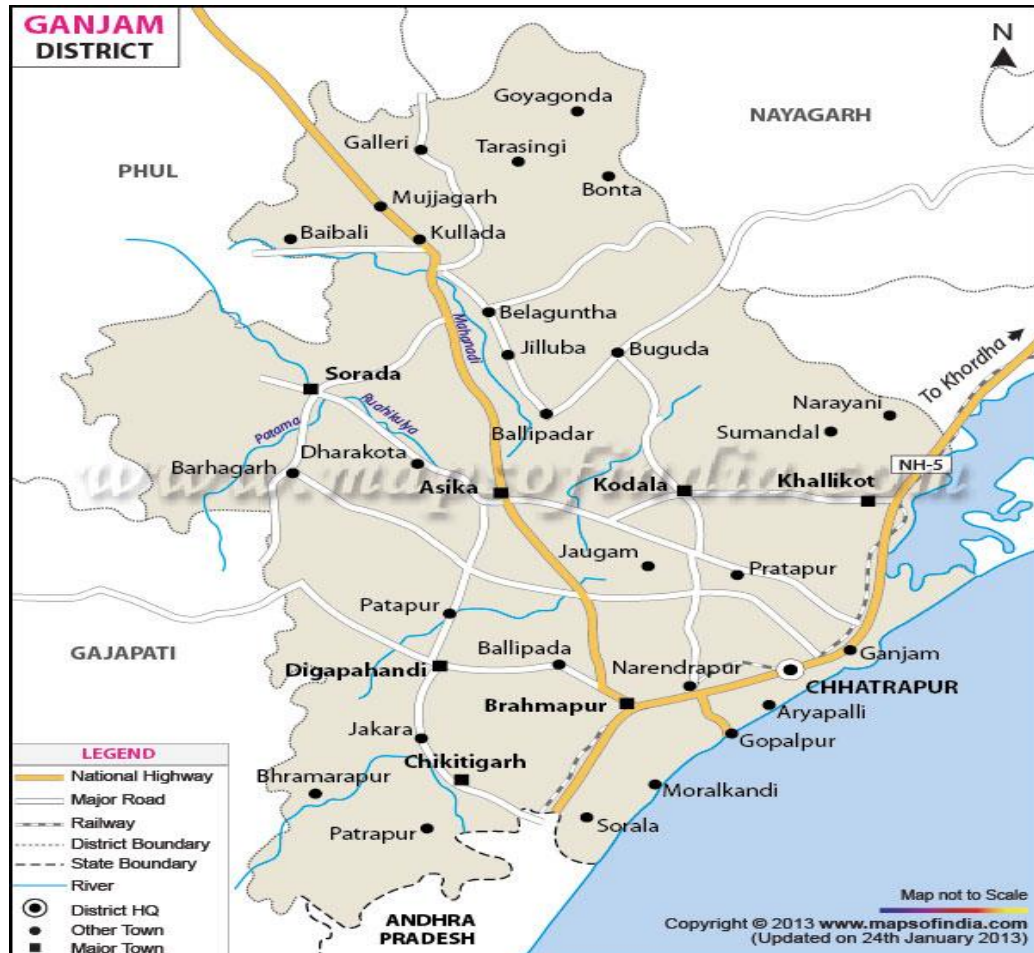


Year- 2022

DISTRICT ENVIRONMENT PLAN

GANJAM DISTRICT, ODISHA



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1.0 DISTRICT PROFILE

(a) District administrative Set-Up

The knowledge of the past history of Ganjam district is limited to the rock edicts and the inscriptions of the earlier kings and the rulers. Following the historical records of Ganjam, the district has derived its name from the word "Ganj-i-am" meaning the "granary of world." Among the 13 rock edicts of Ashoka, one was found in the present Jaugada area of the Ganjam district, which clearly indicates that the present tract of Ganjam was a part of the Kalinga Empire, which was under the jurisdiction of Ashoka. As the history of Gajapati depicts, Ashoka conquered the entire part of Ganjam including the Jaugada Parbat, where the rock edict of Ashoka has been deciphered in 261 B.C. However, after the disappearances of the Mauryan empire and the downfall of their absolute supremacy, the Ganjam region was also disappeared from the political scenario of Odisha and was in a dark oblivion till in 1761. When the French arrived, Ganjam was subdivided into a several parts each owned by a number of federal chiefs. But the French were not destined to be at the helm of the administration of the Ganjam district for long and shortly the English invaded the French settlement in Deccan and finally became victorious. Consequentially the French had to cede all their jurisdictional territory to the British including Ganjam, who annexed it to the English territory in 1759. In 1794 with the establishment of the Collector Office of the English, commenced the historical era of the British imperialism in Ganjam.

Following the historical documents of Ganjam, it has been deciphered that the headquarter of the district of Ganjam has undergone several changes and has been shifted from one place to another. In 1855, the original headquarter of Ganjam was abandoned owing to the eruption of the epidemic fever in the town for which near about 80% of the population of the town was reduced. Temporarily the capital was shifted to Gopalpur and then to the Berhampore and finally to Chatrapur around 1902. However, the English chiefs were not ready to manage the administrative activities of Ganjam as a subdivision of Madras Presidency. The district of Ganjam was far away from the Madras Presidency and the British do not find it easy to control the administrative activities far from Madras. Hence they wanted to merge it with the province of Odisha. The district of Ganjam was separated from the Madras Presidency and was merged with Odisha Province in the year of 1936 as is deciphered from the available historical documents of Ganjam. The reorganized district of Ganjam, which is annexed with the Odisha province is constituted of whole of Ghumusor, Chatrapur and Baliguda divisions, part of old Berhampur taluk, part of old Ichapur taluk, part of Parlakhemundi plains area and the whole of Parlakhemundi agency area in the old Chicacola division. According to the recent available documents and the modified plans of the state Government of Odisha, from the present district of Ganjam is separated 7 blocks of Paralakhemundi Subdivision, which is merged with the newly formed district of Gajapati. Hence the present district of Ganjam is constituted with 3 subdivisions, 22 blocks, 23 Tahasils.

- Size of district and its rank in State (give geographical areas , % of the State or rank size wise...)

The Ganjam District's geographical area of 8205.48 Sq. Kms. It is the 5th largest district in Odisha and 93th largest in India in terms of total area. Ganjam is most populous district of Odisha state and it is 83 rd most populous district in India. The population density of Ganjam is 429 persons per square Km. It is 9th most densely populated district of Odisha and 291th most densely populated district in India.

Ganjam district is one of the south-east located districts in Odisha. It is extending from 19.4-degree north latitude to 20.17-degree north latitude and 84.7-degree east longitude to 85.12-degree east longitude spreading over a geographical area of 8205.48 Sq. Kms.

Ganjam district is broadly divided into two geographical divisions: (1) the coastal plains in the east and (2) hill & tablelands in the west. The Eastern Ghats run along the western side of the district. The plain area lies between the Eastern Ghats and the Bay of Bengal. Since the hills are close to the sea, the rivers flowing from hills are not very long and are subject to sudden floods. The plains are narrow because of the absence of big rivers. The coastal plains in the east contain more fertile and irrigated lands. Towards the centre and south it is hilly interspersed with beautiful well-watered valleys. The south-eastern portion is fertile. A portion of the famous Chilika Lake occupies the extreme northeast. The Bay of Bengal touches the eastern frontier of Ganjam district and its coast extends over 60 Kms. It provides unique opportunity for fishing and port facility at Gopalpur for international trade.

The district has alluvial soil in its eastern part (coastal region) and laterite soil in the west (hilly table land) with small patches of black cotton soil at the center and in the northeast close to Chilika. The forest of Ganjam district comes under the mix moist peninsular high- and low-level Sal forests, tropical moist and dry deciduous and tropical deciduous forest types. It provides a wide range of raw materials and quite famous for wild life diversity.

