



Groundwater Quality Year Book of the Odisha State

2022-2023

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FOREWORD

Water is a valuable resource, and as demands on this limited commodity continue to rise, the imperative to comprehend and manage our groundwater becomes crucial. The Groundwater Quality Year Book serves as a beacon, offering information, trends, and solutions to guide us in making well-informed decisions about this essential resource.


Numerous challenges pose threats to sustainable water management. Persistent uncertainties surround the understanding of pollution trends and the repercussions of hazardous pollutants. Imbalances between water resources and escalating demands are further complicated by adverse effects resulting from groundwater abstraction and over-exploitation, leading to significant environmental harm.

Water, being a natural solvent, leaches minerals from rocks, contributing to the distinctive taste of groundwater. These minerals, including sodium, calcium, magnesium, potassium, chloride, bicarbonate, and sulfate, add character to water. In their absence, water becomes bland.

While national groundwater generally adheres to standards, specific regions, particularly those reliant on shallow groundwater, experience discernible changes in quality due to human activities. Recognizing these subtleties is paramount for formulating effective strategies in sustainable groundwater management.

This report presents analytical findings derived from groundwater samples in Odisha during the pre-monsoon period of 2022. Its purpose is to equip policymakers, water professionals, researchers, and stakeholders with crucial insights for making informed decisions and implementing effective groundwater resource management practices.

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1. Introduction

Odisha, located on the eastern coast of India, is a state with a rich tapestry of cultural heritage, diverse landscapes, and unique natural features. Odisha is administratively divided into 30 districts, further organized into three revenue divisions: Northern, Central, and Southern. The districts are further subdivided into tehsils and blocks, forming the administrative hierarchy.

1.1 Geology

The state of Odisha exhibits a varied geological terrain. The Eastern Ghats run along its western boundary, comprising metamorphic rocks. The coastal region is marked by alluvial deposits, while the northern parts have sedimentary rocks. The presence of minerals, including iron ore, bauxite, coal, and chromite, contributes significantly to the state's economic landscape.

The geology of Odisha is characterized by a diverse lithological and tectonic framework, contributing to the state's significant mineral wealth and geological complexity. The geological formations in Odisha encompass a range of rocks, including Precambrian to Recent deposits, providing insight into the region's evolutionary history.

The Western part of Odisha is dominated by the Eastern Ghats Mobile Belt, comprising granites, gneisses, and schists. This Crystalline Basement Complex is a vital component of the state's geological foundation, indicative of the ancient tectonic events shaping the Indian subcontinent.

One of the prominent geological features in Odisha is the vast iron ore deposits, primarily found in the Bonai-Keonjhar belt. These deposits are associated with banded iron formations (BIFs) of the Iron Ore Group (IOG) that formed during the Archean period, reflecting the state's ancient geological history.

The Eastern Ghats, particularly in the Rayagada-Koraput region, contains significant bauxite reserves. The bauxite deposits are primarily associated with lateritic formations, influenced by tropical weathering processes over geological time scales.

The Talcher Coalfield, situated in the central part of the state, is a noteworthy geological feature contributing to Odisha's energy resources. The coal deposits are part of the Mahanadi Coalfields and are primarily of Permian age.

The coastal plains of Odisha are characterized by extensive alluvial deposits, influenced by the sedimentation from major river systems like the Mahanadi and Brahmani. These alluvial sediments contribute to the fertile soils supporting agricultural activities.

Odisha is located at the convergence of several major tectonic elements, including the Eastern Ghats Mobile Belt, the Mahanadi Rift Zone, and the East Coast Mobile Belt. These tectonic features have played a crucial role in shaping the geological architecture of the state.

1.2 Hydrogeology

The hydrogeological framework of Odisha is characterized by a diverse range of aquifers. The state has multiple river systems, such as the Mahanadi, Brahmani, and their tributaries, influencing the groundwater recharge patterns. Odisha's aquifers support agriculture, industry, and domestic water supply.

The state's aquifers are primarily composed of weathered and fractured formations. The weathered zone typically comprises regolith, saprolite, and decomposed rock, forming unconfined aquifers. Fractured rocks, such as granites and schists, contribute to confined aquifers. The porosity and permeability of these formations vary, influencing the storage and movement of groundwater.

1.3 Climate

Odisha experiences a tropical climate. Summers are hot and humid, with temperatures often exceeding 40°C (104°F). Monsoons, from June to September, bring heavy rainfall, crucial for agriculture. Winters are relatively mild, with temperatures ranging from 10°C to 25°C (50°F to 77°F). Cyclones are a recurring natural phenomenon, particularly impacting the coastal areas.

1.4 Soil Types

The state showcases a diverse range of soil types, including red and yellow soils, laterite soils, alluvial soils, and black soils. These soil variations influence agricultural practices and land use patterns.

1.5 Land Use Pattern

Agriculture is a predominant land use in Odisha, with a significant portion of the population engaged in farming. The state's fertile plains support the cultivation of rice, pulses, oilseeds, and cash crops. Forests cover a substantial portion of the land, contributing to biodiversity and supporting tribal communities. Odisha also has an emerging industrial landscape, with sectors like steel, power, and petrochemicals playing a crucial role in its economic development.

In conclusion, Odisha's diverse geography, from the Eastern Ghats to its coastal plains, shapes its administrative, geological, and hydrogeological features. The state's climate, soil types, and land use patterns are integral components of its dynamic and multifaceted character.

2. Groundwater Monitoring

Groundwater monitoring is conducted four times a year (January, April, August, and November) as part of the national groundwater monitoring program in the state of Odisha. During the month of April, groundwater samples are collected to assess their quality. A total of 1283 samples were collected from National Hydrograph Stations located in Odisha in April 2022 for analysis. These samples were analyzed for 14 basic parameters, including pH, Electrical Conductivity, Total Dissolved Solids (TDS), Total Hardness (TH), Alkalinity, Calcium (Ca), Magnesium (Mg), Sodium (Na), Potassium (K), Carbonate (CO₃), Bicarbonate (HCO₃), Chloride (Cl), Sulphate (SO₄), and Nitrate (NO₃) following the standard procedures outlined in APHA (23rd Edition). The suitability of the groundwater for drinking purposes is assessed according to the guidelines set by the Bureau of Indian Standards (IS 10500:2012).

Table 1: District wise sample data 2022-23

Sl.No	Districts	No. of Samples	Sl.No	Districts	No. of Samples
1	Angul	42	16	Kandhamal	29
2	Balangir	65	17	Kendrapara	25
3	Baleshwar	37	18	Kendujhar	63
4	Bargarh	63	19	Khordha	67
5	Baudh	50	20	Koraput	45
6	Bhadrak	20	21	Malkangiri	13
7	Cuttack	54	22	Mayurbhanj	98
8	Debagarh	11	23	Nabarangpur	23
9	Dhenkanal	34	24	Nayagarh	43
10	Gajapati	34	25	Nuapada	23
11	Ganjam	85	26	Puri	74
12	Jagatsinghpur	7	27	Rayagada	16
13	Jajapur	30	28	Sambalpur	66
14	Jharsuguda	13	29	Sonapur	49
15	Kalahandi	31	30	Sundargarh	73
Total					1283

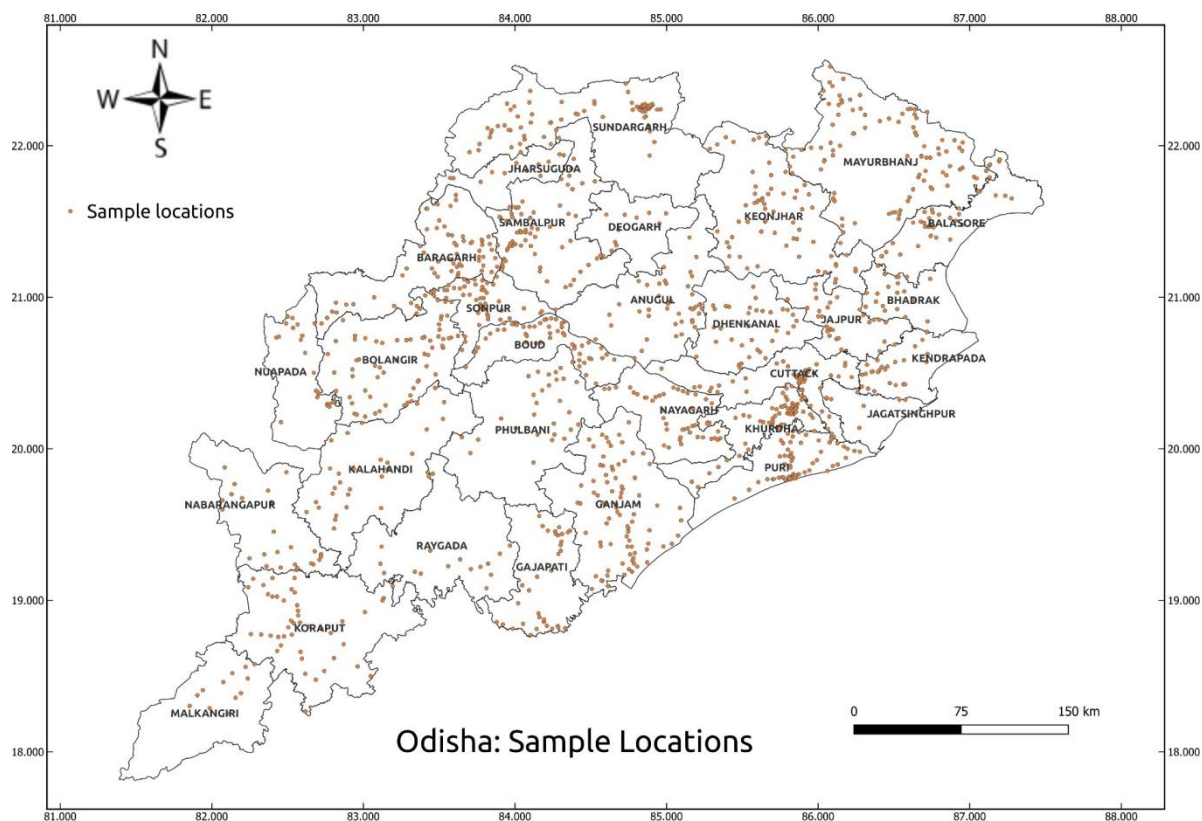


Figure 1 : NHS Sample locations

3. General observations

The quality of groundwater in the state of Odisha exhibits significant variations due to factors such as physiography, soil texture, and underlying soil formations. The shallow aquifer in the inland zone primarily consists of fresh water, characterized by a dominance of magnesium-bicarbonate ($Mg-HCO_3$) and mixed types of water. However, in the coastal plain, where most of the wells are situated in alluvial deposits, the groundwater quality tends to be relatively saline. Additionally, certain districts, such as Angul, Balasore, Bargarh and Boudh, also exhibit saline groundwater conditions.

All stations Piper - Ca/Na+K/Mg/HCO₃+CO₃/Cl/SO₄

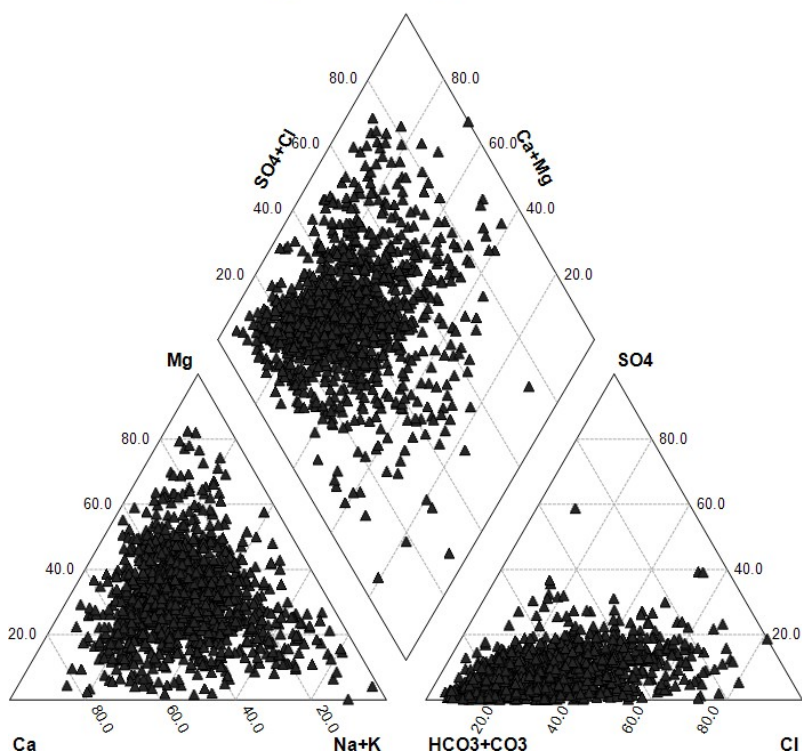


Figure 2 : Piper diagram derived from the samples.

3.1 Overview of the ground water quality

The following table presents the ranges of physico-chemical parameters observed in the groundwater of Odisha in 2022:

Table 2 : Ranges of Physico-Chemical parameters of Groundwater of Odisha 2022-23			
Parameters	Lowest	Highest	Median
pH	5.0	8.9	7.9
EC μ S/cm	35.0	3250.0	580.5
TDS mg/L	21.0	1716.0	313.5
Total Hardness mg/L, as CaCO ₃	11.0	1235.0	203.5

Total Alkalinity mg/L, as CaCO ₃	BDL	1206.0	175.0
Ca ²⁺ mg/L	2.0	263.0	42.0
Mg ²⁺ mg/L	BDL	196.0	22.0
Na ⁺ mg/L	1.0	365.0	32.0
K ⁺ mg/L	BDL	345.0	3.9
CO ₃ ²⁻ mg/L	BDL	90.0	0.0
HCO ₃ ⁻ mg/L	BDL	1441.0	214.0
Cl ⁻ mg/L	2.0	657.0	52.0
SO ₄ ²⁻ mg/L	BDL	242.0	20.0
NO ₃ ⁻ mg/L	BDL	99.0	9.0
F ⁻ mg/L	BDL	4.7	0.3

4. Distribution of the electrical conductivity

The electrical conductivity of the groundwater varies within a wide range of 35-3250 $\mu\text{S}/\text{cm}$ at 25°C. It is important to note that the highest recorded electrical conductivity value of 3250 $\mu\text{S}/\text{cm}$ has been observed in the dug well located in Kuha, Khorda district.

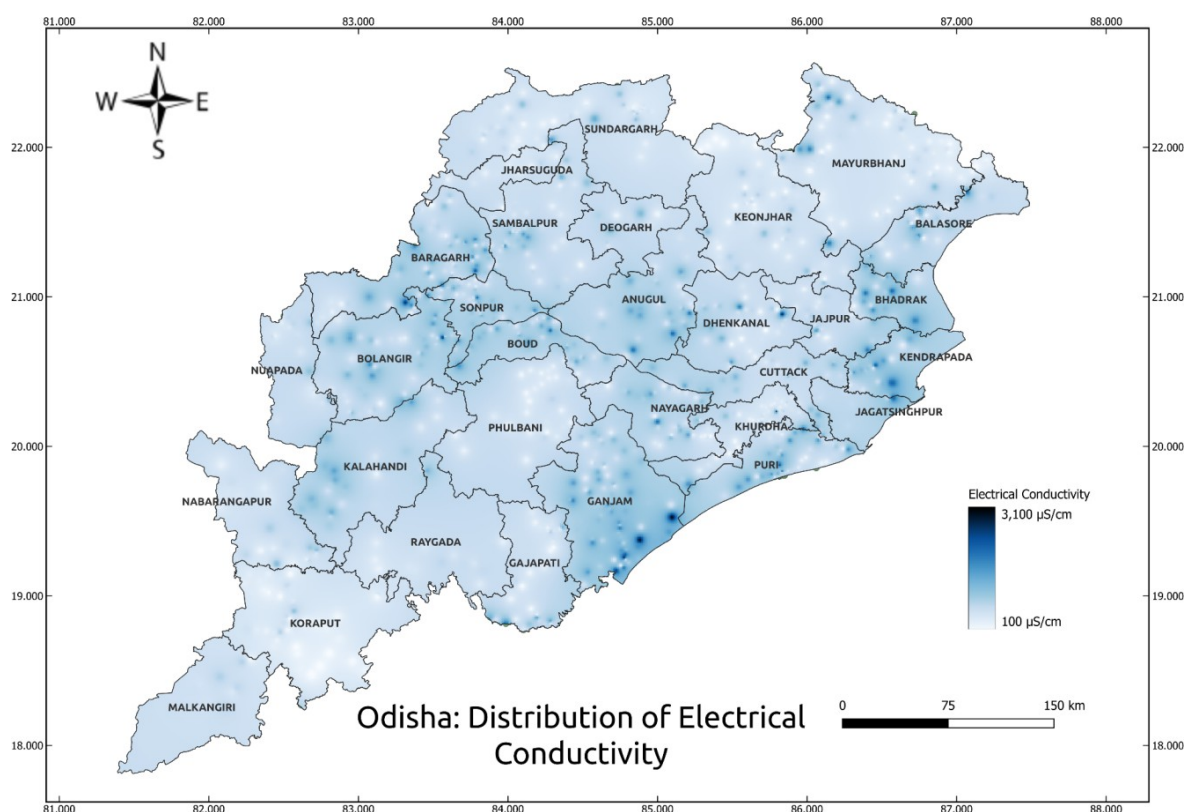


Figure 3: Spatial distribution of Electrical conductivity

Table3 : Locations of groundwater samples having electrical conductivity more than 2000 $\mu\text{S}/\text{cm}$ at 25°C				
S No	District	Block	Sample Site	EC $\mu\text{S}/\text{cm}$
1	Angul	Angul	Barhabahal	2140
2	Angul	Banarpal	Bhogabereni	2100
3	Angul	Angul	Purnakot	2050
4	Balangir	Puintala	Randa	2775
5	Baleshwar	Basta	Basta 1	2500
6	Baleshwar	Oupada	Jamadeipur (Panchalingaswar)	2320
7	Bargarh	Bheden	Baghapalli	2494
8	Bargarh	Gaisilet	Gaisilet3	2600
9	Baudh	Baudh Sadar	Badhigaon	2080
10	Bhadrak	Bant	Kenduapada (Amper)	2050

Table3 : Locations of groundwater samples having electrical conductivity more than 2000 $\mu\text{S}/\text{cm}$ at 25°C

S No	District	Block	Sample Site	EC $\mu\text{S}/\text{cm}$
11	Bhadrak	Bhadrak	Tihidi	2120
12	Dhenkanal	Bhuban	Bhuban	2640
13	Gajapati	Kashinagara	K Sitapur 1	2021
14	Ganjam	Rangeilunda	Gopalpur 1	2790
15	Ganjam	Rangeilunda	Haldiapadar	2247
16	Ganjam	Khalikote	Rambha	3030
17	Ganjam	Chikiti	Surlaroad 1	2580
18	Ganjam	Chhatrapur	Tanganapalli 1	3098
19	Jagatsinghpur	Kujang	Bhutamundai 1	2170
20	Kendrapara	Kendrapara	Barua 1	2351
21	Kendrapara	MahakalaPada	Chadeiguan	2092
22	Kendrapara	MahakalaPada	Mahakalpara 2	2150
23	Khordha	Bhubaneswar	Kuha	3250
24	Khordha	Balipatana	Odakhanda-Dw	2267
25	Mayurbhanj	Bahalda	Gambharia	2080
26	Nayagarh	Nuagaon	Mahipur	2185
27	Puri	Sadar	Tulasichoura-Malatipatapur	2662
28	Puri	Sadar	P-01 Krupa Sindura Patna	2150
29	Puri	Sadar	P-19 Kashi Jagannathpur	2204
30	Sambalpur	Maneswar	Bausenmura	2006
31	Sonapur	Dunguripali	Chandajhuri	2139
32	Sonapur	Ulunda	Phulmuthi	2347

Table4 : Percentage of groundwater samples having electrical conductivity more than 2000 $\mu\text{S}/\text{cm}$ at 25°C

Year	Total No of Samples Analysed	No of Districts affected by EC>3000 $\mu\text{S}/\text{cm}$	Total No of Locations affected by EC>3000 $\mu\text{S}/\text{cm}$	% Locations affected by EC>3000 $\mu\text{S}/\text{cm}$
2017	1262	6	10	0.79
2018	1241	10	10	0.81
2019	1266	5	9	0.71

Year	Total No of Samples Analysed	No of Districts affected by EC>3000 $\mu\text{S/cm}$	Total No of Locations affected by EC>3000 $\mu\text{S/cm}$	% Locations affected by EC>3000 $\mu\text{S/cm}$
2020	783	3	4	0.51
2021	715	2	2	0.28
2022	1283	2	3	0.23

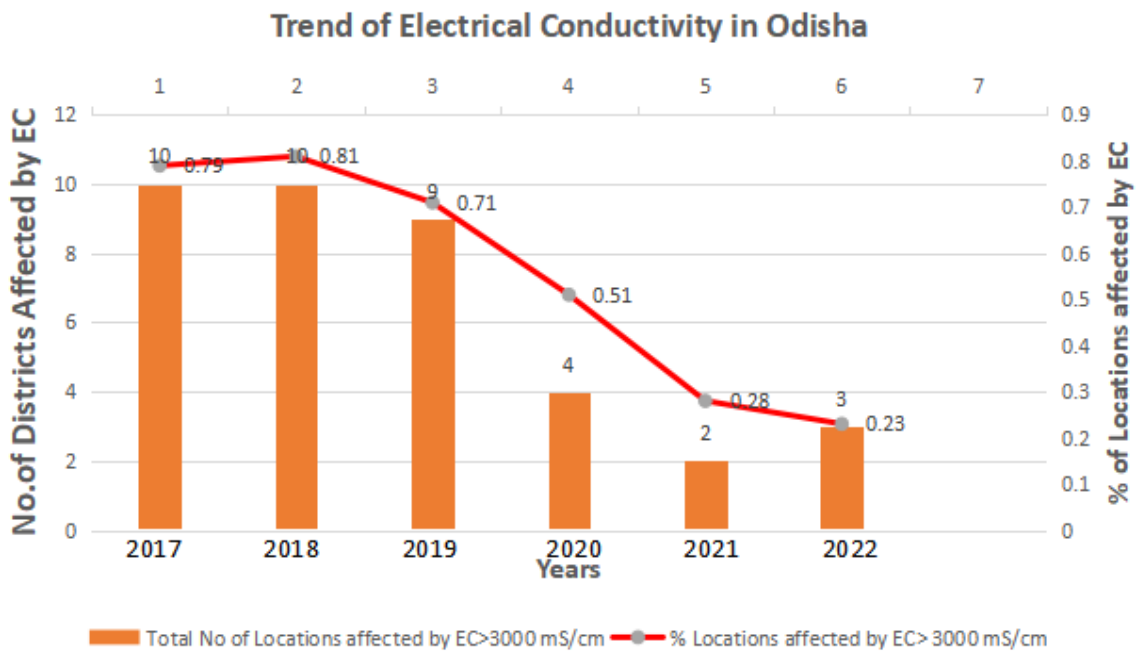


Fig.4 Trend of electrical conductivity occurrence in Odisha

5. Distribution of Chloride

The distribution of chloride in groundwater samples collected as part of the NHS (National Hydrograph Stations) program in the state of Odisha during April 2022 exhibits significant variations. The chloride content ranges from 2 mg/L to 657 mg/L, with an average concentration of 52 mg/L. In the coastal plain region, where most of the wells are situated in alluvial deposits, the groundwater quality tends to be relatively saline. Additionally, certain districts in the western parts of Odisha, such as Bolangir, Baleswar, Sambalpur, and Sonapur, exhibit high levels of chloride.

Table 5 : Locations have been identified to have chloride concentrations above the permissible limit (NHS-2022)

S No	District	Block	Sample Site	Chloride mg/L
1	Angul	Angul	Barhabahal	265
2	Angul	Banarpal	Bhogabereni	367
3	Angul	Angul	Purnakot	392
4	Balangir	Loisinga	Burda	264
5	Balangir	Puintala	Randa	420
6	Baleshwar	Oupada	Bankisial	316
7	Baleshwar	Basta	Basta 1	657
8	Baleshwar	Nilagiri	Kansa 1	316
9	Bargarh	Bheden	Baghapalli	473
10	Bargarh	Gaisilet	Gaisilet3	450
11	Bargarh	Bheden	Remenda	283
12	Bargarh	Attabira	Shukutapali	264
13	Baudh	Baudh Sadar	Badhigaon	288
14	Baudh	Kantamal	Ghantapada-I	313
15	Baudh	Baudh Sadar	Kamira	251
16	Bhadrak	Dhamanagar	Dhamnagar 1	283
17	Bhadrak	Bant	Kenduapada (Amper)	460
18	Bhadrak	Bhadrak	Tihidi	332
19	Debagarh	Barkot	Kondal	280
20	Dhenkanal	Bhuban	Bhuban	475
21	Dhenkanal	Kamakshaya Nagar	Kamakyannagar	420
22	Gajapati	Parlakhemundi	Garabandh	255
23	Gajapati	Kashinagara	K Sitapur 1	278
24	Gajapati	Parlakhemundi	Kantragada	254

25	Ganjam	Rangilunda	Gopalpur 1	451
26	Ganjam	Rangilunda	Haldiapadar	251
27	Ganjam	Hinjilicut	Pochilima	289
28	Ganjam	Chikiti	Surlaroad 1	293
29	Ganjam	Chhatrapur	Tanganapalli 1	310
30	Jagatsinghpur	Kujang	Bhutmundi1	442
31	Jajapur	Bari	Kalamatia	277
32	Kalahandi	Jayapatna	Bijamara	280
33	Kalahandi	Junagarh	Mahichala	250
34	Kendrapara	Kendrapara	Barua 1	279
35	Kendrapara	Mahakalpada	Chadeiguan	296
36	Kendrapara	Mahakalpada	Mahakalpara 2	304
37	Khordha	Bolagad	Bandha Square	275
38	Khordha	Bhubaneswar	Kuha	610
39	Khordha	Balipatana	Odakhanda-Dw	292
40	Mayurbhanj	Bahalda	Gambharia	337
41	Mayurbhanj	Thakur Munda	Satkosia	254
42	Nayagarh	Nayagarh	Andapali	252
43	Nayagarh	Nuagaon	Mahipur	352
44	Puri	Astaranga	Astaranga	357
45	Puri	Brahmagiri	Budhiabar	257
46	Puri	Sadar	Chandanpur	269
47	Puri	Brahmagiri	Gokhara	281
48	Puri	Sadar	Tulasichoura-Malatipatapur	288

49	Puri	Sadar	P-01 Krupa Sindura Patna	395
50	Puri	Sadar	P-19 Kashi Jagannathpur	495
51	Sambalpur	Jujomura	Bad Sahir	300
52	Sambalpur	Bamra	Bamra	275
53	Sambalpur	Jujomura	Jhargulanda 1	322
54	Sonapur	Dunguripali	Baghahandi	282
55	Sonapur	Dunguripali	Chandajhuri	562
56	Sonapur	Dunguripali	Karlajuri	302
57	Sonapur	Ulunda	Phulmuthi	392
58	Sonapur	Birmaharaj pur	Tebhapadar	310

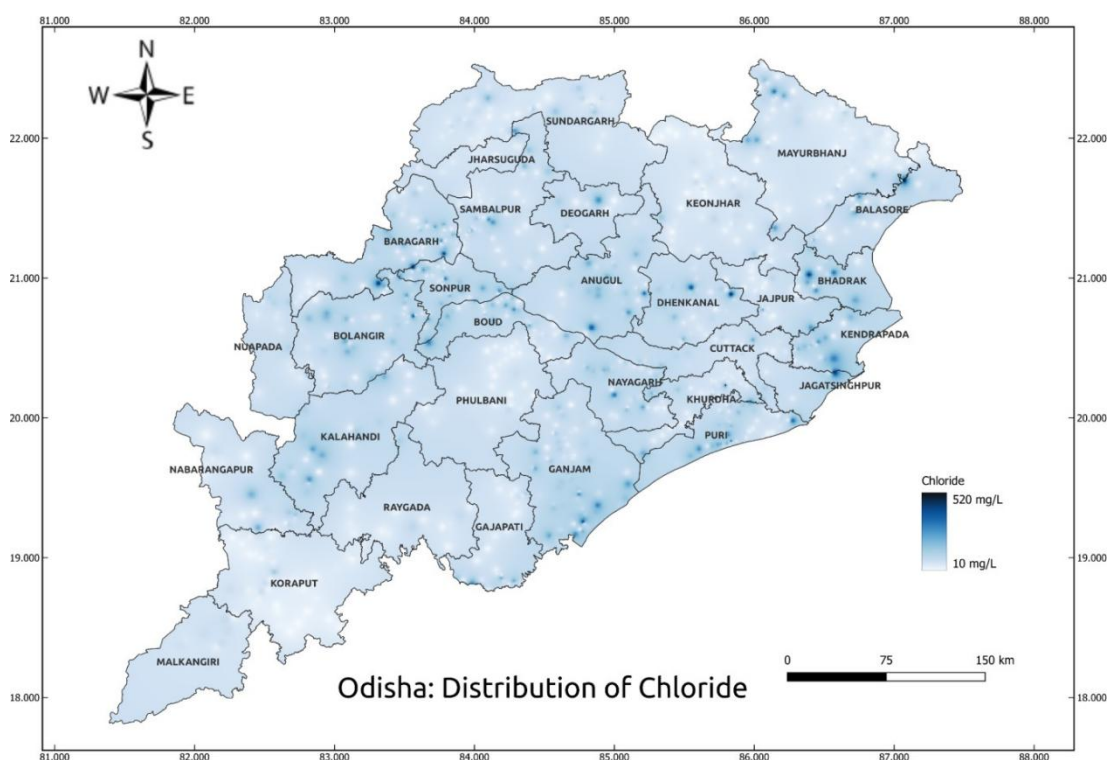


Figure 5 : Spatial distribution of Chloride

Table6 : Percentage of groundwater samples having chloride more than 1000 mg/L

Year	Total No of Samples Analysed	No of Districts affected by Cl>1000 mg/L	Total No of Locations affected by Cl>1000mg/L	% Locations affected by Cl>1000mg/L
2017	1262	3	4	0.32
2018	1241	4	4	0.32
2019	1266	2	2	0.16
2020	783	0	0	0
2021	715	0	0	0
2022	1283	0	0	0

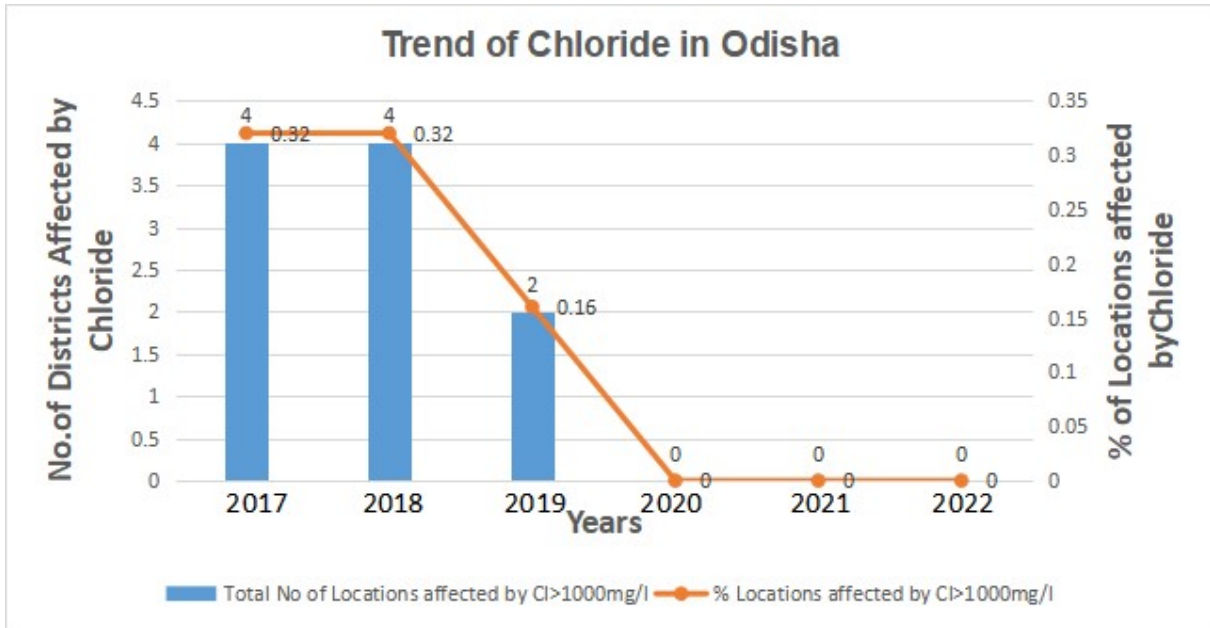


Fig.6 Trend of Chloride occurrence in Odisha

6. Distribution of Nitrate in Odisha

The distribution of nitrate (NO_3^-) in groundwater exhibits significant variations across the state of Odisha. The nitrate concentrations range from below the detection limit to 99 mg/L, with an average of 9 mg/L. Notably, the highest recorded value of nitrate, 99 mg/L, was found in a well located at Tenda in the Baleshwar district.

The enrichment of nitrate values in groundwater can be attributed to anthropogenic activities and varies from one location to another within the state of Odisha. The presence of higher nitrate levels in groundwater is a cause for concern as it can pose potential health risks.

The table below summarizes the locations in Odisha where nitrate concentrations exceed 45 mg/L in the year 2022.

Table 7: locations in Odisha where nitrate concentrations exceed 45 mg/L in the year 2022

S No	District	Block	Site Name	NO ₃ ⁻ mg/L
1	Angul	Angul	Barhabahal	45
2	Angul	Banarpal	Bhogabereni	46
3	Angul	Chhendipada	Durgapur 1	48
4	Angul	Kishorenagar	Handpa 1	45
5	Angul	Kaniha	Pabitranganagar Pz	48
6	Angul	Kaniha	Sipur	46
7	Balangir	Muribahal	Bandupalla	46
8	Balangir	Titlagarh	Chormara	45
9	Balangir	Belpara	Dumabata	46
10	Balangir	Patnagarh	Ghambari	46
11	Balangir	Titlagarh	Tarasingi	46
12	Baleshwar	Oupada	Tenda	99
13	Bargarh	Gaisilet	Dangabahal 1	48
14	Bargarh	Sohela	Grinjal	48
15	Bargarh	Bargarh	Khuntapali	46
16	Bargarh	Attabira	Kodabahal 2	45
17	Bargarh	Rajborasambar	Padampur2	45
18	Bargarh	Bheden	Remenda	45
19	Bargarh	Attabira	Shukutapali	47
20	Bargarh	Barapali	Sarandapali	45
21	Baudh	Baudh Sadar	Anlapali	71
22	Baudh	Baudh Sadar	Badhigaon	49
23	Baudh	Baudh Sadar	Bala Singha	48
25	Baudh	Kantamal	Ghantapada-I	68

S No	District	Block	Site Name	NO ₃ ⁻ mg/L
26	Baudh	Baudh Sadar	Gundulia	64
27	Baudh	Harbhanga	Karoda Kutha	50
28	Baudh	Baudh Sadar	Khajuripada	59
29	Baudh	Harbhanga	Kusanga	76
30	Baudh	Harbhanga	Nuapada 1(Tikira Sahi)	53
31	Baudh	Kantamal	Palasaguda1	59
32	Baudh	Baudh Sadar	Usbelika	76
33	Bhadrak	Bant	Agarpara	93
34	Bhadrak	Dhamanagar	Dhamnagar 1	52
35	Bhadrak	Dhamanagar	Kothar 3	47
36	Bhadrak	Bhadrak	Sunchar (Kusun Nagar)	98
37	Cuttack	Niali	Madhab	47
38	Cuttack	Niali	Niali	46
39	Cuttack	Cuttack Sadar	C-13 Mahammadia Bazar	45
40	Cuttack	Badamba	Abhimanpur	61
41	Cuttack	Badamba	Baramba	53
42	Cuttack	Badamba	Gopapur	60
43	Cuttack	Narasinghpur	Kanapur	94
44	Cuttack	Badamba	Karadibandh	68
45	Cuttack	Badamba	Sankhmiri	73
46	Cuttack	Narasinghpur	Saradapur	71
47	Cuttack	Tigiria	Tigiria	76
48	Dhenkanal	Hindol	Babandh	45

S No	District	Block	Site Name	NO ₃ ⁻ mg/L
49	Dhenkanal	Sadar	Bhapur2	46
50	Dhenkanal	Bhuban	Bhuban	46
51	Gajapati	Mohana	Luhaguda	45
52	Ganjam	Bellaguntha	Buguda1	46
53	Ganjam	Chhatrapur	Ganjam	46
54	Ganjam	Rangilunda	Gopalpur 1	45
55	Ganjam	Kavisurjanagar	Gudiali	45
56	Ganjam	Jaganathprasad	Jagannathprasad	45
57	Ganjam	Rangilunda	Mantridi	45
58	Ganjam	Chhatrapur	Narendrapur	48
59	Ganjam	Hinjilicut	Pochilima	48
60	Ganjam	Polasara	Polasora	51
61	Ganjam	Surada	Soroda	47
62	Ganjam	Bhanjanagar	Tilisingi	47
63	Kalahandi	Bhawanipatna	Attanguda	45
64	Kalahandi	Lanjigarh	Bakatpur	45
65	Kalahandi	Junagarh	Mahichala	45
66	Kalahandi	Kesinga	Tundala 1	45
67	Kandhamal	Tumudibandha	Kurtamgarh	46
68	Kendrapara	Kendrapara	Barua 1	53
69	Kendrapara	Dera Bis	Laxminarayanpur	50
70	Khordha	Begunia	Begunia 1	46
71	Khordha	Bhubaneswar	B-42 Kargil Basti	48
72	Koraput	Nandapur	Soguru	46
73	Koraput	Jeypur	Umeri1	47

S No	District	Block	Site Name	NO ₃ ⁻ mg/L
74	Koraput	Nandapur	Khudubo	47
75	Malkangiri	Mathili	Katameta	48
76	Malkangiri	Kudumulugum	Kudumuluguma1	48
77	Mayurbhanj	Rasa-Gobindapur	Rashgovindpur 1	51
78	Mayurbhanj	Kaptipada	Udala	48
79	Mayurbhanj	Bahalda	Gambharia	45
80	Mayurbhanj	Thakur Munda	Satkosia	45
81	Nabarangpur	Dabugan	Debugaon	46
82	Nabarangpur	Umarkote	Dondasora	45
83	Nayagarh	Gania	Ghholahandi	48
84	Nayagarh	Nuagaon	Nuagaon1	47
85	Nayagarh	Dasapalla	Rangamatia	49
86	Puri	Brahmagiri	Alipada	47
87	Puri	Brahmagiri	Budhiabar	46
88	Puri	Delanga	Delang	45
89	Puri	Chilika Lake	Satapada-I	46
90	Puri	Sadar	P-30 Jagannath Temple	45
91	Puri	Sadar	P-31 Sweta Ganga	45
92	Puri	Sadar	P-37 Jagannatha Ballava Matha	48
93	Puri	Sadar	P-41 Grand Road	46
94	Puri	Sadar	P-49 Dola Mandap Sahi	47

S No	District	Block	Site Name	NO ₃ ⁻ mg/L
95	Puri	Sadar	P-48 Sonar Gauranga	49
96	Puri	Sadar	P-50 Baselisahi	49
97	Rayagada	Muniguda	Ambadola	48
98	Sambalpur	Maneswar	Batemura	46
99	Sambalpur	Dhankauda	Goudpalli 1	46
100	Sambalpur	Jujomura	Badsahir	62
101	Sambalpur	Bamra	Bamra	47
102	Sambalpur	Rairakhol	Rairakhol(Rampu	55
103	Sonapur	Dunguripali	Baghahandi	47
104	Sonapur	Dunguripali	Karlajuri	47
105	Sonapur	Ulunda	Phulmuthi	47
106	Sonapur	Binika	Sakama	48
107	Sonapur	Binika	Saledi	46
108	Sonapur	Tarbha	Sargaj 1	45

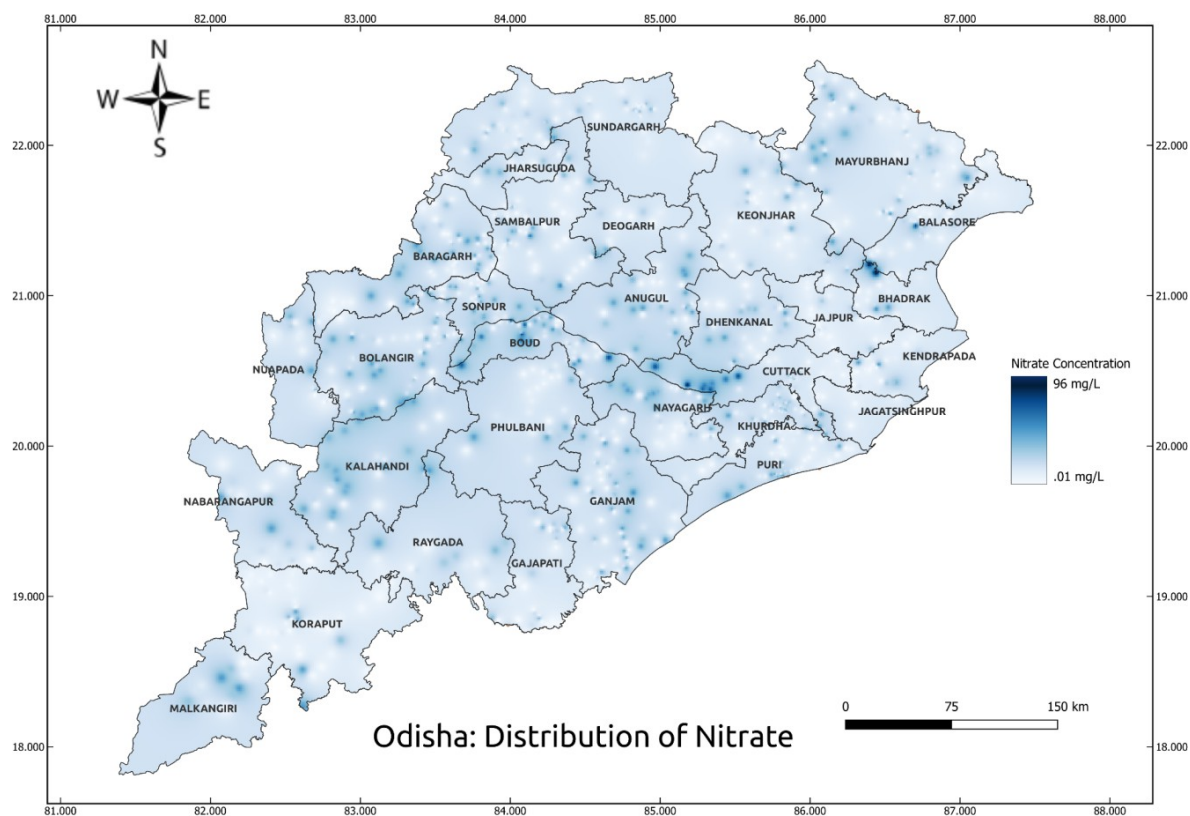


Figure 7: Spatial distribution of Nitrate

Table8 : Percentage of groundwater samples having Nitrate more than 45 mg/l

Year	Total No of Samples Analyzed	No of Districts affected by NO ₃ >45 mg/l	Total No of Locations affected by NO ₃ >45 mg/l	% Locations affected by NO ₃ >45 mg/l
2017	1262	0	0	0
2018	1241	0	0	0
2019	1266	10	65	5.13
2020	783	20	127	16.22
2021	715	12	45	6.29
2022	1283	21	83	6.47

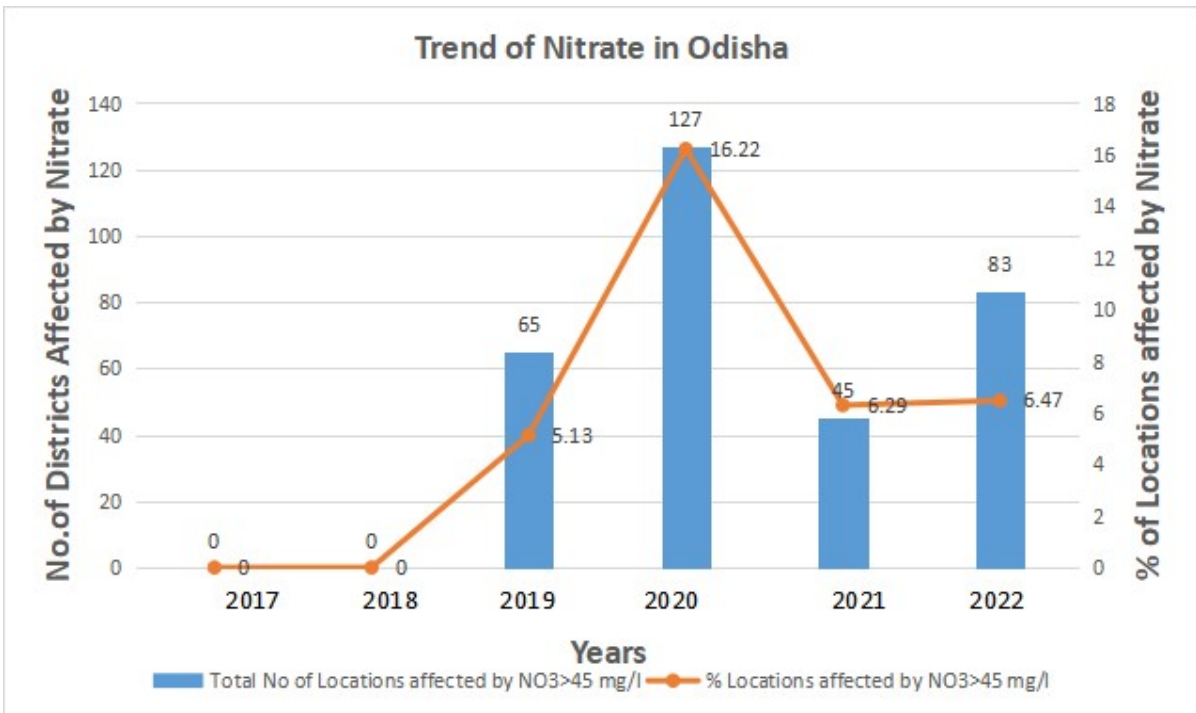


Fig 8. Trend of Nitrate occurrence in Odisha

7. Distribution of total dissolved salts (TDS) in the state of Odisha

The distribution of Total Dissolved Solids (TDS) in the state of Odisha exhibits significant variability. TDS levels in the groundwater samples collected range from 21 to 1716 mg/L, with an average TDS concentration of 314 mg/L. Notably, the maximum TDS value was recorded in a well situated at Tanganapally in the Ganjam district.

