

Coastal Ocean Monitoring and Prediction System

Andhra Pradesh on its eastern side has about 975 Kms of sea-coast of Bay of Bengal covering 9 districts and is put to use for different activities. Major rivers like, Godavari, Krishna, Pennar, Vamsadhara & Nagavali are joining the coast of Bay of Bengal. Discharges like sewage from various towns & cities, Agriculture run-off, Industrial effluents, etc. are the potential threats to the water quality of coastal waters of Bay of Bengal. In view of this, Andhra Pradesh Pollution Control Board is monitoring coastal waters of Bay of Bengal regularly on monthly basis at the following points under Coastal Ocean Monitoring and Prediction System (COMAPS): Annual average values of coastal monitoring results for the period of 11 years from 2010-11 to 2020-21 are as follows:

Coastal water quality monitoring data - Andhra Pradesh (Annual average values for the period from 2010 – 11 to 2020 - 21)									
S. No.	Sample Description	YEAR	DO	pH	TSS	BOD	NO ₃ -N	NH ₃ - N	PO ₄ ³⁻
I. Srikakulam District									
1	Confluence point of river Vamsadhara at Kalingapatnam.	2010-11	6.7	7.8	7	1.5	0.25	0.05	0.45
		2011-12	5.4	8	12	1	0.4	BDL	0.5
		2012-13	6.6	7.5	224	2.2	0.66	0.01	0.11
		2013-14	6.6	7.5	--	1.9	0.27	0.24	0.97
		2014-15	6.6	7.8	46	1.7	0.5	0.3	0.7
		2015-16	5.6	7.6	46	1.5	0.8	0.4	0.3
		2016-17	5.9	7.2	116	1.5	0.62	0.12	0.08
		2017-18	6.5	7.1	103	1.9	1.0	0.2	0.5
		2018-19	6.1	7.4	80	1.5	1.6	0.2	0.3
		2019-20	7.0	7.4	77	2.2	0.76	0.09	0.03
2020-21	6.7	7.9	52	2.6	1.44	0.04	0.08		
2	Confluence of river Nagavali at Peda Ganagalavani peta.	2010-11	5.9	7.6	5	1.4	0.8	BDL	0.25
		2011-12	5.6	7.8	8	1	0.4	0.01	0.1
		2012-13	6.8	7.4	240	2	0.63	0.02	0.06
		2013-14	6.7	7.9	57	1.8	0.11	0.37	0.83
		2014-15	6.7	7.9	31	1.7	0.09	0.21	0.83
		2015-16	6.0	7.7	43	1.5	0.4	0.3	0.5
		2016-17	5.5	7.3	74	1.5	1.4	0.06	0.066
		2017-18	6.3	7.5	44	1.4	0.73	0.08	0.16
		2018-19	5.8	7.6	112	1.5	1.47	0.11	0.03
		2019-20	6.4	7.4	106	2.3	0.71	0.2	0.03
2020-21	6.6	7.8	40	2	0.65	0.03	0.07		

3	Confluence of marine outfall of M/s Dr. Reddy Labs Ltd., & M/s. Aurobindo Pharma Ltd., Pydibheemavaram.	2010-11	5	7.4	9	1.8	0.5	0.04	0.8
		2011-12	7.2	7.8	8	2	0.3	0.01	0.1
		2012-13	6.2	7.5	244	2.6	0.64	0.2	0.08
		2013-14	6.7	8.1	34	1.4	0.14	0.22	0.39
		2014-15	6.8	8.1	80	1.3	0.1	0.1	0.58
		2015-16	5.5	7.7	55	1.3	0.4	0.2	0.3
		2016-17	5.7	7.2	93	1.6	1.1	0.08	0.14
		2017-18	6.3	7.6	40	1.4	0.6	0.21	0.12
		2018-19	5.7	7.6	102	1.3	0.53	2.15	0.03
		2019-20	5.9	7.7	64	1.8	0.57	0.03	0.03
		2020-21	6	7.74	10	2	0.71	0.04	0.04

