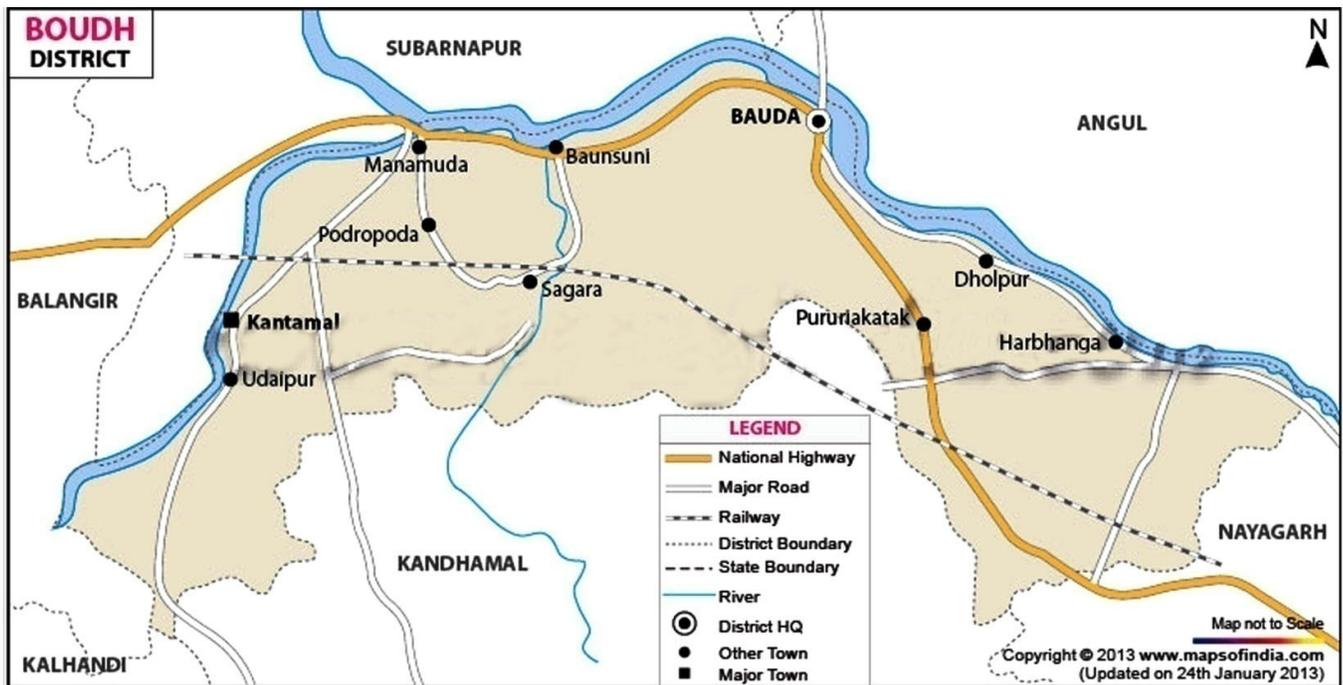


# DISTRICT ENVIRONMENT PLAN FOR BOUDH DISTRICT ODISHA



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BOUDH DISTRICT  
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## **TABLE OF CONTENTS**

### **1.0 District Profile**

<b>(A) District Administrative Set-Up .....</b>	<b>6</b>
<b>(B) Local Institutions .....</b>	<b>8</b>
<b>(C) Natural Resources .....</b>	<b>8</b>
<b>(D) Geographic &amp; Demography .....</b>	<b>10</b>
<b>(E) Land Use Pattern .....</b>	<b>11</b>
<b>(F) Climate .....</b>	<b>12</b>

### **2.0 Indicative Gap Analysis & Action Plan For Complying With Waste Management Rules**

<b>(I) Solid Waste Management .....</b>	<b>13</b>
<b>(II) Plastic Waste Management .....</b>	<b>17</b>
<b>(III) C &amp; D Waste Management .....</b>	<b>19</b>
<b>(IV) Biomedical Waste Management .....</b>	<b>22</b>
<b>(V) Hazardous Waste Management .....</b>	<b>24</b>
<b>(Vi) E-Waste Management .....</b>	<b>25</b>