In terms of regional variations, the TDS levels in the northern and southern parts of the state fall within the range of 500 mg/L. However, for the remaining portion of Odisha, which comprises approximately 25% of the samples, TDS concentrations range between 500 and 2000 mg/L

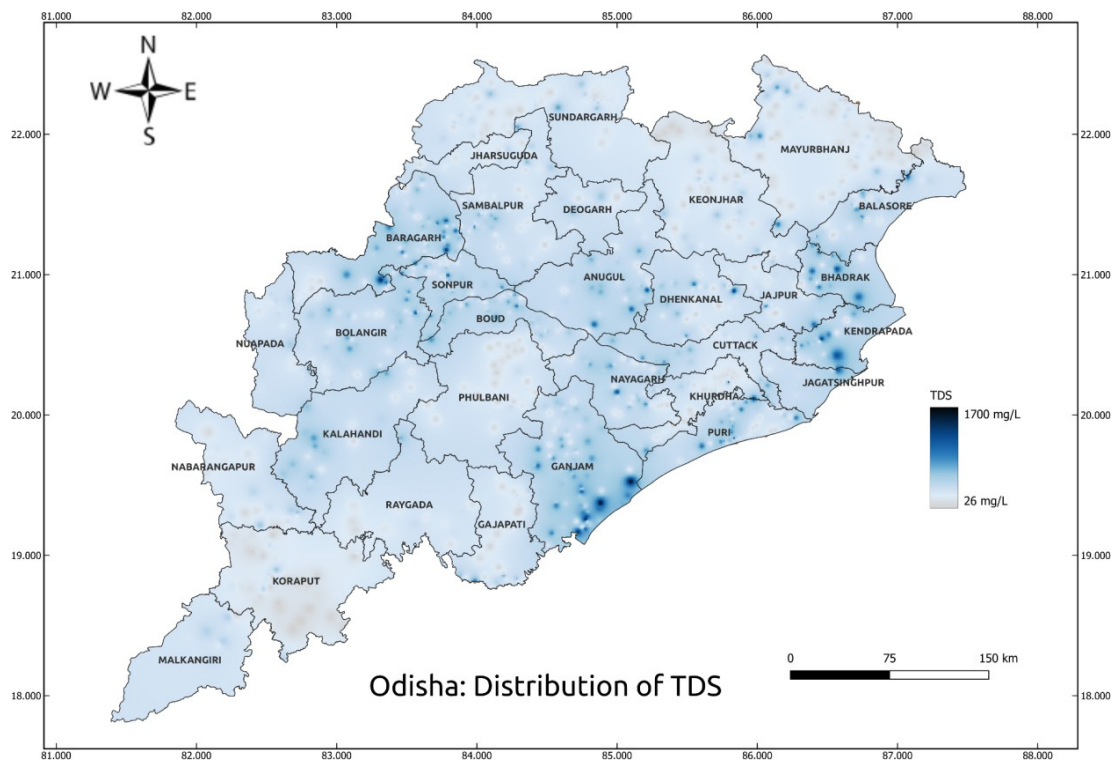


Figure 9: Spatial distribution of Total dissolved Salts

8. Distribution of pH

Out of a total of 1283 groundwater samples analyzed, the pH levels fell within the acceptable range of 6.5 to 8.5 for drinking purposes in 1263 samples (98.4%). These samples meet the specification for pH outlined by the Bureau of Indian Standards (IS 10500:2012). However, there were 20 samples that exhibited pH values outside the recommended range. Among these 20 samples, 12 of them had lower pH values, with the majority being from the Kendujhar district. Notably, one sample collected from the Gandamunda dug well in the Khorda district had an acidic pH of 4.9.

Additionally, pH levels exceeding 8.5 were found in 5 samples, with four of them originating from the Ganjam district.

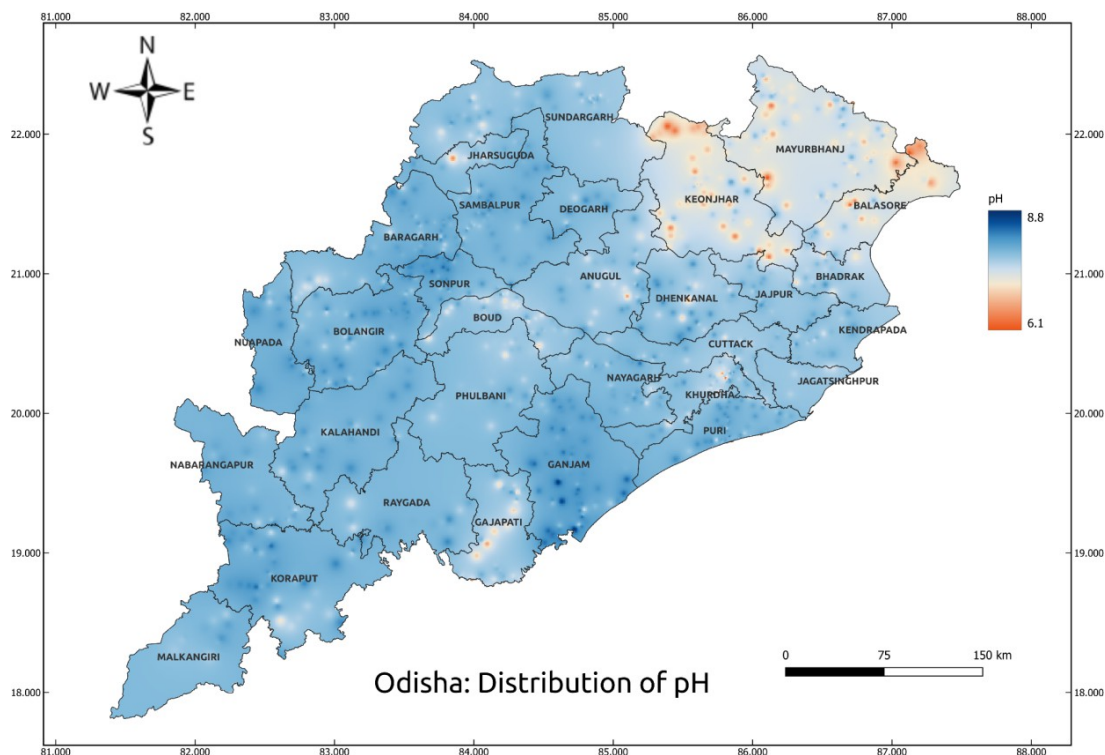


Figure 10: Spatial distribution of pH

9. Distribution of Fluoride in the state of Odisha

The fluoride content in groundwater exhibits significant variability, ranging from levels below the detection limit to as high as 4.7 mg/L. The highest concentration of fluoride is detected in Gaundisahi, located in the Boudh district. Approximately 6.85% of the samples collected across the state surpass the maximum permissible limit for drinking water, as specified by the Bureau of Indian Standards (IS 10500:2012), rendering them unsuitable for drinking purposes.

Below is a table listing the locations/stations where the fluoride content in groundwater exceeded the maximum permissible limit of 1.00 mg/L, as specified by the drinking water specifications outlined in IS 10500:2012, if no alternate drinking water sources are available.

Table 9: Locations with Fluoride Content Exceeding 1.00 mg/L

S No	District	Block	Site Name	F ⁻ mg/L
1	Angul	Angul	Bantala	1.7
2	Angul	Angul	Barhabahal	2.52
3	Angul	Talacher	Kumunda 1	2.23
4	Angul	Kaniha	Sana Santrabandha	1.1
5	Angul	Banarpal	Tulsipal	1.45
6	Balangir	Saintala	Bhadra	1.61
7	Balangir	Balangir	Bijakhaman1	2.57
8	Balangir	Balangir	Dudukasira	1.97
9	Balangir	Saintala	Dumalpada	1.08
10	Balangir	Muribahal	Haldia	1.47
11	Balangir	Balangir	Jhankar Pali	1.2
12	Balangir	Patnagarh	Jogimunda	1.12
13	Balangir	Deogaon	Kacherpalli (Deogaon)	1.25
14	Balangir	Puintala	Ledarbohal	1.14
15	Balangir	Balangir	Padampur	1.1
16	Balangir	Khaprakhhol	Phulkimunda	1.74
17	Balangir	Balangir	Pudapalli	1.06
18	Balangir	Balangir	Sinkhaman	1.07
19	Baleshwar	Nilagiri	Ayodhya	1.11
20	Baleshwar	Oupada	Bankisial	1.27
21	Baleshwar	Oupada	Tenda	1.02
22	Bargarh	Barapali	Barpalli 1	1.4
23	Bargarh	Bijepur	Burdapali	2.28
24	Bargarh	Gaisilet	Gaisilet3	1.3
25	Bargarh	Sohela	Grinjal	1.9
26	Bargarh	Barapali	Kusanpur	1.05
27	Baudh	Harbhanga	Brihaspati Pur	1.2

S No	District	Block	Site Name	F ⁻ mg/L
28	Baudh	Baudh Sadar	Erada	1.1
29	Baudh	Baudh Sadar	Gaundisahi	4.68
30	Baudh	Kantamal	Gudveli Padar	3.31
31	Baudh	Harbhanga	Laxmanpur	1.57
32	Baudh	Harbhanga	Rambhikata	1.74
33	Baudh	Harbhanga	Sarta-Guda	1.03
34	Bhadrak	Dhamanagar	Dhamnagar 1	2.35
35	Cuttack	Mahanga	Dharma Shyamsundarpur	1.03
36	Debagarh	Tileibani	Rengalbeda	3.17
37	Dhenkanal	Sadar	Mahulpunja	1.32
38	Gajapati	Kashinagara	K Sitapur 1	1.1
39	Ganjam	Dharakote	Balrampur	1.17
40	Ganjam	Kukudakhandi	Digapahandi 1	1.32
41	Ganjam	Khalikote	Kodala	1.18
42	Ganjam	Patrapur	Patrapur	1.08
43	Jajapur	Dharmasala	Dankari	1.14
44	Jharsuguda	Laikera	Chadnimal	1.47
45	Kalahandi	Junagarh	Badbasul	2.43
46	Kalahandi	Narala	Santapur 1	1.39
47	Kalahandi	Jayapatna	Ladugaon	1.22
48	Khordha	Bolagad	Nanda Pally	1.12
49	Nabarangpur	Chandahandi	Chandahandi 2	1.23
50	Nabarangpur	Paparahandi	Dengaguda	1.03
51	Nayagarh	Ranapur	Lathipada 1	2.78

S No	District	Block	Site Name	F ⁻ mg/L
52	Nayagarh	Nayagarh	Purusottampur	1.7
53	Nuapada	Nuapada	Dharambandah	1.01
54	Nuapada	Komana	Kurumpuri	1.48
55	Nuapada	Khariar	Loharpalli	1.21
56	Nuapada	Nuapada	Potora	1.07
57	Nuapada	Khariar	Ranipur	1.6
58	Nuapada	Nuapada	Sahipala	1.06
59	Nuapada	Nuapada	Somarsingh	1.22
60	Nuapada	Komana	Tarbod	1.56
61	Puri	Nimapada	Chhanijanga	2.01
62	Sambalpur	Dhankauda	Christianpara	1.46
63	Sambalpur	Maneswar	Hotapala	1.09
64	Sambalpur	Dhankauda	Jugipali	1.25
65	Sambalpur	Maneswar	Jhankarbahali	1.25
66	Sambalpur	Maneswar	Remerha	1.14
67	Sambalpur	Maneswar	Sahaspur	1.7
68	Sambalpur	Jujomura	Amlipani	1.36
69	Sambalpur	Jujomura	Bhabanipali	1.77
70	Sambalpur	Rairakhol	Bhaluchuan	1.57
71	Sambalpur	Maneswar	Bhoipali	2.29
72	Sambalpur	Rairakhol	Charmal	1.67
73	Sambalpur	Jujomura	Hatibari 1	1.65
74	Sambalpur	Jujomura	Jhargulanda 1	1.51
75	Sambalpur	Maneswar	Naxapali	1.04

S No	District	Block	Site Name	F ⁻ mg/L
76	Sambalpur	Maneswar	Parmanpur	2.49
77	Sambalpur	Dhankauda	Sason1	1.25
78	Sonapur	Binika	Ankhidadar	1.04
79	Sonapur	Dunguripali	Chandajhuri	2.44
80	Sundargarh	Tangrapali	Balijori	1.47
81	Sundargarh	Bisra	R-06 Basanti Colony	1.38

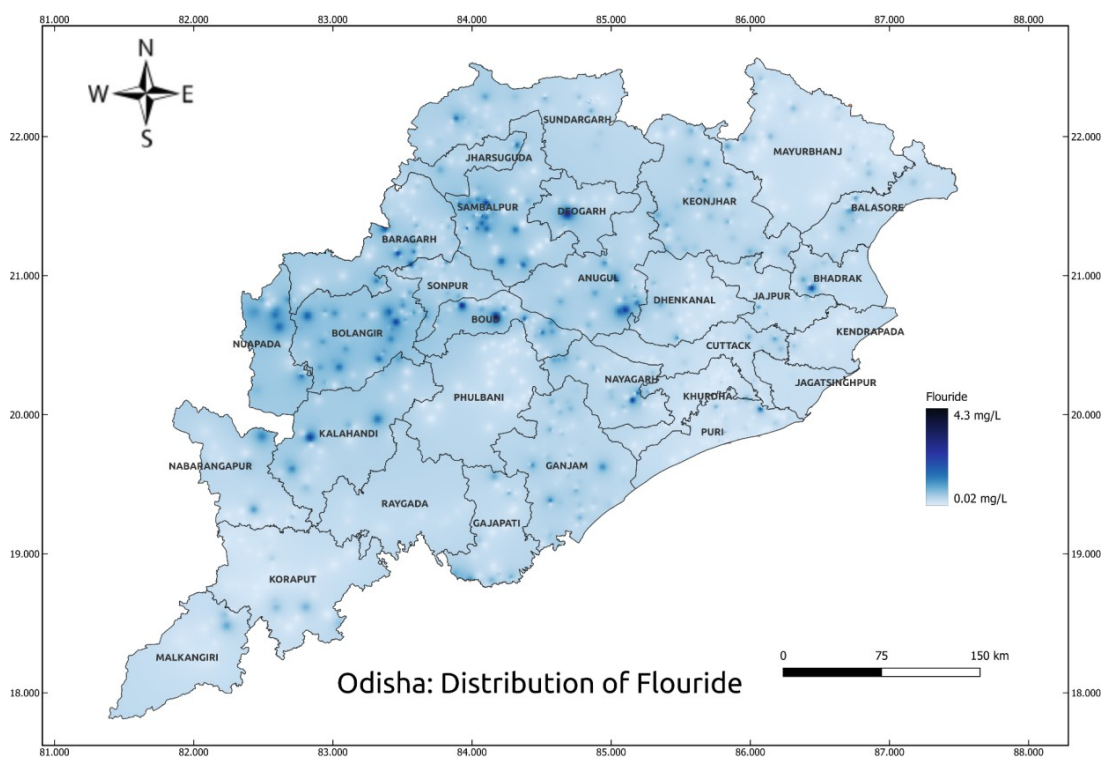


Figure 11: Spatial distribution of Fluoride

Table 10: Percentage of groundwater samples having fluoride more than 1.50 mg/l

Year	Total No of Samples Analysed	No of Districts affected by F>1.50 mg/l	Total No of Locations affected by F>1.50 mg/l	% Locations affected by F>1.50 mg/l
2017	1262	13	24	1.9
2018	1241	11	37	2.98
2019	1266	16	36	2.84
2020	783	12	30	3.83
2021	715	8	14	1.96
2022	1283	12	30	2.34

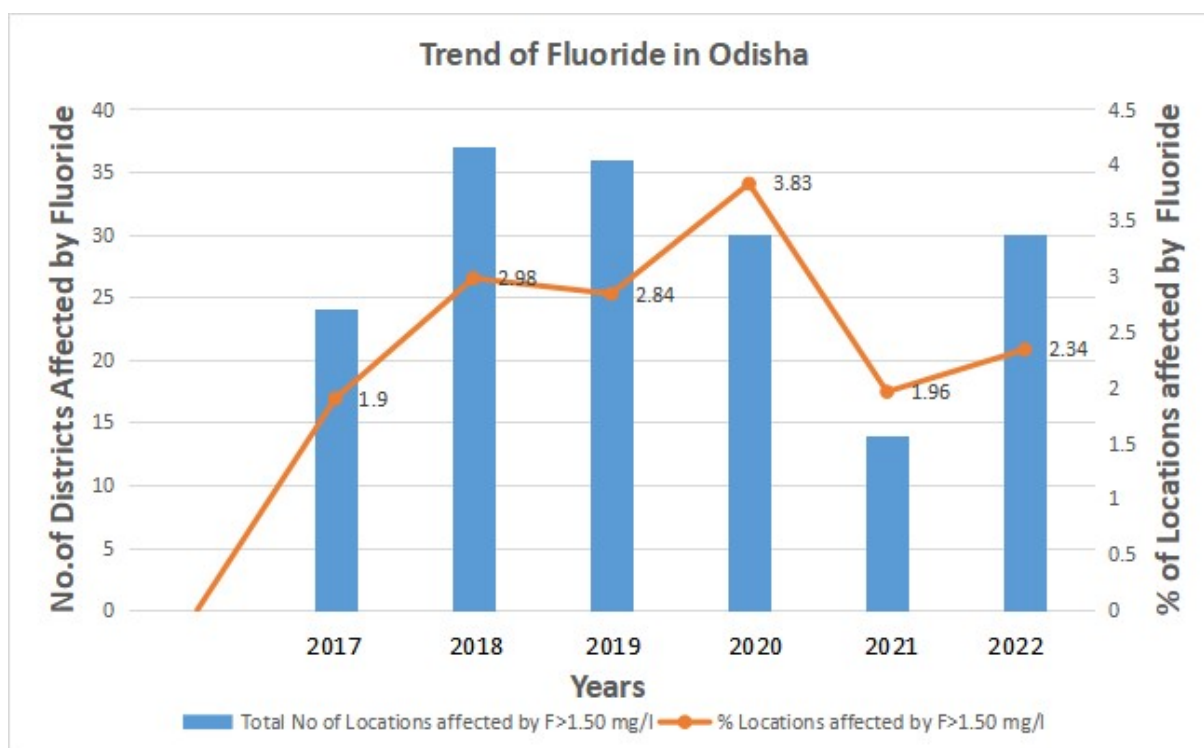


Fig 12. Trend of Fluoride occurrence in Odisha

10. Total Hardness

Total hardness primarily stems from cations like calcium and magnesium, as well as anions such as bicarbonate and sulfate. It is quantified by summing the concentrations of calcium and magnesium, both expressed as CaCO₃ in mg/L.

Hardness serves as a measure of water's soap-consuming capacity, with species like Ca, Mg, and organic compounds contributing to insoluble soap compounds. Total hardness, represented as CaCO₃ mg/l, is determined through EDTA titration.

There are two types of hardness observed in water: temporary hardness, attributed to carbonate, and permanent hardness, resulting from sulfate, chloride, or nitrate.

The presence of hardness in water is predominantly influenced by contact with soil and rock formations. Rainwater, upon reaching the Earth's surface, lacks the ability to dissolve the substantial solids present in many natural waters.

Individuals prone to kidney and bladder stones are advised to steer clear of water with high calcium and magnesium content (K. R. Karanth, 1997). The Bureau of Indian Standards (BIS) sets the permissible limit of hardness between 200 - 600 mg/L. Elevated total hardness has been noted in groundwater across various regions in the country.

Table 11. Numbers of location having total hardness more than 600mg/L in Odisha

Sl.No	Districts	No. of Samples	No. of Samples TH>600 mg/L	(%) Samples TH>600 mg/L
1	Angul	42	1	2.38
2	Balangir	65	0	0
3	Baleshwar	37	1	2.7
4	Bargarh	63	5	7.94
5	Baudh	50	0	0
6	Bhadrak	20	5	25
7	Cuttack	54	0	0
8	Debagarh	11	0	0
9	Dhenkanal	34	2	5.88
10	Gajapati	34	0	0

Sl.No	Districts	No. of Samples	No. of Samples TH>600 mg/L	(%) Samples TH>600 mg/L
11	Ganjam	85	15	17.65
12	Jagatsinghpur	7	0	0
13	Jajapur	30	0	0
14	Jharsuguda	13	0	0
15	Kalahandi	31	1	3.23
16	Kandhamal	29	0	0
17	Kendrapara	25	4	16
18	Kendujhar	63	0	0
19	Khordha	67	1	1.49
20	Koraput	45	0	0
21	Malkangiri	13	0	0
22	Mayurbhanj	98	1	1.02
23	Nabarangpur	23	0	0
24	Nayagarh	43	1	2.33
25	Nuapada	23	0	0
26	Puri	74	2	2.7
27	Rayagada	16	0	0
28	Sambalpur	66	0	0
29	Sonapur	49	3	6.12
30	Sundargarh	73	0	0
	Total	1283	42	3.27

11. Assessment of Groundwater Quality for Drinking purpose for Chemical and physical parameters.

The assessment of groundwater quality for drinking purposes involves utilizing the test results obtained from groundwater samples collected by the NHS 2022 data.

These results are then compared with the drinking water specifications set by the Bureau of Indian Standards (IS 10500:2012). The suitability of the collected groundwater samples from shallow aquifers for drinking purposes, as determined by their chemical parameters, is presented in the following table.

Table 12: Groundwater Quality Status in Odisha for Drinking Purposes (based on NHS 2022 data and IS-10500:2012)

Parameters	Drinking water Specification (IS 10500:2012)		Number of Samples (%)		
	Acceptable Limit	Permissible Limit in the Absence of Alternate Source	Suitable	Acceptable	Unsuitable
pH	6.5-8.5	No Relaxation	1263	-	20
TDS, mg/l	500	2000	960	323	0
TH mg/l as CaCO ₃	200	600	634	649	43
TA mg/l as CaCO ₃	200	600	767	498	18
Ca ²⁺ mg/l	75	200	1091	188	4
Mg ²⁺ mg/l	30	100	825	433	25
Cl ⁻ mg/l	250	1000	1225	58	0
SO ₄ ²⁻ mg/l	200	400	1279	4	0
NO ₃ ⁻ mg/l	45	No Relaxation	1199	-	84
F ⁻ mg/l	1.0	1.5	1201	51	31

12. Assessment of Groundwater for Irrigation purposes

The utilization of groundwater for irrigation purposes is the most widespread application globally. However, it is crucial to assess the chemical quality of groundwater when considering its suitability for irrigation, as poor-quality groundwater can lead to salinity issues, specific ion toxicity, and soil infiltration problems. These factors can have a detrimental impact on crop production. To evaluate the water quality constraints for irrigation, several empirical indices have been developed based on field experience and experiments. Parameters such as Sodium Adsorption Ratio (SAR), Residual Sodium Carbonate (RSC), and percentage of Sodium (% Na) are calculated and taken into account when assessing groundwater samples for their suitability in irrigation practices. These parameters serve as indicators to evaluate the potential impact of the groundwater's chemical composition on soil and crop health during irrigation activities.

Table13 : Salinity Hazard of Groundwater of Odisha according to Electrical Conductivity based on NHS Data 2022

Water Class-	Range of EC in $\mu\text{S/cm}$	Salinity significance		No of samples (%)
C1	<250	Low salinity water	Most crops on most soils	197 (15.4%)
C2	250-750	Medium salinity water	Plants with moderate salt tolerance	683 (53.2%)
C3	750-2250	High salinity water	Plants with good salt tolerance, special management for salinity control	444 (34.6%)
C4	>2250	Very high salinity water	Not suitable for irrigation	19 (1.5%)

12.1 Percent Sodium (%Na)

The sodium percentage is a crucial parameter used for assessing the suitability of water for irrigation purposes, making it a vital component in the classification of irrigation water. Water with high concentrations of Na⁺ is particularly concerning due to the adverse effects of sodium on soil, resulting in salinity hazards. Elevated levels of Na⁺ in irrigation water can lead to undesirable consequences such as altering soil properties and reducing soil permeability. To calculate the sodium percentage (%Na), the following formula is employed:

$$\% \text{ Na} = \frac{\text{Na}^+}{\text{Ca}^{2+} + \text{Mg}^{2+} + \text{Na}^+ + \text{K}^+}$$

All values are in meq/L.

Table 14: Classification of Groundwater of Odisha on the basis of Percent Sodium

Parameter	Range	Water classification	No of samples (%)
%Na	<20%	Excellent to good	595 (46.3%)
	20-40	Good to permissible	404 (31.5%)
	40-60	Permissible to doubtful	202 (15.7%)
	60-80	Doubtful to unsuitable	68 (5.3%)
	>80%	Unsuitable	54 (4.2%)

12.2 Sodium Adsorption Ratio (SAR)

Sodium Adsorption Ratio (SAR) is a critically important property to consider when evaluating water for irrigation purposes. The concentration of sodium (Na⁺), calcium (Ca⁺⁺), and magnesium (Mg⁺⁺) ions plays a vital role in determining the SAR value of the water. The SAR value is calculated using the equation proposed by Richard (1954) and is expressed in milliequivalents per liter (meq/l) for all ions.

$$\text{SAR} = \frac{\text{Na}^+}{\sqrt{\frac{\text{Ca}^{++} + \text{Mg}^{++}}{2}}}$$

The SAR value of irrigation water establishes a significant relationship with the extent to which sodium is absorbed by the soil. High SAR values indicate a hazard where sodium replaces adsorbed calcium and magnesium, thereby damaging the soil structure. To classify waters for irrigation, the U.S. Salinity Laboratory (USSL) diagram, developed by Richard (1954), is utilized. In this diagram, Electrical Conductivity (EC) is used as a measure of salinity hazard, while SAR is an indicator of alkalinity hazard. Both parameters are crucial for assessing the water quality for irrigation in the USSL diagram.

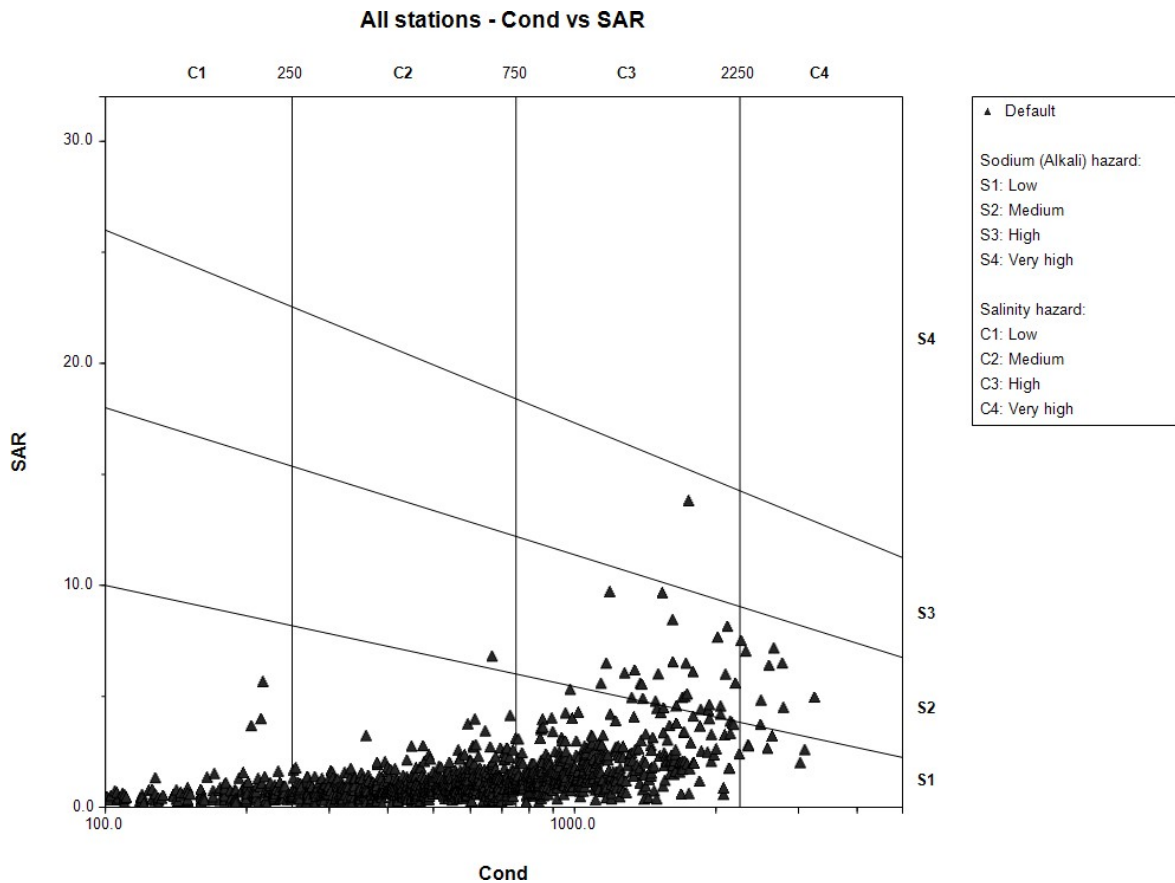


Figure 13 : U.S. Salinity Laboratory (USSL) derived from the samples.

Table 15 : Classification of Groundwater of Odisha on the basis of Sodium alkali hazard, based on NHS Data 2022.

Parameter	Class	Water Classification	Percentage of samples (No.)
Sodium alkali hazard	S1	low	97.9% (711)
	S2	medium	1.9% (25)
	S3	High	0.07% (1)
	S4	Very high	-

12.3 Residual Sodium Carbonate (RSC)

Residual Sodium Carbonate (RSC) is a term used to describe a water quality parameter that measures the potential of water to cause scale formation in irrigation systems. It is particularly relevant in agricultural practices where water is used for irrigation.

RSC is calculated based on the concentrations of certain ions present in the water, namely bicarbonate (HCO_3^-), carbonate (CO_3^{2-}), and calcium (Ca^{2+}) or magnesium (Mg^{2+}) ions. These ions contribute to the formation of carbonates and bicarbonates, which can precipitate and cause scale buildup in irrigation equipment and pipes.

The formula to calculate RSC is as follows:

$$\text{RSC (meq/L)} = (\text{HCO}_3^- + \text{CO}_3^{2-}) - (\text{Ca} + \text{Mg})$$

The resulting value of RSC is typically expressed in milliequivalents per liter (meq/L) or milligrams per liter (mg/L). A higher RSC value indicates a greater potential for scale formation.

It is important to note that RSC is just one parameter used to assess water quality for irrigation purposes. Other factors such as pH, total dissolved solids (TDS), and specific ion concentrations (e.g., sodium, chloride) also play a role in determining water suitability for irrigation.

Proper management of water quality, including RSC levels, is crucial to ensure the efficient and sustainable use of water in agricultural practices, as excessive scale buildup can hinder water flow and reduce irrigation system performance.

An analysis of groundwater distribution in the state, as per RSC values provided in the Table, shows that the majority of samples (94.2%) fall within the safe category (RSC < 1.25), indicating suitability for irrigation. However, 3.0% of samples fall into the doubtful category, suggesting caution in their use, while the remaining 2.8% of samples are classified as unsuitable for irrigation purposes.

Table 16: Classification of Groundwater of Odisha on the basis of RSC index (2022)

Parameter	Range	Water Classification	No of samples (%)
RSC	<1.25	Good	1209 (94.2%)
	1.25-2.5	Doubtful	382 (3.0%)
	>2.5	Unsuitable	36 (2.8%)

Conclusion

The quality of irrigation water plays a vital role in agricultural productivity and sustainability. Assessing the range of irrigation water quality indices provides valuable information to farmers, researchers, and policymakers regarding the suitability of water for irrigation purposes.

The range of irrigation water quality indices derived from the data collected by the National Hydrographic Stations in Odisha during 2022 offers valuable information for effective water management in agriculture. By understanding the specific ranges of salinity, SAR, RSC, and other parameters, stakeholders can make informed decisions to optimize crop productivity while mitigating potential risks associated with water quality.