II. Vizianagaram District

4	Confluence of marine outfall of M/s. Matrix Laboratories Ltd., Thammayyapalem.	2010-11	5.4	8	9	1.4	1.08	0.02	0.1
		2011-12	6.8	7.7	10	2	0.4	0.04	0.1
		2012-13	6.6	7.5	230	2.2	0.65	0.08	0.08
		2013-14	6.7	8.1	37	1.2	0.18	0.11	0.48
		2014-15	6.7	8.1	24	1.1	0.17	0.07	0.02
		2015-16	5.8	7.4	39	1.3	0.4	0.07	0.24
		2016-17	5.8	7.2	89	1.9	0.8	0.05	0.18
		2017-18	6.6	7.7	85	1.3	0.8	0.01	0.33
		2018-19	5.9	7.7	89	1.4	0.5	1.02	0.02
		2019-20	5.6	7.6	61	1.8	0.52	0.03	0.03
		2020-21	6.3	7.9	11	1.8	1.2	0.04	0.04

III. Visakhapatnam District									
5	Rushikonda Beach	2019-20	6.0	7.7	64.8	1.7	0.4	0.03	0.04
		2020-21	6.1	7.87	59.0	1.86	1.09	0.03	0.03
6	Confluence of marine outfall of M/s. Divi's Laboratories Ltd., Chippada.	2010-11	6	7.42	8	1.1	1.19	0.04	0.26
		2011-12	7.5	8.2	10	2	0.3	0.03	0.1
		2012-13	6.9	7.4	400	2	0.79	0.04	0.18
		2013-14	6.7	7.9	28	1.2	1.12	0.51	0.8
		2014-15	6.7	7.8	26	1.2	0.95	0.4	0.7
		2015-16	5.6	7.6	52	1.4	0.3	0.1	0.2
		2016-17	6.5	7.1	88	2.4	0.6	0.1	0.09
		2017-18	5.8	7.5	119	1.2	0.59	0.06	0.24
		2018-19	5.6	7.64	115	1.4	0.52	0.05	0.18
		2019-20	5.7	7.5	84	2.3	0.63	0.17	0.08
2020-21	6.2	7.9	18	2.1	0.58	0.01	0.27		
7	Confluence point of Gosthani river joining the sea near Bheemili municipal office.	2010-11	6.8	7.4	5	1.6	0.9	BDL	0.08
		2011-12	5.7	7.9	12	1	0.6	0.03	0.2
		2012-13	7	7.2	430	2.6	1.02	0.1	0.22
		2013-14	6.9	8.1	46	1.2	0.26	0.51	0.85
		2014-15	6.9	8	30	1.2	0.19	0.42	0.84
		2015-16	6.3	7.7	51	1.5	0.4	0.1	0.9
		2016-17	6.2	7.3	120	2	0.6	0.09	0.12
		2017-18	6.8	7.7	93	1.7	1.68	0.28	0.31
		2018-19	5.1	7.68	118	1.3	1.13	0.84	0.09
		2019-20	5.8	7.5	92	2.5	1.22	0.04	0.18
2020-21	6.1	7.5	32	3	3.11	0.03	0.32		

8	Confluence point of Gambheeram Gedda joining the sea near Excel Hatcheries, Mangamma varipeta, Bheemili Road.	2010-11	6.4	7.25	6	1.5	2.2	BDL	0.15
		2011-12	6.2	8	16	2	0.7	ND	0.2
		2012-13	6.8	7.2	415	2	1.05	0.14	0.03
		2013-14	6.9	8	29	1.4	1.02	0.56	0.83
		2014-15	6.8	8	29	1.4	0.94	0.4	0.78
		2015-16	6.3	7.7	44	2.3	1.1	0.3	1.3
		2016-17	5.3	7.6	96	2.2	3.8	0.2	0.6
		2017-18	5.9	7.8	52	1.7	4.6	0.45	0.6
		2018-19	5	7.6	77	1.3	4.96	0.53	1.54
		2019-20	5	7.5	62	2.8	5.6	0.18	0.9
2020-21	5.6	7.4	32	2.1	7.03	0.06	0.66		
9	Confluence point of Sewage joining the sea at Shanti Ashramam.	2010-11	5.5	7.9	7	1	1.8	0.05	0.18
		2011-12	6	8.1	6	1	0.5	ND	1.2
		2012-13	6.9	6.9	410	2.2	1.33	1.2	0.38
		2013-14	6.7	7.9	48	1.4	0.77	0.55	0.81
		2014-15	6.7	7.9	48	1.4	0.7	0.41	0.81
		2015-16	5.9	7.8	45	1.5	0.9	0.3	0.9
		2016-17	5.8	7.3	126	2.2	1.1	0.06	0.15
		2017-18	5.9	7.5	118	1.7	4.1	0.17	0.2
		2018-19	5.1	7.46	109	1.3	1.51	0.12	0.08
		2019-20	5.0	7.5	62	2.8	5.6	0.18	0.9
2020-21	4.9	7.3	33	2.9	2.13	0.73	0.59		

