

Year: 2022

**DISTRICT
ENVIRONMENT
PLAN
KENDRAPARA, ODISHA**



Collector & District Magistrate
Collectorate, Kendrapara

Contents

1.0 DISTRICT PROFILE	2
(a) District Administrative Set-Up	2
(b) Local Institutions.....	3
(c) Natural Resources.....	3
(d) Geography & Demography	4
(e) Land Use Pattern	4
(f) Climate.....	5
2.0 Indicative Gap Analysis & Action Plan for complying with Waste Management Rules	6
(i) Solid Waste Management	6
(ii) Plastic Waste Management	10
(iii) C & D Waste Management.....	12
(iv) Biomedical Waste Management	13
(v) Hazardous Waste Management	15
(vi) E-Waste Management.....	17
3.0 AIR QUALITY MANAGEMENT.....	19
a. Current Status related to Air Quality Management.....	19
b. Identification of gaps and action plan.....	19
4.0 WATER QUALITY MANAGEMENT	22
4.1 Water Quality Monitoring.....	22
4.2 Domestic Sewage.....	25
5.0 INDUSTRIAL WASTEWATER MANAGEMENT	26
a. Current Status related to Industrial Wastewater Management.....	26
b. Identification of gaps and action plan for industrial wastewater.....	26
6.0 MINING ACTIVITY MANAGEMENT PLAN	27
a. Current Status related to Mining Activity Management	27
b. Identification of gaps and action plan.....	27
7.0 NOISE POLLUTION MANAGEMENT PLAN	28
a. Current Status related to Noise Pollution Management.....	28
b. Identification of gaps and action plan.....	28
8.0 WETLAND MANAGEMENT PLAN	29
a. Current Status related to Wetland Management Plan	29
b. Identification of gaps and action plan.....	29

1.0 DISTRICT PROFILE

(a) District Administrative Set-Up

Kendrapara district is one of the east located districts in Odisha. The district owes its name to the presiding deity Lord Baladev Jew and this place is also called the "Tulasi Kshetra" of Odisha. This district was formerly a sub-division of the undivided district of Cuttack. A lush green patch of land crisscrossed by a network of rivers, creeks and rivulets with unique biodiversity, splendid wildlife, diverse flora & fauna is the district Kendrapara which was carved out of the erstwhile district of Cuttack and formed on 01.04.1993 vide Notification No. DRC-44/93-14218 dated 27.03.1993 of Govt. of Orissa. The district constitutes coastal and delta areas in a transitional environment at the interface of terrestrial and unique marine ecosystems. Because of its geographical location, ecological diversity and environmental importance the district occupies one of the most promising and prosperous districts of the country.

The district of Kendrapara is located in between East Longitude 86° 14' to 87° 30' and North Latitude 20° 21' to 20° 47'. It is surrounded by the Bay of Bengal in the east, Cuttack district in the west, Jagatsinghpur district in the south and Jajpur and Bhadrak districts in the north. The geographical area of the district is 2644 Sq. Km., and it constitutes 1.70 percent of the total area of the state and ranks 26th in respect of area. The district has got one revenue subdivision namely Kendrapara. There is total 09 Tahasils, 09 Blocks, 02 Municipalities, 15 Police Stations, 1547 Villages and 249 Gram Panchayats functioning in the district of Kendrapara.

Kendrapara district experiences minimum 12.8°C and maximum 42.04°C temperature. The district experiences mainly 3 seasons i.e., summer, winter and rainy. Summer lasts from March to May, rainy season from June to October and winter is from November to February. The average annual rainfall in the district is measured to be 1556mm.

Agriculture is the mainstay of the economy in Kendrapara district because around 80% population depends on it. The soil & climate in the district are favourable for taking up of agro horticultural activity. The suitability of soil & climatic condition for production of rice, jute, pulses, vegetable etc. strengthen the economy of the district.

There are various tourism destinations to be visited in Kendrapara district. Places like Sri Baladev Jew temple, Kanika Palace, Bhitarkanika National Park, Gahirmatha, Hukitola, Batighar etc. are visited by lots of tourists round the year.

District of Kendrapara celebrates many festivals with great enthusiasm. Common festivals of the district are Akshaya Tritiya, Chandan Jatra, Debasnan Purnima, Jhulan Jatra, Ratha Jatra or Gundicha Jatra, Gajalaxmi Puja, Dola Jatra, Olakana Melana etc. are the important festivals being celebrated every year in the district.

The district comprises two distinct tracts of land. The first being marshy and swampy strips along the coast covered with mangrove vegetation. The second is the deltaic plains. The plain is very fertile and is subjected to frequent floods by the large rivers and their distributaries. The soil is of alluvial type.

This district is covered with 248.05 Sq. Km. of forest area which is 9.38 percent of the total geographical area of the district (ISFR, 2021). Mangrove Cover in this district constitutes alone 209.25 Sq. Km. occurring in Bhitarkanika and Mahanadi delta. The district is regulated through Coastal Regulation Zone (CRZ) in the coast of the Bay of Bengal as per CRZ guidelines. As the boundary of Bhitarkanika National Park is within the Bhitarkanika Wildlife Sanctuary and the Gahirmatha (Marine)

Wildlife Sanctuary is contiguous with the eastern boundary of Bhitarkanika Wildlife Sanctuary and these protected areas form a contiguous land and water body which is identified as Eco-sensitive areas. Thus, a single Eco-sensitive Zone has been notified in the year 2015 around these protected areas covering a geographical area of 446.40 Sq. Km.