### **3.0 Air Quality Management..... 27**

### **4.0 Water Quality Management**

<b>4.1 Water Quality Monitoring .....</b>	<b>28</b>
<b>4.2 Domestic Sewage .....</b>	<b>31</b>

### **5.0 Industrial Waste Water Management..... 32**

### **6.0 Mining Activity Management Plan ..... 33**

### **7.0 Noise Pollution Management Plan ..... 34**

### **8. Wetland Management Plan ..... 35**

## **1.0 District Profile**

### **➤ Name of the district and historic importance, when founded, etc.**

The discovery of Buddhist artifacts from Boudh has led historians to believe that Boudh was an important center of Buddhism. There exist inscriptions which indicate that in the middle of the 8th century A D Boudh region was a part of Khinjali Mandala and it was under the rule of the Bhanja rulers. The earliest known ruler of this Bhanja dynasty was Nettabhanja who was the independent ruler of the Dhenkanal region. But his successors migrated towards Boudh-Sonepur region and founded Khinjali Mandala. They ruled there as the feudatory of the Bhauma-Karas of Tosali. The name Khinjali Mandala appears for first time in Sonepur Copper Plate grant of Satrubhanja Dev. Satrubhanja Dev was son of Silabhanja Dev and this indicates that Silabhanja Dev founded the Bhanja dynasty at Khinjali Mandala. Dhirtipura was the capital of Khinjali Mandala; this has been identified to be present day Boudh town. Janmejaya I (also known as Mahabhabagupta), the Somavamsi ruler of South Kosala defeated and killed Ranabhanja Dev, son of Satrubhanja Dev, a ruler of Bhanja family. The Bhanja's were forced out of the Boudh region and renamed it to Odra Desa. Yayati I was the son Janmejaya I and succeeded him in the throne. He established his capital in Odra-desa at a place called Yayatinagara. This has been identified to be the present-day town of Jagati in Boudh District. Boudh was a very powerful kingdom during the first half of the 17th century AD.

Boudh became a sub-division of the newly created District of Boudh-Kondhamal. On 2<sup>nd</sup> January 1994 it became district headquarters of a separate district called Boudh that was carved out of the Boudh Kandhamal district. Present District of Boudh is constituted with 1 Sub-Division, 3 Blocks & 3 Tehsils.

### **➤ Size of district and its rank in State**

With an area of 3098 Km<sup>2</sup> Boudh District shares 1.989% of the Odisha's geographical area and stands as 22<sup>nd</sup> largest District.

➤ **Geographical Position**

This district lies between 20° 02' 2.33" to 20° 05' 0'33" North Latitude and 83° 03' 4.20" to 84° 04' 9.44" East Longitude in the heart of the state.

➤ **Name of the regions & Forest Coverage**

The district can broadly be segregated into two distinct physical parts; the plain region in the north and the highlands in the south. Between the high mountain ranges of the Harabhanga in the south and the river Mahanadi in the north forming the northern boundary of the district, lie the fertile plains of Boudh. The district consists of a long strip of plain land running parallel to the river Mahanadi with gradual undulating rises to the hill ranges towards Kondhamal. The hills on the southern border and the district along their foot are thickly vegetated with forests cover.

<b>Forest Coverage in Km<sup>2</sup></b>							
<b>Total Geographical Area</b>	<b>Very Dense Forest</b>	<b>Moderates Dense Forest</b>	<b>Open Forest</b>	<b>Total</b>	<b>Percentage of GA</b>	<b>Change</b>	<b>Scrub</b>
3098	262.87	562.45	467.85	1293.17	41.74	2.23	57.73
<b>ISFR 2021</b>							