10	Confluence point of Sewage joining the sea at Fishing Harbour.	2010-11	6.2	7.42	6	1.6	1.3	BDL	0.28
		2011-12	5.6	7.9	8	1	0.4	0.19	1.1
		2012-13	7.1	6.9	390	2.2	1.31	1.2	0.14
		2013-14	6.6	7.9	55	1.2	0.94	0.8	0.69
		2014-15	6.5	7.9	53	1.3	0.9	0.7	0.69
		2015-16	5.2	7.5	53	1.6	0.5	0.2	0.8
		2016-17	5.9	7.2	129	2.2	0.8	0.05	0.14
		2017-18	6.7	7.5	98	1.7	1.13	0.04	0.16
		2018-19	5	7.53	91	1.2	0.87	0.06	0.05
		2019-20	4.7	7.4	93	2.2	0.92	0.01	0.1
		2020-21	2.7	7.3	56	3.8	1.69	0.41	0.48
11	Sea water collected at Visakhapatnam Port Trust jetty near Marine Department.	2010-11	5.8	8	8	1.2	1.4	0.04	0.09
		2011-12	6.4	7.8	10	2	1	0.02	0.1
		2012-13	7.2	7.4	420	2.6	0.79	0.3	0.16
		2013-14	6.7	7.7	65	1.3	0.76	1.01	1.94
		2014-15	6.7	7.7	65	1.3	0.75	0.9	1.9
		2015-16	5.5	7.4	44	1.5	0.8	0.3	0.7
		2016-17	6.1	7.3	113	2.4	1.2	0.37	0.25
		2017-18	6.5	7.6	114	1.6	0.98	0.67	0.41
		2018-19	5.1	7.72	91	1.3	1.55	0.41	0.35
		2019-20	3.6	7.3	91	3.4	1.19	0.07	0.09
		2020-21	5.7	7.5	37	1.7	0.84	0.04	0.12

12	Confluence of sewage of lavender canal joining the sea at harbour.	2010-11	6.7	7.45	8	1.8	0.89	0.06	0.28
		2011-12	5.2	8.3	12	2	3.2	ND	2.1
		2012-13	6.6	6.9	390	2	1.23	1.3	0.08
		2013-14	6.8	7.9	43	1.3	0.629	1.48	1.88
		2014-15	6.8	7.9	43	1.3	11.5	1.48	1.88
		2015-16	5.1	7.5	39	1.5	1.3	0.4	1.9
		2016-17	5.5	7.3	81	1.4	2	0.71	0.72
		2017-18	6.1	7.6	98	1.6	6.6	0.2	1.24
		2018-19	4.7	7.49	100	1.4	4.91	0.91	1.14
		2019-20	3	8	119	16	6.22	2.3	1.8
2020-21	1.7	7.5	65	13.6	1.87	1.61	1.99		
13	Confluence point of Mehadrigedda surplus coarse along with all the industrial effluents joining the sea at parallel bridge near dockyard.	2010-11	5.8	6.2	5	2	1.54	0.07	0.55
		2011-12	7.2	7.9	16	1	0.8	0.02	0.6
		2012-13	6.2	7.1	470	2.6	1.5	1.5	0.11
		2013-14	6.9	7.9	40	1.3	0.121	0.86	1.61
		2014-15	6.9	7.9	39	1.3	0.09	0.85	9.2
		2015-16	5.4	7.4	50	1.4	0.8	0.13	1.8
		2016-17	5.6	7	94	1.7	2.2	0.14	0.5
		2017-18	5.9	7.4	97	1.6	5.18	0.06	0.22
		2018-19	4.7	7.26	88	1.2	4.95	0.95	0.94
		2019-20	3.8	7.4	95	11.2	3.03	0.37	1.57
2020-21	3.9	7.3	51	10	3.41	0.37	1.51		
14	Confluence point of steel plant effluent joining the sea at Gangavaram creek near Dibbapalem.	2010-11	5	7	6	1	2	BDL	1.5
		2011-12	7.4	7.4	8	1	3.3	0.01	1.8
		2012-13	6.9	7.6	460	2.6	0.83	BDL	0.04
		2013-14	6.7	8	30	1.2	0.53	0.47	0.64
		2014-15	6.6	8	33	1.2	0.14	0.24	0.47
		2015-16	5.8	7.6	51	1.4	0.5	0.1	0.4
		2016-17	6.1	7.3	100	5.6	0.7	0.08	0.16
		2017-18	6	7.4	96	2	4.4	0.07	BDL
		2018-19	5.7	7.8	118	1.5	0.6	0.06	0.03
		2019-20	5.6	7.6	87.3	4.5	2	0.03	0.08
2020-21	6.1	7.7	31	2.8	0.94	0.18	0.15		

