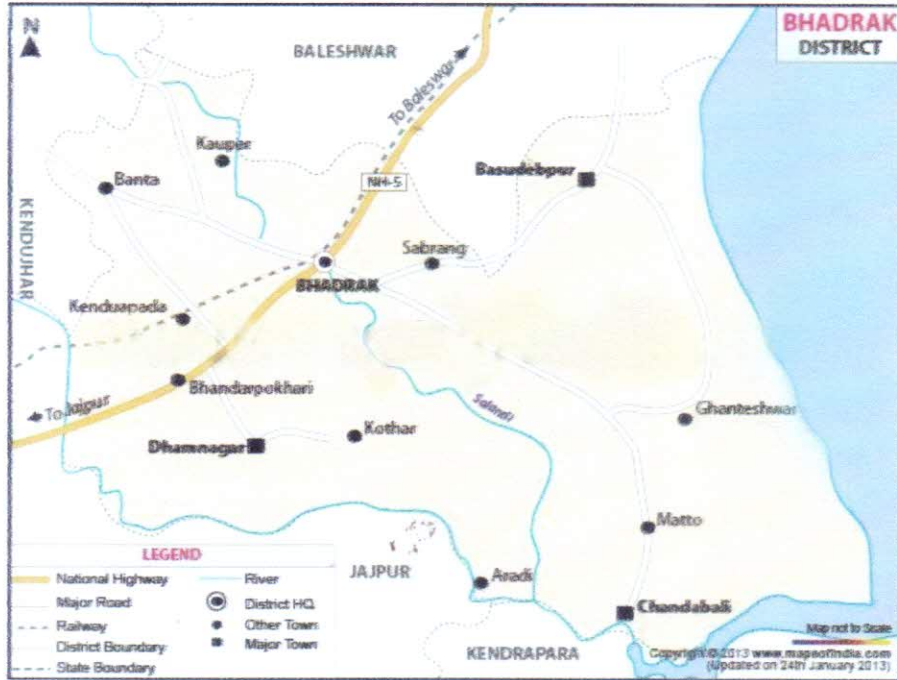


## District Environment Plan (DEP) for Bhadrak District

Odisha State



O/o the Collector and District Magistrate, Collectorate, Bhadrak

At/PO- Bhadrak, Pin-756100, Dist-Bhadrak

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District Magistrate & Collector, Bhadrak

**Table of Contents**

<b>1.0 DISTRICT PROFILE.....</b>	<b>2</b>
(A) DISTRICT ADMINISTYRATIVE SET-UP.....	2
(B) LOCAL INSTITUTIONS.....	2
(C) NATURAL RESOIRCES .....	3
(D) GEOGRAPHY & DEMOGRAOHY.....	4
(E) LAND USE PATTERN.....	5
(F) CLIMATE.....	5
<b>2.0 INDICATIVE GAP ANALYSIS &amp; ACTION PLAN FOR COMPLYING WITH WASTE MANAGEMENT RULE.....</b>	<b>6</b>
(I) SOLID WASTE MANAGEMNT.....	6
(II) PLASTIC WASTE MANAGEMENT .....	10
(III) C& D WASTE MANGEMENT .....	12
(IV) BIOMEDICAL WASTE MANAGEMENT.....	13
(V) HAZARDOUS WASTE MANAGEMENT .....	15
(VI) E-WASTE MANAGEMENT .....	17
<b>3.0 AIR QUALITY MANAGEMNT .....</b>	<b>18</b>
<b>4.0 WATER QUALITY MANAGEMENT .....</b>	<b>22</b>
4.1 WATER QUALITY MONITORING .....	22
4.2 DOMESTIC SEWAGE.....	25
<b>5.0 INDUSTRIAL WASTE WATER MANAGEMENT.....</b>	<b>26</b>
<b>6.0 MINING ACTIVITY MANAGEMENT PLAN .....</b>	<b>27</b>
<b>7.0 NOISE POLLUTION MANAGEMENT PLAN .....</b>	<b>28</b>
<b>8.0 WETLAND MANAGEMENT PLAN .....</b>	<b>29</b>



## 1.0 DISTRICTPROFILE

### (a) District Administrative Set-Up

Bhadrak District is an administrative District of Odisha state in eastern India. The District is named after the town of Bhadrak, which is the District headquarters. It came into existence on 1st April 1993. This District has a rich heritage and history and according to legends, it also derives its name from the Goddess Bhadrakali, whose temple stands on the banks of the river Salandi.

This District is bounded by Balasore District on the north, Jajpur District and river Baitarani on the south, Keonjhar District on the west and Bay of Bengal and Kendrapada District are on the east. It is located at 21°.06' Latitude and 86°.50' Longitude. The Bhadrak District covers an area of 2505 Sq. Km. with geographical area of 2,46,529 Hect. The total population of the District is 1,506,337 with total male population as 760260 and female population as 746077. Total SC Population of the District is 286723 whereas the total ST population is 25141. Total OBC Population is 15142. The Bhadrak District has got only one sub division namely Bhadrak. It has 1370 villages covering 7 Blocks, 7 Tehasils namely i) Bhadrak ii) Basudevapur iii) Bhandaripokhari iv) Bonth v) Chandabali vi) Dhamnagar vii) Tihidi. There are Two Municipality, Two NAC, 19 Police stations, 218 Gram Panchayats in the Bhadrak District.

Bhadrak sub-division of the undivided Balasore district became a new district on the first April, 1993 (vide Govt. in Revenue Department Notification number DRC-44/93, 14218/R dtd the 27 March, 1993). The East Coast Railway runs through the headquarters making the place a big trade center from long time past. The place has a long cultural heritage which has been duly recognized by eminent historians.

Agriculture is the main source of income of the District. Paddy is grown as the main crop in Kharif, covering approximately 94 Percent of the total cultivable area. But people in the sea coast area (Dhamara, Chudamani of Basudevapur and Chandabali area of Chandabali Block) also depend upon fishing for their livelihood. Bhadrak District has a District Industries Centre, which in addition to the promotion of the different industries, performs other functions like implementation of different self-employment programmes.

There are many historical places and monuments to visit in the Bhadrak District. Palia is famous for Biranchi Narayan Temple. Sri Radha Madanmohan Temple is one of the most visited temples of Bhadrak District. Aradi situated at a distance of 10 km from Chandabali is famous for the temple of Akhandalamani.