<b>Reserved Forest</b>			
<b>Name of the Range</b>	<b>Sl. No.</b>	<b>Name of the Forest Block</b>	<b>Area (in ha)</b>
<b>Boudh</b>	1	Bankamundi	4649.00
	2	Damargarh	150.00
	3	Goudadei	1015.00
	4	Jamukhol	3971.00
	5	Nagarjuna	851.00
	6	Putuna	1451.00
	7	Subarnagiri	2457.50
<b>Kantamal</b>	8	Andharipat	7.00
	9	Badadanda	923.00
	10	Baghad 'A'	8.00
	11	Baghad 'B'	3.00
	12	Dapala	7.00
	13	Gambharipadar	4.00
	14	Kirla	25.00

**District Environment Plan Boudh District**

	<b>Sl. No.</b>	<b>Name of the Forest Block</b>	<b>Area (in ha)</b>
	15	Lukapada	1.00
		Matakupa	3681.50
	16	Padhel	4460.00
		Penajore	3023.00
	17	Putputigarh	3624.00
	18	Rengali	396.00
	19	Sanadanda	475.00
	20	Sirmal 'A'	25.00
	21	Sirmal 'B'	1.00
	22	Sulia	321.00
	23	Sunadei	755.00
	24	Udeipur	40.00
<b>Madhapur</b>		Hatidhara	6277.50
		Karadakutha	730.50
<b>Manamunda</b>		Mundeswar	9620.00
	25	Podhal	7004.00
	26	Bahawalkhol	1539.00
	27	Bramhani	77.00
	28	Dhingiapadar	6.00
	29	Kankali	207.00
	30	Mankadakhesa	69.00
	31	Matakupa	3451.50
	32	Panchara	2409.00
	33	Penajore	2323.00
		Putuna	298.00
	34	Ravaneswar	498.00
	35	Sindurbhadi	1043.00
		Subarnagiri	7357.50
<b>Purunakatak</b>	36	Aragarh	4355.00
	37	Arakhapadar	1907.00
	38	Hatidhara	149.50
	39	Jajpur	2906.00
	40	Karadakutha	107.50
	41	Mundeswar	6421.00
	42	Parapit	1397.00

