Water Quality of Lakes with respect to other parameters during 2020 (January-December)

(a) Brackish Water Lake

Sl. No.	Sampling Location	Physical parameters		Organic pollution Indicators				Bacteriological Parameter	Mineral constituents									
								Annual average values (Range of values)										
		TSS	Total alkal-inity	COD	NH$_4$-N	Free NH$_3$-N	TKN	TC	EC	SAR	% Na	TDS	B	TH	Cl	SO$_4$	F	
		(mg/L)		(mg/L)				(MPN/ 100 ml)	(µS/cm)			(mg/L)						
Chilka lake																		
1.	Rambha	49 (<10-102)	162 (88-272)	26.8 (19.1-37)	0.89 (0.56-1.12)	0.032 (0-0.140)	3.61 (1.68-4.48)	399 (20-1100)	13768 (6898-21180)	26.86 (2.03-44.64)	71.97 (42.82-83.5)	8083 (4912-10520)	0.777 (<0.5-1.117)	1991 (800-3600)	5135.25 (2598.8-7492.2)	447.04 (130.7-1656.9)	0.385 (<0.2-0.5)	
2.	Satapada	147 (18-433)	136 (76-280)	39.2 (15.1-208.7)	2.03 (0.56-3.92)	0.036 (0-0.140)	4.2 (<1.5-12.32)	1333 (45-4900)	21144 (1830-47720)	41.42 (5.87-81.45)	77.65 (55.58-90.36)	21440 (15460-33800)	2.014 (1.169-2.845)	1444 (184-4000)	6999.52 (575.7-16991.5)	1036.05 (100.5-3357.2)	0.44 (<0.2-0.868)	

Sl. No.	Sampling Location	Nutrients		Heavy metals								
				Annual average values (Range of values)								
		NO$_3^-$	PO$_4^{3-}$-P	Cr(VI) ##	Fe##	Ni##	Cu##	Zn##	Cd##	Hg##	Pb##	
		(mg/L)			(mg/L)							
Chilka lake												
1.	Rambha	1.845 (0.955-4.24)	0.051 (<0.05-0.128)	<0.002	0.177	0.012	0.019	0.032	0.0035	0.00076	0.127	
2.	Satapada	4.592 (1.064-14.24)	0.064 (<0.05-0.236)	<0.002	0.701	0.002	0.002	0.009	0.0011	0.00051	0.004	

Data for the period April, 2020

(b) Fresh Water Lake

Sl. No.	Sampling Location	Physical parameters		Organic pollution Indicators				Bacteriological parameters		Mineral constituents							
		Annual average values (Range of values)															
		TSS	Total alkal-inity	BOD	COD	NH₄-N	TKN	TC	FC	TDS	B	SAR	% Na	TH	Cl	SO₄	F
		(mg/L)		(mg/L)				(MPN/ 100 ml)		(mg/L)					(mg/L)		
(a) Anshupa Lake																	
1.	Kadlibari	26 (<10-64)	56 (32-84)	1.4 (<1.0-2.5)	12.7 (7.1-19.4)	0.91 (0.56-2.24)	4.14 (<1.5-7.28)	2348 (490-5400)	817 (170-2200)	100 (88-112)	<0.5 (<0.5-<0.5)	0.45 (0.23-1.15)	21.29 (11.41-49.33)	56 (28-88)	9.7 (6-16)	11.89 (<5-23.6)	0.253 (<0.2-0.374)
2.	Bishnupur	19 (<10-75)	58 (40-96)	1.5 <1.0-2.4)	12.4 (6-18.4)	1.47 (0.56-2.24)	3.44 (<1.5-6.72)	1681 (110-3500)	612 (20-2200)	101 (76-120)	<0.5 (<0.5-<0.5)	0.42 (0.19-1.06)	20.91 (8.73-44.17)	54 (34-92)	10.55 (6.7-14)	10.16 (<5-24.05)	0.252 (<0.2-0.336)
3.	Subarnapur	36 (<10-182)	55 (34-72)	1.3 (<1.0-2.1)	11.7 (7.3-21.4)	1.16 (0.56-2.8)	3.08 (1.68-5.04)	1430 (220-3500)	534 (110-1100)	93 (80-104)	<0.5 (<0.5-<0.5)	0.41 (0.23-0.75)	21.06 (10.82-36.73)	57 (34-88)	9.67 (5.8-16)	10.68 (<5-24.31)	0.23 (<0.2-0.347)
4.	Sarandagarh	21 (<10-73)	51 (32-84)	1.5 (<1.0-2.4)	12.9 (7.5-19.3)	1.09 (0.84-1.68)	2.94 (1.68-4.48)	1898 (170-3500)	625 (45-1300)	95 (72-124)	<0.5 (<0.5-<0.5)	0.44 (0.18-1.14)	21.88 (10.02-46.96)	53 (36-92)	20.15 (6-64)	10.94 (<5-21.19)	0.226 (<0.2-0.338)
(b) Tampara Lake																	
5.	Tampara	21 (<10-44)	125 (68-196)	4.3 (2.1-8.3)	35.1 (14.8-58.6)	1.35 (0.56-2.24)	6.19 (<1.5-8.96)	4360 (230-17000)	1405 (130-3300)	552 (196-1180)	<0.5 (<0.5-<0.5)	4.1 (1.36-13.43)	50.7 (38.58-68.89)	119 (56-220)	133.06 (34.6-573.05)	24.61 (9.9-52.38)	0.402 (0.284-0.865)
	* Class 'C'	-	-	3.0	-	-	-	5000		1500	-	-		-	600	400	1.5

* Tolerance limit for Inland Surface water bodies (IS-2296-1982)

Class 'C' :Drinking water source with conventional treatment followed by disinfection

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Sl. No.	Sampling Location	Nutrients		Heavy metals							
		Annual average values (Range of values)									
		NO_3^-	PO_4^{3-}-P	Cr(VI) ##	Fe##	Ni##	Cu##	Zn##	Cd##	Hg##	Pb##
		(mg/L)		(mg/L)							
(a) Anshupa Lake											
1.	Kadlibari	2.922 (0.841-7.138)	0.062 (<0.05-0.133)	<0.002	0.090	0.003	0.008	0.005	0.0011	0.00032	0.003
2.	Bishnupur	2.819 (0.444-7.19)	0.087 (<0.05-0.223)	<0.002	0.028	0.002	0.010	0.001	0.0011	0.00019	0.004
3.	Subarnapur	4.818 (0.705-20.397)	0.11 (<0.05-0.255)	<0.002	0.779	0.002	0.009	0.024	0.0012	0.00019	0.005
4.	Sarandagarh	2.617 (0.581-4.741)	0.098 (<0.05-0.251)	<0.002	0.055	0.003	0.007	0.005	0.0016	0.00032	0.004
(b) Tampara Lake											
5.	Tampada	3.413 (1.228-8.342)	<0.05 (<0.05-0.065	<0.002	0.028	0.005	0.002	0.004	0.0015	0.00044	0.007
	* Class 'C'	50	-	0.05	50	-	1.5	15.0	0.01	-	0.10

* Class 'C' : Drinking water source with conventional treatment followed by disinfection
\## Data for the period April, 2020

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