

WATER QUALITY OF RIVER MAHANADI - 2007

Sundargarh

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.6	8.2	0.8	118	1.12	0.01	790	330				6
February		7.4	8	0.8	116	0.56		790	490				12
March		8	7.8	0.3	134	1.12	0.034	940	790				4
April		7.4	8.7	1.4	155.8	0.84	0.121	1400	790				8
May		7.8	6.6	1.2	153	0.84	0.101	1100	790				12
June		7.6	8	1	145	0.84	0.16	1500	840				6
July		7.7	7.3	2.3	118	0.448	0.654	1700	940				13.6
August		7.7	7.6	1	75		0.114	1400	940				14.16
September		7.4	8.4	0.6	76.9	0.408	0.1	1400	790				6
October		7.3	7	1.2	99.8	1.46	0.757	1500	700				21.78
November		7.8	8.5	0.7	102.4	1.5	0.1	1700	1300				3.3
December		8.0	8.6	0.7	128	0.1	0.1	1400	1100				6.0
Minimum		7.3	6.6	0.3	75	0.10	0.01	790	330	--	--	--	3.3
Maximum		8	8.7	2.3	155.8	1.46	0.76	1700	1300	--	--	--	21.8
Average		7.6	7.9	1.0	118	0.84	0.20	1302	817	--	--	--	9.4

Jharsuguda

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January		7.8	8.7	0.7	127	1.12	0.014	1200	700				6
February		7.3	8.5	0.8	140	1.12	0.026	790	330				12
March		7.9	7.9	0.8	148	0.56		1100	790				6
April		7.4	8.3	1.4	186.9	0.56	0.212	1700	940				8

May	2007	7.6	7	1.2	155	0.56	0.041	2200	1100				14
June		7.2	8	1.2	159	0.56	0.244	2400	1300				8
July		7.5	7.4	1.8	122	0.336	0.298	2800	1400				9.7
August		8.3	7.2	1.2	61		0.161	2100	1200				16.6
September		7.2	8.5	0.5	78.1	0.51	0.2	2200	1700				10
October		6.9	7	1	67.8	1.6	0.687	2100	1400				11.88
November		7.2	8.3	1.1	127.3	0.5	0.1	2800	2200				5.0
December		8.2	8.2	0.8	138.1	0.8	0.1	2100	1400				8.0
Minimum		6.9	7	0.5	61	0.34	0.01	790	330	--	--	--	5.0
Maximum		8.3	8.7	1.8	186.9	1.60	0.69	2800	2200	--	--	--	16.6
Average		7.5	7.9	1.0	126	0.75	0.19	1958	1205	--	--	--	9.6

Brajrajnagar U/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.8	8.8	0.5	157	0.56	0.168	940	490				8
February		7.4	8.3	0.6	129	0.56	0.002	390	320				12
March		8.1	7.9	0.8	152	0.84	0.115	940	700				6
April		7.4	8.1	0.8	164.7	0.56	0.202	1400	1100				6
May		7.4	7.5	1.4	160	0.56	0.031	2100	1400				12
June		7	8.3	1.4	159	0.56	0.09	1700	1100				10
July		7.6	5.9	2	153	0.56	0.218	1400	1100				15.5
August		8.2	7.5	0.8	71		0.076	1300	790				15.9
September		7.5	9.4	0.7	83.5	0.51	0.1	1700	1300				6
October		7.7	6.5	0.8	77.1	0.672	0.728	1700	1300				9.9
November		7.7	8.3	1.2	135.2	0.6	0.1	1500	840				6.6
December		7.9	7.7	1	135.2	0.7	0.1	1100	790				6.0
Minimum		7.0	5.9	0.5	71	0.51	0.00	390	320	0.0	0.00		6.0

Maximum	8.2	9.4	2	164.7	0.84	0.73	2100	1400	0	0.00		15.9
Average	7.6	7.9	1.0	131	0.61	0.16	1348	936	#DIV/0!	#DIV/0!		9.5