Table 17: Range of Irrigation Water Quality Indices of Odisha (Data from NHS, 2022)

Indices	Minimum	Maximum	Mean
Conductivity in $\mu\text{S/cm}$	35	3250	580.5
SAR	0	12.9	0.8
RSC	-12.7	11.7	-0.4
%Na	2.8	93.6	30.4

Annalytical Data of samples collected from NHS during April-2022 | Values in mg/L

Annexure - I

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Anugul	Banarpal	Amna	20.84888889	85.16888889	7.72	810.0	0	366.0	37.00	0.93	50.00	0.00	295.0	66	32.0	48.00	1.90
Anugul	Banarpal	Angul1	20.83888889	85.09944444	6.57	1020.0	0	305.0	105.00	0.82	73.00	6.00	360.0	76	41.0	67.00	1.80
Anugul	Athmallik	Athamallik 2	20.72194444	84.53138889	7.83	580.0	0	232.0	35.00	0.32	36.00	16.00	220.0	68	12.0	28.00	4.00
Anugul	Chhendipada	Bagharia	21.10694444	84.81583333	7.45	1330.0	0	250.0	217.00	0.31	73.00	37.00	425.0	86	51.0	98.00	18.00
Anugul	Talacher	Balanda	20.92750000	85.15777778	7.63	650.0	0	183.0	32.00	0.18	108.00	8.00	265.0	84	13.0	23.00	5.70
Anugul	Kaniha	Balipeta	21.10916667	84.98861111	7.88	670.0	0	220.0	57.00	0.30	58.00	14.00	250.0	84	10.0	13.00	41.00
Anugul	Anugul	Bantala	20.74305556	85.06305556	8.14	1060.0	0	439.0	80.00	1.70	29.00	16.00	315.0	54	44.0	96.00	2.00
Anugul	Anugul	Barhabahal	20.75500000	85.10000000	8.02	2140.0	0	671.0	265.00	2.52	81.00	45.00	815.0	102	136.0	115.00	3.00
Anugul	Talacher	Bhalugadia	20.95805556	85.01000000	7.59	250.0	0	85.0	22.00	0.22	14.00	9.00	100.0	24	10.0	8.00	3.00
Anugul	Banarpal	Bhogabereni	20.89166667	85.21388889	8.13	2100.0	0	567.0	367.00	0.19	115.00	46.00	390.0	96	37.0	272.00	53.00
Anugul	Talacher	Chauliakata	20.95333333	85.22194444	7.87	300.0	0	128.0	12.00	0.18	11.00	17.00	135.0	16	23.0	4.00	4.00
Anugul	Chhendipada	Chendipada1	21.08166667	84.87166667	7.86	780.0	0	354.0	60.00	0.48	5.00	2.00	290.0	66	30.0	35.00	17.40
Anugul	Chhendipada	Durgapur 1	20.91805556	84.88277778	7.40	1190.0	0	244.0	192.00	0.52	79.00	48.00	450.0	88	56.0	65.00	1.90
Anugul	Talacher	Ghantapada	20.93527778	85.18888889	7.98	780.0	0	232.0	67.00	0.27	57.00	33.00	250.0	80	12.0	31.00	56.00
Anugul	Talacher	Godibandha	21.01944444	85.16944444	7.37	450.0	0	110.0	57.00	0.12	10.00	44.00	190.0	38	23.0	13.00	3.70
Anugul	Kishorenagar	Handpa 1	20.95361111	84.68722222	7.76	820.0	0	177.0	112.00	0.15	64.00	45.00	350.0	104	22.0	21.00	9.55
Anugul	Anugul	Jagannathpur	20.72111111	84.86944444	7.51	690.0	0	238.0	70.00	0.16	43.00	24.00	310.0	72	32.0	13.00	2.20
Anugul	Chhendipada	Jharpada	20.87638889	84.88194444	7.75	1460.0	0	354.0	207.00	0.98	90.00	1.00	550.0	120	61.0	82.00	1.32

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Anugul	Chhendipada	Katada	20.90666667	84.82055556	8.03	1420.0	0	397.0	155.00	0.42	76.00	43.00	565.0	26	122.0	51.00	23.50
Anugul	Palalahada	Khamar-1	21.26611111	85.19666667	7.33	550.0	0	104.0	107.00	0.11	7.00	39.00	230.0	52	24.0	16.00	4.14
Anugul	Chhendipada	Kosala1	21.00750000	84.94888889	7.49	950.0	0	146.0	220.00	0.22	74.00	8.00	410.0	84	49.0	26.00	4.96
Anugul	Banarpal	Kuio	20.89083333	85.08111111	7.34	1170.0	0	256.0	147.00	0.53	90.00	35.00	530.0	112	61.0	22.00	4.32
Anugul	Banarpal	Kulnara1	20.83611111	85.16944444	7.57	670.0	0	232.0	32.00	0.45	98.00	4.00	310.0	78	28.0	10.00	0.70
Anugul	Talacher	Kumunda 1	20.97638889	85.02638889	7.75	1270.0	0	439.0	157.00	2.23	98.00	3.00	405.0	78	51.0	103.00	2.60
Anugul	Kaniha	Luhamunda	21.09000000	84.99777778	7.96	950.0	0	250.0	127.00	0.44	86.00	1.00	345.0	48	55.0	47.00	21.50
Anugul	Kaniha	Nialu	21.19861111	84.98222222	7.80	420.0	0	140.0	45.00	0.35	21.00	7.00	175.0	40	18.0	13.00	3.80
Anugul	Chhendipada	Nisa	20.92638889	85.00416667	7.54	730.0	0	262.0	62.00	0.29	33.00	34.00	330.0	64	41.0	14.00	1.80
Anugul	Kaniha	Pabitrnagar pz	21.13944444	85.16777778	7.63	900.0	0	244.0	115.00	0.29	57.00	48.00	310.0	44	49.0	30.00	56.00
Anugul	Anugul	Panchmahala	20.82277778	85.05916667	7.63	460.0	0	128.0	80.00	0.18	17.00	15.00	185.0	42	19.0	18.00	3.40
Anugul	Anugul	Purnakot	20.64583333	84.83611111	7.51	2050.0	0	305.0	392.00	0.72	127.00	40.00	505.0	28	106.0	235.00	4.00
Anugul	Kaniha	Samal	21.07222222	85.14166667	8.15	350.0	0	159.0	17.00	0.50	9.00	1.00	100.0	20	12.0	32.00	1.00
Anugul	Kaniha	Sana Santrabandha	21.09027778	84.95250000	7.86	820.0	0	268.0	77.00	1.10	68.00	1.00	250.0	44	34.0	71.00	3.00
Anugul	Talacher	Sendhogram	20.92555556	85.23333333	7.93	410.0	0	98.0	70.00	0.18	23.00	9.00	140.0	28	17.0	26.00	6.00
Anugul	Kaniha	Sipur	21.16666667	85.15694444	7.94	1510.0	0	317.0	200.00	0.16	105.00	46.00	260.0	44	37.0	223.00	5.00
Anugul	Palalahada	Srirampur	21.39444444	85.15111111	8.09	510.0	0	201.0	50.00	0.28	11.00	6.00	195.0	38	24.0	22.00	8.50
Anugul	Talacher	Talcher1	20.94861111	85.21444444	8.05	480.0	0	177.0	57.00	0.25	11.00	2.00	160.0	34	18.0	32.00	5.00
Anugul	Talacher	Tentulai	20.91944444	85.17305556	8.28	1180.0	0	421.0	107.00	0.73	33.00	42.00	385.0	52	62.0	69.00	42.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Anugul	Athmallik	Thakurgarh 1	20.81333333	84.63472222	8.01	880.0	0	378.0	52.00	0.84	29.00	31.00	260.0	36	41.0	81.00	1.00
Anugul	Anugul	Tikarpara	20.59833333	84.78750000	8.08	460.0	0	177.0	40.00	0.17	7.00	22.00	190.0	50	16.0	16.00	4.00
Anugul	Anugul	Tikarpara-ii	20.59833333	84.78750000	8.18	450.0	0	244.0	12.00	0.32	5.00	2.00	185.0	30	27.0	15.00	2.00
Anugul	Athmallik	Tileswar	20.88527778	84.62277778	8.12	380.0	0	201.0	12.00	0.35	5.00	2.00	145.0	38	12.0	19.00	0.81
Anugul	Banarpal	Tulsipal	20.80361111	85.18666667	8.15	1140.0	0	476.0	70.00	1.45	65.00	10.00	185.0	32	26.0	175.00	3.00
Balangir	Agalpur	Agalpur 1	21.01222222	83.40694444	8.04	472.0	0	204.0	51.00	0.30	24.00	5.00	218.0	59	17.0	34.00	1.20
Balangir	Puintala	Atgan	20.66777778	83.52500000	8.25	483.0	0	205.0	42.00	0.50	15.00	3.00	187.0	57	11.0	26.00	1.40
Balangir	Belpara	Bajjal Sagar	20.74638889	82.94472222	8.30	1345.0	0	376.0	221.00	0.90	48.00	10.00	217.0	58	18.0	210.00	4.50
Balangir	Puintala	Bairasar	20.74111111	83.66972222	8.29	470.0	0	252.0	20.00	0.93	15.00	0.00	143.0	48	6.0	50.00	1.20
Balangir	Deogaon	Balukunda	20.58416667	83.22000000	7.54	760.0	0	207.0	99.00	0.46	43.00	17.00	278.0	75	22.0	41.00	1.20
Balangir	Muribahal	Bandupalla	20.47222222	83.09361111	7.63	1623.0	0	231.0	209.00	1.00	108.00	46.00	343.0	96	25.0	79.00	143.20
Balangir	Patnagarh	Banjari	20.70916667	83.08527778	7.76	1045.0	0	204.0	182.00	0.50	70.00	21.00	406.0	60	63.0	33.00	0.70
Balangir	Saintala	Belgaon	20.31388889	83.31666667	7.66	950.0	0	231.0	132.00	0.34	70.00	42.00	386.0	60	57.0	64.00	3.40
Balangir	Belpara	Belpara	20.58944444	82.97166667	7.92	530.0	0	192.0	47.00	0.68	35.00	20.00	198.0	42	23.0	37.00	1.30
Balangir	Saintala	Bhadra	20.40000000	83.33083333	8.04	700.0	0	406.0	27.00	1.61	26.00	16.00	282.0	46	40.0	49.00	1.30
Balangir	Balangir	Bijakhaman1	20.66722222	83.45444444	8.05	1161.0	0	494.0	129.00	2.57	55.00	3.00	429.0	76	58.0	109.00	1.50
Balangir	Muribahal	Bongamunda	20.34055556	82.90972222	8.07	531.0	0	245.0	38.00	0.96	15.00	4.00	215.0	40	28.0	31.00	2.30
Balangir	Loisinga	Burda	20.87472222	83.51416667	8.04	1548.0	0	406.0	264.00	0.37	85.00	2.00	397.0	100	36.0	153.00	3.20
Balangir	Titlagarh	Chormara	20.30472222	83.29166667	7.88	1443.0	0	308.0	143.00	0.34	101.00	45.00	391.0	76	49.0	56.00	106.80
Balangir	Balangir	Chudapali	20.71666667	83.28333333	8.28	341.0	0	198.0	29.00	0.19	15.00	13.00	148.0	39	12.0	36.00	6.10
Balangir	Balangir	Dhumamara	20.71388889	83.44083333	8.17	1017.0	0	304.0	110.00	0.79	90.00	42.00	364.0	88	35.0	55.00	4.50
Balangir	Balangir	Dudukasira	20.73694444	83.40277778	8.30	930.0	0	420.0	95.00	1.97	45.00	3.00	312.0	58	40.0	100.00	1.60

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Balangir	Agalpur	Duduka	20.98000000	83.49111111	8.22	710.0	0	223.0	94.00	0.12	38.00	33.00	207.0	47	22.0	58.00	36.30
Balangir	Balangir	Dulusara	20.72166667	83.31027778	8.25	280.0	0	154.0	23.00	0.40	7.00	7.00	131.0	40	8.0	18.00	1.30
Balangir	Belpara	Dumabata	20.54861111	83.07694444	7.66	1740.0	0	220.0	232.00	0.56	98.00	46.00	426.0	81	55.0	92.00	63.00
Balangir	Saintala	Dumalpada	20.45083333	83.36416667	8.29	369.0	0	217.0	21.00	1.08	8.00	3.00	202.0	57	14.0	8.00	1.60
Balangir	Puintala	Dumberbahal	20.74500000	83.62361111	8.09	714.0	0	349.0	47.00	0.40	14.00	4.00	205.0	28	33.0	75.00	0.60
Balangir	Balangir	Fasad	20.82083333	83.49888889	8.09	1622.0	0	589.0	158.00	0.85	56.00	40.00	264.0	43	38.0	244.00	2.10
Balangir	Belpara	Fattamunda	20.53583333	83.10888889	8.30	514.0	0	217.0	40.00	0.53	22.00	19.00	203.0	38	26.0	20.00	20.80
Balangir	Puintala	Gaintala	20.72361111	83.52638889	8.29	549.0	0	265.0	52.00	0.38	31.00	14.00	234.0	29	39.0	45.00	1.50
Balangir	Patnagarh	Ghambari	20.72138889	82.94333333	7.58	1498.0	0	145.0	193.00	0.37	84.00	46.00	526.0	106	64.0	19.00	0.30
Balangir	Muribahal	Haldia	20.34250000	83.04500000	8.30	877.0	0	302.0	86.00	1.47	48.00	21.00	353.0	58	51.0	39.00	1.10
Balangir	Balangir	Harbhanga	20.96972222	83.58111111	7.83	1222.0	0	290.0	171.00	0.33	84.00	40.00	383.0	61	56.0	60.00	44.50
Balangir	Khaprakhol	Harisankar	20.84861111	82.86527778	8.16	337.0	0	234.0	13.00	0.63	7.00	0.00	202.0	57	15.0	7.00	0.60
Balangir	Titlagarh	Ichagaon	20.21166667	83.01166667	8.24	642.0	0	145.0	91.00	0.17	46.00	44.00	310.0	76	29.0	23.00	2.40
Balangir	Balangir	Jhankar Pali	20.73194444	83.38944444	7.93	846.0	0	349.0	84.00	1.20	20.00	2.00	204.0	38	27.0	102.00	2.40
Balangir	Loisinga	Jogisarda	20.87833333	83.55277778	7.72	820.0	0	290.0	71.00	0.91	38.00	11.00	239.0	38	35.0	57.00	5.70
Balangir	Patnagarh	Jogimunda	20.73000000	83.01250000	7.85	590.0	0	158.0	99.00	1.12	18.00	16.00	246.0	57	25.0	25.00	1.30
Balangir	Deogaon	Kacherpalli (Deogaon)	20.54500000	83.41666667	7.70	993.0	0	170.0	166.00	1.25	56.00	44.00	311.0	56	42.0	66.00	9.90
Balangir	Turekela	Kantabanji	20.47916667	82.92777778	7.62	1218.0	0	193.0	113.00	0.63	115.00	43.00	416.0	48	72.0	44.00	1.20
Balangir	Titlagarh	Kholan	20.23250000	83.07750000	8.20	472.0	0	163.0	111.00	0.65	9.00	39.00	280.0	56	34.0	19.00	1.30
Balangir	Puintala	Kurul	20.66777778	83.52527778	7.87	1127.0	0	275.0	171.00	0.50	72.00	38.00	357.0	42	62.0	74.00	3.00
Balangir	Belpara	Lathor	20.62500000	82.76527778	7.74	655.0	0	216.0	64.00	0.76	43.00	27.00	243.0	48	30.0	41.00	0.70

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Balangir	Puintala	Ledarbohal	20.78583333	83.50222222	8.30	856.0	0	518.0	21.00	1.14	11.00	1.00	193.0	21	34.0	126.00	1.80
Balangir	Loisinga	Loisinga	20.85583333	83.51166667	7.70	806.0	0	208.0	86.00	0.19	55.00	38.00	298.0	58	37.0	36.00	0.70
Balangir	Balangir	Madhiapali	20.74111111	83.49555556	8.20	492.0	0	245.0	38.00	0.30	19.00	5.00	219.0	38	30.0	27.00	2.90
Balangir	Titlagarh	Minapali	20.24750000	83.10666667	7.77	762.0	0	174.0	72.00	0.52	51.00	44.00	291.0	80	22.0	31.00	1.70
Balangir	Muribahal	Muribahal	20.38472222	83.01250000	8.19	858.0	0	330.0	81.00	0.83	48.00	3.00	189.0	39	22.0	113.00	2.40
Balangir	Belpara	Nunhad	20.58361111	82.95472222	8.13	405.0	0	216.0	41.00	0.51	14.00	10.00	212.0	56	18.0	21.00	0.70
Balangir	Balangir	Padampur	20.73444444	83.57916667	8.06	683.0	0	398.0	26.00	1.10	7.00	1.00	256.0	39	39.0	53.00	1.60
Balangir	Patnagarh	Patnagarh-li	20.69833333	83.12416667	8.24	413.0	0	213.0	37.00	0.60	26.00	3.00	205.0	36	28.0	24.00	0.90
Balangir	Khaprakhol	Phulkimunda	20.71055556	82.81777778	7.75	1160.0	0	160.0	174.00	1.74	86.00	43.00	446.0	60	72.0	38.00	0.70
Balangir	Saintala	Piprut	20.35222222	83.31000000	8.30	464.0	0	223.0	38.00	0.56	24.00	15.00	236.0	42	32.0	16.00	1.30
Balangir	Balangir	Pudapalli	20.67972222	83.52083333	8.19	609.0	0	357.0	17.00	1.06	14.00	8.00	162.0	19	28.0	81.00	0.80
Balangir	Puintala	Randa	20.72916667	83.56333333	8.01	2775.0	0	407.0	420.00	0.42	155.00	44.00	389.0	52	63.0	294.00	2.00
Balangir		Saintala 1			8.22	660.0	0	245.0	58.00	0.49	31.00	32.00	195.0	30	29.0	32.00	46.40
Balangir	Turekela	Salandi	20.52333333	82.92722222	7.87	740.0	0	229.0	71.00	1.00	27.00	15.00	218.0	36	31.0	51.00	1.10
Balangir	Agalpur	Salebhata	20.97083333	83.54083333	8.28	810.0	0	257.0	60.00	0.27	19.00	9.00	184.0	44	18.0	44.00	33.40
Balangir	Patnagarh	Sarmohan-I	20.71611111	83.22222222	8.24	560.0	0	231.0	65.00	0.81	13.00	9.00	239.0	45	31.0	29.00	1.20
Balangir	Balangir	Sikachhida 1	20.62583333	83.40194444	8.05	600.0	0	269.0	54.00	0.67	18.00	1.00	257.0	37	40.0	27.00	1.10
Balangir	Bangomunda	Sindhikela (new)	20.23111111	82.94138889	8.06	432.0	0	252.0	17.00	0.84	14.00	2.00	158.0	24	24.0	41.00	1.30
Balangir	Bangomunda	Sindhikela1	20.22500000	82.95611111	7.65	1052.0	0	202.0	110.00	0.46	56.00	43.00	314.0	48	47.0	37.00	14.50
Balangir	Balangir	Sinkhaman	20.61916667	83.42638889	8.02	1147.0	0	374.0	104.00	1.07	49.00	43.00	419.0	34	81.0	55.00	0.60
Balangir	Titlagarh	Tarasingi	20.28638889	83.27027778	8.20	1200.0	0	199.0	188.00	0.29	59.00	46.00	525.0	96	69.0	19.00	9.20

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Balangir	Saintala	Tikrapada 1	20.50305556	83.13250000	7.77	1105.0	0	229.0	155.00	0.65	64.00	44.00	340.0	57	48.0	37.00	36.80
Balangir	Bangomunda	Titisilet	20.30027778	82.92500000	8.25	432.0	0	184.0	16.00	0.66	14.00	20.00	171.0	40	18.0	14.00	0.70
Balangir	Titlagarh	Titlagarh I	20.28694444	83.14638889	7.99	185.0	0	145.0	14.00	0.35	10.00	0.00	143.0	25	19.0	8.00	1.10
Balangir	Turekela	Tureikela	20.50277778	82.80750000	8.05	720.0	0	269.0	49.00	0.38	38.00	7.00	164.0	23	26.0	78.00	1.80
Balangir	Tentulikhunti	Tusura	20.49055556	83.47583333	8.28	813.0	0	260.0	106.00	0.60	31.00	1.00	240.0	27	42.0	69.00	6.20
Balangir	Agalpur	Uchchabahal	21.02888889	83.44527778	8.24	837.0	0	231.0	71.00	0.23	46.00	40.00	279.0	26	52.0	35.00	10.10
Baleshwar	Nilagiri	Ayodhya	21.55833333	86.75638889	7.30	1250.0	0	512.0	139.00	1.11	41.00	5.00	372.0	78	43.0	99.00	29.00
Baleshwar	Baliapal	Bada Simulia	21.65222222	87.27666667	6.70	670.0	0	165.0	100.00	0.12	61.00	10.00	206.0	20	38.0	56.00	4.12
Baleshwar	Soro	Baghudi 1	21.33750000	86.65944444	7.80	560.0	0	268.0	37.00	0.70	19.00	3.00	226.0	31	36.0	23.00	3.04
Baleshwar	Oupada	Bankisial	21.46694444	86.72444444	7.70	1770.0	0	470.0	316.00	1.27	88.00	39.00	526.0	59	92.0	152.00	20.61
Baleshwar	Basta	Basta 1	21.69805556	87.06583333	7.60	2500.0	0	360.0	657.00	0.63	106.00	1.00	629.0	72	109.0	277.00	12.43
Baleshwar	Nilagiri	Bhagabondh	21.49277778	86.62638889	7.40	760.0	0	256.0	88.00	0.26	54.00	23.00	241.0	29	41.0	50.00	23.15
Baleshwar	Nilagiri	Bhalukasuni 1	21.49166667	86.70000000	6.04	100.0	0	43.0	5.00	0.10	0.00	6.00	33.0	10	2.0	6.00	2.60
Baleshwar	Jaleswar	Bakhudipada Bhol	21.87055556	87.12916667	5.90	60.0	0	31.0	2.00	0.07	0.00	1.00	24.0	8	1.0	2.00	0.65
Baleshwar	Jaleswar	Darkoli (Hatigarh)	21.89666667	87.19361111	6.70	340.0	0	122.0	33.00	0.11	13.00	3.00	88.0	14	13.0	29.00	12.12
Baleshwar	Oupada	Gaudasahi	21.35694444	86.49222222	7.10	390.0	0	214.0	7.00	0.16	5.00	13.00	177.0	51	12.0	4.00	5.40
Baleshwar	Remuna	Govindpur	21.54861111	86.92916667	7.20	660.0	0	275.0	26.00	0.27	74.00	1.00	271.0	59	30.0	23.00	3.70
Baleshwar	Oupada	Jamadeipur (Panchalingaswar)	21.40666667	86.74444444	7.54	2320.0	0	1190.0	86.00	0.33	15.00	35.00	389.0	65	55.0	318.00	58.90
Baleshwar	Soro	Jamapada	21.28194444	86.54138889	6.95	130.0	0	61.0	7.00	0.08	3.00	6.00	51.0	14	4.0	5.00	1.60

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Baleshwar	Basta	Jamsuli 1	21.67222222	87.17138889	7.19	550.0	0	275.0	30.00	0.56	16.00	5.00	215.0	22	39.0	22.00	6.80
Baleshwar	Khaira	Jaragadia Mahadev Sahi	21.27055556	86.42083333	7.91	1650.0	0	549.0	223.00	0.33	77.00	13.00	411.0	49	70.0	176.00	21.70
Baleshwar	Nilagiri	Jodibali	21.52166667	86.73222222	6.50	180.0	0	67.0	19.00	0.08	3.00	1.00	46.0	12	4.0	16.00	5.20
Baleshwar	Jaleswar	Jualibhanga	21.87638889	87.13444444	6.70	140.0	0	43.0	16.00	0.06	7.00	4.00	46.0	10	5.0	9.00	0.80
Baleshwar	Nilagiri	Kansa 1	21.57972222	86.75027778	7.33	1600.0	0	317.0	316.00	0.14	33.00	9.00	537.0	78	83.0	111.00	16.10
Baleshwar	Oupada	Kantia Tikar (Panchalinga swar)	21.40277778	86.74111111	7.50	600.0	0	275.0	42.00	0.83	5.00	6.00	178.0	35	22.0	52.00	4.10
Baleshwar	Khaira	Khaira	21.29805556	86.44916667	8.00	850.0	0	378.0	46.00	0.33	63.00	2.00	182.0	25	29.0	108.00	5.80
Baleshwar	Remuna	Kuligaon	21.38083333	86.87138889	7.10	380.0	0	214.0	16.00	0.17	5.00	3.00	134.0	29	15.0	25.00	0.95
Baleshwar	Nilagiri	Kunchibenia	21.49944444	86.67722222	7.00	980.0	0	336.0	102.00	0.15	79.00	9.00	152.0	18	26.0	150.00	6.00
Baleshwar	Khaira	Kupari 1	21.27166667	86.41666667	7.65	420.0	0	220.0	9.00	0.19	19.00	2.00	133.0	22	19.0	31.00	4.00
Baleshwar	Nilagiri	Matialli	21.56250000	86.70250000	7.44	450.0	0	207.0	12.00	0.16	36.00	2.00	153.0	25	22.0	25.00	10.60
Baleshwar	Nilagiri	Mitrapur	21.54527778	86.79722222	7.30	230.0	0	122.0	5.00	0.14	4.00	3.00	87.0	20	9.0	11.00	1.40
Baleshwar	Basta	Mohala (Bidyadharpu r)	21.69833333	87.05444444	6.60	270.0	0	128.0	9.00	0.10	15.00	1.00	91.0	33	2.0	15.00	6.40
Baleshwar	Nilagiri	Nilgiri 1	21.46194444	86.76083333	7.50	1010.0	0	317.0	114.00	0.34	64.00	30.00	259.0	51	32.0	110.00	2.30
Baleshwar	Baleshwar	Nuasahi Balasore	21.50500000	86.90805556	7.50	560.0	0	214.0	60.00	0.43	14.00	2.00	203.0	27	33.0	33.00	2.00
Baleshwar	Nilagiri	Podasul 1	21.47444444	86.73916667	7.34	540.0	0	214.0	58.00	0.47	18.00	2.00	191.0	27	30.0	33.00	2.80
Baleshwar	Jaleswar	Raibania 1	21.91000000	87.19777778	6.50	160.0	0	67.0	16.00	0.11	0.00	3.00	54.0	10	7.0	10.00	2.00
Baleshwar	Remuna	Remuna	21.52333333	86.87000000	7.90	860.0	0	317.0	98.00	0.13	43.00	15.00	266.0	57	30.0	35.00	68.00
Baleshwar	Nilagiri	Siadimal	21.46555556	86.73500000	7.72	900.0	0	329.0	116.00	0.85	42.00	4.00	297.0	35	51.0	68.00	1.80

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Baleshwar	Baliapal	Srirampur	21.66944444	87.23444444	7.40	780.0	0	275.0	74.00	0.34	64.00	8.00	259.0	33	43.0	51.00	14.70
Baleshwar	Baleshwar	Sunhat 2	21.47916667	86.95083333	7.60	1020.0	0	439.0	104.00	0.13	9.00	27.00	292.0	41	46.0	63.00	61.50
Baleshwar	Similia	Teliapada	21.13527778	86.58611111	8.00	1170.0	0	506.0	77.00	0.51	74.00	3.00	116.0	10	22.0	160.00	93.50
Baleshwar	Oupada	Tenda	21.46500000	86.70527778	7.60	1550.0	0	451.0	188.00	1.02	77.00	99.00	350.0	125	9.0	192.00	4.20
Baleshwar	Bahanaga	Valuka (Kasabadeipur GP)	21.39388889	86.77861111	6.70	120.0	0	31.0	21.00	0.09	0.00	2.00	46.0	10	5.0	4.00	1.50
Bargarh	Attapura	Attapura1	21.37083333	83.78333333	7.97	1065.0	0	494.0	103.00	0.20	74.00	42.00	372.0	121	17.0	118.00	18.40
Bargarh	Bheden	Baghapalli	21.17444444	83.78166667	7.64	2494.0	0	578.0	473.00	0.40	218.00	43.00	851.0	162	108.0	249.00	8.40
Bargarh	Bargarh	Bargarh 3	21.34250000	83.61416667	7.72	1073.0	0	460.0	149.00	0.30	38.00	25.00	452.0	96	51.0	87.00	2.40
Bargarh	Barapali	Barpalli 1	21.17250000	83.58111111	7.93	515.0	0	343.0	21.00	1.40	22.00	5.00	202.0	39	26.0	60.00	5.10
Bargarh	Sohela	Batetarma	21.14416667	83.25777778	8.04	710.0	0	258.0	65.00	0.06	53.00	44.00	224.0	52	23.0	73.00	3.00
Bargarh	Bhatli	Bhatli 1	21.46722222	83.53472222	8.05	777.0	0	381.0	83.00	0.18	43.00	23.00	310.0	75	30.0	79.00	5.40
Bargarh	Ambabhona	Bhukta	21.58472222	83.41527778	8.27	715.0	0	430.0	57.00	0.40	31.00	5.00	339.0	71	39.0	55.00	7.50
Bargarh	Bijepur	Bijepur	21.18972222	83.45194444	8.14	400.0	0	237.0	26.00	0.30	8.00	16.00	194.0	46	19.0	25.00	1.30
Bargarh	Bheden	Boipur	21.20138889	83.88194444	8.07	430.0	0	306.0	22.00	0.40	20.00	0.00	259.0	67	22.0	19.00	2.80
Bargarh	Ambabhona	Bugbugi	21.61388889	83.48916667	7.59	126.0	0	57.0	22.00	0.02	6.00	0.00	57.0	10	8.0	6.00	9.90
Bargarh	Bheden	Burda	21.24166667	83.76250000	8.28	527.0	0	382.0	23.00	0.30	21.00	2.00	267.0	60	29.0	46.00	1.00
Bargarh	Bijepur	Burdapali	21.15944444	83.46916667	8.07	1383.0	0	1007.0	69.00	2.28	20.00	2.00	383.0	58	58.0	251.00	15.90
Bargarh	Bhatli	Chadheigaon	21.41277778	83.55888889	8.06	430.0	0	290.0	24.00	0.45	2.00	0.00	201.0	46	21.0	34.00	1.10
Bargarh		Chakilifarm			8.16	810.0	0	423.0	84.00	0.30	41.00	2.00	366.0	87	36.0	60.00	11.10
Bargarh	Bheden	Chichinda	21.20888889	83.79111111	7.54	1611.0	0	531.0	195.00	0.40	86.00	44.00	554.0	131	55.0	126.00	3.40
Bargarh	Bargarh	Dang	21.35805556	83.60055556	8.19	671.0	0	406.0	30.00	0.80	41.00	5.00	256.0	60	26.0	75.00	1.80

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Bargarh	Gaisilet	Dangabahal 1	20.94250000	83.35277778	7.67	1800.0	0	601.0	230.00	0.80	82.00	48.00	669.0	127	85.0	117.00	12.60
Bargarh	Bhatli	Dumalpali	21.50694444	83.50000000	8.26	545.0	0	315.0	53.00	0.20	3.00	0.00	255.0	58	27.0	37.00	0.90
Bargarh	Gaisilet	Gaisilet3	20.96222222	83.31500000	8.02	2600.0	0	798.0	450.00	1.30	91.00	44.00	621.0	98	91.0	365.00	3.60
Bargarh	Sohela	Ghens 1	21.18972222	83.28527778	7.86	1144.0	0	554.0	110.00	0.30	47.00	33.00	373.0	66	51.0	124.00	28.60
Bargarh	Attapura	Gorbhaga	21.38055556	83.78055556	8.13	1940.0	0	740.0	235.00	0.50	77.00	44.00	371.0	91	35.0	176.00	232.40
Bargarh	Sohela	Grinjal	21.33666667	83.37416667	7.83	1702.0	0	549.0	193.00	1.90	89.00	48.00	582.0	141	56.0	94.00	38.80
Bargarh	Gaisilet	Jagalpet	20.89305556	83.35138889	8.15	230.0	0	151.0	9.00	0.20	17.00	6.00	122.0	29	12.0	16.00	0.90
Bargarh	Bargarh	Jamurda	21.37222222	83.66250000	8.15	570.0	0	367.0	23.00	0.30	37.00	3.00	220.0	46	25.0	38.00	54.70
Bargarh	Bargarh	Khuntapali	21.28527778	83.61527778	7.62	640.0	0	198.0	82.00	0.10	27.00	46.00	263.0	46	36.0	29.00	11.30
Bargarh	Bheden	Khutlipalli	21.25888889	83.87000000	8.09	1004.0	0	623.0	59.00	0.60	36.00	41.00	464.0	83	63.0	88.00	0.90
Bargarh	Attapura	Kulunda	21.34583333	83.78388889	8.17	360.0	0	220.0	16.00	0.10	12.00	3.00	183.0	37	22.0	14.00	2.80
Bargarh	Bheden	Kumbhari	21.20694444	83.64777778	8.13	910.0	0	481.0	79.00	0.62	51.00	15.00	337.0	66	42.0	105.00	2.50
Bargarh	Barapali	Kusanpur	21.25055556	83.56777778	7.88	855.0	0	365.0	89.00	1.05	46.00	37.00	347.0	77	38.0	69.00	2.20
Bargarh	Attapura	Kodabahal 2	21.31277778	83.84750000	7.99	1710.0	0	643.0	201.00	0.42	75.00	45.00	382.0	94	35.0	150.00	167.60
Bargarh	Bargarh	Kalapani	21.35722222	83.70861111	8.00	740.0	0	271.0	79.00	0.20	40.00	43.00	272.0	77	19.0	60.00	2.00
Bargarh	Gaisilet	Kansdhol 1	20.92444444	83.37194444	8.10	415.0	0	291.0	15.00	0.40	25.00	0.00	184.0	44	18.0	40.00	12.50
Bargarh	Gaisilet	Kantabahal	20.94250000	83.20250000	7.65	415.0	0	248.0	20.00	0.50	16.00	0.00	206.0	33	30.0	18.00	2.60
Bargarh	Ambabhona	Karla	21.60305556	83.57472222	8.18	1052.0	0	447.0	126.00	0.12	55.00	32.00	359.0	92	31.0	119.00	5.60
Bargarh		Katapali			8.19	350.0	0	207.0	17.00	0.13	17.00	4.00	161.0	37	17.0	22.00	3.50
Bargarh	Bijepur	Kharmunda 1	21.13527778	83.48972222	7.95	325.0	0	214.0	18.00	0.50	12.00	6.00	131.0	27	16.0	22.00	30.30
Bargarh	Ambabhona	Lakhanpur	21.64194444	83.61055556	8.02	312.0	0	233.0	17.00	0.50	15.00	4.00	164.0	29	22.0	28.00	6.30
Bargarh	Attapura	Larambha	21.35138889	83.83388889	7.87	571.0	0	394.0	13.00	0.70	10.00	3.00	194.0	40	23.0	69.00	7.80

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Bargarh	Barapali	Lenda	21.22222222	83.59444444	7.99	650.0	0	423.0	28.00	0.80	24.00	11.00	295.0	75	26.0	56.00	1.20
Bargarh	Rajborasambar	Padampur2	20.99916667	83.07111111	7.82	1420.0	0	656.0	141.00	0.20	56.00	45.00	460.0	83	62.0	162.00	10.90
Bargarh	Attapura	Patrapalli	21.30694444	83.76527778	8.19	1080.0	0	595.0	70.00	0.30	73.00	18.00	278.0	58	32.0	64.00	202.20
Bargarh	Barapali	Puturipali	21.21944444	83.63472222	8.04	350.0	0	192.0	16.00	0.30	15.00	0.00	135.0	33	13.0	22.00	10.40
Bargarh	Bhatli	Purrakhai	21.45638889	83.48388889	8.06	580.0	0	338.0	42.00	0.40	35.00	17.00	274.0	56	33.0	50.00	1.20
Bargarh	Barapali	Remada	21.20083333	83.61777778	7.89	600.0	0	365.0	49.00	0.20	19.00	2.00	312.0	62	38.0	29.00	11.50
Bargarh	Bheden	Remenda	21.26666667	83.76250000	7.60	1755.0	0	530.0	283.00	0.30	62.00	45.00	841.0	197	85.0	40.00	2.20
Bargarh	Bheden	Rusuda 1	21.16638889	83.84555556	7.96	940.0	0	534.0	74.00	0.10	45.00	2.00	294.0	48	42.0	123.00	21.70
Bargarh	Bargarh	Sarala	21.40055556	83.65583333	8.03	1126.0	0	322.0	170.00	0.30	32.00	43.00	301.0	58	38.0	113.00	16.80
Bargarh	Bheden	Satlama 1	21.14305556	83.62277778	8.13	950.0	0	456.0	109.00	0.10	46.00	4.00	362.0	85	36.0	97.00	4.00
Bargarh	Attapura	Shukutapali	21.36583333	83.71666667	7.84	1673.0	0	455.0	264.00	0.30	108.00	47.00	610.0	160	51.0	112.00	32.40
Bargarh	Bheden	Sikirdi	21.15972222	83.62638889	8.21	350.0	0	212.0	16.00	0.40	18.00	2.00	171.0	35	20.0	19.00	4.20
Bargarh	Sohela	Sohela 1	21.29444444	83.39805556	7.46	1125.0	0	343.0	165.00	0.20	48.00	40.00	382.0	71	50.0	94.00	5.30
Bargarh	Bhatli	Sulsulia	21.44861111	83.41888889	7.95	923.0	0	304.0	135.00	0.30	38.00	25.00	388.0	89	40.0	48.00	2.50
Bargarh	Bhatli	Sunajuri-Tukuria	21.40861111	83.58444444	7.80	193.0	0	127.0	12.00	0.10	5.00	1.00	72.0	17	7.0	25.00	0.80
Bargarh	Barapali	Sarandapali	21.23611111	83.49333333	7.99	1261.0	0	367.0	197.00	0.40	48.00	45.00	554.0	150	44.0	47.00	5.80
Bargarh	Bheden	Thuapali1	21.26666667	83.79111111	8.19	425.0	0	319.0	18.00	0.20	11.00	7.00	236.0	58	22.0	29.00	3.00
Bargarh	Ambabhona	Uttam	21.67500000	83.61027778	7.98	890.0	0	504.0	70.00	0.20	33.00	13.00	348.0	87	32.0	54.00	69.70
Bargarh	Paikmal	Hirapur	20.96388889	82.81888889	7.90	420.0	0	195.0	23.00	0.39	14.00	2.00	181.0	51	13.0	10.00	2.10
Bargarh	Paikmal	Jamset	20.82694444	82.72333333	7.60	460.0	0	184.0	39.00	0.35	19.00	5.00	199.0	45	21.0	13.00	1.09
Bargarh	Paikmal	Majhipali	20.95194444	82.88666667	7.30	210.0	0	85.0	19.00	0.11	4.00	3.00	87.0	20	9.0	7.00	1.35

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Bargarh	Paikmal	Malada	20.95416667	82.93388889	7.50	720.0	0	366.0	35.00	0.41	20.00	3.00	316.0	72	33.0	13.00	10.32
Bargarh	Paikmal	Mithapali	20.90583333	82.79333333	7.40	540.0	0	239.0	35.00	0.15	19.00	4.00	232.0	65	17.0	16.00	1.56
Bargarh	Paikmal	Nrusingnath	20.89888889	82.82250000	7.50	250.0	0	134.0	9.00	0.22	4.00	0.00	91.0	25	7.0	14.00	1.29
Bargarh	Paikmal	Purena	20.86305556	82.76111111	7.60	430.0	0	190.0	28.00	0.44	11.00	9.00	180.0	57	9.0	14.00	1.34
Baudh	Harbhanga	Adenegarh	20.48555556	84.46888889	7.00	260.0	0	104.0	21.00	0.11	7.00	9.00	96.0	27	7.0	13.00	1.46
Baudh	Baudh Sadar	Anlapali	20.80666667	84.09583333	7.20	930.0	0	201.0	116.00	0.14	102.00	71.00	326.0	43	53.0	61.00	1.47
Baudh	Kantamal	Auinla Chua Chhak	20.66750000	83.75666667	7.80	1150.0	0	293.0	183.00	0.72	72.00	36.00	491.0	96	61.0	35.00	5.12
Baudh	Baudh Sadar	Badhigaon	20.77638889	84.28222222	7.30	2080.0	0	543.0	288.00	0.14	74.00	49.00	944.0	55	196.0	40.00	3.45
Baudh	Baudh Sadar	Baghiapada	20.73166667	84.23083333	7.70	580.0	0	287.0	21.00	0.35	27.00	9.00	254.0	82	12.0	14.00	0.71
Baudh	Baudh Sadar	Bala Singha	20.85555556	84.27055556	7.70	1480.0	0	378.0	172.00	0.13	93.00	48.00	499.0	96	63.0	37.00	122.00
Baudh	Harbhanga	Baring	20.43027778	84.53388889	7.70	310.0	0	159.0	9.00	0.16	10.00	13.00	131.0	41	7.0	9.00	2.83
Baudh	Baudh Sadar	Baunsuni 2	20.80416667	84.05666667	7.50	370.0	0	122.0	23.00	0.16	37.00	6.00	162.0	37	17.0	10.00	0.60
Baudh	Harbhanga	Boudh	20.83750000	84.32500000	7.80	350.0	0	146.0	16.00	0.23	22.00	0.00	154.0	55	4.0	8.00	2.70
Baudh	Harbhanga	Bruhaspatipu r	20.66472222	84.56916667	7.90	860.0	0	451.0	16.00	1.20	10.00	3.00	368.0	88	36.0	25.00	3.20
Baudh	Baudh Sadar	Butupalli	20.82916667	84.30916667	7.90	470.0	0	207.0	16.00	0.34	24.00	3.00	212.0	29	34.0	9.00	2.28
Baudh	Harbhanga	Charichak	20.58333333	84.42361111	7.60	920.0	0	439.0	46.00	0.34	57.00	6.00	421.0	78	55.0	17.00	0.66

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Baudh	Baudh Sadar	Dahya	20.83083333	84.00638889	7.50	1250.0	0	189.0	232.00	0.12	77.00	77.00	565.0	55	104.0	25.00	2.00
Baudh	Harbhanga	Dholpur	20.70138889	84.48611111	7.40	830.0	0	256.0	81.00	0.26	69.00	36.00	354.0	61	49.0	27.00	0.80
Baudh	Baudh Sadar	Erada	20.76250000	84.23055556	7.40	910.0	0	348.0	70.00	1.10	53.00	14.00	346.0	76	38.0	48.00	1.00
Baudh	Baudh Sadar	Gaundisahi	20.70222222	84.16972222	8.10	880.0	0	464.0	30.00	4.68	18.00	7.00	317.0	74	32.0	55.00	1.60
Baudh	Kantamal	Ghantapada-I	20.54000000	83.67388889	7.20	1690.0	0	281.0	313.00	0.57	76.00	68.00	759.0	96	126.0	37.00	2.38
Baudh	Kantamal	Gohipita	20.78472222	83.88611111	8.10	460.0	0	238.0	14.00	0.46	7.00	2.00	218.0	41	28.0	5.00	0.30
Baudh	Kantamal	Gudveli Padar	20.78611111	83.92833333	7.80	1490.0	0	720.0	79.00	3.31	46.00	19.00	317.0	43	51.0	195.00	0.70
Baudh	Baudh Sadar	Gundulia	20.70250000	84.07305556	7.50	880.0	0	293.0	79.00	0.65	49.00	64.00	381.0	47	64.0	25.00	1.42
Baudh	Harbhanga	Harbhanga	20.62222222	84.60500000	7.90	670.0	0	287.0	39.00	0.69	18.00	4.00	304.0	41	49.0	12.00	0.10
Baudh	Harbhanga	Harekrishnapur	20.67583333	84.39277778	7.90	700.0	0	317.0	30.00	0.27	28.00	26.00	313.0	61	39.0	10.00	9.67
Baudh	Baudh Sadar	Jahanapank	20.85472222	84.20666667	7.40	790.0	0	275.0	88.00	0.35	36.00	31.00	342.0	61	46.0	21.00	5.50
Baudh	Baudh Sadar	Kamira	20.80500000	84.22444444	7.00	1410.0	0	281.0	251.00	0.18	82.00	43.00	656.0	200	38.0	21.00	0.90
Baudh	Kantamal	Kantamal	20.64222222	83.74111111	7.70	850.0	0	207.0	125.00	0.24	47.00	33.00	383.0	76	47.0	17.00	0.70
Baudh	Harbhanga	Karoda Kutha	20.54416667	84.42527778	7.80	640.0	0	250.0	39.00	0.35	29.00	50.00	257.0	47	34.0	26.00	2.35
Baudh	Baudh Sadar	Khajuripada	20.69583333	84.13861111	7.80	1790.0	0	531.0	244.00	0.56	84.00	59.00	640.0	90	101.0	115.00	1.81
Baudh	Kantamal	Khatkhatia	20.75972222	83.83694444	7.40	1110.0	0	336.0	139.00	0.29	77.00	30.00	512.0	65	85.0	17.00	2.10