The district of Ganjam is bound by the district of Gajapati and Andhra Pradesh State in the south. The district of Phulbani bounds the district in the west. The districts of Nayagarh and Khurda lies in the north of Ganjam. The coastline of the Bay of Bengal borders the district on the east.



The Ganjam district is constituted of 3 sub-divisions, 22 blocks, 23 Tahasils and 17 NACs & a Municipal Corporation. It has a population of 35,29,031 (2011 census)

(b) Local institutions

Gram Panchayat	503
No. of Villages	3250
No of R.I Circle	211
Medical College	1
No. of C.H.C	30
Primary Health Centre	7
PHC (N)	90
Primary Health Sub-Centre	460
No. of Homeopathic dispensary	38
No. of Ayurvedic dispensary	42

Sub-Division	Tahasil	No. of GPs	No. of Village	Urban Local Bodies
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CHATRAPUR	1. Chatrapur	17	88	1. Chatrapur NAC
	2. Ganjam	15	113	2. Ganjam NAC
				3. Rambha NAC
	3. Khalikote	29	238	4. Khalikote NAC
	4. Kodala	23	175	5. Kodala NAC
	5. Purushottampur	26	100	6. Purusottampur NAC
	7. Polasara	26	126	7. Polasara NAC
	6. Kabisuryanagar	21	81	8. Kabisuryanagar NAC
	8. Hinjilcut	21	56	9. Hinjili NAC
	Total	178	977	
BERHAMPUR	1. Konisi	32	92	1. Gopalpur NAC
	2. Kukudakhandi	22	96	-
	3. Digapahandi	25	239	2. Digapahandi NAC
	4. Sanakhemundi	26	162	-
	5. Chikiti	17	142	3. Chikiti NAC
	6. Patrapur	23	352	-
	7. Berhampur	-	34	4. Berhampur MC
	Total	145	1117	
BHANJANAGAR	1. Bhanjanagar	22	143	1. Bhanjanagar NAC
	2. Bellaguntha	17	93	2. Belaguntha NAC
	3. Jagannathprasad	25	148	-
	4. Aska	27	109	3. Aska NAC
	5. Dharakote	18	181	-
	6. Sorada	26	270	4. Sorada NAC
	7. Sheragada	24	114	-
	8. Buguda	21	102	5. Buguda NAC
	Total	180	1160	
GRAND TOTAL		503	3254	

(c) Natural Resources

- *Water bodies and availability of water resources:*

Main rivers of this district are Rushikulya, Badanadi, Baghua, Dhanei, Bahuda and Ghodahada. These rivers govern the agriculture sector of the district. The vast river basin of Rushikulya provides grand potential for exploration of ground water. The rivers are navigable during the rainy season only. Rushikulya and Badanadi are the major rivers of the district, where as Bahuda, Harabhangi, Ghodahada, Dhanei, Loharkhandi & Baghua, Kharakhari, Ghadaka Nala, Jagata Nala, Nandini Nala, Kubei Nala, Nuani Nala, Bahana Nala and Sapua Nala are some minor rivers/nala existing in the area.

River Carrying Capacity:

Sl. No.	Name of the River	Gauge Station	Zero level (In Mtr.)	Danger Level (In Mtr.)
1	RUSHIKULYA	Sorada	79.250	81.990
		Aska	32.45	34.750
		Janivili	48.920	53.180
		Hiradharabati	18.590	23.160
		Purushottampur	12.000	16.840
2	BADANADI	Sorisamuli	98.600	102.11
		Aska	32.060	35.420
		Nuagam	68.030	70.930
		Madha Borida	55.780	60.650
3	BAGHUA	Kabisuryanagar road bridge	31.010	34.060
4	LOHARKHANDI	Bhanjanagar	68.650	72.310

Reservoir Details: Availability of water resources

Sl. No.	NAME OF THE RESERVOIR	Frl. in Mtr.	Live Storage Capacity in Ham.
1	Bhanjanagar	96.000	5766.000
2	Sorada	92.300	4975.000
3	Daha	118.600	2195.000
4	Ghodahada	117.800	3052.000
5	Dhanei	88.700	1313.000
6	Harabhangi	387.500	8625.000
7	Baghua State-II	113.850	3100.000
8	Baghalati	106.000	3891.000

- *Wet lands*
- The total geographical area of Ganjam district is 8033 sq km. The district comprises of 4783 wetlands including 4088 that are smaller than 2.25 ha. Together they account for 29920ha of area (Table 25). The major wetland types are Lagoon (6998 ha) followed by River/Stream (6131 ha) and Reservoir/Barrage (4689 ha). The small wetlands contribute a significant area (about 14 %) towards the aerial extent of wetlands in the district. Open water component of wetlands has shown about 15 per cent reduction as seasonal change from post-monsoon (18883 ha) to pre-monsoon (16099 ha). Aquatic vegetation has shown an increase of about one and half times from post-monsoon (4894 ha) to 7167 ha in pre-monsoon. Open water has exhibited larger area under moderate turbidity followed by low without the presence of high turbidity in both the seasons.

Area estimates of wetlands in Ganjam district in ha.

Sr. No.	Wett code	Wetland Category	Number of wetlands	Total wetland area	% of wetland area	Open Water	
						Post monso on area	Pre monsoon area
	1100	Inland Wetlands - Natural					
1	1101	Lakes/Ponds	1	301	1.01	200	204
2	1102	Ox-bow lakes/ Cut-off meanders	-	-	-	-	-
3	1103	High altitude wetlands	-	-	-	-	-
4	1104	Riverine wetlands	1	12	0.04	-	-
5	1105	Waterlogged	39	1051	3.51	745	738
6	1106	River/Stream	17	6131	20.49	6131	5578
	1200	Inland Wetlands -Man-made					
7	1201	Reservoirs/Barrages	73	4689	15.67	3503	3007
8	1202	Tanks/Ponds	515	2397	8.01	1107	1066
9	1203	Waterlogged	5	23	0.08	7	7
10	1204	Salt pans	-	-	-	-	-
		Total - Inland	651	14604	48.81	11693	10600
	2100	Coastal Wetlands - Natural					
11	2101	Lagoons	1	6998	23.39	5114	3423
12	2102	Creeks	-	-	-	-	-
13	2103	Sand/Beach	8	807	2.70	-	-
14	2104	Intertidal mud flats	22	1347	4.50	-	-
15	2105	Salt Marsh	-	-	-	-	-
16	2106	Mangroves	-	-	-	-	-
17	2107	Coral Reefs	-	-	-	-	-
	2200	Coastal Wetlands - Man-made					
18	2201	Salt pans	2	1726	5.77	1726	1726
19	2202	Aquaculture ponds	11	350	1.17	350	350
		Total - Coastal	44	11228	37.53	7190	5499
		Sub-Total	695	25832	86.34	18883	16099
		Wetlands (<2.25 ha)	4088	4088	13.66	-	-
		Total	4783	29920	100.00	18883	16099

Area under Aquatic Vegetation	4894	7167
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Area under turbidity levels		
Low	8485	6737
Moderate	10398	9362
High	-	-

- **Forest coverage:**
(Figure in Sq Km)

Total Geographical Area	Very Dense Forest	Moderates Dense Forest	Open Forest	Total	Percentage of GA	Change	Scrub
8206	162	1089	849	2100	25.59	107	665

Category wise forest cover in different forest divisions of the district in Ha.