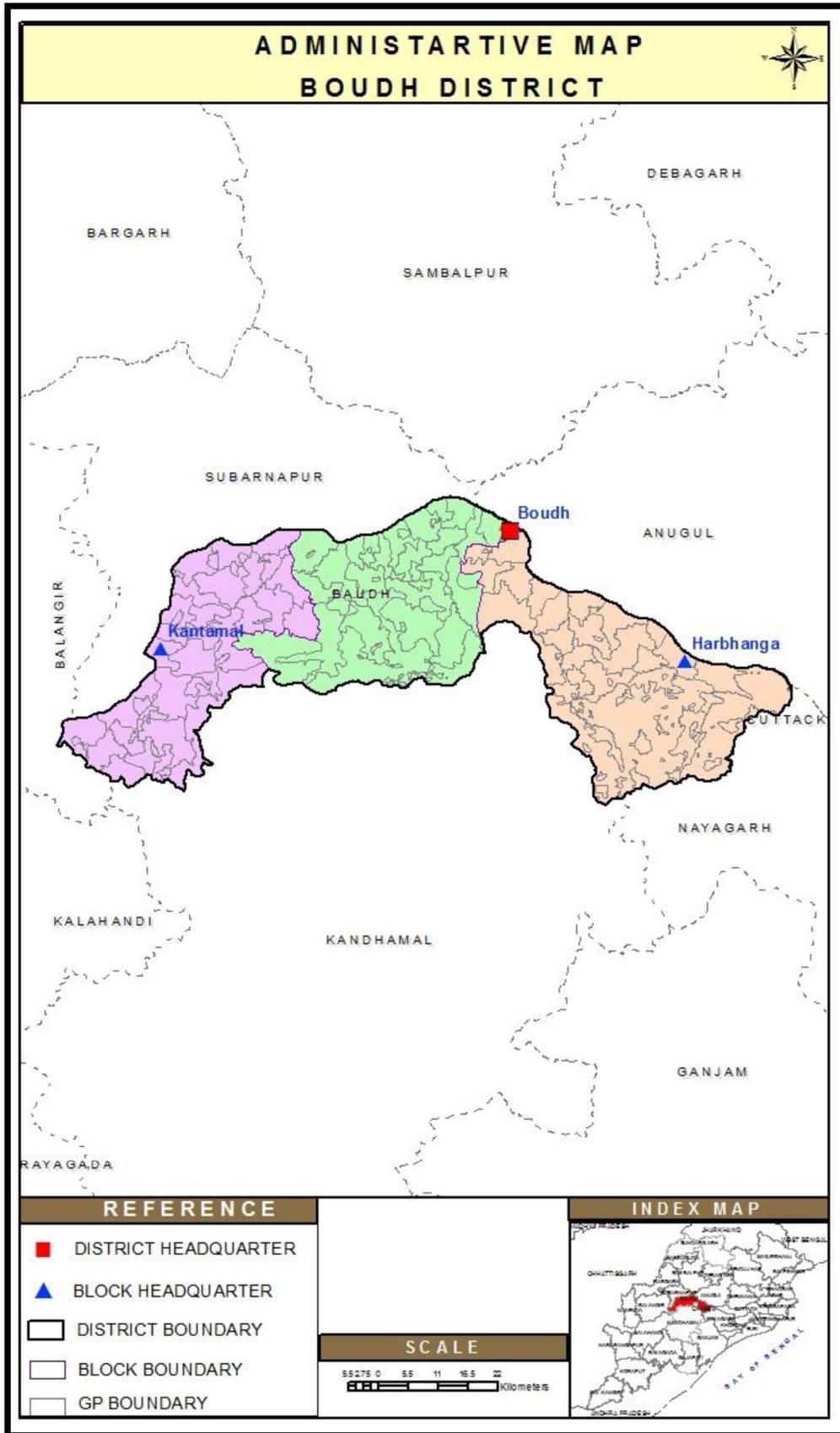
<b>Proposed Reserved Forests</b>				
<b>Sl. No.</b>	<b>Name of the Range</b>	<b>Name of the PRF</b>	<b>Area in Ha.</b>	<b>Total Range area in Ha.</b>
<b>1</b>	Madhapur	Podhal	179.91	<b>604.20</b>
<b>2</b>		Mundeswar	424.29	
<b>3</b>	Kantamal	Palvata	585.42	<b>1628.16</b>
<b>4</b>		Andharipat	125.50	
<b>5</b>		Budhimal	917.24	
<b>6</b>	Manamunda	Khajurisukha	242.75	<b>242.75</b>

➤ **District boundaries**

The district is encircled by River Mahanadi & Angul District in the north, Kondhamal District in the south, Nayagarh District in the east and River Tel & Subarnapur District in the west.

**a. District Administrative Set-up**

<b>Content of the Admin set-up</b>	<b>Numbers</b>
Subdivisions	01
Tehsils	03
Blocks	03
ULBs	01
Gram Panchayats	69
Villages	1182
In habited	1130
Un-inhabited	52
Assembly constituency	02
Police Stations	06
Fire stations	04
Dist. Hqrs. Hospitals	01
PHCs	12
CHCs	05
Mobile Health Unit	2
Anganwadi Centers	717
Normal rainfall (mm)	1564.7
Major Rivers:	Mahanandi, Tel, Salki & Bagh



<b>b. Local Institutions</b>	
No. of Gram Panchayats	69
No. of Villages	1182
No. of Tehsils	3
No. of R.I Circles	22
No. of CHC	5
No. of Public Health Center	12
No. of Primary Health Sub-Center	67
No. of Hoemopathic Dispensary	4
No. of Ayurvedic Dispensary	10

**c. Natural Resources**

**• Water bodies**

The river Mahanadi played an important role for the development of pre-historic culture of this region. The river originates from the Amarakantaka plains of Madhya Pradesh and flows downwards in a South-East direction sharing 108 Kms length. The Bagh originates in the hills near Bandhagarh of the Phulabani hill tract and falls into the Mahanadi flowing about 64 Kms with in this district. The Salki originates in the Baliguda sub-division of Phulbani district and confluences with the river Mahanadi near Balasingha. Besides these rivers , fountains and small streams like the Meheruni, Ramjal, Atharnala, Digi shares their contribution to this district since pre-historic era.