(b) Local Institutions

Education		
Primary School (2017-18)	No. of Schools	1207
	Enrolment (No)	75592
	Pupil Teacher Ratio	23
Upper Primary School (2017-18)	No. of Schools	841
	Enrolment (No)	58808
	Pupil Teacher Ratio	21
General College (2017-18)	No. of Colleges	51
	Enrolment (No)	32643
	Pupil Teacher Ratio	32
Medical College (2017-18)	No. of Medical Colleges	00
Govt. Law College (2017-18)	No. of Govt. Law Colleges	00
Secondary School(2017-18)	No. of Schools	377
	Enrolment (No)	45371
	Pupil Teacher Ratio	16
Poli Polytechnic School (2017-18)	No. of Polytechnic Schools	02
	Enrolment (No)	584
Literacy Rate (2011)	Male	91.5 %
	Female	79.0 %

(c) Natural Resources

Water Bodies and availability of water resources

There are lots of water bodies in the district ranging from the sea to rivers and canals. The length of the seacoast of the district of Kendrapara is 68 Km. Sandy ridges are found along the seacoast which stretches into the districts of Bhadrak and Jagatsinghpur. The ridges vary in width and have prevented the rivers to find their way into the ocean.

There are three major river systems i.e., the Mahanadi, Brahmani and Baitarani system in the district. Cultivable alluvial plains are formed mainly from above river systems and contribute to the agricultural prosperity of the district. In addition to these three major river systems, there are series of natural streams and river distributaries like Luna, Chitrotpala, Karandia, Gobari, Birupa, Paika, Kharasrota, Kani etc. flow through this district.

Apart from major rivers, there are many ponds and nalas exist in the district. Availability and exploitation of ground water plays a vital role to ensure the supply of drinking water and irrigation water. According to Central Ground Water Board (CGWB) all the blocks in Kendrapara district are in the safe limits of ground water utilization as per availability. Ground water quality is saline in few blocks like Mahakalapada, Marshaghai, Rajkanika and Rajnagar.

Forest Coverage

Table 1: Category wise forest cover in Kendrapara District

Type	Area (in Sq. Km.)
RF	14.49

PRF	127.57
Un Demarcated PF	62.32
Un-classed Forests	4.50
Other Forests	39.17
Total Forest Area	248.05
Total Geographical Area	2644
% of Forest Area to Geographical Area	9.38

(d) Geography & Demography

Geography

The Kendrapara District lies between latitudes 19° 57' N to 20° 47' N and longitudes 86° 8' E to 87° 3' E. The total geographical area of this district is 2644 Sq. Km. of which 9.38 % is the forest area under the administrative control of forest department.

Demography

Table 2: Population of Kendrapara District in 2011 and 2001

Description	2011	2001
Population	14,40,361	13,02,005
Male	7,17,814	6,46,438
Female	7,22,547	6,55,567
Population Growth	10.63%	13.27%

Table 4: Demographic details of Kendrapara district for 2011 and 2001

Description	2011	2001
Area sq. Km	2644	2644
Density/km ²	545	492
Proportion to Odisha population	3.43%	3.54%
Sex ratio (Females per 1000 males)	1007	1014
Child sex ratio (0-6 age) Females per 1000 males	926	940
Average literacy	85.2%	76.81%
Male literacy	91.5%	87.11%
Female literacy	79%	66.76%
Total child population (0-6 age)	1,61,159	1,74,956
Male child population (0-6 age)	83,654	90,173
Female child population (0-6 age)	77,505	84,783
Literates	10,89,265	8,65,643
Male literates	5,79,970	4,84,580
Female literates	5,09,295	3,81,063

(e) Land Use Pattern

Items	Value
Geographical area (Sq. Km.)	2644
Area under forest (Sq. Km.)	248.05
Land put to non-agricultural use (Ha)	45483
Barren and Non-cultivable land (Ha)	441
Permanent pastures & other grazing land (Ha)	12309
Land under misc. tree, crop & groves not included net area sown (Ha)	2279
Cultivable waste (Ha)	4931
Old fallows (Ha)	10794
Current fallows (Ha)	22961

Net area sown (Ha)	126633
Irrigated area (Ha)	67040

(f) Climate

The climate of the district is typically tropical to sub-tropical with three distinct seasons e.g., summer, winter and rainy. The district enjoys hot climate with high humidity during April and May & cold during December & January. The monsoon generally breaks during the month of July. Annual rainfall of the district was 1887.6 mm in 2020 which is higher than the normal rainfall (1556.0 mm).

