	540000	2.2	9.2	790000	2.5	9.6	350000
8	August	5.6	3.0	14000	5.4	3.0	14000	4.7	3.2	54000	3.4	14.0	350000	3.8	9.5	460000	3.7	10.5	540000
9	September	6.5	2.8	7000	6.2	3.1	24000	5.1	3.6	49000	2.9	13.5	1600000	3.3	12.0	790000	3.5	11.0	1600000
10	October	6.9	2.6	5400	7.0	2.8	22000	5.8	3.4	46000	4.0	10.5	1100000	2.9	11.5	940000	2.1	10.0	920000
11	November	8.0	2.4	700	7.9	2.6	4900	6.6	3.1	22000	3.3	8.5	220000	1.3	9.5	240000	1.6	9.0	940000
12	December	8.9	2.5	3300	8.6	2.8	4900	7.8	3.0	17000	1.3	10.0	240000	1.1	10.5	350000	1.0	10.5	350000
Average		7.8	2.6	3572	7.9	2.7	7750	6.9	3.2	19525	2.7	9.9	420417	2.2	10.7	390583	2.6	9.8	422917
Category		C			D			D			E			E			E		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	-	-
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	-	-	-
3	Total Coliform (MPN/100ml), max	50	500	5000	-	-	-

A = Drinking water source without conventional treatment but after disinfection

B = Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Uma Dubey
S.A

Water Quality of River Gomti in UP

Year 2019

S.No.	Month	SAMPLING POINT														
		7			8			9			10			11		
		U/s Bairaj, Lucknow			D/s Pipraghat, Lucknow			D/s After meeting of STP, Nala Bharwara, Lucknow			D/s Gomti, Jaunpur			Gomti before meeting river Ganga, Rajwari, Varanasi		
		D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)
1.	January	2.5	10.4	92000	2.0	9.0	110000	2.2	18.6	110000	7.6	3.8	27000	8.2	3.1	14000
2.	February	1.0	18.0	110000	2.4	10.4	79000	1.3	22.0	160000	8.2	3.3	22000	8.7	2.8	13000
3.	March	1.6	16.0	94000	2.3	10.8	170000	1.6	18.0	110000	7.6	3.8	23000	8.0	3.0	14000
4.	April	6.0	5.5	63000	1.5	11.2	140000	2.0	18.0	170000	7.5	4.0	23000	7.8	3.2	17000
5.	May	5.1	6.8	70000	1.8	10.8	130000	1.7	16.6	170000	7.4	3.9	23000	7.5	3.4	14000
6	June	4.1	7.0	540000	1.5	8.6	160000	1.8	23.0	140000	7.3	3.9	17000	7.8	3.3	17000
7	July	2.0	10.0	540000	1.8	10.5	170000	1.7	18.0	1600000	7.4	3.7	21000	7.5	3.5	14000
8	August	2.6	12.0	350000	1.3	11.0	220000	2.1	15.5	2400000	6.7	4.1	17000	6.8	3.8	11000
9	September	1.8	12.0	790000	1.9	11.5	280000	1.3	14.5	790000	6.8	3.9	21000	6.9	3.7	14000
10	October	2.1	12.5	1100000	2.0	11.0	130000	0.3	22.0	3500000	6.7	4.0	22000	6.8	3.8	13000
11	November	1.5	10.0	940000	2.8	11.5	220000	1.4	15.5	2200000	7.0	3.8	21000	7.1	3.7	11000
12	December	1.8	9.5	460000	1.6	12.5	540000	2.0	14.0	1600000	8.3	3.7	14000	8.1	3.5	9400
Average		2.7	10.8	429083	1.9	10.7	195750	1.6	18.0	1079167	7.4	3.8	20917	7.6	3.4	13450
Category		E			E			E			D			D		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	-	-
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	-	-	-
3	Total Coliform (MPN/100ml), max	50	500	5000	-	-	-

A = Drinking water source without conventional treatment but after disinfection

B = Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Vinay Pathak
S.A.

10. It is reported to be under category 'D' and 'E' in Lucknow having BOD level of more than 3mg/1. The main cause of pollution is sewage drains directly falling into river Gomti, details of which, as reported by the UPPCB is as follows:

क्षेत्रीय कार्यालय
उ0प्र0 प्रदूषण नियंत्रण बोर्ड
लखनऊ

लखनऊ शहर में स्थित गोमती नदी के दोनो किनारों में मिलने वाले नालों के जल–मल के निस्तारण के संबंध में निरीक्षण आख्या :

उपरोक्त के सम्बन्ध में आपके निर्देशानुसार अधोहस्ताक्षरकर्ताओं द्वारा दिनांक 26/06/2019 को निरीक्षण /सर्वेक्षण किया गया। गोमती नदी में मिल रहे 33 नालों की निरीक्षण आख्या निम्नवत् है:–

1— गऊघाट नाला (26°53'5.9"N, 80°53'51.6"E) :— नाले के माध्यम से मोहिनीपुरवा एवं आस–पास की बस्ती का सीवर निस्तारित किया जाता है। उत्प्रवाह को टैप कर एस0टी0पी0 दौलतगंज पर भेजा रहा है। निरीक्षण के समय नाले का अशोधित उत्प्रवाह नदी में सीधे गिरता हुआ पाया गया है।

2— नगरिया नाला (26°53'7.9"N, 80°53'31"E):— नाले के उत्प्रवाह को शोधन हेतु दौलतगंज, एस0टी0पी0 पर भेजने का प्राविधान है, परन्तु निरीक्षण के समय लगभग 50 प्रतिशत उत्प्रवाह ही शोधन हेतु एस0टी0पी0 में भेजा जा रहा था, शेष उत्प्रवाह ओवर फ्लो होकर गोमती नदी में अपस्ट्रीम में मिल रहा था । शहर की पेयजल की आपूर्ति गोमती नदी गऊघाट से की जाती है। इस नाले से अशोधित सीवेज को सीधे गोमती नदी में निस्तारित होता पाया गया है। अशोधित उत्प्रवाह निस्तारण होने के कारण शहर की पेयजल की गुणता पर कुप्रभाव पडना स्वाभाविक है।

3— सरकटा नाला–बैरल नं0–32 (26°53'2.7"N, 80°54'5.7"E):— इस नाले का लगभग 60 प्रतिशत उत्प्रवाह को शोधन हेतु एस0टी0पी0 दौलतगंज पर भेजा जा रहा था। शेष उत्प्रवाह ओवर फ्लो होकर गोमती नदी में अपस्ट्रीम में मिल रहा था । इसी नाले में एस0टी0पी0, दौलतगंज का शुद्धिकृत उत्प्रवाह भी निस्तारित किया जाता है। निरीक्षण के समय उक्त नाले का उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होता पाया गया। निरीक्षण के समय स्थापित पम्पिंग स्टेशन बन्द पाया गया तथा उपस्थित प्रतिनिधि श्री लाल, सुपरवाइजर द्वारा अवगत कराया गया कि उक्त पम्पिंग स्टेशन विगत कई वर्षों से बन्द है।

4— पाटा नाला (26°52'22.9"N, 80°54'40.1"E):— इस नाले के उत्प्रवाह को शोधन हेतु एस0टी0पी0 भेजा जाता है। निरीक्षण के समय नाले से लगभग 15 प्रतिशत उत्प्रवाह बिना शोधन के नदी में निस्तारित होता पाया गया।

5— वजीरगंज नाला (26°51'55.9"N, 80°55'32.1"E):— इस नाले का लगभग 70 प्रतिशत उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। शेष उत्प्रवाह ओवर फ्लो होकर गोमती नदी में गिल रहा था ।

6— घसियारी मण्डी नाला (26°51'45.3"N, 80°55'45.1"E):— इस नाले के उत्प्रवाह को शोधन हेतु घसियारी मण्डी एस0पी0एस0 के माध्यम से एस0टी0पी0 भेजा जाता है। निरीक्षण के समय सम्पूर्ण सीवेज शोधन हेतु सीधे एस0टी0पी0, भरवारा में भेजा जा रहा था।

7— एन0ई0आर0 अपस्ट्रीम नाला (26°51'45.3"N, 80°55'45.1"E):— इस नाले के उत्प्रवाह को शोधन हेतु एस0टी0पी0 भेजा जाता है। निरीक्षण के समय सम्पूर्ण सीवेज शोधन हेतु सीधे एस0टी0पी0, भरवारा में भेजा जा रहा था।

8— एन0ई0आर0 डाउनस्ट्रीम नाला (26°51'45.1"N, 80°55'45.8"E):— इस नाले के उत्प्रवाह को शोधन हेतु एस0टी0पी0 भेजा जाता है। निरीक्षण के समय सम्पूर्ण सीवेज शोधन हेतु सीधे एस0टी0पी0, भरवारा में भेजा जा रहा था।

9— चाइना बाजार नाला (26°51'24.6"N, 80°56'11.3"E) इस नाले के उत्प्रवाह को शोधन हेतु चाइना बाजार एस0पी0एस0 के माध्यम से एस0टी0पी0 भेजा जाता है। निरीक्षण के समय सम्पूर्ण सीवेज शोधन हेतु सीधे एस0टी0पी0, भरवारा में भेजा जा रहा था।

10— बैरल नं0–17 (लाप्लास नाला) (26°51'34.4"N, 80°56'39.34"E) इस नाले के उत्प्रवाह को शोधन हेतु लाप्लास नाला एस0पी0एस0 के माध्यम से एस0टी0पी0 भेजा जाता है। निरीक्षण के समय सम्पूर्ण सीवेज शोधन हेतु सीधे एस0टी0पी0, भरवारा में भेजा जा रहा था।

11— बैरल नं0–19 (परागडेयरी नाला)(जापलिंग नाला) (26°51'36.5"N, 80°57'46.9"E) इस नाले के उत्प्रवाह को शोधन हेतु एस0टी0पी0 भेजा जाता है। निरीक्षण के समय सम्पूर्ण सीवेज शोधन हेतु सीधे एस0टी0पी0, भरवारा में भेजा जा रहा था।

12— जी0एच0 कैनाल (26°51'12.6"N, 80°58'8.18"E):— इस नाले का लगभग 55 प्रतिशत उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय उक्त नाले का शेष उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होता पाया गया। निरीक्षण के समय उक्त नाले का उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होता पाया गया है।

13— लामार्टिनियर नाला (26°50'7.6"N, 80°57'58.8"E):— इस नाले का लगभग 60 प्रतिशत उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय उक्त नाले का शेष उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होता पाया गया है।

14— जियामऊ नाला (26°50'26.1"N, 80°57'54.4"E):— इस नाले का लगभग 50 प्रतिशत उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय उक्त नाले का शेष उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होता पाया गया। निरीक्षण के समय उक्त नाले का उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होता पाया गया।

15– बैरल नं0–2, दायॉ तटबंध (महे□गंज नाला, लखनऊ खण्ड–1) (26°52'7.3"N, 80°55'36.0"E):– इस नाले से संबंधित उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय अवैध आवासीय कालोनीओ का सीवेज आवेर फ्लो होकर गोमती नदी में निस्तारित होता पाया गया।

16– बैरल नं0–1, दायॉ तटबंध (रूपपुर खदरा नाला, लखनऊ खण्ड–1) (26°52'10.2"N, 80°55'32.7"E):– इस नाले से संबंधित उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय उक्त नाले का उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होते हुए नही पाया गया।

17– बैरल नं0–25, (मोहन मीकिन्स नाला–1) (26°52'22.4"N, 80°55'9.4"E):– इस इस नाले से संबंधित उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय उक्त नाले का उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होते हुए नही पाया गया।

18– बैरल नं0–1 (डालीगंज नाला नं0–1) (26°52'10.2"N, 80°55'32.7"E):– इस नाले से संबंधित उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय उक्त नाले का उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होते हुए नही पाया गया।

19– बैरल नं0–2 (डालीगंज नाला नं0–2) (26°52'7.3"N, 80°55'36.0"E):– इस नाले से संबंधित उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय उक्त नाले का उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होते हुए नही पाया गया।

20– बैरल न0–3 (आर्टस कालेज नाला) (26°51'52.7"N, 80°55'49.9"E) इस नाले से संबंधित उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय उक्त नाले का उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होते हुए नही पाया गया तथा प्राइवेट कंपनी द्वारा विगत एक माह से उक्त नाले को टैब्ड कर उत्प्रवाह को शोधित कर गोमती नदी मे निस्तारित किया जाता है।

21– बैरल नं0–4 (हनुमान सेतु नाला) (26°51'37.0"N, 80°56'19.2"E):– इस नाले से संबंधित उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय कर्मचारी द्वारा अवगत कराया गया कि बैरल न0–4 की जाली टूट गयी है। इस कारण उक्त नाले का शेष उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होता पाया गया।

22– टी0जी0पी0एस0 पम्पिंग स्टेशन (केदारनाथ नाला बैरल न0 06) (26°51'43.4"N, 80°56'41.1"E):– इस नाले के उत्प्रवाह को शोधन हेतु एस0टी0पी0 भेजा जाता है। निरीक्षण के समय सम्पूर्ण सीवेज शोधन हेतु सीधे एस0टी0पी0, भरवारा मे भेजा जा रहा था।

23– बैरल नं0–5 (टी0जी0 नाला) (26°51'42.1"N, 80°56'40.8"E):– इस नाले के उत्प्रवाह को शोधन हेतु एस0टी0पी0 भेजा जाता है। निरीक्षण के समय सम्पूर्ण सीवेज शोधन हेतु सीधे एस0टी0पी0, भरवारा में भेजा जा रहा था।

24– महानगर-निशातगंज नाला बैरल न0 07– (26°51'39.5"N, 80°57'4.9"E):– इस नाले के उत्प्रवाह को शोधन हेतु एस0टी0पी0 भेजा जाता है। निरीक्षण के समय सम्पूर्ण सीवेज शोधन हेतु सीधे एस0टी0पी0, भरवारा में भेजा जा रहा था।

25– बाबा का पुरवा नाला बैरल न0 08 (26°51'46.1"N, 80°57'38.1"E):– इस नाले के उत्प्रवाह को शोधन हेतु एस0टी0पी0 भेजा जाता है। निरीक्षण के समय सम्पूर्ण सीवेज शोधन हेतु सीधे एस0टी0पी0, भरवारा में भेजा जा रहा था।

26– कुकरैल नाला (26°51'41.4"N, 80°58'4.3"E):– इस नाले का लगभग 60 प्रतिशत उत्प्रवाह को शोधन हेतु एस0टी0पी0 भरवारा पर भेजा जा रहा था। निरीक्षण के समय उक्त नाले का शेष उत्प्रवाह आवेर फ्लो होकर गोमती नदी में निस्तारित होता पाया गया।

27– सहारा सिटी नाला(26°50'9.9"N, 80°58'10.608"E) इस नाले का संपूर्ण उत्प्रवाह सीधे गोमती नदी में निस्तारित होता हुआ पाया गया।

28– बैरी कला नाला–

29– धैला नाला–

30. अपस्ट्रीम फैजूल्ला गंज–

31. डाउन स्ट्रीम फैजूल्ला गंज:–

32. गोमती नगर नाला :–

33. गोमती नगर विस्तार नाला :–

उक्त नालो का संपूर्ण उत्प्रवाह सीधे गोमती नदी में निस्तारित होता हुआ पाया गया।

लखनऊ जनपद के ट्रान्स एवं सिस गोमती के 33 नालों में से लगभग 26 नाले टैप कर पम्पिंग स्टेशनों को भेजे जाने की व्यवस्था स्थापित है, परन्तु 07 नाले (सहारा सिटी नाला, बैरी कला नाला, धैला नाला, अपस्ट्रीम फैजूल्ला गंज, . डाउन स्ट्रीम फैजूल्ला गंज, गोमती नगर नाला एवं गोमती नगर विस्तार नाला) सीधे गोमती नदी में निस्तारित होते है, उक्त 26 नालों में से 09 नाले (नगरिया नाला, सरकटा नाला,वजीरगंज नाला, जी0एच0 कैनाल, लामार्टिनियर नाला, जियानऊ नाला, बैरल नं0–2 दायॉ तटबंध (महेशगंज नाला, लखनऊ खण्ड–1), हनुमान सेतु नाला, कुकरैल नाला) ओवरफ्लो के कारणवश सीधे गोमती नदी में निस्तारित होते पाये गये, जिससे गोमती नदी की जलगुणता पर प्रतिकूल प्रभाव पड़ना स्वाभाविक है। अग्रेतर अवगत कराना है कि पूर्व में दिनाक 21/02/2019, 22/02/2019 एवं 23/02/2019 को उक्त नालों का निरीक्षण व जल नमूना एकत्रण किया गया था (विश्लेषण आख्या सलग्न)। विश्लेषण आख्यानुसार नगरीया नाला में बी0ओ0डी0–25.0 मिग्रा0/ली0 व टोटल कॉलीफार्म–5,40,000 (एम0पी0एन0/100

मि0ली0), सरकटा नाला में बी0ओ0डी0–36.0 मिग्रा0/ली0 व टोटल कॉलीफार्म–54,000 (एम0पी0एन0/100 मि0ली0), पाटा नाला में बी0ओ0डी0–80.0 मिग्रा0/ली0 व टोटल कॉलीफार्म–54,000 (एम0पी0एन0/100 मि0ली0), वजीरगंज नाला में बी0ओ0डी0–85.0 मिग्रा0/ली0 व टोटल कॉलीफार्म–54,000 (एम0पी0एन0/100 मि0ली0), घरियारी मंडी नाला में बी0ओ0डी0–76.0 मिग्रा0/ली0 व टोटल कॉलीफार्म–16,00,000 (एम0पी0एन0/100 मि0ली0) तथा चाइना बाजार नाला में बी0ओ0डी0–98.0 मिग्रा0/ली0 व टोटल कॉलीफार्म–1,30,000 (एम0पी0एन0/100 मि0ली0) पायी गयी। दिनांक 07/06/2019 को कुडियाघाट पर स्थित सरकटा नाला तथा गऊघाट पर स्थित नगरीया नाला से वहित अशोधित सीवेज ओवर फ्लो होकर सीधे गोमती नदी में प्रवाहित होते पाया गया जोकि गोमती नदी में अमोनिया की मात्रा बढ़ने तथा घुलित आक्सीजन (डीओ) घटने का मूल कारण परिलक्षित हुआ है । साथ ही केन्द्रीय प्रयोगशाला से प्राप्त विश्लेषण आख्या दिनॉक– 04.06.2019 के अनुसार घुलित ऑक्सीजन की मात्रा कुडियाघाट अपस्ट्रीम–1.55 मिग्रा0/ली, हनुमान सेतु अपस्ट्रीम– 1.94 मिग्रा0/ली0 तथा बैराज अपस्ट्रीम– 2.88 मिग्रा0/ली0, जोकि निर्धारित न्यूनतम मानक 4 मिग्रा0/ली0 से अत्यन्त कम हो गयी है जोकि जलीय जीव जन्तुओं हेतु अत्यन्त घातक है।

उपरोक्त वर्णित तथ्यों के दृष्टिगत रखते हुये नगर आयुक्त नगर निगम, लखनऊ को माननीय राष्ट्रीय अधिकरण, नई दिल्ली द्वारा ओ0ए00 संख्या–200/2014 एम0सी0 मेहता बनाम यूनियन ऑफ इण्डिया व अन्य में दिनांक 13/07/17 को पारित आदेश के अनुपालन में पर्यावरणीय क्षतिपूर्ति अधिरोपित करने एवं जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 की धारा 33 ए के सुसंगत प्राविधानों के अन्तर्गत अभियोजनात्मक कार्यवाही करने से पूर्व कारण बताओ नोटिस दिये जाने की संस्तुति सहित निरीक्षण आख्या इस कार्यालय के पत्र सं0–833/जी0एफ0–33/2019 दिनांक 10/06/2019 द्वारा बोर्ड मुख्यालय को प्रेषित किया गया था। *उक्त के अनुक्रम में राज्य बोर्ड मुख्यालय के पत्रांक सं0–जी 30270/सी–5/सामान्य–46/19 दिनांक 11/06/2019 द्वारा जल (प्रदूषण निवारण एवं नियंत्रण) अधिनियम–1974 यथा संशोधित की धारा–33–ए में निहित प्राविधानों के अंतर्गत नगर निगम, लखनऊ के विरूद्ध कारण बताओ नोटिस निर्गत किया गया है। गोमती नदी में गिर रहे नालो के संबंध में दिनांक 26/06/2019 को पुनः निरीक्षण क्षेत्रीय कार्यालय द्वारा किया गया, उपरोक्त इंगित नालो के माध्यम से वहित अशोधित सीवेज गोमती नदी में मिलने की स्थिति यथावत पायी गयी है।* बोर्ड द्वारा जारी कारण बताओ नोटिस दिनाक 11/06/2019 पर कोई प्रतिउत्तर/कार्ययोजना नगर निगम, लखनऊ द्वारा प्रेषित नहीं किया गया है। नगर निगम में मुख्य रूप से उत्तरदायी अधिकारियों का विवरण निम्नवत है:–

1 डा0 इन्द्रमणि त्रिपाठी, नगर आयुक्त नगर निगम, लखनऊ।
2 श्री एस0पी0 सिंह, मुख्य अभियन्ता नगर निगम, लखनऊ।
3 श्री पंकज भूषण, पर्यावरण अभियन्ता, नगर निगम, लखनऊ।

अतः उपरोक्त को वर्णित तथ्यों के दृष्टिगत रखते हुए नगर निगम, लखनऊ एवं इसके उत्तरदायी व्यक्तियों के विरूद्ध जल (प्रदूषण निवारण एवं नियंत्रण) अधिनियम–1974 यथा संशोधित की धारा–33 (ए) में निहित प्राविधानों के अंतर्गत नगर निगम, लखनऊ के विरूद्ध अभियोजनात्मक कार्यवाही किये जाने की संस्तुति सहित निरीक्षण आख्या आपके अवलोकनार्थ एवं अग्रिम आवश्यक कार्यवाही हेतु सादर प्रस्तुत।

(के0के0 चौधरी)
वैज्ञानिक सहायक

(क्षितीश पटेल)
वैज्ञानिक सहायक

(नितीश कुमार तिवारी)
सहायक पर्यावरण अभियंता

क्षेत्रीय अधिकारी महोदय

26/06/2019

11. The matter requires immediate attention and action by the Water Resource Department for maintaining the existing STPs. More than 50% STPs are not properly functioning and sewage generated from Lucknow city is directly discharged into river Gomti causing water pollution. The STPs installed are overflowing and no action is being taken by the Water Works Department.

The UPPCB is directed to take immediate action against the defaulting agencies. Let environmental compensation be also calculated and show cause notice be issued as to why the amount so calculated be not recovered from defaulting agencies. The situation of STPs installed in Lucknow, the capital of Uttar Pradesh is the mirror of industries and departments looking after and monitoring the work of STPs. Thousands of crores rupees are being spent from the State Exchequer and the result is that more than 50% STPs of the city are not properly functioning and when the matter is reported, then hue and cry is made and again demand of budget is made burdening the State Exchequer. The situation of STPs in Lucknow is, thus, alarming and it requires urgent and quick action. If needed, the matter may be reported to the highest authorities of the State to monitor and take not only remedial action but also disciplinary action against the erring officers. The persons responsible must be strictly dealt with and punished for playing with the lives and health of the people.

12. Water qualities of river **Hindon** and river **Ghagra**, as reported by the UPPCB, are as below:

Water Quality of River Hindon in U P
Year-2019

S.No	Month	Sampling Point: Hindon D/s Maheshpur Saharanpur			Hindon, Sardhana - Budhana Road, Vill Baparsi, Meerut			Hindon, Meerut Baghpat Road, Meerut			Hindon, Isarheda village, Ghaziabad			Hindon river, Mohan Nagar Road Bridge, Ghaziabad			Hindon river, Chijarsi Bridge, Ghaziabad			Hindon, D/s Kulsera Bridge, Noida		
		DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)
1	January	Nil	43.0	-	Nil	64.0	110000	1.80	38.0	91000	2.34	8.6	18000	1.68	26.4	31000	Nil	53.5	320000	Nil	59.4	320000
2	February	Nil	44.0	-	Nil	66.0	120000	1.60	36.0	81000	0.28	20.1	240000	0.51	15.5	17000	Nil	39.2	280000	Nil	70.0	310000
3	March	Nil	40.0	-	Nil	68.0	140000	1.40	40.0	91000	2.60	18.3	220000	2.29	16.8	21000	Nil	61.2	1700000	Nil	75.0	290000
4	April	Nil	52.0	-	Nil	66.0	150000	1.20	42.0	93000	1.00	22.5	280000	0.78	67.0	22000	Nil	89.0	2100000	Nil	82.6	280000
5	May	Nil	50.0	-	Nil	68.0	170000	1.00	44.0	110000	0.80	24.0	27000	0.50	32.0	30000	Nil	51.5	220000	Nil	59.0	290000
6	June	Nil	54.0	-	Nil	72.0	210000	1.60	46.0	150000	2.14	16.0	13000	1.20	24.0	22000	Nil	42.0	140000	Nil	60.0	350000
7	July	Nil	38.0	-	Nil	68.0	170000	2.20	40.0	150000	0.86	32.0	2300	0.72	36.0	21000	Nil	90.0	380000	Nil	40.0	350000
8	August	Nil	40.0	-	Nil	72.0	210000	1.60	44.0	170000	0.43	23.0	350000	0.70	36.0	49000	Nil	43.0	1600000	Nil	32.0	160000
9	September	Nil	40.0	-	Nil	74.0	170000	1.80	46.0	150000	0.28	20.0	280000	0.20	22.0	21000	Nil	36.0	140000	Nil	36.0	260000
10	October	Nil	44.0	-	Nil	73.0	150000	1.40	44.0	150000	0.34	20.0	150000	0.50	18.0	25000	Nil	56.0	280000	Nil	52.0	170000
11	November	Nil	48.0	-	Nil	75.0	140000	1.20	45.0	170000	2.00	31.0	350000	1.30	49.5	26000	Nil	58.0	120000	Nil	56.4	130000
12	December	Nil	42.0	-	Nil	73.0	120000	1.80	42.0	140000	1.95	20.0	280000	1.85	23.0	240000	Nil	39.6	150000	Nil	41.0	150000
	Average	NIL	44.6	-	Nil	69.9	155000	1.6	42.3	128833	1.75	21.3	184183	1.0	29.7	43750	Nil	54.1	620833	Nil	56.9	256667
	Category		E			E			E			E			E			E			E	

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	--	--
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	--	--	--
3	Total Coliform (MPN/100ml), max	50	500	5000	--	--	--

A – Drinking water source without conventional treatment but after chlorination
B – Outdoor bathing (organised)
C – Drinking water source after conventional treatment and chlorination
D – Propagation of wild life and fisheries.
E – Irrigation, industrial cooling, controlled waste disposal
Below – E – not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

20/1/2020

Water Quality Report Of River Ghaghra in UP
Year 2019

S.N0	Month	SAMPLING POINT							
		Badhalganj U/s, Gorakhpur				Turtipur D/s, Deoria			
		DO (mg/L)	BOD (mg/L)	Total Coliform (MPN/100ml)	Feacal Coliform (MPN/100ml)	DO (mg/L)	BOD (mg/L)	Total coliform (MPN/100mL)	Feacal Coliform (MPN/100ml)
1	January	7.5	5.2	7000	1300	7.5	5.4	9400	1300
2	February	7.6	5.4	6300	1700	7.5	5.6	8400	1400
3	March	7.4	5.6	12000	8300	7.2	5.8	1200	6100
4	April	6.8	5.8	11000	8100	7.0	5.8	11000	8100
5	May	6.8	5.6	13000	6300	7.0	5.6	11000	8400
6	June	6.6	5.8	21000	11000	6.6	5.8	31000	13000
7	July	6.8	4.6	21000	11000	6.8	4.8	33000	13000
8	August	7.0	4.9	22000	12000	7.1	4.6	30000	12000
9	September	7.1	4.3	33000	16000	7.2	4.7	30000	14000
10	October	7.2	4.4	34000	17000	7.3	4.6	29000	13000
11	November	7.4	4	36000	18000	7.6	4.2	26000	17000
12	December	8.0	3.7	34000	16000	7.8	3.6	24000.0	10000
Average		7.2	5.0	20858	10558	7.2	5.0	20333	9775
Category		D				D			

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	–	–
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	–	–	–
3	Total Coliform (MPN/100ml), max	50	500	5000	–	–	–

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

13. The Committee has also directed the UPPCB to prepare a chart with regard to the water quality of rivers of the year 2018-19. The UPPCB has submitted a report of river Yamuna on the point of percent change in BOD values in the year 2019 as compared to the year 2018, which is as follows:

Percent change in water quality of River Yamuna in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S.No.	Name of Location	2018			2019			Percent change in BOD values in year 2019 as compared to year 2018
		DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	
1	U/S Okhla Barrage, Noida	2.52	15.02	-	2.60	26.90	-	79.13
2	D/S Village Gharbara/Tilwara, Noida	1.31	24.29		0.30	50.80	-	109.13
3	U/s Vrindavan	5.13	9.17		5.40	8.80	83000	-4.00
4	Kesi Ghat Vrindavan	4.97	9.29	85083	5.30	9.40	80917	1.17
5	D/s Vrindavan	4.94	9.17	82455	5.30	9.20	79556	0.36
6	U/s Mathura	4.64	9.84	-	4.80	9.70	-	-1.47
7	Shahpur, Mathura	3.11	13.46	109250	4.50	12.50	103417	-7.12
8	Vishram Ghat, Mathura	4.40	11.30	92083	4.80	11.00	88833	-2.65
9	D/s Mathura	4.44	11.47	-	4.60	10.90	98000	-4.94
10	U/s Kailashghat, Agra	6.51	9.82	32750	5.80	11.30	36333	15.07
11	U/s Waterworks, Agra	5.81	12.17	52833	5.30	12.70	54667	4.38
12	D/s Tajmahal, Agra	5.08	13.12	98750	4.80	14.50	109250	10.55
13	U/s Firozabad	5.74	16.88	86000	7.4	16.70	-	-1.04
14	D/s Firozabad	5.38	18.75	-	7.8	20.30	-	8.27

14. The report reveals that the BOD level at U/S Okhla Barrage, Noida in the year 2018 was 15.02 mg/1 while it was increased as 26.90 in the year 2019. Similarly, at D/S village Gharbara/Tilwara, Noida, the BOD level was reported to be 24.29mg/1 in the year 2018 while it was found as 50.80 in the year 2019.