### (b) Local Institutions:

Primary School (2017-18)	No. of Schools	1073
	Enrolment (No.)	59575
	Pupil Teacher Ratio	19.81
Upper Primary School (2017-18)	No. of Schools	633
	Enrolment (No.)	93377
	Pupil Teacher Ratio	24.14
General Collage (2017-18)	Junior	36
	Degree	14
Secondary School	No. of Schools	321
	Enrolment (No.)	76103
	Pupil Teacher Ratio	29.76
Literacy Rate, 2011	Male	68.11
	Female	56.55



**(c) Natural Resources:*****Water Bodies and availability of water resources:***

Bhadrak district is a transition land features of both coastal plain and hilly region. Most of the mining activity in the district is only restricted to minor minerals i.e. of sand, granite stone, and brick clays. This district is divided in to three zones according to its soil condition. 1 Saline Soil, 2 Alluvial Soil & 3 Sandy Soil. This district is naturally divided into two well-designed tracks. 1. The salt tracks along the coasts which is not arable 2. The arable track, which is called the granary of the state.

All the rivers have their source inside the State and thus they are mid streams and short streams The main Rivers of the District are (1) Baitarani, (2) Salandi, (3) Gamei, (4) Kansbans, (5) Mantei, (6) Kochila, and (7) Genguti, (8) Rebo and (9) Kapali etc. The river system in the district is classified mainly into two categories i.e (i) Baitarini River System and (ii) Salandi River System. The main distributaries river of Baitarini are Genguti and Kochila. Kapali and Mantei are the tributaries of Salandi.

Baitarani rises among the hills in the north-west of Keonjhar District (Gonasika) and enters Bhadrak near Balipur. After flowing in a winding easterly course across the delta, it marks the boundary line between Jajpur and Bhadrak districts. After crossing National Highway, Baitarani branches out to a delta.

Salandi also branches out to a delta. Some of the distributaries join together to form Dhamara River. Owing to the multiple rivers originating in different catchments, the flow of water in Dhamara river was continuous. Besides, several branches of the rivers formed estuaries, providing another dependable source of water. The Dhamara river remained desilted and had good tidal flow.

Kochila is a distributary of river Baitarani and bifurcates from the main river at Ramarakul under Dhamanagar block and after running a length of 10 kms merges with river Baitarani at Saanlpur village under Dhamanagar block.

Genguti is a distributary of river Baitarani and offtake from the main river near Maninath under Bhadrak district. After crossing Dhamanagar and Tihidi blocks it merges with river Salandi at Nandpur under Chandabali block.

The Mantei brings down between the Kansbansh and the Salandi and after a tortuous course over a muddy bed and between densely wooded banks, joins Dhamara near its mouth. This river attains a considerable volume at Charbatia, where it is joined by the Coast canal.

Minor irrigation is one of the sectors under Water Resources Department, Besides Major, Medium and lift Irrigation, this Department plays an important role for using the surface water available in different local nallas / rivers the district to provide flow irrigation to the cultivable land of the Ayacutdars through canal system of MIPs mainly through Diversion weir projects in the district. There are 14nos of MIPs which provide 2556.00Ha. in khariff. This Department has created an irrigation potential of 2436.00Ha.in khariff by constructing 103 nos of Check Dams across different nallas in different Blocks in the district.

There is Lift irrigation Corporation (OLIC) Division of Bhadrak District and two schemes i.e. JALANIDHI-I (CLIPS) and JALANIDHI-III (CSTW) are implemented by OLIC. There are 1224 No.s CLIPS project irrigating ayacut area of 27192 Hectares, 301 No.s of CSTW irrigation ayacut area of 1505 hectares and 3 no. Of micro R/L irrigation area of 6 Hectares. As on today total 1528 No.s of OLIC installed projects irrigating ayacut area of 28703 Hectares. Out of which total 1369 nos. Are in operable condition irrigating in area of 24771 Hectares and rests are defunct condition for various reasons. In this Financial year 100 nos. Of new CLIPS projects will be energised to irrigate ayacut arera of 2000 Hects. Further proposals of new 69 CLIPS projects has been sanctioned by Water Resource Department for irrigation of ayacut area 1380 Hectares. If all proposals accepted then by the end of Financial Year 2022-23 total 1822 Nos. Of OLIC installed projects will irrigate an ayacut area of 332708 Hectares.



**Forest Coverage:****Table 1: Category wise forest cover in Bhadrak Division.****FOREST AREAS OF BHADRAK WILDLIFE DIVISION:**

Sl.	Category of Forest	Forest Block	Compt.	Area in Ha.
1	Reserved Forest		NIL	
<b>PROPOSED RESERVED FOREST</b>				
2	Proposed Reserve Forest	Garmal	-	<b>396.00</b>
			<b>Total:-</b>	<b>396.00</b>
3	Un-demarcated Protected Forest (UDPF)	Banipahi	-	2124.65
4		Bijayapatana	-	93.08
5		Banijungle	-	404.69
6		Outer wheeler	-	106.49
7		Long wheeler	-	21.25
8		Coconut Island	-	39.46
9		Small wheeler	-	4.30
10		Short Island	-	16.90
11		Udabali (new)	-	485.63
			<b>Total:-</b>	<b>3296.45</b>
12	Village Forest	ArjunbindhaSanthapur	-	4.0
13		BhatapadaGudpal	-	1.044
14		Bodakasam	-	10.0
15		Aruha	-	0.536
16		Kamaria	-	1.98
17		Mirijapur	-	0.56
18		Deola	-	5.0
19		Arjunbindha	-	3.0
20		Kabirpur	-	5.0
21		Haripur	-	0.68
22		Babanbindha	-	5.0
23		Amargadia	-	3.68
24		Belnta	-	1.0
25		Dianary	-	1.84
26		Sibapur	-	1.6
27		Bansar	-	0.42
28		Jalahari	-	3.0
29		Chatrubhujapur	-	1.6
30		GoudabisaNuapada	-	2.2
31		Belgadia	-	2.8
32	Alboga	-	0.2	
			<b>Total</b>	<b>55.14</b>
			<b>G. Total</b>	3747.59 or 37.47Sq.Km
NB: Area Handed over to DRDO, Chandipur= 176 Ha. (105.36 Ha. From Garmal PRF, 2.01 Ha. From long wheeler, 39.81 Ha . from outer Wheeler, 26.82 Ha. From Coconut Island, 0.40 Ha from Small Wheeler, 1.60 Ha from Short Island)				

**(d) Geography & Demography:****Geography:**

Bhadrak District is located at 21°.06' Latitude and 86°.50' Longitude. The total geographical area is 2505 Sq. Km. Out of 2505 Sq.Km geographical area of Bhadrak District 19Sq.Km area comes under mangrove Vegetation i.e dense forest 11 Sq.Km and Open Forest 8 Sq.