<b>Name of the River</b>	<b>River Gauge Location</b>	<b>Zero Level</b>	<b>Warning Level</b>	<b>Danger Level</b>
Mahanadi	Near Irrigation I.B	81.05 M	86.80 M	87.80 M

**• Availability of water resources**

<b>Sl. No.</b>	<b>Name of the Reservoir</b>	<b>FRL in Mtr</b>	<b>Live Storage Capacity (Ham)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1	Bakapali MIP	98.75	12.36
2	Bhaliapadar MIP	101.50	8.62
3	Bijapadar-Bhuktapada MIP	104.50	28.50
4	Bijapadar MIP	134.00	18.63
5	Dumduma MIP	98.10	40.36

**District Environment Plan Boudh District**

<b>Sl. No.</b>	<b>Name of the Reservoir</b>	<b>FRL in Mtr</b>	<b>Live Storage Capacity (Ham)</b>
6	Hatimunda MIP	98.15	28.98
7	Khairmal MIP	150.00	6.21
8	Kuaghar MIP	153.50	9.21
9	Rajamunda MIP	149.80	15.75
10	Ranisagar MIP	153.75	15.81
11	Ratanpur MIP	98.00	75.00
12	Baragochha MIP	98.75	126.50
13	Goipitha MIP	117.30	35.00
14	Gudvelipadar MIP	100.40	16.10
15	Jamulapadar MIP	100.00	144.90
16	Jogendrapur MIP	111.50	20.70
17	Karlajhuli MIP	100.00	12.07
18	Padarpada MIP	100.00	51.75
19	Panchukipathar MIP	98.30	35.93
20	Para MIP	98.50	25.15
21	Penajore MIP	151.75	144.90
22	Rajabandha MIP	99.00	20.12
23	Sadanandapur MIP	100.00	25.15
24	Deuladunguri MIP	98.00	23.36
25	Gunchitora MIP	100.00	13.80
26	Kantamal MIP	119.78	13.80
27	Kultajore MIP	99.30	13.00
28	Lakhparbat MIP	168.60	95.00
29	Lusing MIP	98.00	11.50
30	Narayanaprasad MIP	188.70	39.74
31	Nuapali MIP	138.50	57.50
32	Parhel MIP	180.36	96.00
33	Similijore MIP	119.30	28.75
34	Sirimal MIP	98.50	22.42
35	Tabada MIP	100.00	17.25
36	Udaypur MIP	99.00	13.00
37	Uma MIP	99.50	57.50
38	Badabandha MIP	98.70	36.80
39	Bharatpur MIP	99.22	12.42
40	Bishnupur MIP	98.50	9.89
41	Burubuda MIP	98.50	23.00
42	Domkutch MIP	624.50	110.00
43	Hariharapur	100.00	10.50
44	Kelakata MIP	100.00	28.75

## District Environment Plan Boudh District

Sl. No.	Name of the Reservoir	FRL in Mtr	Live Storage Capacity (Ham)
45	Kumkudi MIP	106.50	101.00
46	Kusasinga MIP	115.00	10.50
47	Laigaon MIP	123.75	132.00
48	Mahatab-Jalabhandar MIP	101.00	57.50
49	Palsakutni MIP	165.50	62.10
50	Pipalkata MIP	102.50	30.50
51	Raipur MIP	100.90	25.88
52	Sankulei MIP	115.00	27.60
53	Tavapadar MIP	100.50	10.35

- **Forest Coverage in Km<sup>2</sup>**

Total Geographical Area	Very Dense Forest	Moderates Dense Forest	Open Forest	Total	% of GA	Change	Scrub
3098	262.87	562.45	467.85	1293.17	41.74	2.23	57.73

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### d. Geography & Demography

Major land of Boudh district is under gross crop area i.e., 1,36,000 hectores (as per Statistical records 2012) and forest area covers 94,952.11 hectores.