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 (MT)
1	Municipal Corporations (Nagar Nigam or Mahanagar Palika)	NA	NA	NA	NA
2	Municipalities (Nagar Palikas)				
	1. Kendrapara Municipality	21	8892	47006	14.1
	2. Pattamundai Municipality	20	7174	36528	10.95
3	Nagar Panchayats (Town area Councils)	NA	NA	NA	NA

Note: NA- Not Applicable

Sl. No.	Local bodies	No. of Village Panchayats / Blocks	No of Households	Population	Solid Waste Generated per day (MT)
1	Block / Taluk / Mandal Tehsils ##	09	321934	1440361	Not available
2	Village/ Gram Panchayats	1547/249			

Total urban and village population (Sl 1 +2)

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	<ul style="list-style-type: none"> About 50 to 60 % of Dry & Wet wastes segregation at source being practiced during Door-to-Door collection. Domestic Hazardous wastes segregation not carried out. Identification of Bulk Generators like apartments, Market complexes 	<ul style="list-style-type: none"> Regular awareness programme in Schools, Colleges and Societies etc. Supply of one set Blue & Green coloured bins to each Households, Apartments, Market complexes (May be on payment basis) Awards, Incentives for best management Identification & Declaration in Social Media for Habitual violators including imposition of penalties. IEC activities through Swachhasathis, Supervisors, Support agencies in every Wards of ULB. Identification on daily 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	3 Months

			basis of lanes & households where mixed waste is practiced engaging with the lane committees for ensuring segregation by all households in the lane		
2 Sweeping					
(i)	Manual Sweeping	<ul style="list-style-type: none"> About 60% & 90 % Paved roads in urban & Rural areas respectively are not covered for regular sweeping. Manpower deployment in Urban & Rural sector is about 30% & 20% respectively than that of requirements. No mechanized tools available. PPEs provision not adequate 	<ul style="list-style-type: none"> Handy manual drive sweeping tools (vacuum type) & small, motorized equipment for transportation to main collection points to reduce direct contact with wastes. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
(ii)	Mechanical Road Sweeping and collection	<ul style="list-style-type: none"> No provision of Mechanical Road Sweeping systems 	<ul style="list-style-type: none"> 2 nos Truck mounted vacuum type road sweeping machines required for 4 lane/2 lane roads per 50 km in urban areas. At least 1 no tractor/small vehicle mounted vacuum type road sweeping machines required for single lane/ RD roads for Urban & GP areas. Supply of adequate PPEs for sweepers & workers. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	06 Months
3 Waste Collection					
(i)	100% collection of solid waste	<ul style="list-style-type: none"> About 70 to 80% waste collection being carried out on daily basis by ULBs & less than 50% in Rural areas. Inadequate collection Bins/ community Bins 	<ul style="list-style-type: none"> Deployment of mechanical transportation systems. Clear Demarcation of Waste collection stations. Fixing of responsibilities on Bulk generators for collection of segregated wastes. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
(ii)	Arrangement for door to door collection	<ul style="list-style-type: none"> 100% & 50% door to door collection systems provided at Kendrapara, Pattamundai ULBs 	<ul style="list-style-type: none"> Deployment of outsourced agencies, NGOs in rest of Urban/Semi-Urban areas & completely in 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All 	03 Months