Brajrajnagar D/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.8	8	1	181	0.84	0.008	4900	2300	6.2	0.57	B	10
February		7.4	7.8	1.6	139	2.24	0.003	3300	230				18
March		7.8	7.5	1.2	161	0.84	0.148	3900	2200				8
April		7.2	7.9	1.2	189.9	0.56	0.241	3400	2700	5.5	0.42	C	8
May		7.4	7.2	1.6	298	0.56	0.12	2200	1700				20
June		7.5	7.9	1.8	166	0.84	0.139	2800	1300				12
July		7.6	5.8	2.2	181	0.56	0.567	2200	1400				25.2
August		8.1	7.6	1	81		0.157	1700	1300				17.7
September		7.6	8.2	0.8	149	0.612	0.2	2100	1700				6
October		7.4	6.6	1.2	82	0.672	0.634	2800	1700				19.8
November		7.5	7.8	1.8	148.6	1.1	0.1	2200	1100				8.3
December		7.8	8.0	1.5	142.2	1.0	0.2	1700	1400				8.0
Minimum		7.2	5.8	0.8	81	0.56	0.00	1700	230	5.5	0.42		6.0
Maximum		8.1	8.2	2.2	298	2.24	0.63	4900	2700	6.2	0.57		25.2
Average		7.6	7.5	1.4	160	0.90	0.21	2767	1586	5.9	0.50		13.4

Hirakud

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.8	7.8	0.8	161	1.4	0.06	490	230				6
April		7.4	7.1	1.2	215	0.56	0.284	1700	1300				8

July	2007	8.3	6.2	2.5	200	0.784	0.456	1700	1300				13.6
October		7.3	7.7	1.4	112.2	1.01	1.102	2200	1100				7.9
Minimum		7.3	6.2	0.8	112	0.56	0.06	490	230	--	--	--	6
Maximum		8.3	7.8	2.5	215	1.40	1.10	2200	1300	--	--	--	14
Average		7.7	7.2	1.5	172	0.94	0.48	1523	983	--	--	--	9

Sambalpur U/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.6	7.9	0.7	176	1.12	0.291	490	130				6
February		7.6	8.3	0.8	176	1.12	0.012	2200	790				12
March		7.9	8.2	0.8	186	0.56	0.048	2800	1100				8
April		7.4	7.7	1.8	206	0.84	0.362	1700	1300				12
May		7.5	7.6	1.8	188	0.84	0.291	1100	790				8
June		7.4	7.5	1.8	190	0.84	0.442	1500	1200				14
July		8.3	8	2.2	181	0.56	0.504	2200	1300				9.7
August		8.2	6.5	0.9	147		0.092	2400	1300				10.6
September		7.3	8.2	1.2	101.3	0.714	0.8	1700	1100				8
October		7.3	7.6	1	110	1.79	0.775	1400	940				5.9
November		7.3	8.5	1.4	154.2	0.4	0.1	1500	1200				6.6
December		8.0	8.7	0.9	162.9	0.6	0.1	2200	1300				6.0
Minimum		7.3	6.5	0.7	101	0.39	0.01	490	130	--	--	--	6
Maximum		8.3	8.7	2.2	206	1.79	0.83	2800	1300	--	--	--	14
Average		7.6	7.9	1.3	165	0.85	0.32	1766	1038	--	--	--	9