15	Confluence point of steel plant effluent joining the sea near Appikonda village.	2010-11	5.8	8.33	7	1.5	1.54	0.05	0.65
		2011-12	7.6	8.2	12	2	0.9	0.1	0.1
		2012-13	7	7.6	380	2.2	0.82	BDL	0.09
		2013-14	6.7	7.9	33	1.2	0.146	0.44	0.45
		2014-15	6.5	8.1	25.1	1.2	0.63	0.21	0.59
		2015-16	6	7.7	47	1.6	0.7	0.1	0.3
		2016-17	6.2	7.3	125	2.4	0.9	0.18	0.12
		2017-18	6.5	7.4	129	1.6	0.59	0.02	0.27
		2018-19	6	7.82	117	1.4	0.54	0.03	0.03
		2019-20	5.0	7.8	123	8	1.8	0.4	0.05
		2020-21	5.8	7.8	45	2.8	3.23	0.2	0.09
16	Confluence point of Mutyalammappalem gedda Joining the sea at Mutyalammappalem near NTPC	2010-11	5.7	8.31	8	1.6	1.6	0.06	0.75
		2011-12	7.2	8.1	6	2	0.8	0.4	1.1
		2012-13	7.2	7.4	400	2	0.9	BDL	0.08
		2013-14	6.2	8.1	25	1.2	0.65	0.62	0.59
		2014-15	6.7	8	30	1.2	0.53	0.26	0.64
		2015-16	6.3	7.6	45	1.4	0.3	0.1	0.5
		2016-17	6	7.1	99	2.7	1	0.06	0.17
		2017-18	6.4	7.2	91	1.6	1.71	0.02	0.17
		2018-19	5.6	7.4	127	1.3	1.38	0.19	0.03
		2019-20	5.5	7.7	103	2	0.55	0.04	0.03
		2020-21	5.4	7.8	36	2	0.48	0.04	0.78
17	Confluence point of River Sarada and River Varaha at Bangarampalem.	2010-11	6	8.24	7	1.5	2.4	0.03	0.08
		2011-12	5.2	7.9	10	1	1	ND	0.1
		2012-13	3.8	7.4	86	1.3	0.16	0.08	0.036
		2013-14	6.5	8	48	1.3	0.19	0.48	0.4
		2014-15	6.5	8	45	1.3	0.16	0.29	0.38
		2015-16	5.8	7.6	46	1.5	0.3	0.03	0.34
		2016-17	6.3	7.23	126	2.9	0.65	0.17	0.04
		2017-18	6.4	7.3	109	1.6	0.56	0.34	0.11
		2018-19	5.9	7.74	119	1.3	0.6	0.05	0.03
		2019-20	6	8	55	2	0.5	0.02	0.03
		2020-21	5.7	7.5	25	2.3	0.44	0.02	0.06