This shows that no action has been taken by the Department at Noida to improve the quality of water.

15. Similarly the percent change in BOD in the year 2019 as compared to the year 2018 of river Ganga, as reported by the UPPCB is reproduced below:

Percent change in water quality of River Ganga in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S No	Regional Office	District	Sample Collection Point	2018			2019			Percent change in BOD values in year 2019 as compared to year 2018
				D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	
1	Kanpur	Kannauj	U/s Kannauj	8.40	3.52	3817	8.49	2.87	3817	-18.48
2	Kanpur	Kannauj	D/s Kannauj	8.50	4.28	4675	8.12	3.30	4625	-22.96
3	Kanpur	Kanpur	Bithoor, Kanpur	8.35	3.34	4000	8.04	3.10	4100	-7.23
4	Kanpur	Kanpur	At Bhairao Ghat	8.16	3.54	4308	7.85	3.10	4133	-12.47
5	Kanpur	Kanpur	U/s Kanpur	7.86	3.74	4608	7.95	3.13	4442	-16.48
6	Kanpur	Kanpur	At D/s Shuklaganj	7.52	4.08	5342	7.83	3.43	5633	-16.12
7	Kanpur	Kanpur	At Gola Ghat	7.29	4.43	5650	7.56	3.72	6267	-16.01
8	Kanpur	Kanpur	At Jajmau Bridge	6.78	5.48	11342	7.58	3.98	21708	-27.36
9	Kanpur	Kanpur	D/s Kanpur	5.95	6.93	79333	6.98	4.40	42250	-36.46
10	Raibareli	Raibareli	Dalmau, Raibareli	9.05	3.88	7808	8.64	3.65	3625	-5.81
11	Raibareli	Pratapgarh	Kala Kankar, Pratapgarh	9.20	3.75	7667	8.68	3.62	3575	-3.56
12	Prayagraj	Koshambi	Kada Ghat	8.57	3.98	24533	8.44	3.08	20333	-22.80
13	Prayagraj	Prayagraj	U/s Prayagraj	8.94	3.64	21858	8.84	2.78	17783	-23.57
14	Prayagraj	Prayagraj	D/s Prayagraj	8.53	3.57	19800	8.43	2.78	18450	-22.20
15	Prayagraj	Prayagraj	A/c Tamsa river, Sirsa, Son Barsa	8.36	3.08	15245	8.42	2.55	14833	-17.26
16	Sonbhadra	Mirzapur	U/s Vindhyachal, Mirzapur	8.13	2.73	2550	8.21	2.68	1933	-2.13
17	Sonbhadra	Sonbhadra	At Chunnar Pontoon Bridge	7.68	3.30	4909	7.88	3.23	11250	-2.02
18	Varanasi	Varanasi	U/s Varanasi	8.19	2.83	2658	8.19	2.64	1992	-6.76
19	Varanasi	Varanasi	D/sVaranasi	6.73	5.05	48583	7.06	3.83	32750	-24.26
20	Varanasi	Ghazipur	Tarighat D/s Ghazipur	7.23	4.45	41000	7.21	3.75	23583	-15.73
21	Varanasi	Ghazipur	A/c Gomti river, Bhusaula	7.96	3.35	25455	7.85	3.32	13500	-1.13

16. Percentage change in water quality of river Hindon in terms of Biochemical Oxygen Demand in the year 2019 as compared to 2018, as reported by UPPCB is as under:

Percent change in water quality of River Hindon in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S.No.	Name of Location	2018			2019			Percent change in BOD values in year 2019 as compared to year 2018
		DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	
1	D/S Maheshpur Saharanpur	Nil	49.0	–	Nil	44.6	–	-8.98
2	Sardhana -Budhana Road, Vill Baparsi, Meerut	Nil	68.8	172583	Nil	69.9	155000	1.60
3	Meerut Baghpat Road, Meerut	1.50	39.5	129083	1.6	42.3	128833	7.09
4	Karheda village , Ghaziabad	1.66	31.9	28364	1.25	21.3	184183	-33.23
5	Mohan Nagar Road Bridge, Ghaziabad	1.41	37.7	37333	1.0	29.7	43750	-21.22
6	Chijarsi Bridge, Ghaziabad	Nil	66.3	201750	Nil	54.1	610833	-18.40
7	D/S Kulsera Bridge, Noida	Nil	60.0	264167	Nil	56.9	256667	-5.17

17. Percentage change in water quality of river Ram Ganga in terms of Biochemical Oxygen Demand in the year 2019 as compared to 2018, as reported by UPPCB, is as under:

Percent change in water quality of River Ramganga in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S.No.	Sampling Point	2018			2019			Percent change in BOD values in year 2019 as compared to year 2018
		D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	
1	U/s Ramganga near Agwanpur, Distt. Moradabad	7.60	3.10	53667	7.30	1.80	16167	-41.94
2	Moradabad Rampur road bridge, Moradabad	5.30	6.00	575167	4.70	11.10	558333	85.00
3	D/s Ramganga, Shahabad Rampur	5.70	5.30	168667	5.10	7.60	430833	43.40
4	U/s Ramganga Kapurpur village, Meerganj, bareilly	6.50	1.50	33750	7.90	3.20	19083	113.33
5	D/s Ramganga FBD road bridge Shahjahapur	7.60	2.00	26750	10.10	3.00	14500	50.00
6	Ramganga at Kannauj	8.20	4.60	5092	9.00	4.60	14775	0.00

18. Percentage change in water quality of River Kali (East) in terms of Biochemical Oxygen Demand in the year 2019 as compared to 2018, as reported by UPPCB is as under:

ercent change in water quality of River Kali (East) in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S No	Sample Collection Point	2018			2019			Percent Change in BOD values in year 2019 as compared to year 2018
		DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	
1	Saini-Mawana Road, Meerut	Nil	61.8	138417	Nil	54.5	110273	-11.81
2	Garh Road, Meerut	Nil	66.3	138333	Nil	55.7	127364	-15.99
3	Kharkhoda Parikshit Road, Meerut	Nil	65	175833	Nil	57.1	149091	-12.15
4	Babugarh, Ghaziabad	Nil	61.4	1038333	Nil	43.8	4236364	-28.66
5	U/s Devipura, Bulandshahar	Nil	43.7	239091	Nil	71.8	177273	64.30
6	D/s Mohan Kuter Bulandshahar	Nil	45.2	201818	Nil	74	589364	63.72
7	U/s Kali River before wave disttlary, Ramghat, Atruali, Aligarh	Nil	65.9	-	2.4	31.9	-	-51.59
8	D/s Kali River after wave disttlary, Ramghat, Atruali, Aligarh	Nil	70	-	2.3	34.4	-	-50.86
9	Nadrai Gate, Kasganj, Kashiram Nagar	Nil	49.8	-	4.9	17.6	-	-64.66
10	U/S Kannauj, Kanpur	8.55	6.1	6450	7.6	4.8	9100	-21.31

19. Percentage change in water quality of Rihand dam in terms of Biochemical Oxygen Demand in the year 2019 as compared to 2018, as reported by UPPCB is as under:

Percent change in water quality of Rihand dam in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S.No.	Sampling Point	2018			2019			Percent change in BOD values in year 2019 as compared to year 2018
		D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	
1	Rihand dam U/s Renukoot, Sonebhadra	8.90	1.70	963	8.73	2.00	1275	17.65
2	Rihand dam D/s Renukoot, Sonebhadra	9.20	2.00	1290	8.33	2.90	2608	45.00

20. The details of drains, which are untapped, have been reported as follows:

Regional Office
UTTAR PRADESH POLLUTION CONTROL BOARD
PICUP BHAWAN, B-BLOCK, VIBHUTHI KHAND, GOMTINAGAR, LUCKNOW

Drains discharged into main stem of River Gomti monitored during (February) Pre mansoon, 2019 at Lucknow, Uttar Pradesh

Sr.No	Catchment(CIS/Trans-Gomti)	Name of Drains	Date of inspection	Dain's(Nala's)		Sewage Pumping Stations(SPS)		Tapped / Partially Tapped/ Untapped	Wheather Overflow found Yes/No	Name of SPS	SPS connected Drains	Ph//BOD/COD/TC	Reporting Officer's
				Latitude	Longitude	Latitude	Longitude						
1	CIS-Gomti	Nagaria Nala	21.02.2019	26°53'7.9"	80°53'31"	26°53'8"	80°53'37"	Partially Tapped	Yes	Nagaria Nala (SPS)	Nagaria	Surface water samples analysis Report enclosed	S.P. Maurya SA, Ankur Gautam JA
2	CIS-Gomti	Sarkata Nala	21.02.2019	26°53'2.7"	80°54'5.7"	26°53'1"	80°54'14"	Partially Tapped	Yes	Sarkata Nala (SPS)	Sarkata		
3	CIS-Gomti	Gaughat Nala	21.02.2019	26°53'5.9"	80°53'53.6"	26°53'4"	80°53'51"	Tapped	No	Gaughat Nala (SPS)	Gaughat		
4	CIS-Gomti	Pata Nala	21.02.2019	26°52'22.9"	80°54'40.1"	-		Tapped	No	Pata Nala (SPS)	Pata		
5	CIS-Gomti	Wazirganj Nala	21.02.2019	26°51'55.9"	80°55'32.1"	-		Tapped	Yes	Wazirganj Nala(SPS	Wazirganj		
6	CIS-Gomti	Ghasiyari mandi Nala	21.02.2019	26°51'45.3"	80°55'45.1"	26°51'43"	80°56'43"	Tapped	No	Ghasiyari mandi Nala(SPS)	Ghasiyari		
7	Trans-Gomti	China bazar nala	21.02.2019	26°51'24.6"	80°56'11.3"	26°51'36"	80°55'58"	Tapped	No	China bazar nala(SPS)	China bazar		
8	Trans-Gomti	Laplace Nala	21.02.2019	26°51'34.4"	80°56'39.34"	26°51'23"	80°56'57"	Tapped	No	Laplace Nala(SPS)	Laplace Nala		
9	Trans-Gomti	Mahesh Ganj Nala	22.02.2019	26°52'2.3"	80°55'36.0"	26°53'11.136	80°55'4.378"	Partially Tapped	Yes	Mahesh Ganj Nala(Tonl Pulia)(SPS)	Mahesh Ganj		C.K. Chauhan (SA) Vimlesh Dubey JA
10	Trans-Gomti	Rupour khadra nala	22.02.2019	26°53'8"	80°53'37"	26°52'28.524	80°54'58.116"	Tapped	No	Rupour Khadra nala	Rupour Khadra nala		
11	Trans-Gomti	Mohan Meakins Nala	22.02.2019	26°52'22.4"	80°55'9.4"	26°52'22.416	80°55'10.82"	Tapped	No	Mohan Meakins Nala	Mohan Meakins		
12	Trans-Gomti	Daliganj 1 Nala	22.02.2019	26°52'10.2"	80°55'32.7"	26°52'10.332	80°55'32.2"	Tapped	No	Daliganj 1 Nala(SPS)	Daliganj 1		
13	Trans-Gomti	Daliganj 2 Nala	22.02.2019	26°52'7.3"	80°55'36.0"	26°52'8.736"	80°55'35.676"	Tapped	No	Daliganj 2 (SPS)	Daliganj 2		
14	Trans-Gomti	Arts College Nala(barrel no-3)	23.02.2019	26°51'49"	80°55'46"	-	-	Tapped	No	TGPS	TGPS		[illegible] Nimesh Dubey JA
15	Trans-Gomti	Hanuman Setu nala(barrel no-4)	23.02.2019	26°51'37"	80°56'19"	-	-	Partially Tapped	Yes				
16	Trans-Gomti	Trans Gomti Nala([illegible])	23.02.2019	26°51'41"	80°56'41"			Tapped	No	TGPS	TGPS	Analysis Report enclosed	
17	Trans-Gomti	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	-	

Analytical Data of Surface Water Samples Collected by Regional Office, Lucknow on Date 21-02-2019 and 22-02-2019

S.No	Sampling Point	Date of Sampling	Lab Code	Colour	Odour	pH	TSS (mg/L)	TDS (mg/L)	TS (mg/L)	BOD (mg/L)	COD (mg/L)	Total Coliform (MPN/ 100mL)	Faecal coliform (MPN/ 100mL)
1	Sahara Nala Gomti Nagar	22.02.19	W/179	Blackish	Sewage	7.61	124.0	896.0	1020.0	120.0	640.0	22000	17000
2	Nagaria Nala	21.02.19	W/181	Dirty Grey	Sewage	7.16	87.0	343.0	430.0	25.0	184.0	540000	350000
3	Gaughat Nala	21.02.19	W/182	Blackish	Sewage	7.40	85.0	916.0	1001.0	38.0	256.0	1600000.	540000
4	Sarkata Nala	21.02.19	W/183	Blackish	Sewage	7.18	94.0	491.0	585.0	36.0	248.0	540000	240000
5	Pata Nala	21.02.19	W/184	Blackish	Sewage	7.16	132.0	422.0	554.0	80.0	312.0	540000	350000
6	Wazirganj Nala	21.02.19	W/185	Light Grey	Sewage	7.10	88.0	510.0	598.0	85.0	328.0	540000	350000
7	Ghasiyari Mandi Nala	21.02.19	W/186	Light Grey	Sewage	7.30	80.0	570.0	650.0	76.0	272.0	1600000	920000
8	China Bazar Nala	21.02.19	W/187	Blackish	Sewage	7.11	224.0	910.0	1134.0	98.0	684.0	130000	79000
9	Laplas Nala	21.02.19	W/188	Light Grey	Sewage	7.60	10.0	274.0	284.0	16.0	96.0	7800	4500
10	GH Canal Nala	21.02.19	W/189	Light Grey	Sewage	7.22	60.0	640.0	700.0	24.0	192.0	350000	240000
11	Jopling Nala	21.02.19	W/190	Light Grey	Sewage	7.54	12.0	251.0	263.0	20.0	124.0	7800	4500
12	Jamau Nala	21.02.19	W/191	Light Grey	Sewage	7.30	66.0	278.0	344.0	21.0	148.0	4500	2000
13	Lamartinier Nala	21.02.19	W/192	Light Grey	Sewage	7.42	96.0	1284.0	1380.0	50.0	248.0	79000	49000
14	Mahesh ganj Nala near meeting point at River Gomti, Lucknow	22.02.19	W/194	Grey	Sewage	7.37	118.0	988.0	1106.0	90.0	288.0	170000	110000
15	Rupper khadra Nala near sewage pumping Station, Lucknow	22.02.19	W/195	Pale	Sewage	7.29	76.0	910.0	986.0	70.0	224.0	540000	220000
16	Mohan meakin Nala near sewage pumping Station , Lucknow	22.02.19	W/196	Pale	Sewage	7.27	82.0	738.0	820.0	80.0	240.0	350000	170000
17	Daliganj-1 nala near sewage pumping Station , Lucknow	22.02.19	W/197	Pale	Sewage	7.26	70.0	630.0	700.0	92.0	276.0	220000	130000
18	Daliganj-2 Nala, near sewage pumping Station, Lucknow	22.02.19	W/198	Pale	Sewage	7.28	92.0	898.0	990.0	76.0	256.0	1600000	920000

Scientific Assistant

Asstt. Scientific Officer

Incharge (Central Lab)

Analytical Data of Surface Water Samples Collected by Regional Office, Lucknow on Date 23-02-2019

S.No	Sampling Point	Date of Sampling	Lab Code	Colour	Odour	pH	TSS (mg/L)	TDS (mg/L)	TS (mg/L)	BOD (mg/L)	COD (mg/L)	Total Coliform (MPN/ 100mL)	Faecal Coliform (MPN/ 100mL)
1	Art College nala (Bairal No.3)	23.02.19	W/201	Grey	Sewage	7.15	119.0	640.0	759.0	160.0	384.0	280000	110000
2	Hanuman Setu Nala (Bairal No.4)	23.02.19	W/202	Grey	Sewage	7.59	88.0	760.0	848.0	60.0	192.0	39000	33000
3	TGPS	23.02.19	W/203	Grey	Sewage	7.25	205.0	640.0	845.0	180.0	464.0	1600000	350000
4	Bairal No.7	23.02.19	W/204	Grey	Sewage	7.30	130.0	995.0	1125.0	120.0	284.0	540000	240000
5	Kukrail nala	23.02.19	W/205	Grey	Sewage	7.38	65.0	980.0	1045.0	20.0	76.0	170000	79000

4/3/19 4/3/19
Scientific Assistant

Preeti B. 4/3/19
Asstt. Scientific Officer

4/3/19
Incharge (Central Lab)

Analytical Data of Surface Water Sample Collected by Regional Office, Lucknow on Date 22-02-2019

S.No	Sampling Point	Date of Sampling	Lab Code	Colour (Hazen)	Odour	pH	Cond. (µS/cm)	DO (mg/L)	TSS (mg/L)	TDS (mg/L)	BOD (mg/L)	COD (mg/L)	Alkalinity (mg/L)
1	Jheel Near Boating Station, Tirange ke nikat Janeshwar Mishra Park, Lucknow	22.02.19	W/180	30.0	Odourless	8.72	1267.0	8.2	46.0	764.0	16.5	40.8	370.0

4/3/19 04.03.19
Scientific Assistant

Preeti B. 4/3/19
Asstt. Scientific Officer

4/3/19
Incharge (Central Lab)

21. The Tribunal dealt with the pollution caused on account of illegal discharge of untreated sewage and industrial effluents either directly into the River Ganga or its tributaries and connected drains, besides, issues of dumping of solid waste, bio-medical waste, hazardous waste, plastic waste, muck and other waste, illegal sand mining, illegal encroachment of the floodplains, absence of steps for conservation of ground water, reuse of treated water and restoration of water bodies and maintenance of e-flow. A report was called for from the UPPCB with regard to STPs under construction connecting river Ganga. The report submitted by the UPPCB reveals that total 19 STPs are under construction. At serial no. 7, 1 STP was under construction in Bithoor, district Kanpur which was to be completed by December, 2019, but as per information submitted by the UPPCB, the project has not been completed as yet. Similarly, at serial no. 14, 1 STP was under construction in district Ghazipur, which was to be completed by December, 2019 but, as per report submitted by the UPPCB, the same has not been completed till date. 2 STPs in district Mirzapur are to be completed by February, 2020. 1 STP in Ramnagar is to be completed by March, 2020 and 1 STP in Varanasi is to be completed by March, 2020. 1 STP of 40 MLD in Bulandshahr is to be completed by February, 2020 but there is nothing in the report to infer that construction of this STP would be completed within the time stipulated. A notice is required to be issued against the constructing Agencies with regard to the projects which were to be completed in the year 2019 as to why Environmental Compensation at the rate fixed by Hon'ble NGT be not recovered from them. A further notice is required to be issued to the constructing agencies of these projects, which are mandated to be completed before March, 2020 cautioning them that if the projects are not completed within the time stipulated, environmental compensation would be levied on

them as directed by Hon'ble NGT. The report submitted by the UPPCB with regard to the STPs, as referred to above, is annexed herewith as **Annexure-2.**

STP Under Construction Connecting River Ganga

Sl. No.	Name Of District/ City / Town	No. of STP/ Capacity (MLD)	Constructing Agency	Date of Completion	Cost I	If revised Cost II	Physical Status	Reasons of delay	Revised time line of completion
1	Prayagraj	3(72)	Namami Gange Programme	Sep, 2021	These informations can be obtained from State Mission for Clean Ganga (SMCG) Nagar Vikas Vibhag				
2	Mirzapur	2(17)	Namami Gange Programme	Feb, 2020					
3		1(7)	AMRUT Programme	Dec, 2020					
4	Chunar	1(2)	Namami Gange Programme	Sep, 2020					
5	Ramnagar	1(10)	Namami Gange Programme	March, 2020					
6	Varanasi	1(50)	Namami Gange Programme	March, 2020					
7	Bithoor	1(2.4)	Namami Gange Programme	Dec, 2019					
8	Kanpur	1(15)	Namami Gange Programme	Oct, 2021					
9	Bulandshahr	1(40)	AMRUT Programme	Feb, 2020					
10	Fatehgarh	1(2)	Namami Gange Programme	Under Tendering process (Revised AA&ES to be issued by NMCG)					
11	Farrukhabad	2(33)	Namami Gange Programme	Under Tendering process (Revised AA&ES to be issued by NMCG)					
12	Unnao	1(13)	Namami Gange Programme	Oct, 2021					
13	Shuklaganj	1(6)	Namami Gange Programme	Oct, 2021					
14	Ghazipur	1(21)	Namami Gange Programme	Dec, 2019					
15	Rae Bareilly	1(18)	AMRUT Programme	April, 2021					

Source : State Mission for Clean Ganga (SMCG), Uttar Pradesh

14-01-2020

1/1/2020

Dr. R. B. Pathi
Chief Environmental Engineer
Central Laboratory
U.P. Pollution Control Board
Lucknow

22. The summary of existing STPs under different Schemes alongwith scheme-wise details thereof is annexed herewith as **Annexure-3.**

(I) Summary of existing STPs under different Schemes-

S.N.	Scheme	Constructed STPs			Under Construction STPs	
		No. of STP	Treatment Capacity in MLD	Percentage Utilization	No. of STP	Treatment Capacity in MLD
1.	GAP-I	09	317.5	82.52%	-	-
2.	GAP-II	21	959.86	82.80%	-	-
3.	JNNURM/UIDSSMT	14	642	60.04%	10	294
4.	NGRBA/ Namami Gange	11	192.5	51.20%	42	817.78
5.	State Sector	12	217.47	50.00%	3	143.55
6.	Others	37	969.51	84.20%	1	26
	Total	104	3298.84	Average=68.46%	56	1281.33

(II) STP - Scheme wise Details

GAP-I

Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remarks
1	Kanpur	Jajmau	130	1999	ASP	UPJN	Operational
2		Jajmau	5	1989	UASB	UPJN	Operational
3	Varanasi	DLW	12	1989	ASP	Railway	Operational
4		Bhagwanpur	9.8	1994	ASP	UPJN	Operational
5		Dinapur	80	1994	ASP	UPJN	Operational
6	Allahabad	Naini	60	1999	ASP	UPJN	Operational
7	Fatehgarh	Fatehgarh	2.7	1993	Oxidation Pond	UPJN	Operational
8	Mirzapur	Pucca pokhra	14	1993	UASB	UPJN	Operational
9		Vindhyachal	4	2008	WSP	UPJN	Operational
Total Capacity of STP (MLD)			317.5				

GAP-II

Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remarks
1	Anupshahar	Aahar Road	0.81	2001	WSP	NPP	Operational
2		Shivanand Asharam	1.76	2001	WSP	NPP	Operational
3	Prayagraj	Saiori - 3	29	2007	FAB	UPJN	Operational
4	Varanasi	Varanasi GAP-II (JICA)	140	2018	ASP	UPJN	1 Yr DLP & 10 Yrs O&M
5	Agra	Dandupura	78	2013	UASB	UPJN	Operational
6		Pilkhar	10	2000	WSP	UPJN	Operational
7		Nagiaburhi	2.25	2000	WSP	UPJN	Operational
8		Jaganpur	14	2010	UASB	UPJN	Operational
9		Bichhpuri	40	2012	UASB	UPJN	Operational
10	Etawah	Karanpur	10.45	2000	WSP	UPJN	Operational
11	Mathura	Mosani	13.59	2000	WSP	NPP	Operational
12		Trans Yamuna - 2	14.5	2000	WSP	UPJN	Operational
13	Vrindavan	Near Pagal Baba Mandir	4	1997-1998	WSP	UPJN	Operational (15 Yrs contract O&M)
14	Lucknow	Bharwara	345	2016	UASB	UPJN	Operational
15		Daulatganj	42	2003	FAB	UPJN	Operational
16	Sultanpur	Lolepur	5	1996-2002	Oxidation Pond	UPJN	Operational
17	Saharanpur	Mlahipur	38	1998	UASB	Nagar Nigam	Operational
18	Muzaffar nagar	Kidwai nagar	32.5	2001	WSP	Nagar Nigam	Operational
19	Gaziabad	Dudaheda - 3	70	1994-1998	UASB	Nagar Nigam	Operational
20	Noida	Sector-54-2	33	2009	SBR	Noida	Operational
21	Kanpur	Jajmau	36	1994	UASB	UPJN	Operational
Total Capacity of STP (MLD)			959.86				