Sambalpur D/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.8	7.3	2.8	196	1.4	0.0342	13000	7800	5.7	0.47	C	15
February		7.3	7.6	2.6	222	0.56	0.016	4900	2300				22
March		7.8	7.2	1.2	217	0.84	0.082	7000	4900				14
April		7.6	7.2	3	219	0.84	0.455	160000	92000	5.6	0.5	C	18
May		7.9	7.5	3.6	210	0.56	0.31	35000	13000				20
June		8.1	6.6	3.2	213	0.56	0.759	92000	54000				26
July		8.1	6.7	3	227	0.672	0.539	160000	92000				16.6
August		7.7	7.4	1.9	121		0.758	92000	35000				21.2
September		7.1	7.5	2.6	133.7	0.612	0.7	160000	52000				16
October		7.6	7	2.7	130.5	1.90	0.841	92000	54000				15.9
November		6.8	7.7	1.9	182.1	1.3	0.1	160000	92000				10.0
December		7.8	8.0	2.5	176.4	0.8	0.267	92000	54000				10.0
Minimum		6.8	6.6	1.2	121	0.56	0.02	4900	2300	5.6	0.5		10.0
Maximum		8.1	8.0	3.6	227	1.90	0.84	160000	92000	5.7	0.5		26.0
Average		7.6	7.3	2.6	187	0.92	0.41	88992	46083	5.7	0.5		17.1

Sonepur U/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.6	8.8	0.3	172	1.12		310	130				4
April		7.5	8.6	1	234	0.56	0.211	630	230				12
July		7.7	7.2	2	104	0.448	0.274	940	700				11.6
October		7.4	7.4	2.4	119.1	1.79	0.994	1100	790				21.7
Minimum		7.4	7.2	0.3	104	0.45	0.21	310	130	--	--	--	4
Maximum		7.7	8.8	2.4	234	1.79	0.99	1100	790	--	--	--	22

Average	7.6	8.0	1.4	157	0.98	0.49	745	463	--	--	--	12
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Sonepur D/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.7	8.1	0.8	202	1.4		3300	2300				6
April		7.4	8.3	1.4	264.7	0.56	0.062	2800	1400				16
July		8.1	6.9	2	193	0.672	0.783	1700	1100				17.6
October		7.3	6.7	1.2	141.4	1.68	0.605	1300	790				7.9
Minimum		7.3	6.7	0.8	141	0.56	0.06	1300	790	--	--	--	6
Maximum		8.1	8.3	2.0	265	1.68	0.78	3300	2300	--	--	--	18
Average		7.6	7.5	1.4	200	1.08	0.48	2275	1398	--	--	--	12

Tikarapada

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.8	9.2	0.4	156	1.4		1700	1100				4
April		8.2	8.5	1.8	280	0.56	0.03	2100	1100				9
July		7.9	6.8	1	198	0.448	0.467	2800	1300				14.9
October		7.6	6.4	1.6	117.5	0.90	0.823	2200	1100				7.9
Minimum		7.6	6.4	0.4	118	0.45	0.03	1700	1100	--	--	--	4
Maximum		8.2	9.2	1.8	280	1.40	0.82	2800	1300	--	--	--	15
Average		7.9	7.7	1.2	188	0.83	0.44	2200	1150	--	--	--	9

Narasinghpur

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
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January	2007	7.8	9.1	1	152	1.12	0.466	1300	790				10
April		8.2	8.9	0.8	203	0.56	0.087	940	490				7
July		7.5	7.2	1.2	203	1.008	0.113	1100	700				11.2
October		7.5	7.8	0.7	117.1	1.01	0.612	1300	790				5.9
Minimum		7.5	7.2	0.7	117	0.56	0.09	940	490	--	--	--	6
Maximum		8.2	9.1	1.2	203	1.12	0.61	1300	790	--	--	--	11
Average		7.8	8.3	0.9	169	0.92	0.32	1160	693	--	--	--	9