IV. East Godavari District									
18	Confluence point of River Thandava at Pentakota.	2010-11	6.8	8	4	1.2	1.15	0.06	0.05
		2011-12	5.4	6.8	8	1	1.1	0.2	0.1
		2012-13	4.2	7.3	210	2	0.64	BDL	0.02
		2013-14	6.7	8	37	1.3	0.32	0.35	0.52
		2014-15	6.7	8	38	1.3	0.24	0.26	0.52
		2015-16	6	7.5	44	1.6	0.6	0.5	0.5
		2016-17	6.4	7.2	103	2.1	1.1	0.13	0.06
		2017-18	6.9	7.4	68	1.5	1.2	0.03	0.12
		2018-19	6.5	7.7	100	1.63	1.1	0.08	0.06
		2019-20	5.6	7.6	77	1.8	0.7	0.02	0.06
2020-21	6.2	7.8	27	2.4	0.71	0.02	0.07		
19	Sea water collected near Uppada, Kakinada.	2010-11	6.2	8.5	6	1.4	0.9	0.04	0.1
		2011-12	5.6	7.6	6	1	0.4	0	0.1
		2012-13	4.4	7.4	200	1.4	0.65	BDL	BDL
		2013-14	6.8	8	31	1.3	0.47	0.29	0.63
		2014-15	6.8	8	31	1.3	0.39	0.26	0.64
		2015-16	6	8	42	1	1	0.1	0.4
		2016-17	5.6	7.3	103	2	1.4	0.15	0.04
		2017-18	6.6	7.7	77	1.5	1.3	0.05	0.18
		2018-19	6.3	7.8	100	1.5	1.3	0.07	0.06
		2019-20	5.8	7.6	53	2.1	1.31	0.03	0.09
2020-21	5.4	7.8	11	1.8	0.9	0.06	0.06		
20	Sea water collected near Kumbhabhishekam temple, Kakinada.	2010-11	5.8	7	9	1.6	1.52	0.05	0.16
		2011-12	5	7.3	8	1	1.6	0	1.2
		2012-13	4.8	7.3	198	1.4	0.98	0.3	0.02
		2013-14	6.8	7.7	27	1.2	0.61	0.52	1.16
		2014-15	6.8	7.7	27	1.2	0.35	0.47	1.16
		2015-16	5.8	7.5	56	1.7	0.9	0.4	0.7
		2016-17	5.6	7.16	120	1.9	1.4	0.24	0.12
		2017-18	6.4	7.4	109	1.3	1.7	0.21	0.16
		2018-19	6.1	7.4	91	1.6	1.9	0.3	0.27
		2019-20	4.4	7.4	37	2.9	2.3	0.04	0.28
2020-21	4.3	7.5	12	3.1	2.21	0.07	0.18		

21	Sea water collected near Deep water port, Kakinada (1 km away from jetty).	2010-11	6.8	7.58	7	1	2.32	BDL	0.08
		2011-12	6	7.9	12	2	0.2	0	0.1
		2012-13	4.6	7	40	1	1.92	0.38	0.06
		2013-14	6.8	7.7	32	1.2	0.11	0.84	1.29
		2014-15	6.8	7.7	32	1.2	0.07	0.84	1.31
		2015-16	4.2	7.5	38	1.3	0.8	0.4	0.8
		2016-17	5.5	7.3	77	1.5	1.5	0.16	0.14
		2017-18	6	7.6	70	2.9	2.51	0.23	0.28
		2018-19	4.6	7.6	76	1.3	3.4	0.23	0.43
		2019-20	4.7	7.5	50	2.2	2.3	0.03	0.22
2020-21	4.4	7.4	11	2.7	2.21	0.27	0.2		
22	Sample collected from Upputeru channel Opp.Circle Telecom Training Centre, Kakinada.	2010-11	7	7.3	6	1.5	1.33	0.04	0.12
		2011-12	5.8	7.8	14	1	1.7	0	1
		2012-13	5.2	7	36	1.2	2.24	0.34	0.044
		2013-14	7	7.6	33	1.3	0.41	0.86	1
		2014-15	7.1	7.6	28	1.3	0.16	0.99	1.14
		2015-16	4.5	7.3	43	2.3	0.9	0.3	0.8
		2016-17	4.9	7.2	85	1.7	1.6	0.28	0.25
		2017-18	5.6	7.4	74	1.3	2.3	0.25	0.33
		2018-19	4.9	7.5	60	1.3	3.2	0.4	0.47
		2019-20	5.8	7.6	53	2.1	1.31	0.03	0.09
2020-21	3.1	7.2	41	3.3	0.03	0.03	0.29		
23	Sample collected from Upputeru channel near Indrapalem, Kakinada (Confluence of East Eleru drain and Bikkavolu drain).	2010-11	6.8	7.15	7	1.4	2.8	0.01	0.25
		2011-12	6.2	7.5	16	2	2.4	0	2.1
		2012-13	5.4	7	32	1	2.2	1.8	0.04
		2013-14	6.8	7.7	38	1.3	0.56	0.78	1.12
		2014-15	6.8	7.3	38	1.2	0.42	0.82	1.12
		2015-16	4.9	7.4	38	1.5	0.6	0.2	1.8
		2016-17	5.5	7.3	65	1.7	1.6	0.28	0.22
		2017-18	5.9	7.5	45	1.5	2.4	0.13	0.3
		2018-19	5	7.7	60	1.3	2.5	0.37	0.31
		2019-20	2.9	7.2	33	3.2	2.88	0.03	0.4
2020-21	3.0	7.3	36	2.9	2.47	0.05	1.11		