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Baudh	Harbhanga	Kusanga	20.58833333	84.65527778	7.70	1030.0	0	146.0	197.00	0.31	63.00	76.00	463.0	57	78.0	23.00	2.30
Baudh	Harbhanga	Landibandh	20.76388889	84.31666667	7.30	1110.0	0	293.0	153.00	0.23	82.00	30.00	468.0	72	70.0	38.00	1.90
Baudh	Harbhanga	Laxmanpur	20.59194444	84.50277778	7.70	1100.0	0	427.0	77.00	1.57	72.00	6.00	346.0	43	58.0	91.00	2.30
Baudh	Baudh Sadar	Lumurjena	20.75722222	84.07027778	8.10	580.0	0	275.0	16.00	0.97	18.00	21.00	249.0	65	21.0	17.00	0.50
Baudh	Harbhanga	Lunibahal	20.66166667	84.39111111	7.30	1290.0	0	207.0	246.00	0.28	102.00	10.00	562.0	29	119.0	35.00	1.60
Baudh	Baudh Sadar	Maheswar Pinda	20.81722222	84.01027778	7.60	640.0	0	177.0	88.00	0.21	18.00	9.00	294.0	55	38.0	9.00	1.40
Baudh	Baudh Sadar	Manamunda	20.82861111	83.92944444	7.50	690.0	0	311.0	30.00	0.33	44.00	0.00	283.0	59	33.0	26.00	1.21
Baudh	Harbhanga	Nuapada 1(Tikira sahi)	20.56722222	84.45777778	8.00	1440.0	0	604.0	72.00	0.67	30.00	53.00	659.0	43	134.0	25.00	2.50
Baudh	Baudh Sadar	Nuapali	20.82111111	83.98222222	7.60	770.0	0	206.0	98.00	0.31	71.00	13.00	300.0	82	23.0	36.00	1.90
Baudh	Kantamal	Palasaguda1	20.72722222	83.80722222	7.30	1200.0	0	287.0	204.00	0.57	69.00	59.00	526.0	59	92.0	32.00	2.63
Baudh	Baudh Sadar	Polam 2	20.86083333	84.23888889	7.40	530.0	0	195.0	44.00	0.27	29.00	16.00	234.0	51	26.0	13.00	1.83
Baudh	Harbhanga	Purnakatak1	20.62555556	84.42722222	7.70	790.0	0	342.0	37.00	0.21	29.00	9.00	366.0	18	78.0	10.00	1.98
Baudh	Harbhanga	Radha Nagar	20.74944444	84.32722222	7.70	1030.0	0	372.0	109.00	0.19	48.00	28.00	433.0	25	90.0	34.00	2.93
Baudh	Harbhanga	Rambhikata	20.68944444	84.37861111	8.10	930.0	0	488.0	46.00	1.74	16.00	9.00	302.0	37	51.0	72.00	3.10
Baudh	Baudh Sadar	Sangrampur 1	20.82916667	84.16583333	7.70	570.0	0	232.0	30.00	0.38	39.00	41.00	219.0	53	21.0	28.00	1.83
Baudh	Harbhanga	Sarsara	20.80277778	84.30861111	7.50	780.0	0	275.0	49.00	0.23	68.00	2.00	271.0	25	51.0	47.00	12.52
Baudh	Harbhanga	Sarta-Guda	20.59861111	84.57638889	7.70	540.0	0	287.0	23.00	1.03	16.00	6.00	159.0	29	21.0	49.00	0.23

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Baudh	Baudh Sadar	Singari chhak	20.80694444	84.12888889	7.60	930.0	0	208.0	186.00	0.25	61.00	3.00	351.0	86	33.0	46.00	9.35
Baudh	Baudh Sadar	Telibandha	20.85111111	84.19416667	8.20	340.0	0	115.0	35.00	0.17	14.00	8.00	138.0	47	5.0	12.00	2.73
Baudh	Harbhanga	Tilesar 1	20.67972222	84.44222222	7.50	1030.0	0	397.0	107.00	0.16	55.00	7.00	412.0	43	74.0	43.00	3.85
Baudh	Harbhanga	Tukulunda 1	20.59805556	84.48888889	7.90	620.0	0	250.0	37.00	0.42	19.00	7.00	248.0	63	22.0	27.00	1.15
Baudh	Baudh Sadar	Usbelika	20.74444444	84.07777778	7.70	1270.0	0	356.0	132.00	0.68	73.00	76.00	543.0	61	95.0	37.00	5.20
Bhadrak	Bhadrak	Ada Sasan	21.13500000	86.51777778	6.60	390.0	0	201.0	21.00	0.42	3.00	2.00	152.0	31	18.0	19.00	0.90
Bhadrak	Bant	Agarpara	21.20888889	86.39444444	7.80	1380.0	0	366.0	153.00	0.10	95.00	93.00	465.0	92	57.0	86.00	28.80
Bhadrak	Basudebpur	Bagdavinaya kpur	21.12083333	86.73888889	7.14	400.0	0	122.0	23.00	0.13	57.00	11.00	91.0	25	7.0	35.00	23.00
Bhadrak	Chandabali	Bala Bhadrapur Sasan (Motto)	20.84083333	86.72194444	7.93	1860.0	0	634.0	228.00	0.28	76.00	12.00	347.0	45	57.0	188.00	135.00
Bhadrak	Bhandaripok hari	Benipur	20.93805556	86.31361111	7.00	160.0	0	73.0	12.00	0.10	4.00	2.00	56.0	16	4.0	8.00	4.50
Bhadrak	Dhamanagar	Bethaligaon Pallashi	20.86916667	86.57583333	7.30	750.0	0	250.0	81.00	0.18	59.00	4.00	168.0	31	22.0	92.00	3.20
Bhadrak	Dhamanagar	Bhagvenpur	20.94222222	86.42638889	7.60	550.0	0	287.0	16.00	0.20	4.00	16.00	241.0	37	36.0	11.00	6.80
Bhadrak	Tihidi	Bidanpur	20.98083333	86.62333333	7.90	1080.0	0	445.0	86.00	0.22	60.00	3.00	274.0	47	38.0	104.00	28.30
Bhadrak	Chandabali	Chandbali Bada Bazar	20.77250000	86.71833333	7.81	1340.0	0	488.0	158.00	0.15	75.00	6.00	267.0	59	29.0	152.00	53.50
Bhadrak	Bhadrak	Charampa	21.09194444	86.52583333	7.83	1010.0	0	311.0	118.00	0.55	87.00	9.00	372.0	27	74.0	51.00	14.00
Bhadrak	Dhamanagar	Dhamnagar 1	20.91138889	86.44027778	7.96	1730.0	0	348.0	283.00	2.35	93.00	52.00	294.0	27	55.0	255.00	11.90

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Bhadrak	Bhadrak	Durgapur	21.02972222	86.52250000	7.60	800.0	0	342.0	60.00	0.30	36.00	7.00	249.0	37	38.0	37.00	54.00
Bhadrak	Bant	Kenduapada (Amper)	21.02444444	86.39111111	7.60	2050.0	0	488.0	460.00	0.43	23.00	4.00	525.0	39	104.0	220.00	14.00
Bhadrak	Dhamanagar	Kothar 3	20.92194444	86.52111111	8.20	1130.0	0	378.0	98.00	0.12	77.00	47.00	290.0	22	57.0	62.00	109.00
Bhadrak	Bhandaripok hari	Manjuri Road	21.02888889	86.32000000	7.70	520.0	0	214.0	35.00	0.25	25.00	2.00	193.0	18	36.0	25.00	8.20
Bhadrak	Bhadrak	Rambhila	21.13500000	86.53083333	7.90	1460.0	0	488.0	158.00	0.20	106.00	18.00	246.0	31	41.0	92.00	219.30
Bhadrak	Bant	Randia	21.06888889	86.46277778	7.90	490.0	0	250.0	21.00	0.47	21.00	3.00	111.0	10	21.0	57.00	7.80
Bhadrak	Bhandaripok hari	Sunahara	20.97083333	86.38111111	7.90	1400.0	0	439.0	237.00	0.94	16.00	4.00	259.0	33	43.0	181.00	36.60
Bhadrak	Bhadrak	Sunchar (Kusun Nagar)	21.15222222	86.43944444	7.50	1260.0	0	409.0	95.00	0.19	69.00	98.00	232.0	27	40.0	51.00	220.80
Bhadrak	Bhadrak	Tihidi	21.03833333	86.56805556	7.80	2120.0	0	659.0	332.00	0.27	116.00	13.00	291.0	39	47.0	319.00	55.60
Cuttack	Salepur	Anantapur	20.49777778	85.97333333	7.28	500.0	0	214.0	35.00	0.27	16.00	5.00	200.0	40	24.0	19.00	5.00
Cuttack	Dampara	Banki2	20.37722222	85.52750000	7.58	900.0	0	415.0	60.00	0.45	28.00	10.00	250.0	64	22.0	57.00	57.00
Cuttack	Baranga	Baranga 1	20.41194444	85.82583333	7.04	560.0	0	226.0	35.00	0.15	31.00	11.00	210.0	36	29.0	28.00	6.00
Cuttack	Mahanga	Bhanraj	20.56666667	86.17944444	7.77	790.0	0	305.0	67.00	0.29	38.00	3.00	270.0	50	35.0	56.00	1.00
Cuttack	Kantapada	Brahmanajha rilo	20.28333333	85.95000000	7.52	430.0	0	207.0	20.00	0.24	1.00	9.00	155.0	36	16.0	18.00	16.00
Cuttack	Tangi Choudwar	Choudwar	20.51750000	85.91638889	7.49	370.0	0	183.0	15.00	0.34	10.00	3.00	145.0	44	9.0	15.00	2.00
Cuttack	Mahanga	Dharma Shyamsundar pur	20.54805556	86.17694444	7.99	1280.0	0	512.0	55.00	1.03	77.00	9.00	200.0	52	17.0	196.00	7.00
Cuttack	Kantapada	Dimiri 1	20.24666667	86.02500000	7.73	1130.0	0	482.0	102.00	0.39	1.00	4.00	380.0	68	51.0	61.00	38.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Cuttack	Cuttacksadar	Jagatpur-i	20.50638889	85.91333333	7.74	710.0	0	348.0	37.00	0.36	1.00	2.00	275.0	32	47.0	31.00	6.00
Cuttack	Cuttacksadar	Kandarpur	20.40000000	86.01416667	7.99	660.0	0	256.0	80.00	0.39	13.00	3.00	195.0	58	12.0	58.00	4.00
Cuttack	Niali	Kasarda	20.21194444	86.07333333	7.85	1300.0	0	506.0	125.00	0.09	62.00	44.00	295.0	72	28.0	74.00	148.00
Cuttack	Nischinta Koili	Kulia Market	20.47722222	86.13472222	7.85	530.0	0	275.0	12.00	0.38	1.00	7.00	200.0	50	18.0	27.00	1.70
Cuttack	Niali	Madhab	20.07916667	86.10277778	7.64	1230.0	0	506.0	100.00	0.14	55.00	47.00	365.0	66	49.0	70.00	73.00
Cuttack	Cuttacksadar	Nachhipur	20.38833333	85.89638889	7.37	570.0	0	220.0	32.00	0.14	41.00	26.00	240.0	60	22.0	19.00	1.00
Cuttack	Niali	Niali	20.13083333	86.06444444	7.75	1200.0	0	348.0	155.00	0.08	53.00	46.00	395.0	56	62.0	57.00	63.00
Cuttack	Tangi Choudwar	Nimpur	20.49583333	85.91444444	7.54	600.0	0	220.0	47.00	0.08	18.00	40.00	230.0	68	15.0	28.00	5.00
Cuttack	Cuttacksadar	Nuagarh	20.38972222	85.88472222	7.37	650.0	0	287.0	27.00	0.22	28.00	24.00	270.0	26	50.0	22.00	2.60
Cuttack	Salepur	Sankilo	20.47250000	86.22111111	7.82	620.0	0	275.0	42.00	0.68	1.00	2.00	230.0	22	43.0	36.00	1.00
Cuttack	Salepur	Sisua	20.48277778	86.08416667	7.74	750.0	0	317.0	32.00	0.51	54.00	3.00	270.0	32	46.0	47.00	1.40
Cuttack	Cuttacksadar	Tangi1	20.55777778	85.98944444	7.76	1310.0	0	384.0	227.00	0.81	65.00	2.00	405.0	36	77.0	98.00	26.00
Cuttack	Cuttacksadar	Telengapent h	20.38694444	85.88805556	7.64	720.0	0	299.0	90.00	0.26	1.00	2.00	250.0	50	30.0	45.00	6.00
Cuttack	Niali	Tola Gopinathpur	20.09944444	86.08888889	7.52	680.0	0	256.0	60.00	0.07	17.00	12.00	200.0	36	27.0	35.00	46.00
Cuttack	Cuttacksadar	C-03 Khannagar	20.44416667	85.89222222	7.79	780.0	0	268.0	65.00	0.39	30.00	37.00	295.0	56	38.0	33.00	17.00
Cuttack	Cuttacksadar	C-06 Bidanasi	20.49083333	85.83888889	7.86	550.0	0	250.0	40.00	0.47	4.00	13.00	220.0	32	34.0	20.00	9.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Cuttack	Cuttacksadar	C-07 Sekhbazar	20.48583333	85.86805556	7.65	260.0	0	98.0	22.00	0.38	8.00	1.00	120.0	34	9.0	2.00	1.00
Cuttack	Cuttacksadar	C-10 Sikharpur	20.46888889	85.90694444	7.79	830.0	0	299.0	50.00	0.07	105.00	18.00	325.0	20	67.0	24.00	26.00
Cuttack	Cuttacksadar	C-12 Nimasahi (Haripur)	20.46611111	85.87527778	7.96	1170.0	0	445.0	115.00	0.14	47.00	4.00	460.0	30	94.0	43.00	24.00
Cuttack	Cuttacksadar	C-13 Mahammadia Bazar	20.47083333	85.85833333	7.70	760.0	0	244.0	75.00	0.11	35.00	45.00	250.0	40	37.0	33.00	45.00
Cuttack	Cuttacksadar	C-14 Chandi Mandir	20.47722222	85.86222222	7.91	790.0	0	354.0	45.00	0.05	25.00	16.00	350.0	32	66.0	8.00	21.00
Cuttack	Cuttacksadar	C-16 Bauxi Bazar	20.47611111	85.87583333	7.84	810.0	0	323.0	57.00	0.05	36.00	27.00	300.0	42	47.0	26.00	35.00
Cuttack	Cuttacksadar	C-19 Chauliaganj	20.45472222	85.91055556	7.89	840.0	0	238.0	135.00	0.24	25.00	11.00	335.0	28	64.0	27.00	20.00
Cuttack	Cuttacksadar	C-20 Nadikula sahi (Sikharpur)	20.46944444	85.91055556	7.84	640.0	0	220.0	70.00	0.25	29.00	10.00	280.0	32	49.0	11.00	11.00
Cuttack	Cuttacksadar	C-25 Balikuda-2	20.43111111	85.87527778	7.78	570.0	0	226.0	47.00	0.17	25.00	15.00	245.0	20	47.0	15.00	3.00
Cuttack	Cuttacksadar	C-26 Jagatpur-2	20.49777778	85.92277778	7.79	840.0	0	238.0	45.00	0.21	118.00	41.00	380.0	16	83.0	10.00	11.00
Cuttack	Cuttacksadar	C-27 Manguli Chhak	20.52527778	85.94083333	7.93	990.0	0	323.0	102.00	0.54	69.00	9.00	380.0	16	83.0	41.00	19.00
Cuttack	Cuttacksadar	C-28 Jagatpur-3 (Nuasahi)	20.51083333	85.93250000	7.84	600.0	0	232.0	40.00	0.14	47.00	1.00	280.0	18	57.0	7.00	1.00
Cuttack	Cuttacksadar	C-29 Khapuria Bazar	20.44388889	85.90111111	7.78	660.0	0	220.0	55.00	0.19	40.00	22.00	265.0	20	52.0	26.00	6.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Cuttack	Cuttacksadar	C-30 Khapuria (Nuapada)	20.44388889	85.90888889	7.90	540.0	0	214.0	52.00	0.24	18.00	3.00	230.0	24	41.0	16.00	3.00
Cuttack	Cuttacksadar	C-31 Pithapur	20.57666667	85.76944444	7.83	760.0	0	250.0	90.00	0.32	38.00	6.00	280.0	44	41.0	34.00	17.00
Cuttack	Cuttacksadar	C-33 Lakshmi Mandap (Badambari)	20.45638889	85.88472222	7.86	670.0	0	256.0	55.00	0.39	18.00	26.00	260.0	26	47.0	26.00	14.00
Cuttack	Cuttacksadar	C-34 Chakuli	20.43861111	85.87083333	7.92	590.0	0	207.0	72.00	0.30	8.00	4.00	240.0	48	29.0	22.00	4.00
Cuttack	Cuttacksadar	C-35 Netaji Nagar	20.44055556	85.89666667	7.88	630.0	0	226.0	60.00	0.23	19.00	1.00	255.0	32	43.0	21.00	8.00
Cuttack	Badamba	Abhimanpur	20.44444444	85.43750000	7.91	954.0	0	373.0	102.00	0.21	39.00	61.00	374.0	64	52.0	65.00	9.07
Cuttack	Narasinghpur	Balijhari 1	20.41055556	85.21944444	7.63	833.0	0	365.0	60.00	0.17	29.00	36.00	388.0	68	53.0	38.00	3.84
Cuttack	Badamba	Baramba	20.41750000	85.34583333	7.80	864.0	0	365.0	82.00	0.36	15.00	53.00	379.0	64	53.0	53.00	4.37
Cuttack	Cuttacksadar	Chowdwar	20.51750000	85.92000000	7.45	254.0	0	99.0	27.00	0.08	11.00	33.00	105.0	22	12.0	16.00	6.91
Cuttack	Badamba	Gopapur	20.40277778	85.29583333	8.17	873.0	0	342.0	77.00	0.09	15.00	60.00	324.0	62	41.0	50.00	51.42
Cuttack	Narasinghpur	Kanapur	20.40555556	85.18333333	7.75	1456.0	0	670.0	120.00	0.20	15.00	94.00	573.0	104	76.0	76.00	80.74
Cuttack	Badamba	Karadibandh	20.37916667	85.28472222	7.64	960.0	0	396.0	97.00	0.11	42.00	68.00	403.0	84	47.0	62.00	7.72
Cuttack	Athagad	Khuntuni 1	20.56277778	85.72638889	8.13	358.0	0	175.0	30.00	0.09	4.00	3.00	154.0	30	19.0	21.00	7.21
Cuttack	Athagad	Oranda	20.54361111	85.80111111	7.26	335.0	0	109.0	20.00	0.12	62.00	11.00	159.0	32	19.0	12.00	7.05
Cuttack	Badamba	Sankhmiri	20.37500000	85.33611111	7.86	1325.0	0	517.0	167.00	0.10	9.00	73.00	373.0	81	42.0	108.00	88.35
Cuttack	Narasinghpur	Saradapur	20.52916667	84.96666667	7.60	1150.0	0	494.0	100.00	0.36	42.00	71.00	508.0	98	64.0	63.00	11.04
Cuttack	Tigiria	Tigiria	20.46500000	85.52083333	8.10	1228.0	0	563.0	100.00	0.27	9.00	76.00	568.0	92	82.0	64.00	6.82

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Debagarh	Barkot	Barkote 1	21.55333333	84.99638889	7.92	180.0	0	73.0	7.00	0.13	5.00	8.00	65.0	18	5.0	9.00	0.70
Debagarh	Reamal	Deogarh	21.54361111	84.72444444	7.62	210.0	0	104.0	15.00	0.11	2.00	2.00	75.0	14	10.0	11.00	1.30
Debagarh	Tileibani	Kalamati	21.52555556	84.80250000	8.24	590.0	0	244.0	45.00	0.24	32.00	2.00	235.0	32	38.0	18.00	16.00
Debagarh	Barkot	Kalkat	21.48583333	84.95166667	8.27	460.0	0	238.0	12.00	0.21	3.00	1.00	190.0	34	26.0	16.00	4.00
Debagarh	Barkot	Kondal	21.55722222	84.88500000	8.08	1200.0	0	146.0	280.00	0.21	48.00	25.00	485.0	40	94.0	51.00	2.65
Debagarh	Reamal	Purumunda	21.30722222	84.63750000	8.11	650.0	0	195.0	67.00	0.16	26.00	41.00	230.0	28	39.0	39.00	4.71
Debagarh	Tileibani	Rengalbeda	21.44527778	84.68333333	8.21	1190.0	0	488.0	92.00	3.17	49.00	6.00	100.0	26	9.0	225.00	3.42
Debagarh	Reamal	Riamal 1	21.36444444	84.66027778	7.60	770.0	0	207.0	112.00	0.71	38.00	5.00	225.0	32	35.0	71.00	2.80
Debagarh	Reamal	Tarang	21.27388889	84.57972222	8.05	720.0	0	207.0	87.00	0.46	35.00	43.00	250.0	68	19.0	49.00	1.80
Debagarh	Reamal	Telimunda	21.34250000	84.66888889	8.17	430.0	0	195.0	32.00	0.31	4.00	7.00	170.0	36	19.0	17.00	3.90
Debagarh	Tileibani	Tileibani	21.54583333	84.60222222	7.89	810.0	0	183.0	132.00	0.27	26.00	22.00	245.0	40	35.0	69.00	7.10
Dhenkanal	Kamakshaya Nagar	Alnaberini 1	20.81083333	85.54027778	6.69	119.0	0	20.0	34.00	0.05	3.00	21.00	73.0	19	6.0	8.00	1.60
Dhenkanal	Hindol	Babandh	20.72055556	85.42972222	8.14	1230.0	0	336.0	170.00	0.50	69.00	45.00	489.0	134	38.0	42.00	9.30
Dhenkanal	Parajang	Badajhara	20.94138889	85.39194444	7.87	496.0	0	179.0	66.00	0.30	63.00	1.00	241.0	68	17.0	29.00	2.10
Dhenkanal	Kamakshaya Nagar	Baisingha	20.91388889	85.59305556	7.30	410.0	0	74.0	72.00	0.07	5.00	31.00	171.0	49	12.0	17.00	1.60
Dhenkanal	Sadar	Baldiabandh	20.59777778	85.65250000	7.59	206.0	0	88.0	33.00	0.20	9.00	1.00	95.0	22	10.0	14.00	2.90
Dhenkanal	Hindol	Balmi	20.70611111	85.32583333	7.55	425.0	0	117.0	75.00	0.22	3.00	41.00	192.0	58	11.0	19.00	1.70
Dhenkanal	Odapada	Balrampur	20.68222222	85.49666667	7.03	133.0	0	23.0	33.00	0.03	3.00	22.00	56.0	17	3.0	9.00	5.60
Dhenkanal	Sadar	Bandhnuagao n	20.71166667	85.69722222	8.20	495.0	0	156.0	94.00	0.09	11.00	4.00	186.0	39	22.0	25.00	26.60

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Dhenkanal	Kankada Had	Batgaon	20.99583333	85.58750000	7.79	236.0	0	84.0	54.00	0.06	13.00	7.00	147.0	25	20.0	11.00	3.40
Dhenkanal	Sadar	Bhapur2	20.56250000	85.49305556	8.18	1635.0	0	364.0	207.00	0.27	98.00	46.00	414.0	19	89.0	100.00	105.20
Dhenkanal	Bhuban	Bhuban	20.88444444	85.83416667	7.54	2640.0	0	268.0	475.00	0.16	242.00	46.00	808.0	58	161.0	209.00	20.80
Dhenkanal	Odapada	Dhaulpur	20.79444444	85.35694444	8.23	1136.0	0	467.0	120.00	0.85	38.00	9.00	340.0	49	53.0	93.00	45.30
Dhenkanal	Sadar	Dhenkanal	20.65388889	85.59888889	8.29	483.0	0	347.0	40.00	0.17	2.00	1.00	314.0	88	23.0	14.00	0.90
Dhenkanal	Sadar	Gangutia	20.71750000	85.56166667	8.18	107.0	0	42.0	22.00	0.06	3.00	9.00	59.0	14	6.0	7.00	0.60
Dhenkanal	Bhuban	Goda	20.92083333	85.76666667	7.73	875.0	0	280.0	129.00	0.15	63.00	21.00	243.0	66	19.0	63.00	66.60
Dhenkanal	Gandia	Gondia1	20.76388889	85.80166667	7.74	374.0	0	91.0	57.00	0.05	29.00	22.00	146.0	39	12.0	26.00	12.00
Dhenkanal	Kamakshaya Nagar	Hatwari	20.90972222	85.63333333	7.60	722.0	0	254.0	82.00	0.20	53.00	35.00	333.0	57	46.0	28.00	9.40
Dhenkanal	Hindol	Hindol 2	20.60777778	85.19666667	8.22	753.0	0	296.0	65.00	0.16	46.00	26.00	178.0	58	8.0	27.00	111.60
Dhenkanal	Sadar	Jhumpuria	20.53277778	85.48527778	8.25	271.0	0	124.0	36.00	0.19	3.00	11.00	132.0	32	12.0	14.00	0.90
Dhenkanal	Gandia	Joranda	20.77916667	85.72500000	7.82	60.0	0	17.0	18.00	0.02	2.00	5.00	25.0	6	2.0	9.00	0.40
Dhenkanal	Kamakshaya Nagar	Kamakyanaagar	20.93138889	85.54916667	7.60	1958.0	0	223.0	420.00	0.39	138.00	11.00	682.0	68	124.0	123.00	4.80
Dhenkanal	Kankada Had	Kankadahad	21.06944444	85.57194444	8.22	453.0	0	251.0	50.00	0.06	10.00	0.00	192.0	32	27.0	42.00	3.50
Dhenkanal	Kamakshaya Nagar	Mahulpal	20.89472222	85.54055556	8.00	513.0	0	95.0	90.00	0.06	28.00	32.00	195.0	68	6.0	33.00	11.30
Dhenkanal	Sadar	Mahulpunja	20.55194444	85.47583333	8.29	560.0	0	305.0	39.00	1.32	17.00	10.00	230.0	77	9.0	47.00	0.70
Dhenkanal	Gandia	Mandar	20.84444444	85.85722222	8.12	588.0	0	267.0	54.00	0.35	22.00	11.00	249.0	78	13.0	35.00	3.00
Dhenkanal	Bhuban	Mathakaragola	20.90027778	85.68638889	7.69	150.0	0	46.0	30.00	0.03	3.00	15.00	57.0	13	6.0	15.00	2.90

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Dhenkanal	Odapada	Motanga	20.80138889	85.31194444	7.86	942.0	0	309.0	106.00	0.57	66.00	27.00	389.0	131	15.0	47.00	1.50
Dhenkanal	Parajang	Muktaposi	20.93750000	85.41250000	8.00	943.0	0	315.0	117.00	0.33	80.00	2.00	284.0	78	22.0	81.00	38.50
Dhenkanal	Parajang	Parjang1	20.92166667	85.31805556	8.29	1000.0	0	308.0	142.00	0.30	102.00	11.00	366.0	117	18.0	73.00	2.50
Dhenkanal	Gandia	Sading	20.80833333	85.83833333	7.87	515.0	0	88.0	84.00	0.04	28.00	34.00	146.0	56	1.0	23.00	37.20
Dhenkanal	Sadar	Samacharana pur	20.63750000	85.61638889	7.63	242.0	0	75.0	36.00	0.06	16.00	7.00	88.0	23	7.0	20.00	1.20
Dhenkanal	Bhuban	Samole	20.91527778	85.79861111	7.85	100.0	0	37.0	20.00	0.04	4.00	3.00	51.0	12	5.0	5.00	2.60
Dhenkanal	Sadar	Shankarpur	20.60388889	85.54500000	8.29	596.0	0	308.0	56.00	0.06	51.00	12.00	292.0	113	2.0	31.00	2.30
Dhenkanal	Parajang	Singhada	20.94583333	85.30694444	8.20	662.0	0	200.0	92.00	0.66	56.00	2.00	287.0	94	13.0	18.00	22.00
Gajapati	Mohana	Adaba	19.48944444	84.18222222	7.07	208.0	0	96.0	17.00	0.10	8.00	2.00	96.0	21	11.0	11.00	1.90
Gajapati	Parlakhemundi	Appalanaidu petta	18.84055556	83.91916667	7.60	532.0	0	203.0	27.00	0.73	15.00	1.00	163.0	35	18.0	27.00	0.70
Gajapati	Mohana	Bada Khoni	19.48166667	84.29083333	7.59	475.0	0	212.0	19.00	0.35	18.00	27.00	141.0	39	11.0	14.00	54.10
Gajapati	Mohana	Chandiput 1	19.36500000	84.30055556	7.31	330.0	0	99.0	44.00	0.20	12.00	9.00	105.0	31	7.0	22.00	9.10
Gajapati	Mohana	Chandragiri 1	19.30583333	84.28638889	6.94	145.0	0	42.0	17.00	0.06	4.00	8.00	48.0	10	6.0	8.00	5.90
Gajapati	R.Udaygiri	Cheligada	19.19583333	84.23944444	7.21	298.0	0	121.0	24.00	0.08	14.00	12.00	91.0	21	9.0	13.00	27.00
Gajapati	Mohana	Damadua	19.55611111	84.16000000	8.00	373.0	0	128.0	42.00	0.86	28.00	22.00	135.0	25	18.0	30.00	1.70
Gajapati	Parlakhemundi	Garabandh	18.83027778	84.28222222	7.47	1644.0	0	374.0	255.00	0.96	6.00	1.00	412.0	52	69.0	120.00	0.90
Gajapati	Parlakhemundi	Gosani	18.81250000	84.24555556	7.67	667.0	0	277.0	35.00	0.43	15.00	0.00	169.0	40	16.0	40.00	29.00
Gajapati	Guma	Gumma	18.98027778	84.02055556	6.97	231.0	0	99.0	18.00	0.21	2.00	11.00	83.0	19	9.0	15.00	1.00
Gajapati	Kashinagara	K Sitapur 1	18.81277778	83.98555556	7.45	2021.0	0	532.0	278.00	1.10	32.00	16.00	260.0	19	51.0	282.00	0.40
Gajapati	Parlakhemundi	Kantragada	18.85805556	84.19055556	7.90	1643.0	0	349.0	254.00	0.54	46.00	40.00	450.0	94	52.0	115.00	16.60

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Gajapati	Kashinagara	Kasinagar	18.85611111	83.88000000	7.82	1315.0	0	400.0	135.00	0.85	34.00	35.00	352.0	44	59.0	103.00	3.20
Gajapati	Parlakhemundi	Kattalakanita	18.81055556	84.14277778	7.45	1010.0	0	300.0	100.00	0.76	55.00	17.00	226.0	48	26.0	81.00	19.80
Gajapati	Nuagada	Khajuripara	19.06527778	84.09277778	6.71	120.0	0	64.0	10.00	0.10	2.00	0.00	53.0	10	7.0	7.00	2.80
Gajapati	Mohana	Kirama	19.43777778	84.31138889	7.00	436.0	0	102.0	73.00	0.11	7.00	27.00	135.0	40	8.0	29.00	3.20
Gajapati	Mohana	Ladruma	19.45527778	84.26527778	7.79	225.0	0	122.0	21.00	0.09	3.00	0.00	101.0	25	9.0	16.00	2.00
Gajapati	Parlakhemundi	Lavanya Khotta	18.81638889	84.33111111	7.56	675.0	0	168.0	46.00	0.32	1.00	1.00	120.0	25	14.0	38.00	2.60
Gajapati	Parlakhemundi	Lavanyagada	18.81972222	84.28638889	7.67	303.0	0	98.0	55.00	0.22	1.00	1.00	83.0	21	7.0	34.00	1.70
Gajapati	Mohana	Lillygada	19.42861111	84.28416667	7.98	880.0	0	229.0	48.00	0.42	43.00	22.00	125.0	23	16.0	38.00	64.90
Gajapati	Mohana	Luhaguda	19.45944444	84.36250000	7.94	1400.0	0	183.0	136.00	0.38	78.00	45.00	409.0	73	55.0	36.00	2.70
Gajapati	Mohana	Madhura-Amba	19.44833333	84.34805556	7.83	196.0	0	83.0	22.00	0.19	5.00	1.00	74.0	17	7.0	13.00	2.50
Gajapati	Mohana	Mohana	19.43833333	84.26833333	8.20	330.0	0	153.0	31.00	0.90	7.00	1.00	96.0	31	5.0	35.00	1.10
Gajapati	Parlakhemundi	Narayanpur	18.87361111	84.19194444	7.77	145.0	0	78.0	12.00	0.16	2.00	2.00	55.0	15	4.0	11.00	3.50
Gajapati	Nuagada	Nuagada	19.09916667	84.04833333	7.94	676.0	0	167.0	65.00	0.53	30.00	5.00	167.0	35	20.0	41.00	8.40
Gajapati	Guma	Parasamba	18.84472222	84.05333333	7.98	279.0	0	98.0	44.00	0.17	3.00	0.00	114.0	31	9.0	14.00	1.00
Gajapati	Parlakhemundi	Parlakhemundi	18.77083333	84.10416667	7.54	365.0	0	143.0	36.00	0.26	25.00	6.00	123.0	31	11.0	30.00	8.10
Gajapati	Rayagada	Pegoda	18.91333333	84.15527778	7.70	105.0	0	52.0	20.00	0.08	2.00	1.00	44.0	8	6.0	11.00	3.20
Gajapati	R.Udaygiri	R.udaygiri	19.15500000	84.14583333	7.04	214.0	0	46.0	26.00	0.07	2.00	25.00	58.0	15	5.0	16.00	3.70
Gajapati	Parlakhemundi	Raygarh	18.88750000	84.16111111	7.91	416.0	0	137.0	36.00	0.12	17.00	19.00	115.0	37	6.0	22.00	35.40
Gajapati	Mohana	Santhi Nagar	19.45972222	84.21722222	7.89	407.0	0	139.0	43.00	0.20	18.00	38.00	152.0	40	13.0	24.00	12.30

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Gajapati	Mohana	Taramala	19.38666667	84.30638889	7.92	567.0	0	275.0	24.00	0.37	21.00	27.00	149.0	48	7.0	17.00	74.00
Gajapati	Parlakhemundi	Tattipati	18.83166667	84.21000000	7.92	596.0	0	155.0	53.00	0.30	17.00	1.00	119.0	25	14.0	44.00	5.10
Gajapati	Mohana	Zubagaon	19.32666667	84.30277778	7.50	101.0	0	51.0	10.00	0.07	2.00	1.00	39.0	8	5.0	7.00	3.00
Ganjam	Bellaguntha	Ambapua 1	19.86138889	84.64555556	8.16	252.0	0	54.0	47.00	0.56	14.00	2.00	60.0	10	9.0	30.00	3.12
Ganjam	Asika	Aska 1	19.61111111	84.66861111	7.88	1720.0	0	736.0	169.00	0.31	58.00	26.00	642.0	114	87.0	120.00	12.89
Ganjam	Surada	Badagarh 1	19.64444444	84.41305556	8.31	994.0	12	520.0	70.00	0.33	6.00	5.00	458.0	84	61.0	45.00	22.34
Ganjam	Hinjilicut	Badakhandi	19.42222222	84.73722222	8.34	950.0	18	371.0	70.00	0.54	76.00	2.00	388.0	78	47.0	45.00	12.35
Ganjam	Asika	Badakholi	19.70888889	84.70166667	8.29	800.0	0	413.0	40.00	0.60	17.00	23.00	339.0	68	41.0	26.00	27.41
Ganjam	Buguda	Baguda 2	19.80750000	84.79083333	8.40	1064.0	24	496.0	82.00	0.53	16.00	13.00	458.0	76	65.0	55.00	17.46
Ganjam	Bellaguntha	Balipadar	19.73555556	84.71055556	8.11	380.0	0	197.0	19.00	0.23	6.00	11.00	174.0	36	21.0	12.00	5.48
Ganjam	Dharakote	Balrampur	19.63861111	84.43111111	8.45	1866.0	29	628.0	228.00	1.17	117.00	7.00	657.0	122	86.0	148.00	2.70
Ganjam	Purusottampur	Bananai	19.51833333	84.77305556	8.13	1079.0	0	467.0	106.00	0.50	46.00	26.00	408.0	76	53.0	68.00	28.26
Ganjam	Dharakote	Baradabili	19.69250000	84.54500000	8.10	1481.0	0	628.0	146.00	0.58	65.00	33.00	588.0	112	75.0	102.00	2.08
Ganjam	Jaganathprasad	Baragam	19.89777778	84.68388889	7.98	730.0	0	317.0	52.00	0.22	44.00	12.00	289.0	68	29.0	33.00	11.90
Ganjam	Bellaguntha	Belaguntha1	19.88166667	84.63944444	8.38	948.0	24	389.0	82.00	0.20	24.00	19.00	379.0	66	52.0	49.00	19.36
Ganjam	Rangilunda	Berhampur li	19.31166667	84.79055556	7.40	1068.0	0	538.0	106.00	0.16	9.00	0.00	458.0	82	62.0	65.00	13.63
Ganjam	Bhanjanagar	Bhanjanagari	19.94861111	84.58333333	8.13	570.0	0	329.0	26.00	0.20	10.00	6.00	289.0	50	40.0	16.00	1.86
Ganjam	Asika	Bhetnai	19.67944444	84.69638889	8.04	1014.0	0	425.0	92.00	0.17	40.00	31.00	388.0	70	52.0	55.00	22.10
Ganjam	Bellaguntha	Buguda1	19.80972222	84.79027778	7.98	1630.0	0	730.0	131.00	0.26	57.00	46.00	637.0	122	81.0	85.00	19.64
Ganjam	Jaganathprasad	Chadeiapalli Chhak	19.96916667	84.84666667	8.22	740.0	0	371.0	33.00	0.28	34.00	29.00	374.0	72	47.0	21.00	1.98

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Ganjam	Jaganathprasad	Chamkahandi	20.04305556	84.70694444	8.17	1128.0	0	592.0	73.00	0.73	39.00	1.00	558.0	110	69.0	47.00	3.75
Ganjam	Chhatrapur	Chatrapur1	19.35500000	84.97888889	7.70	1240.0	0	532.0	122.00	0.48	60.00	2.00	483.0	98	58.0	79.00	1.31
Ganjam	Asika	Cheramarua	19.56250000	84.69222222	8.13	1410.0	0	688.0	131.00	0.51	32.00	1.00	593.0	116	74.0	81.00	4.05
Ganjam	Chikiti	Chikiti	19.19583333	84.61444444	7.83	800.0	0	389.0	73.00	0.40	18.00	2.00	329.0	66	40.0	48.00	3.66
Ganjam	Bhanjanagar	Dadralunda	20.06166667	84.48888889	7.76	875.0	0	377.0	77.00	0.38	21.00	39.00	344.0	68	42.0	50.00	1.07
Ganjam	Dharakote	Dharkote	19.64166667	84.57916667	8.14	810.0	0	413.0	87.00	0.75	6.00	2.00	354.0	70	44.0	57.00	0.33
Ganjam	Kukudakhandi	Digapahandi 1	19.38194444	84.56305556	8.22	914.0	0	377.0	82.00	1.32	39.00	30.00	369.0	70	47.0	53.00	0.90
Ganjam	Rangilunda	Dumdumi	19.22250000	84.80666667	8.21	825.0	0	407.0	87.00	0.21	19.00	1.00	354.0	70	44.0	56.00	9.21
Ganjam	Bhanjanagar	Gallery	20.09250000	84.57500000	8.28	1102.0	0	520.0	113.00	0.74	20.00	8.00	443.0	84	57.0	73.00	3.61
Ganjam	Dharakote	Gangapur 1	19.77916667	84.60750000	8.11	1400.0	0	670.0	122.00	0.40	33.00	0.00	578.0	136	58.0	81.00	13.06
Ganjam	Chhatrapur	Ganjam	19.37361111	85.03472222	8.17	1289.0	0	550.0	96.00	0.25	58.00	46.00	478.0	82	67.0	59.00	31.75
Ganjam	Jaganathprasad	Gayagonda 1	20.17416667	84.75083333	7.90	780.0	0	407.0	66.00	0.48	4.00	2.00	344.0	70	41.0	42.00	5.50
Ganjam	Bellaguntha	Gobara	19.82638889	84.60000000	7.95	1328.0	0	646.0	120.00	0.36	25.00	2.00	543.0	98	73.0	84.00	22.36
Ganjam	Rangilunda	Golabandha	19.24944444	84.87194444	8.09	1031.0	0	365.0	122.00	0.41	55.00	18.00	339.0	78	35.0	79.00	24.42
Ganjam	Rangilunda	Golanthara	19.20416667	84.75250000	7.66	272.0	0	114.0	12.00	0.14	19.00	13.00	105.0	24	11.0	9.00	7.58
Ganjam	Rangilunda	Gopalpur 1	19.25888889	84.77500000	8.49	2790.0	24	742.0	451.00	0.93	170.00	45.00	812.0	189	82.0	293.00	20.48
Ganjam	Kavisurjyanagar	Gudiali	19.56750000	84.78388889	8.16	1224.0	0	532.0	113.00	0.43	49.00	45.00	528.0	84	77.0	66.00	0.62
Ganjam	Rangilunda	Haladiapadar	19.27750000	84.78138889	7.86	2247.0	0	927.0	251.00	0.54	80.00	1.00	807.0	229	57.0	156.00	8.26
Ganjam	Rangilunda	Hinjlapalli 1	19.24222222	84.78527778	8.24	460.0	0	245.0	26.00	0.44	11.00	13.00	224.0	46	27.0	17.00	1.13
Ganjam	Hinjlicut	Hinjlicut 1	19.47611111	84.74666667	8.21	820.0	0	389.0	45.00	0.23	35.00	30.00	388.0	72	51.0	28.00	1.35