JNNURM/UIDSSMT							
Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remarks
1	Prayagraj	Rajapur	60	2013	UASB	UPJN	Operational
2	Kanpur	Kanpur (JNNURM)	43	2016	UASB	UPJN	under refurbishment
3		Sajari	42	2016	ASP	UPJN	Operational
4	Agra	Dandupura - 2	24	2013	UASB	UPJN	Operational
5	Firozabad	Firozabad	3	2012	UASB	NPP	Operational
6	Mathura	Trans Yamuna	16	2016	UASB	UPJN	Operational
7	Vrindavan	Manth Road	8	2015	UASB	UPJN	Operational
8	Lucknow	Daulatganj - 2	14	2009	FAB	UPJN	Operational
9	Mainpuri	Powerhouse Road	23		UASB	UPJN	Operational
10	Varanasi	Varanasi (JNNURM)	120	2018	UASB	UPJN	Operational (1yrs DLP & 5 Yrs since MAY, 2019)
11	Banda	Kanwara Road	4	1979	Oxidation Pond	UPJN	Non-Operational (Oxidation Pond is not running due to damage of rising main and damage of pipe line due to railway under pass construction since Jan, 2018)
12	Kanpur	Bingawan	210	2015	UASB	UPJN	Operational
13	Pilkhua	Pilkhua	3	2011	ASP	UPJN	Operational
14	Meerut	Village Kamalpur	72	2016	ASP	UPJN	Operational
Total Capacity of STP (MLD)			**642**				

NGRBA/Namami Gange							
Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remrks
1	Garhmukteshwar	Garhmukteshwar-I (NGRBA)	6	2018	UASB	UPJN	Operational (5 yrs OM&M)
2		Garhmukteshwar-II (NGRBA)	3	2018	UASB	UPJN	Operational (5 yrs OM&M)
3	Narora	Narora (NGRBA)	4	2019	UASB	UPJN	Operational (10 Yrs contract O&M)
4	Anupshar	Anupshahar (NGRBA)	1.5	2018	UASB	UPJN	Operational (10 yrs O&M by Contractor)
5		Anupshahar	1	2018	MBBR	UPJN	Operational
6	Prayagraj	Kodra	25	2013	HRBF	UPJN	Operational
7		Ponghat	10	2013	HRBF	UPJN	Operational
8		Salori - 2	14	2016	SBR	UPJN	Operational (10 Yrs contract O&M Since 2016)
9		Naini - 2	20	2013	ASP	UPJN	Operational
10		Numayadih	50	2013	HRBF	UPJN	Operational
11	Moradabad (NGRBA)	Moradabad (NGRBA)	58	2018	UASB	UPJN	Operational (5 yr O&M by L&T)
Total Capacity of STP (MLD)			**192.5**				

SPAL							
Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remarks
1	Bijnour (UIDSSMT)	Bijnour	24	2018	UASB	UPJN	Operational
2	Loni	Loni	30	2012-2013	MBBR	UPJN	Non-operational (Awarded for O&M for 10 years with date of start on 16.12.2019. Rectificaiton work under progress.)
3	Agra	Devri Road	12	2011	UASB	UPJN	Operational
4	Etawah	Umren	13.45	2013	SBR	NPP	Non-operation y (Incomplete)
5	Gaziabad	Indirapuram	74	2013	SBR	UPJN	Operational
6	Chitrakoot	Near Viklang Kendra	3.42	2016	Oxidation Pond	UPJN	Operational
7	Saifai	Saifai	1.6	2006	Oxidation Pond	UPJN	Operational

8	Ayodhya	Ramghat Ayodhya	12	2014	UASB	UPJN	Operational
9	Kannauj (State/NGRBA)	Kannauj (State/NGRBA)	13	2015	SBR	UPJN	5 yrs OM&M
10	Rampur	Benajeerpur	14	2015	UASB	UPJN	Non-operational (Awarded for O&M for 10 years with date of start on 16.12.2019. Process to start STPs under progress.)
11		Paharigaon	15	2015	UASB	UPJN	
12		Rampur	5	2017	SBR	UPJN	
Total Capacity of STP (MLD)			**217.47**				

OTHERS

Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remarks
1	Narora	Narora Atomic Power Plant	2.25	2010	ASP	Narora Power Plant	Operational
2	Agra	Bichhpuri - 2	36	2013	SBR	Agra Devt. Authority	Operational
3		Kalandi Bihar	4.5	2013	UASB	Agra Devt. Authority	Operational
4	Mathura	Trans Yamuna (Gowardhan)	2.76	2010	WSP	NPP	Operational
5	Gaziabad	Indirapuram - 2	56	1995-1998	SBR	Nagar Nigam	Operational
6		Dudaheda	56	2013	UASB	Nagar Nigam	Operational
7		Indirapuram 3	56	2012	SBR	GDA	Operational
8		Govindpuram	56	2011-2012	UASB	GDA	Operational
9		Bapudham	56	2018	UASB	GDA	Operational
10		Moti Rajendra Nagar Extension	56	2018	SBR	GDA	Operational
11	Noida	Sector-54-3	54	2013	SBR	Noida	Operational
12		Sector-50	25	2009	SBR	Noida	Operational
13		Sector-50-2	34	2013	SBR	Noida	Operational
14		Sector-123	35	2009	SBR	Noida	Operational
15		Sector-168	50	2009	SBR	Noida	Operational

16	Greater Noida	Ecotech 3rd	20	2018	SBR	G-Noida	Operational
17		Ecotech 2nd	15	2018	SBR	G-Noida	Operational
18		Badalpur	2	2013	SBR	G-Noida	Operational
19		Kasna	137	2013	SBR	G-Noida	Non-operational (STP is under Renovation
20	Gorakhpur	Ramgarhtal	30	2015	SBR	UPJN	Operational
21		Mahadev Jharkhandi	15	2010	SBR	UPJN	Operational
22	Lucknow	Awas Vikas STP	37.5	2017	SBR	Awas Vikas	Operational
23		STP Jalkal	6.5	2010	SBR	Jalkal	Operational
24	Meerut	Ganga Nagar	10	2011	SBR	Meerut Devt. Authority	Operational
25		Lohia Nagar	10	2010	ASP	Meerut Devt. Authority	Operational
26		Shatabdi Nagar	15	2010	ASP	Meerut Devt. Authority	Operational
27		Sharda Puri Phase-1	6	2011	ASP	Meerut Devt. Authority	Operational
28		Pallavpuram	7	2012	ASP	Meerut Devt. Authority	Operational
29		Ved Vyaspur	15	2010	ASP	Meerut Devt. Authority	Operational
30		Pandav Nagar	3	2008	ASP	Meerut Devt. Authority	Operational
31		Pallavpuram - 2	11	2008	ASP	Meerut Devt. Authority	Operational
32		Rakshapuram	6	2011	ASP	Meerut Devt. Authority	Operational
33		Saardapuri Phase 2	6	2011	SBR	Meerut Devt. Authority	Operational
34		Modipuram Tiraha	5	2016	UASB	Meerut Devt. Authority	Operational
35		Sainik Vihar	6	2017	UASB	Meerut Devt. Authority	Operational
36		Major Dhyan Chand	7	2012	ASP	Meerut Devt. Authority	Operational
37	Moradabad	MDA, New Moradabad	20	2017	SBR	Moradabad Devt. Authority	Operational
Total Capacity of STP (MLD)			969.51				
Grand Total of STP Capacity (MLD)			3298.84				

(III) STPs Under-Construction-

Namami Gange Programme, City - 22, S.T.P. - 42, Capacity, 817.78 MLD				
Sl. No.	City	No. of STPs	Total Capacity(MLD)	completion date
1	Prayagraj	3	72	Sept. 2021
2	Mirzapur	2	17	Feb. 2020
3	Varanasi	1	50	March. 2020
4	Kanpur	1	15	Oct. 2021
5	Bithoor	1	2.4	Dec. 2019
6	Fatehgarh	1	2	Under tedering process (Revised AA&ES to be issued by NMCG)
7	Farukkhabad	2	33	
8	Unnao	1	13	Oct. 2021
9	Shuklaganj	1	6	Oct. 2021
10	Ramnagar	1	10	March. 2020
11	Chunar	1	2	Sept. 2020
12	Ghazipur	1	21	Dec. 2019
13	Mathura	1	30	Jan. 2021
14	Moradabad	1	25	March. 2020
15	Bareilly	4	63	Jan. 2021
16	Kasganj	1	15	July. 2021
17	Sultanpur	2	7	Dec. 2020
18	Agra	13	172.38	Oct. 2020
19	Muzaffarnagar	1	22	Jan. 2021
20	Jaunpur	1	30	Oct. 2021
21	Budhana	1	10	Feb. 2021
22	Meerut	1	200	Feb. 2021
	Total	**42**	**817.78**	

AMRUT Programme, City - 10, S.T.P. - 10, Capacity, 294 MLD				
Sl. No.	City	No. of STPs	Total Capacity(MLD)	completion date
1	Bulandshahar	1	40	Feb. 2020
2	Hapur	1	30	Oct. 2021
3	Mirzapur	1	7	Dec. 2020
4	Bareilly	1	35	Dec. 2020
5	Aligarh	1	45	May. 2021
6	Rae Bareilly	1	18	April. 2021
7	Etah	1	24	Jan. 2020
8	Modinagar	1	20	Jan. 2020
9	Azamgarh	1	8	Under Tendering
10	Firozabad	1	67	June. 2020
	Total	10	294	

Sewage Treatment Plant- River Ganga

S.No.	Name of District / City / Town	No. of drains	Discharge of Sewage/ Water MLD	Tapped	Untapped	Dry	No of STPs	Capacity (MLD)	Operational	Non-operational STP No. / Capacity (MLD)	Under construction STP No. / Capacity (MLD)	Final Discharge/River	
												Treated (MLD)	Untreated (MLD)
1	Bijnor	3	-	2	1	0	1	25	1	No	No	10.0	-
2	Bulandshahr	2		2	-	-	7	11.305	6	No	1(30)	11.305	-
3	Farrukhabad	5	-	1	4	-	4	27	1	No	3(35)	2.0	-
4	Hapur	2	-	1	1	-	3	9.0	2	No	1(30)	5.3	-
5	Ghazipur	34		-	33	1	1	-	No	No	1(21)		-
6	Varanasi	30	1.90	20	10	-	7	364.8	5	No	2(60)	364.8	-
7	Unnao	6	35.94	-	5	1	2	-	No	No	2(19)	-	-
8	Rae Bareli	9	5.97	-	6	3	2	-	No	1(5)	1(18)	-	-
9	Prayagraj	59	61.71	18	32	-	10	268.0	7	No	3(72)	268.0	-
10	Mirzapur	28	18.83	7	16	5	6	18.0	2	No	4(26)	16.5	-
11	Kanpur	23	328.93	8	13	2	8	400.0	5	1(45)	2(173.4)	195.0	-
Total drains		213	453.25	59	129	25	51	1091.805	29	2(48)	20(338.4)	869.905	-

Source: Joint Verification Report submitted in Hon'ble NGT in OA No. 299/2014 and desk inventory of UPPCB & State Mission for Clean Ganga (SMCG), Uttar Pradesh

14-01-2020

14-1-2020

Dr. R. B. Awasthi
Chief Environmental Officer
Central Laboratory,
U.P. Pollution Control Board
Lucknow

Summary of Untapped drains polluting River Ganga

S No.	District	No. of Drains	Type of Drains			Status of Drains			Industries		Sewage Discharge (MLD)			Total Discharge in the River (MLD)
			Domestic	Industrial	Mixed	Tapped	Untapped	Partially Tapped	Number	Treated Effluent (MLD)	Treated	Untreated	Total	
1.	Kannauj	-	-	-	-	-	-	-	-	-	-	-	-	-
2.	Kanpur	20	15	0	05		18	02	78	3.45	1.10	324.38	325.48	328.93
3.	Hardoi	-	-	-	-	-	-	-	-	-	-	-	-	-
4.	Unnao	06	04	-	02	-	06	-	79	14.41	00	21.50	21.50	35.91
5.	Raebareli	10	10	00	00	00	10	-	01	00	00	5.97	5.97	5.97
6.	Kaushambi	-	-	-	-	-	-	-	-	-	-	-	-	-
7.	Prayagraj	29	29	00	00	00	29	00	00	00	00	61.71	61.71	61.71
8.	Mirzapur	17	17	00	00	00	17	00	08	0.43	00	18.40	18.40	18.83
9.	Varanasi	03	02	00	01	00	03	00	11	0.09	00	1.82	1.82	1.90
10.	TOTAL	85	77	00	08	00	83	02	177	18.37	1.10	433.78	434.88	453.25

Source : Joint Verification Report submitted in Hon'ble NGT in OA No. 200/2014 and desk inventory of UPPCB.

23. The Hon'ble NGT has also directed that only treated effluents may be discharged into river Ganga and its tributaries. Further direction was that coercive measures be taken against officers of UPPCB and NMCG colluding in permitting continued operations of polluting activities. It was further directed that Ganga pollution be monitored directly by the Chief Secretary, UP. Responsibility for plantations and administrative control of areas beyond HFL were to be handed over to the Forest Departments.

24. The UPPCB has reported that the State is implementing projects of tertiary treatment and supply of treated water to Indian Oil Corporation Limited, Mathura and Panki Power Plant in Kanpur. For agricultural purposes, the CPHEEO Manual permits the use of secondary treated water only for non-edible crops. For use of treated waste water for any other purpose will require tertiary treatment and no STP in Uttar Pradesh as on date has tertiary treatment facility. It is further reported that the use of treated water in agriculture is being done in Jajmau (Kanpur), Prayagraj, Varanasi, etc.

As per report of UPPCB, the project for up-gradation for Common Effluent Treatment Plants (CETPs) at Mathura of 6.5 MLD and Banthar of 4.5 MLD has been approved by the authorities concerned and the CETPs are

projected to be completed and commissioned in 24 months. River Ganga being National River with distinct significance for the country, even a drop of pollution therein is a matter of concern. All the authorities have to be stringent and depict zero tolerance to the pollution of River Ganga. Wherever STPs are not operating, immediate bio-remediation and/or phyto-remediation may be undertaken if feasible. Performance guarantees may be required to be furnished for ensuring timely performance. It needs to be ensured that setting up of STPs and sewerage network to be completed and carried out so as to avoid any idle capacities being created.

25. A report was also called for from the UPPCB with regard to untapped drains falling into river Ganga. The report submitted by the UPPCB is annexed herewith as **Annexure-4.**

Sewage Treatment Plant- River Ganga

S.No.	Name of District / City / Town	No. of drains	Discharge of Sewage/ Water MLD	Tapped	Untapped	Dry	No of STPs	Capacity (MLD)	Operational	Non-operational STP No. / Capacity (MLD)	Under construction STP No. / Capacity (MLD)	Final Discharge/River	
												Treated (MLD)	Untreated (MLD)
1	Bijnor	3	-	2	1	0	1	24	1	No	No	10.0	-
2	Bulandshahr	2	-	2	-	-	7	11.305	6	No	1(40)	11.305	-
3	Farrukhabad	5	-	1	4	-	4	2.7	1	No	3(33)	2.0	-
4	Hapur	2	-	1	1	-	3	9.0	2	No	1(30)	5.3	-
5	Ghazipur	34	-	-	33	1	1	-	No	No	1(21)	-	-
6	Varanasi	30	1.90	20	10	-	7	361.8	5	No	2(60)	361.8	-
7	Unnao	6	35.91	-	5	1	2	-	No	No	2(19)	-	-
8	Rae Bareli	9	5.97	-	6	3	2	-	No	No	1(5)	1(18)	-
9	Prayagraj	59	61.71	18	32	-	10	268.0	7	No	3(72)	268.0	-
10	Mirzapur	28	18.83	7	16	5	6	18.0	2	No	4(26)	16.5	-
11	Kanpur	23	328.93	8	13	2	8	400.0	5	1(43)	2(17.4)	195.0	-
Total drains		213	453.25	59	129	25	51	1094.805	29	2(48)	20(338.4)	869.905	-

Source : Joint Verification Report submitted in Hon'ble NGT in OA No. 200/2014 and desk inventory of UPPCB & State Mission for Clean Ganga (SMCG), Uttar Pradesh

14.01.2020

14-1-2020

Dr. B. B. Awasthi
Chief Environmental Officer
Central Laboratory
U.P. Pollution Control Board
Lucknow

26. Approximately 33 drains are falling into river Ganga in district Ghazipur and there is only 01 STP in the district. Similarly, 10 drains in district Varanasi, 32 in Prayagraj, 16 in Mirzapur and 13 in district Kanpur are directly falling into river Ganga. As per direction of the Tribunal, wherever the work has not commenced, it is necessary that no untreated sewage is discharged into river River Ganga and bio-remediation and/or phyto-remediation or any other remediation measures may start as an interim measure positively from 01.11.2019, failing which the State may be liable to pay compensation at the

rate of Rs. 5 lacs per month per drain. Since no remediation measures are reported to have taken place, the environmental compensation is required to be levied and recovered from the State within a time-frame. The concerned authorities may be directed to report with regard to compliance of Hon'ble Tribunal's orders.

27. The CPCB has identified 351 polluted river stretches in India, of which 12 river stretches are in Uttar Pradesh. The action taken report as submitted by the State of UP is annexed herewith as **Annexure-5.**

Thematic area-6: 351 Polluted River Stretches in the Country

(12 Polluted River Stretches in U.P.)

Current Status

- CPCB identified 351 polluted river stretches in India of which 12 river stretches are in Uttar Pradesh.
- 12 Polluted River Stretches in U.P.

Priority 1 (04 Rivers)	
River	**River Stretch**
Hindon	Saharanpur to Ghaziabad
Kali East	Muzaffarnagar to Gulaothi
Varuna	Remeshwar to Varanasi
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj
Priority II No river stretch in U.P.	
Priority III (01 River)	
Gomti	Sitapur to Varanasi
Priority IV (02 Rivers)	
Ganga	Kannauj to Varanasi
Ramganga	Moradabad to Kannauj
Priority V (05 Rivers)	
Betwan	Hamirpur to Wagpura
Ghaghra	Barhalganj to Deoria
Rapti	Domingarh to Rajghat
Sai	Unnao to Jaunpur
Saryu	Ayodhya to Elafatganj

- Sewage Management from Cities and Towns along 12 Critically Polluted River Stretches :

ESTIMATED POPULATION 2030	WATER CONSUMPTION (MLD) (@135 LPCD)	SEWAGE GENERATION (MLD)
27560875	**3752.21**	**3303.67**

- Status of STPs in the catchment area of 12 Critically Polluted River Stretches :

River	Critically polluted stretch	No. of STPs
Hindon	Saharanpur to Ghaziabad	10
Kali East	Muzaffarnagar to Gulaothi	12
Varuna	Remeshwar to Varanasi	03
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj	23
Gomti	Sitapur to Varanasi	04
Ganga	Kannauj to Varanasi	18
Ramganga	Moradabad to Kannauj	05
Betwan	Hamirpur to Wagpura	02
Ghaghra	Barhalganj to Deoria	00
Rapti	Domingarh to Rajghat	00
Sai	Unnao to Jaunpur	01
Saryu	Ayodhya to Elafatganj	01
Total		**79**

- **Sewage Management in Gram Panchayats under Swachh Bharat Mission (Rural) during year 2019 till IInd week of**

December

Gram Panchayats became liquid waste free	Soak pit Constructed	Waste Stabilization Ponds (WSP) Constructed
9655	150369	12669

- Soak pit under construction : 67631
- WSP under construction : 11976

➢ Status of CETPs in the catchment area of critically polluted river stretches-

Critically Polluted River Stretch	Name, Address of CETP	Capacity (MLD)	Sector	Compliance Status	Timeline required for compliance
Hindon	Apparel Park Tronica City CETP, Phase-I (for textile units), Ghaziabad	6	Textile	Not Complying	-
Yamuna	CETP, Industrial Area, Site-A, Mathura	6.25	Textile	Complying	Upgradation proposed under Namami Gange Project for ZLD.
Ganga	CETP, UPSIDC Textile Complex, Rooma, Kanpur (for textile units)	1.55	Textile	Complying	-
Ganga	CETP Jajmau, Kanpur	36	Tannery	Complying	-
Ganga	Banther Industrial Pollution Control Co. CETP, Banther, Unnao	4.55	Tannery	Complying	-
Ganga	Unnao Tanneries Pollution Control Company (CETP) Site-II, Unnao	2.15	Tannery	Complying	-

➢ The Plantations done by Forestry Department, U.P. in Critically Polluted Rivers Stretches :

Critically Polluted River Stretch	No. of sapling planted	
	Year 2014-15 to 2018-19	Year 2019-20
Hindon	103640	59700
Kali	13200	11000
Gomti	643654	70825
Sai	-	62500
Varuna	131307	39600
Ganga	138117	182550
Ramganga	124400	58100

Betwa	1317894	195625
Saryu	-	85500
Total	2472212	765400

- Action against pollution sources:
  - State is monitoring the implementation of Action Plans for all critically polluted river stretches. The action taken status for the period of August, 2019 to November, 2019 is as below :

Sector	Total Units	Total Defaulters	Action Against Defaulters			
			Show Cause Notice	Closure	Environmental Compensation (Rs. in Crores)	
					Imposed	Show Cause Notice
Industries	1616	233	81	137	19.59	-
Sewage Treatment Plant	79	27	21	00	-	39.00
Common Effluent Treatment Plant	06	02	02	00	-	0.45
Total	1701	262	105	137	19.59	39.45

- The effective implementation of Action Plan and enforcement of Law has resulted in improvement in River Water Quality of following Critically Polluted River Stretches in year, 2019 as compared to year, 2018

Critically Polluted River Stretch	No. of Monitoring Locations	No. of Monitoring Locations showing improvement of river water quality	% Reduction in BOD value in 2019 as compared to 2018
Hindon	07	05	2.3 to 35.7
Kali Nadi East	06	05	11.8 to 28.6
Varuna	02	02	4.0 to 37.1
Yamuna	20	08	0.2 to 9.1
Gomti	11	06	1.3 to 21.9
Ganga	22	21	0.2 to 36.4
Ramganga	06	01	38.7
Ghaghra	02	01	1.0
Sai	08	06	0.3 to 18.0

Gap between current status and desired levels

- As per the Monitoring from January to December, 2019, the Water Quality of all 12 Polluted River Stretches shows the following trend shown below:

River	Monitoring points within the identified polluted stretches	Monitoring points where BOD < 3 mg/l	Gap i.e. Monitoring points where BOD > 3 mg/l
Hindon	07	00	07
Kali Nadi East	06	00	06
Varuna	02	00	02
Yamuna	20	04	16
Gomti	11	02	09
Ganga	22	06	16
Ramganga	06	01	05
Betwan	01	00	01
Ghaghra	02	00	02
Rapti	02	00	02
Sai	08	00	08
Saryu	01	00	01
Total	**88**	**13**	**75**

- FC is more than the desired level in all monitoring locations.

Proposal of attending the gap with time lines

- The detailed time line for STP construction / treatment of sewage has been given in the table. It is proposed to undertake treatment using STPs & in-situ method of NEERI. The project of STPs will be implemented in 24 months of sanction and the DPR will be prepared in 6 months of sanction of the DPR cost which is 4% of the project cost. The project cost on average will be Rs. 2.0 Crore per MLD. It is also pertinent to mention that in compliance of the order of NGT in O.A. No: 200/2014 case of M.C. Mehta in which order has been passed to start bio-remediation from 1st November, 2019 failing which penalty will be imposed. A DPR for 459 drains on 11 rivers costing Rs. 1700 crore has been submitted in the NMCG. The above project has not been sanctioned, so work has not begun yet.