Cuttack U/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.6	8.2	0.6	152	0.84	0.068	700	330				6
February		7.4	7.9	1	153	0.56	0.001	470	270				16
March		7.6	8.2	0.4	160	1.12	0.044	490	230				8
April		8.2	8	1.2	198.7	0.56	0.221	1400	700				9
May		7.6	7.5	1	193	0.56	0.009	1700	790				16
June		7.6	8	1.2	161	0.56	0.312	2200	1300				8
July		7.6	6.8	1.5	191	0.56	0.027	1700	1400				13.3
August		8.3	7.9	1.1	122		0.137	2200	1300				12.4
September		7.5	7.9	1.7	101.8	0.408	0.4	1400	790				6
October		7	7	0.8	110	2.14	0.1	1700	1100				6.6
November		7.5	8.4	1.5	136.4	1.6	0.1	1400	1100				3.6
December		7.8	8.8	0.6	151.9	0.3	0.1	1700	1100				8.0
Minimum		7.0	6.8	0.4	102	0.34	0.001	470	230	0.0	0.0		3.6
Maximum		8.3	8.8	1.7	199	2.14	0.42	2200	1400	0.0	0.0		16.0
Average		7.6	7.9	1.1	153	0.84	0.13	1422	868	#DIV/0!	#DIV/0!		9.4

Cuttack D/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.4	7.8	2.8	193	1.4	0.038	7900	3300	6	0.3	C	12
February		7.3	6.4	2.4	220	0.56	0.004	35000	14000				20
March		8.2	7.8	0.6	208	1.12	0.182	22000	13000				12
April		8.3	7.2	2.6	225	0.84	0.191	28000	17000	4.8	0.36	C	22
May		7.7	6.9	3.1	229	0.84	0.05	35000	17000				24
June		7.9	7.2	2.6	169	0.84	0.368	24000	13000				20
July		7.5	6.7	2	193	0.336	0.181	54000	22000				18.3
August		8.3	7.3	2.4	102		0.294	28000	17000				15.9
September		7.5	7.8	2.4	123.9	0.714	0.3	21000	14000				14
October		7.4	7.2	2.1	120.8	1.06	0.113	35000	24000				12.7
November		7.9	7.9	2	168.6	1.8	0.1	35000	12000				12.1
December		7.7	8.0	1.7	179.8	0.9	0.34	4700	3400				12.0
Minimum		7.3	6.4	0.6	102	0.34	0.00	4700	3300	4.8	0.3		12.0
Maximum		8.3	8.0	3.1	229	1.79	0.37	54000	24000	6.0	0.4		24.0
Average		7.8	7.4	2.2	178	0.95	0.18	27467	14142	5.4	0.3		16.3

Kathajodi D/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.9	7	3.8	183	1.68	0.089	160000	92000	5.8	0.39	C	18
February		7.6	6.8	3.4	234	1.68	0.007	160000	54000				36
March		7.8	6	2.3	243	1.4	0.037	92800	54000				16
April		8.2	7.4	4.2	210	0.84	0.251	160000	54000	4.5	0.38	C	30
May		8	7	3.8	382	0.56	0.215	92000	35000				28
June		8.2	8.3	4	261	0.84	0.448	54000	24000				28

July	2007	7.6	6.8	2.9	225	0.448	0.126	160000	54000				20.2
August		8.5	7.2	3.6	95		0.155	54000	35000				31.3
September		7.5	7.5	3.6	130.4	0.816	0.2	160000	92000				18
October		7.3	5.9	3.7	132.8	0.67	0.469	92000	54000				20.9
November		8	7.4	2.9	194.3	1.9	0.38	160000	54000				18.9
December		7.0	6.9	4.3	222	1.0	1.373	92000	54000				28.0
Minimum		7.0	5.9	2.3	95	0.45	0.01	54000	24000	4.5	0.4		16.0
Maximum	8.5	8.3	4.3	382	1.90	1.37	160000	92000	5.8	0.4		36.0	
Average	7.8	7.0	3.5	209	1.08	0.31	119733	54667	5.2	0.4		24.4	