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Ganjam	Hinjilicut	Hinjlikatu	19.48888889	84.74166667	7.88	1643.0	0	754.0	143.00	0.35	55.00	22.00	637.0	122	81.0	93.00	17.93
Ganjam	Ganjam	Humma	19.42694444	85.07500000	8.44	1556.0	18	694.0	167.00	0.31	19.00	4.00	618.0	118	79.0	107.00	42.68
Ganjam	Jaganathprasad	Jagannathprasad	19.97083333	84.77777778	8.27	1080.0	0	473.0	87.00	0.41	34.00	45.00	428.0	82	54.0	57.00	7.47
Ganjam	Patrapur	Jarada1	19.07500000	84.50666667	8.42	540.0	24	138.0	68.00	0.14	28.00	4.00	174.0	40	19.0	44.00	0.31
Ganjam	Patrapur	Jayantipur	19.09388889	84.61333333	8.32	890.0	12	461.0	59.00	0.51	21.00	0.00	413.0	78	53.0	38.00	2.80
Ganjam	Jaganathprasad	Jhadabhumi	19.91916667	84.72333333	8.03	540.0	0	287.0	31.00	0.20	10.00	22.00	259.0	48	34.0	19.00	0.57
Ganjam	Asika	K Nuagaon	19.63305556	84.66638889	8.34	480.0	12	215.0	40.00	0.21	11.00	0.00	204.0	46	22.0	26.00	3.91
Ganjam	Kavisurjyana gar	K.S.Nagar1	19.58305556	84.67555556	8.07	940.0	0	365.0	82.00	0.32	57.00	42.00	359.0	70	45.0	54.00	18.03
Ganjam	Bellaguntha	Kalamba	19.75083333	84.70444444	8.19	1130.0	0	556.0	63.00	0.25	36.00	43.00	508.0	104	60.0	41.00	0.24
Ganjam	Kukudakhandi	Kankia	19.24222222	84.70944444	8.08	384.0	0	203.0	28.00	0.30	5.00	0.00	174.0	36	21.0	19.00	4.14
Ganjam	Bellaguntha	Karachuli	19.90000000	84.88888889	8.06	1098.0	0	490.0	94.00	0.31	42.00	17.00	423.0	74	58.0	61.00	28.85
Ganjam	Khalikote	Khalikot	19.60972222	85.08833333	7.95	490.0	0	227.0	38.00	0.21	9.00	18.00	204.0	42	24.0	25.00	4.98
Ganjam	Asika	Khandrabali	19.71916667	84.64083333	8.40	588.0	12	263.0	49.00	0.35	18.00	1.00	254.0	52	30.0	32.00	0.38
Ganjam	Khalikote	Kodala	19.62500000	84.93833333	8.01	890.0	0	353.0	99.00	1.18	42.00	2.00	299.0	50	42.0	64.00	19.41
Ganjam	Bellaguntha	Kontaipalli 1	19.88777778	84.58000000	8.14	760.0	0	173.0	144.00	0.30	29.00	29.00	174.0	42	17.0	93.00	13.12
Ganjam	Kukudakhandi	Kukudahandi	19.39444444	84.75416667	8.21	990.0	0	389.0	101.00	0.39	31.00	40.00	344.0	68	42.0	65.00	23.36
Ganjam	Kukudakhandi	Lanjia	19.35444444	84.74277778	8.24	1263.0	0	604.0	101.00	0.44	43.00	17.00	523.0	122	53.0	65.00	24.16
Ganjam	Kukudakhandi	Lathi	19.30277778	84.75916667	8.34	1618.0	12	700.0	171.00	0.28	26.00	41.00	637.0	150	64.0	110.00	23.16
Ganjam	Bellaguntha	Lathipada	19.78750000	84.51750000	8.03	320.0	0	173.0	12.00	0.35	9.00	11.00	164.0	30	22.0	8.00	0.21

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Ganjam	Chikiti	Laxmipur1	19.16277778	84.61000000	8.26	930.0	0	293.0	130.00	0.44	20.00	43.00	264.0	48	35.0	84.00	12.00
Ganjam	Bellanguntha	Mangalpur2	19.80666667	84.66388889	8.10	370.0	0	138.0	30.00	0.39	12.00	26.00	130.0	22	18.0	19.00	10.82
Ganjam	Rangilunda	Mantridi	19.18888889	84.77194444	8.35	1985.0	12	706.0	209.00	0.35	88.00	45.00	697.0	144	82.0	142.00	27.34
Ganjam	Bhanjanagar	Mujhagarh	20.01666667	84.51722222	7.86	235.0	0	84.0	25.00	0.31	5.00	19.00	90.0	18	11.0	16.00	2.39
Ganjam	Asika	Mundamarai	19.63805556	84.60388889	8.01	501.0	0	179.0	59.00	0.28	3.00	32.00	169.0	36	19.0	39.00	3.39
Ganjam	Chhatrapur	Narendrapur	19.33500000	84.86944444	7.87	1700.0	0	688.0	183.00	0.18	84.00	48.00	637.0	124	80.0	119.00	25.21
Ganjam	Purusottampur	Nuapalli	19.46166667	84.88750000	8.25	540.0	0	185.0	66.00	0.29	23.00	13.00	174.0	42	17.0	39.00	7.82
Ganjam	Kukudakhandi	Padmanavapur	19.35694444	84.56611111	7.83	1762.0	0	789.0	160.00	0.19	65.00	12.00	657.0	136	77.0	101.00	21.12
Ganjam	Patrapur	Patrapur	19.13055556	84.57000000	8.02	830.0	0	395.0	82.00	0.21	9.00	3.00	339.0	68	41.0	52.00	11.22
Ganjam	Patrapur	Patrapur1	19.12833333	84.57722222	8.25	1020.0	0	484.0	64.00	0.31	35.00	33.00	453.0	82	60.0	43.00	4.64
Ganjam	Kukudakhandi	Pitamberpur	19.37055556	84.63111111	8.70	740.0	47	150.0	122.00	0.56	7.00	0.00	209.0	42	25.0	85.00	7.32
Ganjam	Hinjilicut	Pochilima	19.45416667	84.74666667	8.45	1960.0	12	646.0	289.00	0.89	56.00	48.00	618.0	130	71.0	186.00	21.28
Ganjam	Polasara	Polasora	19.69166667	84.81944444	8.21	1461.0	0	532.0	145.00	0.36	83.00	51.00	538.0	96	73.0	94.00	9.26
Ganjam	Sanakhemundi	Pudamari	19.44500000	84.46666667	8.30	910.0	0	413.0	67.00	0.33	33.00	4.00	374.0	62	53.0	44.00	22.68
Ganjam	Khalikote	Rambha	19.52694444	85.09583333	8.45	3030.0	24	1423.0	249.00	0.41	75.00	3.00	1235.0	251	148.0	161.00	59.90
Ganjam	Kukudakhandi	Ratanpur	19.35388889	84.77083333	8.27	740.0	0	347.0	74.00	0.57	16.00	1.00	299.0	52	41.0	48.00	7.25
Ganjam	Jaganathprasad	Saishamuli 1	20.07388889	84.60333333	8.10	960.0	0	335.0	152.00	0.32	11.00	20.00	299.0	54	40.0	99.00	21.32
Ganjam	Sargad	Sheragada2	19.50750000	84.60500000	8.81	1105.0	53	389.0	133.00	0.30	1.00	1.00	423.0	90	48.0	86.00	5.98
Ganjam	Surada	Soroda	19.75722222	84.43666667	8.03	1554.0	0	520.0	193.00	0.31	69.00	47.00	498.0	96	63.0	125.00	10.08

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Ganjam	Sargad	Subash Ch.Pur	19.53972222	84.62083333	8.14	870.0	0	305.0	139.00	0.30	22.00	16.00	269.0	58	30.0	90.00	2.37
Ganjam	Surada	Soramani	19.71000000	84.52055556	8.15	420.0	0	221.0	26.00	0.32	15.00	0.00	189.0	42	21.0	17.00	2.12
Ganjam	Patrapur	Surangi	19.15833333	84.53333333	8.45	1580.0	29	508.0	235.00	0.32	58.00	2.00	488.0	82	69.0	153.00	8.32
Ganjam	Chikiti	Surlaroad 1	19.16861111	84.72222222	8.85	2580.0	35	1041.0	293.00	0.32	47.00	6.00	946.0	156	136.0	187.00	57.20
Ganjam	Chhatrapur	Tanganapalli 1	19.37444444	84.87972222	8.07	3098.0	0	1441.0	310.00	0.46	45.00	34.00	1210.0	263	134.0	206.00	14.24
Ganjam	Jaganathprasad	Tarasingi	20.09222222	84.68777778	8.18	267.0	0	156.0	4.00	0.57	3.00	10.00	139.0	22	21.0	2.00	0.98
Ganjam	Bhanjanagar	Tilisingi	20.01888889	84.63222222	8.15	880.0	0	317.0	122.00	0.68	20.00	47.00	299.0	56	39.0	78.00	11.30
Ganjam	Bhanjanagar	Turumu2	20.04388889	84.61750000	8.28	570.0	0	251.0	60.00	0.33	21.00	1.00	229.0	50	25.0	39.00	1.89
Ganjam	Patrapur	Patrapur	19.13055556	84.57000000	8.85	1092.0	24	323.0	187.00	1.08	10.00	1.00	339.0	82	33.0	121.00	2.89
Ganjam	Bellaguntha	Mallaspadar	19.89250000	84.56277778	8.35	280.0	12	108.0	24.00	0.89	1.00	11.00	120.0	24	15.0	15.00	0.89
Jagatsinghapur	Kujang	Balarampur	20.32416667	86.53583333	7.54	690.0	0	293.0	47.00	0.31	24.00	11.00	260.0	64	24.0	36.00	2.40
Jagatsinghapur	Jagatsinghapur	Balia Store	20.32777778	86.08583333	7.77	560.0	0	293.0	27.00	0.21	1.00	1.00	215.0	34	32.0	28.00	1.00
Jagatsinghapur	Balikuda	Balikuda 3	20.13750000	86.27194444	7.64	690.0	0	354.0	35.00	0.29	1.00	0.00	235.0	60	21.0	48.00	1.80
Jagatsinghapur	Kujang	Bhutmundi1	20.32388889	86.57583333	7.46	2170.0	0	360.0	442.00	0.34	139.00	3.00	595.0	62	107.0	212.00	20.00
Jagatsinghapur	Jagatsinghapur	Govindpur	20.33111111	86.05500000	7.82	580.0	0	201.0	65.00	0.26	6.00	3.00	190.0	56	12.0	44.00	1.00
Jagatsinghapur	Tirtol	Kanakpur	20.28333333	86.30000000	7.62	670.0	0	256.0	82.00	0.31	7.00	2.00	195.0	50	17.0	62.00	1.40
Jagatsinghapur	Jagatsinghapur	Kulakijanga	20.33694444	86.05500000	7.82	750.0	0	348.0	52.00	0.35	11.00	3.00	290.0	70	28.0	37.00	1.60
Jajapur	Dharmasala	Amnut Monohi	20.87361111	86.00055556	7.63	510.0	0	159.0	57.00	0.12	38.00	3.00	155.0	42	12.0	44.00	3.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Jajapur	Badachana	Arkhapur	20.65388889	86.15388889	7.92	510.0	0	220.0	47.00	0.14	3.00	2.00	160.0	54	6.0	39.00	6.00
Jajapur	Dasarathapur	Bamdevpur	20.85138889	86.36805556	7.86	490.0	0	146.0	42.00	0.09	59.00	1.00	150.0	38	13.0	26.00	29.00
Jajapur	Dharmasala	Baruda	20.78277778	86.07027778	8.20	1540.0	0	872.0	30.00	0.64	4.00	1.00	160.0	26	23.0	280.00	1.00
Jajapur	Danagadi	Danagadi 1	20.96472222	86.07861111	8.04	320.0	0	92.0	17.00	0.12	38.00	29.00	100.0	16	15.0	25.00	1.00
Jajapur	Dharmasala	Dankari	20.77500000	86.06055556	8.26	1620.0	0	580.0	240.00	1.14	18.00	18.00	200.0	46	21.0	275.00	6.00
Jajapur	Dasarathapur	Dasarathpur	20.83444444	86.44666667	8.02	1180.0	0	549.0	100.00	0.18	1.00	2.00	300.0	64	34.0	84.00	81.00
Jajapur	Sukinda	Dubri 1	20.99527778	85.98750000	7.80	560.0	0	299.0	20.00	0.33	7.00	7.00	215.0	44	26.0	27.00	2.00
Jajapur	Sukinda	Garamian	20.98611111	85.79861111	7.50	200.0	0	73.0	12.00	0.13	8.00	22.00	65.0	14	7.0	15.00	1.00
Jajapur	Jajapur	Gopalpur	20.88166667	86.29777778	7.91	290.0	0	128.0	12.00	0.24	1.00	23.00	120.0	28	12.0	8.00	3.00
Jajapur	Badachana	Haridaspur	20.72472222	86.12083333	7.80	180.0	0	73.0	17.00	0.58	4.00	2.00	65.0	14	7.0	10.00	2.00
Jajapur	Dasarathapur	Hirapur	20.85027778	86.40277778	7.86	690.0	0	299.0	42.00	0.72	19.00	1.00	265.0	38	41.0	34.00	1.00
Jajapur	Jajapur	Jajpur	20.83527778	86.33694444	7.81	560.0	0	195.0	52.00	0.21	18.00	5.00	185.0	46	17.0	30.00	22.00
Jajapur	Danagadi	Jakhpura	20.93222222	86.06333333	8.00	360.0	0	61.0	12.00	0.12	91.00	17.00	150.0	14	28.0	6.00	11.00
Jajapur	Dharmasala	Jamjhari	20.79194444	86.07944444	7.97	630.0	0	207.0	72.00	0.21	18.00	12.00	180.0	36	22.0	54.00	12.00
Jajapur	Dharmasala	Kabatabandha	20.87222222	86.02500000	7.97	850.0	0	348.0	75.00	0.29	34.00	4.00	255.0	40	38.0	77.00	1.00
Jajapur	Bari	Kalamatia	20.64444444	86.40527778	8.18	1930.0	0	659.0	277.00	0.19	3.00	29.00	420.0	96	44.0	206.00	75.00
Jajapur	Sukinda	Khonedi	20.92972222	85.92833333	8.07	350.0	0	140.0	17.00	0.17	20.00	11.00	140.0	32	15.0	14.00	1.00
Jajapur	Dharmasala	Madhupurgarh	20.78416667	86.09583333	7.82	410.0	0	159.0	25.00	0.17	12.00	14.00	130.0	36	10.0	16.00	29.00
Jajapur	Danagadi	Phuljhore	21.08638889	85.98527778	7.81	590.0	0	293.0	25.00	0.73	6.00	5.00	245.0	56	26.0	21.00	2.00
Jajapur	Dharmasala	Pobala	20.74583333	86.07500000	7.87	240.0	0	79.0	30.00	0.19	9.00	0.00	90.0	16	12.0	12.00	1.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Jajapur	Dharmasala	Purunabavla mola	20.80722222	86.05472222	7.64	350.0	0	122.0	47.00	0.20	1.00	1.00	115.0	30	10.0	24.00	5.00
Jajapur	Dharmasala	Ragadiposi	20.80027778	86.06083333	7.90	840.0	0	421.0	50.00	0.35	1.00	1.00	330.0	40	56.0	40.00	1.00
Jajapur	Sukinda	Ragedi 1	20.90888889	86.00694444	8.01	740.0	0	366.0	20.00	0.32	67.00	1.00	305.0	52	43.0	29.00	1.00
Jajapur	Jajapur	Rudhia 1	20.91888889	86.27361111	7.94	500.0	0	214.0	30.00	0.23	7.00	23.00	160.0	40	15.0	29.00	19.00
Jajapur	Binjharpur	Rudrapur	20.70722222	86.43750000	8.04	730.0	0	275.0	77.00	0.29	1.00	2.00	120.0	22	16.0	104.00	13.00
Jajapur	Dharmasala	Sarei	20.72944444	86.13500000	7.69	180.0	0	79.0	10.00	0.20	6.00	3.00	60.0	12	7.0	7.00	8.00
Jajapur	Binjharpur	Singhpur New	20.68861111	86.50555556	7.92	670.0	0	238.0	77.00	0.17	25.00	2.00	225.0	46	27.0	50.00	1.00
Jajapur	Sukinda	Sohupur	21.05083333	85.98166667	7.96	180.0	0	61.0	17.00	0.14	10.00	2.00	75.0	16	9.0	6.00	1.00
Jajapur	Korai	Talagada	21.00055556	86.12555556	7.77	750.0	0	214.0	105.00	0.16	37.00	5.00	250.0	60	24.0	47.00	17.00
Jharsuguda	Jharsuguda	Belpahar	21.82555556	83.84861111	6.55	258.0	0	66.0	35.00	0.19	2.00	36.00	81.0	16	10.0	23.00	4.60
Jharsuguda	Lakhanpur	Bhikhampali	21.78694444	83.57166667	8.14	608.0	0	230.0	77.00	0.53	26.00	5.00	222.0	43	28.0	47.00	0.86
Jharsuguda	Jharsuguda	Brajrajnagar	21.81944444	83.93194444	7.43	498.0	0	127.0	60.00	0.26	40.00	38.00	162.0	28	22.0	37.00	10.58
Jharsuguda	Laikera	Chadnimal	21.93750000	84.32138889	7.94	228.0	0	97.0	27.00	1.47	0.00	4.00	91.0	18	11.0	17.00	2.36
Jharsuguda	Jharsuguda	Jharsuguda 2	21.88583333	84.00916667	7.87	350.0	0	109.0	47.00	0.25	28.00	6.00	111.0	18	16.0	32.00	6.51
Jharsuguda	Laikera	Kirimera	21.87750000	84.15527778	7.93	270.0	0	145.0	22.00	0.40	1.00	3.00	121.0	24	15.0	16.00	3.88
Jharsuguda	Kolabira	Kulabira	21.80138889	84.16805556	7.88	660.0	0	242.0	77.00	0.29	32.00	15.00	232.0	36	34.0	52.00	2.16
Jharsuguda	Laikera	Laikera 1	21.89444444	84.22138889	8.01	740.0	0	248.0	55.00	0.34	64.00	29.00	232.0	47	28.0	35.00	57.74
Jharsuguda	Lakhanpur	Lakhanpur	21.76111111	83.77361111	7.98	458.0	0	217.0	40.00	0.83	10.00	4.00	182.0	28	27.0	27.00	10.38
Jharsuguda	Lakhanpur	Panchagaon	21.78527778	83.59416667	7.92	201.0	0	73.0	25.00	0.42	2.00	10.00	71.0	12	10.0	17.00	1.39
Jharsuguda	Laikera	Sahaspur	21.94333333	84.29361111	7.79	386.0	0	181.0	27.00	0.32	8.00	16.00	157.0	28	21.0	19.00	6.94
Jharsuguda	Lakhanpur	Singarpur	21.59555556	83.96416667	7.59	98.0	0	54.0	5.00	0.17	2.00	3.00	51.0	8	7.0	3.00	1.11

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Jharsuguda	Kolabira	Sriyapali	21.83472222	84.07750000	7.40	258.0	0	115.0	25.00	0.48	3.00	4.00	101.0	18	14.0	17.00	4.67
Kalahandi	Kokasara	Ampani	19.58222222	82.62444444	7.53	980.0	0	207.0	157.00	0.34	102.00	41.00	300.0	76	27.0	86.00	2.00
Kalahandi	Bhawanipatna	Attanguda	19.86583333	83.15888889	7.90	920.0	0	183.0	140.00	0.34	58.00	45.00	375.0	118	19.0	38.00	1.00
Kalahandi	Junagarh	Badbasul	19.83555556	82.83750000	7.89	1500.0	0	409.0	137.00	2.43	138.00	41.00	335.0	54	49.0	187.00	5.00
Kalahandi	Lanjigarh	Bakatpur	19.84333333	83.42388889	7.84	640.0	0	207.0	52.00	0.25	48.00	45.00	185.0	68	4.0	30.00	51.00
Kalahandi	Jayapatna	Baner	19.53111111	82.81388889	7.70	690.0	0	195.0	75.00	0.21	36.00	39.00	275.0	80	18.0	27.00	6.00
Kalahandi	Bhawanipatna	Bawanipatna	19.90805556	83.15916667	7.71	690.0	0	134.0	127.00	0.21	32.00	10.00	300.0	82	23.0	17.00	5.00
Kalahandi	Jayapatna	Bijamara	19.55833333	82.82000000	7.65	1380.0	0	207.0	280.00	0.23	69.00	43.00	555.0	78	88.0	58.00	3.50
Kalahandi	Lanjigarh	Biswanathpur	19.81722222	83.43194444	8.23	740.0	0	256.0	95.00	0.40	36.00	14.00	295.0	60	35.0	32.00	0.80
Kalahandi	Junagarh	Charbahal	19.74083333	82.81138889	7.72	770.0	0	287.0	72.00	0.35	42.00	21.00	300.0	58	38.0	37.00	1.00
Kalahandi	Junagarh	Chiliguda1	19.73250000	82.91055556	8.17	1040.0	0	177.0	227.00	0.15	44.00	41.00	395.0	84	45.0	54.00	5.20
Kalahandi	Bhawanipatna	Dalguma	19.81666667	83.12083333	8.06	220.0	0	104.0	17.00	0.15	3.00	4.00	90.0	22	9.0	7.00	3.00
Kalahandi	Junagarh	Dasigaon 1	19.69777778	82.89916667	8.08	860.0	0	189.0	142.00	0.31	34.00	40.00	360.0	84	37.0	22.00	15.00
Kalahandi	Dharamagarh	Dharamgarh	19.87000000	82.77972222	8.15	1140.0	0	329.0	145.00	0.28	73.00	35.00	410.0	78	52.0	71.00	1.70
Kalahandi	Golamunda	Golamunda	20.05555556	82.78833333	8.09	1170.0	0	366.0	120.00	0.51	88.00	37.00	350.0	46	57.0	97.00	15.00
Kalahandi	Thuamul Ram Pur	Gunupur	19.60833333	83.11666667	8.24	640.0	0	256.0	27.00	0.43	88.00	4.00	240.0	56	24.0	32.00	7.40
Kalahandi	Jayapatna	Jaipatna 1	19.47361111	82.80638889	8.06	880.0	0	177.0	130.00	0.61	97.00	4.00	315.0	60	40.0	56.00	1.40
Kalahandi	Junagarh	Junagarh 1	19.86500000	82.93861111	7.71	890.0	0	226.0	127.00	0.31	50.00	30.00	360.0	60	51.0	37.00	0.80
Kalahandi	Kalampur	Kalampur 1	19.61361111	82.88916667	8.20	540.0	0	275.0	12.00	0.24	5.00	4.00	235.0	42	32.0	13.00	3.20

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Kalahandi	Golamunda	Kegaon	20.10416667	82.89583333	7.93	720.0	0	220.0	67.00	0.28	32.00	39.00	310.0	58	40.0	21.00	2.30
Kalahandi	Kokasara	Koksara 1	19.64805556	82.68722222	8.11	1240.0	0	439.0	122.00	0.73	82.00	21.00	380.0	52	61.0	105.00	5.50
Kalahandi	Madanpur Rampur	Madanpur1	20.30777778	83.53250000	8.07	450.0	0	201.0	17.00	0.12	4.00	21.00	205.0	20	38.0	7.00	2.20
Kalahandi	Junagarh	Mahichala	19.77777778	82.84583333	7.90	1360.0	0	153.0	250.00	0.14	143.00	45.00	460.0	58	77.0	93.00	11.70
Kalahandi	Bhawanipatna	Malgaon	19.92750000	83.11388889	8.10	440.0	0	195.0	17.00	0.75	11.00	13.00	170.0	46	13.0	20.00	1.60
Kalahandi	Kalampur	Moter 1	19.70388889	82.79666667	8.24	560.0	0	293.0	22.00	0.40	6.00	2.00	195.0	26	32.0	33.00	6.70
Kalahandi	Madanpur Rampur	M-rampur	20.19722222	83.52500000	8.21	320.0	0	140.0	25.00	0.15	1.00	1.00	130.0	28	15.0	11.00	1.20
Kalahandi	Karlamunda	Risida	20.40138889	83.47277778	7.90	500.0	0	226.0	22.00	0.96	6.00	5.00	195.0	44	21.0	23.00	0.50
Kalahandi	Narala	Santapur 1	19.96777778	83.32222222	8.11	870.0	0	299.0	107.00	1.39	32.00	34.00	310.0	36	54.0	55.00	1.00
Kalahandi	Jayapatna	Ladugaon	19.61166667	82.70555556	8.21	1040.0	0	433.0	52.00	1.22	50.00	5.00	400.0	50	67.0	42.00	22.00
Kalahandi	Bhawanipatna	Sargigora	20.17083333	82.99000000	8.00	750.0	0	220.0	92.00	0.49	42.00	42.00	250.0	56	27.0	55.00	2.20
Kalahandi	Narala	Tulapada	20.12750000	83.41777778	8.19	350.0	0	189.0	17.00	0.22	3.00	8.00	145.0	40	11.0	12.00	0.80
Kalahandi	Kesinga	Tundala 1	20.29694444	83.35416667	7.84	1560.0	0	372.0	215.00	0.69	75.00	45.00	625.0	84	101.0	69.00	1.30
Kandhamal	Khajuripada	Ambapada	20.41805556	84.22472222	7.11	230.0	0	104.0	17.00	0.18	1.00	3.00	90.0	18	11.0	7.00	5.80
Kandhamal	Baliguda	Baliguda	20.19916667	83.90833333	7.79	350.0	0	159.0	22.00	0.13	1.00	13.00	145.0	26	19.0	10.00	5.10
Kandhamal	Daringbadi	Daringbadi	19.90972222	84.12222222	7.61	240.0	0	73.0	32.00	0.11	1.00	11.00	75.0	20	6.0	18.00	2.70
Kandhamal	Phulabani	Dubagarh	20.50833333	84.15166667	7.72	230.0	0	92.0	17.00	0.11	3.00	4.00	80.0	20	7.0	9.00	10.50
Kandhamal	G.Udayagiri	G. Kalinga	20.15972222	84.41805556	7.73	240.0	0	104.0	17.00	0.08	2.00	9.00	80.0	20	7.0	12.00	7.60
Kandhamal	G.Udayagiri	Gudari	20.45611111	84.27444444	7.84	220.0	0	79.0	12.00	0.07	13.00	2.00	80.0	24	5.0	6.00	10.40
Kandhamal	G.Udayagiri	G.udaigiri 1	20.12583333	84.36861111	8.08	450.0	0	159.0	42.00	0.07	1.00	40.00	130.0	30	13.0	31.00	20.50

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Kandhamal	Naugaon	Gunjibadi	20.09361111	84.14861111	7.98	240.0	0	104.0	20.00	0.09	1.00	6.00	95.0	24	9.0	8.00	3.50
Kandhamal	Phulabani	Jamajhuri	20.46277778	84.32055556	7.87	210.0	0	98.0	12.00	0.08	1.00	5.00	80.0	14	11.0	9.00	2.10
Kandhamal	Phulabani	Katringia	20.47916667	84.08944444	7.61	150.0	0	67.0	7.00	0.08	9.00	2.00	55.0	18	2.0	4.00	5.50
Kandhamal	Khajuripada	Khajuripada	20.44055556	84.40638889	7.71	480.0	0	146.0	47.00	0.12	18.00	38.00	150.0	38	13.0	36.00	7.10
Kandhamal	Tumudibandha	Kurtamgarh	20.05972222	83.75694444	7.79	610.0	0	214.0	52.00	0.09	18.00	46.00	190.0	50	16.0	22.00	50.00
Kandhamal	G.Udayagiri	Lingagada 1	20.06638889	84.32555556	7.82	340.0	0	104.0	37.00	0.08	11.00	24.00	100.0	28	7.0	17.00	22.00
Kandhamal	Raikia	Mandakia	20.09416667	84.26027778	7.76	150.0	0	49.0	15.00	0.05	5.00	13.00	55.0	16	4.0	5.00	5.00
Kandhamal	Naugaon	Nuagaon	20.13555556	84.00555556	7.71	190.0	0	67.0	17.00	0.05	2.00	9.00	75.0	18	7.0	6.00	1.80
Kandhamal	Tikabali	Paburiya	20.16583333	84.25638889	8.10	470.0	0	262.0	10.00	0.35	2.00	1.00	170.0	36	19.0	27.00	2.00
Kandhamal	Phiringia	Phiringia-i	20.35555556	84.12277778	7.78	160.0	0	61.0	15.00	0.08	2.00	5.00	65.0	14	7.0	5.00	2.50
Kandhamal	Phulabani	Phulbani1	20.48972222	84.22277778	7.66	190.0	0	73.0	15.00	0.05	12.00	3.00	60.0	22	1.0	13.00	2.40
Kandhamal	Phiringia	Podapada	20.30194444	84.14250000	7.78	140.0	0	61.0	10.00	0.05	1.00	7.00	50.0	14	4.0	8.00	1.50
Kandhamal	Raikia	Raikia-ii	20.05750000	84.24500000	7.99	720.0	0	220.0	85.00	0.09	16.00	43.00	215.0	42	27.0	50.00	27.80
Kandhamal	Khajuripada	Ranipathar	20.57222222	84.37916667	7.86	290.0	0	110.0	22.00	0.07	7.00	12.00	110.0	30	9.0	13.00	4.40
Kandhamal	Chakpad	Sankarakhol	20.31638889	84.29611111	7.83	760.0	0	293.0	75.00	0.07	13.00	15.00	275.0	60	30.0	35.00	22.00
Kandhamal	Naugaon	Sarangarh	20.22555556	84.12666667	7.73	230.0	0	104.0	15.00	0.06	1.00	9.00	90.0	16	12.0	8.00	3.00
Kandhamal	Khajuripada	Sudrukumpa	20.53333333	84.30138889	7.81	240.0	0	92.0	22.00	0.05	5.00	9.00	75.0	20	6.0	18.00	3.50
Kandhamal	Tumudibandha	Sunagaon	20.07638889	83.65000000	7.92	260.0	0	92.0	10.00	0.05	9.00	20.00	95.0	28	6.0	8.00	10.70
Kandhamal	Khajuripada	Telapalli	20.38555556	84.17972222	7.75	270.0	0	116.0	22.00	0.05	4.00	4.00	100.0	32	5.0	8.00	11.00
Kandhamal	Tikabali	Tikabali	20.24027778	84.35777778	7.63	220.0	0	79.0	20.00	0.06	3.00	9.00	75.0	22	5.0	13.00	4.00
Kandhamal	Tumudibandha	Tumdibandh	19.97166667	83.70555556	7.58	250.0	0	73.0	40.00	0.05	1.00	3.00	95.0	20	11.0	11.00	2.60

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Kandhamal	Khajuripada	Vetkhol	20.50555556	84.26944444	7.54	310.0	0	128.0	12.00	0.08	15.00	18.00	130.0	32	12.0	10.00	2.10
Kendrapara	Pattamundai	Aul(Ali)	20.67611111	86.63888889	7.69	272.0	0	138.0	15.00	0.07	12.00	2.00	130.0	24	17.0	10.00	0.69
Kendrapara	Garadpur	Arilo	20.39638889	86.32861111	7.89	625.0	0	275.0	56.00	0.13	26.00	14.00	259.0	46	35.0	36.00	1.15
Kendrapara	Garadpur	Badhi	20.37305556	86.25972222	7.76	580.0	0	245.0	58.00	0.12	31.00	3.00	229.0	44	29.0	37.00	3.34
Kendrapara	Kendrapara	Barua 1	20.54277778	86.45694444	7.96	2351.0	0	861.0	279.00	0.08	121.00	53.00	792.0	184	81.0	178.00	51.10
Kendrapara	Mahakala Pada	Chadeiguan	20.42527778	86.56250000	7.98	2092.0	0	670.0	296.00	0.18	97.00	28.00	637.0	136	73.0	189.00	37.20
Kendrapara	Dera Bis	Chandola	20.48888889	86.29166667	7.68	645.0	0	287.0	50.00	0.35	34.00	3.00	259.0	48	34.0	33.00	4.99
Kendrapara	Dera Bis	Daliji	20.49416667	86.31444444	8.21	1520.0	0	461.0	194.00	0.59	103.00	0.00	543.0	116	62.0	123.00	12.00
Kendrapara	Marsa Ghai	Dargochha	20.43277778	86.47250000	7.93	609.0	0	251.0	43.00	0.22	59.00	0.00	259.0	56	29.0	28.00	1.14
Kendrapara	Garadpur	Garadpur	20.37944444	86.37083333	7.82	498.0	0	185.0	46.00	0.19	40.00	10.00	204.0	38	27.0	29.00	1.57
Kendrapara	Marsa Ghai	Giranga	20.41944444	86.51166667	7.93	1223.0	0	407.0	186.00	0.26	24.00	29.00	393.0	76	50.0	118.00	2.08
Kendrapara	Dera Bis	Indupur2	20.54000000	86.42000000	7.85	841.0	0	413.0	69.00	0.13	15.00	2.00	354.0	74	41.0	45.00	6.10
Kendrapara	Kendrapara	Jajanga	20.52333333	86.44194444	7.56	423.0	0	185.0	45.00	0.10	24.00	1.00	169.0	36	19.0	29.00	1.65
Kendrapara	Kendrapara	Jamdhara	20.51000000	86.36000000	7.84	1388.0	0	467.0	206.00	0.23	54.00	0.00	403.0	76	52.0	138.00	3.42
Kendrapara	Kendrapara	Jantilo	20.50805556	86.35222222	7.80	1051.0	0	383.0	146.00	0.38	38.00	12.00	359.0	68	46.0	92.00	3.32
Kendrapara	Rajnagar	Keredagada	20.62527778	86.72166667	8.07	625.0	0	275.0	60.00	0.07	6.00	21.00	249.0	46	33.0	38.00	3.46
Kendrapara	Garadpur	Kuda Nagari	20.41027778	86.28888889	7.86	383.0	0	197.0	26.00	0.14	8.00	1.00	179.0	38	21.0	17.00	0.86
Kendrapara	Dera Bis	Laxminarayapur	20.55500000	86.32222222	7.63	798.0	0	227.0	77.00	0.13	82.00	50.00	314.0	62	39.0	50.00	2.85
Kendrapara	Mahakala Pada	Mahakalpara 2	20.42444444	86.57361111	8.05	2150.0	0	712.0	304.00	0.12	85.00	40.00	652.0	162	60.0	194.00	15.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Kendrapara	Rajkanika	Makundapur	20.71888889	86.68750000	8.04	1348.0	0	502.0	192.00	0.11	26.00	6.00	428.0	82	54.0	122.00	14.40
Kendrapara	Pattamundai	Mulabasanta	20.57194444	86.50833333	7.44	1565.0	0	688.0	213.00	0.17	37.00	4.00	603.0	124	71.0	129.00	10.00
Kendrapara	Kendrapara	Nikrai1	20.58444444	86.39083333	7.89	910.0	0	413.0	100.00	0.13	5.00	4.00	354.0	64	47.0	64.00	11.90
Kendrapara	Pattamundai	Pattamundai	20.58416667	86.56583333	7.89	389.0	0	215.0	19.00	0.13	4.00	9.00	184.0	38	22.0	13.00	2.34
Kendrapara	Rajnagar	Rajnagar	20.57305556	86.71472222	8.04	840.0	0	389.0	69.00	0.11	42.00	9.00	344.0	72	40.0	46.00	9.14
Kendrapara	Kendrapara	Ramnagar 1	20.51861111	86.40472222	7.89	1048.0	0	371.0	165.00	0.27	38.00	2.00	334.0	58	46.0	109.00	2.06
Kendrapara	Kendrapara	Shyamsundarpur	20.50555556	86.39416667	7.61	823.0	0	413.0	69.00	0.12	20.00	0.00	354.0	56	52.0	47.00	1.72
Kendujhar	Telkoi	Akul	21.27055556	85.41361111	6.89	402.0	0	173.0	28.00	0.20	26.00	12.00	154.0	28	21.0	19.00	20.26
Kendujhar	Anandpur	Anandapur 1	21.21888889	86.11750000	7.18	448.0	0	138.0	41.00	0.42	33.00	28.00	174.0	32	23.0	28.00	0.55
Kendujhar	Jhumpura	Badaposhi	21.88805556	85.67666667	6.90	223.0	0	54.0	25.00	0.08	19.00	19.00	75.0	18	7.0	16.00	2.84
Kendujhar	Patana	Balaniposi	21.68444444	85.77222222	7.23	176.0	0	72.0	9.00	0.13	11.00	7.00	80.0	16	10.0	6.00	1.64
Kendujhar	Telkoi	Balijhodi	21.63944444	85.60527778	6.92	483.0	0	221.0	34.00	0.38	28.00	1.00	209.0	48	22.0	23.00	0.59
Kendujhar	Saharapada	Barbil	21.67833333	85.93861111	6.85	456.0	0	215.0	34.00	0.23	13.00	9.00	194.0	42	22.0	23.00	1.07
Kendujhar	Ghasipura	Barpada	21.11944444	86.11666667	6.28	84.0	0	30.0	9.00	0.09	6.00	2.00	30.0	6	4.0	6.00	0.27
Kendujhar	Ghatgaon	Baxibarigan	21.50000000	85.65000000	6.48	124.0	0	30.0	18.00	0.23	12.00	2.00	40.0	8	5.0	11.00	0.83
Kendujhar	Joda	Bhadrasahi	22.05555556	85.39083333	6.23	68.0	0	24.0	7.00	0.46	5.00	0.00	25.0	6	2.0	4.00	0.45
Kendujhar	Harichadanpur	Bhagamunda 1	21.26750000	85.87444444	6.50	238.0	0	114.0	18.00	0.52	9.00	5.00	105.0	22	12.0	11.00	4.74
Kendujhar	Telkoi	Bimala	21.19388889	85.40055556	7.12	312.0	0	132.0	25.00	0.73	20.00	9.00	125.0	24	16.0	16.00	2.03
Kendujhar	Ghasipura	Birgovindpur	21.27083333	86.08666667	7.30	621.0	0	227.0	64.00	0.46	39.00	15.00	224.0	48	25.0	41.00	10.10
Kendujhar	Patana	Budhikapudi	21.82722222	85.78527778	7.33	281.0	0	72.0	25.00	0.33	19.00	33.00	110.0	24	12.0	15.00	2.20
Kendujhar	Champua	Champua 1	22.06500000	85.65750000	6.86	162.0	0	66.0	11.00	0.57	12.00	3.00	70.0	12	10.0	7.00	1.40