		respectively. ▶ No door to door collection systems in GPs.	Rural areas.	Grampanchayats	
(iii)	Waste collection trolleys with separate compartments	<ul style="list-style-type: none"> • 100% has been provided in narrow lanes & slums in ULBs. • Manual collection in most part of Rural areas 	<ul style="list-style-type: none"> • 65 no. of BOV for waste collection Trolleys with separate compartments required for Urban & Rural areas. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
(iv)	Mini Collection Trucks with separate compartments	<ul style="list-style-type: none"> • 80% has been provided in narrow lanes & slums in ULBs. • Manual collection in most part of Rural areas 	<ul style="list-style-type: none"> • Phase-out of existing Diesel mini collection Trucks & switch over to 100% mini-E vehicles with separate compartment • 23 mini collections Trucks required for Urban & Semi Urban (Block Headquarters,) areas respectively shall be replaced by Small E vehicles with separate compartments. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
(v)	Waste Deposition Centres (for domestic hazardous wastes)	<ul style="list-style-type: none"> • No provision has been made in Urban or in GPs. 	<ul style="list-style-type: none"> • At least 2nos in each ULBs & one in each GP Headquarters to be declared as Waste deposition centers for domestic Hazardous wastes & to be linked with authorized recyclers for disposal. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
4 Waste Transport					
(i)	Review existing infrastructure for waste transport	<ul style="list-style-type: none"> ▶ Waste transport facilities not adequate ▶ No mechanical transport facilities in GPs 	<ul style="list-style-type: none"> • Additional 2 nos Mini E Vehicles with separate compartments required for Kendrapara and Pattamundai ULBs respectively. ▶ Tri cycle with separate compartments in each village & Mini E Vehicles with separate compartments in each GP Headquarters & for semi urban areas. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
(ii)	Bulk waste trucks	<ul style="list-style-type: none"> • No Bulk waste Trucks available. 	<ul style="list-style-type: none"> At least 01 no. of Bulk waste Truck (preferably E Truck) required for each ULB. Mini E Trucks with separate compartments in each GP Headquarters & for semi urban areas. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
(iii)	Waste transfer points	<ul style="list-style-type: none"> ▶ No waste Transfer Points exist. 	<ul style="list-style-type: none"> • At least one Waste Transfer Point is required in each ULB for recyclable materials transportation to 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All 	03 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
5 Waste Treatment and Disposal					
(i)	Wet-waste Management: On-site composting by bulk waste generators (Authority may decide on requirement as per Rules)	<ul style="list-style-type: none"> • Identification of Bulk waste generators in ULBs & GPs yet to be done. • Provision for direct supply of segregated vegetable wastes from Vegetable Markets, Mandies to Dairy farms & Goshalas as cattle feeds to be ensured. 	<ul style="list-style-type: none"> • Listing of Bulk Waste generators in ULBs & GPs. • Provision of legal binding for installation & proper functioning of onsite composting facilities for Bulk waste Generators during approval of Building & other plans. 	<ul style="list-style-type: none"> • ULBs Authority • Town Planning & Development Authority • Block level Authority 	03 Months
(ii)	Wet-waste Management: Facility (ies) for central Methanation/ composting of wet wastes	<ul style="list-style-type: none"> • No facilities for central Biomethanation / Composting of wet wastes. 	<ul style="list-style-type: none"> • Central Biomethanation/ Composting of wet wastes facility needs to be installed if population exceeds 1 lakh. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
(iii)	Dry-Waste Management: Material Recovery for dry-waste fraction	<ul style="list-style-type: none"> • One MRF exists in each ULBs. • No MRF in GP Headquarters. • No waste to Energy Plant. • No tie up with authorized Recyclers. 	<ul style="list-style-type: none"> • One MRF in each GP Head quarters • Feasibility study of one Waste to Energy plant considering 2 ULBs, Agro wastes from local villages etc. • Tie up with authorized recyclers for MRFs. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
(iv)	Disposal of inert and non-recyclable wastes: Sanitary Landfill	<ul style="list-style-type: none"> • No proper sanitary land fill sites exist. • Parts of SW still being disposed of by open dumping. 	<ul style="list-style-type: none"> • At least one properly designed Sanitary Land Fill site required in each ULB & GP Head quarter for disposal of compost rejects, inert materials. • Ensure maximum recovery, reuse & recycle policy to minimize land filling. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	12 Months
(v)	Remediation of historic / legacy dump site	<ul style="list-style-type: none"> • No legacy dump sites exist in ULBs. • No remediation of legacy dump sites has been initiated. 	<ul style="list-style-type: none"> • Proper identification & Remediation plan for each legacy dump sites in ULBs needs to be prepared & implemented 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality 	03 Months
(vi)	Involvement of NGOs	<ul style="list-style-type: none"> • Involvement of NGOs yet to be envisaged. 	<ul style="list-style-type: none"> • Listing of NGOs & fund allocation required for management of solid waste campaign. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
(vii)	EPR of Producers: Linkage with	<ul style="list-style-type: none"> • Identification yet to be done. 	<ul style="list-style-type: none"> • Listing of producers/Brand owners of packaging wastes. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai 	03 Months

	Producers / Brand Owners	<ul style="list-style-type: none"> Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs & GP head quarters. Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market asstns 	Municipality iii.All Grampanchayats	
(viii)	Authorization of waste pickers	Yes	<ul style="list-style-type: none"> Detail list preparation in each ULB, GPs & Semi Urban areas. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii.All Grampanchayats	03 Months
(ix)	Preparation of own by-laws to comply with SWM Rules 2016	No gaps	<ul style="list-style-type: none"> Already prepared SWM by laws. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii.All Grampanchayats	03 Months

(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 (TPD)
1	Municipal Corporations (Nagar Nigam or Mahanagar Palika)	Not applicable
2	Municipalities (Nagar Palikas)	
	Kendrapara Municipality	8.46
	Pattamundai Municipality	6.57
3	Nagar Panchayats (Town area Councils)	Not applicable

Sl. No.	Local Bodies	Plastic Waste Generated per day (MT)
1	Block /Taluk / Mandal Tehsils	244
2	Village/Gram Panchayats	Not available

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	<ul style="list-style-type: none"> Identification yet to be done. Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> Listing of producers / brand owners of packaging wastes. Setting up of collection centers for packaging wastes by producers / brand owners in each ULBs & GP headquarters. 	i. Kendrapara Municipality ii. Pattamundai Municipality	03 Months

			<ul style="list-style-type: none"> Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers / Vendors / Market associations. 		
2	Facilitate organized collection of PW at waste transfer point or Material Recovery Facility	<ul style="list-style-type: none"> Identification yet to be done. Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> Listing of producers / brand owners of packaging wastes. Setting up of collection centers for packaging wastes by producers / brand owners in each ULBs & GP head quarters. Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole Sellers/Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
3	PW collection Centres	<ul style="list-style-type: none"> Identification yet to be done. Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> Listing of producers / brand owners of packaging wastes. Setting up of collection centers for packaging wastes by producers / brand owners in each ULBs & GP head quarters. Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers /Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
4	Awareness and education programs implementation	No gaps	<ul style="list-style-type: none"> IEC activity is in progress in each ULB Lane committee formation, field study to the MCC & MRF by the students, farmers & citizens to some extent done in ULBs. Wall painting on different IEC for segregation of plastic waste & wet waste in strategic points done. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
5	Access to Plastic Waste Disposal Facilities	<ul style="list-style-type: none"> Identification yet to be done. Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> Listing of producers / brand owners of packaging wastes. Setting up of collection centers for packaging wastes by producers / brand owners in each ULBs & GP head quarters. Inclusion of EPR in by laws of ULBs & GPs & 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months

			also fixing responsibilities on whole Sellers /Vendors/ Market Associations.		
--	--	--	--	--	--