Population density of the district and decadal growth of population in last decade (from the year 2001-2011), there has been 18.16% in comparison to 2001 Census i.e. 121 persons per Km<sup>2</sup> in 2001 against 142 person per Km<sup>2</sup> in 2011.

**e. Land Use Pattern**

<b>Households</b>		
Total No. of Families / HH	Category	
106961	Rural	Urban
	102402	4559
<b>Populations (As per 2011 Census)</b>		
Total Population	Category	
441162	Rural	Urban
	420738	20424
<b>Sex Ratio</b>		
No. of Female per 1000 Males	991	
<b>Literacy Rate</b>		
Total	Male	Female
71.61	83.34	59.79
<b>Land-use pattern</b>		
Geographical Area	3098 Km2	
Area under Forest	1293.17 Km2	
Net Area Sown	85180 Ha.	
Cropped Area	85180 Ha.	
Area Irrigated	52959 Ha.	
Percentage of Net Area Irrigated to Total Area Sown	62.17 %	

**f. Climate**

The climatic condition of Boudh is much varied. The district comes under the ambit of Western Central Table Land characterized by hot and moist sub-humid climate. It experiences four main seasons. The summer is from March to Mid-June is too hot , the period from Mid-June to September is the Rainy season, October and November constitute the post monsoon season and winter is from December to February. The best time to visit this district is during winter.

There exists a meteorological observatory in the district. The data of this observatory may be taken as representative of the meteorological condition of the whole district. The month of May as the hottest month reach to a daily maximum temperature of 44 degree Celsius. In association with the passage of western disturbances across north India during winter months, short spells of cold occur and the temperature drops down to 10<sup>0</sup>Celsius.

The average annual rainfall of the district is 1510.33 mm. However, with the advent of climate change it experiences varied rainfall from year to year.

## 2.0 Indicative Gap Analysis and Action Plans for complying with Waste Management Rules

### (i) Solid Waste Management

#### a. Current status related to solid Waste management

Sl. No.	Urban Local bodies	No of Wards	No of Households	Population	Solid Waste Generated per day
1	Municipal corporations (Nagar Nigam or Mahanagar Palika)	NA	NA	NA	NA
2	Municipalities (Nagar Palikas)	NA	NA	NA	NA
3	Nagar panchayats (Town area Councils)	17	4579	20435	6 TPD (As per quantification report)

	Local Bodies	No of Village panchayats/ Blocks	No. of Households	Population	Solid Waste Generated per day
1	Block /Taluk / Mandal Tehsils	3 Blocks	-----	-----	-----
2	Village/Gram Panchayats	1182 Villages/ 69 G.Ps	102402	420738	NA

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

Sl. No.	Action points For villages / blocks/ town	Identification of gap	Action Plan	Responsible agencies	Timeline for completion of action plan
1.	<b>Segregation</b>				
(i)	Segregation of waste at source	Segregation of waste at sources is to be taken up.	NA	NAC, Boudhgarh	NA

## District Environment Plan Boudh District

Sl. No.	Action points For villages / blocks/ town	Identification of gap	Action Plan	Responsible agencies	Timeline for completion of action plan
<b>2</b>	<b>Sweeping</b>				
<b>(i)</b>	Manual Sweeping	All main road, wards, streets, etc. Are being swept everyday manually.	All manually sweeping tools are available at NAC, Boudhgarh. All types of PPEs available.	M. Power Agency Bhubaneswar through providing sanitary workers and sanitary in charger sanitary jamdar	NA
<b>(ii)</b>	Mechanical Road Sweeping & Collection	NA	NA	NA	NA
<b>3</b>	<b>Waste Collection</b>				
<b>(i)</b>	100% collection of solid waste	Already D2D collection is going on.	NA	Mission Shakti groups (SwachhaSathi, SwachhaKarmi) member D2D collection in all 17 wards. (M.Power Agency, Bhubaneswar)	NA
<b>(ii)</b>	Arrangement for door-to-door collection	All 17 wards have door to door collection facility.	NA	NAC, Boudhgarh	NA
<b>(iii)</b>	Waste Collection trolleys with separate compartments	Yes, separate compartments are available. We need more LCV/ BOVs.	NA	NAC, Boudhgarh	NA
<b>(iv)</b>	Mini Collection Trucks with separate compartments	NA	NA	NA	NA
<b>(v)</b>	Waste Deposition centres (for domestic hazardous wastes)	1 no. of deposition center available at. Ward No. 7 Wealth Center.	NA	M. Power Agency, Bhubaneswar	NA