**Demography:****Table 2 : Population of Bhadrak District in 2011 and 2001**

Description	2011	2001
Population	1506337	1333749
Male	760260	675642
Female	746077	658107
Population Growth	12.9%	20.61%

**Table 3 : Demographic details of Bhadrak District in 2011 and 2001**

Description	2011	2001
Area SQ. Km	2505	2505
Density/ Km <sup>2</sup>	601	532
Proportion to Orissa Population	3.59%	3.62%
Sex Ratio (per 1000)	981	974
Child sex ratio (0-6 age)	942	943
Average Literacy	82.74%	73.86
Male Literacy	89.64%	84.65
Female Literacy	75.83%	62.85
Total child population (0-6 age)	184560	192647
Male population (0-6 age)	95048	99164
Female population (0-6 age)	89512	93483
Child proportion (0-6 age)	12.25%	14.44%

**(e) Land Use Pattern:**

Sl. No.	Items	Value
1	Geographical Area (Ha.)	246529.00
2	Area under Forest (Ha.)	9759.37
3	Cultivable area (Ha.)	174063.00
4	Cultivated Area (Cropped Area) (Ha.)	i)High- - 13617.00
		ii)Medium- - 61991.00
		iii)Low- - 98455.00
		<b>Total- - 174063.00</b>
5	Irrigated Area (Ha.)	i)Major Irrigation Project - 67452.00
		ii)Minor Irrigation Project - 2241.00
		iii)LIP (Govt.) - 21645.00
		iv)LIP(Pvt.) - N/A
		v)Bore Well - N/A
		vi)Dug Well - N/A
		vii)Water Harvesting Structure - N/A
		viii)Other sources (Pond/Pump set/ Diversion weir/Mega lift/River lift/ Tenda etc.) - 24554.00
	<b>Total- - 115892.00</b>	
6	Irrigated area % to total cropped area	66.58%

**(f) Climate:**

The climate in Bhadrak has a tropical climate that is warm and temperate. In winter, there is much less rainfall than in summer. This location is classified as Aw by Köppen and Geiger and this climate classification is Cwa. May is the warmest month of the year. The temperature in May averages 38.8 °C. January has the lowest average temperature is 14.8 °C of the year. In a year, the average rainfall is 1530 mm. There is a difference of 320 mm of precipitation between the driest and wettest months. During the year, the average temperature of Bhadrak District is 26.8 °C.



## 2.0 INDICATES 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 House holds	Population	Solid Waste Generated per day(TPD)
1	Municipal corporations (Nagar Nigam or Mahanagar Palika)	NA	NA	NA	NA
2	Municipalities (Nagar Palikas)				
	1. Bhadrak Municipality	30	23098	124715	30
	2. Basudevpur Municipality	23	8609	38744	13
3	Nagar panchayats (Town area Councils)				
	1. Chandbali NAC	15	5052	33068	1.5
	2. Dhamnagar NAC	11	4221	22920	2.0

Note:-NA- Not Applicable

Sl No.	Local Bodies	No of village panchayats / Blocks	No of Households	Population	Solid Waste Generated per day (TPD)
1	Block/Taluk/Mandal Tahasils ##	7	325098	1625490	4.33
2	Village/Gram Panchayats	1370/218			

## 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	<b>Segregation</b>				
(i)	Segregation of waste at source	<p>*About 70 to 80 % of Dry &amp; Wet wastes segregation at source being practiced during Door-to-Door collection.</p> <p>* Due to non-availability of adequate BOV/LCV vehicle the regular collection segregated wastes for rest 20 to 30% HHs are hampered.</p> <p>*Domestic Hazardous wastes segregation not carried out, but collected from to door to door weekly and segregated at MRF units.</p> <p>• Identification of Bulk generators like apartments, Market complex, Mess, Mall, Kalyan Mandap, Hostels.</p>	<p>• Regular awareness programme in Schools, Colleges and Societies etc. are taken up and will expedite in future.</p> <p>• Supply of one set Blue &amp; Green colored bins to each Households, Apartments, Market complexes (May be on payment basis)</p> <p>• Awards, Incentives For best management</p> <p>• Regular announcement as well as advertisement in Social media are to be expedite for non-violation of different aspects under SWM Rules 2016 and to impose penalty accordingly.</p>	<p>i. Bhadrak Municipality</p> <p>ii. Basudevpur Municipality</p> <p>iii. Dhamnagar NAC</p> <p>iv. Chandbali NAC</p> <p>v. All Grampanchayat</p>	3months

Sl. No.	Action points for villages/blocks/ town municipalities /City corporations	Identification of Gap	Action Plan	Responsible agencies	Timeline for completion of action plan
<b>2</b>	<b>Sweeping</b>				
(i)	Manual sweeping	<ul style="list-style-type: none"> <li>• Around 80% Market and Commercial area are taken up two times sweeping which needs to be covered up 100%.</li> </ul>	<ul style="list-style-type: none"> <li>• Handy manual drive sweeping tools(vacuum type) &amp; small motorized equipment for transportation to main collection Points to reduce direct contact with wastes.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	March 2023
(ii)	Mechanical Road Sweeping Collection	<ul style="list-style-type: none"> <li>• Only one Mechanical Road sweeping vehicle is engaged for main road sweeping which is not sufficient to cover the main road areas in Bhadrak Municipality.</li> <li>• No provision of Mechanical Road sweeping systems for other ULBs of Bhadrak District.</li> </ul>	<ul style="list-style-type: none"> <li>• Additional 02 No Mechanical Road sweeping vehicle to be procured for covering of all main road area in 2Lane/ 4Lane Roads.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	May 2023
<b>3</b>	<b>Waste Collection</b>				
(i)	100% collection of solid waste	<ul style="list-style-type: none"> <li>•About 70 to 80% waste collection from Commercial are being carried out on daily basis by ULBs.</li> <li>•Inadequate collection Bins/community Bins</li> </ul>	<ul style="list-style-type: none"> <li>•Deployment of mechanical transportation systems.</li> <li>• Clear Demarcation of waste collection stations.</li> <li>• Fixing of responsibilities on Bulk generators for collection of segregated wastes.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03months
(ii)	Arrangement for door to door collection	<ul style="list-style-type: none"> <li>•100% &amp; 40% door to door collection systems provided at Bhadrak, Basudevpur ULBs respectively.</li> <li>•No door to door collection systems in GPs.</li> </ul>	<ul style="list-style-type: none"> <li>• Deployment of outsourced agencies, NGOs in rest of Urban/Semi-Urban areas &amp; completely in Rural areas.</li> </ul>	<ul style="list-style-type: none"> <li>. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	May 2023
(iii)	Waste collection trolleys with separate compartments	<ul style="list-style-type: none"> <li>• 100% has been provided in narrow lanes &amp; Slums in ULBs.</li> </ul>	<ul style="list-style-type: none"> <li>30 no .of waste collection Trolleys with separate compartments are to be procured for replacement of old trollys and to be deployed in narrow lanes &amp; Slums in Bhadrak Municipality area.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	February 2023