(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)	1.32
Does the District have access to C&D waste recycling facility?	No

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 of separate collection of C&D waste to C&D waste deposition point.	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 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?	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months
3	C&D recycling Facility	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months

4	Usage of recycled C&D waste in non- structural concrete, paving blocks, lower layers of road pavements, colony and rural roads	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ brand owners in each ULBs& GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months
5	IEC on C&D waste management	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ brand owners in each ULBs& GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months

(iv) Biomedical Waste Management

a. Current Status related to biomedical Waste

Inventory of water resources in District	Quantity
Total no. of Bedded Healthcare Facilities	33 Nos.
Total no. of non-bedded HCF	46 Nos.
No. of HCFs authorized by SPCB	86 Nos.
No of Common Biomedical Waste Treatment and Disposal Facilities (CBWTFs)	Nil
Capacity of CBWTFs	Nil
No. of Deep Burials for BMW if any	Nil
Quantity of Biomedical waste generated per day	10MT
Quantity of Biomedical waste treated per day	Nil

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	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
2	Adequacy of facilities to treat biomedical waste	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
3	Tracking of BMW	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
4	Awareness and Education of healthcare staff	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
5	Adequacy of funds	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months

6	Compliance to Rules by HCFs and CBWTFs	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months
7	District Level Monitoring Committee	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market Associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months
8	Waste ater Treatment	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months

(v) Hazardous Waste Management

a. Current Status related to Hazardous Waste Management

Details of Data Requirement	Present Status
No of Industries generating HW	1no.
Quantity of HW in the district	595MT/Annum
(i) Quantity of Incinerable HW	Nil
(ii) Quantity of Land-fillable HW	595MT/Annum
(iii) Quantity of Recyclable / utilizable HW	Nil
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	Not assessed

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	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months
2	Establishment of collection centres	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole Sellers/Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months
3	Training of workers involved in handling recycling disposal of HFW	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months
4	Availability / Linkage with common TSDF disposal facility	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats	03 Months

5	Contaminated Sites	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/brand Owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 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	Not available
Collection centers established by ULBs in the District	Nil
Collection centers established by Producers or their PROs	Nil
No. of authorized E-Waste recyclers / Dismantler	Nil

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	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/ Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
2	E-Waste collection points	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole sellers/Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months

3	Linkage among Stakeholders to channelize E-Waste	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole • sellers/ Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
4	Regulation of Illegal E- Waste recycling /dismantling	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole • sellers/ Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
5	Integration of informal sector	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole • sellers/ Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 Months
6	Awareness and Education	<ul style="list-style-type: none"> • Identification yet to be done. • Lack of legal provisions for fixing responsibility 	<ul style="list-style-type: none"> • Listing of producers/ brand owners of packaging wastes. • Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs & GP headquarters. • Inclusion of EPR in by laws of ULBs & GPs & also fixing responsibilities on whole • sellers/ Vendors/ Market associations. 	<ul style="list-style-type: none"> i. Kendrapara Municipality ii. Pattamundai Municipality iii. All Grampanchayats 	03 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:	Nil
- Operated by Industry:	Nil
Number of manual monitoring States operated by SPCBs	Nil
Name of towns / cities which are failing to comply with national ambient air quality stations	Nil
No of air pollution industries	Data not available
Prominent air polluting sources [Large Industry] / [Small Industry] / [Unpaved Roads] / [Burning of WasteStubble] / [Brick Kiln] / [Industrial Estate] / [Others] (Multiple selection)	Small Industry

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.	Regular inspection & monitoring of air polluting Industries & Mines.	Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing
		Regular & continuous monitoring of AAQ w.r.t. PM10, PM2.5, SO ₂ , NO ₂ , Ammonia, Ozone etc. in Industrial Establishments & Mines.	Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing
		Setting up of information network for identification of Pollution prone Zone	District Administration, Kendrapara	01months
			DFO MFD (WL) Rajnagar	
			Regional Office of State Pollution Control Board, Odisha, Paradeep	
2	Ambient Air quality data	Creation of Public awareness to get access to SPCB & CPCB server for online Real time Data	Regional Office of State Pollution Control Board Odisha, Paradeep	Continuing
		Installation of Digital Display Board at Traffic square for Local AAQ.	District Administration, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep	06 months
			ULBs Authority, Kendrapara	
		Display of Real time AAQ data of Industries at their main gate for public views	Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing
			Industry Authority	

3	Setting up of Continuous Ambient Air Quality Monitoring Station	Identification of at least one site for installation of OCAAQMS at District Headquarter Installation of Digital Display Board at Traffic square for display of Local AAQ	District Administration, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep ULBs Authority, Kendrapara	06 months
4	District Level Action Plan for Air Pollution	Regular inspection & monitoring of air polluting Industries & Mines.	Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing
		Regular & continuous monitoring of AAQ w.r.t. PM10, PM2.5, SO2, NO2, Ammonia, Ozone etc. in Industrial establishments & Mines.	Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing
		Use of at least 25% energy from renewable sources (Green Energy) in all Government offices, Commercial establishments, Industrial sectors.	District Administration, Kendrapara Energy Department, Kendrapara	06 months
		Shifting from Petrol/Diesel driven vehicles to Electric operated vehicles (At least 50%) in Government, Private sectors & individual levels.	District Administration, Kendrapara Road Transport Office, Kendrapara	06 months To prevent Air Pollution the Transport Department of Govt. of Odisha is encouraging Govt. and Private institutions as well as general public to use more and more electric operated vehicles instead of petrol/Diesel driven vehicles in this state.
		Promotion of E vehicles, CNG Taxies, improvements of comfortable Public Transport system.	District Administration, Kendrapara Road Transport Office, Kendrapara	Continuing process
		Identification, Development & Protection of at least 35% thick Forest area / Plantation Zone in each ULBs/ Block / GP of the District.	District Administration, Kendrapara DFO MFD (WL) Rajnagar DFO Cuttack (T) Division	12 months
		Ensure Dust control in project construction sites	EE, PWD Department, Kendrapara	0 month