Name of the Forest Division	Reserved Forest. (RF)	Proposed Reserved Forest (PRF)	Demarcated Protected Forest (DPF)	In-Demarcated Protected Forest (UDPF)	Total
Berhampur	8340.80	7091.83	29887.21	19684.53	65004.37
Ghumusur N)	92,048.00	-	26.70	687.34	92762.04
Ghumusur (S)	48257.51	4935.89	28645.21	29841.49	111680.10
Paralakhemundi			2006.80		2006.80
Chilika (WL)	-	961.65	806.66	428.66	2196.97
TOTAL	148646.31	12989.37	61372.58	50,642.02	273650.28

(d) Geography & Demography

Geography:

The district has an area of 8033 Sq.kms. It is extending from 19.4-degree north latitude to 20.17-degree north latitude and 84.7-degree east longitude to 85.12-degree east longitude

Demography:

The total population of the district is 35.29 lakhs as per 2011 census. The district accounts for 5.27 percent of the state's territory and shares 8.41 percent of the state's population.

The density of population of the district is 430 per sq.km as against 270 persons per sq.km of the State. It has 3250 villages covering 22 blocks and 23 Tahasils and 3 Sub-Divisions.

Households and its distribution:

Total Number of Families / HH	Category		Category				Category	
	Rural	Urban	SC	ST	OBC	GEN	BPL	APL
758267	594275	163992	147862	25553	584852		253558	229532

Population and its composition (Census 2011):

Population density of the district and decadal growth of population-In the last decade (from the year 2001 to 2011), there has been 11.68 percent growth in population of the district in comparison to 2001 census i.e. 385 persons per sq.km in 2001 as against 430 persons per sq.km in 2011.

Population			SC		ST		OBC	
T	M	F	M	F	M	F	M	F
3529031	1779218	1749813	342111	346124	59172	59756		

Religion wise distribution of Population (Census 2011):

Total Population	Category				
	Hindu	Muslim	Christian	Sikh	Others
3529031	3486059	13315	23975	590	5092

Age Group (Census 2011):

Total Population	0-5 years	6-14 years	15-59 years	60 years and above
3529031	355007	662224	2160546	351254

Sex Ratio (Census 2011):

Sex Ratio (Females per 1000 males):	F 983/ M 1000
Sex Ration(0-6 Years):	F 908/ M 1000

Literacy Rate (Census 2011):

	Total	Male	Female
Literacy Rate	71.09 %	70.97 %	54.14 %

(e) Land-use pattern:

Cultivated Area	406000 Hectare
Cultivated Area Paddy	208420 Hectare
Cultivated Non-Paddy Area	225580 Hectare
High land Paddy	19400 Hectare
Medium Land Paddy	103300 Hectare
Low Land Paddy	100800 Hectare
High Land	170315 Hectare
Medium Land	10160 Hectare
Low Land	2025 Hectare
Landless household	122471
Share croppers	79688
Small farmers	42941
Marginal farmers	233069
Semi medium farmers	16550
Medium Farmer	2577
Large farmers & above	252
Total Farmers	295389

(f) Climate:

The district is characterized by an equable temperature all through the year, particularly in the coastal regions and by high humidity. The cold season from December to February is followed by hot season from March to May. The period from June to September marks the South West Monsoon and 70% of annual precipitation is received during this period. The normal rain fall of this district is 1276.20 m.m. May is the hottest month. With the arrival of the monsoon by about the second week of June the day temperature decreases slightly while the night temperature continues as usual in the summer. Towards the end of September, after the withdrawal of south west monsoon, temperature decreases progressively. December is the coldest month. The relative humidity is high throughout the year especially in coastal areas. Winds are fairly strong particularly in coastal regions in summer and monsoon months.

Annual Normal Rainfall of district : 1276.20 mm.

No. of Rain Recording Station : 22

Temperature Data: 2020-21

Month	Monthly temperature in °C		Monthly mean relative humidity in %	
	Max	Min	8.30 AM	5.30 PM
January	28.4	17.7	89	77
February	30.5	18.7	81	74
March	33.2	23.2	91	85
April	32.4	25.3	81	83
May	32.3	27.0	82	84
June	32.5	27.1	87	89
July	31.3	26.5	86	87
August	32.2	26.8	85	85
September	33.1	25.9	88	86
October	32.8	24.4	87	81
November	33.2	18.9	95	66
December	32.4	16.1	98	67
Annual	34.0	17.9	98	89

Rain Fall Records of Last Two Decades:

Sl. No.	Year	Average Rainfall (in mm)
1	1993	954.17
2	1994	1221.89
3	1995	1939.54
4	1996	869.43
5	1997	1215.69
6	1998	1374.25
7	1999	1230.08
8	2000	998.35
9	2001	1248.01
10	2002	804.69
11	2003	1421.70
12	2004	981.19

Sl. No.	Year	Average Rainfall (in mm)
13	2005	1318.01
14	2006	1486.57
15	2007	1321.20
16	2008	1162.92
17	2009	1221.51
18	2010	1484.04
9	2011	914.37
20	2012	1224.44
21	2013	1972.17
22	2014	1400.38
23	2015	1169.78
24	2016	1150.82
25	2017	1362.77
26	2018	1574.31
27	2019	1373.15
28	2020	1451.81

2.0 INDICATIVE GAP ANALYSIS & ACTION PLAN FOR COMPLYING WITH WASTE MANAGEMENT RULES

(i) Solid Waste Management

a. Current status related to solid Waste management

Sl No.	Urban Local bodies	No of Wards	No of Households	Population	Solid Waste Generated per day
1	Municipal corporations (Nagar Nigam or Mahanagar Palika)	40	70760	356598	143 TPD
2	Municipalities (Nagar Palikas)				
3	Nagar Panchayats (Town area Councils)				

Sl No.	Local Bodies	No of Village Panchayats / Blocks	No of House holds	Population	Solid Waste Generated per day
1	Block /Taluk / Mandal Tehsils	22 Blocks			
2	Village/Gram Panchayats	Village- 2750 G.P. - 503	735341	3352273	257.3694

b. Identification of gaps and Action plan:

Sl. No.	Action points for villages / blocks/ town municipalities / City corporations	Identification of gap	Action Plan	Responsible agencies	Timeline for completion of action plan
1.	Segregation				
(i)	Segregation of waste at source	About 50 to 60% dry and waste segregation at source is being practiced during door-to-door collection. Identification of bulk generators like market complexes and societies.	Regular awareness programmes in schools, colleges and societies.	All ULBs & G.P.s	6 months
2.	Sweeping				
(i)	Manual Sweeping	- About 60 to 90% paved roads in urban and rural areas are not covered. - No mechanical tools available.	Action plan for reducing gap including method cleaning, frequency of sweeping etc. Awareness programme is continuing. Manual devices for collection and transportation of waste material have been planned.	All ULBs & G.P.s	6 months

(ii)	Mechanical Road Sweeping & Collection	No mechanical road sweeping device is available.	Mechanical devices for collection and transportation of swiped material has been planned	All ULBs & G.P.s	6 months
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3 Waste Collection					
Sl. No.	Action points for villages / blocks/ town municipalities / City corporations	Identification of gap	Action Plan	Responsible agencies	Timeline for completion of action plan
(i)	100% collection of solid waste	Only about 70% collection in urban areas and 60 % in rural areas has been achieved.	Action plan to improve existing Collection Action is being taken for balance achievement	All ULBs & G.P.s	6 months
(ii)	Arrangement for door-to-door collection	Only 60 to 70% door-to-door collection of waste material has been planned and under implementation.:	Action plan to improve existing Collection Action is being taken for balance achievement	All ULBs & G.P.s	6 months
(iii)	Waste Collection trolleys with separate compartments	Only about 70% collection in urban areas and 60 % in rural areas has been achieved.	Action plan for procurement if required (There is provision for procurement of vehicles from CFC, SFC & DMF funds)	All ULBs & G.P.s	6 months
(iv)	Mini Collection Trucks with separate compartments	Only about 80% collection in urban areas and 40 % in rural areas has been achieved	Action is being taken for balance achievement	All ULBs & G.P.s	6 months
(v)	Waste Deposition centers (For domestic hazardous wastes)	Number of depositions Centers required and nos available or any alternate arrangement. In rural area above 60% GPs out of 503 GPs are tagged to 86 nos of Rural MMCC at GP level and other GPs are tagged to ULBs & BeMC	Details of existing practice and scope for improvement or implement adequate system In rural area above 60% GPs out of 503 GPs are tagged to 86 nos of Rural MMCC at GP level and other GPs are tagged to ULBs & BeMC	All ULBs & G.P.s	6 months