Sl. No.	Action points for villages/blocks/ town municipalities /City corporations	Identification of Gap	Action Plan	Responsible agencies	Timeline for completion of action plan
(iv)	Mini Collection Trucks with separate compartments.	•Manual collection in most part of Rural areas	* This Municipality is going to engage Agencies for integrated Sanitation activities including lifting of garbage's through their vehicles or resources.	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	May 2023
(v)	Waste Deposition centers (for domestic hazardous waste)	• No provision has been Made in Urban or in GPs.	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.	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	May 2023
<b>4</b>	<b>Waste Transport</b>				
(i)	Review existing infrastructure for waste Transport	•Waste Transport Facilities not adequate	•Additional 4nos & 1no Mini E-Vehicles with separate compartment required for Bhadrak, Basudevpur Dhamnagar & Chandbali ULBs respectively. •Tri cycle with separate compartments in each village & Mini E-Vehicles with separate compartments in each GP Headquarters & for Semi urban areas.	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	May, 2023
(ii)	Bulk Waste Trucks	• Only one Bulk waste Truck is available.	• At least 01noBulk Waste Truck is required for H.Q ULB.	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March 2023
(iii)	Waste Transfer points	•No waste Transfer Points exist.	•At least one Waste Transfer Point is required in each ULB	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03months

5 Waste Treatment and Disposal					
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)	Wet-waste Management: On-site composting by bulk waste generators (Authority may decide on requirements per Rules)	<ul style="list-style-type: none"> <li>• Identification of Bulk waste generators in ULBs &amp; GPs yet to be done.</li> <li>• Provision for direct supply of segregated vegetable wastes from Vegetable Markets, Mundies to Dairy farms &amp; Gaushalas as cattle feeds.</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of Bulk Waste generators in ULBs &amp; GPs.</li> <li>• Provision of legal binding for installation &amp; proper functioning of onsite composting facilities for Bulk waste Generators during approval of Building &amp; Other plans.</li> </ul>	<ul style="list-style-type: none"> <li>• ULBs authority</li> <li>• Town Planning &amp; Development Authority</li> <li>• Block level authority</li> </ul>	03Month
(ii)	Wet-waste Management: Facility (ies) for central Bio methanation / Composting of west waste.	No facilities for central Biomethanation/ Composting of wets waste	<ul style="list-style-type: none"> <li>• Central Biomethanation /Composting of wets wastes facility needs to be installed if Population exceeds 1 Lakh.</li> </ul>	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03 Months
(iii)	Dry-Waste Management: Material Recovery for dry-waste fraction	Two Nos of MRF Unit have operationalized in Bhadrak Municipality.	<ul style="list-style-type: none"> <li>• One MRF in each GP Head quarters</li> </ul>	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03 Months
(iv)	Disposal of inert and non-recyclable wastes: Sanitary Landfill	<ul style="list-style-type: none"> <li>• One sanitary land Fill sites exist.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure maximum Recovery, Reuse &amp; Recycle policy to minimize land filling.</li> </ul>	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03 Months
(v)	Remediation of historic / legacy dumpsite	One No. legacy dumpsite exist	<ul style="list-style-type: none"> <li>• Proper identification &amp; Remediation plan for each legacy dump sites in ULBs needs to be initiated</li> </ul>	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	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
(vi)	Involvement of NGOs	<ul style="list-style-type: none"> <li>Involvement of NGOs yet to be envisaged.</li> </ul>	<ul style="list-style-type: none"> <li>Listing of NGOs &amp; fund allocation required for management of solid waste campaign.</li> </ul>	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03 months
(vii)	EPR of Producers: Linkage with Producers /Brand Owners	<ul style="list-style-type: none"> <li>Identification yet to be done.</li> <li>Lack of legal provisions For fixing responsibility.</li> </ul>	<ul style="list-style-type: none"> <li>Listing of producers/Brand owners of packaging wastes.</li> <li>Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/Vendors/ Market associations.</li> </ul>	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03 months
(viii)	Authorization of Waste Pickers	Yes	<ul style="list-style-type: none"> <li>Detail List preparation in each ULBs ,GPs &amp; Semi Urban areas.</li> </ul>	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03 months
(ix)	Preparation of own by-laws to comply with SWMRules2016	Yes	<ul style="list-style-type: none"> <li>No action required</li> </ul>	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	

## (ii) Plastic waste Management

### 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)	3.5
3	Nagar panchayats (Town area Councils)	0.9MT

Sl. No	Local Bodies	Plastic Waste Generated per day (TDP)
1	Block/Taluk/ Mandal Tehsils	NA
2	Village/Gram Panchayats	Not Available

**(a) 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	Door to door collection is going on as per previous practice but due to lack of Segregation from the source ULB is facing difficulties	<ul style="list-style-type: none"> <li>•Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs &amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/ Market associations</li> </ul>	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March 2023
2.	Facilitate organized collection of PW at Waste transfer point or Material Recovery Facility	02 Nos of MRF Units are working under Bhadrak Municipality and additional 02 Nos of MRF unit is required for 100% disposal.	Land to be identified for construction of MRF unit  Construction for the same will be started in 2023-24.	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	December 2023
3.	PW collection Centre	*Identification yet to be done. * Lack of legal provisions for fixing responsibility	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs &amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/ Market associations</li> </ul>	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March 2023
4.	Awareness and education program implementation	1. Regular Miking/ Notice to the Shop Keepers and vendors including street play for create awareness among the City People. 2. Strict implementation of PWM Rule	To Expedite of awareness for Plastic Waste Management among the Businessman and inhabitants of the ULB. To ensure and expedite the regular enforcement on single use plastic and strict follow of action on Plastic Waste Management Rule.	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March 2023