24	Confluence point of Chollangi snanala revu and Ramannapalem drain.	2010-11	6.4	7.45	9	1.5	3.3	0.02	0.15
		2011-12	5.2	7.9	10	1	2.6	0	2.1
		2012-13	4.6	7.3	110	1.4	2.5	2.16	0.08
		2013-14	6.9	7.8	31	1.2	0.12	0.41	0.78
		2014-15	6.9	7.8	32	1.2	0.11	0.38	0.81
		2015-16	5.6	7.4	30	1.4	0.8	0.4	1
		2016-17	5.7	7.1	58	1.8	1.7	0.07	0.16
		2017-18	6.1	7.5	59	2	2.04	0.19	0.23
		2018-19	5.4	7.6	82	1.4	1.8	0.07	0.14
		2019-20	2.5	7.4	74	3	2.3	0.01	0.23
2020-21	2.4	7.5	34	3.6	1.84	0.03	0.43		
25	Confluence point of River Gautami Godavari at Bhairavapalem village.	2010-11	5.8	7.9	8	1.2	2.4	0.01	0.19
		2011-12	5.4	7.8	8	1	0.4	0	0.1
		2012-13	4.4	7.3	260	2	3.5	0.22	0.09
		2013-14	6.9	7.9	42	1.3	0.16	0.8	0.68
		2014-15	6.9	7.9	42	1.3	0.12	0.88	0.68
		2015-16	6.5	7.5	48	1.4	0.3	0.3	1.4
		2016-17	6.2	7.24	100	1.8	1.26	0.08	0.12
		2017-18	6.5	7.3	90	1.8	1.3	0.15	0.18
		2018-19	5.9	7.5	102	1.4	1.06	0.1	0.05
		2019-20	6.3	7.3	126	2.1	1.4	0.04	0.05
2020-21	5.2	7.6	42	2.1	1	0.03	1.5		
26	Confluence point of River Vynateya Godavari at Vodalorevu village, near Amalapuram.	2010-11	7	6.5	7	1.4	2.3	BDL	0.07
		2011-12	5	7.6	14	1	0.4	0	0.1
		2012-13	4.8	7.2	300	2.2	1.2	0.12	0.02
		2013-14	6.9	7.9	43	1.3	0.21	0.32	0.639
		2014-15	6.9	7.9	43	1.3	0.11	0.32	0.64
		2015-16	6.6	7.6	48	1.6	0.3	0.1	1.5
		2016-17	5.8	7.1	104	1.7	1.8	0.04	0.06
		2017-18	6.1	7.5	115	1.4	0.53	0.04	0.19
		2018-19	6.1	7.6	124	1.5	1	0.08	0.05
		2019-20	6.2	7.4	149	2.2	1.21	0.02	0.05
2020-21	6.0	7.7	30	2.4	0.89	0.04	1.44		