4. Waste Transport					
Sl. No.	Action points for villages / blocks/ town municipalities / City corporations	Identification of gap	Action Plan	Responsible agencies	Timeline for completion of action plan
(i)	Review existing infrastructure for waste Transport.	Presently not adequate	Action plan for short-comings identified. In urban area MGS Enviro Pvt. Ltd., Zanta Pvt. Ltd. In rural area to be decided.	All ULBs & G.P.s	6 months
(ii)	Bulk Waste Trucks	In Urban area MGS Enviro Pvt. Ltd. In Rural area: - Not available	In urban area MGS Enviro Pvt. Ltd. Zanta Pvt. Ltd. In rural area to be decided	All ULBs & G.P.s	6 months
(iii)	Waste Transfer points	In urban aria 4 Transfer Stations are operational and 82 UGB are operational as Secondary Storage In rural aria non-biodegradable waste is transported to nearest ULBs and degradable waste is decomposed at MMCC points	[action plan for installation if required] Not decided yet	All ULBs & G.P.s	6 months
5 Waste Treatment and Disposal					
(i)	Wet-waste Management: On-site composting by bulk waste generators (Authority may decide on requirement as per Rules)	In rural aria Soak Pits are constructed at HH level and Community level for wet waste management/ground water recharge.	Action for getting onsite composting plants commissioned. In rural area Soak Pits are constructed at HH level and Community level for wet waste management/ground water recharge.	All ULBs & G.P.s	6 months
(ii)	Wet-waste Management: Facility(ies) for central Bio methanation / Composting of wets waste.	No such facility for central for Biomethanation.	Action plan for developing / up gradation of bio-methanation or composting facility In rural area not decided yet	All ULBs & G.P.s	6 months

(iii)	Dry-Waste Management: Material Recovery for dry-waste fraction	MRF exists in ULB. No MRF in GPs.	In urban area Centralized SWM Plant operational for Recyclable and RDF waste processing, Additional to these 4 Dry waste Collection centers are functional through Gem Enviro Pvt. Ltd In Rural area facilities are available for storage and transportation of waste to nearest ULBs for disposal	Urban areas- All ULBs Rural area- All GPs	6 months
(iv)	Disposal of inert and non-recyclable wastes: Sanitary Land fill	No proper sanitary land fill exists.	In Urban area Sanitary Landfill at Mahuda to be operational. In Rural area yet to be decided.	Urban areas- All ULBs Rural area- All GPs	12 months
(v)	Remediation of historic / legacy dumpsite	No proper dump site exists	In Urban area After fully operational of SWM plant the Chandania Dump site will be remediated. In Rural area yet to be decided.	Urban areas- All ULBs Rural area- All GPs	12 months
(vi)	Involvement of NGOs	Involvement of NGOs yet to be envisaged	NGOs can be involved for management of solid waste campaign	Urban areas- All ULBs Rural area- All GPs	6 months
(vii)	EPR of Producers: Linkage with Producers / Brand Owners	As per rules, producers and brand-owners should facilitate in collection of packaging waste.	In Urban area MGS Environ Pvt. Ltd. has been tagged with 3 PRO. Not yet developed in Rural area.	Urban areas- All ULBs Rural area- All GPs	6 months

Sl. No.	Action points for villages / blocks/ town municipalities / City corporations	Identification of gap	Action Plan	Responsible agencies	Timeline for completion of action plan
(viii)	Authorization of Waste Pickers	Yes	List of authorized waste pickers will be prepared.	Urban areas- All ULBs Rural area- All GPs	6 months

(ix)	Preparation of own by-laws to comply with SWM Rules 2016	Yes	Action plan to be made for preparation of by-laws which may be applicable in cantonment Board jurisdiction	Urban areas- All ULBs Rural area- All GPs	6 months
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(ii) Plastic waste Management

(a) Current status related to Plastic waste management:

Sl. No.	Urban Local bodies	Estimated quantity of Plastic Waste Generated per day
1	Municipal corporations (Nagar Nigam or Mahanagar Palika)	16 TPD
2	Municipalities (Nagar Palikas)	
3	Nagar panchayats (Town area Councils)	

Sl. No.	Local Bodies	Plastic Waste Generated per day
1	Block /Taluk / Mandal Tehsils	0.735 TDP
2	Village/Gram Panchayats	

(b) Identification of gaps and Action plan:

Sl. No.	Action points for village Panchayats/ blocks/ municipalities / corporations	Identification of gap	Action plan	Agencies Responsible	Target time for Compliance
1.	Door to Door collection of dry waste including PW	Identification yet to be done. Lack of legal provision for fixing responsibility.	Setting up of collection centers for packaging wastes by producers / Brand owners in each ULB & GP.	Urban areas- All ULBs Rural areas- All GPs	3 months

2.	Facilitate organised collection of PW at Waste transfer point or Material Recovery Facility	Identification yet to be done. Lack of legal provision for fixing responsibility.	Setting up of collection centers for packaging wastes by producers / Brand owners in each ULB & GP.	Urban areas- All ULBs Rural areas- All GPs	6 months
3.	PW collection Centers	Identification yet to be done. Lack of legal provision for fixing responsibility.	Setting up of collection centers for packaging wastes by producers / Brand owners in each ULB & GP.	Urban areas- All ULBs Rural areas- All GPs	6 months
4.	Awareness and education programs implementation	Identification yet to be done. Lack of legal provision for fixing responsibility.	Setting up of collection centers for packaging wastes by producers / Brand owners in each ULB & GP.	Urban areas- All ULBs Rural areas- All GPs	6 months
5.	Access to Plastic Waste Disposal Facilities	Identification yet to be done. Lack of legal provision for fixing responsibility.	Setting up of collection centers for packaging wastes by producers / Brand owners in each ULB & GP.	Urban areas- All ULBs Rural areas- All GPs	6 months

(iii) C & D Waste Management

▪ **a. Current status related to C & D Waste:**

Details of Data Requirement	Present Status
Total C & D waste generation in MT per day (As per data from Municipal Corporations / Municipalities)	2 TPD
Does the District have access to C&D waste recycling facility?	yes

b. Identification of gaps and Action plan:

Sl. No.	Action points for blocks / town municipalities / City corporations	Identification of Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
1.	Arrangement for separate collection of C&D waste to C&D waste deposition point.	Identification yet to be done. Lack of legal provision for fixing responsibility.	Setting up of collection centers for packaging wastes by producers / Brand owners in each ULB & GP.	Urban areas- All ULBs Rural areas- All GPs	6 months
2.	Whether local authority have fixed user fee on C&D waste and introduced permission system for bulk waste generators who generate more than 20 tons or more in one day or 300 tons per project in a month?	Identification yet to be done. Lack of legal provision for fixing responsibility.	Setting up of collection centers for packaging wastes by producers / Brand owners in each ULB & GP.	Urban areas- All ULBs Rural areas- All GPs	6 months
3.	C&D recycling Facility	Identification yet to be done. Lack of legal provision for fixing responsibility.	Setting up of collection centers for packaging wastes by producers / Brand owners in each ULB & GP.	Urban areas- All ULBs Rural areas- All GPs	6 months.