Sl. No	Action points for village panchayats/blocks/municipalities/corporations	Identification of gap	Action plan	Agencies Responsible	Target time for Compliance
5.	Access to Plastic Waste Disposal Facilities	*Identification yet to be done. * Lack of legal provisions for fixing responsibility	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs &amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/Market associations</li> </ul>	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March 2023

### (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)	1.2 MT
Does the District has 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 for separate collection of C&D waste to C&D waste deposition point.	*Identification yet to be done. * Lack of legal provisions for fixing responsibility	<ul style="list-style-type: none"> <li>•Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs &amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/Market associations</li> </ul>	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	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?	*Identification yet to be done. * Lack of legal provisions for fixing responsibility	<ul style="list-style-type: none"> <li>•Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> </ul>	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03 months

Sl. No	Action points for blocks / town municipalities/ City corporations	Identification of Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
3.	C&D recycling Facility	*Identification yet to be done. * Lack of legal provisions for fixing responsibility	•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	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03 Months
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 provisions for fixing responsibility	•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.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03 Months
5.	IEC on C&D waste management	*Identification yet to be done. * Lack of legal provisions for fixing responsibility	•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	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	03 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	12nos
Total no. of non-bedded HCF	51nos
No. of HCFs authorized by SPCBs/PCCs	63 nos
No of Common Biomedical Waste Treatment and Disposal Facilities (CBWTFs)	NIL
Capacity of CBWTFs	NIL
No. of Deep burials for BMW if any	63 nos
Quantity of biomedical waste generated per day	600Kg/day
Quantity of biomedical waste treated per day	No CBWTF Available



**b. Identification of gaps and Action plan:**

S. No.	Action points	Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
1	Inventory and Identification of Health care Facilities	*Identification yet to be done. * Lack of legal provisions for fixing responsibility	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs&amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/Market associations</li> </ul>	<ul style="list-style-type: none"> <li>i.Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months
2	Adequacy of facilities to treat biomedical waste	*Identification yet to be done. * Lack of legal provisions for fixing responsibility	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs&amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	<ul style="list-style-type: none"> <li>i.Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months
3	Tracking of BMW	•Identification Yet to be done. •Lack of legal provisions for fixing responsibility	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs&amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/Market associations</li> </ul>	<ul style="list-style-type: none"> <li>i.Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months
4	Awareness and Education of health care staff	• Identification Yet to be done. Lack of legal provisions for fixing responsibility	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs&amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/Market associations</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months
5	Adequacy of funds	• Identification Yet to be done. Lack of legal provisions for fixing responsibility	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>• Setting up of collection Centers for packaging wastes By producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs &amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months

S. No.	Action points	Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
6	Compliance to Rules by HCFs and CBWTFs	<ul style="list-style-type: none"> <li>• Identification Yet to be done.</li> <li>• Lack of legal provisions for fixing responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>• Setting up of collection centers for packaging wastes by producers/ Brand owners in each ULBs &amp; GP headquarters.</li> <li>• Inclusion of EPR in by laws of ULBs&amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months
7	District Level Monitoring Committee	<ul style="list-style-type: none"> <li>• Identification Yet to be done.</li> <li>• Lack of legal provisions for fixing responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>• Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>• Inclusion of EPR in by laws of ULBs&amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months
8	Waste water Treatment	<ul style="list-style-type: none"> <li>• Identification Yet to be done.</li> <li>• Lack of legal provisions for fixing responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>• Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>• Inclusion of EPR in by laws of ULBs&amp; GPs&amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	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	04No.
Quantity of HW in the district	12268 MT/Annum
(i)Quantity of Incinerable HW	3178.3 MT/Annum
(ii)Quantity of Land-fill able HW	2520 MT/Annum
(iii)Quantity of Recyclable/utilizable HW	6570 MT/Annum
No of captive/common TSDF	[Nos of integrated TSDF- Nil], [Nos of SLF- Nil],[No of Standalone incinerators-Nil]
<b>Details of Data Requirement</b>	<b>Present Status</b>
Contaminated Sites or probable contaminated sites	Probable contaminated sites – NIL



*b. Identification of gaps and action plan:*

S. 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"> <li>• Identification yet to be done.</li> <li>• Lack of legal provisions For fixing responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months
2	Establishment of collection centres	<ul style="list-style-type: none"> <li>• Identification yet to be done.</li> <li>• Lack of legal provisions For fixing responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months
3	Training of workers involved in handling/ recycling/ disposal of HW	<ul style="list-style-type: none"> <li>• Identification yet to be done.</li> <li>• Lack of legal provisions For fixing responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months
4	Availability/ Linkage with common TSDF or disposal facility	<ul style="list-style-type: none"> <li>• Identification yet to be done.</li> <li>• Lack of legal provisions For fixing responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>•Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	03 Months
5	Contaminated Sites	<ul style="list-style-type: none"> <li>• Identification yet to be done.</li> <li>• Lack of legal provisions For fixing responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>• Setting up of collection Centers for packaging wastes by producers/Brand owners In each ULBs &amp; GP headquarters.</li> <li>•Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	<ul style="list-style-type: none"> <li>i. Bhadrak Municipality</li> <li>ii. Basudevpur Municipality</li> <li>iii. Dhamnagar NAC</li> <li>iv. Chandbali NAC</li> <li>v. All Grampanchayat</li> </ul>	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	3.85
Collection centers established by ULBs in the District	[Yes]
Collection centers established by Producers or their PROs	[1No]
No authorized E-Waste recyclers/Dismantler	[Nil]

**b. Identification of gaps and action plan:**

S. No.	Action points	Gaps implementation	in Action Plan	Responsible agency	Timeline for completion of Action plan
1	Inventory/Generation of E-Waste/Bulk-waste generators	*As per regular practice the e wastes are collecting from households/ Commercial area on weekly basis in each Saturday and stacked at MRF Units for necessary auction.	•Agency to be finalized for auction of the stacked e wastes in the MRF units.	i.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March 2023
2	E-Waste collection points	•Identification yet to be done. •Lack of legal provisions for-fixing responsibility	• 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.Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March, 2023
3	Linkage among Stake holders to channelize E-Waste	• Identification yet to be done. • Lack of legal provisions for fixing responsibility	• 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 associate	Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March, 2023