V. West Godavari District									
27	Confluence point of River Vashista Godavari at Chinnamynavanilanka.	2010-11	7.2	8	9	1	1.8	BDL	0.18
		2011-12	5.2	7.7	6	2	2.9	0	0.4
		2012-13	4.6	7.2	160	1.4	1.1	0.16	0.16
		2013-14	7	7.7	20	1.2	0.27	0.24	0.39
		2014-15	7	7.7	20	1.2	0.24	0.24	0.39
		2015-16	6.6	7.6	47	1.7	0.5	0.04	0.7
		2016-17	5.3	6.3	123	1.95	0.8	0.032	0.09
		2017-18	6.1	7.5	115	1.4	0.53	0.04	0.19
		2018-19	6	7.5	101	1.4	0.85	0.49	0.23
		2019-20	6.7	7.6	69	2.1	0.73	0.04	0.06
2020-21	6	7.8	12	1.9	0.63	0.1	0.06		
VI. Prakasam District									
28	Kothapatnam beach.	2014-15	5.5	8.14	--	0.7	--	--	--
		2015-16	6.7	7.8	--	2	0.8	--	0.1
		2016-17	5.5	7.9	---	2.2	0.8	---	BDL
		2017-18	6.4	7.7	---	4.2	0.7	---	BDL
		2018-19	5.6	7.5	--	3.7	0.88	--	BDL
		2019-20	5.5	7.8	--	3.03	0.89	--	BDL
		2020-21	4.4	7.9	--	2.7	1.05	--	0.2
VII. Nellore District									
29	Pulicat lake-Bheemulavaripalem.	2014-15	5	8	--	0.8	--	--	--
		2015-16	5.7	7.7	--	2.2	1.7	--	BDL
		2016-17	6	7.6	---	2.6	1.2	---	BDL
		2017-18	6.3	7.5	--	3.9	1.4	--	BDL
		2018-19	5.4	7.3	--	3.9	2.1	--	BDL
		2019-20	5.5	7.8	--	3.1	1.22	--	BDL
		2020-21	4.8	7.9	--	2.4	1.04	--	0.12

30	North Extent Krishnapatnam port.	2014-15	5.7	8.01	--	0.7	--	--	--
		2015-16	6.2	7.19	--	1.8	0.8	--	0.1
		2016-17	5.8	7.6	---	2.1	0.7	---	BDL
		2017-18	6.6	7.6	--	4	0.8	--	BDL
		2018-19	5.7	7.5	--	3.7	1.03	--	BDL
		2019-20	5.5	7.7	--	3.2	1.02	--	BDL
		2020-21	4.8	7.7	--	2.4	1.07	--	0.13
31	South Extent – Krishnapatnam port.	2014-15	6	8.04	--	0.6	--	--	--
		2015-16	6.2	7.72	--	1.9	0.8	--	0.1
		2016-17	6.1	7.7	---	2.2	0.8	---	BDL
		2017-18	6.5	7.6	---	4	0.7	--	BDL
		2018-19	5.6	7.6	--	3.6	0.9	--	BDL
		2019-20	5.6	7.8	--	3	1.05	--	BDL
		2020-21	4.9	7.8	--	2.5	1.08	--	1.04
32	Loading Point - Krishnapatnam port.	2014-15	5.7	8.04	--	0.8	--	--	--
		2015-16	6.3	7.83	--	1.8	0.8	--	0.1
		2016-17	5.9	7.7	---	2.3	0.9	---	BDL
		2017-18	6	7.6	--	4	0.7	--	BDL
		2018-19	5.4	7.6	--	3.9	1	--	BDL
		2019-20	5.3	7.7	--	3	0.99	--	BDL
		2020-21	4.4	7.7	--	2.6	1.06	--	0.1