Sl. No.	Action points for blocks / town municipalities / City corporations	Identification of Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
4.	Usage of recycled C&D waste in non-structural concrete, paving blocks, lower layers of road pavements, colony and rural roads	Identification yet to be done. Lack of legal provision for fixing responsibility.	Setting up of collection centers for packaging wastes by producers / Brand owners in each ULB & GP.	Urban areas- All ULBs Rural areas- All GPs	6 months
5.	ICE on C & D waste management	Identification yet to be done. Lack of legal provision for fixing responsibility.	Setting up of collection centers for packaging wastes by producers / Brand owners in each ULB & GP.	Urban areas- All ULBs Rural areas- All GPs	6 months

(iv) Biomedical Waste Management**a. Current Status related to biomedical waste**

Inventory of BMW in the District	Quantity
Total no. of Bedded Healthcare Facilities Govt. HCFs= 44+ Pvt. HCF=85	129 (Govt. HCFs= 44+ Pvt. HCF=85)
Total no. of non-bedded HCF	128 (Health & FW Deptt.= 90 and Veterinary Deptt.= 38 total= 128)
No. of HCFs authorized by SPCBs/PCCs	222 (Health & FW Deptt.= 219 and Veterinary Deptt.= 3 total= 222)
No of Common Biomedical Waste Treatment and Disposal Facilities (CBWTFs)	5 (2 nos at CBWTF, Sheragada & CBWTF, MKCG, Brahmapur of Health & FW Deptt. and Veterinary Deptt.=3 total= 5)
Capacity of CBWTFs	7007.5 KG/ Day (Health & FW Deptt.= 7000 KG/Day and Veterinary Deptt.= 7.5 KG/Day total= 707.5 KG/ Day)
No. of Deep burials for BMW if any	421 Nos. (Health & FW Deptt.= 418 and Veterinary Deptt.= 3 total= 421)
Quantity of biomedical waste generated per day	351.2 KG / Day (Health & FW Deptt.= 350 KG/ Day and Veterinary Deptt.= 1.2 KG/ Day total= 4351.2 KG / Day)
Quantity of biomedical waste treated per day	351.2 KG / Day (Health & FW Deptt.= 350 KG/ Day and Veterinary Deptt.= 1.2 KG/ Day total= 4351.2 KG / Day)

b. Identification of gaps and Action plan:

Sl. No.	Action points	Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
1.	Inventory and Identification of Healthcare Facilities	Lack of legal provision for fixing responsibility.	Completion of updating of Inventory and authorization of HCFs by SPCBs/ PCCs	Health & Family welfare Dept. Urban areas- All ULBs Rural areas- All GPs	. 6 months
2.	Adequacy of facilities to treat biomedical waste	Lack of legal provision for fixing responsibility.	All HCFs in the district should attached with the CBWTF functioning in the district. As regards Veterinary Deptt. there is no gap between quantity of BMW generated per day & treated per day	Health & FW Dept Urban areas- All ULBs Rural areas- All GPs	6 months
3.	Tracking of BMW	Lack of legal provision for fixing responsibility.	Plan for Implementation of bar code system by all HCFs and CBWTFs in the district. As regards Veterinary Deptt. Bar code system of tracking BMW is not available	H& FW Department Govt. of Odisha, Veterinary Department Urban areas- All ULBs Rural areas- All GPs	6 months

4.	Awareness and education of healthcare providers	Lack of legal provision for fixing responsibility.	Training for HCFs staffs is being conducted once in a year. As regards Veterinary Deptt Training provided to workers at 3 hospitals. But more training & awareness is needed for entire staffs	H& FW Department Ganjam. & Veterinary Department Urban areas- All ULBs Rural areas- All GPs	6 months.
5.	Adequacy of funds	Lack of legal provision for fixing responsibility.	Action plan for funds requirement & funds are being allocated by State Govt. periodically as per requirement. As regards Veterinary Deptt. Fund is not adequate. Funds/ contingency are required for BMW.	H & FW Department Ganjam. & Veterinary Department Urban areas- All ULBs Rural areas- All GPs	6 months
6.	Compliance to Rules by HCFs and CBWTFs	Lack of legal provision for fixing responsibility.	Action plan has been prepared at the district level to monitor the compliance of HCFs & CBWTFs through SPCB.	H & FW Department Ganjam. & Veterinary Department Urban areas- All ULBs Rural areas- All GPs	6 months
7.	District Level Monitoring Committee	Lack of legal provision for fixing responsibility.	Periodic review and follow- up by DLMC. & Monitor compliance.	H & FW Department Ganjam. & Veterinary Department Urban areas- All ULBs Rural areas- All GPs	6 months
8.	Waste water Treatment	Lack of legal provision for fixing responsibility.	Action Plan has been prepared and necessary steps has been taken by H&FW Deptt. Govt. of Odisha for installation of STP at City Hospital Brahmapur	H &FW Deptt. Govt. of Odisha & Veterinary Department. Urban areas- All ULBs Rural areas- All GPs	6 months

(v) Hazardous Waste Management

a. Current Status related to Hazardous Waste Management

Details of Data Requirement	Present Status
No of Industries generating HW	13 Nos.
Quantity of HW in the district	443 MT/Annum
(i) Quantity of Incinerable HW	29 MT/Annum
(ii) Quantity of land-fillable HW	136 MT/Annum
(iii) Quantity of Recyclable / utilizable HW	278 MT/Annum
No of captive/common TSDF	Nos. of integrated TSDF- Nil, Nos. of SLF- Nil . No of Standalone incinerators- Nil
Contaminated Sites or probable contaminated sites	03 Nos.

b. Identification of gaps and action plan:

Sl. No.	Action points	Identification of Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
1.	Regulation of industries and facilities generating Hazardous Waste	Lack of legal provision for fixing responsibility.	SPCB/PCC should ensure that all hazardous waste Industries are authorized and System of safe disposal	All ULBs & G.P.s SPCB, Odisha	• 6 months.
2.	Establishment of collection centres	Lack of legal provision for fixing responsibility.	Local authority should ensure that adequate number of collection centers should be established and are linked to Common TSDFs.	All ULBs & G.P.s H & UD Dept. & SPCB, Odisha	6 months.
3.	Training of workers involved in handling / recycling / disposal of HW	Lack of legal provision for fixing responsibility.	Action plan to train the workers on safety aspects through Department of Industries as per provisions under HWM Rules, 2016	All ULBs & G.P.s Labor and ESI Dept. & SPCB, Odisha	6 months
4.	Availability / Linkage with common TSDF or disposal facility	Lack of legal provision for fixing responsibility.	Action plan to ensure all generators are linked to TSDF / Action plan in case there is no TSDF in the district or State – in such case evaluate existing storage and captive facilities SPCBs/PCCs	All ULBs & G.P.s SPCB, Odisha.	6 months
5.	Contaminated Sites	Lack of legal provision for fixing responsibility.	Action plan identification probable for contaminated incidents of HW dumping, responsible parties contaminated etc. and to remediate contaminated sites.	All ULBs & G.P.s SPCB, Odisha.	6 months

(vi) E-Waste Management**a. Current Status related to E-Waste Management**

Details of Data Requirement	Present Status
Inventory of E-Waste in MT/year	0.765 Ton/Annum
Collection centers established by ULBs in the District	Nil
Collection centers established by Producers or their PROs	[Nos]
No authorized E-Waste recyclers / Dismantler	01 No.

b. Identification of gaps and action plan:

Sl. No.	Action points	Gaps in implementation	Action Plan	Responsible agency	Timeline for completion of action plan
1	Inventory / Generation of E-Waste / Bulk-waste generators	SPCB/PCC has to make complete inventory of E-Waste in the District. Inventory of bulk waste generators Lack of legal provision for fixing responsibility	Listing of producers / Brand owners of packaging wastes Inclusion of EPR in by laws of ULBs & GPs and also fixing responsibility on Whole sellers / Vendors / Market associations	All ULBs & G.P.s SPCB	6 months
2	E-Waste collection points	Lack of legal provision for fixing responsibility	Identification / registering E-Waste collection centers in association with Producers - their PROs or Recyclers Listing of producers / Brand owners of packaging wastes Inclusion of EPR in by laws of ULBs & GPs and also fixing responsibility on Whole sellers / Vendors / Market associations	All ULBs & G.P.s SPCB	6 months
3	Linkage among Stakeholders to channelize E-Waste	Check whether District administration has information on collection centers established by Producers / PROs? Administration should also identify authorized E-Waste recyclers in the district or in State to channelize E-waste collected in District.	Action plan to establish linkages between ULBs / Collection Centers of Producers and PROs / SPCBs / Bulk waste generators / Recyclers / SPCBs / District Administration / Public	All ULBs & G.P.s District Administration, Ganjam & ULBs	6 months

Sl. No.	Action points	Gaps in implementation	Action Plan	Responsible agency	Timeline for completion of action plan
4	Regulation of Illegal E-Waste recycling / dismantling	Prevalence of informal trading, dismantling, and recycling of E-waste is in District	Action plan in coordination with SPCBs/PCCs and District Administration to check this activity.	All ULBs & G.P.s District Administration, Ganjam / SPCB	6 months
5	Integration of informal sector	Whether mechanism exists for bringing informal sector into main stream in collection and recycling of E-Waste	Evolve mechanism by involving producers / PROs.	All ULBs & G.P.s District Administration, Ganjam/SPCB	6 months
6	Awar eness and Educ ation	Are there any programs at district level for awareness about E-waste management ?	Plan special workshops and awareness campaigns through Producers / PROs	All ULBs & G.P.s District Administration, Ganjam/SPCB	6 months

3.0 AIR QUALITY MANAGEMENT

a. Current Status related to Air Quality Management

Details of Data Requirement	Present Status
Number of Automatic Air Quality monitoring stations in the district. - Operated by SPCB / State Govt / Central govt./ PSU agency: - Operated by Industry:	Nil 01 No.
Number of manual monitoring States operated by SPCBs	02 Nos.
Name of towns / cities which are failing to comply with national ambient air quality stations	Nil
No of air pollution industries	1004 nos.
Prominent air polluting sources [Large Industry] / [Small Industry] / [Unpaved Roads] / [Burning of Waste Stubble] / [Brick Kiln] / [Industrial Estate] / [Others] (Multiple selection)	Large Industry/Small Industry/ Brick Kiln/ Industrial Estate/Others

b. Identification of gaps and action plan:

Sl. No.	Action points	Indicative Action Plan	Responsible agency	Timeline for completion of action plan
1.	Identification of prominent air polluting sources?	Carry out inventory of air pollution sources in District including hotspots or areas of concern pertaining to air pollution in association with SPCB/PCC	SPCB District Administration, Ganjam and RO, SPCB	6 months
2.	Ambient Air quality data?	Plan to get access to available air quality monitoring stations in the District operated by both Public and private agencies.	SPCB	6 months
3.	Setting up of Continuous Ambient Air Quality Monitoring Station	Like weather station, District may also have ambient air quality monitoring at major urban settlements or populated areas. Action plan may propose setting up at least one CAAQMS in District. Also access data generated by CAAQM stations installed by other pvt/ public agencies. District authority in association with local office of SPCB/PCC should also ensure that at least one manual Air Quality monitoring station is available in each city. [District admin may set-up its own network of CAAQMS or manual stations]	SPCB District Administration, Ganjam and RO, SPCB	6 months

Sl. No.	Action points	Indicative Action Plan	Responsible agency	Timeline for completion of action plan
4.	District Level Action Plan for Air Pollution	<p>Action plan should be prepared for both improvement of existing air quality as well as for non-attainment days to national ambient air quality standards.</p> <p>[Measures may include multi sectoral approach for air pollution control such as promotion of public transport, use of green fuels, E- mobility, LPG based cooking, carpeting open areas/ kerbs, etc. Action plans envisaged in NCAP project initiated by MoEF&CC may be referred]</p>	SPCB Transport Dept. District Administration, Ganjam and RO, SPCB	6 months
5.	Hotspots of air pollution in District	hotspot with respect to air pollution (such as stubble burning, illegal waste burning, unauthorized operations, cluster activities, forest fires etc.) should be identified and localized action plan for mitigation of the same should be prepared	SPCB District Administration All ULBs and GPs	6 months
6.	Awareness on Air Quality	Plan for dissemination of information on local air quality in towns and cities located in District. May consider developing Mobile App / Online portal for dissemination of air quality as well as to take complaints on local air pollution.	SPCB District Administration All ULBs and GPs	6 months

4.0 WATER QUALITY MANAGEMENT

4.1 Water Quality Monitoring

a. Current Status related to Water Quality Management

Details of Data Requirement	Present Status
Rivers	Rushikulya= 165 KM Ghodahada = 59.20 KM Ramanadi = 11.23 KM Bahuda = 72.56 KM Badanadi= Baghua = Padma = Mahendrataneya= 90 KM [Names and Length of each river in Km]
Length of Coastline (if any)	51.2. KM
Nalas/ Drains/Creeks meeting Rivers	Ghadaka Nalla, Panapalli Nalla, Kayna nalla, Nua nai, Kantejodi Nalla, Konteikoli Nalla, Poichanda Nalla, Bogi Nalla, Padmatola Nalla, Daha nalla, Kalinga Nalla, Baranga Nalla.
Lakes / Ponds	103 Nos = 3816.30 ha.
Total Quantity of sewage from towns and cities in District	[MLD]
Quantity of industrial wastewater	[MLD]
Percentage of untreated sewage	[%]
Details of bore wells and number of permissions given for extraction of groundwater	Nos of bore wells by Lift Irrigation Division Brahmapur= 1977 Nos (Operable DBW= 1888 and Defunct= 89)
Groundwater polluted areas if any	1. Ganjam NAC Area due to Grasim Industries Pvt. Ltd. 2. Brahmapur Urban Area due to Bahanala. 3. Hinjilicut NAC Area due to Ghodahada River. 4. Aska NAC Area due to Rushikulya River. 5. Bhanjanagar NAC Area due to Loharakhandi River.
Polluted river stretches if any	5 KM

b. Identification of gaps and action plan for water quality monitoring:

Sl. No.	Action points	Gaps and Action Plan	Responsible agency	Timeline for completion of action plan
1.	Inventory of water bodies	An environmental monitoring cell shall maintain data of all water bodies (rivers / canals / natural drains / creeks / estuaries / groundwater / ponds / lakes / etc.) in district including its water quality	Department of Water Resources, SPCB, Department of Industry, RWSS, PHD, Lift Irrigation Deptt. Ground Water Department, ULBs, GPs, DUDA	6 months
2.	Quality of water bodies in the district	Check availability of data on water bodies. Create a district level monitoring cell for periodic monitoring of water bodies for specific parameters in association with SPCBs. It is also necessary to disseminate information pertaining to water quality in the form of hoardings on river banks, official websites, etc.	Department of Water Resources, SPCB, Department of Industry, RWSS, PHD, Lift Irrigation Deptt. Ground Water Department, DUDA, ULBs, GPs	6 months
3.	Hotspots of water pollution in District	Check trends of water quality and identify hotspot of surface water and ground water. Establish a system or separate cell to monitor water quality. Implement action points for restoration of water quality in association with SPCBs and department of environment.	Department of Water Resources, SPCB, Department of Industry, RWSS, PHD, Lift Irrigation Deptt. Ground Water Department, DUDA, ULBs, GPs	6 months
4.	Protection of river / lake water front	Action plan should be prepared for control river side open defecation, dumping of Solid waste on river banks, for idol immersion etc.	Department of Water Resources, SPCB, Department of Industry, Ground Water Department, DUDA, ULBs, GPs	6 months
5.	Inventory of sources of water pollution	Check whether inventory of all sewage and wastewater discharge points into water bodies in the district. Action plan to complete inventory.	Department of Water Resources, SPCB, Department of Industry, RWSS, PHD, Lift Irrigation Deptt. Ground Water Department, DUDA, ULBs, GPs	6 months
6.	Oil spill disaster management (for coastal districts)	Whether district oil spill crisis management group and District Oil Spill Disaster Contingency Plan has been created? If not, create District Oil Spill Crisis Management Group and District Oil Spill Disaster Contingency Plan for the district.	SPCB, Gopalpur Port Authority	6 months
7.	Protection of flood plains	Check whether there is regulation for protection of flood plain encroachment? Action plan should be prepared for protection flood plain and prevention of encroachment.		6 months