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Kendujhar	Ghasipura	Deogan1	21.16500000	86.04666667	6.46	318.0	0	132.0	16.00	0.62	14.00	16.00	140.0	26	18.0	11.00	1.90
Kendujhar	Ghatgaon	Dhangadiha	21.38750000	85.83888889	7.40	282.0	0	126.0	18.00	0.78	18.00	1.00	120.0	22	16.0	12.00	1.81
Kendujhar	Ghatgaon	Dhenkikote	21.49305556	85.83472222	6.81	487.0	0	221.0	41.00	0.12	26.00	2.00	199.0	46	21.0	21.00	6.40
Kendujhar	Ghatgaon	Gadadharpur	21.44555556	85.87583333	7.81	818.0	0	305.0	71.00	0.45	42.00	37.00	304.0	64	35.0	43.00	13.45
Kendujhar	Saharapada	Gajitangri	21.74111111	85.91027778	7.28	658.0	0	251.0	46.00	0.13	32.00	41.00	264.0	56	30.0	28.00	9.24
Kendujhar	Ghasipura	Ghasipura 1	21.20888889	86.11833333	6.98	492.0	0	209.0	39.00	0.13	29.00	11.00	204.0	38	27.0	24.00	3.67
Kendujhar	Telkoi	Gonasika	21.49750000	85.53472222	7.08	624.0	0	239.0	60.00	0.45	42.00	9.00	239.0	56	24.0	40.00	1.44
Kendujhar	Kendujhargarh	Gopalpur2	21.56527778	85.70500000	6.87	398.0	0	179.0	34.00	0.61	19.00	5.00	169.0	32	22.0	21.00	3.78
Kendujhar	Joda	Guali	21.97916667	85.28611111	6.82	88.0	0	30.0	9.00	0.25	5.00	2.00	30.0	8	2.0	6.00	0.76
Kendujhar	Harichandanpur	Harichandanpur	21.34027778	85.79027778	6.75	152.0	0	60.0	16.00	0.32	9.00	1.00	60.0	12	7.0	10.00	0.84
Kendujhar	Kendujhargarh	Haridagot	21.58333333	85.65000000	6.94	212.0	0	108.0	7.00	0.45	6.00	13.00	100.0	18	13.0	5.00	1.78
Kendujhar	Hatadihi	Hatadihi	21.17111111	86.24666667	6.48	393.0	0	78.0	46.00	0.67	35.00	33.00	130.0	24	17.0	28.00	5.54
Kendujhar	Telkoi	Jagmohanpur	21.43500000	85.33500000	6.96	1024.0	0	371.0	147.00	0.84	25.00	13.00	339.0	56	48.0	95.00	0.92
Kendujhar	Ghatgaon	Janghira	21.43333333	85.62500000	7.42	526.0	0	275.0	30.00	0.11	22.00	3.00	254.0	56	28.0	18.00	1.84
Kendujhar	Champua	Jaymangalpur	22.03888889	85.57500000	6.82	293.0	0	168.0	11.00	0.75	6.00	10.00	149.0	28	19.0	8.00	1.25
Kendujhar	Kendujhargarh	Jhadbelda 1	21.68138889	85.67027778	7.53	825.0	0	431.0	64.00	0.95	26.00	4.00	374.0	64	52.0	43.00	0.15
Kendujhar	Jhumpura	Jhumpura	21.82694444	85.56833333	6.93	864.0	0	353.0	67.00	0.76	28.00	42.00	359.0	68	46.0	39.00	12.50
Kendujhar	Joda	Joda	22.02500000	85.44166667	6.42	74.0	0	42.0	5.00	0.08	2.00	4.00	40.0	8	5.0	3.00	0.48
Kendujhar	Champua	Jodipada 1	22.05361111	85.61027778	6.69	322.0	0	114.0	30.00	0.26	29.00	23.00	125.0	24	16.0	22.00	4.61
Kendujhar	Telkoi	Kaliahata	21.20416667	85.60000000	7.63	486.0	0	221.0	21.00	0.53	26.00	26.00	209.0	38	28.0	14.00	6.71

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Kendujhar	Banspal	Kanjipani	21.49944444	85.47638889	7.07	128.0	0	60.0	7.00	0.62	7.00	7.00	60.0	12	7.0	5.00	0.56
Kendujhar	Jhumpura	Katalaposhi	21.39666667	85.43305556	7.88	512.0	0	233.0	41.00	0.56	33.00	1.00	214.0	38	29.0	26.00	0.78
Kendujhar	Kendujhargarh	Keonjhar-1	21.62750000	85.59777778	7.44	170.0	0	42.0	21.00	0.45	10.00	15.00	60.0	12	7.0	13.00	2.67
Kendujhar	Kendujhargarh	Keonjhar-Old Town	21.62333333	85.58083333	7.78	540.0	0	203.0	37.00	0.62	30.00	30.00	199.0	40	24.0	23.00	14.12
Kendujhar	Ghasipura	Kesurdapal 1	21.17138889	86.00000000	7.82	1052.0	0	347.0	140.00	0.82	65.00	17.00	339.0	62	45.0	102.00	0.49
Kendujhar	Patana	Khiritangiri	21.71527778	85.69000000	7.31	595.0	0	215.0	69.00	0.23	42.00	11.00	209.0	36	29.0	48.00	4.38
Kendujhar	Patana	Kothaghar	21.59166667	85.96111111	8.02	520.0	0	209.0	62.00	0.24	19.00	0.00	189.0	36	24.0	41.00	1.73
Kendujhar	Telkoi	Khuntapada 1	21.33000000	85.41222222	6.44	118.0	0	42.0	2.00	0.15	6.00	23.00	55.0	12	6.0	2.00	1.65
Kendujhar	Patana	Malliposi	21.58055556	85.89444444	7.62	890.0	0	383.0	85.00	0.23	45.00	2.00	354.0	68	45.0	61.00	0.24
Kendujhar	Hatadihi	Mathadai	21.18722222	86.24611111	7.36	540.0	0	209.0	69.00	0.56	23.00	10.00	204.0	40	25.0	44.00	3.70
Kendujhar	Ghatgaon	Melana	21.36555556	85.96833333	7.11	245.0	0	114.0	11.00	0.23	15.00	10.00	110.0	22	13.0	8.00	1.61
Kendujhar	Kendujhargarh	Muktapur	21.65333333	85.63166667	7.22	198.0	0	120.0	7.00	0.52	6.00	1.00	105.0	18	15.0	5.00	1.18
Kendujhar	Kendujhargarh	Mukundpur	21.63888889	85.62777778	7.58	680.0	0	257.0	73.00	0.46	48.00	0.00	234.0	42	31.0	52.00	0.19
Kendujhar	Kendujhargarh	Naranpur	21.61555556	85.64527778	7.15	118.0	0	66.0	2.00	0.85	8.00	1.00	65.0	10	10.0	2.00	0.90
Kendujhar	Anandpur	Nuagaon	21.09527778	86.11222222	7.38	1011.0	0	473.0	80.00	0.13	38.00	2.00	408.0	76	53.0	54.00	24.55
Kendujhar	Kendujhargarh	Padampur2	21.73055556	85.58750000	6.57	102.0	0	48.0	7.00	0.42	6.00	1.00	45.0	10	5.0	5.00	0.57
Kendujhar	Telkoi	Padang	21.26666667	85.48333333	7.35	820.0	0	401.0	55.00	0.56	48.00	1.00	364.0	64	50.0	40.00	1.31
Kendujhar	Telkoi	Patakhali	21.19055556	85.53166667	7.74	810.0	0	425.0	57.00	0.62	24.00	4.00	359.0	64	48.0	42.00	1.41
Kendujhar	Ghatgaon	Patilo	21.42444444	85.71333333	7.72	1096.0	0	467.0	92.00	0.62	56.00	16.00	403.0	76	52.0	67.00	17.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Kendujhar	Kendujhargarh	Raisuan	21.68305556	85.58277778	7.53	820.0	0	347.0	80.00	0.26	33.00	32.00	339.0	62	45.0	49.00	1.18
Kendujhar	Ghatgaon	Rajpat	21.38472222	85.86027778	7.61	680.0	0	275.0	67.00	0.13	46.00	2.00	259.0	50	33.0	46.00	0.77
Kendujhar	Joda	Rugudi	22.00833333	85.33472222	6.95	126.0	0	54.0	9.00	0.09	10.00	2.00	55.0	10	7.0	6.00	1.62
Kendujhar	Champua	Sasang	22.01333333	85.66027778	6.97	84.0	0	36.0	9.00	0.14	4.00	1.00	35.0	8	4.0	6.00	0.61
Kendujhar	Banspal	Suakati	21.60694444	85.52222222	7.54	160.0	0	66.0	7.00	0.25	5.00	17.00	75.0	14	10.0	4.00	1.39
Kendujhar	Patana	Swampatna-li	21.50500000	85.65277778	7.46	830.0	0	329.0	87.00	0.57	25.00	26.00	309.0	62	38.0	57.00	7.65
Kendujhar	Patana	Tangarpada	21.65666667	85.84666667	8.13	616.0	0	179.0	71.00	0.86	42.00	39.00	214.0	42	27.0	44.00	7.61
Kendujhar	Telkoi	Telkoi	21.36194444	85.39916667	7.24	380.0	0	138.0	39.00	0.90	32.00	6.00	140.0	24	19.0	29.00	2.79
Kendujhar	Saharapada	Udaipur	21.70333333	85.85777778	7.45	120.0	0	48.0	9.00	0.56	9.00	3.00	50.0	10	6.0	7.00	1.04
Kendujhar	Jhumpura	Ukunta	21.80527778	85.69000000	7.27	546.0	0	245.0	37.00	0.89	32.00	8.00	229.0	38	33.0	26.00	8.78
Khordha	Begunia	Baghamari Dw	20.22083333	85.50777778	8.21	710.0	0	153.0	90.00	0.35	70.00	7.00	90.0	24	7.0	53.00	83.00
Khordha	Balipatana	Balipatna	20.20500000	85.96361111	8.05	610.0	0	171.0	62.00	0.29	40.00	26.00	200.0	62	11.0	47.00	14.00
Khordha	Chilika	Balugaon	19.74722222	85.20777778	7.94	1700.0	0	323.0	227.00	0.18	106.00	13.00	240.0	52	27.0	176.00	72.00
Khordha	Banapur	Banapur	19.78250000	85.16638889	7.96	780.0	0	238.0	85.00	0.10	33.00	10.00	255.0	70	19.0	53.00	15.00
Khordha	Begunia	Begunia 1	20.20333333	85.45472222	7.99	1050.0	0	189.0	145.00	0.19	30.00	46.00	250.0	80	12.0	84.00	23.00
Khordha	Bhubaneswar	Bhubaneswar-i	20.28416667	85.84944444	8.06	380.0	0	122.0	40.00	0.14	28.00	28.00	100.0	32	5.0	44.00	8.00
Khordha	Tangi	Bhusundapur	19.95277778	85.48055556	7.71	120.0	0	55.0	22.00	0.11	2.00	6.00	60.0	16	5.0	10.00	1.00
Khordha	Bolagad	Bolagarh	20.17083333	85.27777778	7.23	900.0	0	67.0	220.00	0.10	19.00	42.00	170.0	42	16.0	102.00	14.00
Khordha	Bolagad	Bandha Square	20.17055556	85.26833333	7.39	1470.0	0	134.0	275.00	0.59	81.00	4.00	270.0	52	34.0	118.00	30.00
Khordha	Bolagad	Sialia Nuasahi	20.17305556	85.28277778	7.80	320.0	0	110.0	35.00	0.23	10.00	4.00	115.0	30	10.0	14.00	4.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Khordha	Bolagad	Nanda Pally	20.16666667	85.26666667	7.70	850.0	0	305.0	92.00	1.12	26.00	1.00	150.0	20	24.0	100.00	4.00
Khordha	Bhubaneswar	Chandaka	20.36805556	85.76666667	7.86	520.0	0	116.0	50.00	0.27	43.00	19.00	125.0	42	5.0	46.00	18.00
Khordha	Jatani	Gobindpur	20.19944444	85.70027778	7.85	610.0	0	207.0	45.00	0.23	30.00	4.00	170.0	34	21.0	55.00	3.50
Khordha	Balianta	Jagannathpur	20.22638889	85.94833333	7.99	380.0	0	189.0	22.00	0.25	28.00	3.00	110.0	32	7.0	48.00	1.00
Khordha	Tangi	Jankia	20.03361111	85.51972222	7.86	110.0	0	43.0	22.00	0.09	2.00	2.00	50.0	10	6.0	7.00	2.30
Khordha	Jatani	Janla	20.21666667	85.71611111	7.51	360.0	0	85.0	82.00	0.12	7.00	13.00	55.0	14	5.0	55.00	8.00
Khordha	Jatani	Jatni1	20.16388889	85.69861111	7.70	920.0	0	165.0	177.00	0.14	29.00	39.00	270.0	60	29.0	72.00	5.00
Khordha	Khordha	Jayamangal	20.21333333	85.54555556	7.82	200.0	0	79.0	22.00	0.13	1.00	14.00	90.0	30	4.0	12.00	1.00
Khordha	Bhubaneswar	Kapilprasad	20.23416667	85.81833333	7.74	400.0	0	171.0	42.00	0.19	24.00	13.00	130.0	40	7.0	47.00	2.00
Khordha	Khordha	Khurda	20.18194444	85.61750000	7.67	250.0	0	73.0	25.00	0.13	2.00	30.00	100.0	24	10.0	10.00	1.00
Khordha	Khordha	Khurda Industrial Area	20.17555556	85.63833333	7.64	200.0	0	79.0	32.00	0.11	11.00	9.00	80.0	30	1.0	20.00	1.00
Khordha	Bhubaneswar	Kuha	20.23416667	85.79666667	7.50	3250.0	0	390.0	610.00	0.54	225.00	2.00	730.0	130	98.0	307.00	5.00
Khordha	Tangi	Kuhudi	19.87944444	85.34194444	8.07	460.0	0	171.0	22.00	0.19	36.00	2.00	115.0	32	9.0	44.00	4.00
Khordha	Balianta	Kundaidarapana (pahala)	20.34861111	85.89250000	7.92	760.0	0	232.0	72.00	0.28	18.00	3.00	170.0	24	27.0	66.00	3.00
Khordha	Bhubaneswar	Mendhasala	20.26777778	85.69694444	7.97	300.0	0	104.0	25.00	0.26	14.00	1.00	75.0	24	4.0	16.00	22.00
Khordha	Tangi	Nirakarpur	19.99388889	85.54000000	7.54	185.0	0	67.0	22.00	0.00	4.00	6.00	60.0	16	5.0	13.00	1.60
Khordha	Jatani	Niranjanpur	20.15861111	85.75694444	7.17	142.0	0	61.0	12.00	0.00	4.00	3.00	55.0	16	4.0	6.00	0.70
Khordha	Balipatana	Odakhanda-DW	20.11666667	85.97555556	7.52	2267.0	0	659.0	292.00	0.98	97.00	40.00	205.0	42	24.0	246.00	345.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Khordha	Jatani	Padanpur	20.17277778	85.67555556	7.51	274.0	0	92.0	30.00	0.04	2.00	22.00	80.0	28	2.0	22.00	6.70
Khordha	Bhubaneswar	Patia	20.39805556	85.79111111	7.68	491.0	0	183.0	37.00	0.14	18.00	29.00	150.0	36	15.0	30.00	24.50
Khordha	Bhubaneswar	Raghunathpur	20.34305556	85.78611111	7.58	440.0	0	153.0	52.00	0.15	9.00	6.00	135.0	38	10.0	36.00	11.00
Khordha	Jatani	Sandhapur	20.18055556	85.70138889	7.28	148.0	0	79.0	5.00	0.03	1.00	3.00	50.0	16	2.0	10.00	0.86
Khordha	Tangi	Sunakhela	19.83833333	85.28250000	8.08	310.0	0	128.0	27.00	0.16	8.00	1.00	100.0	36	2.0	26.00	0.74
Khordha	Bhubaneswar	Tamando	20.23277778	85.74333333	7.76	324.0	0	92.0	50.00	0.06	16.00	1.00	80.0	24	5.0	32.00	8.50
Khordha	Tangi	Tangi2	19.92527778	85.39777778	7.28	196.0	0	67.0	20.00	0.07	1.00	19.00	55.0	20	1.0	13.00	10.33
Khordha	Balipatana	Tolakpada	20.24472222	85.90166667	7.63	464.0	0	220.0	27.00	0.22	1.00	6.00	190.0	60	10.0	18.00	7.92
Khordha	Bhubaneswar	B-02 Samantarapur	20.22805556	85.83833333	8.30	408.0	0	152.0	28.00	0.24	23.00	1.00	140.0	39	11.0	19.00	6.10
Khordha	Bhubaneswar	B-03 Garage Chhak	20.23444444	85.84083333	8.19	929.0	0	231.0	98.00	0.24	37.00	42.00	279.0	67	27.0	49.00	10.30
Khordha	Bhubaneswar	B-04 Lingaraj Temple	20.24277778	85.83194444	8.28	563.0	0	159.0	39.00	0.24	29.00	38.00	162.0	42	14.0	31.00	11.80
Khordha	Bhubaneswar	B-05 Rath Road	20.24333333	85.83222222	8.13	755.0	0	163.0	86.00	0.15	14.00	39.00	169.0	42	15.0	50.00	16.00
Khordha	Bhubaneswar	B-06 Purnama Gate	20.24472222	85.82777778	8.00	336.0	0	69.0	32.00	0.07	24.00	22.00	96.0	23	10.0	19.00	4.50
Khordha	Bhubaneswar	B-07 Bapuji Nagar	20.25388889	85.83055556	7.66	354.0	0	32.0	48.00	0.04	28.00	18.00	73.0	23	4.0	25.00	6.50
Khordha	Bhubaneswar	B-09 Tankapani Road	20.24305556	85.85472222	7.93	578.0	0	102.0	78.00	0.08	28.00	19.00	140.0	39	10.0	41.00	5.90

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Khordha	Bhubaneswar	B-12 Laxmi Sagar	20.27194444	85.85750000	8.04	229.0	0	70.0	18.00	0.14	11.00	12.00	75.0	19	6.0	12.00	1.70
Khordha	Bhubaneswar	B-14 Rasulgarh	20.29527778	85.86388889	8.26	755.0	0	189.0	58.00	0.35	20.00	32.00	168.0	39	17.0	39.00	23.50
Khordha	Bhubaneswar	B-15 Bomikhal	20.28722222	85.85500000	7.46	270.0	0	22.0	29.00	0.03	24.00	37.00	49.0	8	7.0	22.00	7.60
Khordha	Bhubaneswar	B-17 Satya Nagar	20.27083333	85.85055556	7.71	500.0	0	52.0	63.00	0.03	26.00	43.00	109.0	29	9.0	33.00	9.00
Khordha	Bhubaneswar	B-20 Palasuni (NH-5)	20.28722222	85.84472222	8.27	474.0	0	148.0	32.00	0.20	34.00	5.00	163.0	26	24.0	20.00	0.80
Khordha	Bhubaneswar	B-21 Haridaspur	20.33000000	85.90083333	8.18	400.0	0	167.0	21.00	0.21	18.00	1.00	109.0	26	11.0	28.00	12.80
Khordha	Bhubaneswar	B-22 Mancheswar	20.32277778	85.89000000	8.04	388.0	0	141.0	38.00	0.18	15.00	0.00	144.0	29	17.0	17.00	3.90
Khordha	Bhubaneswar	B-25 Sainik School	20.30083333	85.83083333	7.34	225.0	0	19.0	32.00	0.03	11.00	29.00	53.0	16	3.0	16.00	2.80
Khordha	Bhubaneswar	B-26 Gadakana	20.32194444	85.79583333	7.41	319.0	0	34.0	30.00	0.05	25.00	34.00	63.0	16	6.0	18.00	14.00
Khordha	Bhubaneswar	B-31 Unit-9	20.28777778	85.83694444	8.18	250.0	0	99.0	15.00	0.28	15.00	1.00	92.0	23	9.0	11.00	1.90
Khordha	Bhubaneswar	B-33 Unit-4	20.28138889	85.82805556	7.62	460.0	0	47.0	69.00	0.03	17.00	43.00	97.0	26	8.0	32.00	5.00
Khordha	Bhubaneswar	B-34 Ganga Nagar	20.26416667	85.81777778	7.03	234.0	0	12.0	36.00	0.04	16.00	22.00	38.0	6	5.0	22.00	4.30
Khordha	Bhubaneswar	B-35 Unit-6	20.26583333	85.82111111	7.60	230.0	0	46.0	26.00	0.09	11.00	15.00	62.0	15	6.0	15.00	1.80
Khordha	Bhubaneswar	B-37 OUAT	20.26027778	85.72527778	7.81	293.0	0	77.0	25.00	0.09	19.00	19.00	93.0	26	7.0	15.00	5.00
Khordha	Bhubaneswar	B-38 Bhimpur	20.25694444	85.81916667	6.91	212.0	0	10.0	34.00	0.04	10.00	22.00	37.0	10	3.0	18.00	3.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Khordha	Bhubaneswar	B-39 Bhimatangi	20.23694444	85.82111111	7.94	347.0	0	131.0	22.00	0.20	23.00	4.00	131.0	40	8.0	13.00	5.20
Khordha	Bhubaneswar	B-40 Kapilaprasad	20.22777778	85.81444444	8.09	403.0	0	94.0	50.00	0.08	21.00	6.00	98.0	26	8.0	30.00	7.90
Khordha	Bhubaneswar	B-41 Pokhariput	20.24000000	85.80972222	6.88	80.0	0	10.0	11.00	0.04	4.00	22.00	30.0	4	5.0	5.00	0.70
Khordha	Bhubaneswar	B-42 Kargil Basti	20.23972222	85.82138889	8.07	853.0	0	137.0	111.00	0.08	25.00	48.00	186.0	49	16.0	51.00	6.60
Khordha	Bhubaneswar	B-43 Gandamunda	20.25027778	85.80666667	4.99	224.0	0	0.0	26.00	0.04	8.00	41.00	51.0	11	6.0	11.00	1.60
Khordha	Bhubaneswar	B-44 Baramunda	20.26722222	85.79972222	8.06	479.0	0	120.0	55.00	0.19	21.00	3.00	108.0	29	9.0	30.00	22.50
Khordha	Bhubaneswar	B-45 Delta Square	20.27722222	85.75583333	7.06	306.0	0	10.0	41.00	0.04	19.00	37.00	56.0	18	3.0	23.00	4.50
Khordha	Bhubaneswar	B-47 Ghatikia	20.28666667	85.78111111	6.36	181.0	0	6.0	23.00	0.08	23.00	16.00	37.0	8	4.0	15.00	1.80
Khordha	Bhubaneswar	B-51 DAV (Unit-8)	20.27694444	85.76583333	7.25	255.0	0	24.0	39.00	0.05	11.00	9.00	34.0	8	3.0	23.00	5.70
Koraput	Jeypur	Ambaguda1	18.96666667	82.56250000	8.03	377.0	0	204.0	23.00	0.46	7.00	5.00	169.0	36	19.0	16.00	3.39
Koraput	Jeypur	Anta	18.86527778	82.52222222	8.18	659.0	0	268.0	53.00	0.16	25.00	35.00	224.0	50	24.0	32.00	41.19
Koraput	Boipariguda	Baipariguda	18.75833333	82.43833333	8.44	374.0	19	128.0	33.00	0.07	1.00	3.00	140.0	32	15.0	22.00	6.94
Koraput	Kundura	Bajiguda	19.04000000	82.37027778	7.77	189.0	0	64.0	19.00	0.17	1.00	13.00	55.0	16	4.0	13.00	9.78
Koraput	Jeypur	Balia	18.82166667	82.50444444	8.04	588.0	0	230.0	74.00	0.09	9.00	3.00	189.0	40	22.0	48.00	14.89
Koraput	Boriguma	Bangalaguda	19.20111111	82.55944444	8.20	251.0	0	128.0	19.00	0.18	7.00	0.00	105.0	22	12.0	11.00	5.11
Koraput	Nandapur	Bheja 1	18.47583333	82.68555556	7.56	51.0	0	26.0	5.00	0.06	1.00	2.00	25.0	6	2.0	3.00	0.79
Koraput	Boriguma	Bijapur	19.07250000	82.52527778	8.06	675.0	0	332.0	53.00	0.25	21.00	3.00	289.0	64	31.0	35.00	3.08
Koraput	Boriguma	Boriguma	19.05138889	82.54666667	8.44	428.0	6	160.0	37.00	0.16	6.00	6.00	154.0	36	16.0	24.00	2.21

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Koraput	Lakshmipur	Burja	19.01416667	83.13305556	8.21	527.0	0	198.0	47.00	0.11	20.00	3.00	174.0	56	9.0	30.00	16.21
Koraput	Jeypur	C.kusimi-i	19.02416667	82.43055556	8.21	321.0	0	172.0	14.00	0.17	3.00	8.00	154.0	36	16.0	10.00	2.97
Koraput	Kotpad	Chandli	19.08611111	82.24027778	8.27	316.0	0	172.0	23.00	0.09	3.00	2.00	145.0	26	19.0	16.00	0.84
Koraput	Koraput	Deoghati	18.82722222	82.64166667	8.05	109.0	0	45.0	14.00	0.08	0.00	3.00	40.0	10	4.0	9.00	1.26
Koraput	Lakshmipur	Dhamanaganda	19.09472222	83.19333333	8.24	498.0	0	249.0	35.00	0.32	13.00	1.00	214.0	44	25.0	23.00	3.54
Koraput	Boipariguda	Dhaulapur	18.77444444	82.32527778	8.25	334.0	0	120.0	58.00	0.13	1.00	0.00	95.0	22	10.0	39.00	3.54
Koraput	Boipariguda	Doraguda	18.76138889	82.47611111	7.96	838.0	0	357.0	74.00	0.10	16.00	13.00	264.0	46	36.0	49.00	68.02
Koraput	Koraput	Dumuriput	18.78388889	82.78388889	8.28	248.0	0	115.0	16.00	0.15	3.00	1.00	105.0	18	15.0	11.00	2.72
Koraput	Kundura	Ghatarala	19.02388889	82.40000000	7.87	106.0	0	51.0	7.00	0.09	1.00	2.00	45.0	12	4.0	5.00	1.06
Koraput	Kotpad	Gumur	19.10027778	82.34027778	8.14	317.0	0	179.0	14.00	0.08	3.00	3.00	149.0	26	21.0	10.00	0.23
Koraput	Jeypur	Jeypore1	18.85277778	82.58138889	8.06	514.0	0	191.0	44.00	0.12	23.00	41.00	209.0	36	29.0	29.00	0.82
Koraput	Lakshmipur	Kakriguma	18.92250000	83.00944444	8.29	451.0	0	211.0	40.00	0.06	8.00	3.00	189.0	34	25.0	26.00	1.78
Koraput	Jeypur	Kantarkhal 1	18.84861111	82.54000000	7.86	71.0	0	26.0	9.00	0.07	1.00	2.00	25.0	6	2.0	5.00	1.79
Koraput	Boriguma	Khaliaguda	19.14666667	82.54583333	7.55	73.0	0	26.0	9.00	0.10	1.00	5.00	25.0	6	2.0	6.00	1.73
Koraput	Jeypur	Konga	18.99805556	82.47500000	7.82	103.0	0	38.0	9.00	0.08	2.00	10.00	35.0	8	4.0	7.00	2.59
Koraput	Koraput	Koraput-i	18.81194444	82.72166667	7.77	121.0	0	57.0	5.00	0.08	10.00	0.00	55.0	14	5.0	3.00	1.38
Koraput	Kotpad	Kotpad	19.14166667	82.27222222	8.16	331.0	0	185.0	7.00	0.14	3.00	4.00	154.0	28	21.0	4.00	0.67
Koraput	Lamtaput	Lamtaput	18.61527778	82.59416667	8.17	128.0	0	57.0	12.00	0.70	3.00	0.00	30.0	8	2.0	7.00	21.57
Koraput	Lakshmipur	Laxmipur1	18.99833333	83.12638889	7.58	49.0	0	26.0	2.00	0.15	1.00	1.00	20.0	4	2.0	2.00	2.42
Koraput	Kotpad	Miriguda	19.14611111	82.40027778	8.23	271.0	0	140.0	21.00	0.23	2.00	3.00	120.0	20	17.0	13.00	0.15
Koraput	Boipariguda	Mundaguda	18.76694444	82.38777778	8.29	252.0	0	121.0	21.00	0.15	1.00	2.00	105.0	20	13.0	13.00	3.34
Koraput	Nandapur	Nandapur	18.53333333	82.74166667	7.69	41.0	0	19.0	2.00	0.08	3.00	1.00	20.0	4	2.0	2.00	0.18

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Koraput	Boipariguda	Patraput	18.77277778	82.52777778	8.17	162.0	0	77.0	14.00	0.10	7.00	1.00	70.0	14	9.0	9.00	1.77
Koraput	Dasamantapur	Podagada 1	18.86111111	82.86111111	7.97	170.0	0	77.0	12.00	0.05	6.00	6.00	70.0	16	7.0	8.00	2.43
Koraput	Pottangi	Potangi	18.56333333	82.96166667	7.66	130.0	0	51.0	9.00	0.06	4.00	11.00	55.0	12	6.0	7.00	1.38
Koraput	Boipariguda	Ramgiri1	18.77666667	82.25777778	8.15	561.0	0	223.0	72.00	0.12	13.00	15.00	204.0	42	24.0	48.00	2.56
Koraput	Jeypur	Randapalli-Bj-I	18.93111111	82.56833333	8.21	685.0	0	306.0	51.00	0.13	18.00	2.00	259.0	76	17.0	31.00	3.58
Koraput	Similiguda	Similiguda1	18.71027778	82.86916667	7.79	241.0	0	77.0	21.00	0.16	4.00	33.00	90.0	22	9.0	14.00	3.15
Koraput		Soguru			7.20	246.0	0	77.0	21.00	0.19	4.00	46.00	100.0	34	4.0	13.00	2.89
Koraput	Similiguda	Subai	18.61833333	82.80527778	7.66	61.0	0	26.0	5.00	0.77	2.00	4.00	25.0	8	1.0	3.00	1.09
Koraput	Pottangi	Sunki 2	18.49944444	83.04722222	8.27	187.0	0	96.0	7.00	0.59	3.00	3.00	85.0	32	1.0	4.00	3.15
Koraput	Lamptaput	Teraguda	18.65944444	82.58555556	7.53	65.0	0	26.0	5.00	0.46	3.00	3.00	25.0	6	2.0	3.00	1.15
Koraput	Jeypur	Umeri1	18.90000000	82.56972222	8.11	1091.0	0	357.0	151.00	0.09	22.00	47.00	334.0	96	23.0	99.00	34.51
Koraput	Boipariguda	Doraput OW	18.70222222	82.45555556	8.03	239.0	0	115.0	19.00	0.09	3.00	9.00	95.0	18	12.0	12.00	6.29
Koraput	Boipariguda	Girliput OW	18.66527778	82.43138889	8.21	306.0	0	153.0	21.00	0.15	5.00	0.00	125.0	32	11.0	14.00	3.15
Koraput		KUDUBU			8.09	756.0	0	287.0	65.00	0.12	10.00	47.00	219.0	62	16.0	42.00	54.05
Malkangiri	Korkunda	Balimela	18.25222222	82.10416667	7.67	707.0	0	340.0	66.00	0.05	15.00	2.00	298.0	63	34.0	44.00	0.78
Malkangiri	Khairput	Govindpali 1	18.57888889	82.28138889	7.94	160.0	0	88.0	14.00	0.08	2.00	5.00	73.0	12	11.0	9.00	2.24
Malkangiri	Mathili	Katameta	18.46027778	82.07583333	7.98	827.0	0	411.0	73.00	0.10	17.00	48.00	356.0	82	37.0	42.00	1.32
Malkangiri	Khairput	Khairput1	18.48388889	82.23722222	8.10	573.0	0	223.0	75.00	0.89	17.00	6.00	195.0	41	23.0	45.00	2.36
Malkangiri	Korkunda	Korukonda 1	18.28861111	81.98500000	7.82	526.0	0	229.0	54.00	0.12	36.00	13.00	210.0	43	25.0	34.00	4.38
Malkangiri	Kudumulugum	Kudumuluguma1	18.38694444	82.19166667	8.18	740.0	0	340.0	73.00	0.25	41.00	48.00	273.0	41	42.0	43.00	43.59
Malkangiri	Korkunda	M.V 37	19.30444444	82.72027778	7.46	1180.0	0	411.0	167.00	0.12	74.00	15.00	386.0	74	49.0	105.00	7.98

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Malkangiri	Malkangiri	M.V.9	18.30250000	81.85333333	7.74	576.0	0	252.0	54.00	0.22	20.00	32.00	234.0	43	31.0	34.00	2.16
Malkangiri	Mathili	Maithili1	18.56000000	82.22250000	7.71	803.0	0	417.0	84.00	0.61	43.00	2.00	332.0	92	25.0	59.00	4.14
Malkangiri	Malkangiri	Malkangiri 1	18.37305556	81.90444444	7.77	586.0	0	223.0	66.00	0.12	22.00	15.00	190.0	45	19.0	45.00	1.35
Malkangiri	Kudumulugum	Parkannala	18.35666667	82.15638889	7.92	431.0	0	211.0	28.00	0.12	17.00	31.00	190.0	41	21.0	20.00	3.44
Malkangiri	Mathili	Pongam	18.51861111	82.13555556	7.78	620.0	0	270.0	68.00	0.18	8.00	32.00	234.0	61	20.0	43.00	2.39
Malkangiri	Malkangiri	Sindhimal	18.40694444	81.94000000	7.89	512.0	0	246.0	45.00	0.17	29.00	11.00	210.0	39	27.0	27.00	9.54
Mayurbhanj	Rasa-Gobindapur	Amarda village	21.79166667	87.13111111	7.20	680.0	0	207.0	79.00	0.22	40.00	9.00	169.0	25	26.0	51.00	46.40
Mayurbhanj	Baripada	(Astia) Baripada	21.92166667	86.71444444	7.60	560.0	0	189.0	44.00	0.23	32.00	27.00	180.0	60	7.0	41.00	7.80
Mayurbhanj	Bar Sahi	Badasahi	21.72638889	86.74166667	7.00	450.0	0	153.0	46.00	0.07	12.00	12.00	91.0	20	10.0	60.00	1.80
Mayurbhanj	Bar Sahi	Baidipur	21.77027778	86.69777778	7.20	120.0	0	49.0	5.00	0.04	2.00	9.00	39.0	14	1.0	6.00	2.60
Mayurbhanj	Saras Kana	Bangriposi	22.15694444	86.53055556	7.30	110.0	0	49.0	5.00	0.04	1.00	5.00	39.0	14	1.0	7.00	0.40
Mayurbhanj	Baripada	Baripada 1	21.92055556	86.73916667	7.60	670.0	0	250.0	60.00	0.46	25.00	12.00	278.0	57	33.0	22.00	3.40
Mayurbhanj	Baripada	Baura	21.94444444	86.79777778	6.80	440.0	0	61.0	63.00	0.11	48.00	35.00	102.0	39	1.0	49.00	5.60
Mayurbhanj	Bangiriposi	Bedhakudar	22.21055556	86.55611111	6.70	190.0	0	73.0	9.00	0.07	11.00	5.00	66.0	18	5.0	7.00	10.00
Mayurbhanj	Bar Sahi	Belam	21.83333333	86.70833333	8.00	740.0	0	342.0	63.00	0.41	11.00	10.00	291.0	82	21.0	32.00	5.00
Mayurbhanj	Beta Nati	Betanoti	21.73555556	86.85277778	7.50	1210.0	0	281.0	195.00	0.65	75.00	1.00	433.0	127	28.0	76.00	3.20
Mayurbhanj	Khunta	Brundabanchan	21.63472222	86.59166667	7.80	570.0	0	104.0	86.00	0.15	46.00	34.00	147.0	57	1.0	61.00	3.20
Mayurbhanj	Saras Kana	Brushavanupur	22.24305556	86.61166667	7.80	150.0	0	61.0	14.00	0.10	2.00	6.00	61.0	16	5.0	6.00	0.06

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Mayurbhanj	Saras Kana	Badchatra	22.20694444	86.63694444	7.30	470.0	0	232.0	26.00	0.48	12.00	1.00	177.0	41	18.0	25.00	0.60
Mayurbhanj	Sulia Pada	Charchakia	22.03611111	86.89972222	7.80	270.0	0	49.0	58.00	0.09	5.00	9.00	76.0	22	5.0	22.00	5.80
Mayurbhanj	Muruda	Chitrada	21.85416667	86.95277778	7.10	110.0	0	49.0	7.00	0.06	0.00	1.00	43.0	14	2.0	3.00	0.60
Mayurbhanj	Baripada	Dahisahi (Banki sole)	21.98277778	86.79277778	7.20	650.0	0	153.0	67.00	0.11	61.00	34.00	175.0	60	6.0	42.00	45.40
Mayurbhanj	Bangiriposi	Dahisahi-Dip asahi	22.08777778	86.63944444	7.20	270.0	0	61.0	30.00	0.08	2.00	41.00	91.0	20	10.0	14.00	9.60
Mayurbhanj	Muruda	Dantiamuhan i	21.80500000	86.84611111	7.80	590.0	0	305.0	23.00	0.52	15.00	1.00	243.0	61	22.0	23.00	0.50
Mayurbhanj	Sulia Pada	Deoli	22.03722222	86.81861111	7.30	230.0	0	55.0	33.00	0.09	9.00	7.00	61.0	16	5.0	14.00	14.50
Mayurbhanj	Rasa-Gobindapur	Devsol	21.79500000	87.02833333	6.30	230.0	0	55.0	26.00	0.06	3.00	38.00	65.0	16	6.0	18.00	4.80
Mayurbhanj	Khunta	Dhampur	21.66027778	86.60333333	7.50	190.0	0	85.0	9.00	0.06	1.00	5.00	75.0	20	6.0	6.00	2.30
Mayurbhanj	Khunta	Dukura	21.79166667	86.66166667	7.70	360.0	0	92.0	58.00	0.12	12.00	7.00	131.0	31	13.0	21.00	1.11
Mayurbhanj	Bar Sahi	Hatibandha	21.80888889	86.66750000	7.40	300.0	0	55.0	44.00	0.08	10.00	32.00	86.0	18	10.0	27.00	0.80
Mayurbhanj	Bangiriposi	Jamsola	22.22222222	86.71805556	7.10	270.0	0	55.0	42.00	0.06	15.00	9.00	70.0	18	6.0	26.00	5.04
Mayurbhanj	Bangiriposi	Jharpokhari	22.18194444	86.64861111	8.10	710.0	0	207.0	100.00	0.26	54.00	3.00	182.0	43	18.0	76.00	5.60
Mayurbhanj	Bangiriposi	Kalabadia	22.08777778	86.63944444	7.50	460.0	0	159.0	63.00	0.11	10.00	1.00	168.0	49	11.0	25.00	2.10
Mayurbhanj	Beta Nati	Kalana	21.58694444	86.92861111	7.10	290.0	0	61.0	46.00	0.05	3.00	28.00	91.0	25	7.0	21.00	6.07
Mayurbhanj	Kaptipada	Kaptipada 1	21.51750000	86.53055556	7.60	610.0	0	110.0	104.00	0.10	71.00	2.00	143.0	31	16.0	74.00	0.84
Mayurbhanj	Gopa Bandhu Nagar	Khunta	21.71194444	86.62611111	7.50	490.0	0	183.0	28.00	0.21	42.00	9.00	163.0	39	16.0	35.00	1.40
Mayurbhanj	Sulia Pada	Kostha	21.96666667	86.95000000	7.20	180.0	0	73.0	14.00	0.10	3.00	2.00	71.0	20	5.0	6.00	0.98

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Mayurbhanj	Beta Nati	Krishnachandrap	21.82444444	86.82277778	7.00	200.0	0	55.0	23.00	0.07	5.00	20.00	56.0	16	4.0	17.00	2.80
Mayurbhanj	Koliana	Kuchei	21.99666667	86.69972222	7.20	180.0	0	55.0	23.00	0.06	0.00	6.00	51.0	14	4.0	13.00	4.50
Mayurbhanj	Kaptipada	Kukurdimia	21.56194444	86.50833333	7.70	350.0	0	116.0	33.00	0.08	21.00	3.00	115.0	31	9.0	18.00	13.50
Mayurbhanj	Koliana	Kuliana	22.06888889	86.64861111	8.00	380.0	0	189.0	16.00	0.10	11.00	1.00	136.0	33	13.0	20.00	7.30
Mayurbhanj	Sulia Pada	Mundripal (Bankisole)	21.96166667	86.84583333	7.50	300.0	0	73.0	44.00	0.09	1.00	28.00	100.0	22	11.0	21.00	3.00
Mayurbhanj	Muruda	Nechuapada	21.86527778	86.86944444	7.10	110.0	0	37.0	5.00	0.06	7.00	11.00	33.0	10	2.0	5.00	5.40
Mayurbhanj	Saras Kana	Nuagaon	22.24000000	86.63972222	7.30	170.0	0	61.0	14.00	0.07	2.00	14.00	66.0	20	4.0	6.00	1.07
Mayurbhanj	Sulia Pada	Pakatia	21.98750000	86.93250000	7.80	480.0	0	214.0	23.00	0.21	20.00	4.00	191.0	45	19.0	21.00	0.63
Mayurbhanj	Bar Sahi	Patpur (Talpada)	21.71388889	86.75194444	7.90	540.0	0	177.0	49.00	0.21	43.00	13.00	119.0	41	4.0	44.00	40.10
Mayurbhanj	Koliana	Pathuri	22.12222222	86.62805556	7.80	840.0	0	348.0	65.00	0.38	42.00	3.00	307.0	39	51.0	44.00	10.70
Mayurbhanj	Samakhunta	Pithabata	21.93194444	86.58888889	7.10	280.0	0	140.0	9.00	0.10	2.00	7.00	123.0	31	11.0	6.00	1.70
Mayurbhanj	Kaptipada	Poradiha	21.55000000	86.46666667	7.30	100.0	0	43.0	9.00	0.08	1.00	2.00	36.0	8	4.0	5.00	0.60
Mayurbhanj	Bangiriposi	Rajabasa	22.17944444	86.46722222	7.70	430.0	0	201.0	21.00	0.18	15.00	0.00	154.0	22	24.0	24.00	5.20
Mayurbhanj	Rasa-Gobindapur	Rashgovindpur 1	21.78388889	87.04527778	6.80	340.0	0	98.0	26.00	0.11	9.00	51.00	101.0	29	7.0	29.00	2.10
Mayurbhanj	Samakhunta	Sapanpuar	21.93194444	86.68083333	7.10	170.0	0	49.0	19.00	0.10	1.00	15.00	60.0	14	6.0	8.00	2.40
Mayurbhanj	Bangiriposi	Saraskona	22.24166667	86.59222222	7.80	840.0	0	311.0	58.00	0.20	59.00	27.00	294.0	65	32.0	50.00	11.00
Mayurbhanj	Samakhunta	Shamakunta	21.92916667	86.68055556	7.70	720.0	0	262.0	58.00	0.24	37.00	5.00	292.0	61	34.0	30.00	0.94
Mayurbhanj	Muruda	Sirsapal	21.84361111	86.93527778	7.30	150.0	0	49.0	9.00	0.07	9.00	12.00	48.0	16	2.0	10.00	2.30
Mayurbhanj	Sulia Pada	Sullyapada	22.02166667	86.95361111	7.10	110.0	0	49.0	5.00	0.08	0.00	6.00	41.0	8	5.0	6.00	0.20