VIII. Guntur District									
33	Fishing Harbar after confluence with Sea, Nizampatnam.	2014-15	5.8	7.88	--	1.2	--	--	--
		2015-16	5.9	7.68	--	2.5	0.43	--	0.02
		2016-17	5.9	7.7	--	1.9	0.5	--	BDL
		2017-18	6.9	7.5	---	3.8	0.7	---	BDL
		2018-19	5.2	7.9	--	3.9	0.4	--	BDL
		2019-20	5.5	7.7	--	3.2	1.12	--	BDL
		2020-21	4.4	7.7	--	2.7	1.14	--	0.15
34	Fishing Harbar, Nizampatnam.	2014-15	5.8	7.97	--	1.1	--	--	--
		2015-16	6.1	7.77	--	2.4	0.44	--	BDL
		2016-17	5.8	7.8	---	2.2	0.6	---	BDL
		2017-18	6.9	7.5	--	3.8	0.7	--	BDL
		2018-19	5.2	7.9	--	3.9	0.51	--	BDL
		2019-20	5.7	7.7	--	3.3	1.75	--	BDL
		2020-21	4.4	7.7	--	2.7	1.14	--	0.15
35	Suryalanka Beach.	2014-15	5.7	8.08	--	0.7	--	--	--
		2015-16	6.1	7.83	--	2	0.5	--	0.1
		2016-17	5.7	7.8	---	2.3	0.7	---	BDL
		2017-18	6.4	7.7	--	3.7	0.72	--	BDL
		2018-19	5.5	7.81	--	4.1	0.51	--	BDL
		2019-20	5.6	7.6	--	3.2	1.13	--	BDL
		2020-21	4.9	7.6	--	2.6	0.88	--	0.15
36	Vadarevu Beach, Chirala.	2014-15	6.3	8.16	--	0.7	--	--	--
		2015-16	5.8	7.8	--	1.5	0.4	--	0.1
		2016-17	5.7	7.8	---	2.1	0.6	---	BDL
		2017-18	6.4	7.5	--	3.8	0.7	--	BDL
		2018-19	5.6	7.8	--	3.9	0.6	--	BDL
		2019-20	5.4	7.6	--	3.2	1.04	--	BDL
		2020-21	4.5	7.8	--	2.7	0.89	--	0.19

IX. Krishna District									
37	Upputeru after confluence with sea, Etiparru.	2014-15	5.8	7.77	--	0.8	--	--	--
		2015-16	6.1	7.52	--	2.5	0.8	--	0.1
		2016-17	5.6	7.7	---	2	0.7	---	BDL
		2017-18	6.7	7.3	--	4	0.7	--	BDL
		2018-19	5.7	7.6	--	3.9	1.2	--	BDL
		2019-20	5.6	7.7		3.3	1.5	--	BDL
		2020-21	4.9	7.6	--	2.6	1.23	--	0.19
38	Upputeru before confluence with sea, Pedatadika.	2014-15	5.8	7.9	--	0.7	--	--	--
		2015-16	6	7.48	--	2.2	1.1	--	BDL
		2016-17	5.7	7.8	---	1.8	0.66	---	BDL
		2017-18	6.5	7.5	--	4.1	0.8	--	BDL
		2018-19	5.8	7.6	--	3.8	1.4	--	BDL
		2019-20	5.6	7.7	--	3.2	1.4	--	BDL
		2020-21	4.7	7.5	--	2.5	1.55	--	0.17
39	Manginapudi beach, Machilipatnam.	2014-15	5.9	7.98	--	0.7	--	--	--
		2015-16	5.7	7.55	--	2	0.85	--	BDL
		2016-17	5.9	7.8	---	2.1	0.6	---	BDL
		2017-18	6.4	7.4	--	3.9	0.7	--	BDL
		2018-19	5.6	7.7	--	4	0.6	--	BDL
		2019-20	5.5	7.6	--	3.1	1.1	--	BDL
		2020-21	4.5	7.7	--	2.7	1.03	--	0.18

40	River Krishna at confluence with sea at Palakayathippa beach, Hamsaladeevi.	2014-15	5.8	7.82	--	0.6	--	--	--
		2015-16	6.5	7.6	--	1.7	1.04	--	BDL
		2016-17	5.9	7.7	---	2.2	0.61	---	BDL
		2017-18	6.4	7.4	--	3.9	0.7	--	BDL
		2018-19	5.8	7.6	--	3.9	0.6	--	BDL
		2019-20	5.5	7.9	--	3.2	0.9	--	BDL
		2020-21	4.9	7.7	--	2.4	0.83	--	0.13
Note: All values are expressed in mg/l except pH.									

LEGENDS

DO : Dissolved Oxygen
 BOD : Bio-Chemical Oxygen Demand
 TSS : Total Suspended Solids
 NO₃- N: Nitrate Nitrogen
 NH₃ - N : Ammonical Nitrogen
 PO₄³⁻ : Phosphates
 BDL: Below detectable limit.