Priority	River	CITY	ESTIMATED POPULATION 2030	WATER CONSUMPTION (MLD) (@135 LPCD)	SEWAGE GENERATION (MLD)	INSTALLED CAPACITY OF EXISTING STP (MLD)	PROPOSED STP CAPACITY (MLD)	GAP IN STP CAPACITY UTILIZATION (MLD)	Date of Completion of STPs to meet the Gap
I	Hindon	Sahranpur	969002	130.82	104.65	38	93.65	N/A	
		Muzaffarnagar	519184	70.09	56.07	32.5	32	N/A	
		Shamli	141791	19.14	15.31	N/A	N/A	15.31	March, 2022
		Sardhana * (Meerut)	74732	10.09	8.07	N/A	N/A	8.07	March, 2022
		Baghpat	61733	8.33	6.67	N/A	14	Nil	March, 2021
		Ghaziabad	2943273	397.34	317.87	454	N/A	N/A	
		Total	**4709715**	**635.81**	**508.65**	**524.5**	**139.65**	**23.48**	
	Kali (East)	Khatauli	96428	13.02	10.41	N/A	N/A	10.41	March, 2022
		Meerut	1674748	226.09	180.87	168	200	N/A	
		HAPUR	469346	63.36	50.69	N/A	80	N/A	
		GHAZIABAD (MODI AGAR)	232085	31.33	25.07	N/A	20	5.07	March, 2022
		BULANDSHAHAR (GALAOTHI)	76026	10.26	8.21	N/A	7	1.21	March, 2000
		Total	**2548633**	**344.07**	**275.25**	**168**	**307**	**16.69**	
	Yamuna	G.B. Nagar	2810184	379.37	303.5	196	NA	107.5	March, 2022
		Aligarh	1252869	169.14	135.31	NA	45		
		Hathras	179700	24.26	19.41	NA	NA	19.41	March, 2022
		Mathura	501357	67.68	54.15	58.85	30	NA	
		Agra	2250035	303.75	243	223	175	NA	

			Firozabad	853217	115.18	92.15	67	67	NA	
			Etawah	345409	46.63	37.3	23.95	21	NA	
			Kalpi	67564	9.12	7.3	NA	NA	7.3	March, 2022
			Hamirpur	42343	5.72	4.57	NA	NA	4.57	March, 2022
			Rajapur, Chitrakoot	20954	2.83	2.26	NA	3.42		
			Prayagraj	1548628	209.06	167.25	268	72		
			Total	**98,72,259**	**1332.76**	**1066.2**	**618.8**	**413**	**138.78**	
III		Gomti	Sitapur	2,57,649	34.78	27.83	NIL	NIL	27.83	March, 2022
			Sandila*	81,005	10.94	8.75	NIL	NIL	NA	
			Lucknow	41,99,120	566.88	755.5**	438	326	NIL	
			Barabanki	2,08,446	28.14	22.51	NIL	NIL	22.51	March, 2022
			Jagdishpur	33130	4.47	3.58	NIL	NIL	3.58	March, 2021
			sultanpur	1,44,678	19.53	15.63	5	17	NIL	
			Jaunpur	2,31,388	31.24	24.99	NIL	30	NIL	
			Kerakat	17,351	2.34	1.87	NIL	NIL	1.87	March, 2021
			Total	**51,72,767**	**698.32**	**860.66**	**443**	**373**	**55.79**	
IV		Ramganga	Moradabad	1313321	177.3	141.84	58*	99	Nil	
			Rampur	457709	61.79	49.43	34*	Nil	15.43	March, 2022
			Bareilly	1297369	175.14	140.12	NA	98**	42.12	March, 2022
			Shahjahanpur	No drain either domestic or industrial or mixed flows into river Ramganga in these Districts. Hence there is no contribution of pollution load into river Ramganga from these 4 Districts.						
			Farrukhabad							
			Hardoi							
			Kannauj							
			Total	**3068399**	**414.23**	**331.39**	**92***	**197**	**57.55**	
V		Betwa	Jhansi	605000	81.6	65.28	N/A	26	39.28	March, 2022
			Hamirpur	45000	6.1	4.8	N/A	0	4.8	March, 2022
			Total	**650000**	**87.7**	**70.08**	**0**	**26**	**44.08**	
		Ghaghara	Town area Barhalganj	52586	7.9	6.32	0	0	6.32	March, 2021
			Town are Dohari Ghat,	29143	3.93	3.14	0	0	3.14	March, 2021
			Nagar Palika Gaura Barhaj	90053	12.15	9.72	0	0	9.72	March, 2021
			Village Panchayat, Bhagalpur	17941	2.42	1.93	0	0	1.93	March, 2021
			Total	**189723**	**26.4**	**21.11**	**0**	**0**	**21.11**	
		Rapti		6,73,446	121.68	97.34	N/A	168	No Gap	
		Sai	Raebareli	258782	34.94	27.95	No existing STP	18	9.95	March, 2022
			Pratapgarh	101447	13.7	10.96	8.95 *	--	2.01	March, 2021
			Total	**360229**	**48.63**	**38.9**	**8.95**	**18**	**11.96**	
		Saryu	Ayodhya Town	75323	10.17	8.13	12	-	Nil	
			Faizabad City	222678	30.06	24.05	-	35	Nil	
			Iltifatganj, Ambedkar Nagar	17703	2.38	1.91	Nil	Nil	1.91	March, 2021
			Total	**315704**	**42.61**	**34.09**	**12**	**35**	**1.91**	
		Grand Total		**27560875**	**3752.21**	**3303.67**	**1867**	**1067**	**313.8**	

➢ Plantation proposed for Year 2020 - 21, Year 2021-22 etc. along Critically Polluted River Stretches by Social Forestry Department, Uttar Pradesh :

Critically Polluted River Stretch	Plantation (Year 2019-20)	Proposed Plantation (Year 2020 - 21, Year 2021-22)
Hindon	59700	25400
Kali	11000	25500
Gomti	70825	12000
Sai	62500	22500
Varuna	39600	-
Ganga	182550	-
Ramganga	58100	-
Betwa	195625	682000
Total	765400	767400

➢ **Maintenance of E-flow for the critically polluted river stretches -**

- **Perennial River Flow :**

Name of River	River Stretch	Possibility of maintaining E-flow	Timeline
Hindon	Saharanpur to Ghaziabad	E-flow study will be carried out by IIT Delhi.	12 Months
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj	E-flow will be studied and decided by Central Water Commission.	12 Months
Ganga	Kannauj to Varanasi	E-flow from Kannauj to Unnao is maintained from Narora Barrage and Kanpur Barrage as per directions of Central Water Commission 24 cumec - Nov. to May 48 cumec - June to Oct.	-
		E-flow from Unnao to Varanasi will be studied & decided by Central Water Commission.	12 Months
Ramganga	Moradabad to Kannauj	E-flow study will be carried out by IIT Delhi or other agency.	12 Months
Betwa	Hamirpur to Wagpura	E-flow study will be carried out by IIT Delhi or other agency.	12 Months
Ghaghra	Barhalganj to Deoria	E-flow study will be carried out by IIT Delhi or other agency.	12 Months
Rapti	Domingarh to Rajghat	E-flow study will be carried out by IIT Delhi or other agency.	12 Months
Saryu	Ayodhya to Elafatganj	E-flow study will be carried out by IIT Delhi or other agency.	12 Months

- **Non-perennial River Flow :**

Name of River	River Stretch	Possibility of maintaining E-flow
Kali Nadi East	Muzaffarnagar to Gulaothi	As it's a non perennial river, e-flow cannot be maintained.
Varuna	Remeshwar to Varanasi	
Gomti	Sitapur to Varanasi	
Sai	Unnao to Jaunpur	

➢ **Demarcation of Flood plain boundary :**

Name of River	River Stretch	Introduce pillars at suitable location in the river flood plain for demarcation of the flood plain boundary for effective enforcement on eliminating incidence/practices of waste disposal encroachment in the river bed.	
		Activity	Timeline
Hindon	Saharanpur to Ghaziabad	50 m from both banks will be declared as no construction/no development zones.	3 Months
		Details survey is being conducted by IIT Delhi	6 Months
		Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
Kali East	Muzaffarnagar to Gulaothi	50 m from both banks will be declared as no construction/no development zones.	3 Months
		For detailed survey	6 Months
		Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
Varuna	Remeshwar to Varanasi	50 m from both banks will be declared as no construction/no development zones.	3 Months
		For detailed survey	6 Months
		Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj	100 m from both banks will be declared as no construction/no development zones till the notification of the above purpose is issued by Central Water Commission based on their studies.	6 Months
		Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
Gomti	Sitapur to Varanasi	50 m from both banks will be declared as no construction/no development zones.	3 Months
		For detailed survey	6 Months
		Demarcation of flood plain will be made at suitable location by	9 Months

			planting a row of suitable plants through Forest Department.	
	Ganga	Kannauj to Varanasi	Detailed report of flood plain zone has been presented by Special Committee in O.A. 200/2014 to Hon'ble NGT.	3 Months
			Demarcation of flood plain zone will be made at suitable location as per Central Water Commission (CWC) report, will be made by fixing pillars at suitable interval.	9 Months
	Ganga	Kannauj to Varanasi	100 m from both banks will be declared as no construction/no development zones till the detailed report of Flood Plain Zone will be prepared by CWC in accordance with the orders issued in O.A. no. 200/2014 b y Hon'ble NGT regarding segment 'B' - II Phase.	6 Months
			Demarcation of flood plain zone will be made at suitable location as per CWC report, will be made by fixing pillars at suitable interval.	9 Months
	Ramganga	Moradabad to Kannauj	50 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Betwan	Hamirpur to Wagpura	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain will be made at suitable interval as per topographical condition by stone pillars/plantation	9 Months
	Ghaghra	Barhalganj to Deoria	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain zone at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Rapti	Domingarh to Rajghat	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain zone at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Sai	Unnao to Jaunpur	50 m from both banks will be declared as no construction/no development zones.	3 Months

			For detailed survey	6 Months
			Demarcation of flood plain zone at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Saryu	Ayodhya to Elafatganj	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain will be made at suitable interval as per topographical condition by stone pillars/plantation	9 Months

Name and designation of designated officer for ensuring compliance to provisions under statute.

S. No.	Area	Designated Officer
1	E-flow	

S. No.	Area	Designated Officer		
1	E-flow	**River**	**River Stretch**	**Nodal Officer**
		Hindon	Saharanpur to Ghaziabad	Mr. Anil kumar, C.E. Yamuna, Okhla, New Delhi
		Kali East	Muzaffarnagar to Gulaothi	Mr.T C Sharma, Chief Ganga, Meerut
		Varuna	Remeshwar to Varanasi	Mr.Vijay kumar, SSO, C E (Son), Varanasi
		Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj	Mr. Rakesh Yadav, SSO (Ram Ganga) Kanpur
		Gomti	Sitapur to Varanasi	Mr. R K Gupta, C E, (Sharda Shayak), LKO
		Ganga	Kannauj to Unnao	Mr. Rakesh Yadav, SSO (Ram Ganga) Kanpur
		Ganga	Unnao to Varanasi	Mr. Vijay kumar SSO, C E (Son), Varanasi
		Ramganga	Moradabad to Kannauj	Mr. R P Singh, C E(Poorvi ganga), Moradabad.
		Betwa	Hamirpur to Wagpura	Mr. Jagdesh Singh, C E (betwa project), Jhansi.
		Ghaghra	Barhalganj to Deoria	Mr. V K Niranjan, C E (Sarayu 1st), Ayodhya

			Rapti	Domingarh to Rajghat	Mr A K Jain, C E(Sarayu 2nd), Gonda.
			Sai	Unnao to Jaunpur	Mr R K Gupta, C E(Sharda Shayak), LKO.
			Saryu	Ayodhya to Elafatganj	Mr. V K Niranjan, C E (Sarayu 1st), Ayodhya.

Notes:

1. No construction/No development zone for River Ganga is decided on the basis of O.A. 200/2014 M.C. Mehta v/s Union of India.
2. For Yamuna & other major rivers, it is also decided on the same principle as 100mtr.
3. For minor rivers and drains, it is decided as 50mtr.
4. E-flow is maintained in river Ganga as per the guidelines of C.W.C. from Kannauj to Unnao as 24 cumec from November to May and 48 Cumec from June to October.
5. For Yamuna river, as per Upper Yamuna River Board compulsory Downstream discharge is 10 cumec which is maintained from Okhla Barrage.
6. For non perennial rivers, E-flow can not be maintained through out the year and no surplus water is available to augment the flow in these rivers.
7. There is no surplus water in any canal that can augment, flow in critical polluted reaches.

28. A perusal of the report reveals that the State has taken rivers Hindon, Kali East, Varuna and Yamuna in Priority 1 and the action plans for these four river stretches categorized under Priority 1 submitted by the UPPCB are reported to have been approved by the River Rejuvenation Committee.

The total sewage general, as reported, is about 3307.67 MLD while total installed capacity of existing STPs is 1867 MLD. Out of these existing STPs, more than 38 are non-complying in catchment area of 12 critically polluted river stretches. 05 STPs constructed in the area from Moradabad to Kannauj connecting Ramganga are no-complying. Out of 79 existing STPs, total number of non-complying STPs are 38. It is thus clear that the installed capacity of existing STPs is about 50% of sewage generation, out of which 50% STPs are non-complying; meaning thereby the existing STPs are treating only 25% of sewage generation. The Water Resource Department of the State may be strictly warned and directed to do the needful to meet out the sewage generation and treatment capacity.

The CETP installed in Apparel Park Tronica City, Phase-I, Ghaziabad having 6 MLD capacity is non-complying. The UPPCB may issue show cause notice as to why Environmental Compensation be not imposed and recovered from non-complying CETP. The amount of Environmental Compensation be calculated and after taking action, report be submitted to this Committee for onward submission to Hon'ble NGT.

29. The Forestry Department of the State has also taken steps for plantation in critically polluted river stretches. From the year 2014-15, total 2472212 number of trees have been planted. Plantation of trees is one thing, but their survival is another important thing, which is a big challenge to the Forestry Department. Generally it is seen that more than more than 50% plants do not survive after the summer season. The Forestry Department of the State is requested and directed to monitor survival of plants and submit action taken report to this committee.

30. The State authorities have demarcated the flood plain boundaries and the criteria for minor rivers and drains is of 50 meters and for Yamuna and other major rivers, it are of 100 meters. Timeline for demarcation has been framed from 03 months to 09 months. The designated officers have been intimated to install pillars at some distances, but there is no proposal to protect the area from encroachment. It is reported that there are three types of encroachments-(i) temporary construction; (ii) permanent construction, and (iii) continuing encroachment. It is also requested by the Department of Irrigation that the concerned District Magistrates may be directed to take necessary steps to prevent the encroachments and action against the persons who have already encroached the area.

E-flow is maintained in river Ganga as per the guidelines of Central Water Commission from Kannauj to Unnao as 24 Cumec from November to May and 48 Cumec from June to October. For Yamuna River, as per Upper Yamuna River Board, compulsory downstream discharge is 10 Cumec, which is maintained from Okhla Barrage.

31. Over the last three decades, there has been increasing global concern over public health impacts attributed to environmental pollution, in particular, the global burden of diseases. Many cities in U.P. lack in solid waste regulation

and its proper disposal facilities including for hazardous waste. Such waste may be infectious, toxic and radioactive. Municipal waste dumping sites are designated places set aside for waste disposal. Poor disposal of handling of wastes leads to the environmental degradation, destruction of ecosystem and poses great risk to the public health.

32. Right to live in clean environment is one of such fundamental rights which have been developed through bold and innovative interpretation of Article 21 of the Constitution. This Article provides that no person shall be deprived of his life and personal liberty, which means- survival in pollution free environment. Article 48-A is one of the Directive Principles of State Policy, which says that the State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country. Our Constitution also casts duty on every citizen to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures. Not only the Constitution, but several legislations, such as Environment (Protection) Act, Air (Protection) Act, Water (Protection Act), etc. and the rules framed thereunder are meant for providing pollution free environment to all and sundry. The provisions as contained in the Constitution and different Acts dealing with environment situation in the country and States are the command of Sovereign and Legislature to follow and comply with them. Laws and Rules are meant to execute them and not to flout them. Violation of any command of the State results in punitive action and it is the need of the time to punish those who are polluters of environment.

33. The UPPCB has submitted a report that the laws, rules and various directions issued by various courts and Tribunal have been effectively enforced within the territorial jurisdiction of the State. It has also been stated that regular monitoring of all the polluting units is being done and action is being taken against the defaulting units. Regular monitoring of all the polluting units is undertaken and immediate action is taken against the defaulting industrial

units. The monitoring system is further strengthened by IT based mechanism wherein the data of online effluent and emission monitoring system installed in the industries are regularly analyzed in a dedicated master control room round the clock and e-alerts are sent to respective industries and concerned officials of UPPCB for immediate actions. It is also reported by the UPPCB that it is continuously monitoring the major polluting units through the feed of the web camera which is linked with the master control room of Uttar Pradesh Pollution Control Board. During the period from April 2019 to November, 2019, the UPPCB has imposed Environment Compensation on various sectors, details of which are as under:

Sl.No.	Sector on which EC imposed	Amount (In Crore)
1.	Violation of SWM Rules, 2016	0.33
2.	Violation of BWM Rules, 2016	8.02
3.	Water polluting industries	19.59
4.	Air polluting industries	43.77
5.	STP	2.511
6.	Building Construction	19.06
7.	Illegal Garbage Burning	1.75
Total	**Rs. 95.031 (Rs. Ninety Five Crore and Three Lakhs Ten Thousand only)**	

In addition to above Show Cause Notice has been issued for imposition of Environmental Compensation on following sectors:

Sl. No.	Sector on which Show Cause issued for EC imposition	Amount (In Crore)
1.	Sewage Treatment Plants	39
2.	Common Effluent Treatment Plant	0.45
3.	Violation of SWM Rules, 2016	14.40
Total	**Rs. 53.85 (Rs. Fifty Three Crore Eighty Five Lakhs only)**	

34. A perusal of different report reveals that major cause of water pollution is the discharge of industrial effluents and improper sewage disposal management. Polluted water discharged into river is a constraint threat not only to riverine system but also to health of the residents and agriculture. The STPs/CETPs installed are not achieving zero liquid discharge. Effluent is being discharged into river directly or indirectly. Industries with individual ETPs do not fully comply with the environmental quality standards. It has also been reported that the CETPs do not have primary effluent treatment plants. Large quantities of hazardous wastes are stored in the area surrounding ETPs, which require speedy disposal. The tanks used for CETPs and STPs are full of effluents and it cannot be ascertained as to how much hazardous wastes are accumulated in the bottom of these tanks. The flow-measuring meters are not properly working at the inlet and outlet of the collection tank which may not record the actual industrial effluent discharged and received from particular units. It has also been seen that the parameters such as BOD, Chloride and Sulphates are not meeting the standards. Details of waste water treated/reused/forced evaporated (HRTS) have not been maintained properly as no correct correlation exists. Plantation in the CETP premises was not found adequate. They should develop green belt using treated effluent.

35. As far as remedies are concerned, we can say that there is only one remedy we ought to know the consequences and take responsibility to cure the odds what we have done till now. There are multinational organizations such as United Nations and World Health Organization who have proposed numerous solutions to the aforesaid issues. Any impurity in the pure form of product is considered as a pollutant. Pollution is affecting our lives in many dimensions. The study revealed that even in United States, 40% of rivers and 46% of lakes are too polluted for fishing, swimming and aquatic life. 1/3 of the top soil in the world is already degraded and with the current rate most of the world top soil

could be gone within the next 60 years. The plastic is reported to start decomposition after 500 to 700 years and it takes about 1000 years.

36. In the light of above facts, we are of the view that following measures are required to be taken by the UPPCB and the State:

(i) STPs are mostly located on interception points of the drains and the river, which means that drains should be tapped before the STP commences. STPs are designed on the basis of population to be served but the rain fall run off is discharged from drains cannot be treated in STPs. Measures are required to be taken by the authorities concerned for its treatment.

(ii) CETP is required to take necessary actions for re-utilization of treated effluent so that it should not enter into river. The HRTS system or any plantation/agriculture should be done near to the CEPT for the disposal of treated effluents.

(iii) The Hazardous waste handling needs to be improved by effective drying practices and also, proper characterization and regular disposal with proper scheduling.

(iv) All joints of liner/membrane must be as per the design specification so that no percolation of stored effluent occurs in the groundwater. Also, slope of the embankment of the pond should be as per the design standard.

(v) If there are symptoms of effluent and hazardous waste presence in the River at certain locations. UPPCB needs to identify the defaulting industries and issue directions to these industries and if not found, to CETP to lift this effluent and hazardous waste for necessary treatment and disposal.

(vi) If there any seepage from the ponds entering in the river, it needs to be diverted back for treatment through well designed garland drain and pumping arrangements.

(vii) Information board about the industry should be located at the main gate. It should be essential that industry must display all necessary information about the industry outside the factory main gate in Hindi and English both on 6' x 4' information board. The details must include name, address, production capacity of the industry, validity of the consents and average quantity of water consumption, wastewater and sludge generation etc. This is mandatory for industries generating HW as per Hon'ble Supreme Court directions dated 14.10.2003 in WP 657 of 1995.

(viii) The industries should maintain the record of chemicals being used, Ro membranes changed or disposed at treatment, storage, and disposal facility (TSDF).

(ix) The ETP plants should be operated by well-trained technical persons.

(x) Hazardous waste handling and storage should be done properly in the premises of industry.

(xi) The ETP industries should dispose their sludge to the designated sites i.e TSDF.

(xii) Identification of the dredged/scrapped stretches of the river from where the hazardous industrial and sewage sludge deposited should be removed after carefully studying environmental issues.

(xiii) UPPCB must monitor regularly river water quality and quantity at critical locations to apply mass balance of selected stretches so that illegal disposal of industrial wastewater into river can be monitored.

(xiv) Regular monitoring of the groundwater is to be done at key locations to understand impact of industrial activities in groundwater. It is necessary that UPPCB must conduct groundwater quality parameters

tests at key groundwater pumping wells along the river. All data pertaining to these tests must be recorded and made available in UPPCB office.

37. **Recommendations:**

In view of above, we recommend as under:

1. According to the report submitted by the UPPCB as attached, 02 STPs, which are under construction, connecting river Ganga, were to be completed upto December, 2019, but nothing has been reported regarding their completion till date. UPPCB is required to issue notices to defaulters for realization of environmental compensation at the rate as prescribed by Hon'ble NGT, if the said STPs were not completed within the time stipulated.
2. As per report submitted by the UPPCB, 04 STPs are under construction connecting river Ganga; they are required to be completed upto March, 2020. Less than two months' time is now left but the percentage of completion does not reveal that these STPs will be completed in projected time. Notices be issued by the UPPCB to constructing agencies cautioning them to complete the project within stipulated time or face penal action as per directions of Hon'ble NGT.
3. As of now, approximately 129 drains are untapped. Remediation measures have not started till date. Member Secretary, UPPCB is requested to issue notices to concerned authorities as to why environmental compensation be not imposed on them. The direction of the Hon'ble NGT is to realize environmental compensation at the rate of rupees 5 lacs per drain be not recovered where bio-remediation and/or phyto-remediation or any other remediation measures have not been initiated w.e.f 01.11.2019. Accordingly, the orders of Hon'ble NGT be complied with.

4. It is reported that the State is implementing project of tertiary treatment and supply of treated water to IOCL, Mathura and Panki Power Plant in Kanpur, but the Manual permits the use of secondary treated water only for non – edible crops. For use of treated waste water for any other purpose, it will require tertiary treatment and no STP in Uttar Pradesh as on date has tertiary treatment facility. The State of UP may be directed to initiate the establishment of tertiary treatment plant/facility for use of treated waste water. Priority should be given to those cities, where there is maximum use of water in parameters of MLD.
5. Out of 79 existing STPs, total non-complying STPs are 38. The State of UP and the Water Resource Department may be directed to do the needful to utilize the installed capacity. UPPCB is directed to calculate the environmental compensation at the rate already fixed by Hon'ble NGT and report within 30 days. Show cause notices be issued to the authorities concerned for not taking proper necessary remedial and disciplinary action well within time.
6. We visited Varanasi, Mathura, Prayagraj and Lucknow to see the actual status of STPs. In Varanasi, more than 50 MLD of sewage water is directly falling into river Ganga without any treatment. Similarly in Prayagraj, 02 STPs are reported to be non-functional and under report and main drains of the city are directly falling into river Ganga. When the team of the Committee visited Mathura, it was reported to the RO UPPCB Mathura that there is no electricity supply and thus the STPs are not functional. When it was enquired as to why generator is not working, the person deputed there informed that diesel was not available. The District Magistrate, Mathura admitted the fact that at least 18 drains are directly failing into river Yamuna, causing pollution in

the river. In overall conspectus of these facts, appropriate directions are required to be issued.

7. While using the bio-remediation/phytoremediation the optimization and standardization of the methodology should be ensured.
8. The disposal of the biomass post bio-remediation/phytoremediation should be processed further to prevent the contaminants coming back into the environment. The stabilization of the treated biomass should be taken care.
9. Plantation of native and fruit bearing plants should be promoted on the banks of the rivers. This will ensure a healthy food chain in the riparian corridors. The plantation of exotic and invasive species should be strictly prohibited.
10. We have also examined certain news items. In Hindi daily "Dainik Jagran", a news item was published and it was reported that about 800 private pathology centres at Lucknow are discharging their untreated biomedical wastes into city drains causing severe pollution. Another report in 'Dainik Jagran' dated 12.02.2020 at page 9 reveals that the water quality of river Ganga at Kanpur is causing skin diseases to persons taking bath in the river. A newspaper report with regard to drains in important areas of Lucknow, as reported in "Dainik Jagran" is also attached only to bring on record the real facts with regard to working of sewer treatment plant and sewer line. A news item published in English daily "The Times of India" dated 08.02.2020 discloses the status of a Chemical Factory in Sitapur, where due to leakage of gas, 07 persons lost their lives. The factory was running in violation of norms. State and UPPCB are required to take necessary remedial action.
11. We, the members of the Committee, visited Sanjay Van, Neela Hauz pond, New Delhi, near Jawaharlal Nehru University, where sewer water

was being treated by way of phyto-remediation, in a natural process by help of some plants. There was no use of electric or pumping station. The person deputed there informed that the treatment plant is maintained by Delhi Development Authority and the cost is approximately rupees 5 to 7 lacs. We are of the view that in State of UP, where the drains are not tapped and no STP is under construction, this remediation measure may be adopted. Principal Secretary, Urban Development and UPPCB are suggested to send their team of experts to see the water treatment plant there and if they deem it fit, may adopt the procedure and direct the local bodies to proceed accordingly.

The Member Secretary, UPPCB is directed to send this report to the Registrar General, National Green Tribunal, Principal Bench, New Delhi for placing the same before the Hon'ble Tribunal with a copy to the Chief Secretary, Government of UP for necessary action. The reports with regard to water quality of rivers and BOD level be uploaded on the website of the Committee.