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Mayurbhanj	Kaptipada	Talia	21.55861111	86.49027778	8.00	510.0	0	134.0	53.00	0.09	34.00	35.00	169.0	61	4.0	27.00	20.80
Mayurbhanj	Rasa-Gobindapur	Tikapada (Balisahi)	21.83472222	87.10888889	7.40	180.0	0	67.0	9.00	0.10	7.00	20.00	61.0	18	4.0	9.00	5.80
Mayurbhanj	Udala	Urmala	21.57250000	86.54111111	7.30	100.0	0	55.0	2.00	0.07	1.00	1.00	40.0	6	6.0	4.00	0.04
Mayurbhanj	Kaptipada	Udala	21.54583333	86.53500000	7.30	540.0	0	153.0	65.00	0.07	16.00	48.00	153.0	43	11.0	46.00	11.80
Mayurbhanj	Muruda	Vurusani	21.84361111	86.93527778	7.30	490.0	0	220.0	33.00	0.11	4.00	5.00	179.0	47	15.0	10.00	33.00
Mayurbhanj	Bisoi	Ambadiha	22.24527778	86.28000000	7.12	656.0	0	166.0	59.00	0.10	42.00	39.00	245.0	73	15.0	12.00	7.70
Mayurbhanj	Thakur Munda	Asanbani	21.65333333	86.09888889	7.25	269.0	0	140.0	10.00	0.10	5.00	4.00	120.0	39	6.0	5.00	3.90
Mayurbhanj	Bisoi	Badampahad-1	22.08055556	86.23555556	7.51	558.0	0	115.0	73.00	0.28	11.00	38.00	221.0	50	23.0	16.00	0.60
Mayurbhanj	Bija Tola	Bademtolia	22.23527778	86.22861111	7.53	595.0	0	214.0	27.00	0.28	13.00	3.00	170.0	37	19.0	27.00	0.50
Mayurbhanj	Bahalda	Bahalda 1	22.39388889	86.09416667	6.78	262.0	0	32.0	34.00	0.06	2.00	32.00	63.0	15	6.0	16.00	5.80
Mayurbhanj	Bahalda	Bahalda Road(kona)	22.44166667	86.16666667	7.45	211.0	0	74.0	18.00	0.32	5.00	5.00	58.0	21	1.0	17.00	0.20
Mayurbhanj	Jashi Pur	Begna	22.00000000	86.14361111	6.76	126.0	0	32.0	12.00	0.70	0.00	19.00	34.0	8	4.0	11.00	0.30
Mayurbhanj	Bisoi	Bhatachhatra	22.11833333	86.31000000	7.12	479.0	0	45.0	95.00	0.13	3.00	22.00	82.0	17	9.0	42.00	5.30
Mayurbhanj	Bisoi	Bisoi	22.16250000	86.40694444	7.39	377.0	0	123.0	36.00	0.10	3.00	19.00	115.0	35	7.0	21.00	7.10
Mayurbhanj	Karanjia	Chadheibhol	21.81861111	85.82861111	7.50	389.0	0	77.0	63.00	0.10	20.00	7.00	115.0	21	15.0	32.00	5.70
Mayurbhanj	Thakur Munda	Champajhar	21.48888889	86.24166667	6.83	200.0	0	75.0	18.00	0.07	1.00	4.00	69.0	13	9.0	7.00	5.30
Mayurbhanj	Rairang Pur	Champrai	22.26944444	86.13527778	7.96	491.0	0	198.0	42.00	0.13	15.00	9.00	192.0	40	22.0	15.00	5.50
Mayurbhanj	Bahalda	Dandabose	22.30166667	86.15277778	7.33	729.0	0	96.0	100.00	0.08	29.00	43.00	149.0	31	18.0	63.00	13.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Mayurbhanj	Bahalda	Gambharia	22.33138889	86.14166667	7.24	2080.0	0	230.0	337.00	0.20	81.00	45.00	644.0	148	67.0	50.00	0.60
Mayurbhanj	Bija Tola	Gorumahisani 1	22.33500000	86.27638889	7.22	200.0	0	88.0	9.00	0.18	4.00	1.00	68.0	21	4.0	4.00	10.90
Mayurbhanj	Sukruli	Indupur	21.86222222	85.81277778	7.12	349.0	0	66.0	21.00	0.07	30.00	40.00	107.0	35	5.0	8.00	16.20
Mayurbhanj	Raruan	Itighar	21.98666667	85.95416667	7.23	1610.0	0	229.0	222.00	0.78	111.00	3.00	405.0	92	42.0	95.00	6.00
Mayurbhanj	Jamda	Jamda 1	22.27583333	86.07055556	7.69	1121.0	0	297.0	94.00	0.20	57.00	16.00	267.0	69	23.0	35.00	81.60
Mayurbhanj	Jashi Pur	Jamukeswar	22.01916667	86.08194444	7.68	555.0	0	115.0	54.00	0.08	35.00	42.00	164.0	56	6.0	24.00	8.30
Mayurbhanj	Raruan	Jhunkapal	21.97250000	85.89083333	7.21	415.0	0	72.0	64.00	0.07	10.00	17.00	86.0	27	5.0	37.00	5.70
Mayurbhanj	Bisoi	Karanjei-Bijat ola Chhak	22.20333333	86.30916667	7.54	1020.0	0	290.0	75.00	0.66	52.00	16.00	141.0	39	11.0	117.00	11.30
Mayurbhanj	Thakur Munda	Kendujani	21.63500000	86.10833333	6.75	362.0	0	115.0	34.00	0.11	20.00	3.00	120.0	29	12.0	18.00	2.80
Mayurbhanj	Karanjia	Kendumundi	21.68694444	86.10611111	6.13	290.0	0	32.0	51.00	0.06	1.00	35.00	63.0	13	7.0	23.00	6.50
Mayurbhanj	Kusumi	Kherna	22.13888889	86.09527778	6.98	222.0	0	38.0	34.00	0.05	5.00	12.00	67.0	13	8.0	10.00	7.30
Mayurbhanj	Raruan	Khiching	21.92722222	85.83555556	7.62	920.0	0	279.0	73.00	0.96	14.00	1.00	232.0	54	24.0	53.00	1.00
Mayurbhanj	Thakur Munda	Mahuldia	21.42777778	86.16583333	8.09	280.0	0	141.0	14.00	0.35	5.00	1.00	104.0	29	8.0	16.00	2.90
Mayurbhanj	Jashi Pur	Mananda 1	21.98750000	86.01861111	7.87	1853.0	0	357.0	236.00	0.43	114.00	42.00	379.0	121	19.0	163.00	34.50
Mayurbhanj	Bisoi	Manda	22.08027778	86.23027778	7.85	700.0	0	179.0	53.00	0.15	52.00	38.00	258.0	79	15.0	19.00	4.90
Mayurbhanj	Jashi Pur	Matigarh 1	21.93666667	86.09777778	7.30	600.0	0	70.0	85.00	0.08	30.00	41.00	120.0	21	16.0	53.00	10.20
Mayurbhanj	Jamda	Moranda	22.36250000	86.03472222	7.81	562.0	0	247.0	9.00	0.44	15.00	1.00	206.0	33	30.0	12.00	0.40
Mayurbhanj	Thakur Munda	Nada	21.27888889	86.18805556	7.23	558.0	0	154.0	75.00	0.12	23.00	36.00	155.0	39	14.0	47.00	19.10
Mayurbhanj	Kusumi	Naujara	22.20444444	86.13333333	6.40	142.0	0	59.0	16.00	0.03	3.00	0.00	47.0	12	4.0	12.00	1.30

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Mayurbhanj	Rairang Pur	Niranjan	22.30416667	86.21111111	7.28	1529.0	0	373.0	224.00	0.19	21.00	15.00	254.0	56	28.0	156.00	48.00
Mayurbhanj	Tiringi	Nischintapur	22.41805556	86.07583333	7.78	1024.0	0	274.0	166.00	0.57	56.00	3.00	351.0	75	40.0	45.00	21.20
Mayurbhanj	Jashi Pur	Padampur	21.96888889	86.09777778	7.04	79.0	0	45.0	7.00	0.08	2.00	7.00	43.0	10	5.0	4.00	0.40
Mayurbhanj	Rairang Pur	Purunapani	22.28694444	86.15833333	7.77	418.0	0	179.0	21.00	0.07	16.00	0.00	148.0	46	8.0	19.00	2.30
Mayurbhanj	Thakur Munda	Satkosia	21.35777778	86.14777778	7.47	1940.0	0	338.0	254.00	0.20	140.00	45.00	303.0	58	39.0	185.00	75.20
Mayurbhanj	Sukruli	Singada Chhak	21.97194444	85.78333333	7.48	200.0	0	89.0	12.00	0.08	11.00	2.00	82.0	21	7.0	5.00	4.50
Mayurbhanj	Thakur Munda	Taramara	21.47194444	86.15888889	7.68	421.0	0	185.0	32.00	0.10	20.00	4.00	168.0	48	12.0	8.00	17.90
Mayurbhanj	Karanjia	Tato	21.84388889	86.01805556	7.33	35.0	0	20.0	3.00	0.03	1.00	0.00	20.0	4	2.0	1.00	0.30
Mayurbhanj	Thakur Munda	Thakurmunda	21.51833333	86.15833333	7.55	220.0	0	70.0	27.00	0.08	4.00	12.00	72.0	15	8.0	15.00	1.10
Mayurbhanj	Tiringi	Tiring	22.52222222	86.08000000	7.45	163.0	0	81.0	12.00	0.07	5.00	3.00	77.0	17	8.0	6.00	0.70
Mayurbhanj	Karanjia	Tongabila Chhak	21.90444444	86.04138889	7.56	675.0	0	191.0	63.00	0.06	46.00	44.00	284.0	81	20.0	11.00	6.20
Mayurbhanj	Karanjia	Vejidiha	21.89750000	86.03972222	6.96	382.0	0	51.0	44.00	0.06	35.00	40.00	101.0	21	12.0	28.00	18.10
Nabarangapur	Tentulikhuntari	Anchalguma1	19.32361111	82.67833333	7.96	977.0	0	311.0	137.00	0.21	32.00	31.00	320.0	64	39.0	46.00	39.00
Nabarangapur	Umarmkote	Baheda 1	19.76722222	82.15027778	8.04	618.0	0	214.0	75.00	0.19	7.00	20.00	230.0	46	28.0	37.00	2.90
Nabarangapur	Umarmkote	Bhaskel-dam sit	19.69944444	82.12972222	7.86	478.0	0	226.0	32.00	0.23	0.00	11.00	200.0	50	18.0	17.00	0.70
Nabarangapur	Chandahandi	Chandahandi 2	19.84527778	82.49194444	7.77	566.0	0	232.0	60.00	1.23	8.00	1.00	130.0	32	12.0	67.00	4.90

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Nabarangapur	Nandahandi	Daibata	19.21222222	82.56416667	8.26	207.0	0	85.0	17.00	0.21	1.00	12.00	75.0	22	5.0	11.00	2.20
Nabarangapur	Dabugan	Debugaon	19.45277778	82.40833333	7.83	871.0	0	134.0	205.00	0.27	1.00	46.00	375.0	52	60.0	26.00	3.20
Nabarangapur	Paparahandi	Dengaguda	19.31805556	82.43250000	8.12	311.0	0	159.0	12.00	1.03	0.00	12.00	125.0	38	7.0	13.00	1.80
Nabarangapur	Tentulikhunti	Digi	19.26722222	82.70916667	8.07	444.0	0	171.0	55.00	0.57	5.00	10.00	155.0	46	10.0	25.00	2.50
Nabarangapur	Umarkote	Dondasora	19.65972222	82.06944444	7.94	435.0	0	153.0	32.00	0.46	5.00	45.00	180.0	42	18.0	19.00	1.80
Nabarangapur	Jharigan	Fufugaon	19.64694444	82.39361111	7.85	360.0	0	128.0	35.00	0.60	0.00	29.00	140.0	46	6.0	18.00	1.70
Nabarangapur	Jharigan	Jharigaon	19.72388889	82.37083333	8.06	333.0	0	177.0	12.00	0.13	2.00	2.00	100.0	32	5.0	30.00	1.70
Nabarangapur	Kosagumuda	Karchamal	19.22444444	82.36083333	7.98	457.0	0	195.0	50.00	0.11	0.00	1.00	220.0	38	30.0	2.00	1.23
Nabarangapur	Kosagumuda	Kodinga	19.30333333	82.34583333	8.05	175.0	0	61.0	15.00	0.05	1.00	18.00	60.0	20	2.0	13.00	0.70
Nabarangapur	Kosagumuda	Kosagumuda	19.27638889	82.24833333	8.11	736.0	0	336.0	42.00	0.09	19.00	14.00	230.0	30	38.0	53.00	19.30
Nabarangapur	Nandahandi	Nandahandi	19.23694444	82.67000000	7.76	687.0	0	214.0	102.00	0.07	23.00	1.00	265.0	40	40.0	34.00	2.70
Nabarangapur	Nabarangapur	Nowrangpur 1	19.23583333	82.54888889	7.78	364.0	0	85.0	67.00	0.06	1.00	20.00	105.0	26	10.0	34.00	3.20
Nabarangapur	Paparahandi	Papadahandi 1	19.35000000	82.52194444	7.94	675.0	0	214.0	85.00	0.22	18.00	28.00	185.0	38	22.0	50.00	34.90
Nabarangapur	Raighar	Raighar	19.87694444	82.08472222	7.93	271.0	0	134.0	15.00	0.21	1.00	5.00	100.0	18	13.0	14.00	3.30
Nabarangapur	Nandahandi	Sagarmunda	19.24361111	82.65527778	7.98	266.0	0	140.0	12.00	0.28	1.00	0.00	100.0	30	6.0	14.00	1.40

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Nabarangapur	Nabarangapur	Sanamasingham	19.21555556	82.45388889	7.63	1169.0	0	244.0	222.00	0.09	44.00	15.00	470.0	100	54.0	52.00	12.00
Nabarangapur	Tentulikhunti	Udaipur	19.28777778	82.71916667	8.06	396.0	0	153.0	47.00	0.14	2.00	7.00	145.0	48	6.0	18.00	8.70
Nabarangapur	Umarmkote	Umarmkot 1	19.67416667	82.19916667	8.08	425.0	0	195.0	35.00	0.15	0.00	6.00	165.0	46	12.0	20.00	1.30
Nabarangapur	Umarmkote	Sitali UV 16	19.59861111	82.07000000	8.12	329.0	0	134.0	25.00	0.36	0.00	22.00	140.0	42	9.0	11.00	1.50
Nayagarh	Gania	Adakata	20.36111111	84.98083333	8.02	702.0	0	246.0	74.00	0.27	26.00	37.00	250.0	49	31.0	44.00	2.44
Nayagarh	Nayagarh	Andapali	20.07722222	85.20500000	8.02	1596.0	0	517.0	252.00	0.63	46.00	26.00	446.0	106	44.0	178.00	10.30
Nayagarh	Nayagarh	Bada-Pandeswar	20.15027778	85.17027778	8.10	650.0	0	216.0	76.00	0.13	43.00	20.00	216.0	49	23.0	53.00	10.08
Nayagarh	Khandapada	Benagadia	20.26277778	85.17361111	7.91	1185.0	0	487.0	121.00	0.21	48.00	11.00	412.0	81	51.0	77.00	22.80
Nayagarh	Ranapur	Bherupada	20.06527778	85.29555556	7.89	260.0	0	126.0	26.00	0.12	4.00	1.00	98.0	22	11.0	18.00	10.39
Nayagarh	Ranapur	Darpa-Narayanpur 1	20.07527778	85.23972222	7.40	230.0	0	84.0	26.00	0.08	1.00	21.00	88.0	16	12.0	16.00	0.51
Nayagarh	Dasapalla	Dasapalla-i	20.33722222	84.85694444	7.76	941.0	0	307.0	171.00	0.42	30.00	1.00	265.0	53	32.0	111.00	1.66
Nayagarh	Khandapada	Gamasalia (Dhipisahi)	20.36777778	85.13888889	8.12	410.0	0	156.0	36.00	0.31	21.00	18.00	157.0	35	17.0	23.00	2.09
Nayagarh	Gania	Gania	20.40333333	85.04500000	8.01	252.0	0	96.0	26.00	0.15	6.00	16.00	93.0	16	13.0	17.00	5.96
Nayagarh	Odagaon	Gasisevipur	20.00888889	85.01388889	8.03	295.0	0	108.0	36.00	0.11	11.00	4.00	103.0	24	11.0	24.00	4.79
Nayagarh	Gania	Ghholahandi	20.35027778	84.95305556	7.56	1575.0	0	602.0	169.00	0.17	64.00	48.00	549.0	110	67.0	110.00	2.94
Nayagarh	Dasapalla	Jogibandh	20.33750000	84.86694444	8.21	996.0	0	433.0	88.00	0.68	41.00	6.00	397.0	81	48.0	61.00	10.00
Nayagarh	Nayagarh	Kalyanpur li	20.05722222	85.08805556	7.89	1270.0	0	529.0	190.00	0.72	8.00	1.00	446.0	94	51.0	130.00	5.20
Nayagarh	Khandapada	Kana Singhi	20.38000000	85.10916667	8.06	420.0	0	156.0	52.00	0.23	20.00	4.00	142.0	28	18.0	34.00	3.43
Nayagarh	Bhapur	Kantilo	20.35833333	85.19166667	8.44	380.0	12	150.0	33.00	0.21	13.00	4.00	157.0	31	19.0	23.00	4.39

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Nayagarh	Bhapur	Khandapada	20.26500000	85.17500000	8.03	595.0	0	258.0	67.00	0.26	15.00	5.00	235.0	41	32.0	42.00	6.42
Nayagarh	Gania	Kishore Prasad	20.39305556	85.07527778	7.94	856.0	0	258.0	112.00	0.28	57.00	6.00	240.0	53	26.0	72.00	24.21
Nayagarh	Ranapur	Koilama	20.11527778	85.34000000	8.08	460.0	0	144.0	45.00	0.16	18.00	42.00	157.0	29	20.0	31.00	5.11
Nayagarh	Ranapur	Lathipada 1	20.10750000	85.15333333	8.27	1201.0	0	589.0	107.00	2.78	25.00	3.00	519.0	94	69.0	73.00	0.52
Nayagarh	Dasapalla	Madhyakhand 2	20.34138889	84.92666667	7.95	1152.0	0	349.0	195.00	0.38	39.00	41.00	304.0	55	40.0	129.00	11.60
Nayagarh	Nuagaon	Mahipur	20.16388889	84.99722222	8.00	2185.0	0	793.0	352.00	0.60	23.00	20.00	711.0	134	92.0	228.00	35.30
Nayagarh	Nayagarh	Itamati (Manjuriapali)	20.13472222	85.14027778	7.83	980.0	0	457.0	109.00	0.48	21.00	4.00	397.0	71	54.0	75.00	1.41
Nayagarh	Bhapur	Mali Bareni	20.30000000	85.29833333	7.80	1069.0	0	349.0	124.00	0.59	52.00	43.00	353.0	75	40.0	83.00	16.90
Nayagarh	Nayagarh	Nayagarh 3	20.12694444	85.00222222	8.04	625.0	0	192.0	107.00	0.61	15.00	5.00	176.0	37	20.0	69.00	6.51
Nayagarh	Nayagarh	Nayagarh	20.12861111	85.11861111	8.00	495.0	0	204.0	50.00	0.19	20.00	4.00	172.0	31	23.0	32.00	13.74
Nayagarh	Bhapur	Nuabausabati (upper Bausabati)	20.32750000	85.25944444	7.90	321.0	0	126.0	33.00	0.36	11.00	3.00	113.0	22	14.0	23.00	6.49
Nayagarh	Nuagaon	Nuagaon1	20.25277778	84.97277778	8.00	810.0	0	307.0	67.00	0.18	37.00	47.00	284.0	51	38.0	43.00	20.96
Nayagarh	Odagaon	Odagaon	20.02166667	84.98333333	8.01	350.0	0	168.0	36.00	0.33	10.00	5.00	157.0	35	17.0	24.00	1.60
Nayagarh	Nayagarh	Purusottampur	20.15500000	85.19027778	8.03	442.0	0	150.0	52.00	1.70	14.00	14.00	152.0	28	20.0	34.00	0.87
Nayagarh	Ranapur	Ranapur	20.06888889	85.35416667	7.88	110.0	0	48.0	12.00	0.09	4.00	3.00	39.0	8	5.0	8.00	3.20
Nayagarh	Ranapur	Ranapur 1	20.05888889	85.33694444	8.05	501.0	0	192.0	55.00	0.16	21.00	25.00	186.0	35	24.0	37.00	17.65
Nayagarh	Nuagaon	Sampada	20.20250000	84.97972222	7.71	201.0	0	96.0	19.00	0.13	5.00	9.00	88.0	16	12.0	13.00	3.54
Nayagarh	Ranapur	Sanagada	20.07083333	85.31972222	8.00	160.0	0	78.0	19.00	0.10	0.00	1.00	59.0	12	7.0	14.00	0.94
Nayagarh	Odagaon	Sarankul	20.03055556	85.09666667	7.71	765.0	0	289.0	102.00	0.19	33.00	6.00	250.0	49	31.0	72.00	2.31

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Nayagarh	Odagaon	Solopata 1	20.07527778	85.09166667	7.98	180.0	0	66.0	21.00	0.45	7.00	0.00	64.0	12	8.0	15.00	0.40
Nayagarh	Dasapalla	Subalaya	20.31722222	84.90694444	7.96	840.0	0	313.0	83.00	0.11	27.00	41.00	299.0	55	39.0	54.00	8.69
Nayagarh	Ranapur	Raj Sunakhala	20.12694444	85.10555556	8.02	501.0	0	168.0	67.00	0.09	30.00	3.00	152.0	31	18.0	45.00	7.63
Nayagarh	Gania	Banigocha	20.39527778	84.58944444	7.84	581.0	0	299.0	49.00	0.96	25.00	22.00	259.0	45	36.0	37.00	2.15
Nayagarh	Dasapalla	Durga Prasad	20.40555556	84.66611111	7.67	132.0	0	47.0	12.00	0.89	2.00	40.00	78.0	14	11.0	8.00	1.54
Nayagarh	Dasapalla	Kuanria	20.35944444	84.80750000	7.45	1230.0	0	516.0	176.00	0.12	24.00	40.00	439.0	94	50.0	121.00	1.84
Nayagarh	Dasapalla	Kuluru Kumpa	20.39666667	84.62166667	7.69	624.0	0	264.0	66.00	0.88	9.00	23.00	239.0	63	20.0	38.00	0.33
Nayagarh	Dasapalla	Rangamatia	20.37166667	84.78305556	7.93	753.0	0	282.0	66.00	0.18	44.00	49.00	293.0	65	32.0	42.00	0.76
Nayagarh	Gania	Takara	20.40444444	84.75944444	8.13	814.0	0	317.0	87.00	0.62	44.00	40.00	293.0	84	20.0	53.00	23.01
Nuapada	Khariar	Bada-Maheswar	20.38333333	82.68666667	8.30	362.0	0	161.0	36.00	0.33	14.00	8.00	157.0	49	9.0	21.00	1.40
Nuapada	Khariar	Bargaon-k	20.34027778	82.69583333	8.30	395.0	0	235.0	33.00	0.34	5.00	0.00	128.0	40	7.0	53.00	1.80
Nuapada	Nuapada	Bhajipala	20.82722222	82.48944444	8.16	305.0	0	120.0	40.00	0.88	19.00	19.00	97.0	25	9.0	36.00	0.50
Nuapada	Komana	Deobahal	20.36138889	82.70444444	8.11	210.0	0	109.0	23.00	0.34	5.00	0.00	94.0	28	6.0	15.00	1.90
Nuapada	Nuapada	Dharambandah	20.73416667	82.42527778	8.24	610.0	0	255.0	59.00	1.01	19.00	1.00	219.0	70	11.0	41.00	6.10
Nuapada	Nuapada	Godphula	20.82027778	82.56583333	7.95	740.0	0	252.0	112.00	0.28	29.00	4.00	292.0	68	29.0	35.00	1.60
Nuapada	Khariar	Junani	20.30722222	82.80083333	7.61	1100.0	0	234.0	136.00	0.25	165.00	2.00	438.0	78	59.0	61.00	0.90
Nuapada	Khariar	Khariar	20.29444444	82.76027778	8.09	453.0	0	278.0	29.00	0.43	19.00	0.00	219.0	58	18.0	37.00	1.50
Nuapada	Komana	Komna1	20.50138889	82.67277778	7.88	1057.0	0	304.0	113.00	0.30	74.00	44.00	414.0	88	47.0	54.00	8.50
Nuapada	Komana	Kurumpuri	20.71888889	82.58694444	8.03	610.0	0	363.0	40.00	1.48	14.00	8.00	289.0	59	35.0	40.00	0.90
Nuapada	Khariar	Loharpalli	20.28638889	82.76222222	8.08	470.0	0	250.0	29.00	1.21	5.00	3.00	147.0	44	9.0	49.00	2.30

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Nuapada	Nuapada	Nawapara	20.79777778	82.53611111	7.60	404.0	0	78.0	65.00	0.11	40.00	25.00	146.0	53	3.0	23.00	1.20
Nuapada	Khariar	Padampur	20.29694444	82.77611111	7.80	641.0	0	262.0	52.00	0.45	40.00	15.00	259.0	80	15.0	38.00	0.30
Nuapada		Potara			8.16	240.0	0	90.0	29.00	1.07	6.00	10.00	87.0	25	6.0	19.00	0.80
Nuapada	Khariar	Ranipur	20.27861111	82.77583333	8.28	590.0	0	325.0	43.00	1.60	30.00	10.00	268.0	88	12.0	46.00	0.20
Nuapada	Khariar	Rishigaon	20.38138889	82.82000000	8.28	410.0	0	211.0	31.00	0.36	18.00	4.00	210.0	39	27.0	13.00	0.50
Nuapada	Nuapada	Gotama	20.87166667	82.50083333	8.14	523.0	0	180.0	64.00	0.53	28.00	30.00	219.0	49	24.0	20.00	1.50
Nuapada	Nuapada	Kalyanpur	20.86250000	82.53222222	7.72	713.0	0	179.0	111.00	0.33	29.00	39.00	341.0	68	41.0	22.00	0.70
Nuapada	Nuapada	Sahipala	20.82805556	82.67777778	8.20	978.0	0	278.0	123.00	1.06	63.00	43.00	390.0	59	59.0	42.00	1.50
Nuapada	Khariar	Sanmaheswar	20.37361111	82.70083333	7.96	630.0	0	168.0	84.00	0.16	29.00	43.00	268.0	78	18.0	24.00	3.20
Nuapada	Nuapada	Somarsingh	20.74638889	82.59722222	8.12	533.0	0	225.0	48.00	1.22	20.00	7.00	209.0	53	19.0	34.00	0.90
Nuapada	Komana	Tarbod	20.63277778	82.61527778	8.20	428.0	0	223.0	43.00	1.56	14.00	5.00	195.0	29	30.0	26.00	1.70
Nuapada	Khariar	Chanabeda	20.17583333	82.45583333	8.26	556.0	0	287.0	40.00	0.69	16.00	16.00	260.0	86	11.0	28.00	0.40
Puri	Satyabadi	Algum	19.94944444	85.74777778	8.26	1193.0	0	458.0	136.00	0.05	63.00	4.00	183.0	39	21.0	130.00	110.80
Puri	Brahmagiri	Alipada	19.81250000	85.76222222	7.96	1790.0	0	336.0	245.00	0.04	16.00	47.00	164.0	25	25.0	180.00	141.00
Puri	Astaranga	Astarang	19.98055556	86.27500000	7.99	1721.0	0	412.0	357.00	0.32	51.00	4.00	365.0	96	30.0	218.00	12.00
Puri	Nimapada	Balanga 1	20.03888889	85.88611111	8.20	1792.0	0	580.0	186.00	0.09	121.00	8.00	240.0	42	33.0	146.00	186.00
Puri	Gop	Baleshwarpatna	19.84444444	85.91138889	8.15	601.0	0	217.0	79.00	0.19	14.00	0.00	162.0	31	21.0	60.00	8.80
Puri	Gop	Balighai	19.85777778	85.94250000	7.64	300.0	0	137.0	26.00	0.12	10.00	2.00	111.0	35	6.0	14.00	12.60
Puri	Sadar	Baliguari	19.83222222	85.87277778	7.89	352.0	0	175.0	23.00	0.19	23.00	1.00	102.0	27	9.0	36.00	16.00
Puri	Satyabadi	Biragobind(Dakhina Kali)	19.92083333	85.82500000	8.14	1225.0	0	503.0	105.00	0.29	112.00	15.00	260.0	79	15.0	99.00	122.00
Puri	Brahmagiri	Brahmagiri	19.79861111	85.66527778	8.24	357.0	0	97.0	24.00	0.12	37.00	9.00	100.0	31	6.0	21.00	10.90

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Puri	Brahmagiri	Budhiabar	19.80888889	85.74027778	7.34	1225.0	0	259.0	257.00	0.12	130.00	46.00	264.0	71	21.0	145.00	177.00
Puri	Pipil	Burhapara 1	20.14194444	85.75500000	7.58	357.0	0	10.0	6.00	0.04	3.00	5.00	13.0	4	1.0	4.00	1.30
Puri	Sadar	Chandanpur	19.89083333	85.81500000	7.56	1740.0	0	229.0	269.00	0.12	101.00	44.00	240.0	31	40.0	182.00	49.00
Puri	Nimapada	Charichhak	20.05944444	86.08583333	7.52	97.0	0	94.0	19.00	0.13	6.00	4.00	59.0	19	3.0	22.00	5.60
Puri	Nimapada	Chhanijanga	20.04166667	86.07500000	8.17	1752.0	0	261.0	58.00	2.01	4.00	5.00	16.0	2	3.0	132.00	4.00
Puri	Pipil	Dandamukun dpur	20.08083333	85.83222222	8.16	215.0	0	336.0	133.00	0.25	79.00	10.00	144.0	19	23.0	109.00	133.00
Puri	Delanga	Delang	20.03611111	85.76944444	8.25	613.0	0	153.0	100.00	0.23	59.00	45.00	207.0	46	22.0	64.00	37.30
Puri	Nimapada	Garapada	20.09166667	85.91972222	8.11	1393.0	0	359.0	148.00	0.43	179.00	6.00	219.0	25	38.0	188.00	51.90
Puri	Brahmagiri	Girala	19.81111111	85.77083333	8.17	947.0	0	168.0	57.00	0.64	55.00	6.00	149.0	44	9.0	29.00	36.00
Puri	Brahmagiri	Gokhara	19.78000000	85.60555556	8.24	1650.0	0	473.0	281.00	0.23	97.00	20.00	351.0	96	27.0	196.00	69.20
Puri	Gop	Gop 1	19.98000000	86.01888889	8.15	515.0	0	120.0	25.00	0.12	6.00	1.00	76.0	15	9.0	26.00	6.50
Puri	Brahmagiri	Gola	19.72944444	85.54444444	7.75	1546.0	0	53.0	185.00	0.07	38.00	39.00	252.0	21	48.0	34.00	25.40
Puri	Nimapada	Haripur	20.11027778	85.87305556	8.12	680.0	0	243.0	80.00	0.17	43.00	0.00	194.0	46	19.0	72.00	5.50
Puri	Pipil	Harirajpur	20.13333333	85.74222222	7.44	217.0	0	25.0	41.00	0.02	5.00	24.00	11.0	4	0.0	41.00	0.40
Puri	Kakat Pur	Jagannathpu r	20.01444444	86.17027778	7.73	578.0	0	238.0	15.00	0.18	7.00	16.00	188.0	50	15.0	17.00	8.50
Puri	Kakat Pur	Jogeswarpur	20.03555556	86.12722222	7.86	462.0	0	198.0	26.00	0.16	24.00	16.00	168.0	60	5.0	15.00	16.20
Puri	Astaranga	Juinti	19.98555556	86.23944444	7.82	284.0	0	122.0	24.00	0.03	9.00	0.00	63.0	13	7.0	16.00	29.00
Puri	Kakat Pur	Kakatpur li	19.99944444	86.19444444	8.20	934.0	0	290.0	86.00	0.02	63.00	44.00	212.0	71	8.0	70.00	76.30
Puri	Kanas	Kanas	20.09944444	85.79972222	7.78	314.0	0	149.0	23.00	0.19	8.00	5.00	112.0	29	10.0	22.00	5.40
Puri	Kakat Pur	Konark 1	19.88638889	86.09666667	7.97	190.0	0	85.0	9.00	0.05	10.00	8.00	83.0	27	4.0	4.00	5.50
Puri	Kakat Pur	Kurujanga	19.89611111	86.12944444	7.92	200.0	0	95.0	13.00	0.05	19.00	1.00	96.0	27	7.0	8.00	2.30

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Puri	Gop	Madrang	19.92500000	85.99166667	7.90	176.0	0	76.0	19.00	0.08	7.00	2.00	58.0	10	8.0	15.00	3.10
Puri	Gop	Mahapur	19.90472222	85.96444444	8.02	205.0	0	111.0	13.00	0.34	3.00	0.00	21.0	2	4.0	39.00	6.00
Puri	Pipil	Mangalpur 1	20.04388889	85.81750000	8.15	640.0	0	174.0	29.00	0.18	29.00	3.00	101.0	23	11.0	34.00	32.50
Puri	Pipil	Maunimatha	19.99416667	85.80000000	8.28	958.0	0	296.0	68.00	0.07	149.00	0.00	171.0	42	16.0	127.00	37.40
Puri	Nimapada	Nimapara 2	20.05444444	86.00333333	8.08	895.0	0	275.0	124.00	0.16	31.00	0.00	130.0	35	11.0	106.00	74.30
Puri	Satyabadi	Nuasomeswarpur	19.95416667	85.77916667	8.00	958.0	0	305.0	114.00	0.12	62.00	7.00	173.0	50	12.0	67.00	98.00
Puri	Pipil	Pipli	20.11555556	85.83388889	7.95	489.0	0	122.0	79.00	0.10	26.00	9.00	144.0	44	8.0	36.00	7.60
Puri	Sadar	Pratapramchandr	19.89888889	85.77972222	8.26	952.0	0	354.0	49.00	0.16	51.00	2.00	251.0	49	32.0	60.00	25.80
Puri	Delanga	Ramchandrapur	20.05555556	85.75416667	8.19	460.0	0	162.0	27.00	0.90	30.00	0.00	141.0	27	18.0	28.00	1.00
Puri	Gop	Ramchandi	19.85416667	86.06111111	8.08	465.0	0	182.0	38.00	0.07	10.00	3.00	153.0	39	14.0	21.00	12.80
Puri	Brahmagiri	Rebananuagaon	19.79972222	85.70305556	8.26	1340.0	0	162.0	208.00	0.09	83.00	0.00	329.0	78	33.0	58.00	45.40
Puri	Brahmagiri	Rendagada	19.80027778	85.70611111	8.28	1144.0	0	185.0	149.00	0.09	60.00	14.00	172.0	39	18.0	84.00	62.80
Puri	Satyabadi	Sadanandapur	19.97222222	85.82222222	8.26	585.0	0	177.0	57.00	0.40	15.00	3.00	133.0	19	21.0	46.00	8.80
Puri	Satyabadi	Sakhigopal	19.94138889	85.83222222	8.19	1714.0	0	263.0	194.00	0.27	116.00	0.00	293.0	20	59.0	133.00	21.00
Puri	Satyabadi	Sakhigopal 3	19.95000000	85.80888889	7.99	668.0	0	407.0	137.00	0.26	92.00	3.00	159.0	11	32.0	197.00	29.30
Puri	Chilika Lake	Satapada-I	19.67111111	85.44833333	8.28	610.0	0	74.0	76.00	0.05	43.00	46.00	110.0	23	13.0	42.00	21.10
Puri	Astaranga	Tikarpara1	19.94000000	86.18250000	8.04	614.0	0	229.0	48.00	0.47	35.00	1.00	201.0	49	19.0	38.00	6.60
Puri	Sadar	Totasahi	19.81416667	85.80638889	8.05	908.0	0	220.0	56.00	0.28	116.00	0.00	266.0	47	36.0	46.00	1.80

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Puri	Sadar	Tulasichoura-Malatipatapur	19.87666667	85.81750000	8.27	2662.0	0	514.0	288.00	0.85	56.00	7.00	270.0	13	58.0	271.00	26.60
Puri	Satyabadi	Uansdiha	19.94916667	85.82277778	7.85	1052.0	0	234.0	117.00	0.32	30.00	4.00	223.0	29	37.0	63.00	25.70
Puri	Sadar	P-01 Krupa Sindura Patna	19.83361111	85.83611111	8.40	2150.0	25	927.0	395.00	0.22	23.00	14.00	829.0	146	113.0	256.00	16.40
Puri	Sadar	P-03 Police Lane	19.81000000	85.83055556	7.80	473.0	0	168.0	60.00	0.15	11.00	7.00	150.0	27	20.0	39.00	9.78
Puri	Sadar	P-06 Chhapana Chhak	19.80416667	85.80638889	8.22	720.0	0	305.0	71.00	0.21	13.00	40.00	272.0	45	39.0	46.00	9.44
Puri	Sadar	P-07 Gauda Bada Sahi	19.79833333	85.81361111	7.97	380.0	0	132.0	40.00	0.11	29.00	11.00	141.0	25	19.0	26.00	5.98
Puri	Sadar	P-11 Sadar Block Colony	19.80583333	85.84222222	7.98	610.0	0	221.0	72.00	0.09	44.00	5.00	204.0	41	25.0	46.00	10.27
Puri	Sadar	P-12 ITI Chhak	19.80555556	85.85083333	8.12	958.0	0	347.0	77.00	0.12	38.00	24.00	335.0	68	40.0	50.00	8.00
Puri	Sadar	P-19 Kashi Jagannathpur	19.81666667	85.80638889	8.17	2204.0	0	736.0	495.00	0.24	53.00	13.00	626.0	132	72.0	321.00	13.00
Puri	Sadar	P-21 Sriram Talkies Chhak	19.82416667	85.85416667	7.88	545.0	0	173.0	61.00	0.22	26.00	27.00	155.0	37	15.0	40.00	15.70
Puri	Sadar	P-23 Hara Gouri Sahi	19.81055556	85.82972222	7.71	597.0	0	185.0	74.00	0.08	39.00	17.00	180.0	39	20.0	48.00	12.78
Puri	Sadar	P-24 Balagandi	19.81250000	85.83222222	7.96	826.0	0	347.0	90.00	0.05	24.00	19.00	296.0	72	28.0	59.00	10.80
Puri	Sadar	P-30 Jagannath Temple	19.80555556	85.81777778	8.09	730.0	0	245.0	84.00	0.05	45.00	45.00	267.0	47	37.0	49.00	7.80