8.	Rejuvenation	<p>Check availability of ground water and if required prepare action plan to rejuvenate ground water in selected areas. Action plan should be prepared for Rain water harvesting</p> <p>Availability: - Roof Top Rain Water Harvesting Structure: -</p> <p>1. Brahmapur Urban area Private Building= 1874 Nos. Govt. Building = 97 Nos.</p> <p>Rain Water Harvesting due to recharge Shaft in Tanks/ Ponds:</p> <p>1. Hinjilicut Block= 34 Nos. 2. Ganjam Block =10 Nos. Aska Block = 5 Nos.</p>	Ground Water Development Division	6 months
9.	Complaints redressal system	Check whether there is any complaint redressing system based on Mobile App / Online, is available? If not, a complaint redressing system based on Mobile App / Online should be available at district level	SPCB, Department of Water Resources	6 months

4.2 Domestic Sewage

a. Identification of gaps and action plan for treatment of domestic sewage

Details of Data Requirement	Present Status
No of Class-II towns and above	[18 Nos]
No of Class-I towns and above	[0]
No of Towns STPs installed	[0]
No of Towns needing STPs	[0]
No of ULBs having partial underground sewerage network	[0]
No of towns not having sewerage network	[0]
Total Quantity of Sewage generated in District from Class II cities and above	[78 MLD]
Quantity of treated sewage flowing into Rivers (directly or indirectly)	[0]
Quantity of untreated or partially treated sewage (directly or indirectly)	[66 MLD]
Quantity of sewage flowing into lakes	[12 MLD]
Total available Treatment Capacity	[0]

b. Identification of gaps and action plan for treatment of domestic sewage:

Sl. No.	Action points	Gaps and Action Plan	Responsible agency	Timeline for completion of action plan
1.	Sewage Treatment Plants (STPs)	Check whether Existing capacity of STPs is adequate for treatment of sewage? If no, action plan for additional treatment capacity required should be prepared in association with ULBs / Department of UD,	District administration Concerned ULBs, DUDA	12 months
2.	Underground sewerage network	Check available sewerage network and prepare Action plan for laying of sewerage network in town and cities. The project may be executed through ULBs and Department of UD.	District administration Concerned ULBs, DUDA	12 months

5.0 INDUSTRIAL WATER MANAGEMENT

a. Current Status related to Industrial Wastewater Management

Number of Red, Orange, Green and White industries in the district	Red Categories Industries- 19 Nos. Orange Categories Industries- 320 Nos. Green Categories Industries- 33 Nos. White Categories Industries- Exempted.
No of Industries discharging wastewater	372 Nos.
Total Quantity of industrial wastewater generated	1.1 MLD
Quantity of treated industrial wastewater discharged into Nalas / Rivers	Nil
Common Effluent Treatment Facilities	Nil
No of Industries meeting Standards	325 Nos.
No of Industries not meeting discharge Standards	47 Nos.

b. Identification of gaps and action plan for industrial wastewater::

Sl. No.	Action points	Gaps and Action Plan	Responsible agency	Timeline for completion of action plan
1.	Compliance to discharge norms by Industries	Identify gaps w.r.t industries not Meeting the standards. Necessary action be initiated through SPCBs against the industries not meeting the standards.	SPCB, Odisha	6 months
2.	Complaint redressal system	Check if there is any complaint redressing system based on Mobile App / Online, is available? If not, a complaint redressing system based on Mobile App / Online portal may be prepared at district level.	Complaint redressal system is available at SPCB website. Mobile app and portal may be developed by District Administration, Ganjam.	6 months

6.0 MINING ACTIVITY MANAGEMENT PLAN

a. Current Status related to Mining Activity Management

Details of Data Requirement	Existing Mining operations
Type of Mining Activity	1) Beach sand minerals (Major Minerals) 2) Decorative stone (Specified Minor Minerals) (Detail enclosed separately)
No of licensed Mining operations in the district	1) 1 (one) Major mineral 2) 14 (Fourteen) Specified Minor Minerals.
% Area covered under mining in the district	2642.650 Hects out of 8071000 i.e., 0.033%
Area of Sand Mining	-
Area of sand Mining	-

b. Identification of gaps and action plan:

Sl. No.	Action points	Gaps and Action Plan	Responsible agency	Timeline for completion of action plan
1.	Monitoring of Mining activity	Constitution of District level taskforce A district level task team may be identified to identify mining activity and to monitor status wither respect to environmental compliance	1) Department of Forest 2) Regional Officer, State Pollution control Board 3) Executive Engineer, Irrigation Division, Brahmapur	6 months
2.	Inventory of illegal mining if any mining	Action plan to identify illegal sand and other mining activity in the district through surveillance, patrolling and enforcement. District Level task Force may be constituted for control of illegal mining activity	1) Department of Forest 2) Concerned Tahasildar 3) Mining Officer 4) Police Personal 5) Executive Engineer, Irrigation Division, Brahmapur	6 months
3.	Environment compliance by Mining industry	Action plan for periodic verification of compliance to environmental conditions stipulated by SPCBs / PCC, MoEF & CC Department of mines etc. SPCBs/ PCC may be involved in this activity .	1) Department of Forest 2) Concerned Tahasildar 3) Mining Officer 4) Police Personal 5) Executive Engineer, Irrigation Division, Brahmapur	6 months

7.0 NOISE POLLUTION MANAGEMENT PLAN

a. Current Status related to Noise Pollution Management

Details of Data Requirement	Measurable Outcome
No. of noise measuring devices available with various agencies in district	R.O., SPCB, Berhampur- 01 no.

a. Identification of gaps and action plan:

Sl. No.	Action points	Gaps and Action Plan	Responsible agency	Timeline for completion of action plan
1.	Availability of Sound/Noise Level Meters.	Procurement of Noise level Meters Need to check whether a concerned agency that is ULBs, SHOs, Traffic police and SPCB/PCC have noise level meters. District administration may ensure through an action plan that concerned agencies and environmental cell under district administration have adequate number of portable noise level meters.	SPCB/ District Police Administration, Ganjam	6 months

2.	Ambient Noise Level monitoring.	ULBs shall ensure that ambient sound levels comply with notified standards for residential, sensitive zones. An action. Apart from portable analyzers, fixed ambient noise level monitoring stations may be installed in major cities and towns, such stations may be installed by ULBs and SPCB/PCC,	District Police Administration, Ganjam	6 months
3.	Signboards in Noise zones	District administration may ensure that adequate number of sign boards installed at sensitive zones in towns / cities in towns and cities. An action plan may be prepared by district authority.	District Administration, Ganjam/ ULBs	6 months
4.	Complaint redressing system	Action plan may envisage implementing a public complaint redressal system for noise pollution. Such application may be used by SHOs, Traffic police ULBs and SPCBs in the district.	District Administration, Ganjam	6 months

8.0 WETLAND MANAGEMENT

- The total geographical area of Ganjam district is 8033 sq km. The district comprises of 4783 wetlands including 4088 that are smaller than 2.25 ha. Together they account for 29920ha of area (Table 25). The major wetland types are Lagoon (6998 ha) followed by River/Stream (6131 ha) and Reservoir/Barrage (4689 ha). The small wetlands contribute a significant area (about 14 %) towards the aerial extent of wetlands in the district. Open water component of wetlands has shown about 15 per cent reduction as seasonal change from post-monsoon (18883 ha) to pre-monsoon (16099 ha). Aquatic vegetation has shown an increase of about one and half times from post-monsoon (4894 ha) to 7167 ha in pre-monsoon. Open water has exhibited larger area under moderate turbidity followed by low without the presence of high turbidity in both the seasons.