14/2/2020

(Dr Anup Chandra Pandey)
Member, Oversight Committee

14

(Justice S.K.Singh)
Chairman, Oversight Committee

Feb 14th, 2020

Annexure – 1

Water Quality of River Ganga in Uttar Pradesh
Year -2019

S. No.	Name of District		Sampling Months											
			January			April			August			December		
			DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)
1	Bijnor	Average	9.70	1.37	-	7.93	1.27	-	8.60	1.60	-	9.30	1.43	-
		Category	B			B			B			B		
2	Hapur	Average	8.75	2.45	510	8.5	1.3	445	8.0	2.0	445	8.80	0.75	1500
		Category	C			B			B			C		
3	Bulandshahar	Average	10.27	2.13	503	7.5	2.1	637	7.4	2.4	517	10.13	0.97	793
		Category	C			C			C			C		
4	Badaun	Average	9.80	2.50	370	10.20	1.40	400	10.58	1.30	350	10.10	0.90	270
		Category	B			B			B			B		
5	Farrukhabad	Average	10.00	2.30	2600	8.20	2.10	2400	6.40	2.00	2100	10.10	2.40	2400
		Category	C			C			C			C		
6	Kannauj	Average	10.40	3.15	3950	7.8	3.0	4350	6.40	2.90	3650	9.70	2.90	4500
		Category	D			C			C			C		
7	Kanpur	Average	10.00	2.83	9357	8.06	4.49	11414	5.64	3.34	12843	9.57	3.39	21029
		Category	D			D			D			D		
8	Raibareli	Average	10.20	3.10	3100	9.90	3.70	3400	7.50	3.60	3900	10.00	3.90	3800
		Category	D			D			D			D		
9	Pratapgarh	Average	9.20	3.50	3300	11.00	3.50	3300	7.40	3.70	3800	10.20	3.80	3500
		Category	D			D			D			D		
10	Kaushambi	Average	10.80	3.70	20000	7.60	3.20	24000	7.20	2.80	17000	11.50	3.30	11000
		Category	D			D			D			D		
11	Prayagraj	Average	11.13	2.77	17000	7.97	2.80	17667	7.27	2.40	19333	11.80	2.73	8267
		Category	D			D			D			D		
12	Mirzapur	Average	8.15	3.20	7650	7.75	3.15	9200	6.95	3.55	9850	8.80	2.75	7850
		Category	D			D			D			D		
13	Sonebhadra	Average	8.60	3.00	11000	7.80	3.10	13000	6.90	3.80	14000	8.80	3.00	8000
		Category	D			D			D			D		
14	Varanasi	Average	7.80	3.15	22150	7.85	3.00	17700	6.85	3.75	16600	8.30	2.95	9550
		Category	D			D			D			D		
15	Ghazipur	Average	7.95	3.55	19500	7.80	3.35	20500	6.85	3.85	17000	8.10	3.35	14500
		Category	D			D			D			D		

14/1/2020

14/1/2020

14/1/21

Dr. B. B. Awasthi
Chief Environmental Officer
Central Laboratory.
U.P. Pollution Control Board
Lucknow

Water Quality Of River Ganga in UP
Year-2019

SAMPLING LOCATION (1–4)

Month	1 U/S Near Railway Bridge Gangaghat Balawali Bijnor D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	2 At Madhya Ganga barrage, Bijnor D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	3 D/S Near Village Rasoolpur Bhawar, Amroha a/c with Chhuiya River Bijnor D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	4 U/s Brij Ghat Garhmukteshwar D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)
Jan-19	9.80	0.9	-	-	9.7	1.4	-	-	9.6	1.8	-	-	8.60	2.1	410	210
Feb-19	9.40	1.0	-	-	9.3	1.3	-	-	9.1	1.6	-	-	8.60	1.2	540	140
Mar-19	9.00	1.2			8.7	1.6	-	-	9.1	1.6	-	-	8.50	1.1	240	170
Apr-19	8.30	1.1	-	-	7.5	1.3	-	-	8.0	1.4	-	-	8.30	1.0	350	240
May-19	8.00	0.9	-	-	7.7	1.3	-	-	7.4	1.4	-	-	8.20	1.5	540	320
Jun-19	8.20	1.2	-	-	7.9	1.4	-	-	7.8	1.8	-	-	8.50	1.8	920	220
Jul-19	7.50	1.1	-	-	7.9	1.3	-	-	7.3	1.4	-	-	7.30	1.5	1400	240
Aug-19	#	#	#	#	8.6	1.6	-	-	#	#	#	#	7.80	1.6	350	110
Sep-19	#	#	#	#	7.6	1.3	-	-	#	#	#	#	7.60	1.7	1600	540
Oct-19	#	#	#	#	8.9	1.8	-	-	#	#	#	#	11.5	1.2	2800	1100
Nov-19	8.90	1.2	-	-	9.2	1.5	-	-	#	#	#	#	7.80	1.4	2100	680
Dec-19	9.50	1.2	-	-	9.4	1.5			9.0	1.6			8.70	0.6	1400	790
Average	8.7	1.1	-	-	8.5	1.4	-	-	8.4	1.6	-	-	8.5	1.4	1054	397
Category	B				B				B				C			

SAMPLING LOCATION (5–8)

Month	5 D/s Brij Ghat Garhmukteshwar D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	6 U/s Anoopshahar, Bulandshahar D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	7 D/s Anoopshahar, Bulandshahar D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	8 Rajghat D/s Narora D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)
Jan-19	8.90	2.8	610	350	10.4	2.4	430	230	9.80	2.6	450	210	10.6	1.4	630	350
Feb-19	8.80	1.4	920	220	9.50	1.5	540	280	9.20	1.0	430	240	9.30	1.1	920	540
Mar-19	8.70	1.3	540	350	9.90	1.2	540	250	9.80	1.4	430	230	9.60	1.5	920	550
Apr-19	8.70	1.5	540	480	7.60	1.8	550	230	7.30	2.1	410	220	7.50	2.3	950	530
May-19	8.50	2.2	920	530	7.40	1.2	530	220	7.20	1.4	430	210	7.30	1.5	750	510
Jun-19	8.80	2.6	1600	350	8.00	2.3	350	220	8.30	2.1	280	170	7.70	2.5	920	540
Jul-19	7.50	2.3	1600	540	8.50	1.1	430	280	8.30	1.4	240	220	8.10	1.3	1600	920
Aug-19	8.10	2.4	540	220	7.00	2.8	280	170	7.80	2.1	350	220	7.50	2.3	920	540
Sep-19	7.50	2.3	1600	920	7.40	1.3	540	240	7.30	1.4	920	430	7.50	1.1	1600	280
Oct-19	10.5	1.6	3500	1700	7.60	2.0	350	240	7.90	1.7	920	280	7.80	1.9	1600	430
Nov-19	8.20	1.5	3500	1700	8.60	1.1	170	110	8.50	1.2	280	220	8.20	1.3	920	540
Dec-19	8.90	0.9	1600	920	10.1	1.1	350	140	10.3	0.8	430	210	10.0	1.0	1600	920
Average	8.6	1.9	1456	690	8.5	1.7	422	218	8.5	1.6	464	238	8.4	1.6	1111	554
Category	C				B				B				C			

Sample could not be collected due to flood.

Class of water		A	B	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	–
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	–
3	Total Coliform (MPN/100ml), max	50	500	–

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Water Quality Of River Ganga in UP
Year-2019

SAMPLING LOCATION

Month	9 Kachhla Ghat, Badaun D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	10 At Farrukhabad D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	11 U/s Kannauj D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	12 D/s Kannauj D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)
Jan-19	9.8	2.5	370	250	10.0	2.3	2600	1700	10.6	2.9	3300	2100	10.2	3.4	4600	3300
Feb-19	9.7	1.2	350	220	10.7	1.9	2100	1400	10.6	2.4	3400	2100	10.1	2.8	4300	3100
Mar-19	9.9	1.1	350	170	9.7	2.0	2100	1400	9.9	2.6	4000	2700	9.2	3.2	4700	3300
Apr-19	10.2	1.4	400	200	8.2	2.1	2400	1400	7.9	2.8	3900	2500	7.7	3.2	4800	2700
May-19	10.5	1.5	460	230	8.5	2.4	2500	1400	6.8	3.4	4100	2500	6.4	4.2	4600	3100
Jun-19	10.1	1.5	250	250	7.8	2.2	2300	1300	6.4	3.2	4600	2600	6.0	3.8	5800	3200
Jul-19	10.0	1.6	340	270	9.3	2.1	1700	<1.8	9.8	2.8	3400	2100	9.1	3.2	4800	2600
Aug-19	10.6	1.3	350	220	6.4	2.0	2100	1300	6.6	2.8	3300	1700	6.2	3.0	4000	2500
Sep-19	10.3	1.2	280	220	7.6	1.7	2500	910	7.0	2.6	3400	1300	6.7	3.2	4300	1700
Oct-19	9.9	1.1	340	220	8.2	2.6	2600	1100	8.1	3.3	3800	1700	7.9	3.6	4300	2200
Nov-19	10.0	1.0	400	270	8.5	2.0	2700	1400	8.4	2.8	4300	2200	8.33	3	4600	2500
Dec-19	10.10	0.9	270	220	10.1	2.4	2400	1100	9.8	2.8	4300	1700	9.6	3.0	4700	2400
Average	10.1	1.4	347	228	8.8	2.1	2333	1310	8.5	2.9	3817	2100	8.1	3.3	4625	2717
Category	B				C				C				D			

Month	13 Bithoor Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	14 At Bhairao Ghat (Bathing Ghat), Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	15 U/s Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	16 At D/s Shuklaganj, Kanpur D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)
Jan-19	10.6	2.5	4000	2600	10.4	2.5	4300	2700	10.3	2.7	4600	3100	10.0	2.9	5800	4300
Feb-19	10.0	2.3	3300	2100	9.8	2.4	3900	2400	9.7	2.5	4300	2700	9.5	2.7	5800	4100
Mar-19	10.4	2.5	3400	2200	10.1	2.7	3800	2200	10.0	2.9	4300	3100	9.7	3.1	5400	3400
Apr-19	7.5	4.0	3300	2100	7.7	3.5	4000	2500	7.9	3.8	3900	2400	8.7	4.4	7000	4300
May-19	7.4	4.4	3800	2200	7.5	3.8	3200	2000	7.2	4.0	4300	2500	7.5	4.4	5800	4300
Jun-19	6.1	4.0	5800	3300	6.3	3.4	3900	2200	6.5	3.6	4300	2600	6.2	4.2	5400	3900
Jul-19	8.0	3.2	4700	3400	6.8	3.4	4900	3300	7.0	3.6	5800	3400	6.6	4.0	7000	4300
Aug-19	6.1	2.8	4100	2600	5.7	3.2	4600	2700	5.8	3.0	4800	3100	5.4	3.2	5800	3300
Sep-19	6.3	2.8	4100	1400	6.1	3.3	4300	2000	6.5	2.9	3900	1700	6.3	3.1	4600	2000
Oct-19	6.8	3.2	4700	2000	6.5	3.4	4100	2100	6.6	3.3	4300	2600	6.5	3.5	4900	3200
Nov-19	7.5	2.7	3900	1700	7.6	2.5	4300	2200	7.8	3	4700	2100	7.6	2.7	5400	3100
Dec-19	9.8	2.8	4100	1700	9.7	3.1	4300	2100	10.1	2.7	4100	1700	9.9	2.9	4700	2200
Average	8.0	3.1	4100	2275	7.9	3.1	4133	2367	8.0	3.1	4442	2583	7.8	3.4	5633	3533
Category	D				D				D				D			

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	–	–
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	–	–	–
3	Total Coliform (MPN/100ml), max	50	500	5000	–	–	–

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Water Quality Of River Ganga in UP
Year-2019

SAMPLING LOCATION

Month	17 At Gola Ghat (Bathing Ghat), Kanpur				18 At Jajmau Bridge (Bathing Ghat), Kanpur				19 D/s Kanpur				20 Dalmau, Raibareli			
	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)
Jan-19	10.1	2.8	4900	3800	9.5	3.0	7900	5800	9.1	3.3	34000	28000	10.2	3.1	3100	2800
Feb-19	9.6	2.6	4600	3800	9.5	2.8	7000	4800	9.2	3.2	28000	17000	10.4	2.8	3300	2600
Mar-19	9.8	3.0	4800	3000	9.6	3.2	8400	4300	9.4	3.4	31000	22000	10.6	3.3	3200	2700
Apr-19	8.2	4.6	6300	3600	8.7	5.4	9400	5400	7.7	5.6	46000	32000	9.9	3.7	3400	2500
May-19	7.3	4.6	6300	4100	7.0	5.2	8400	4700	6.5	5.5	54000	34000	7.0	4.1	4100	3500
Jun-19	6.0	4.4	6300	4100	5.7	4.8	9400	4900	5.3	5.4	33000	21000	7.8	4.0	3900	3600
Jul-19	5.6	4.6	7900	4800	5.3	4.8	12000	7000	4.6	5.8	38000	22000	7.7	4.0	3800	3100
Aug-19	5.6	3.8	4600	3200	5.6	3.6	26000	17000	5.3	3.8	40000	22000	7.5	3.6	3900	3100
Sep-19	6.0	3.3	4800	2600	5.6	3.6	33000	15000	5.8	3.4	39000	17000	7.2	3.8	3900	2900
Oct-19	6.2	4.2	5400	2300	6.4	4.6	39000	17000	6.1	5.0	43000	21000	7.5	3.8	3500	2700
Nov-19	7.2	2.9	6300	3100	7.6	2.8	46000	25000	5.8	4.0	58000	26000	7.9	3.7	3600	2800
Dec-19	9.1	3.8	13000	5400	9.4	4.0	54000	22000	9.0	4.4	63000	35000	10.0	3.9	3800	2900
Average	7.56	3.7	6267	3650	7.58	3.98	21708	11075	6.98	4.40	42250	24750	8.64	3.65	3625	2933
Category	D				D				D				D			

Month	21 Kala Kankar, Pratapgarh				22 Kada Ghat, Kaushambi				23 U/s Prayagraj (Rasoolabad Ghat)				24 D/s Prayagraj			
	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)
Jan-19	9.2	3.5	3300	2800	10.8	3.7	20000	11000	11.9	3.0	17000	9300	10.9	2.8	20000	11000
Feb-19	10.8	2.7	3100	2600	10.1	3.9	21000	11000	10.4	3.1	14000	7800	9.8	3.4	17000	9300
Mar-19	10.9	3.2	3100	2700	8.3	3.2	26000	13000	8.7	3.0	16000	9200	8.3	3.3	20000	11000
Apr-19	11.0	3.5	3300	2400	7.6	3.2	24000	14000	8.0	2.8	17000	7000	8.1	2.9	21000	11000
May-19	7.2	3.9	3900	3400	7.3	3.3	26000	13000	7.8	3.2	22000	7800	7.5	3.3	20000	11000
Jun-19	7.9	3.9	3800	3400	7.9	3.1	27000	13000	8.1	2.9	20000	11000	7.8	3.0	22000	11000
Jul-19	6.9	4.1	4000	3200	8.1	3.0	21000	11000	8.2	2.8	24000	14000	8.0	2.7	27000	13000
Aug-19	7.4	3.7	3800	3100	7.2	2.8	7000	7800	7.3	2.5	20000	7800	7.2	2.4	21000	7900
Sep-19	7.3	3.6	3800	2700	6.9	2.0	4000	6300	7.4	2.1	17000	7900	7.1	2.0	14000	6800
Oct-19	7.4	3.9	3800	2900	7.3	2.6	22000	11000	7.5	2.5	20000	11000	6.8	2.3	17000	7800
Nov-19	8.0	3.6	3500	2700	8.3	2.8	5000	7000	8.6	2.7	17000	7800	8.1	2.6	14000	6800
Dec-19	10.2	3.8	3500	2500	11.5	3.3	1000	4600	12.2	2.8	9400	4300	11.5	2.6	8400	3300
Average	8.68	3.62	3575	2867	8.4	3.08	20333	10225	8.84	2.78	17783	8742	8.43	2.78	18450	9158
Category	D				D				D				D			

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	-	-
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	-	-	-
3	Total Coliform (MPN/100ml), max	50	500	5000	-	-	-

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Water Quality Of River Ganga in UP
Year- 2019

SAMPLING LOCATION

Month	25 a/c Tamsa river, Sirsa, Son Barsa				26 U/s Vindhyachal, Mirzapur				27 D/s Mirzapur				28 At Chunnar Pontoon Bridge			
	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)
Jan-19	10.6	2.5	14000	7800	8.8	2.7	1300	800	7.5	3.7	14000	8000	8.6	3.0	11000	5000
Feb-19	9.6	2.7	13000	6800	9.2	2.4	1400	800	8.2	3.3	13000	7000	8.8	2.9	8000	5000
Mar-19	8.4	2.8	17000	7800	8.8	2.4	1700	800	7.7	3.4	14000	11000	8.6	2.9	11000	7000
Apr-19	7.8	2.7	15000	7000	8.2	2.8	1400	800	7.3	3.5	17000	11000	7.8	3.1	13000	8000
May-19	7.6	2.9	17000	9300	8.2	2.6	1700	800	7.7	3.3	14000	8000	8.0	3.0	11000	7000
Jun-19	7.5	2.8	17000	7800	8.1	2.7	1700	800	7.6	3.5	14000	8000	7.8	3.2	8000	5000
Jul-19	7.8	2.7	22000	9400	7.4	3.1	2100	1100	7.0	3.8	17000	11000	7.2	3.4	13000	8000
Aug-19	7.3	2.3	17000	7000	7.2	3.2	2700	1300	6.7	3.9	17000	8000	6.9	3.8	14000	5000
Sep-19	7.0	1.8	13000	6800	7.4	3.0	2700	1100	6.7	3.9	21000	8000	7.0	3.6	14000	7000
Oct-19	7.4	2.2	14000	6300	7.5	2.8	2600	1300	6.8	3.8	22000	11000	6.90	3.6	13000	8000
Nov-19	8.3	2.4	#####	5800	8.5	2.3	2200	800	7.80	3.6	17000	11000	8.1	3.3	#####	7000
Dec-19	11.7	2.8	7000	3100	9.2	2.1	1700	800	8.4	3.4	14000	9000	8.8	3.0	8000	5000
Average	8.4	2.6	14833	7075	8.2	2.7	1933	933	7.5	3.6	16167	9250	7.9	3.2	11250	6417
Category	D				C				D				D			

Month	29 U/s Varanasi				30 D/s Varanasi				31 Tarighat D/s Ghazipur				32 a/c Gomti river, Bhusaula			
	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	FaecalColiform (MPN/100ml)
Jan-19	8.9	2.2	1300	800	6.7	4.1	43000	23000	7.4	3.9	22000	14000	8.5	3.2	17000	11000
Feb-19	10.0	1.7	1100	500	7.3	3.4	31000	17000	7.6	3.3	23000	13000	9.0	3.0	13000	8000
Mar-19	8.9	2.4	1400	700	7.2	3.6	31000	23000	7.5	3.6	22000	13000	8.5	3.0	14000	8000
Apr-19	8.4	2.4	1400	800	7.3	3.6	34000	22000	7.4	3.6	27000	13000	8.2	3.1	14000	7000
May-19	8.0	2.7	1700	800	7.2	3.6	34000	22000	7.3	3.5	23000	14000	7.9	3.2	13000	8000
Jun-19	8.4	2.6	1400	800	7.4	3.5	27000	17000	7.5	3.6	21000	11000	8.2	3.1	13000	8000
Jul-19	7.9	2.8	2100	1300	7.3	3.8	34000	22000	7.4	3.6	22000	13000	7.5	3.5	13000	8000
Aug-19	7.2	3.3	2200	800	6.5	4.2	31000	17000	6.8	3.9	21000	11000	6.9	3.8	13000	5000
Sep-19	7.3	3.1	2700	1100	6.6	4.2	34000	14000	6.7	4.0	23000	13000	7.0	3.5	14000	7000
Oct-19	7.20	3.2	3400	1700	6.50	4.2	43000	23000	6.60	4.3	31000	17000	6.80	3.8	17000	8000
Nov-19	7.4	3	3100	1700	6.80	4.1	34000	17000	6.5	4.2	27000	13000	7.30	3.4	13000	5000
Dec-19	8.7	2.3	2100	800	7.9	3.6	17000	11000	7.8	3.5	21000	11000	8.4	3.2	8000	5000
Average	8.2	2.6	1992	983	7.1	3.8	32750	19000	7.2	3.8	23583	13000	7.9	3.3	13500	7333
Category	C				D				D				D			

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	–	–
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	–	–	–
3	Total Coliform (MPN/100ml), max	50	500	5000	–	–	–

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Water Quality of River Yamuna In UP
Year 2019

Month	Sampling Point																				
	1			2			3			4			5			6			7		
	U/S Okhla Barrage, Noida			D/S Village Gharbara/Tilwara, Noida			Shahpur, Mathura			U/s Vrindavan			Kesi Ghat Vrindavan			D/s Vrindavan			U/s Mathura		
	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)
January	1.2	27.0	-	0.5	48.0	-	3.8	13.0	120000	5.4	8.0	-	5.3	9.0	80000	5.3	9.0	80000	5.0	9.0	-
February	1.0	39.0	-	0.0	55.0	-	3.9	15.0	110000	5.0	8.0	-	5.0	10.0	72000	5.00	10.0	72000	4.3	9.0	-
March	3.6	22.5	-	0.0	54.0	-	3.5	16.0	120000	5.00	8.0	-	4.8	11.0	80000	4.80	11.0	80000	5.0	10.0	-
April	3.3	21.0	-	0.0	60.0	-	3.6	18.0	110000	5.1	10.0	85000	5.1	10.0	85000	4.9	9.0	-	4.4	10.0	-
May	2.1	28.5	-	0.0	72.0	-	2.8	15.0	120000	5.1	11.6	88000	5.1	11.6	88000	4.9	11.0	-	4.2	10.0	-
June	0.8	39.0	-	0.0	81.0	-	3.8	16.0	110000	5.5	10.0	-	5.3	11.6	86000	5.3	11.0	86000	4.2	11.0	-
July	4.8	15.0	-	0.0	55.0	-	4.1	11.0	106000	5.1	8.0	-	5.2	8.0	80000	5.2	8.0	80000	5.0	10.0	-
August	5.1	12.0	-	1.3	18.0	-	5.8	11.0	98000	5.2	10.0	76000	5.9	8.0	72000	6.2	8.0	-	5.2	9.0	-
September	4.4	13.5	-	1.6	22.5	-	5.2	10.0	72000	5.8	8.0	-	5.6	8.0	64000	5.6	8.0	64000	5.5	9.0	-
October	1.9	30.0	-	0.0	48.0	-	6.0	9.2	92000	5.2	8.4	-	5.1	8.6	80000	5.1	8.6	80000	4.2	10.6	-
November	1.3	42.0	-	0.0	54.0	-	6.4	8.0	85000	6.4	7.6	-	6.1	7.8	86000	6.1	7.8	86000	6.3	8.4	-
December	1.1	33.0	-	0.0	42.0	-	5.5	8.0	98000	5.4	8.0	-	5.2	8.6	98000	5.2	8.6	88000	3.8	10.0	80000
Average	2.6	26.9	-	0.3	50.8	-	4.5	12.5	103417	5.4	8.8	83000	5.3	9.4	80917	5.3	9.2	79556	4.8	9.7	80000.0
Category	E			E			D			D			D			D			D		

Class of water	
1	Dissolved oxygen (mg/l), min
2	Biochemical oxygen demand (mg/l), max
3	Total Coliform (MPN/100ml), max

A	B	C	D	E	Below E
6.0	5.0	4.0	4.0	_	_
2.0	3.0	3.0	_	_	_
50	500	5000	_	_	_

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Priya

2/1/21

Water Quality of River Yamuna In UP
Year 2019

Month	Sampling Point																			
	8			9			10			11			12			13			14		
	Vishram Ghat, Mathura			D/s Mathura			U/s Kailashghat, Agra			U/s Waterworks, Agra			D/s Tajmahal, Agra			U/s Firozabad			D/s Firozabad		
	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)
January	4.9	11.0	80000	4.8	10.0	-	4.9	15.2	35000	4.3	16.4	49000	4.2	17.2	11000	7.4	12.4	-	7.8	17.0	-
February	4.8	12.0	82000	4.0	10.0	-	4.6	12.9	30000	4.2	13.6	32000	3.7	17.2	92000	-	20.5	-	-	32.0	-
March	4.4	14.0	88000	5.0	16.0	-	6.9	11.6	35000	6.2	12.4	49000	5.8	15.6	92000	-	20.5	-	-	25.8	-
April	4.6	13.0	80000	4.3	11.0	-	6.9	12.4	35000	6.3	15.6	54000	5.1	16.4	120000	-	23.0	-	-	31.0	-
May	4.8	12.0	90000	4.0	12.0	-	5.4	12.4	35000	5.2	12.8	54000	5.0	13.6	140000	-	19.2	-	-	20.8	-
June	4.4	12.0	85000	4.0	12.0	-	7.1	11.2	54000	5.9	13.5	120000	4.7	15.6	240000	-	19.2	-	-	20.8	-
July	5.2	9.0	101000	4.9	10.0	-	6.4	9.6	35000	6.0	12	54000	5.3	13.20	120000	-	12.4	-	-	13.6	-
August	5.2	10.0	76000	5.0	10.0	-	6.3	9.6	37000	5.8	11.2	48000	5.2	13.2	110000	-	14.8	-	-	16.0	-
September	5.4	9.0	70000	5.4	10.0	-	5.9	10.4	35000	5.7	11.2	48000	5.4	12.8	92000	-	13.2	-	-	16.4	-
October	3.9	11.0	110000	3.8	10.8	-	5.3	8.8	35000	5.1	10.4	52000	5.0	12.0	92000	-	14.8	-	-	17.6	-
November	6.2	8.6	94000	6.2	8.6	-	4.5	10.8	35000	4.1	12.4	48000	3.9	13.6	110000	-	15.2	-	-	16.0	-
December	3.4	10.8	110000	3.4	10.8	98000	5.9	10.4	35000	5.0	10.6	48000	4.3	13.6	92000	-	15.5	-	-	16.5	-
Average	4.8	11.0	88833	4.6	10.9	98000	5.8	11.3	36333	5.3	12.7	54667	4.8	14.5	109250	7.4	16.7	-	7.8	20.3	-
Category	D			D			D			D			D			D			D		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	_	_
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	_	_	_
3	Total Coliform (MPN/100ml), max	50	500	5000	_	_	_

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Water Quality of River Yamuna In UP
Year 2019

Month	Sampling Point																	
	15			16			17			18			19			20		
	U/s Etawah			D/s Etawah			U/s Water Intake, Allahabad			D/s Balua Ghat Praygraj			D/s Chhachhar nala, Prayagraj			D/s Emergency Outfall, Prayagraj		
	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)
January	5.8	14.5	-	5.9	16.5	-	9.8	2.1	3900	9.7	2.6	11000	9.5	2.8	7900	9.6	2.6	7000
February	-	-	-	-	-	-	9.9	2.2	4600	9.3	2.4	12000	9.4	2.7	11000	9.7	2.4	12000
March	-	-	-	-	-	-	8.5	2.0	4900	8.1	2.5	11000	8.0	2.5	9400	8.1	2.3	8400
April	-	17.5	-	-	19.5	-	7.6	2.1	4300	7.5	2.3	13000	7.1	2.7	9200	6.9	2.4	7900
May	-	17.2	-	-	18.4	-	7.5	2.0	4100	7.3	2.5	14000	7.2	2.6	9400	7.0	2.5	11000
June	-	16.0	-	-	18.4	-	7.7	1.9	3400	7.5	2.4	13000	7.5	2.4	7900	7.2	2.7	8400
July	-	16.0	-	-	20.8	-	7.9	2.0	5800	7.3	2.5	11000	7.6	2.3	13000	7.4	2.5	11000
August	-	10.4	-	-	12.4	-	6.9	1.8	4300	7.2	2.4	21000	6.6	2.1	9400	6.7	2.2	8400
September	-	11.2	-	-	12.8	-	7.0	1.9	5800	7.0	1.9	7000	6.8	2.0	8400	6.6	2.0	7000
October	-	12.8	-	-	13.6	-	7.4	1.8	6300	7.1	2.2	7900	7.1	2.2	7900	6.9	2.1	7900
November	-	13.6	-	-	14.8	-	8.4	2.0	5800	7.8	2.4	7000	8.2	2.2	7900	8.1	2.3	8400
December	-	11.6	-	-	12.8	-	12.1	2.1	3300	11.7	2.4	4600	11.9	2.3	4000	11.8	2.5	4100
Average	5.8	14.1	-	5.9	16.0	-	8.4	2.0	4708	8.1	2.4	11042	8.1	2.4	8783	8.0	2.4	8458
Category	D			D			C			D			D			D		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	_	_
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	_	_	_
3	Total Coliform (MPN/100ml), max	50	500	5000	_	_	_

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

21/01

Water Quality of River Saryu in UP
Year 2019

SNo.	Month	Saryu at Ayodhya		
		DO (mg/L)	BOD (mg/L)	Total coliform (MPN/100mL)
1	January	10.8	2.6	5100
2	February	10.6	2.8	4600
3	March	10.3	3.0	3900
4	April	10.8	3.2	3800
5	May	9.2	3.3	3500
6	June	9.0	3.4	3600
7	July	9.2	3.2	31000
8	August	9.5	3.0	3100
9	September	9.2	2.9	3200
10	October	9.0	3.0	3400
11	November	9.5	3.0	3600
12	December	10.0	2.8	3800
Average		9.76	3.02	6050
Category		D		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	–	–
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	–	–	–
3	Total Coliform (MPN/100ml), max	50	500	5000	–	–	–

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Vinay Dubey
S.A.