S. No.	Action points	Gaps implementation	in Action Plan	Responsible agency	Timeline for completion of Action plan
4	Regulation of Illegal E-Waste recycling/dismantling	<ul style="list-style-type: none"> <li>• Identification yet to be done.</li> <li>• Lack of legal provisions for fixing responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>• Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>• Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March, 2023
5	Integration of informal sector	<ul style="list-style-type: none"> <li>* Identification yet to be done.</li> <li>* Lack of legal provisions for fixing responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Listing of producers/Brand Owners of packaging wastes.</li> <li>Setting up of collection centers for packaging wastes by producers/Brand owners in each ULBs &amp; GP headquarters.</li> <li>Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/Vendors/Market associations.</li> </ul>	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March, 2023
6	Awareness and Education	* Lack of Awareness and Education, the e-waste are not collected in sufficient quantities	* To Expedite the awareness and education among the city people.	i. Bhadrak Municipality ii. Basudevpur Municipality iii. Dhamnagar NAC iv. Chandbali NAC v. All Grampanchayat	March, 2023

### 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	01
Name of towns/cities which are failing to comply with national ambient air quality stations	NIL
No of air pollution industries	43Nos
Prominent air polluting sources [Large Industry]/[Small Industry]/[UnpavedRoads]/[BurningofWasteStubble]/[BrickKiln]/[IndustrialEstate]/[Others](Multiple selection)	Large Industry: 03 No/SmallIndustry:40 Nos/Industrial Estate-02/Others

**b. Identification of gaps and action plan:**

S. 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.	State Pollution Control Board, Odisha, Balasore	Continuing
		Regular & continuous monitoring of AAQ w.r.t. PM10, PM2.5, SO2, NOx, Ammonia, Ozone etc in Industrial Establishments & Mines.	State Pollution Control Board, Odisha, Balasore	Continuing
		Setting up of information network for identification of Pollution prone Zone	District Administration, Bhadrak DFO Bhadrak State Pollution Control Board, Odisha, Balasore	01 months
2.	Ambient Air quality data	Creation of Public awareness to get Access to SPCB & CPCB server for online Real time Data	State Pollution Control Board, Odisha, Balasore	Continuing
		Installation of Digital Display Board at Traffic square for Local AAQ.	District Administration, Bhadrak State Pollution Control Board, Odisha, Balasore ULBs Authority, Bhadrak	06 months
		Display of Real time AAQ data of Industries at their main gate for Public views	State Pollution Control Board, Odisha, Balasore Industry Authority	Continuing
3	Setting up of Continuous Ambient Air Quality Monitoring Station	Identification of at least one site for installation of OCAAQMS at District Headquarter	District Administration, Bhadrak State Pollution Control Board, Odisha, Balasore	06 months
		Installation of Digital Display Board at Traffic square for display of Local AAQ.	District Administration, Bhadrak State Pollution Control Board, Odisha, Balasore ULBs Authority, Bhadrak	06 months
4.	District Level Action Plan for Air Pollution	Regular inspection & monitoring of air polluting Industries & Mines.	State Pollution Control Board, Odisha, Balasore	Continuing
		Regular & continuous monitoring of AAQ w.r.t. PM10, PM2.5, SO2, NOx, Ammonia, Ozone etc in Industrial establishments Mines.	State Pollution Control Board, Odisha, Balasore	Continuing
		Use of at least 25% energy from renewable sources (Green Energy) in all Government offices, Commercial establishments, Industrial sectors.	District Administration, Bhadrak Energy Department, Bhadrak	06 months



S. Action points No.	Indicative Action Plan	Responsible agency	Timeline for completion of action plan
	Shifting from Petrol/Diesel driven vehicles to Electric operated vehicles (At least 50%) in Government, Private sectors & individual levels.	District Administration, Bhadrak Road Transport Office, Bhadrak	06months  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, Bhadrak Road Transport Office, Bhadrak	So far as the RTO, Bhadrak is concerned, 207 nos of Electric Vehicles have been registered w.e.f.01.01.2021 to 30.12.2022. Similarly 69nos. of Pollution Testing centers are being operated to check fuel norms and issue of Pollution Certificate in this district. During enforcement checking 1881nos. of e-challans have been issued during current financial year upto 15.11.2022 against the vehicle owners for nonproduction of Pollution Certificate and fine also realized

District Environmental Plan of Bhadrak District, Odisha

S. No.	Action points	Indicative Action Plan	Responsible agency	Timeline for completion of action plan
		Identification, Development & Protection of at least 35% thick Forest area/Plantation Zone in each ULBs/Block/GP of the District.	District Administration, Bhadrak District Forest Office, Bhadrak	12months
		Ensure Dust control in project construction sites	EE, PWD Department, Bhadrak EE, Rural Works Department, Bhadrak Contractors of the Project	6month
		Strict enforcement of restriction on open burning of Garbage, Plastic wastes, Forest Fire. Waste stubbles & imposition of heavy penalty (Environmental compensation).	District Administration, Bhadrak District Forest Department, Bhadrak ULBs & GP authorities State Pollution Control Board, Odisha, Balasore Agriculture Department, Bhadrak	02month
		All ULBs & GP Roads to be maintained dust free.	ULBs & GP authorities	03months
5.	Hotspots of air pollution in District	Close watch on stubble burning, illegal waste burning, unauthorized operations, cluster activities, forest fires etc	District Administration, Bhadrak District Forest Office, Bhadrak State Pollution Control Board, Odisha, Bhadrak ULBs Authority, Bhadrak	Continuing
		Strict enforcement of restriction on open burning of Garbage, Plastic wastes, Forest Fire. Waste stubbles & imposition of heavy penalty (Environmental compensation).	District Administration, Bhadrak District Forest Office, Bhadrak State Pollution Control Board, Odisha, Bhadrak ULBs Authority, Bhadrak	02month
	Awareness on Air Quality	Installation of Digital Display Board at Traffic square for display of Local AAQ.	District Administration, Bhadrak State Pollution Control Board, Odisha, Balasore ULBs Authority, Bhadrak	06months
		Receive of Public complaint through Email.	State Pollution Control Board, Odisha, Balasore	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	1. Baitarani river (10km.in Bhadrk District) 2.Salandi river (88 km.in Bhadrak District) 3. Mantei river (60km.in Bhadrak District) 4.Dhamara river (17km.in Bhadrak District) 5.Kapali river (8km.in Bhadrak District) 6.Genguti river (51km.in Bhadrak District) 7.Kochila river (12km.in Bhadrak District)
Length of Coastline (if any)	50KM
Nalas/Drains/Creeks meeting Rivers	12nos Nala in Baitarani river & 23nos of nalas in Mantei river
Lakes/Ponds	[Water bodies: 270 Nos] and [Area in Hectares :11537]
Total Quantity of sewage from towns and cities in District	Town-[Not observed]
Quantity of industrial waste water	1.98MLD
Percentage of untreated sewage	Not observed
Details of bore wells and number of permissions given for extraction of ground water	Bore Wells-86nos
Ground water polluted areas if any	Not observed
Polluted river stretches if any	Not reported