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Puri	Sadar	P-31 Sweta Ganga	19.80111111	85.81861111	7.96	1018.0	0	407.0	105.00	0.05	42.00	45.00	378.0	84	41.0	64.00	13.20
Puri	Sadar	P-32 Gobardhan Matha	19.79527778	85.78333333	7.82	450.0	0	96.0	60.00	0.11	50.00	37.00	155.0	35	16.0	39.00	1.14
Puri	Sadar	P-34 Sidha Mahavir	19.81916667	85.84694444	7.86	572.0	0	173.0	57.00	0.14	56.00	17.00	184.0	45	18.0	37.00	16.26
Puri	Sadar	P-35 Indira Mark Colony	19.81805556	85.83055556	7.76	330.0	0	108.0	35.00	0.07	33.00	3.00	121.0	27	13.0	23.00	3.76
Puri	Sadar	P-36 Kumbharapada	19.81555556	85.83194444	8.15	775.0	0	293.0	79.00	0.06	39.00	39.00	296.0	54	39.0	47.00	10.46
Puri	Sadar	P-37 Jagannatha Ballava Matha	19.81055556	85.82472222	8.05	1115.0	0	425.0	123.00	0.07	75.00	48.00	446.0	82	59.0	73.00	22.92
Puri	Sadar	P-41 Grand Road	19.81194444	85.82805556	7.89	798.0	0	287.0	95.00	0.16	36.00	46.00	286.0	47	41.0	59.00	9.00
Puri	Sadar	P-42 Balighat	19.82361111	85.84833333	7.89	840.0	0	371.0	95.00	0.07	15.00	24.00	330.0	51	49.0	62.00	6.40
Puri	Sadar	P-49 Dola Mandap Sahi	19.80444444	85.82333333	7.91	770.0	0	293.0	53.00	0.05	23.00	47.00	272.0	45	39.0	35.00	12.76
Puri	Sadar	P-44 Jagannath temple	19.80638889	85.81888889	7.88	860.0	0	407.0	88.00	0.06	10.00	25.00	354.0	45	59.0	57.00	17.86
Puri	Sadar	P-47 Ramchandisahi	19.80305556	85.82583333	7.89	406.0	0	114.0	63.00	0.06	10.00	22.00	112.0	21	14.0	41.00	6.45
Puri	Sadar	P-48 Sonar Gauranga	19.80694444	85.84611111	7.87	1049.0	0	371.0	141.00	0.08	41.00	49.00	398.0	68	55.0	75.00	8.10
Puri	Sadar	P-50 Baselisahi	19.80361111	85.81361111	8.06	926.0	0	413.0	84.00	0.08	46.00	49.00	403.0	74	53.0	55.00	5.92

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Rayagada	Muniguda	Ambadola	19.83527778	83.45805556	7.70	1270.0	0	403.0	142.00	0.35	75.00	48.00	350.0	48	56.0	117.00	22.00
Rayagada	Ramanguda	Bangi Chowk	19.20583333	83.70888889	7.99	650.0	0	238.0	57.00	0.30	13.00	10.00	280.0	44	41.0	19.00	1.00
Rayagada	Gunupur	Dambasara	19.16916667	83.84138889	7.87	690.0	0	329.0	47.00	0.33	7.00	18.00	240.0	42	33.0	45.00	2.00
Rayagada	Kashipur	Gorakhpur	19.24083333	83.11194444	7.93	280.0	0	110.0	30.00	0.18	0.00	6.00	130.0	32	12.0	2.00	1.00
Rayagada	Ramanguda	Gumda	19.22000000	83.77166667	7.87	460.0	0	250.0	10.00	0.25	6.00	2.00	195.0	44	21.0	12.00	4.00
Rayagada	Gunupur	Gunupur1	19.07944444	83.81166667	8.29	360.0	0	183.0	15.00	0.32	4.00	1.00	130.0	32	12.0	21.00	1.00
Rayagada	Kashipur	Kaliapada	19.18027778	83.13611111	7.53	230.0	0	85.0	22.00	0.27	3.00	9.00	90.0	32	2.0	10.00	2.00
Rayagada	Kashipur	Kashipur	19.35416667	83.11972222	7.44	320.0	0	92.0	32.00	0.21	2.00	43.00	120.0	36	7.0	9.00	13.00
Rayagada	Padmapur	Kenduguda	19.30750000	83.90055556	7.66	640.0	0	214.0	85.00	0.20	13.00	36.00	245.0	62	22.0	32.00	1.00
Rayagada	Ramanguda	Kadapadi	19.18805556	83.33972222	8.00	450.0	0	238.0	17.00	0.19	3.00	2.00	195.0	48	18.0	10.00	3.00
Rayagada	Kolnara	Mukundpur	19.22555556	83.55888889	7.95	730.0	0	238.0	97.00	0.26	3.00	29.00	260.0	60	27.0	41.00	11.00
Rayagada	Padmapur	Narainpur	19.36111111	83.96666667	8.02	290.0	0	104.0	25.00	0.24	10.00	28.00	110.0	40	2.0	13.00	4.00
Rayagada	Padmapur	Padampur2	19.24083333	83.82222222	8.25	630.0	0	268.0	40.00	0.21	13.00	12.00	205.0	58	15.0	38.00	19.00
Rayagada	Rayagada	Shirikona	19.17555556	83.37805556	8.19	480.0	0	226.0	25.00	0.20	5.00	17.00	200.0	62	11.0	17.00	2.00
Rayagada	Ramanguda	Tandikana	19.27000000	83.63805556	7.93	450.0	0	195.0	22.00	0.19	8.00	28.00	185.0	40	21.0	16.00	1.00
Rayagada	Kolnara	Therabali	19.32777778	83.44111111	7.94	460.0	0	226.0	22.00	0.26	3.00	2.00	175.0	56	9.0	24.00	1.00
Sambalpur	Maneswar	Baduapali	21.35000000	84.00194444	7.64	561.0	0	299.0	22.00	0.58	1.00	3.00	195.0	24	33.0	38.00	2.80
Sambalpur	Maneswar	Baragaon	21.31083333	83.94722222	8.19	441.0	0	195.0	20.00	0.39	26.00	5.00	190.0	68	5.0	11.00	6.50
Sambalpur	Maneswar	Batemura	21.36722222	83.98333333	7.77	533.0	0	201.0	30.00	0.34	11.00	46.00	215.0	32	33.0	27.00	3.20
Sambalpur	Maneswar	Bausenmura	21.33944444	83.98083333	8.02	2006.0	0	671.0	225.00	0.29	103.00	27.00	570.0	94	81.0	143.00	101.00
Sambalpur	Maneswar	Chhachanpali	21.32527778	83.95472222	7.54	710.0	0	207.0	117.00	0.36	18.00	1.00	200.0	32	29.0	70.00	2.90
Sambalpur	Maneswar	Chiplima	21.34388889	83.88638889	7.88	326.0	0	153.0	17.00	0.19	15.00	0.00	125.0	32	11.0	14.00	4.40

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Sambalpur	Dhankauda	Christianpara	21.52500000	83.90416667	7.84	477.0	0	207.0	30.00	1.46	11.00	19.00	170.0	50	11.0	25.00	11.40
Sambalpur	Maneswar	Deogaon	21.21833333	83.91638889	8.14	377.0	0	177.0	22.00	0.29	11.00	3.00	150.0	36	15.0	16.00	1.60
Sambalpur	Maneswar	Dhama	21.25277778	83.92777778	7.60	625.0	0	311.0	32.00	0.36	9.00	1.00	195.0	42	22.0	54.00	2.00
Sambalpur	Maneswar	Gainpura	21.23861111	83.93888889	7.90	776.0	0	305.0	62.00	0.33	42.00	10.00	290.0	52	39.0	30.00	25.40
Sambalpur		Goudapalli			7.85	476.0	0	85.0	70.00	0.12	26.00	46.00	95.0	30	5.0	62.00	10.90
Sambalpur	Dhankauda	Gunchamal	21.59361111	84.02361111	7.60	646.0	0	329.0	22.00	0.33	14.00	9.00	125.0	32	11.0	88.00	5.70
Sambalpur	Dhankauda	Hirakud	21.53055556	83.89722222	7.77	508.0	0	207.0	37.00	0.26	22.00	1.00	190.0	58	11.0	31.00	3.60
Sambalpur	Maneswar	Hotapala	21.19861111	83.91888889	8.04	617.0	0	336.0	17.00	1.09	3.00	1.00	145.0	26	19.0	77.00	1.20
Sambalpur	Dhankauda	Jamadaripali	21.55138889	83.97722222	8.02	627.0	0	275.0	27.00	0.94	33.00	6.00	220.0	24	39.0	45.00	4.20
Sambalpur	Dhankauda	Jugipali	21.52722222	83.98277778	7.96	614.0	0	214.0	60.00	1.25	40.00	2.00	105.0	32	6.0	93.00	2.98
Sambalpur	Maneswar	Jhankarbahali	21.34083333	84.04000000	7.69	738.0	0	305.0	52.00	1.25	40.00	6.00	235.0	44	30.0	60.00	2.10
Sambalpur	Maneswar	Khunti	21.35666667	83.97027778	7.96	834.0	0	268.0	120.00	0.16	12.00	16.00	305.0	56	40.0	52.00	2.10
Sambalpur	Maneswar	Larasara	21.18194444	83.91250000	7.76	1117.0	0	421.0	112.00	0.24	44.00	6.00	360.0	48	58.0	86.00	13.50
Sambalpur	Dhankauda	Pitapali	21.59472222	84.00083333	7.84	614.0	0	293.0	30.00	0.49	22.00	5.00	235.0	52	26.0	29.00	4.90
Sambalpur	Maneswar	Remerha	21.50222222	83.94305556	8.07	939.0	0	268.0	95.00	1.14	79.00	32.00	340.0	66	43.0	62.00	1.90
Sambalpur	Maneswar	Sahaspur	21.34027778	83.96416667	7.93	542.0	0	220.0	50.00	1.70	16.00	2.00	145.0	42	10.0	56.00	5.00
Sambalpur	Jujomura	Amlipani	21.33000000	84.31138889	7.77	325.0	0	153.0	25.00	1.36	4.00	3.00	120.0	40	5.0	21.00	1.30
Sambalpur	Jujomura	Badsahir	21.39833333	84.13222222	7.91	1600.0	0	201.0	300.00	0.63	65.00	62.00	560.0	100	75.0	81.00	9.60
Sambalpur	Bamra	Bampe	22.10416667	84.27194444	8.05	450.0	0	140.0	32.00	0.25	30.00	38.00	185.0	50	15.0	12.00	1.20
Sambalpur	Bamra	Bamra	22.05055556	84.29027778	8.04	1681.0	0	177.0	275.00	0.39	106.00	47.00	485.0	158	22.0	102.00	7.00
Sambalpur	Rengali	Barodungri (Orampara)	21.55972222	84.12277778	8.28	478.0	0	171.0	45.00	0.38	17.00	17.00	160.0	44	12.0	25.00	7.60

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Sambalpur	Jujomura	Bhabanipali	21.37666667	84.06944444	7.87	968.0	0	323.0	100.00	1.77	72.00	18.00	380.0	114	23.0	39.00	1.90
Sambalpur	Rairakhol	Bhaluchuan	21.08000000	84.36666667	8.04	722.0	0	311.0	42.00	1.57	24.00	18.00	240.0	76	12.0	51.00	4.90
Sambalpur	Maneswar	Bhoipali	21.42861111	84.07000000	8.21	990.0	0	451.0	45.00	2.29	59.00	2.00	200.0	34	28.0	130.00	3.90
Sambalpur	Kochinda	Boxma	21.71361111	84.37944444	7.97	939.0	0	281.0	117.00	0.33	70.00	1.00	335.0	88	28.0	57.00	5.20
Sambalpur	Naktideul	Chandrapura	21.27500000	84.56305556	8.07	607.0	0	153.0	70.00	0.62	16.00	42.00	235.0	62	19.0	23.00	1.80
Sambalpur	Rairakhol	Charmal	21.10416667	84.21111111	8.07	335.0	0	116.0	32.00	1.67	0.00	23.00	140.0	44	7.0	14.00	2.20
Sambalpur	Naktideul	Daincha	21.16861111	84.43222222	7.90	605.0	0	159.0	90.00	0.00	13.00	4.00	270.0	66	26.0	10.00	1.50
Sambalpur	Jujomura	Gargabahal	21.28472222	84.13111111	8.13	426.0	0	214.0	25.00	0.35	4.00	1.00	170.0	58	6.0	18.00	5.30
Sambalpur	Jujomura	Hatibari 1	21.33750000	84.10416667	8.00	1132.0	0	378.0	100.00	1.65	81.00	18.00	305.0	44	47.0	103.00	2.90
Sambalpur	Jamankira	Jamankira 1	21.53638889	84.40111111	8.07	528.0	0	165.0	60.00	0.76	34.00	7.00	180.0	44	17.0	40.00	1.70
Sambalpur	Jujomura	Jayantpur	21.44444444	84.07083333	8.04	550.0	0	183.0	47.00	0.58	41.00	10.00	230.0	42	30.0	21.00	1.00
Sambalpur	Jujomura	Jhargulanda 1	21.42055556	84.10138889	7.88	1677.0	0	238.0	322.00	1.51	41.00	1.00	530.0	58	94.0	83.00	8.80
Sambalpur	Jamankira	Kadalipali	21.46444444	84.23055556	8.08	591.0	0	305.0	25.00	0.08	5.00	0.00	250.0	40	37.0	20.00	4.50
Sambalpur	Jamankira	Katar Kela	21.43722222	84.03305556	7.87	349.0	0	92.0	35.00	0.00	13.00	31.00	135.0	44	6.0	14.00	1.00
Sambalpur	Bamra	Kesaibahal	21.91388889	84.38750000	8.08	952.0	0	165.0	165.00	0.18	44.00	34.00	340.0	76	37.0	41.00	2.80
Sambalpur	Jujomura	Koakud	21.19666667	84.16638889	8.05	221.0	0	128.0	10.00	0.16	4.00	3.00	110.0	26	11.0	3.00	1.00
Sambalpur	Jamankira	Kuagola	21.55055556	84.35333333	8.26	340.0	0	140.0	35.00	0.22	4.00	1.00	115.0	30	10.0	23.00	4.70
Sambalpur	Kochinda	Kuchinda	21.74250000	84.34833333	7.99	232.0	0	73.0	27.00	0.35	2.00	12.00	75.0	20	6.0	16.00	2.70
Sambalpur	Kochinda	Kusumi	21.76472222	84.52750000	8.18	1060.0	0	195.0	145.00	0.43	72.00	36.00	290.0	52	39.0	95.00	6.70
Sambalpur	Kochinda	Loiraguna	21.75222222	84.44361111	8.21	440.0	0	232.0	22.00	0.03	9.00	3.00	210.0	38	28.0	11.00	1.60
Sambalpur	Naktideul	Majhipal	21.21305556	84.48472222	7.99	130.0	0	61.0	10.00	0.00	3.00	0.00	55.0	12	6.0	2.00	4.80
Sambalpur	Maneswar	Maneswar 1	21.42722222	84.03694444	8.06	967.0	0	244.0	95.00	0.78	120.00	37.00	320.0	46	50.0	78.00	1.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Sambalpur	Rairakhol	Mochibahal	21.17083333	84.16388889	8.03	727.0	0	268.0	67.00	0.16	35.00	2.00	265.0	42	39.0	38.00	5.60
Sambalpur	Kochinda	Nagadihi Chawk	21.84833333	84.37222222	8.12	186.0	0	85.0	12.00	0.55	5.00	1.00	75.0	18	7.0	8.00	1.00
Sambalpur	Naktideul	Naktideol	21.25555556	84.54055556	8.28	570.0	0	275.0	47.00	0.05	11.00	1.00	260.0	40	39.0	19.00	1.00
Sambalpur	Maneswar	Naxapali	21.42722222	84.01416667	8.11	1418.0	0	305.0	177.00	1.04	120.00	44.00	470.0	52	83.0	99.00	4.70
Sambalpur	Jujomura	Nildungri	21.45833333	84.11111111	8.29	662.0	0	311.0	57.00	0.28	17.00	5.00	175.0	30	24.0	82.00	13.80
Sambalpur	Jujomura	Padiabahal	21.45000000	84.14916667	8.01	886.0	0	183.0	115.00	0.88	49.00	42.00	255.0	54	29.0	69.00	4.20
Sambalpur	Maneswar	Parmanpur	21.52333333	84.10055556	8.26	593.0	0	256.0	45.00	2.49	5.00	6.00	100.0	22	11.0	86.00	1.00
Sambalpur	Kochinda	Paruabhari 1	21.80194444	84.35861111	7.91	1326.0	0	268.0	197.00	0.54	65.00	37.00	225.0	58	19.0	169.00	6.40
Sambalpur	Jamankira	Phasimal 1	21.60500000	84.29638889	8.02	258.0	0	110.0	22.00	0.07	4.00	4.00	105.0	40	1.0	11.00	1.30
Sambalpur	Rairakhol	Rairakhol(rampu)	21.06666667	84.33333333	8.02	850.0	0	238.0	97.00	0.34	44.00	55.00	375.0	84	40.0	24.00	1.00
Sambalpur	Dhankauda	Rengali	21.63194444	84.04944444	8.15	560.0	0	244.0	47.00	0.74	21.00	5.00	240.0	56	24.0	25.00	3.50
Sambalpur	Dhankauda	Sason1	21.54833333	84.04166667	8.13	390.0	0	177.0	17.00	1.25	21.00	0.00	150.0	48	7.0	17.00	4.60
Sambalpur	Naktideul	Simlipal Chawk	21.37250000	84.36583333	8.10	372.0	0	177.0	25.00	0.00	6.00	0.00	160.0	40	15.0	11.00	1.40
Sambalpur	Jamankira	Subarna Pali	21.71361111	84.37944444	8.17	313.0	0	140.0	22.00	0.27	7.00	3.00	90.0	24	7.0	27.00	6.70
Sambalpur	Maneswar	Talpali	21.43111111	84.06083333	8.20	438.0	0	238.0	15.00	0.06	7.00	0.00	190.0	48	17.0	18.00	3.10
Sambalpur	Kochinda	Telitilimal	21.77972222	84.30472222	8.01	623.0	0	244.0	57.00	0.47	22.00	5.00	220.0	42	28.0	38.00	6.40
Sambalpur	Naktideul	Terebera	21.11472222	84.38861111	8.04	536.0	0	275.0	32.00	0.83	1.00	1.00	225.0	44	28.0	25.00	1.00
Sonapur	Binika	Ankhidadar	21.09444444	83.81611111	8.34	493.0	60	55.0	52.00	1.04	25.00	0.00	125.0	46	2.0	55.00	3.40
Sonapur	Binika	Antarda	21.04805556	83.78083333	8.51	1046.0	90	104.0	135.00	0.42	70.00	43.00	275.0	42	41.0	60.00	83.70
Sonapur	Sonepur	Arjunpur	20.85444444	83.82277778	7.96	792.0	0	195.0	102.00	0.59	71.00	42.00	260.0	72	19.0	52.00	5.70
Sonapur	Binika	Bagdiha	21.11527778	83.73416667	8.35	727.0	48	92.0	125.00	0.16	27.00	8.00	275.0	60	30.0	38.00	1.90

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Sonapur	Dunguripali	Baghahandi	21.05805556	83.63611111	8.24	1456.0	0	195.0	282.00	0.63	122.00	47.00	435.0	28	89.0	133.00	7.10
Sonapur	Dunguripali	Barkarle	21.07083333	83.66666667	8.21	973.0	0	195.0	170.00	0.46	71.00	16.00	305.0	60	38.0	79.00	8.70
Sonapur	Binika	Bausuni	20.95361111	83.77083333	8.22	303.0	0	85.0	50.00	0.05	7.00	4.00	135.0	42	7.0	6.00	3.10
Sonapur	Dunguripali	Bhimitkra	21.01666667	83.70083333	8.47	513.0	66	67.0	42.00	0.36	18.00	14.00	175.0	64	4.0	30.00	15.20
Sonapur	Ulunda	Binika	21.02944444	83.81250000	8.43	762.0	60	171.0	82.00	0.42	10.00	10.00	295.0	66	32.0	34.00	15.40
Sonapur	Biramaharajpur	Biramaharajpur	20.92694444	84.05888889	8.19	983.0	0	104.0	235.00	0.35	41.00	44.00	410.0	88	46.0	34.00	3.50
Sonapur	Binika	Bishalipali	21.06916667	83.78472222	8.27	293.0	0	140.0	17.00	0.19	3.00	4.00	125.0	40	6.0	14.00	2.30
Sonapur	Sonepur	Borumunda	20.94250000	83.77000000	8.44	396.0	54	104.0	17.00	0.19	0.00	1.00	150.0	50	6.0	20.00	2.10
Sonapur	Dunguripali	Chandajhuri	21.08000000	83.56111111	8.24	2139.0	0	207.0	562.00	2.44	112.00	6.00	800.0	112	126.0	113.00	7.00
Sonapur	Dunguripali	Charuapali (new)	20.99472222	83.54583333	8.26	441.0	0	165.0	35.00	0.24	29.00	2.00	150.0	38	13.0	27.00	12.10
Sonapur	Ulunda	Danipali	21.04666667	83.80000000	8.27	774.0	0	275.0	72.00	0.58	52.00	6.00	170.0	48	12.0	73.00	45.20
Sonapur	Sonepur	Dhurakhama n	20.88805556	83.81638889	8.28	619.0	0	226.0	52.00	0.54	40.00	23.00	250.0	56	27.0	21.00	2.70
Sonapur	Dunguripali	Dunguripalli New	21.04694444	83.55250000	8.29	386.0	0	183.0	17.00	0.44	14.00	3.00	150.0	42	11.0	19.00	3.20
Sonapur	Dunguripali	Gajabandhu	21.01527778	83.65888889	8.22	295.0	0	116.0	22.00	0.18	13.00	5.00	115.0	42	2.0	15.00	3.30
Sonapur	Dunguripali	Gambharipalli	21.04694444	83.53472222	8.30	644.0	0	195.0	100.00	0.17	18.00	4.00	195.0	50	17.0	54.00	8.10
Sonapur	Biramaharajpur	Gariamunda	20.91944444	84.26500000	8.35	1088.0	36	165.0	170.00	0.28	87.00	27.00	270.0	42	40.0	122.00	3.90
Sonapur	Dunguripali	Ichhapur1	21.03750000	83.46472222	8.04	841.0	0	128.0	172.00	0.43	52.00	5.00	330.0	22	67.0	46.00	3.90
Sonapur	Dunguripali	Karlajuri	21.01166667	83.46527778	7.87	1923.0	0	458.0	302.00	0.33	120.00	47.00	585.0	14	134.0	137.00	59.00
Sonapur	Binika	Karttanga	20.91916667	83.80111111	8.02	361.0	0	128.0	37.00	0.54	13.00	11.00	120.0	36	7.0	22.00	11.40
Sonapur	Sonepur	Khaliapali	20.89694444	83.75750000	7.72	1065.0	0	427.0	55.00	0.48	70.00	44.00	380.0	72	49.0	67.00	3.10

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Sonapur	Binika	Koiramunda 1	20.98194444	83.74472222	7.93	526.0	0	201.0	35.00	0.45	36.00	4.00	195.0	56	13.0	34.00	1.60
Sonapur	Ulunda	Mahada	20.86083333	83.96416667	7.90	524.0	0	146.0	65.00	0.31	34.00	19.00	185.0	54	12.0	33.00	3.80
Sonapur	Binika	Mahadevpali	20.92722222	83.79500000	8.10	543.0	0	177.0	60.00	0.19	33.00	7.00	215.0	62	15.0	25.00	1.90
Sonapur	Ulunda	Metakani	20.86083333	83.96416667	8.25	422.0	0	195.0	17.00	0.22	25.00	2.00	145.0	54	2.0	29.00	1.80
Sonapur	Ulunda	Naikpada	20.91305556	83.91111111	7.78	1240.0	0	268.0	217.00	0.27	89.00	3.00	330.0	62	43.0	114.00	33.10
Sonapur	Sonepur	Nandanamal	20.87444444	83.82222222	7.79	1350.0	0	275.0	232.00	0.77	85.00	40.00	490.0	66	79.0	84.00	2.40
Sonapur	Ulunda	Phulmuthi	20.99500000	83.79222222	8.14	2347.0	0	549.0	392.00	0.29	136.00	47.00	615.0	78	102.0	160.00	157.00
Sonapur	Binika	Rampur	21.10055556	83.69055556	8.11	544.0	0	183.0	57.00	0.22	23.00	7.00	205.0	42	24.0	31.00	7.80
Sonapur	Ulunda	S Patrapali	21.13583333	83.87805556	8.30	584.0	0	329.0	17.00	0.78	4.00	0.00	135.0	38	10.0	63.00	11.50
Sonapur	Binika	Sakama	20.92472222	83.77805556	7.75	1636.0	0	488.0	202.00	0.47	84.00	48.00	475.0	70	73.0	104.00	97.00
Sonapur	Binika	Saledi	20.95777778	83.80361111	8.30	1253.0	0	366.0	147.00	0.11	73.00	46.00	350.0	42	60.0	75.00	93.40
Sonapur	Dunguripali	Samalaichuan	21.06111111	83.59805556	8.16	673.0	0	244.0	45.00	0.37	38.00	43.00	240.0	64	19.0	42.00	3.10
Sonapur	Binika	Sankara1	20.99361111	83.77166667	8.08	406.0	0	214.0	17.00	0.21	1.00	4.00	135.0	50	2.0	22.00	14.90
Sonapur	Binika	Sansamura	20.93194444	83.78666667	8.11	427.0	0	153.0	42.00	0.45	20.00	9.00	145.0	40	11.0	30.00	2.90
Sonapur	Binika	Sarangapali	21.11111111	83.78388889	8.25	287.0	0	128.0	12.00	0.27	16.00	1.00	105.0	38	2.0	13.00	11.30
Sonapur	Dunguripali	Sarasmal	21.11666667	83.66611111	8.21	409.0	0	171.0	27.00	0.59	19.00	1.00	155.0	52	6.0	25.00	1.90
Sonapur	Ulunda	Sindol	21.08472222	83.85694444	7.90	371.0	0	85.0	55.00	0.21	7.00	37.00	120.0	38	6.0	27.00	6.50
Sonapur	Binika	Singhijuba	21.08333333	83.73944444	8.15	319.0	0	146.0	17.00	0.09	19.00	1.00	115.0	40	4.0	17.00	1.90
Sonapur	Ulunda	Sonepur	20.85222222	83.90416667	7.89	957.0	0	366.0	77.00	0.88	58.00	11.00	245.0	70	17.0	107.00	1.70
Sonapur	Biramaharaj pur	Subalaya	20.89388889	84.16805556	8.03	577.0	0	275.0	27.00	0.52	19.00	8.00	225.0	56	21.0	28.00	1.70
Sonapur	Biramaharaj pur	Tebhpadar	20.90750000	84.17694444	7.76	1849.0	0	415.0	310.00	0.26	102.00	43.00	755.0	26	168.0	74.00	12.00

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Sonapur	Ulunda	Ulunda	20.97305556	83.89388889	7.96	1043.0	0	275.0	165.00	0.23	28.00	43.00	340.0	64	44.0	80.00	5.80
Sonapur	Sonepur	Bagduli	20.81666667	83.76333333	8.22	1033.0	0	223.0	177.00	0.34	59.00	31.00	389.0	122	20.0	53.00	7.10
Sonapur	Tarbha	Palsapadar	20.65222222	83.65083333	7.94	724.0	0	347.0	55.00	0.49	46.00	25.00	317.0	107	12.0	32.00	3.00
Sonapur	Tarbha	Sargaj 1	20.70694444	83.67194444	7.60	1568.0	0	229.0	217.00	1.00	144.00	45.00	512.0	98	65.0	109.00	1.30
Sundargarh	Subdega	Alikera	22.19305556	84.01805556	7.56	683.0	0	254.0	77.00	0.19	31.00	17.00	263.0	43	38.0	49.00	1.24
Sundargarh	Sundargarh	Badbahal	22.01166667	84.03333333	7.85	276.0	0	109.0	30.00	0.53	14.00	3.00	101.0	16	15.0	21.00	2.03
Sundargarh	Hemgir	Balichuan	22.05555556	83.83333333	7.76	165.0	0	42.0	30.00	0.26	5.00	6.00	40.0	12	3.0	20.00	0.73
Sundargarh	Tangrapali	Balijori	22.13000000	83.88694444	7.94	630.0	0	193.0	77.00	1.47	36.00	29.00	187.0	32	26.0	48.00	37.42
Sundargarh	Lathikata	Banki	22.09444444	84.88972222	7.74	464.0	0	211.0	45.00	0.25	7.00	4.00	182.0	57	10.0	30.00	3.47
Sundargarh	Baragaon	Bargaon	22.17277778	84.30555556	7.76	106.0	0	36.0	15.00	0.40	4.00	3.00	35.0	8	4.0	9.00	0.95
Sundargarh	Sundargarh	Bargad	22.04166667	84.06305556	7.51	219.0	0	54.0	37.00	0.29	1.00	22.00	61.0	12	7.0	24.00	2.73
Sundargarh	Sundargarh	Bhasma	21.95750000	84.03750000	7.45	250.0	0	91.0	22.00	0.34	0.00	27.00	91.0	16	12.0	15.00	2.67
Sundargarh	Rajagangapur	Bihabandh Chawk	22.27666667	84.52416667	8.14	386.0	0	193.0	25.00	0.83	2.00	20.00	172.0	22	28.0	17.00	3.02
Sundargarh	Kutra	Birangatoli	22.21083333	84.40111111	7.93	410.0	0	230.0	12.00	0.42	11.00	9.00	207.0	47	22.0	7.00	4.12
Sundargarh	Nuagaon	Birmitrapur	22.41027778	84.73111111	7.68	709.0	0	302.0	50.00	0.32	52.00	9.00	308.0	63	37.0	32.00	7.09
Sundargarh	Bisra	Bondamunda	22.23944444	84.95972222	7.70	360.0	0	139.0	40.00	0.17	15.00	5.00	126.0	22	17.0	28.00	4.88
Sundargarh	Lathikata	Chandiposh	22.02500000	84.91944444	7.76	291.0	0	115.0	30.00	0.48	12.00	9.00	106.0	18	15.0	21.00	1.96
Sundargarh	Lahunipara	Darjin	21.93500000	84.88833333	7.68	296.0	0	127.0	22.00	0.47	14.00	9.00	126.0	22	17.0	16.00	0.86
Sundargarh	Baragaon	Deokaranpur	22.15333333	84.23777778	7.85	216.0	0	42.0	30.00	0.27	1.00	38.00	61.0	14	6.0	19.00	3.59
Sundargarh	Hemgir	Durubaga	21.97055556	83.75972222	7.59	772.0	0	350.0	50.00	0.48	14.00	39.00	333.0	69	39.0	33.00	12.13
Sundargarh	Baragaon	Ekma	22.28861111	84.30805556	7.63	482.0	0	223.0	47.00	0.60	6.00	6.00	192.0	36	25.0	34.00	2.81
Sundargarh	Hemgir	Garjan Bahal	22.01166667	83.76611111	7.30	648.0	0	326.0	30.00	0.35	10.00	28.00	278.0	51	37.0	21.00	21.56

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Sundargarh	Hemgir	Hemgiri 1	21.95750000	83.70000000	7.74	625.0	0	230.0	55.00	0.17	42.00	6.00	212.0	43	26.0	35.00	37.76
Sundargarh	Sundargarh	Jagimal	21.98944444	83.97638889	7.53	685.0	0	423.0	27.00	0.11	1.00	11.00	364.0	53	56.0	19.00	1.47
Sundargarh	Sundargarh	Karamdihi	22.15277778	84.10388889	8.04	143.0	0	66.0	7.00	0.21	2.00	11.00	66.0	12	9.0	5.00	0.79
Sundargarh	Tangrapali	Katra (Limidihi Para)	22.13416667	83.93138889	7.78	391.0	0	181.0	32.00	0.81	13.00	8.00	162.0	22	26.0	20.00	6.55
Sundargarh	Balisankara	Kinjrikela	22.27777778	83.94722222	7.83	572.0	0	133.0	80.00	0.31	53.00	34.00	192.0	30	28.0	52.00	1.64
Sundargarh	Kuanmunda	Kuarmunda	22.28333333	84.77083333	8.05	911.0	0	242.0	102.00	0.68	83.00	33.00	323.0	65	39.0	65.00	4.38
Sundargarh	Kuanmunda	Kumajharia	22.35500000	84.74583333	7.45	1060.0	0	393.0	129.00	0.24	61.00	5.00	379.0	69	50.0	86.00	4.95
Sundargarh	Kutra	Kutra	22.22972222	84.45666667	7.80	348.0	0	157.0	15.00	0.20	7.00	30.00	157.0	28	21.0	10.00	4.26
Sundargarh	Lathikata	Lathikata	22.12944444	84.88222222	8.03	725.0	0	278.0	52.00	0.22	53.00	23.00	308.0	83	24.0	32.00	2.68
Sundargarh	Kutra	Laxmipos 1	22.29388889	84.52333333	8.07	162.0	0	73.0	10.00	0.11	10.00	4.00	71.0	12	10.0	7.00	1.79
Sundargarh	Sundargarh	Ledhimang	22.05805556	84.19111111	7.80	375.0	0	181.0	35.00	0.17	3.00	4.00	157.0	30	20.0	24.00	2.82
Sundargarh	Lephripara	Lefripada	22.11611111	83.81944444	7.96	438.0	0	236.0	27.00	0.44	5.00	9.00	192.0	43	21.0	18.00	3.35
Sundargarh	Lephripara	Lokedega	22.08444444	83.84055556	8.23	777.0	0	332.0	77.00	0.35	16.00	33.00	298.0	65	33.0	51.00	12.78
Sundargarh	Tangrapali	Mahulapali 1	22.10277778	83.96944444	8.00	712.0	0	260.0	70.00	0.60	26.00	21.00	242.0	47	31.0	45.00	23.95
Sundargarh	Sundargarh	Medinipur	22.06472222	84.06083333	7.16	261.0	0	85.0	35.00	0.55	18.00	4.00	91.0	16	12.0	23.00	1.06
Sundargarh	Sundargarh	Moshani Kani	22.25944444	83.99555556	7.37	171.0	0	24.0	37.00	0.43	4.00	14.00	40.0	8	5.0	22.00	1.39
Sundargarh	Subdega	Panchomahal a 1	22.20694444	84.11194444	7.77	458.0	0	205.0	30.00	0.24	16.00	24.00	192.0	30	28.0	21.00	1.51
Sundargarh	Baragaon	Panderpali	22.15166667	84.23250000	7.82	231.0	0	97.0	20.00	0.47	3.00	14.00	91.0	18	11.0	13.00	1.74
Sundargarh	Balisankara	Putudihi 1	22.23777778	83.97138889	8.02	356.0	0	187.0	22.00	0.32	7.00	5.00	162.0	43	14.0	16.00	1.18
Sundargarh	Sundargarh	Rabandihi	22.01000000	84.23694444	7.96	252.0	0	85.0	37.00	0.40	6.00	3.00	76.0	14	10.0	26.00	1.26

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Sundargarh	Rajagangapur	Rajgangpur	22.19027778	84.57916667	7.98	1404.0	0	580.0	152.00	0.27	69.00	2.00	510.0	97	65.0	108.00	4.35
Sundargarh	Tangrapali	Rangiamunda	22.10416667	83.95833333	8.03	745.0	0	320.0	80.00	0.41	26.00	4.00	283.0	57	34.0	52.00	9.16
Sundargarh	Subdega	Sabdega	22.28611111	84.09444444	7.78	1093.0	0	284.0	192.00	0.93	82.00	3.00	313.0	63	38.0	129.00	2.14
Sundargarh	Baragaon	Shahajbahal	22.20694444	84.41444444	7.96	696.0	0	211.0	127.00	0.31	9.00	13.00	192.0	43	21.0	85.00	1.82
Sundargarh	Subdega	Sundargarh	22.12027778	84.03833333	7.96	438.0	0	199.0	37.00	0.44	18.00	6.00	182.0	30	26.0	26.00	1.89
Sundargarh	Lephripara	Surguda	22.10138889	83.84777778	7.89	385.0	0	139.0	55.00	0.20	6.00	3.00	121.0	22	16.0	35.00	4.15
Sundargarh	Balisankara	Talsara	22.36166667	84.10055556	7.76	280.0	0	85.0	45.00	0.48	5.00	7.00	86.0	16	11.0	29.00	0.60
Sundargarh	Bisra	R-01 Jalda C-Block	22.19305556	84.86250000	7.69	874.0	0	380.0	122.00	0.62	2.00	1.00	307.0	58	40.0	79.00	3.67
Sundargarh	Bisra	R-02 Jalda Rangila Chhak	22.18750000	84.85500000	7.78	1134.0	0	319.0	162.00	0.95	135.00	17.00	377.0	84	41.0	104.00	12.52
Sundargarh	Bisra	R-06 Basanti Colony	22.23750000	84.83833333	7.62	1371.0	0	365.0	192.00	1.38	74.00	42.00	418.0	78	54.0	123.00	40.84
Sundargarh	Bisra	R-07 Udit Nagar-1	22.23305556	84.83666667	8.00	546.0	0	274.0	30.00	0.22	38.00	3.00	252.0	42	36.0	19.00	4.46
Sundargarh	Bisra	R-09 Power House Road	22.22611111	84.86083333	7.60	1012.0	0	327.0	100.00	0.33	96.00	43.00	413.0	64	62.0	64.00	5.30
Sundargarh	Bisra	R-10 Raghunathpa Ili	22.23583333	84.82250000	8.02	585.0	0	205.0	60.00	0.22	31.00	33.00	231.0	46	28.0	37.00	1.78
Sundargarh	Bisra	R-11 Hanuman Batika	22.22583333	84.84222222	8.08	256.0	0	91.0	30.00	0.21	14.00	6.00	91.0	14	13.0	18.00	3.64
Sundargarh	Bisra	R-13 Chhend	22.25555556	84.80944444	7.98	380.0	0	221.0	12.00	0.60	6.00	1.00	191.0	38	23.0	8.00	1.68
Sundargarh	Bisra	R-14 Banposh (Urban)	22.25833333	84.80500000	7.78	292.0	0	114.0	32.00	0.10	4.00	19.00	106.0	18	15.0	21.00	3.17

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Sundargarh	Bisra	R-15 Bandamunda	22.23861111	84.93722222	7.81	548.0	0	213.0	52.00	0.09	23.00	40.00	241.0	46	31.0	34.00	4.15
Sundargarh	Bisra	R-17 Jhumpudibasti(Nuabazar)	22.24333333	84.88250000	8.07	303.0	0	99.0	27.00	0.19	23.00	11.00	101.0	18	14.0	17.00	11.10
Sundargarh	Bisra	R-18 Koel Nagar	22.26611111	84.89055556	8.01	402.0	0	122.0	37.00	0.14	46.00	14.00	146.0	28	19.0	23.00	4.99
Sundargarh	Bisra	R-19 Jagada	22.26888889	84.90722222	7.68	128.0	0	8.0	27.00	0.05	6.00	23.00	30.0	6	4.0	17.00	1.72
Sundargarh	Bisra	R-20 Jhirpani	22.27583333	84.90527778	7.22	718.0	0	175.0	132.00	0.07	20.00	43.00	191.0	38	23.0	84.00	13.96
Sundargarh	Bisra	R-21 Sector-1	22.25583333	84.89472222	7.88	618.0	0	213.0	57.00	0.25	55.00	8.00	241.0	52	27.0	36.00	2.22
Sundargarh	Bisra	R-23 Sector-3	22.25722222	84.88500000	8.20	387.0	0	198.0	22.00	0.36	16.00	2.00	156.0	32	19.0	13.00	15.47
Sundargarh	Bisra	R-25 Ambagaon	22.25277778	84.87305556	7.90	458.0	0	137.0	57.00	0.12	38.00	18.00	146.0	30	17.0	37.00	17.90
Sundargarh	Bisra	R-26 Sector-6	22.25611111	84.86027778	8.15	228.0	0	107.0	20.00	0.16	6.00	2.00	96.0	18	12.0	13.00	3.74
Sundargarh	Bisra	R-27 Sector-7	22.25916667	84.85222222	8.09	208.0	0	84.0	22.00	0.26	14.00	0.00	76.0	16	9.0	13.00	4.80
Sundargarh	Bisra	R-28 Sector-8	22.26027778	84.84805556	7.75	225.0	0	61.0	35.00	0.11	18.00	10.00	76.0	18	8.0	22.00	2.67
Sundargarh	Bisra	R-29 Sector-9	22.25777778	84.83611111	6.95	74.0	0	10.0	12.00	0.07	2.00	13.00	20.0	4	3.0	7.00	3.41
Sundargarh	Bisra	R-30 Sector-13	22.26027778	84.83944444	7.92	202.0	0	61.0	30.00	0.11	6.00	5.00	55.0	12	6.0	19.00	5.46
Sundargarh	Bisra	R-31 Sector-14	22.27000000	84.84194444	7.62	111.0	0	38.0	10.00	0.40	6.00	3.00	35.0	8	4.0	6.00	5.68
Sundargarh	Bisra	R-32 Sector-20	22.26555556	84.89083333	7.74	236.0	0	61.0	35.00	0.09	12.00	6.00	65.0	12	9.0	21.00	6.20
Sundargarh	Bisra	R-33 Sector 18	22.26583333	84.86722222	7.67	286.0	0	84.0	37.00	0.06	22.00	6.00	91.0	18	11.0	24.00	7.80
Sundargarh	Bisra	R-34 Sector-17	22.27555556	84.85638889	7.54	197.0	0	8.0	37.00	0.04	36.00	17.00	45.0	10	5.0	24.00	7.65

District	Block	Location	Latitude	Longitude	pH	EC	CO3	HCO3	Cl	F	SO4	NO3	Total Hardness	Ca	Mg	Na	K
Sundargarh	Bisra	R-36 Sector-15	22.26250000	84.85333333	7.89	299.0	0	114.0	35.00	0.56	20.00	1.00	106.0	12	18.0	22.00	7.17
Sundargarh	Bisra	R-38 Kalunga	22.23777778	84.77694444	7.57	448.0	0	198.0	42.00	0.12	15.00	4.00	171.0	38	19.0	27.00	4.70