21/01

Water Quality of River Gomti in UP
Year 2019

S.No.	Month	SAMPLING POINT																	
		1			2			3			4			5			6		
		Dadhnamau Ghat, Sitapur			Manjhighat, Lucknow			U/s Water Intake, Gaughat, Lucknow			Kudiyaghat, Lucknow			D/s Mohan Meakins, Lucknow			Nishatganj Bridge, Lucknow		
		D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)
1.	January	11.2	2.0	920	11.5	2.2	2000	11.3	2.6	3400	4.4	5.2	13000	3.2	8.0	14000	3.0	9.4	39000
2.	February	10.5	1.8	940	9.5	2.4	2100	9.0	3.0	4000	3.4	5.6	14000	2.3	8.8	17000	2.6	10.0	48000
3.	March	9.0	2.0	1700	10.2	2.0	2200	8.8	3.0	4700	4.1	4.8	13000	2.6	9.0	14000	3.1	9.8	33000
4.	April	8.4	2.2	1300	7.4	2.6	2300	6.2	3.2	5800	1.5	7.2	14000	1.2	9.0	22000	2.9	8.5	49000
5.	May	7.7	2.6	2400	7.0	2.4	3500	6.4	3.1	5400	1.1	8.8	21000	0.4	18.0	130000	2.1	9.2	46000
6	June	7.5	3.0	3500	7.8	3.0	1700	6.6	3.2	7000	1.8	19.0	920000	1.9	13.0	920000	3.0	10.4	160000
7	July	3.3	4.0	1700	6.9	3.2	9400	5.0	3.6	16000	1.3	12.0	540000	2.2	9.2	790000	2.5	9.6	350000
8	August	5.6	3.0	14000	5.4	3.0	14000	4.7	3.2	54000	3.4	14.0	350000	3.8	9.5	460000	3.7	10.5	540000
9	September	6.5	2.8	7000	6.2	3.1	24000	5.1	3.6	49000	2.9	13.5	1600000	3.3	12.0	790000	3.5	11.0	1600000
10	October	6.9	2.6	5400	7.0	2.8	22000	5.8	3.4	46000	4.0	10.5	1100000	2.9	11.5	940000	2.1	10.0	920000
11	November	8.0	2.4	700	7.9	2.6	4900	6.6	3.1	22000	3.3	8.5	220000	1.3	9.5	240000	1.6	9.0	940000
12	December	8.9	2.5	3300	8.6	2.8	4900	7.8	3.0	17000	1.3	10.0	240000	1.1	10.5	350000	1.0	10.5	350000
Average		7.8	2.6	3572	7.9	2.7	7750	6.9	3.2	19525	2.7	9.9	420417	2.2	10.7	390583	2.6	9.8	422917
Category		C			D			D			E			E			E		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	–	–
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	–	–	–
3	Total Coliform (MPN/100ml), max	50	500	5000	–	–	–

A = Drinking water source without conventional treatment but after disinfection

B = Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Uma Dubey

Water Quality of River Gomti in UP
Year 2019

S.No.	Month	SAMPLING POINT														
		7			8			9			10			11		
		U/s Bairaj, Lucknow			D/s Pipraghat, Lucknow			D/s After meeting of STP, Nala Bharwara, Lucknow			D/s Gomti, Jaunpur			Gomti before meeting river Ganga, Rajwari, Varanasi		
		D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)
1.	January	2.5	10.4	92000	2.0	9.0	110000	2.2	18.6	110000	7.6	3.8	27000	8.2	3.1	14000
2.	February	1.0	18.0	110000	2.4	10.4	79000	1.3	22.0	160000	8.2	3.3	22000	8.7	2.8	13000
3.	March	1.6	16.0	94000	2.3	10.8	170000	1.6	18.0	110000	7.6	3.8	23000	8.0	3.0	14000
4.	April	6.0	5.5	63000	1.5	11.2	140000	2.0	18.0	170000	7.5	4.0	23000	7.8	3.2	17000
5.	May	5.1	6.8	70000	1.8	10.8	130000	1.7	16.6	170000	7.4	3.9	23000	7.5	3.4	14000
6	June	4.1	7.0	540000	1.5	8.6	160000	1.8	23.0	140000	7.3	3.9	17000	7.8	3.3	17000
7	July	2.0	10.0	540000	1.8	10.5	170000	1.7	18.0	1600000	7.4	3.7	21000	7.5	3.5	14000
8	August	2.6	12.0	350000	1.3	11.0	220000	2.1	15.5	2400000	6.7	4.1	17000	6.8	3.8	11000
9	September	1.8	12.0	790000	1.9	11.5	280000	1.3	14.5	790000	6.8	3.9	21000	6.9	3.7	14000
10	October	2.1	12.5	1100000	2.0	11.0	130000	0.3	22.0	3500000	6.7	4.0	22000	6.8	3.8	13000
11	November	1.5	10.0	940000	2.8	11.5	220000	1.4	15.5	2200000	7.0	3.8	21000	7.1	3.7	11000
12	December	1.8	9.5	460000	1.6	12.5	540000	2.0	14.0	1600000	8.3	3.7	14000	8.1	3.5	9400
Average		2.7	10.8	429083	1.9	10.7	195750	1.6	18.0	1079167	7.4	3.8	20917	7.6	3.4	13450
Category		E			E			E			D			D		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	--	--
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	--	--	--
3	Total Coliform (MPN/100ml), max	50	500	5000	--	--	--

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C= Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E= Irrigation, Industrial cooling, controlled waste disposal

Below - E= Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Sanjay Dubey
S.A.

Water Quality of River Hindon in U P
Year-2019

S.No	Month	Sampling Point																		
		Hindon D/s Maheshpur Saharanpur			Hindon, Sardhana - Budhana Road, Vill Baparsi, Meerut			Hindon, Meerut Baghpat Road, Meerut			Hindon, karheda village , Ghaziabad			Hindon river, Mohan Nagar Road Bridge, Ghaziabad			Hindon river, Chijarsi Bridge, Ghaziabad			Hindon, D/s Kulsera Bridge, Noida		
		DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)
1	January	Nil	43.0	-	Nil	64.0	110000	1.80	38.0	91000	2.34	8.6	18000	1.08	26.4	31000	Nil	53.5	320000	Nil	59.4	320000
2	February	Nil	44.0	-	Nil	66.0	120000	1.60	36.0	81000	0.28	20.1	240000	0.51	15.5	17000	Nil	30.2	280000	Nil	70.0	310000
3	March	Nil	40.0	-	Nil	68.0	140000	1.40	40.0	91000	2.60	18.3	220000	2.29	16.8	21000	Nil	61.2	1700000	Nil	75.0	290000
4	April	Nil	52.0	-	Nil	66.0	150000	1.20	42.0	93000	1.00	22.5	280000	0.78	67.0	22000	Nil	89.0	2100000	Nil	82.6	280000
5	May	Nil	50.0	-	Nil	68.0	170000	1.00	44.0	110000	0.80	24.0	27000	0.50	32.0	30000	Nil	51.5	220000	Nil	59.0	290000
6	June	Nil	54.0	-	Nil	72.0	210000	1.60	46.0	150000	2.14	16.0	13000	1.20	24.0	22000	Nil	42.0	140000	Nil	60.0	350000
7	July	Nil	38.0	-	Nil	68.0	170000	2.20	40.0	150000	0.86	32.0	2200	0.72	36.0	21000	Nil	90.0	280000	Nil	40.0	350000
8	August	Nil	40.0	-	Nil	72.0	210000	1.60	44.0	170000	0.43	23.0	350000	0.70	26.0	49000	Nil	43.0	1600000	Nil	52.0	160000
9	September	Nil	40.0	-	Nil	74.0	170000	1.80	46.0	150000	0.28	20.0	280000	0.20	22.0	21000	Nil	36.0	140000	Nil	36.0	260000
10	October	Nil	44.0	-	Nil	73.0	150000	1.40	44.0	150000	0.34	20.0	150000	0.50	18.0	25000	Nil	56.0	280000	Nil	52.0	170000
11	November	Nil	48.0	-	Nil	75.0	140000	1.20	45.0	170000	2.00	31.0	350000	1.50	49.5	26000	Nil	58.0	120000	Nil	56.4	150000
12	December	Nil	42.0	-	Nil	73.0	120000	1.80	42.0	140000	1.95	20.0	280000	1.85	23.0	240000	Nil	39.0	150000	Nil	41.0	150000
	Average	Nil	44.6	-	Nil	69.9	155000	1.6	42.3	128833	1.25	21.3	184183	1.0	29.7	43750	Nil	54.1	610833	Nil	56.9	256667
	Category	E			E			E			E			E			E			E		

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	-	-
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	-	-	-
3	Total Coliform (MPN/100ml), max	50	500	5000	-	-	-

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Jyoti
(S.A.)

20/1/2020

21/01

Water Quality Report Of River Ghaghra in UP
Year 2019

S.N0	Month	SAMPLING POINT							
		Badhalganj U/s, Gorakhpur				Turtipur D/s, Deoria			
		DO (mg/L)	BOD (mg/L)	Total Coliform (MPN/100ml)	Feacal Coliform (MPN/100ml)	DO (mg/L)	BOD (mg/L)	Total coliform (MPN/100mL)	Feacal Coliform (MPN/100ml)
1	January	7.5	5.2	7000	1300	7.5	5.4	9400	1300
2	February	7.6	5.4	6300	1700	7.5	5.6	8400	1400
3	March	7.4	5.6	12000	8300	7.2	5.8	1200	6100
4	April	6.8	5.8	11000	8100	7.0	5.8	11000	8100
5	May	6.8	5.6	13000	6300	7.0	5.6	11000	8400
6	June	6.6	5.8	21000	11000	6.6	5.8	31000	13000
7	July	6.8	4.6	21000	11000	6.8	4.8	33000	13000
8	August	7.0	4.9	22000	12000	7.1	4.6	30000	12000
9	September	7.1	4.3	33000	16000	7.2	4.7	30000	14000
10	October	7.2	4.4	34000	17000	7.3	4.6	29000	13000
11	November	7.4	4	36000	18000	7.6	4.2	26000	17000
12	December	8.0	3.7	34000	16000	7.8	3.6	24000.0	10000
Average		7.2	5.0	20858	10558	7.2	5.0	20333	9775
Category		D				D			

Class of water		A	B	C	D	E	Below E
1	Dissolved oxygen (mg/l), min	6.0	5.0	4.0	4.0	–	–
2	Biochemical oxygen demand (mg/l), max	2.0	3.0	3.0	–	–	–
3	Total Coliform (MPN/100ml), max	50	500	5000	–	–	–

A = Drinking water source without conventional treatment but after disinfection

B= Outdoor bathing (organised)

C = Drinking water source after conventional treatment and disinfection

D = Propagation of wild life and fisheries.

E = Irrigation, Industrial cooling, controlled waste disposal

Below - E = Not meeting A,B,C,D & E criteria

Source: http://www.cpcb.nic.in/Water_Quality_Criteria.php

Rule (S.A)

2/1/01

Percent change in water quality of River Yamuna in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S.No.	Name of Location	2018			2019			Percent change in BOD values in year 2019 as compared to year 2018
		DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	
1	U/S Okhla Barrage, Noida	2.52	15.02	-	2.60	26.90	-	79.13
2	D/S Village Gharbara/Tilwara, Noida	1.31	24.29		0.30	50.80	-	109.13
3	U/s Vrindavan	5.13	9.17		5.40	8.80	83000	-4.00
4	Kesi Ghat Vrindavan	4.97	9.29	85083	5.30	9.40	80917	1.17
5	D/s Vrindavan	4.94	9.17	82455	5.30	9.20	79556	0.36
6	U/s Mathura	4.64	9.84	-	4.80	9.70	-	-1.47
7	Shahpur, Mathura	3.11	13.46	109250	4.50	12.50	103417	-7.12
8	Vishram Ghat, Mathura	4.40	11.30	92083	4.80	11.00	88833	-2.65
9	D/s Mathura	4.44	11.47	-	4.60	10.90	98000	-4.94
10	U/s Kailashghat, Agra	6.51	9.82	32750	5.80	11.30	36333	15.07
11	U/s Waterworks, Agra	5.81	12.17	52833	5.30	12.70	54667	4.38
12	D/s Tajmahal, Agra	5.08	13.12	98750	4.80	14.50	109250	10.55
13	U/s Firozabad	5.74	16.88	86000	7.4	16.70	-	-1.04
14	D/s Firozabad	5.38	18.75	-	7.8	20.30	-	8.27

Percent change in water quality of River Ganga in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

14

S No	Regional Office	District	Sample Collection Point	2018			2019			Percent change in BOD values in year 2019 as compared to year 2018
				D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	
1	Kanpur	Kannauj	U/s Kannauj	8.40	3.52	3817	8.49	2.87	3817	-18.48
2	Kanpur	Kannauj	D/s Kannauj	8.50	4.28	4675	8.12	3.30	4625	-22.96
3	Kanpur	Kanpur	Bithoor, Kanpur	8.35	3.34	4000	8.04	3.10	4100	-7.23
4	Kanpur	Kanpur	At Bhairao Ghat	8.16	3.54	4308	7.85	3.10	4133	-12.47
5	Kanpur	Kanpur	U/s Kanpur	7.86	3.74	4608	7.95	3.13	4442	-16.48
6	Kanpur	Kanpur	At D/s Shuklaganj	7.52	4.08	5342	7.83	3.43	5633	-16.12
7	Kanpur	Kanpur	At Gola Ghat	7.29	4.43	5650	7.56	3.72	6267	-16.01
8	Kanpur	Kanpur	At Jajmau Bridge	6.78	5.48	11342	7.58	3.98	21708	-27.36
9	Kanpur	Kanpur	D/s Kanpur	5.95	6.93	79333	6.98	4.40	42250	-36.46
10	Raibareli	Raibareli	Dalmau, Raibareli	9.05	3.88	7808	8.64	3.65	3625	-5.81
11	Raibareli	Pratapgarh	Kala Kankar, Pratapgarh	9.20	3.75	7667	8.68	3.62	3575	-3.56
12	Prayagraj	Koshambi	Kada Ghat	8.57	3.98	24533	8.44	3.08	20333	-22.80
13	Prayagraj	Prayagraj	U/s Prayagraj	8.94	3.64	21858	8.84	2.78	17783	-23.57
14	Prayagraj	Prayagraj	D/s Prayagraj	8.53	3.57	19800	8.43	2.78	18450	-22.20
15	Prayagraj	Prayagraj	A/c Tamsa river, Sirsa, Son Barsa	8.36	3.08	15245	8.42	2.55	14833	-17.26
16	Sonbhadra	Mirzapur	U/s Vindhyachal, Mirzapur	8.13	2.73	2550	8.21	2.68	1933	-2.13
17	Sonbhadra	Sonbhadra	At Chunnar Pontoon Bridge	7.68	3.30	4909	7.88	3.23	11250	-2.02
18	Varanasi	Varanasi	U/s Varanasi	8.19	2.83	2658	8.19	2.64	1992	-6.76
19	Varanasi	Varanasi	D/sVaranasi	6.73	5.05	48583	7.06	3.83	32750	-24.26
20	Varanasi	Ghazipur	Tarighat D/s Ghazipur	7.23	4.45	41000	7.21	3.75	23583	-15.73
21	Varanasi	Ghazipur	A/c Gomti river, Bhusaula	7.96	3.35	25455	7.85	3.32	13500	-1.13

Percent change in water quality of River Hindon in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S.No.	Name of Location	2018			2019			Percent change in BOD values in year 2019 as compared to year 2018
		DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	
1	D/S Maheshpur Saharanpur	Nil	49.0	–	Nil	44.6	–	-8.98
2	Sardhana -Budhana Road, Vill Baparsi, Meerut	Nil	68.8	172583	Nil	69.9	155000	1.60
3	Meerut Baghpat Road, Meerut	1.50	39.5	129083	1.6	42.3	128833	7.09
4	Karheda village , Ghaziabad	1.66	31.9	28364	1.25	21.3	184183	-33.23
5	Mohan Nagar Road Bridge, Ghaziabad	1.41	37.7	37333	1.0	29.7	43750	-21.22
6	Chijarsi Bridge, Ghaziabad	Nil	66.3	201750	Nil	54.1	610833	-18.40
7	D/S Kulsera Bridge, Noida	Nil	60.0	264167	Nil	56.9	256667	-5.17

Percent change in water quality of River Ramganga in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S.No.	Sampling Point	2018			2019			Percent change in BOD values in year 2019 as compared to year 2018
		D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	
1	U/s Ramganga near Agwanpur, Distt. Moradabad	7.60	3.10	53667	7.30	1.80	16167	-41.94
2	Moradabad Rampur road bridge, Moradabad	5.30	6.00	575167	4.70	11.10	558333	85.00
3	D/s Ramganga, Shahabad Rampur	5.70	5.30	168667	5.10	7.60	430833	43.40
4	U/s Ramganga Kapurpur village, Meerganj, bareilly	6.50	1.50	33750	7.90	3.20	19083	113.33
5	D/s Ramganga FBD road bridge Shahjahapur	7.60	2.00	26750	10.10	3.00	14500	50.00
6	Ramganga at Kannauj	8.20	4.60	5092	9.00	4.60	14775	0.00

Percent change in water quality of River Kali (East) in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S No	Sample Collection Point	2018			2019			Percent Change in BOD values in year 2019 as compared to year 2018
		DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	DO (mg/l)	BOD(mg/l)	Total Coliform (MPN/100ml)	
1	Saini-Mawana Road, Meerut	Nil	61.8	138417	Nil	54.5	110273	-11.81
2	Garh Road, Meerut	Nil	66.3	138333	Nil	55.7	127364	-15.99
3	Kharkhoda Parikshit Road, Meerut	Nil	65	175833	Nil	57.1	149091	-12.15
4	Babugarh, Ghaziabad	Nil	61.4	1038333	Nil	43.8	4236364	-28.66
5	U/s Devipura, Bulandshahar	Nil	43.7	239091	Nil	71.8	177273	64.30
6	D/s Mohan Kuter Bulandshahar	Nil	45.2	201818	Nil	74	589364	63.72
7	U/s Kali River before wave disttlary, Ramghat, Atruali, Aligarh	Nil	65.9	-	2.4	31.9	-	-51.59
8	D/s Kali River after wave disttlary, Ramghat, Atruali, Aligarh	Nil	70	-	2.3	34.4	-	-50.86
9	Nadrai Gate, Kasganj, Kashiram Nagar	Nil	49.8	-	4.9	17.6	-	-64.66
10	U/S Kannauj, Kanpur	8.55	6.1	6450	7.6	4.8	9100	-21.31

Percent change in water quality of Rihand dam in term of Biochemical Oxygen Demand in the year 2019 as compared to 2018

S.No.	Sampling Point	2018			2019			Percent change in BOD values in year 2019 as compared to year 2018
		D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	D.O. (mg/l)	B.O.D. (mg/l)	Total Coliform (MPN/100ml)	
1	Rihand dam U/s Renukoot, Sonebhadra	8.90	1.70	963	8.73	2.00	1275	17.65
2	Rihand dam D/s Renukoot, Sonebhadra	9.20	2.00	1290	8.33	2.90	2608	45.00

Regional Office

UTTAR PRADESH POLLUTION CONTROL BOARD

PICUP BHAWAN,B-BLOCK,VIBHUTHI KHAND,GOMTINAGAR,LUCKNOW

Drains discharged into main stem of River Gomti monitored during (February) Pre mansoon, 2019 at Lucknow,Uttar Pradesh

Sr.No.	Catchment(CIS/Trans-Gomti)	Name of Drains	Date of inspection	Dain's(Nala's)		Sewage Pumping Stations(SPS)		Tapped / Partially Tapped/ Untapped	Wheather Overflow found Yes/No	Name of SPS	SPS connected Drains	Ph//BOD/ COD/TC	Reporting Officer's
				Latitude	Longitude	Latitude	Longitude						
1	CIS Gomti	Nagaria Nala	21.02.2019	26°53'7.9"	80°53'31"	26°53'8"	80°53'37"	Partially Tapped	Yes	Nagaria Nala (SPS)	Nagaria	Surface water samples analysis Report enlosed.	B.P.Maurya SA: Ankur Gautam MA
2	CIS-Gomti	Sarkata Nala	21.02.2019	26°53'2.7"	80°54'5.7"	26°53'1"	80°54'14"	Partially Tapped	Yes	Sarkata Nala (SPS)	Sarkata		
3	CIS-Gomti	Gaughat Nala	21.02.2019	26°53'5.9"	80°53'51.6"	26°53'4"	80°53'51"	Tapped	No	Gaughat Nala (SPS)	Gaughat		
4	CIS-Gomti	Pata Nala	21.02.2019	26°52'22.9"	80°54'40.1"	-	-	Tapped	No	Pata Nala (SPS)	Pata		
5	CIS-Gomti	Wazirganj Nala	21.02.2019	26°51'55.9"	80°55'32.1"	-	-	Tapped	Yes	Wazirganj Nala(SPS	Wazirganj		
6	CIS-Gomti	Ghasiyani mandi Nala	21.02.2019	26°51'45.3"	80°55'45.1"	26°51'43"	80°56'43"	Tapped	No	Ghasiyani mandi Nala(SPS)	Ghasiyani		K.K.Chudhari(SA) Nimesh Dubey LA
7	Trans-Gomti	China bazar nala	21.02.2019	26°51'24.6"	80°56'11.3"	26°51'35"	80°55'58"	Tapped	No	China bazar nala(SPS)	China baza		
8	Trans-Gomti	Laplace Nala	21.02.2019	26°51'34.4"	80°56'39.34"	26°51'23"	80°56'57"	Tapped	No	Laplace Nala(SPS)	Laplace Nala		
9	Trans-Gomti	Mahesh Ganj Nala	22.02.2019	26°52'7.3"	80°55'36.0"	26°53'11.136"	80°55'4.578"	Partially Tapped	Yes	Mahesh Ganj Nala(Loni Purwa)SPS	Mahesh Ganj		
10	Trans-Gomti	Ruppur Khadra nal	22.02.2019	26°53'8"	80°53'37"	26°52'28.524"	80°54'58.116"	Tapped	No	Ruppur Khadra nala	Ruppur Khadra nala		
11	Trans-Gomti	Mohan Meakins Nala	22.02.2019	26°52'22.4"	80°55'9.4"	26°52'22.416"	80°55'10.62"	Tapped	No	Mohan Meakins Nal	Mohan Meakins		
12	Trans-Gomti	Daliganj-1 Nala	22.02.2019	26°52'10.2"	80°55'32.7"	26°52'10.332"	80°55'32.7"	Tapped	No	Daliganj-1 Nala(SP	Daliganj-1		
13	Trans-Gomti	Daliganj 2 Nala	22.02.2019	26°52'7.3"	80°55'36.0"	26°52'8.748"	80°55'35.676"	Tapped	No	Daliganj-2 (SPS)	Daliganj-2		
14	Trans-Gomti	Arts College Nala(barrel no-3)	23.02.2019	26°51'49"	80°55'46"	-	-	Tapped	No	TGPS	TGPS		Rajjan Prasad Tripathi SA:Nimesh Dubey LA
15	Trans-Gomti	Hanuman Setu nala(barrel no-4)	23.02.2019	26°51'37"	80°56'19"	-	-	Partially Tapped	Yes				
16	Trans-Gomti	Trans Gomti Nala(barrel no-5)	23.02.2019	26°51'41"	80°56'41"	-	-	Tapped	No	TGPS	TGPS	Analysis Report enlosed.	
17	Trans-Gomti	Nawal Nath	23.02.2019	26°51'39"	80°56'4"			Dry Untapped	No	TGPS	TGPS		

Analytical Data of Surface Water Samples Collected by Regional Office, Lucknow on Date 21-02-2019 and 22-02-2019

S.No	Sampling Point	Date of Sampling	Lab Code	Colour	Odour	pH	TSS (mg/L)	TDS (mg/L)	TS (mg/L)	BOD (mg/L)	COD (mg/L)	Total Coliform (MPN/ 100mL)	Faecal coliform (MPN/ 100mL)
1	Sahara Nala Gomti Nagar	22.02.19	W/179	Blackish	Sewage	7.61	124.0	896.0	1020.0	120.0	640.0	22000	17000
2	Nagaria Nala	21.02.19	W/181	Dirty Grey	Sewage	7.16	87.0	343.0	430.0	25.0	184.0	540000	350000
3	Gaughat Nala	21.02.19	W/182	Blackish	Sewage	7.40	85.0	916.0	1001.0	38.0	256.0	1600000.	540000
4	Sarkata Nala	21.02.19	W/183	Blackish	Sewage	7.18	94.0	491.0	585.0	36.0	248.0	540000	240000
5	Pata Nala	21.02.19	W/184	Blackish	Sewage	7.16	132.0	422.0	554.0	80.0	312.0	540000	350000
6	Wazirganj Nala	21.02.19	W/185	Light Grey	Sewage	7.10	88.0	510.0	598.0	85.0	328.0	540000	350000
7	Ghasiyari Mandi Nala	21.02.19	W/186	Light Grey	Sewage	7.30	80.0	570.0	650.0	76.0	272.0	1600000	920000
8	China Bazar Nala	21.02.19	W/187	Blackish	Sewage	7.11	224.0	910.0	1134.0	98.0	684.0	130000	79000
9	Laplas Nala	21.02.19	W/188	Light Grey	Sewage	7.60	10.0	274.0	284.0	16.0	96.0	7800	4500
10	GH Canal Nala	21.02.19	W/189	Light Grey	Sewage	7.22	60.0	640.0	700.0	24.0	192.0	350000	240000
11	Jopling Nala	21.02.19	W/190	Light Grey	Sewage	7.54	12.0	251.0	263.0	20.0	124.0	7800	4500
12	Jiamau Nala	21.02.19	W/191	Light Grey	Sewage	7.30	66.0	278.0	344.0	21.0	148.0	4500	2000
13	Lamartinier Nala	21.02.19	W/192	Light Grey	Sewage	7.42	96.0	1284.0	1380.0	50.0	248.0	79000	49000
14	Mahesh ganj Nala near meeting point at River Gomti, Lucknow	22.02.19	W/194	Grey	Sewage	7.37	118.0	988.0	1106.0	90.0	288.0	170000	110000
15	Rupper khadra Nala near sewage pumping Station, Lucknow	22.02.19	W/195	Pale	Sewage	7.29	76.0	910.0	986.0	70.0	224.0	540000	220000
16	Mohan meakin Nala near sewage pumping Station , Lucknow	22.02.19	W/196	Pale	Sewage	7.27	82.0	738.0	820.0	80.0	240.0	350000	170000
17	Daliganj-1 nala near sewage pumping Station , Lucknow	22.02.19	W/197	Pale	Sewage	7.26	70.0	630.0	700.0	92.0	276.0	220000	130000
18	Daliganj-2 Nala, near sewage pumping Station, Lucknow	22.02.19	W/198	Pale	Sewage	7.28	92.0	898.0	990.0	76.0	256.0	1600000	920000

Scientific Assistant

Asstt. Scientific Officer

Incharge (Central Lab)

Analytical Data of Surface Water Samples Collected by Regional Office, Lucknow on Date 23-02-2019

S.No	Sampling Point	Date of Sampling	Lab Code	Colour	Odour	pH	TSS (mg/L)	TDS (mg/L)	TS (mg/L)	BOD (mg/L)	COD (mg/L)	Total Coliform (MPN/ 100mL)	Faecal Coliform (MPN/ 100mL)
1	Art College nala (Bairal No.3)	23.02.19	W/201	Grey	Sewage	7.15	119.0	640.0	759.0	160.0	384.0	280000	110000
2	Hanuman Setu Nala (Bairal No.4)	23.02.19	W/202	Grey	Sewage	7.59	88.0	760.0	848.0	60.0	192.0	39000	33000
3	TGPS	23.02.19	W/203	Grey	Sewage	7.25	205.0	640.0	845.0	180.0	464.0	1600000	350000
4	Bairal No.7	23.02.19	W/204	Grey	Sewage	7.30	130.0	995.0	1125.0	120.0	284.0	540000	240000
5	Kukrail nala	23.02.19	W/205	Grey	Sewage	7.38	65.0	980.0	1045.0	20.0	76.0	170000	79000