## b. Identification of gap sand action plan for water quality monitoring:

S. 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 waterbodies yet to be done	Water Resources Department, Bhadrak State Pollution Control Board, Odisha, Balasore	Continuing
		Formation of District level Environment Monitoring Cell	District Administration, Bhadrak DFO, Bhadrak State Pollution Control Board, Odisha, Balasore	Continuing
		Regular monitoring of water quality Of water bodies	State Pollution Control Board, Odisha, Balasore	01months
2.	Quality of water bodies in the district	Periodic check of water quality of major water bodies &Groundwater Based on their specific use.	State Pollution Control Board, Odisha, Balasore	03months
3.	Hotspots of contaminant	water Identification of pollution prone waterbodies& Ground water	Water Resource Department, Bhadrak  State Pollution Control Board, Odisha, Balasore	06months

District Environmental Plan of Bhadrak District, Odisha

S. No.	Action Points	Gaps and Action Plan	Responsible agency	Timeline for completion of Action plan
		Monitoring of water quality on Regular interval.	State Pollution Control Board, Odisha, Balasore	06months
		Restriction of use of Chemical Fertilizer, Pesticides, Herbicides etc in Agriculture & Horticulture switch over to Bio Fertilizer, Biopesticides etc..	District Administration, Bhadrak & District Forest Office, Bhadrak Agricultural Department, Bhadrak Horticulture Department, Bhadrak Soil Conservation Office, Bhadrak	06months
		Preparation of remedial measures	Water Resource Department, Bhadrak State Pollution Control Board, Odisha, Balasore	
4	Protection of river/lake waterfront	Identification of areas of open defecation	ULBs authorities Authorities of GPs	06months
		Campaign against open defecation & Provision of community Toilets wherever required.	NGOs ULBs & GPs authorities	06months
		Construction & maintenance of Immersion Ponds at strategic locations near Waterbodies.	District Administration, Bhadrak ULBs & GPs authorities.	03months
		Free from encroachment of water bodies	District Administration, Bhadrak Water Resource Department, Bhadrak ULBs & GPs authorities.	06months
		Strict enforcement of Solid Waste Management Rules, Shifting & reclamation of Legacy dumping sites from River banks, Lakes, Imposition of Heavy penalty for any Dumping of SW in water bodies (Environmental compensation)	District Administration, Bhadrak State Pollution Control Board, Odisha, Balasore ULBs & GPs authorities.	06months
		Preparation of self-sustainable River/Lakefront Development Plan (Bathing Ghats, Joggers Park, Restaurants provision, Water sports, Lighting along River Banks, Aquacultures to support Livelihoods of locals etc)	District Administration, Bhadrak Water Resource Department, Bhadrak ULBs & GPs authority.	06months
5.	Inventory of sources of water pollution	Identification of Drains, Lines out falls in waterbodies	Sewer Water Resource Department, Bhadrak State Pollution Control Board, Odisha, Balasore ULBs & GPs authority	06months
		Identification of Solid wastes Disposal area in & around Waterbodies	State Pollution Control Board, Odisha, Balasore ULBs & GPs authority	06months
		Identification & quantitative assessment of areas & type of Chemical Fertilizers, Pesticides & Herbicides being used in the District.	Agricultural Department, Bhadrak & Horticulture Department, Bhadrak	02months
		Preparation of remedial measures	District Administration,	06months



S. No.	Action Points	Gaps and Action Plan	Responsible agency	Timeline for completion of Action plan
			Bhadrak State Pollution Control Board, Odisha, Balasore Reputed Institutions/Agencies	
6	Oil spill disaster management (for coastal districts)	Creation of District Oil Spill Crisis Management Group & District Oil Spill Disaster Contingency for the District	District Administration, Bhadrak	06 Months
7	Protection of flood plains.	Regulation for protection of Flood Plain	District Administration, Bhadrak Water Resource Department, Bhadrak ULBs & GPs authority	06months
		Identification of encroachment areas & initiation to prevent encroachment.	District administration, Bhadrak Water Resource Department, Bhadrak ULBs & GPs authority	06months
8	Rejuvenation of ground water	Identification & mapping of Ground Water status of Bhadrak District (Critical Zone, Safe Zone etc)	District Administration, Bhadrak Water Resources Department, /Central Ground Water Authority, Bhubaneswar/Lift Irrigation Department, Bhadrak ULBs & GPs authority	06months
		Identification of vulnerable areas of over exploitation of Ground water	Water Resources Department, Bhadrak /Central Ground Water Authority, Bhubaneswar/Lift Irrigation Department, Bhadrak	03months
		Periodical Monitoring of Ground Water quality.	State Pollution Control Board, Odisha, Balasore Central Ground Water Authority, Bhubaneswar	Continuing
		Preparation of masterplan 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 Households. Assessments of Groundwater withdrawal for Industrial/Agricultural/Domestic purposes & obtain of NOC from CGWA/WR Department in case water draw exceed 10m <sup>3</sup> /Day (Except Exemption list).	ULBs/GPs/Area Development Authorities.  Central Ground Water Board/WR Department	
9	Complaints redressal system.	Availability of Public complaints Redressal systems i.e. Email, Public complaint Box etc	District Administration, Bhadrak State Pollution Control Board, Odisha, Bhadrak	Continuing
		Development of App.	District Administration, Bhadrak	06months

## 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	04
No of ULBs having partial underground sewerage network	NIL
No of towns not having sewerage network	04
Total Quantity of Sewage generated in District from Class II cities and above	NIL
Quantity of treated sewage flowing into Rivers (directly or indirectly)	0.05MLD
Quantity of untreated or partially treated sewage (directly or indirectly)	NIL
Quantity of sewage flowing into lakes	NIL
Total available Treatment Capacity	NIL

### 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, Semiurban Towns (Block Headquarters) etc & preparation of feasibility report for setting up Of STPs based on Decentralized concept.	District Administration, Bhadrak of Block Authority of ULBs/GPs/Development Agencies	06months
		Individual STPs for Apartments, Hospitals (more than 30beds), Institutions, Industrial Townships etc.	District Administration, Bhadrak State Pollution Control Board, Odisha, Balasore of Authority of ULBs /GPs/ Development Agencies	06months
2	Under ground sewerage network	Laying of sewerage system for each STP	Housing & Urban Department, Odisha Authority of ULBs	12months
		Installation & commissioning of STP	Housing & Urban Department, Odisha Authority of ULBs Odisha Water Supply & Sewerage Board.	12months