			EE, Rural Works Department, Kendrapara	
			Contractors of the Project	
		Strict enforcement of restriction on open burning of Garbage, Plastic wastes, Forest Fire. Waste stubbles & imposition of heavy penalty (Environmental compensation).	District Administration, Kendrapara DFO MFD (WL) Rajnagar DFO Cuttack (T) Division	01 month
			ULBs & GP authorities	
			Regional Office of State Pollution Control Board, Odisha, Paradeep	
			Agriculture Department, Kendrapara	
		All ULBs & GP Roads to be maintained dust free.	ULBs & GP authorities	03 months
5	Hotspots of air pollution in District	Close watch on stubble burning, illegal waste burning, unauthorized operations, cluster activities, forest fires etc.	District Administration, Kendrapara DFO MFD (WL) Rajnagar DFO Cuttack (T) Division Regional Office of State Pollution Control Board, Odisha, Paradeep ULBs Authority, Kendrapara	Continuing
		Strict enforcement of restriction on open burning of Garbage, Plastic wastes, Forest Fire. Waste stubbles & imposition of heavy penalty (Environmental compensation).	District Administration, Kendrapara DFO MFD (WL) Rajnagar DFO Cuttack (T) Division	
			Regional Office of State Pollution Control Board, Odisha, Paradeep	
			ULBs Authority, Kendrapara	
	Awareness on Air Quality	Installation of Digital Display Board at Traffic square for display of Local AAQ.	District Administration, Kendrapara	06 months
			Regional Office of State Pollution Control Board, Odisha, Paradeep	
			ULBs Authority, Kendrapara	
		Receive of Public complaint through Email.	Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing

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	Mahanadi, Brahmani and Baitarani
Length of Coastline (if any)	68 Km
Nalas/ Drains/Creeks meeting Rivers	Luna, Chitrotpala, Karandia, Gobari, Birupa, Paika, Kharasrota, Kani
Total Quantity of sewage from towns and cities in District	NA
Quantity of industrial wastewater	0.7 MLD
Percentage of untreated sewage	NA
Details of bore wells and number of permissions given for extraction of groundwater	150 nos. of borewells
Groundwater polluted areas if any	NA
Polluted river stretches if any	NA

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	Detail inventory of each category of water bodies yet to be done	Water Resources Department, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing
		Formation of District level Environment Monitoring Cell	District Administration, Kendrapara DFO MFD (WL) Rajnagar DFO Cuttack (T) Division Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing
		Regular monitoring of water quality of water bodies	Regional Office of State Pollution Control Board, Odisha, Paradeep	01 months
2	Quality of water bodies in the district	Periodic check of water quality of major water bodies & Ground water based on their specific use.	Regional Office of State Pollution Control Board, Odisha, Paradeep	03 months
3	Hotspots of Water contamination	Identification of pollution prone water bodies & Ground water	Water Resource Department, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep	06 months
		Monitoring of water quality on Regular interval.	Regional Office of State Pollution Control Board, Odisha, Paradeep	06 months
		Restriction of use of Chemical Fertilizer, Pesticides, Herbicides etc in Agriculture & Horticulture & switch over to Bio Fertilizer, Bio Pesticides etc.	District Administration, Kendrapara DFO MFD (WL) Rajnagar DFO Cuttack (T) Division Agricultural Department, Kendrapara Horticulture Department, Kendrapara Soil Conservation Office, Kendrapara	06 months

		Preparation of remedial measures	Water Resource Department, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep	
4	Protection of river /lake waterfront	Identification of areas of open defecation	ULBs & authorities of GPs	06 months
		Campaign against open defecation & Provision of community Toilets wherever required	NGOs ULBs & GPs authorities	06 months
		Construction & maintenance of Idol Immersion Ponds at strategic locations near Water bodies.	District Administration, Kendrapara ULBs & GPs authorities.	03 months
		Free water bodies from encroachments	District Administration, Kendrapara Water Resource Department, Kendrapara ULBs & GPs authorities.	06 months
		Strict enforcement of Solid Waste Management Rules, Shifting & reclamation of Legacy dumping sites from Riverbanks, Lakes, Imposition of Heavy penalty for any dumping of SW in water bodies (Environmental compensation)	District Administration, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep ULBs & GPs authorities.	06 months
		Preparation of self-sustainable River / Lake front Development Plan (Bathing Ghats, Joggers Park, Restaurant's provision, Water sports, Lighting along River Banks, Aqua cultures to support Livelihoods of locals etc)	District Administration, Kendrapara Water Resource Department, Kendrapara ULBs & GPs authority	06 months
5	Inventory of sources of water pollution	Identification of Drains,	Water Resource Department, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep ULBs & GPs authority	06 months
		Identification of Solid wastes disposal area in & around Waterbodies	Regional Office of State Pollution Control Board, Odisha, Paradeep ULBs & GPs authority	06 months
		Identification & quantitative assessment of areas & type of Chemical Fertilizers, Pesticides & Herbicides being used in the District.	Agriculture Department, Kendrapara Horticulture Department, Kendrapara	02 months
		Preparation of remedial measures	District Administration, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep Reputed Institutions/ Agencies	06 months
6	Oil spill disaster management (for coastal districts)	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