4/3/19 4/3/19
Scientific Assistant

4/3/19
Asstt. Scientific Officer

4/3/19
Incharge (Central Lab)

Analytical Data of Surface Water Sample Collected by Regional Office, Lucknow on Date 22-02-2019

S.No	Sampling Point	Date of Sampling	Lab Code	Colour (Hazen)	Odour	pH	Cond. (µS/cm)	DO (mg/L)	TSS (mg/L)	TDS (mg/L)	BOD (mg/L)	COD (mg/L)	Alkalinity (mg/L)
1	Jheel Near Boating Station, Tirange ke nikat Janeshwar Mishra Park , Lucknow	22.02.19	W/180	30.0	Odourless	8.72	1267.0	8.2	46.0	764.0	16.5	40.8	370.0

4/3/19 04.03.19
Scientific Assistant

4/3/19
Asstt. Scientific Officer

4/3/19
Incharge (Central Lab)

Annexure – 2

STP Under Construction Connecting River Ganga

Sl. No.	Name Of District/ City / Town	No. of STP/ Capacity (MLD)	Constructing Agency	Date of Completion	Cost I	If revised Cost II	Present Status	Reasons of delay	Revised time line of completion
1	Prayagraj	3(72)	Namami Gange Programme	Sep, 2021	These informations can be obtained from State Mission for Clean Ganga (SMCG)/ Nagar Vikas Vibhag.				
2	Mirzapur	2(17)	Namami Gange Programme	Feb, 2020					
3		1(7)	AMRUT Programme	Dec, 2020					
4	Chunar	1(2)	Namami Gange Programme	Sep, 2020					
5	Ramnagar	1(10)	Namami Gange Programme	March, 2020					
6	Varanasi	1(50)	Namami Gange Programme	March, 2020					
7	Bithoor	1(2.4)	Namami Gange Programme	Dec, 2019					
8	Kanpur	1(15)	Namami Gange Programme	Oct, 2021					
9	Bulandshahr	1(40)	AMRUT Programme	Feb, 2020					
10	Fatehgarh	1(2)	Namami Gange Programme	Under Tendering process (Revised AA&ES to be issued by NMCG)					
11	Farrukhabad	2(33)	Namami Gange Programme	Under Tendering process (Revised AA&ES to be issued by NMCG)					
12	Unnao	1(13)	Namami Gange Programme	Oct, 2021					
13	Shuklaganj	1(6)	Namami Gange Programme	Oct, 2021					
14	Ghazipur	1(21)	Namami Gange Programme	Dec, 2019					
15	Rae Bareilly	1(18)	AMRUT Programme	April, 2021					

Source : State Mission for Clean Ganga (SMCG), Uttar Pradesh

14-01-2020

14/1/2020

Dr. B. B. Pathi
Chief Environmental Officer
Central Laboratory.
U.P. Pollution Control Board.
Lucknow

Annexure-3

(I) Summary of existing STPs under different Schemes-

S.N.	Scheme	Constructed STPs			Under Construction STPs	
		No. of STP	Treatment Capacity in MLD	Percentage Utilization	No. of STP	Treatment Capacity in MLD
1.	GAP-I	09	317.5	82.52%	-	-
2.	GAP-II	21	959.86	82.80%	-	-
3.	JNNURM/UIDSSMT	14	642	60.04%	10	294
4.	NGRBA/ Namami Gange	11	192.5	51.20%	42	817.78
5.	State Sector	12	217.47	50.00%	3	143.55
6.	Others	37	969.51	84.20%	1	26
	Total	104	3298.84	Average=68.46%	56	1281.33

(II) STP - Scheme wise Details

GAP-I							
Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remarks
1	Kanpur	Jajmau	130	1999	ASP	UPJN	Operational
2		Jajmau	5	1989	UASB	UPJN	Operational
3	Varanasi	DLW	12	1989	ASP	Railway	Operational
4		Bhagwanpur	9.8	1994	ASP	UPJN	Operational
5		Dinapur	80	1994	ASP	UPJN	Operational
6	Allahabad	Naini	60	1999	ASP	UPJN	Operational
7	Fatehgarh	Fatehgarh	2.7	1993	Oxidation Pond	UPJN	Operational
8	Mirzapur	Pucca pokhra	14	1993	UASB	UPJN	Operational
9		Vindhyachal	4	2008	WSP	UPJN	Operational
Total Capacity of STP (MLD)			317.5				

GAP-II							
Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remarks
1	Anupshahar	Aahar Road	0.81	2001	WSP	NPP	Operational
2		Shivanand Asharam	1.76	2001	WSP	NPP	Operational
3	Prayagraj	Salori - 3	29	2007	FAB	UPJN	Operational
4	Varanasi	Varanasi GAP-II (JICA)	140	2018	ASP	UPJN	1 Yr DLP & 10 Yrs O&M
5	Agra	Dandupura	78	2013	UASB	UPJN	Operational
6		Pilkhar	10	2000	WSP	UPJN	Operational
7		Naglaburhi	2.25	2000	WSP	UPJN	Operational
8		Jaganpur	14	2010	UASB	UPJN	Operational
9		Bichhpuri	40	2012	UASB	UPJN	Operational
10	Etawah	Karanpur	10.45	2000	WSP	UPJN	Operational
11	Mathura	Mosani	13.59	2000	WSP	NPP	Operational
12		Trans Yamuna - 2	14.5	2000	WSP	UPJN	Operational
13	Vrindavan	Near Pagal Baba Mandir	4	1997-1998	WSP	UPJN	Operational (15 Yrs contract O&M)
14	Lucknow	Bharwara	345	2016	UASB	UPJN	Operational
15		Daulatganj	42	2003	FAB	UPJN	Operational
16	Sultanpur	Lolepur	5	1996-2002	Oxidation Pond	UPJN	Operational
17	Saharanpur	Mlahipur	38	1998	UASB	Nagar Nigam	Operational
18	Muzaffar nagar	Kidwai nagar	32.5	2001	WSP	Nagar Nigam	Operational
19	Gaziabad	Dudaheda - 3	70	1994-1998	UASB	Nagar Nigam	Operational
20	Noida	Sector-54-2	33	2009	SBR	Noida	Operational
21	Kanpur	Jajmau	36	1994	UASB	UPJN	Operational
Total Capacity of STP (MLD)			**959.86**				

JNNURM/UIDSSMT							
Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remarks
1	Prayagraj	Rajapur	60	2013	UASB	UPJN	Operational
2	Kanpur	Kanpur (JNNURM)	43	2016	UASB	UPJN	under refurbishment
3		Sajari	42	2016	ASP	UPJN	Operational
4	Agra	Dandupura - 2	24	2013	UASB	UPJN	Operational
5	Firozabad	Firozabad	3	2012	UASB	NPP	Operational
6	Mathura	Trans Yamuna	16	2016	UASB	UPJN	Operational
7	Vrindavan	Manth Road	8	2015	UASB	UPJN	Operational
8	Lucknow	Daulatganj - 2	14	2009	FAB	UPJN	Operational
9	Mainpuri	Powerhouse Road	23		UASB	UPJN	Operational
10	Varanasi	Varanasi (JNNURM)	120	2018	UASB	UPJN	Operational (1yrs DLP & 5 Yrs since MAY, 2019)
11	Banda	Kanwara Road	4	1979	Oxidation Pond	UPJN	Non-Operational (Oxidation Pond is not running due to damage of rising main and damage of pipe line due to railway under pass construction since Jan, 2018)
12	Kanpur	Bingawan	210	2015	UASB	UPJN	Operational
13	Pilkhua	Pilkhua	3	2011	ASP	UPJN	Operational
14	Meerut	Village Kamalpur	72	2016	ASP	UPJN	Operational
Total Capacity of STP (MLD)			**642**				

NGRBA/Namami Gange							
Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remrks
1	Garhmukteshwar	Garhmukteshwar-I (NGRBA)	6	2018	UASB	UPJN	Operational (5 yrs OM&M)
2		Garhmukteshwar-II (NGRBA)	3	2018	UASB	UPJN	Operational (5 yrs OM&M)

3	Narora	Narora (NGRBA)	4	2019	UASB	UPJN	Operational (10 Yrs contract O&M)
4	Anupshar	Anupshahar (NGRBA)	1.5	2018	UASB	UPJN	Operational (10 yrs O&M by Contractor)
5		Anupshahar	1	2018	MBBR	UPJN	Operational
6	Prayagraj	Kodra	25	2013	HRBF	UPJN	Operational
7		Ponghat	10	2013	HRBF	UPJN	Operational
8		Salori - 2	14	2016	SBR	UPJN	Operational (10 Yrs contract O&M Since 2016)
9		Naini - 2	20	2013	ASP	UPJN	Operational
10		Numayadih	50	2013	HRBF	UPJN	Operational
11	Moradabad (NGRBA)	Moradabad (NGRBA)	58	2018	UASB	UPJN	Operational (5 yr O&M by L&T)
Total Capacity of STP (MLD)			**192.5**				

STATE

Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remarks
1	Bijnour (UIDSSMT)	Bijnour	24	2018	UASB	UPJN	Operational
2	Loni	Loni	30	2012-2013	MBBR	UPJN	Non-operational (Awarded for O&M for 10 years with date of start on 16.12.2019. Rectificaiton work under progress.)
3	Agra	Devri Road	12	2011	UASB	UPJN	Operational
4	Etawah	Umren	13.45	2013	SBR	NPP	Non-operation / (Incomplete)
5	Gaziabad	Indirapuram	74	2013	SBR	UPJN	Operational
6	Chitrakoot	Near Viklang Kendra	3.42	2016	Oxidation Pond	UPJN	Operational
7	Saifai	Saifai	1.6	2006	Oxidation Pond	UPJN	Operational

8	Ayodhya	Ramghat Ayodhya	12	2014	UASB	UPJN	Operational
9	Kannauj (State/NGRBA)	Kannauj (State/NGRBA)	13	2015	SBR	UPJN	5 yrs OM&M
10	Rampur	Benajeerpur	14	2015	UASB	UPJN	Non-operational (Awarded for O&M for 10 years with date of start on 16.12.2019. Process to start STPs under progress.)
11		Paharigaon	15	2015	UASB	UPJN	
12		Rampur	5	2017	SBR	UPJN	
Total Capacity of STP (MLD)			**217.47**				

OTHERS

Sl. No.	City	STP Location	Established Capacity (MLD)	Year Of Commissioning	Technology	Agency	Remarks
1	Narora	Narora Atomic Power Plant	2.25	2010	ASP	Narora Power Plant	Operational
2	Agra	Bichhpuri - 2	36	2013	SBR	Agra Devt. Authority	Operational
3		Kalandi Bihar	4.5	2013	UASB	Agra Devt. Authority	Operational
4	Mathura	Trans Yamuna (Gowardhan)	2.76	2010	WSP	NPP	Operational
5	Gaziabad	Indirapuram - 2	56	1995-1998	SBR	Nagar Nigam	Operational
6		Dudaheda	56	2013	UASB	Nagar Nigam	Operational
7		Indirapuram 3	56	2012	SBR	GDA	Operational
8		Govindpuram	56	2011-2012	UASB	GDA	Operational
9		Bapudham	56	2018	UASB	GDA	Operational
10		Moti Rajendra Nagar Extension	56	2018	SBR	GDA	Operational
11	Noida	Sector-54-3	54	2013	SBR	Noida	Operational
12		Sector-50	25	2009	SBR	Noida	Operational
13		Sector-50-2	34	2013	SBR	Noida	Operational
14		Sector-123	35	2009	SBR	Noida	Operational
15		Sector-168	50	2009	SBR	Noida	Operational

16	Greater Noida	Ecotech 3rd	20	2018	SBR	G-Noida	Operational
17		Ecotech 2nd	15	2018	SBR	G-Noida	Operational
18		Badalpur	2	2013	SBR	G-Noida	Operational
19		Kasna	137	2013	SBR	G-Noida	Non-operational (STP is under Renovation
20	Gorakhpur	Ramgarhtal	30	2015	SBR	UPJN	Operational
21		Mahadev Jharkhandi	15	2010	SBR	UPJN	Operational
22	Lucknow	Awas Vikas STP	37.5	2017	SBR	Awas Vikas	Operational
23		STP Jalkal	6.5	2010	SBR	Jalkal	Operational
24	Meerut	Ganga Nagar	10	2011	SBR	Meerut Devt. Authority	Operational
25		Lohia Nagar	10	2010	ASP	Meerut Devt. Authority	Operational
26		Shatabdi Nagar	15	2010	ASP	Meerut Devt. Authority	Operational
27		Sharda Puri Phase-1	6	2011	ASP	Meerut Devt. Authority	Operational
28		Pallavpuram	7	2012	ASP	Meerut Devt. Authority	Operational
29		Ved Vyaspur	15	2010	ASP	Meerut Devt. Authority	Operational
30		Pandav Nagar	3	2008	ASP	Meerut Devt. Authority	Operational
31		Pallavpuram - 2	11	2008	ASP	Meerut Devt. Authority	Operational
32		Rakshapuram	6	2011	ASP	Meerut Devt. Authority	Operational
33		Saardapuri Phase 2	6	2011	SBR	Meerut Devt. Authority	Operational
34		Modipuram Tiraha	5	2016	UASB	Meerut Devt. Authority	Operational
35		Sainik Vihar	6	2017	UASB	Meerut Devt. Authority	Operational
36		Major Dhyan Chand	7	2012	ASP	Meerut Devt. Authority	Operational
37	**Moradabad**	MDA, New Moradabad	20	2017	SBR	Moradabad Devt. Authority	Operational
Total Capacity of STP (MLD)			969.51				
Grand Total of STP Capacity (MLD)			3298.84				

(iii) STPs Under-Construction-

Namami Ganga Programme, City - 22, S.T.P. - 42, Capacity, 817.78 MLD				
Sl. No.	City	No. of STPs	Total Capacity(MLD)	completion date
1	Prayagraj	3	72	Sept. 2021
2	Mirzapur	2	17	Feb. 2020
3	Varanasi	1	50	March. 2020
4	Kanpur	1	15	Oct. 2021
5	Bithoor	1	2.1	Dec. 2019
6	Fatehgarh	1	2	Under tedering process (Revised AA&ES to be issued by NMCG)
7	Farukkhabad	2	33	
8	Unnao	1	13	Oct. 2021
9	Shuklaganj	1	6	Oct. 2021
10	Ramnagar	1	10	March. 2020
11	Chunar	1	2	Sept. 2020
12	Ghazipur	1	21	Dec. 2019
13	Mathura	1	30	Jan. 2021
14	Moradabad	1	25	March. 2020
15	Bareilly	4	63	Jan. 2021
16	Kasganj	1	15	July. 2021
17	Sultanpur	2	7	Dec. 2020
18	Agra	13	172.38	Oct. 2020
19	Muzaffarnagar	1	22	Jan. 2021
20	Jaunpur	1	30	Oct. 2021
21	Budhana	1	10	Feb. 2021
22	Meerut	1	200	Feb. 2021
	Total	**42**	**817.78**	

AMRUT Programme, City - 10, S.T.P. - 10, Capacity, 294 MLD				
Sl. No.	City	No. of STPs	Total Capacity(MLD)	completion date
1	Bulandshahar	1	40	Feb. 2020
2	Hapur	1	30	Oct. 2021
3	Mirzapur	1	7	Dec. 2020
4	Bareilly	1	35	Dec. 2020
5	Aligarh	1	45	May. 2021
6	Rae Bareilly	1	18	April. 2021
7	Etah	1	24	Jan. 2020
8	Modinagar	1	20	Jan. 2020
9	Azamgarh	1	8	Under Tendering
10	Firozabad	1	67	June. 2020
	Total	10	294	

Sewage Treatment Plant- River Ganga

No. of drains	Discharge of Sewage/ Water MLD	Tapped	Untapped	Dry	No of STPs	Capacity (MLD)	Operational	Non-operational STP No. / Capacity (MLD)	Under constructio STP No. / Capacit (MLD)
3	-	2	1	0	1	24	1	No	No
2	-	2	-	-	7	11.305	6	No	1(40)
5	-	1	4	-	4	2.7	1	No	3(35)
2	-	1	1	-	3	9.0	2	No	1(30)
34	-	-	33	1	1	-	No	No	1(21)
30	1.90	20	10	-	7	361.8	5	No	2(60)
6	35.91	-	5	1	2	-	No	No	2(19)
9	5.97	-	6	3	2	-	No	1(5)	1(18)
50	61.71	18	32	-	10	268.0	7	No	3(72)
28	18.83	7	16	5	6	18.0	2	No	4(26)
23	328.93	8	13	2	8	400.0	5	1(43)	2(17.4)
213	**453.25**	**59**	**129**	**25**	**51**	**1094.805**	**29**	**2(48)**	**20(338.4)**

Report submitted in Hon'ble NGT in OA No. 200/2014 and desk inventory of UPPCB & State Mission for Clean Ganga (SMCG), Uttar P

14.01.2020

14-1-2020

Dr. B. B. Awasthi
Chief Environmental Officer
Central Laboratory.
U.P. Pollution Control Board
Lucknow

Summary of Untapped drains polluting River Ganga

S No.	District	No. of Drains	Type of Drains			Status of Drains			Industries		Sewage Discharge (MLD)			Total Discharge in the River (MLD)
			Domestic	Industrial	Mixed	Tapped	Untapped	Partially Tapped	Number	Treated Effluent (MLD)	Treated	Untreated	Total	
1.	Kannauj	-	-	-	-	-	-	-	-	-	-	-	-	-
2.	Kanpur	20	15	0	05		18	02	78	3.45	1.10	324.38	325.48	328.93
3.	Hardoi	-	-	-	-	-	-	-	-	-	-	-	-	-
4.	Unnao	06	04	-	02	-	06	-	79	14.41	00	21.50	21.50	35.91
5.	Raebareli	10	10	00	00	00	10	-	01	00	00	5.97	5.97	5.97
6.	Kaushmbi	-	-	-	-	-	-	-	-	-	-	-	-	-
7.	Prayagraj	29	29	00	00	00	29	00	00	00	00	61.71	61.71	61.71
8.	Mirzapur	17	17	00	00	00	17	00	08	0.43	00	18.40	18.40	18.83
9.	Varanasi	03	02	00	01	00	03	00	11	0.08	00	1.82	1.82	1.90
10.	**TOTAL**	**85**	**77**	**00**	**08**	**00**	**83**	**02**	**177**	**18.37**	**1.10**	**433.78**	**434.88**	**453.25**

Source : *Joint Verification Report submitted in Hon'ble NGT in OA No. 200/2014 and desk inventory of UPPCB.*

Annexure-4

Sewage Treatment Plant- River Ganga

S.No.	Name of District / City / Town	No. of drains	Discharge of Sewage/ Water MLD	Tapped	Untapped	Dry	No of STPs	Capacity (MLD)	Operational	Non-operational STP No. / Capacity (MLD)	Under construction STP No. / Capacity (MLD)	Final Discharge/River	
												Treated (MLD)	Untreated (MLD)
1	Bijnor	3	-	2	1	0	1	24	1	No	No	10.0	-
2	Bulandshahr	2	-	2	-	-	7	11.305	6	No	1(40)	11.305	-
3	Farrukhabad	5	-	1	4	-	4	2.7	1	No	3(35)	2.0	-
4	Hapur	2	-	1	1	-	3	9.0	2	No	1(30)	5.3	-
5	Ghazipur	34	-	-	33	1	1	-	No	No	1(21)	-	-
6	Varanasi	30	1.90	20	10	-	7	361.8	5	No	2(60)	361.8	-
7	Unnao	6	35.91	-	5	1	2	-	No	No	2(19)	-	-
8	Rae Bareli	9	5.97	-	6	3	2	-	No	1(5)	1(18)	-	-
9	Prayagraj	50	61.71	18	32	-	10	268.0	7	No	3(72)	268.0	-
10	Mirzapur	28	18.83	7	16	5	6	18.0	2	No	4(26)	16.5	-
11	Kanpur	23	328.93	8	13	2	8	400.0	5	1(43)	2(17.4)	195.0	-
Total drains		213	453.25	59	129	25	51	1094.805	29	2(48)	20(338.4)	869.905	-

Source : Joint Verification Report submitted in Hon'ble NGT in OA No. 200/2014 and desk inventory of UPPCB & State Mission for Clean Ganga (SMCG), Uttar Pradesh

14.01.2020

14-1-2020

Dr. B. B. Awasthi
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Central Laboratory.
U.P. Pollution Control Board
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Annexure-5

Thematic area-6: 351 Polluted River Stretches in the Country

(12 Polluted River Stretches in U.P.)

Current Status

- CPCB identified 351 polluted river stretches in India of which 12 river stretches are in Uttar Pradesh.
- 12 Polluted River Stretches in U.P.

Priority 1 (04 Rivers)	
River	**River Stretch**
Hindon	Saharanpur to Ghaziabad
Kali East	Muzaffarnagar to Gulaothi
Varuna	Remeshwar to Varanasi
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj
Priority II No river stretch in U.P.	
Priority III (01 River)	
Gomti	Sitapur to Varanasi
Priority IV (02 Rivers)	
Ganga	Kannauj to Varanasi
Ramganga	Moradabad to Kannauj
Priority V (05 Rivers)	
Betwan	Hamirpur to Wagpura
Ghaghra	Barhalganj to Deoria
Rapti	Domingarh to Rajghat
Sai	Unnao to Jaunpur
Saryu	Ayodhya to Elafatganj

- Sewage Management from Cities and Towns along 12 Critically Polluted River Stretches :

ESTIMATED POPULATION 2030	WATER CONSUMPTION (MLD) (@135 LPCD)	SEWAGE GENERATION (MLD)
27560875	3752.21	3303.67

- Status of STPs in the catchment area of 12 Critically Polluted River Stretches :

River	Critically polluted stretch	No. of STPs
Hindon	Saharanpur to Ghaziabad	10
Kali East	Muzaffarnagar to Gulaothi	12
Varuna	Remeshwar to Varanasi	03
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj	23
Gomti	Sitapur to Varanasi	04
Ganga	Kannauj to Varanasi	18
Ramganga	Moradabad to Kannauj	05
Betwan	Hamirpur to Wagpura	02
Ghaghra	Barhalganj to Deoria	00
Rapti	Domingarh to Rajghat	00
Sai	Unnao to Jaunpur	01
Saryu	Ayodhya to Elafatganj	01
Total		**79**

- **Sewage Management in Gram Panchayats under Swachh Bharat Mission (Rural) during year 2019 till IInd week of December**

Gram Panchayats became liquid waste free	Soak pit Constructed	Waste Stabilization Ponds (WSP) Constructed
9655	150369	12669

- Soak pit under construction : 67631
- WSP under construction : 11976

- Status of CETPs in the catchment area of critically polluted river stretches-

Critically Polluted River Stretch	Name, Address of CETP	Capacity (MLD)	Sector	Compliance Status	Timeline required for compliance
Hindon	Apparel Park Tronica City CETP, Phase-I (for textile units), Ghaziabad	6	Textile	Not Complying	-
Yamuna	CETP, Industrial Area, Site-A, Mathura	6.25	Textile	Complying	Upgradation proposed under Namami Gange Project for ZLD.
Ganga	CETP, UPSIDC Textile Complex, Rooma, Kanpur (for textile units)	1.55	Textile	Complying	-
Ganga	CETP Jajmau, Kanpur	36	Tannery	Complying	-
Ganga	Banther Industrial Pollution Control Co. CETP, Banther, Unnao	4.55	Tannery	Complying	-
Ganga	Unnao Tanneries Pollution Control Company (CETP) Site-II, Unnao	2.15	Tannery	Complying	-

- The Plantations done by Forestry Department, U.P. in Critically Polluted Rivers Stretches :

Critically Polluted River Stretch	No. of sapling planted	
	Year 2014-15 to 2018-19	Year 2019-20
Hindon	103640	59700
Kali	13200	11000
Gomti	643654	70825
Sai	-	62500
Varuna	131307	39600
Ganga	138117	182550
Ramganga	124400	58100

Betwa	1317894	195625
Saryu	-	85500
Total	**2472212**	**765400**

- **Action against pollution sources:**
  - State is monitoring the implementation of Action Plans for all critically polluted river stretches. The action taken status for the period of August, 2019 to November, 2019 is as below :

Sector	Total Units	Total Defaulters	Action Against Defaulters			
			Show Cause Notice	Closure	Environmental Compensation (Rs. in Crores)	
					Imposed	Show Cause Notice
Industries	1616	233	81	137	19.59	-
Sewage Treatment Plant	79	27	21	00	-	39.00
Common Effluent Treatment Plant	06	02	02	00	-	0.45
Total	**1701**	**262**	**105**	**137**	**19.59**	**39.45**

- The effective implementation of Action Plan and enforcement of Law has resulted in improvement in River Water Quality of following Critically Polluted River Stretches in year, 2019 as compared to year, 2018

Critically Polluted River Stretch	No. of Monitoring Locations	No. of Monitoring Locations showing improvement of river water quality	% Reduction in BOD value in 2019 as compared to 2018
Hindon	07	05	2.3 to 35.7
Kali Nadi East	06	05	11.8 to 28.6
Varuna	02	02	4.0 to 37.1
Yamuna	20	08	0.2 to 9.1
Gomti	11	06	1.3 to 21.9
Ganga	22	21	0.2 to 36.4
Ramganga	06	01	38.7
Ghaghra	02	01	1.0
Sai	08	06	0.3 to 18.0

Gap between current status and desired levels

- As per the Monitoring from January to December, 2019, the Water Quality of all 12 Polluted River Stretches shows the following trend shown below:

River	Monitoring points within the identified polluted stretches	Monitoring points where BOD < 3 mg/l	Gap i.e. Monitoring points where BOD > 3 mg/l
Hindon	07	00	07
Kali Nadi East	06	00	06
Varuna	02	00	02
Yamuna	20	04	16
Gomti	11	02	09
Ganga	22	06	16
Ramganga	06	01	05
Betwan	01	00	01
Ghaghra	02	00	02
Rapti	02	00	02
Sai	08	00	08
Saryu	01	00	01
Total	**88**	**13**	**75**

- FC is more than the desired level in all monitoring locations.

Proposal of attending the gap with time lines

- The detailed time line for STP construction / treatment of sewage has been given in the table. It is proposed to undertake treatment using STPs & in-situ method of NEERI. The project of STPs will be implemented in 24 months of sanction and the DPR will be prepared in 6 months of sanction of the DPR cost which is 4% of the project cost. The project cost on average will be Rs. 2.0 Crore per MLD. It is also pertinent to mention that in compliance of the order of NGT in O.A. No: 200/2014 case of M.C. Mehta in which order has been passed to start bio-remediation from 1st November, 2019 failing which penalty will be imposed. A DPR for 459 drains on 11 rivers costing Rs. 1700 crore has been submitted in the NMCG. The above project has not been sanctioned, so work has not begun yet.