Kuakhai U/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.8	8.6	1.5	144	1.12	0.208	1100	490	7	0.51	B	8
February		7.6	7.5	1.2	163	0.56	0.011	1100	460				18
March		8.2	8.6	1.2	169	1.12	0.273	1400	700				10
April		8.1	7.7	0.2	221	0.56	0.088	1700	790				4
May		7.4	7.8	1.8	167	0.84	0.121	2200	1100				10
June		7.3	5	1.8	249	0.84	0.201	1400	1100				10
July		8.4	6.7	1.5	258	0.24	0.112	1700	1100				16
August		8.6	7.1	1.1	112		0.257	1500	940				12.4
September		7.2	6.2	1.8	75.8	0.408	0.1	1300	790				10
October		7.6	6.8	0.9	128.1	1.12	0.1	1400	940				7.8
November		7.2	8.05	1.4	132.1	0.8	0.183	1200	940				10.1
December		8.0	8.3	1.8	162.5	0.9	0.1	1700	790				16.0
Minimum		7.2	5.0	0.2	76	0.24	0.01	1100	460	7	1	0	4.0
Maximum		8.6	8.6	1.8	258	1.12	0.27	2200	1100	7	1	0	18.0
Average		7.8	7.4	1.4	165	0.78	0.15	1475	845	7	1		11.0

Kuakhai D/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.1	7.2	3.4	200	1.4	1.18	35000	11000	5.7	0.36	C	18
February		7.6	6.8	4	283	1.12	0.016	13000	4900				36
March		7.3	8.2	3.4	244	2.8	3.358	2200	1700				12
April		8.2	7.6	3.6	262	0.56	1.39	28000	17000				18
May		7.8	7.6	3.2	248	1.96	1.869	17000	7900				22
June		8	7.1	3	153	0.84	0.838	11000	4900				16
July		8	5.7	2.6	224	0.56	0.439	2100	1400				22
August		7.8	7.6	2.3	182		0.423	2800	1700				24.1
September		7.1	6.9	2.8	87.9	0.51	0.3	3400	2200				18
October		7.1	5.4	1.3	153.5	1.01	2.887	9400	7000				11.8
November		7.7	7.7	2.7	148.4	0.9	0.1	7900	4900				16.2
December		7.3	7.8	3.3	256	0.7	2.86	14000	7900				20.0
Minimum		7.1	5.4	1.3	88	0.51	0.02	2100	1400				11.8
Maximum		8.2	8.2	4.0	283	2.80	3.36	35000	17000				36.0
Average		7.6	7.1	3.0	203	1.12	1.30	12150	6042				19.5

Choudwar at Birupa D/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.9	8.5	0.7	212	1.12	0.133	2400	790	6	0.32	C	16
April		7.5	8.9	1.6	813	0.84	0.141	2100	1400	5.2	0.46	C	19
July		8	6	0.8	194	0.448	0.349	2800	2200				9.5
October		7.8	7.6	1.7	127.5	1.12	0.11	2400	1300				5.9

Minimum	7.5	6.0	0.7	127.5	0.45	0.11	2100	790	5.2	0.3		5.9
Maximum	8.0	8.9	1.7	813.0	1.12	0.35	2800	2200	6.0	0.5		19.0
Average	7.8	7.8	1.2	336.6	0.88	0.18	2425	1423	5.6	0.4		12.6

Paradeep D/S

Month	Year	pH	DO (mg/l)	BOD (mg/l)	Cond. μ S/cm	NH ₄ -N (mg/l)	Nitrate-N (mg/l)	TC (MPN/100 ml)	FC (MPN/100 ml)	SI	DI	Class	COD (mg/l)
January	2007	7.8	8.6	2.2	30300	1.12	0.027	1700	1300				20
April		7.6	9.1	4	32800	0.84	0.201	2600	1700				42
July		8.1	6.7	0.9	773	0.672	0.057	1700	1300				28.5
October		7.9	7.5	2.7	754	1.46	0.268	1400	700				11.8
Minimum		7.6	6.7	0.9	754	0.67	0.03	1400	700	--	--	--	12
Maximum		8.1	9.1	4.0	32800	1.46	0.27	2600	1700	--	--	--	42
Average		7.9	8.0	2.5	16157	1.02	0.14	1850	1250	--	--	--	26