7	Protection of floodplains.	Regulation for protection of FloodPlain	District Administration, Kendrapara Water Resource Department, Kendrapara ULBs & GPs authority	06 months
		Identification of encroachment	District administration, Kendrapara	06 months
		Areas & initiation to prevent encroachment.	Water Resource Department, Kendrapara ULBs & GPs authority	
8	Rejuvenation	Identification & mapping of GroundWater status of Kendrapara District (Critical Zone, Safe Zone etc)	District Administration, Kendrapara	06 months
			Water Resources Department, / Central Ground Water Authority, Bhubaneswar/ Lift Irrigation Department, Kendrapara ULBs & GPs authority	
		Identification of vulnerable areas of over exploitation of Ground water	Water Resources Department, Kendrapara/ Central Ground Water Authority, Bhubaneswar/ Lift Irrigation Department, Kendrapara	03 months
		Periodical Monitoring of GroundWater quality.	Regional Office of State Pollution Control Board, Odisha, Paradeep Central Ground Water Authority, Bhubaneswar	Continuing
		Preparation of master plan for Rainwater Harvesting Inclusion of Rainwater harvesting (Roof top collection/Ground water Recharge) provisions in Bylaws of ULBs/GPs/Development authorities while approving Building Plan for Government Offices Commercial Establishments, Institutions & Individual House Holds. Assessments of Ground water withdrawal for Industrial / Agricultural / Domestic purposes & obtain of NOC from CGWA/WR Department in case water drawl exceed 10 m ³ /Day (Except Exemption list).	ULBs/GPs/Area Development Authorities. Central Ground Water Board/WR Department	
9	Complaint's redressal system.	Availability of Public complaints Redressal systems i.e., Email, Public complaint Box etc.	District Administration, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing
		Development of App.	District Administration, Kendrapara	06 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	Nil
No. of Class-I towns and above	Nil
No. of Towns STPs installed	Nil
No. of Towns needing STPs	2 Nos
No. of ULBs having partial underground sewerage network	Nil
No. of towns not having sewerage network	2 Nos
Total Quantity of Sewage generated in District from Class II cities and above	Not available
Quantity of treated sewage flowing into Rivers (directly or indirectly)	Not available
Quantity of untreated or partially treated sewage (directly or indirectly)	Not available
Quantity of sewage flowing into lakes	Not available
Total available Treatment Capacity	Not available

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)	No STP available in the District. Identification of areas (covering nos of wards) in each ULBs, Semi urban Towns (Block Headquarters) etc & preparation of feasibility report for setting up of STPs based on Decentralized concept.	District Administration, Kendrapara Authority of ULBs/GPs/Development Agencies	06 months
		Individual STPs for Apartments, Hospitals (more than 30 beds), Institutions, Industrial Townships etc.	District Administration, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep	06 months
			Authority of ULBs/GPs/Development Agencies	
2	Underground sewerage network	Laying of sewerage system for each STP	Housing & Department, Odisha Authority of ULBs Urban	12 months
		Installation & commissioning of STP	Housing & Urban Department, Odisha	12 months
			Authority of ULBs	
			Odisha Water Supply & Sewerage Board.	

5.0 INDUSTRIAL WASTEWATER MANAGEMENT

a. Current Status related to Industrial Wastewater Management

Details of Data	Status
Number of Red, Orange, Green and White industries in the district	Not available
No. of Industries discharging wastewater	15 nos.
Total Quantity of industrial waste water generated	0.7 MLD
Quantity of treated industrial wastewater discharged into Nalas / Rivers	0.7 MLD
Common Effluent Treatment Facilities	Nil
No. of Industries meeting Standards	15 nos.
No. of Industries not meeting discharge Standards	Nil

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	Inspection & Monitoring discharge effluent quality Regular basis of on	Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing
		Installation of online Effluent Quality monitoring systems (OEQMS) with Real Time Data Transmission Facilities to SPCB/CPCB server for Large Industries	Regional Office of State Pollution Control Board, Odisha Paradeep	OEQMS need to be installed by user industries
2	Complaint redressal system	Availability of Public complaints Redressal systems i.e. Email, Public complaint Box etc	District Administration, Kendrapara	Continuing
			Regional Office of State Pollution Control Board, Odisha, Paradeep	
		Development of App.	District Administration, Kendrapara	06 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	Sand mining
No. of licensed Mining operations in the District	02
% Area covered under mining in the district	0.000097%
Area of Sand Mining	Riverbed -0.2561 Sq.km