Area estimates of wetlands in Ganjam district in ha.

Sr. No.	Wett code	Wetland Category	Number of wetlands	Total wetland area	% of wetland area	Open Water	
						Post monso on area	Pre monsoon area
	1100	Inland Wetlands - Natural					
1	1101	Lakes/Ponds	1	301	1.01	200	204
2	1102	Ox-bow lakes/ Cut-off meanders	-	-	-	-	-
3	1103	High altitude wetlands	-	-	-	-	-
4	1104	Riverine wetlands	1	12	0.04	-	-
5	1105	Waterlogged	39	1051	3.51	745	738
6	1106	River/Stream	17	6131	20.49	6131	5578
	1200	Inland Wetlands -Man-made					
7	1201	Reservoirs/Barrages	73	4689	15.67	3503	3007
8	1202	Tanks/Ponds	515	2397	8.01	1107	1066
9	1203	Waterlogged	5	23	0.08	7	7
10	1204	Salt pans	-	-	-	-	-
		Total - Inland	651	14604	48.81	11693	10600
	2100	Coastal Wetlands - Natural					
11	2101	Lagoons	1	6998	23.39	5114	3423
12	2102	Creeks	-	-	-	-	-
13	2103	Sand/Beach	8	807	2.70	-	-

14	2104	Intertidal mud flats	22	1347	4.50	-	-
15	2105	Salt Marsh	-	-	-	-	-
16	2106	Mangroves	-	-	-	-	-
17	2107	Coral Reefs	-	-	-	-	-
	2200	Coastal Wetlands - Man-made					
18	2201	Salt pans	2	1726	5.77	1726	1726
19	2202	Aquaculture ponds	11	350	1.17	350	350
		Total - Coastal	44	11228	37.53	7190	5499
		Sub-Total	695	25832	86.34	18883	16099
		Wetlands (<2.25 ha)	4088	4088	13.66	-	-
		Total	4783	29920	100.00	18883	16099

Area under Aquatic Vegetation	4894	7167
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Area under turbidity levels		
Low	8485	6737
Moderate	10398	9362
High	-	-

Identification of gaps and action plan for water quality monitoring:

Sl. No.	Action points	Gaps and Action Plan	Responsible agency	Timeline for completion of action plan
1.	Inventory of water bodies	An environmental monitoring cell shall maintain data of all water bodies (rivers / canals / natural drains / creeks / estuaries / groundwater / ponds / lakes / etc.) in district including its water quality	Water Resource Dept, Regional Office State Pollution Control Board, Chilika Development Authority, Revenue Department, DUDA, ULBs, PR Department, Gram Panchayats	6 months
2.	Quality of water bodies in the district	Check availability of data on water bodies. Create a district level monitoring cell for periodic monitoring of water bodies for specific parameters in association with SPCBs. It is also necessary to disseminate information pertaining to water quality in the form of hoardings on river banks, official websites, etc.	Water Resource Dept, Regional Office State Pollution Control Board, Chilika Development Authority, Revenue Department, DUDA, ULBs, PR Dept.	6 months

3.	Hotspots of Wetland pollution in District	Check trends of water quality and identify hotspot of wetlands. Establish a system or separate cell to monitor water quality. Implement action points for restoration of water quality in association with SPCBs and department of environment. Prevention of discharge of sewage, disposal of solid waste and other waste, prevention of siltation, demarcation of wetlands/ flood protection zone and removal of encroachment	Water Resource Dept, Regional Office State Pollution Control Board, Revenue Authorities, Chilika Development Authority, Revenue Department, DUDA, ULBs, PR Dept.	6 months
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Coastal & Marine Pollution pertaining to Ganjam District

1. Effluent generation in major industries

SI No.	Name of the Industry	Product	Capacity	Effluent in KLD	ETP Capacity (m ³ /Hr)	Recycle/reuse/treatment	Quantity of Effluent discharged to river / sea
1	M/s Grasim Industries Ltd. (formerly, Jayshree Chemicals Ltd.), Jayshree, Dist. Ganjam	Caustic Soda	1,05,000 TPA	95KLD	150 KLD	Treatment and reuse	Nil
		Liquid Chlorine	73,000 TPA				
		Hydro Chloric Acid-	90,000 TPA				
		Sodium Hypochlorite-	33,700 TPA				
2	M/s IREL (India) Ltd., (OSCOM), Chatrapur, Dist. Ganjam (Monazite Processing Plant)	Tri Sodium Phosphate-	13500TPA	50KLD	120 KLD	Treatment and reuse	Nil
		Rare Earths Chloride	10,375TPA				
		Ammonium Di- Uranate	26 TPA				
		Thorium Oxalate	2000TPA				
		Thorium Nitrate	150TPA				
3	M/s United Spirits Ltd., At/Po-Narayanpur, Via-Gopalpur-on-sea, Dist- Ganjam	IMFL	2,25,000 cases /month (each case contains 9ltr. max.)	10 KLD	150 KLD	Treatment and reuse	Nil
4	M/s Berhampur Dairy, At/PO-Ankuspur, Via-Kukudakhandi, Dist- Ganjam	Pasteurised Milk	30 KL/day	42.0 KLD	50.0 KLD	Treatment and reuse	Nil
		Ghee	400 kg/month				
		Khira	200 kg/month				
		Curd	300 kg/month				
		Paneer-500	500kg/month				

5	M/s Aska Co-Operative Sugar Industries Ltd. (Sugar unit), At-Nuagam, PO-Aska, Dist. Ganjam	Crushing of Sugar cane	2500 TCD	25.0 KLD	500.0 KLD	Treatment and reuse	Nil
6	M/s Tata Steel Ltd. (Ferro Chrome Plant), At- Project Gopalpur, Chamakhandi, Chatrapur, Dist.- Ganjam	High Carbon Ferro Chrome [2 x 18 MVA Submerged Arc Furnace (SAF)]	55,000 MTPA	700.0 KLD	30 cum/hour	Treatment and reuse	Nil
7	M/s Sandhyarani Dairy and Agrovet (P) Ltd., At- Gopakuda, PO- Shyamsundarpur, Khallikote, Dist.- Ganjam	Production of Pasteurized Milk	6.5 KLD	12.0 KLD	15.0 KLD	Treatment and reuse	Nil
		Paneer	50kg/day				
		Khoa	15kg/day				
		Chhena	10kg/day				
		Plain Curd	100kg/day				
		Ghee	70kg/day				
8	M/s Fortune Spirit Ltd., At- Allipur Road, PO-Narayanpur, Via-Gopalpur-on sea, Dist- Ganjam	Indian Made Foreign Liquor (IMFL)	70,000 cases/month (each case contains 9 ltrs. max.)	8.0 KLD	50.0 KLD	Treatment and reuse	Nil

Identification of gaps and action plan for Sea water quality monitoring:

Sl. No.	Action points	Gaps and Action Plan	Responsible agency	Timeline for completion of action plan
1.	Inventory of extent of sea water subjected to pollution	An environmental monitoring cell shall maintain information about data of extent of sea water subjected to pollution	Regional Office State Pollution Control Board, Chilika Development Authority, Revenue Department, Department of Industries FE&CC Deptt.	6 months