Priority	River	CITY	ESTIMATED POPULATION 2030	WATER CONSUMPTION (MLD) (@135 LPCD)	SEWAGE GENERATION (MLD)	INSTALLED CAPACITY OF EXISTING STP (MLD)	PROPOSED STP CAPACITY (MLD)	GAP IN STP CAPACITY UTILIZATION (MLD)	Date of Completion of STPs to meet the Gap
I	Hindon	Saharanpur	969002	130.82	104.65	38	93.65	N/A	
		Muzaffarnagar	519184	70.09	56.07	32.5	32	N/A	
		Shamli	141791	19.14	15.31	N/A	N/A	15.31	March, 2022
		Sardhana * (Meerut)	74732	10.09	8.07	N/A	N/A	8.07	March, 2022
		Baghpat	61733	8.33	6.67	N/A	14	Nil	March, 2021
		Ghaziabad	2943273	397.34	317.87	454	N/A	N/A	
		Total	**4709715**	**635.81**	**508.65**	**524.5**	**139.65**	**23.48**	
	Kali (East)	Khatauli	96428	13.02	10.41	N/A	N/A	10.41	March, 2022
		Meerut	1674748	226.09	180.87	168	200	N/A	
		HAPUR	469346	63.36	50.69	N/A	80	N/A	
		GHAZIABAD (MODI AGAR)	232085	31.33	25.07	N/A	20	5.07	March, 2022
		BULANDSHAHAR (GALAOTHI)	76026	10.26	8.21	N/A	7	1.21	March, 2000
		Total	**2548633**	**344.07**	**275.25**	**168**	**307**	**16.69**	
	Yamuna	G.B. Nagar	2810184	379.37	303.5	196	NA	107.5	March, 2022
		Aligarh	1252869	169.14	135.31	NA	45		
		Hathras	179700	24.26	19.41	NA	NA	19.41	March, 2022
		Mathura	501357	67.68	54.15	58.85	30	NA	
		Agra	2250035	303.75	243	223	175	NA	

		Firozabad	053217	115.18	92.15	67	67	NA	
		Etawah	345409	46.63	37.3	23.95	21	NA	
		Kalpi	67564	9.12	7.3	NA	NA	7.3	March, 2022
		Hamirpur	42343	5.72	4.57	NA	NA	4.57	March, 2022
		Rajapur, Chitrakoot	20954	2.83	2.26	NA	3.42		
		Prayagraj	1548628	209.06	167.25	268	72		
		Total	**98,72,259**	**1332.76**	**1066.2**	**618.8**	**413**	**138.78**	
III	Gomti	Sitapur	2,57,649	34.78	27.83	NIL	NIL	**27.83**	March, 2022
		Sandila*	81,005	10.94	8.75	NIL	NIL	NA	
		Lucknow	41,99,120	566.88	**755.5****	438	326	NIL	
		Barabanki	2,08,446	28.14	22.51	NIL	NIL	22.51	March, 2022
		Jagdishpur	33130	4.47	3.58	NIL	NIL	3.58	March, 2021
		sultanpur	1,44,678	19.53	15.63	5	17	NIL	
		Jaunpur	2,31,388	31.24	24.99	NIL	30	NIL	
		Kerakat	17,351	2.34	1.87	NIL	NIL	1.87	March, 2021
		Total	**51,72,767**	**698.32**	**860.66**	**443**	**373**	**55.79**	
IV	Ramganga	Moradabad	1313321	177.3	141.84	58*	99	Nil	
		Rampur	457709	61.79	49.43	34*	Nil	15.43	March, 2022
		Bareilly	1297369	175.14	140.12	NA	98**	42.12	March, 2022
		Shahjahanpur	No drain either domestic or industrial or mixed flows into river Ramganga in these Districts. Hence there is no contribution of pollution load into river Ramganga from these 4 Districts.						
		Farrukhabad							
		Hardoi							
		Kannauj							
		Total	**3068399**	**414.23**	**331.39**	**92***	**197**	**57.55**	
V	Betwa	Jhansi	605000	81.6	65.28	N/A	26	39.28	March, 2022
		Hamirpur	45000	6.1	4.8	N/A	0	4.8	March, 2022
		Total	**650000**	**87.7**	**70.08**	**0**	**26**	**44.08**	
	Ghaghara	Town area Barhalganj	52586	7.9	6.32	0	0	6.32	March, 2021
		Town are Dohari Ghat,	29143	3.93	3.14	0	0	3.14	March, 2021
		Nagar Palika Gaura Barbaj	90053	12.15	9.72	0	0	9.72	March, 2021
		Village Panchayat, Bhagalpur	17941	2.42	1.93	0	0	1.93	March, 2021
		Total	**189723**	**26.4**	**21.11**	**0**	**0**	**21.11**	
	Rapti		6,73,446	121.68	**97.34**	N/A	168	**No Gap**	
	Sai	Raebareli	258782	34.94	27.95	No existing STP	18	9.95	March, 2022
		Pratapgarh	101447	13.7	10.96	8.95*	--	2.01	March, 2021
		Total	**360229**	**48.63**	**38.9**	**8.95**	**18**	**11.96**	
	Saryu	Ayodhya Town	75323	10.17	8.13	12	-	Nil	
		Faizabad City	222678	30.06	24.05	-	35	Nil	
		Iltifatganj, Ambedkar Nagar	17703	2.38	1.91	Nil	Nil	1.91	March, 2021
		Total	**315704**	**42.61**	**34.09**	**12**	**35**	**1.91**	
	Grand Total		**27560875**	**3752.21**	**3303.67**	**1867**	**1067**	**313.8**	

➢ Plantation proposed for Year 2020 - 21, Year 2021-22 etc. along Critically Polluted River Stretches by Social Forestry Department, Uttar Pradesh :

Critically Polluted River Stretch	Plantation (Year 2019-20)	Proposed Plantation (Year 2020 - 21, Year 2021-22)
Hindon	59700	25400
Kali	11000	25500
Gomti	70825	12000
Sai	62500	22500
Varuna	39600	-
Ganga	182550	-
Ramganga	58100	-
Betwa	195625	682000
Total	765400	767400

			planting a row of suitable plants through Forest Department.	
	Ganga	Kannauj to Varanasi	Detailed report of flood plain zone has been presented by Special Committee in O.A. 200/2014 to Hon'ble NGT.	3 Months
			Demarcation of flood plain zone will be made at suitable location as per Central Water Commission (CWC) report, will be made by fixing pillars at suitable interval.	9 Months
	Ganga	Kannauj to Varanasi	100 m from both banks will be declared as no construction/no development zones till the detailed report of Flood Plain Zone will be prepared by CWC in accordance with the orders issued in O.A. no. 200/2014 b y Hon'ble NGT regarding segment 'B' - II Phase.	6 Months
			Demarcation of flood plain zone will be made at suitable location as per CWC report, will be made by fixing pillars at suitable interval.	9 Months
	Ramganga	Moradabad to Kannauj	50 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Betwan	Hamirpur to Wagpura	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain will be made at suitable interval as per topographical condition by stone pillars/plantation	9 Months
	Ghaghra	Barhalganj to Deoria	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain zone at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Rapti	Domingarh to Rajghat	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain zone at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Sai	Unnao to Jaunpur	50 m from both banks will be declared as no construction/no development zones.	3 Months

			For detailed survey	6 Months
			Demarcation of flood plain zone at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Saryu	Ayodhya to Blafatganj	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain will be made at suitable interval as per topographical condition by stone pillars/plantation	9 Months

Name and designation of designated officer for ensuring compliance to provisions under statute.

S. No.	Area	Designated Officer
1	E-flow	

S. No.	Area	Designated Officer		
1	E-flow	**River**	**River Stretch**	**Nodal Officer**
		Hindon	Saharanpur to Ghaziabad	Mr. Anil kumar, C.E. Yamuna, Okhla, New Delhi
		Kali East	Muzaffarnagar to Gulaothi	Mr.T C Sharma, Chief Ganga, Meerut
		Varuna	Rameshwar to Varanasi	Mr.Vijay kumar, SSO, C E (Son), Varanasi
		Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj	Mr. Rakesh Yadav, SSO (Ram Ganga) Kanpur
		Gomti	Sitapur to Varanasi	Mr. R K Gupta, C E, (Sharda Shayak), LKO
		Ganga	Kannauj to Unnao	Mr. Rakesh Yadav, SSO (Ram Ganga) Kanpur
		Ganga	Unnao to Varanasi	Mr. Vijay kumar SSO, C E (Son), Varanasi
		Ramganga	Moradabad to Kannauj	Mr. R P Singh, C E(Poorvi ganga), Moradabad.
		Betwa	Hamirpur to Wagpura	Mr. Jagdesh Singh, C E (betwa project), Jhansi.
		Ghaghra	Barhalganj to Deoria	Mr. V K Niranjan, C E (Sarayu 1st), Ayodhya

Rapti	Domingarh to Rajghat	Mr A K Jain, C E(Sarayu 2nd), Gonda.
Sai	Unnao to Jaunpur	Mr R K Gupta, C E(Sharda Shayak), LKO.
Saryu	Ayodhya to Elafatganj	Mr. V K Niranjan, C E (Sarayu 1st), Ayodhya.

Notes:

1. No construction/No development zone for River Ganga is decided on the basis of O.A. 200/2014 M.C. Mehta v/s Union of India.
2. For Yamuna & other major rivers, it is also decided on the same principle as 100mtr.
3. For minor rivers and drains, it is decided as 50mtr.
4. E-flow is maintained in river Ganga as per the guidelines of C.W.C. from Kannauj to Unnao as 24 cumec from November to May and 48 Cumec from June to October.
5. For Yamuna river, as per Upper Yamuna River Board compulsory Downstream discharge is 10 cumec which is maintained from Okhla Barrage.
6. For non perennial rivers, E-flow can not be maintained through out the year and no surplus water is available to augment the flow in these rivers.'
7. There is no surplus water in any canal that can augment, flow in critical polluted reaches.

Annexure-5

Thematic area-6: 351 Polluted River Stretches in the Country

(12 Polluted River Stretches in U.P.)

Current Status

- CPCB identified 351 polluted river stretches in India of which 12 river stretches are in Uttar Pradesh.
- 12 Polluted River Stretches in U.P.

Priority 1 (04 Rivers)	
River	**River Stretch**
Hindon	Saharanpur to Ghaziabad
Kali East	Muzaffarnagar to Gulaothi
Varuna	Remeshwar to Varanasi
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj
Priority II No river stretch in U.P.	
Priority III (01 River)	
Gomti	Sitapur to Varanasi
Priority IV (02 Rivers)	
Ganga	Kannauj to Varanasi
Ramganga	Moradabad to Kannauj
Priority V (05 Rivers)	
Betwan	Hamirpur to Wagpura
Ghaghra	Barhalganj to Deoria
Rapti	Domingarh to Rajghat
Sai	Unnao to Jaunpur
Saryu	Ayodhya to Elafatganj

- Sewage Management from Cities and Towns along 12 Critically Polluted River Stretches :

ESTIMATED POPULATION 2030	WATER CONSUMPTION (MLD) (@135 LPCD)	SEWAGE GENERATION (MLD)
27560875	**3752.21**	**3303.67**

- Status of STPs in the catchment area of 12 Critically Polluted River Stretches :

River	Critically polluted stretch	No. of STPs
Hindon	Saharanpur to Ghaziabad	10
Kali East	Muzaffarnagar to Gulaothi	12
Varuna	Remeshwar to Varanasi	03
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj	23
Gomti	Sitapur to Varanasi	04
Ganga	Kannauj to Varanasi	18
Ramganga	Moradabad to Kannauj	05
Betwan	Hamirpur to Wagpura	02
Ghaghra	Barhalganj to Deoria	00
Rapti	Domingarh to Rajghat	00
Sai	Unnao to Jaunpur	01
Saryu	Ayodhya to Elafatganj	01
Total		**79**

- **Sewage Management in Gram Panchayats under Swachh Bharat Mission (Rural) during year 2019 till IInd week of December**

Gram Panchayats became liquid waste free	Soak pit Constructed	Waste Stabilization Ponds (WSP) Constructed
9655	150369	12669

- Soak pit under construction : 67631
- WSP under construction : 11976

- Status of CETPs in the catchment area of critically polluted river stretches-

Critically Polluted River Stretch	Name, Address of CETP	Capacity (MLD)	Sector	Compliance Status	Timeline required for compliance
Hindon	Apparel Park Tronica City CETP, Phase-I (for textile units), Ghaziabad	6	Textile	Not Complying	-
Yamuna	CETP, Industrial Area, Site-A, Mathura	6.25	Textile	Complying	Upgradation proposed under Namami Gange Project for ZLD.
Ganga	CETP, UPSIDC Textile Complex, Rooma, Kanpur (for textile units)	1.55	Textile	Complying	-
Ganga	CETP Jajmau, Kanpur	36	Tannery	Complying	-
Ganga	Banther Industrial Pollution Control Co. CETP, Banther, Unnao	4.55	Tannery	Complying	-
Ganga	Unnao Tanneries Pollution Control Company (CETP) Site-II, Unnao	2.15	Tannery	Complying	-

- The Plantations done by Forestry Department, U.P. in Critically Polluted Rivers Stretches :

Critically Polluted River Stretch	No. of sapling planted	
	Year 2014-15 to 2018-19	Year 2019-20
Hindon	103640	59700
Kali	13200	11000
Gomti	643654	70825
Sai	-	62500
Varuna	131307	39600
Ganga	138117	182550
Ramganga	124400	58100

Betwa	1317894	195625
Saryu	-	85500
Total	**2472212**	**765400**

- **Action against pollution sources:**
  - State is monitoring the implementation of Action Plans for all critically polluted river stretches. The action taken status for the period of August, 2019 to November, 2019 is as below :

Sector	Total Units	Total Defaulters	Action Against Defaulters			
			Show Cause Notice	Closure	Environmental Compensation (Rs. in Crores)	
					Imposed	Show Cause Notice
Industries	1616	233	81	137	19.59	-
Sewage Treatment Plant	79	27	21	00	-	39.00
Common Effluent Treatment Plant	06	02	02	00	-	0.45
Total	**1701**	**262**	**105**	**137**	**19.59**	**39.45**

- The effective implementation of Action Plan and enforcement of Law has resulted in improvement in River Water Quality of following Critically Polluted River Stretches in year, 2019 as compared to year, 2018

Critically Polluted River Stretch	No. of Monitoring Locations	No. of Monitoring Locations showing improvement of river water quality	% Reduction in BOD value in 2019 as compared to 2018
Hindon	07	05	2.3 to 35.7
Kali Nadi East	06	05	11.8 to 28.6
Varuna	02	02	4.0 to 37.1
Yamuna	20	08	0.2 to 9.1
Gomti	11	06	1.3 to 21.9
Ganga	22	21	0.2 to 36.4
Ramganga	06	01	38.7
Ghaghra	02	01	1.0
Sai	08	06	0.3 to 18.0

Gap between current status and desired levels

- As per the Monitoring from January to December, 2019, the Water Quality of all 12 Polluted River Stretches shows the following trend shown below:

River	Monitoring points within the identified polluted stretches	Monitoring points where BOD < 3 mg/l	Gap i.e. Monitoring points where BOD > 3 mg/l
Hindon	07	00	07
Kali Nadi East	06	00	06
Varuna	02	00	02
Yamuna	20	04	16
Gomti	11	02	09
Ganga	22	06	16
Ramganga	06	01	05
Betwan	01	00	01
Ghaghra	02	00	02
Rapti	02	00	02
Sai	08	00	08
Saryu	01	00	01
Total	**88**	**13**	**75**

- FC is more than the desired level in all monitoring locations.

Proposal of attending the gap with time lines

- The detailed time line for STP construction / treatment of sewage has been given in the table. It is proposed to undertake treatment using STPs & in-situ method of NEERI. The project of STPs will be implemented in 24 months of sanction and the DPR will be prepared in 6 months of sanction of the DPR cost which is 4% of the project cost. The project cost on average will be Rs. 2.0 Crore per MLD. It is also pertinent to mention that in compliance of the order of NGT in O.A. No: 200/2014 case of M.C. Mehta in which order has been passed to start bio-remediation from 1st November, 2019 failing which penalty will be imposed. A DPR for 459 drains on 11 rivers costing Rs. 1700 crore has been submitted in the NMCG. The above project has not been sanctioned, so work has not begun yet.

Priority	River	CITY	ESTIMATED POPULATION 2030	WATER CONSUMPTION (MLD) (@135 LPCD)	SEWAGE GENERATION (MLD)	INSTALLED CAPACITY OF EXISTING STP (MLD)	PROPOSED STP CAPACITY (MLD)	GAP IN STP CAPACITY UTILIZATION (MLD)	Date of Completion of STPs to meet the Gap
I	Hindon	Saharanpur	969002	130.82	104.65	38	93.65	N/A	
		Muzaffarnagar	519184	70.09	56.07	32.5	32	N/A	
		Shamli	141791	19.14	15.31	N/A	N/A	15.31	March, 2022
		Sardhana * (Meerut)	74732	10.09	8.07	N/A	N/A	8.07	March, 2022
		Baghpat	61733	8.33	6.67	N/A	14	Nil	March, 2021
		Ghaziabad	2943273	397.34	317.87	454	N/A	N/A	
		Total	**4709715**	**635.81**	**508.65**	**524.5**	**139.65**	**23.48**	
	Kali (East)	Khatauli	96428	13.02	10.41	N/A	N/A	10.41	March, 2022
		Meerut	1674748	226.09	180.87	168	200	N/A	
		HAPUR	469346	63.36	50.69	N/A	80	N/A	
		GHAZIABAD (MODI NAGAR)	232085	31.33	25.07	N/A	20	5.07	March, 2022
		BULANDSHAHAR (GALAOTHI)	76026	10.26	8.21	N/A	7	1.21	March, 2000
		Total	**2548633**	**344.07**	**275.25**	**168**	**307**	**16.69**	
	Yamuna	G.B. Nagar	2810184	379.37	303.5	196	NA	107.5	March, 2022
		Aligarh	1252869	169.14	135.31	NA	45		
		Hathras	179700	24.26	19.41	NA	NA	19.41	March, 2022
		Mathura	501357	67.68	54.15	58.85	30	NA	
		Agra	2250035	303.75	243	223	175	NA	

			Firozabad	853217	115.18	92.15	67	67	NA	
			Etawah	345409	46.63	37.3	23.95	21	NA	
			Kalpi	67564	9.12	7.3	NA	NA	7.3	March, 2022
			Hamirpur	42343	5.72	4.57	NA	NA	4.57	March, 2022
			Rajapur, Chitrakoot	20954	2.83	2.26	NA	3.42		
			Prayagraj	1548628	209.06	167.25	268	72		
			Total	**98,72,259**	**1332.76**	**1066.2**	**618.8**	**413**	**138.78**	
	III	Gomti	**Sitapur**	**2,57,649**	**34.78**	**27.83**	**NIL**	**NIL**	**27.83**	**March, 2022**
			Sandila*	**81,005**	**10.94**	**8.75**	**NIL**	**NIL**	**NA**	
			Lucknow	**41,99,120**	**566.88**	**755.5****	**438**	**326**	**NIL**	
			Barabanki	2,08,446	28.14	22.51	NIL	NIL	22.51	March, 2022
			Jagdishpur	33130	4.47	3.58	NIL	NIL	3.58	March, 2021
			Sultanpur	1,44,678	19.53	15.63	5	17	NIL	
			Jaunpur	2,31,388	31.24	24.99	NIL	30	NIL	
			Kerakat	17,351	2.34	1.87	NIL	NIL	1.87	March, 2021
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			Total	**650000**	**87.7**	**70.08**	**0**	**26**	**44.08**	
		Gh 28	Town area Barhalganj	52586	7.9	6.32	0	0	6.32	March, 2021

			Town are Dohari Ghat,	29143	3.93	3.14	0	0	3.14	March, 2021
			Nagar Palika Gaura Barhaj	90053	12.15	9.72	0	0	9.72	March, 2021
			Village Panchayat, Bhagalpur	17941	2.42	1.93	0	0	1.93	March, 2021
			Total	**189723**	**26.4**	**21.11**	**0**	**0**	**21.11**	
		Rapti		6,73,446	121.68	97.34	N/A	168	No Gap	
		Sai	Raebareli	258782	34.94	27.95	No existing STP	18	9.95	March, 2022
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			Total	**360229**	**48.63**	**38.9**	**8.95**	**18**	**11.96**	
		Saryu	Ayodhya Town	75323	10.17	8.13	12	-	Nil	
			Faizabad City	222678	30.06	24.05	-	35	Nil	
			Iltifatganj, Ambedkar Nagar	17703	2.38	1.91	Nil	Nil	1.91	March, 2021
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Varuna	39600	-
Ganga	182550	-
Ramganga	58100	-
Betwa	195625	682000
Total	765400	767400

➢ **Maintenance of E-flow for the critically polluted river stretches -**

- **Perennial River Flow :**

Name of River	River Stretch	Possibility of maintaining E-flow	Timeline
Hindon	Saharanpur to Ghaziabad	E-flow study will be carried out by IIT Delhi.	12 Months
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj	E-flow will be studied and decided by Central Water Commission.	12 Months
Ganga	Kannauj to Varanasi	E-flow from Kannauj to Unnao is maintained from Narora Barrage and Kanpur Barrage as per directions of Central Water Commission 24 cumec - Nov. to May 48 cumec - June to Oct.	-
		E-flow from Unnao to Varanasi will be studied & decided by Central Water Commission.	12 Months
Ramganga	Moradabad to Kannauj	E-flow study will be carried out by IIT Delhi or other agency.	12 Months
Betwa	Hamirpur to Wagpura	E-flow study will be carried out by IIT Delhi or other agency.	12 Months
Ghaghra	Barhalganj to Deoria	E-flow study will be carried out by IIT Delhi or other agency.	12 Months
Rapti	Domingarh to Rajghat	E-flow study will be carried out by IIT Delhi or other agency.	12 Months
Saryu	Ayodhya to Elafatganj	E-flow study will be carried out by IIT Delhi or other agency.	12 Months

- **Non-perennial River Flow :**

Name of River	River Stretch	Possibility of maintaining E-flow
Kali Nadi East	Muzaffarnagar to Gulaothi	As it's a non perennial river, e-flow cannot be maintained.
Varuna	Remeshwar to Varanasi	
Gomti	Sitapur to Varanasi	
Sai	Unnao to Jaunpur	

➢ **Demarcation of Flood plain boundary :**

Name of River	River Stretch	Introduce pillars at suitable location in the river flood plain for demarcation of the flood plain boundary for effective enforcement on eliminating incidence/practices of waste disposal encroachment in the river bed.	
		Activity	Timeline
Hindon	Saharanpur to Ghaziabad	50 m from both banks will be declared as no construction/no development zones.	3 Months
		Details survey is being conducted by IIT Delhi	6 Months
		Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
Kali East	Muzaffarnagar to Gulaothi	50 m from both banks will be declared as no construction/no development zones.	3 Months
		For detailed survey	6 Months
		Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
Varuna	Remeshwar to Varanasi	50 m from both banks will be declared as no construction/no development zones.	3 Months
		For detailed survey	6 Months
		Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
Yamuna	Azgarpur to Etawah, Shahpur to Prayagraj	100 m from both banks will be declared as no construction/no development zones till the notification of the above purpose is issued by Central Water Commission based on their studies.	6 Months
		Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
Gomti	Sitapur to Varanasi	50 m from both banks will be declared as no construction/no development zones.	3 Months
		For detailed survey	6 Months
		Demarcation of flood plain will be made at suitable location by	9 Months

			planting a row of suitable plants through Forest Department.	
	Ganga	Kannauj to Varanasi	Detailed report of flood plain zone has been presented by Special Committee in O.A. 200/2014 to Hon'ble NGT.	3 Months
			Demarcation of flood plain zone will be made at suitable location as per Central Water Commission (CWC) report, will be made by fixing pillars at suitable interval.	9 Months
	Ganga	Kannauj to Varanasi	100 m from both banks will be declared as no construction/no development zones till the detailed report of Flood Plain Zone will be prepared by CWC in accordance with the orders issued in O.A. no. 200/2014 b y Hon'ble NGT regarding segment 'B' - II Phase.	6 Months
			Demarcation of flood plain zone will be made at suitable location as per CWC report, will be made by fixing pillars at suitable interval.	9 Months
	Ramganga	Moradabad to Kannauj	50 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain will be made at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Betwan	Hamirpur to Wagpura	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain will be made at suitable interval as per topographical condition by stone pillars/plantation	9 Months
	Ghaghra	Barhalganj to Deoria	100 m from both banks will he declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain zone at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Rapti	Domingarh to Rajghat	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain zone at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Sai	Unnao to Jaunpur	50 m from both banks will be declared as no construction/no development zones.	3 Months

			For detailed survey	6 Months
			Demarcation of flood plain zone at suitable location by planting a row of suitable plants through Forest Department.	9 Months
	Saryu	Ayodhya to Elafatganj	100 m from both banks will be declared as no construction/no development zones.	3 Months
			For detailed survey	6 Months
			Demarcation of flood plain will be made at suitable interval as per topographical condition by stone pillars/plantation	9 Months

Name and designation of designated officer for ensuring compliance to provisions under statute.

S. No.	Area	Designated Officer
1	E-flow	

S. No.	Area	Designated Officer		
1	E-flow	**River**	**River Stretch**	**Nodal Officer**
		Hindon	Saharanpur to Ghaziabad	Mr. Anil kumar, C.E. Yamuna, Okhla, New Delhi
		Kali East	Muzaffarnagar to Gulaothi	Mr.T C Sharma, Chief Ganga, Meerut
		Varuna	Rameshwar to Varanasi	Mr.Vijay kumar, SSO, C E (Son), Varanasi
		Yamuna	Agarpur to Etawah, Shahpur to Prayagraj	Mr. Rakesh Yadav, SSO (Ram Ganga) Kanpur
		Gomti	Sitapur to Varanasi	Mr. R K Gupta, C E, (Sharda Shayak), LKO
		Ganga	Kannauj to Unnao	Mr. Rakesh Yadav, SSO (Ram Ganga) Kanpur
		Ganga	Unnao to Varanasi	Mr. Vijay kumar SSO, C E (Son), Varanasi
		Ramganga	Moradabad to Kannauj	Mr. R P Singh, C E(Poorvi ganga), Moradabad.
		Betwa	Hamirpur to Wagpura	Mr. Jagdesh Singh, C E (betwa project), Jhansi.
		Ghaghra	Barhalganj to Deoria	Mr. V K Niranjan, C E (Sarayu 1st), Ayodhya

Rapti	Domingarh to Rajghat	Mr A K Jain, C E(Sarayu 2nd), Gonda.
Sai	Unnao to Jaunpur	Mr R K Gupta, C E(Sharda Shayak), LKO.
Saryu	Ayodhya to Elafatganj	Mr. V K Niranjan, C E (Sarayu 1st), Ayodhya.

Notes:

1. No construction/No development zone for River Ganga is decided on the basis of O.A. 200/2014 M.C. Mehta v/s Union of India.
2. For Yamuna & other major rivers, it is also decided on the same principle as 100mtr.
3. For minor rivers and drains, it is decided as 50mtr.
4. E-flow is maintained in river Ganga as per the guidelines of C.W.C. from Kannauj to Unnao as 24 cumec from November to May and 48 Cumec from June to October.
5. For Yamuna river, as per Upper Yamuna River Board compulsory Downstream discharge is 10 cumec which is maintained from Okhla Barrage.
6. For non perennial rivers, E-flow can not be maintained through out the year and no surplus water is available to augment the flow in these rivers.
7. There is no surplus water in any canal that can augment, flow in critical polluted reaches.