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 Task Force	District Administration, Kendrapara/ Regional Office of State Pollution Control Board, Odisha, Paradeep/ Mining Department, Kendrapara/ Police Department, Kendrapara	01 month
		Installation of online Effluent Quality Monitoring Systems (OEQMS) with Real Time Data Transmission facilities to SPCB/CPCB server for Large Industries	Regional Office of State Pollution Control Board, Odisha, Paradeep	As & when Industry shall be fully operational.
2	Inventory of illegal mining if any mining	Surveillance & Patrolling.	District Level Task Force, Kendrapara	01 month
		Use of GPS for Transportation of minerals.	District Administration, Kendrapara Mining Department, Kendrapara	06 months
3	Environment compliance by Mining industry	Inspection & Monitoring of Mines on Periodic basis	District Administration, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep	Continuing

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	02 nos. with Regional Office of SPCB, Odisha, Paradeep

b. 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.	02 nos. noise measuring devices available with SPCB, Odisha, Paradeep. Procurements of Noise Level Meters with Data Loggers (Recommended specifications) for Police Department, Kendrapara, District Administration, Kendrapara, Traffic Department, Kendrapara & SPCB, Odisha, Paradeep.	District Administration, Kendrapara Regional Office of State Pollution Control Board, Odisha, Paradeep ULBs Police Department, Kendrapara	02 months
2	Ambient Noise Level Monitoring	Training to Field officers & Staff for operation, Data evaluation & reporting using Noise Level meter w.r.t. legal compliances.	Regional Office of State Pollution Control Board, Odisha, Paradeep	03 months
		Installation of online Noise Level Monitoring Systems with Real Time Data Display facilities at Noise prone area/ Silence Zones.	District Administration, Kendrapara Police Department, Kendrapara	06 months
3	Sign boards in Noise zones	Identification of no. of Horn Zone in ULBs, Semi Urban Towns (Block Headquarters)	District Administration, Kendrapara Police Department, Kendrapara	01 month
		Provision of Sign Boards in Silence Zones/Sensitive Zones.	District Administration, Kendrapara Police Department, Kendrapara	02 months
	Complaint redressing system	Availability of Public complaints Redressal systems i.e. Email, Public complaint Box etc.	District Administration, Kendrapara Police Department, Kendrapara	Continuing
		Development of App.	District Administration, Kendrapara Police Department, Kendrapara	06 months
		Imposition of Penalty for Violators	District Administration, Kendrapara Police Department, Kendrapara	Continuing

8.0 WETLAND MANAGEMENT PLAN

The total geographical area of Kendrapara district is 2644 Sq. km. The wetland area in the district is estimated to be 50932 ha. In addition to 526 wetlands mapped in the district, 1074 wetlands of < 2.25 ha have also been discerned as point feature. The major wetland types are mangroves (20925 ha) followed by rivers/streams (17934 ha), intertidal mudflats (5249 ha). Open water has shown a marginal decrease in the extent from 21516 ha in post-monsoon to 21413 ha in pre-monsoon.

a. Current Status related to Wetland Management Plan

Details of Data Requirement	Measurable Outcome
No. of Wetland and its extent	No- 1600; Area = 50932 in Ha.

Sl. No.	Wetland Category	No. of wetlands	Total wetland area (in Ha)
Inland Wetlands - Natural			
1	Ox-bow lakes/ Cut-off meanders	8	47
2	Riverine Wetlands	2	6
3	Waterlogged	62	589
4	River/Stream	102	17934
Inland Wetlands - Man-made			
5	Tanks/Ponds	32	198
Total - Inlands		206	18774
Coastal wetlands- Natural			
6	Sand/Beach	20	1562
7	Intertidal mudflats	103	5249
8	Mangroves	103	20925
Coastal wetlands- Man-made			
9	Aquaculture ponds	94	3348
Total -Coastal		320	31084
Wetlands (<2.25 ha)		1074	1074
Total		1600	50932

b. Identification of gaps and action plan

Sl. No.	Action Points	Gaps and Action Plan	Responsible agency	Timeline for completion of action plan
1	Sewerage discharge	Inadequate knowledge on water and aquatic land pollution. Load based assessment of Sewerage and additional STP for treatment of sewerage	ULB	6 months
	Disposal of Solid & other Waste	Unscientific disposal of solid waste into wetland. Load based assessment of Solid waste & other waste. Identification of additional land-fill sites and promotion of SLF	ULB	12 months
	Water quality testing	Any such initiative of monitoring of water quality of wetland is not yet been taken up by OSPCB. Sampling in every quarter for testing and provision for mobile lab for on-site testing, Empanelment of private testing labs	SPCB	Half-yearly
	Preventing siltation	Almost all wetland silted up over the years and water bearing capacity got	Water Resources Department	Occasional

		reduced. De-siltation of the water bodies. Impose penalty clause on disposal of waste into wetland		
	Demarcation of flood protection zone	Any such demarcation is yet not beendone. Special initiative/ study requires for such demarcation.	Water Resources Department	One time
	Removal of Encroachment	Massive encroachment found specially in urban area. Revenue authorities along with DoWR and ULB officials will make inspection of drainage areas for removal of encroachment	District Administration (Revenue Authorities)	1 year

Member Convener-Cum-DFO,
Mangrove Forest Division (WL)

Chairman-Cum- Collector &
District Magistrate, Kendrapara