## 5.0 INDUSTRIAL WASTE WATER MANAGEMENT

### a. Current Status related to Industrial Waste water Management

Number of Red, Orange, Green and White industries in the district	Red: 18nos, Orange: 104nos., Green: 75nos., White: Not available
No of Industries discharging wastewater	44 Nos
Total Quantity of industrial waste water generated	1.98MLD, approx
Quantity of treated industrial waste water discharged into Nalas/Rivers	0.05MLD
Common Effluent Treatment Facilities	Nil
No of Industries meeting Standards	44 Nos.
No of Industries not meeting discharge Standards	Nil

### b. Identification of gaps and action plan for industrial waste water:

Sl no	Action Points	Gaps and Action Plan	Responsible agency	Timeline completion action plan	for of
1	Compliance to discharge norms by Industries	Inspection & Monitoring of discharge effluent quality on Regular basis	State Pollution Control Board, Odisha, Balasore	Continuing	
		Installation of online Effluent Quality Monitoring Systems (OEQMS) with Real Time Data Transmission facilities to SPCB/CPCB server for Large Industries	State Pollution Control Board, Odisha, Balasore	Continuing	
2	Complaint redressal system	Availability of Public complaints Redressal systems i.e. Email, Public complaint Box etc	District Administration, Bhadrak  State Pollution Control Board, Odisha, Balasore	Continuing	
		Development of App.	District Administration, Bhadrak	06months	

## 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	Most of the mining activity in the district is only restricted minor minerals i.e sand and brick clays. Altogether there are leases have been granted to the district is regulated as per minerals concession Rules of Odisha. No mineral in large quantity which can be explored in commercial purpose found in the District.
No of licensed Mining operations in the District	Sand Mining river bed-30nos.
% Area covered undermining in the district	2%
Area of Sand Mining	--
Area of sand Mining (River Bed)	53Sqkm Riverbed

## b. Identification of gaps and action plan:

Sl no	Action Points	Gaps and Action Plan	Responsible agency	Timeline completion	for of action plan
1.	Monitoring of Mining activity	Constitution of District Level Task Force. Identification of river bed where there are chances for sand mining.	District Administration, Bhadrak/ State Pollution Control Board, Odisha, Balasore /Mining Department, Bhadrak/Police Department, Bhadrak	01month	
		Installation of online Effluent Quality Monitoring Systems (OEQMS) with Real Time Data Transmission facilities to SPCB/CPCB server for Large Industries	State Pollution Control Board, Odisha, Balasore	As & when Industry shall be fully operational.	
2	Inventory of illegal mining if Any mining	Surveillance & Patrolling.	District Level Task Force, Bhadrak	01month	
		Use of GPS for Transportation of minerals.	District Administration, Bhadrak Mining Department, Bhadrak	06months	
3	Environment compliance by Mining industry	Inspection & Monitoring of Mines on Periodic basis	District Administration, Bhadrak  State Pollution Control Board, Odisha, Balasore	Continuing	



## 7.0

## NOISE POLLUTION MANAGEMENT PLAN

*a. Current Status related to Noise Pollution Management*

Details of Data Requirement	Measurable Out come
No. of noise measuring devices available with various agencies in district	[SPCB, Odisha, Balasore, Police Dept. Bhadrak] [1+]

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

## 8.0

## WET LAND MANAGEMENT PLAN

The total geographical area of Bhadrak district is 2505sq. km. with about 3per cent area under wetlands. The wetland area is estimated to be 19017ha. The mapped wetlands include 370 of the size > 2.25 ha and 2038ha that area < 2.25 ha which have been shown as point features. Major wetland categories are River/Stream 4989ha comparing of about 26% followed by Aquaculture Pond, Intertidal Mudflats and Mangroves. The small wetland (<2.25) have significant contribution in terms their extent. The extent of open water was estimated to be 9886 ha in post-monsoon and has not any significant seasonal reduction. Aquatic vegetation accounted for a small percent of the wetland area and remained unchanged in both the seasons. Turbidity predominantly moderate in post-monsoon (9589 ha) as well as in pre-monsoon (8124 ha). Marginal extent (27 ha) was observed under high turbidity in post-monsoon without any low turbidity rating. On the other hand pre-monsoon season has not shown high turbidity and instead comprised low turbid area of 1589 ha.


*a. Current Status related to Wetland Management Plan*


Details of Data Requirement		Measurable Out come	
No. of Wetland and its extent		No-2408Area= 19017 in Ha.	
Sr. No.	Wetland Category	No. of wetlands	Total wetland area (in Ha)
<b>Inland Wetlands-Natural</b>			
1	Ox-bow lakes / Cut-off meanders	03	30
2	Riverine Wetlands	02	22
3	Waterlogged*	35	278
4	River/Stream	48	4989
<b>Inland Wetlands-Man-made</b>			
5	Reservoirs/Barrages	--	--
6	Tanks/Ponds	11	51
7	Waterlogged	01	72
<b>Total- Inlands</b>		<b>100</b>	<b>5442</b>
<b>Coastal Wetlands Naturals</b>			
1	Lagoons	--	--
2	Sand/ Beach	03	114
3	Mangroves	19	2945
<b>Coastal Wetlands- Man-made</b>			
1	Salt pans	--	--
2	Aquaculture ponds	237	4599
<b>Total- Coastal</b>		<b>270</b>	<b>11537</b>
<b>Sub-Total</b>		<b>370</b>	<b>16979</b>
Wetlands(<2.25ha)		2038	2038
<b>Grand Total</b>		<b>2408</b>	<b>19017</b>



*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	6months
	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	12months
	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	06 months
	Preventing siltation	Almost all wetland silted up over the Years and water bearing capacity got	Water resource department	Occasional
		reduced. De-siltation of the water bodies. Impose penalty clause on disposal of waste into wetland		
	Demarcation of flood protection zone	of Any such demarcation is yet not been done. Special initiative/study require For such demarcation.	Water resource department	Onetime
	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)	1year

  
 Member Convenor-Cum-DFO,  
 Bhadrak Wildlife Division.

  
 Chairman-Cum-Collector & DM,  
 Bhadrak District