## District Environment Plan Boudh District

Sl. No.	Action points For villages / blocks/ town	Identification of gap	Action Plan	Responsible agencies	Timeline for completion of action plan
<b>4.</b>	<b>Waste Transport</b>				
<b>(i)</b>	Review existing infrastructure for waste Transport.	3 tractors, Bov 8 nos., 1 no. Tata Ace, 10 nos. tricycles.	NA	SHG (Swachha Karmi) members D2D collection &M. Power Agency, Bhubaneswar	NA
<b>(ii)</b>	Bulk Waste Trucks	NA	NA	NA	NA
<b>(iii)</b>	Waste Transfer points	NA	NA	NA	NA
<b>5</b>	<b>Waste Treatment and Disposal</b>				
<b>(i)</b>	Wet-waste Management: On-site composting by bulk waste generators (Authority may decide on requirement a s per Rules)	1 no. Bulk generator identified.	NA	NAC, Boudhgarh	NA
<b>(ii)</b>	Wet-waste Management: Facility(ies) for central Biomethanation / Composting of wets waste.	1 no. MCC center is available and its functional.	NA	NAC, Boudhgarh	NA
<b>(iii)</b>	Dry-Waste Management: Material Recovery for dry-waste fraction	1 no. of MRF center is available and its functional. And non recycleable waste sent to cement factory ACC, Bargarh	NA	NAC, Boudhgarh	NA

## District Environment Plan Boudh District

Sl. No.	Action points For villages / blocks/ town	Identification of gap	Action Plan	Responsible agencies	Timeline for completion of action plan
<b>(iv)</b>	Disposal of inert and nonrecyclable wastes: Sanitary Landfill	<ul style="list-style-type: none"> <li>• No proper sanitary land fill sites exist.</li> <li>• Parts of SW still being disposed of by open dumping.</li> </ul>	NA	NAC, Boudhgarh	NA
<b>(v)</b>	Remediation of historic / legacy dumpsite	<ul style="list-style-type: none"> <li>• No legacy dump sites exist in ULBs.</li> <li>• No remediation of legacy dump sites have been initiated.</li> </ul>	NA	NAC, Boudhgarh	NA
<b>(vi)</b>	Involvement of NGOs	The MSG have been involved.	NA	NAC, Boudhgarh	NA
<b>(vii)</b>	EPR of Producers: Linkage with Producers / Brand Owners	Identification yet to be done	NA	NAC, Boudhgarh	NA
<b>(viii)</b>	Authorisation of Waste Pickers	Yes	List of authorised waste pickers is available	NAC, Boudhgarh	NA
<b>(ix)</b>	Preparation of own by-laws to comply with SWM Rules 2016	Yes, Notified & implemented.	NA	NAC, Boudhgarh	NA

**(ii) Plastic waste Management**

**(a) Current status related to Plastic Waste Management**

	Urban Local bodies	Estimated quantity of Plastic Waste Generated per day
1	Municipal corporations (Nagar Nigam or MahanagarPalika)	Not applicable.
2	Municipalities (Nagar Palikas)	Not applicable
3	Nagar panchayats (Town area Councils)	Nearly 0.2 TPD

	Local Bodies	Plastic Waste Generated per day
2	Block /Taluk / Mandal Tehsils	NA
3	Village/Gram Panchayats	NA

**(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	D2D collection is going on everyday by help of Swachha Sathi and Swachha Karmi BOV operator with BOV and LCV	NA	NAC, Boudhgarh, SHG (Swachha Karmi) member D2D collection & M. Power Agency, BBSR	NA
2.	Facilitate organised collection of PW at Waste transfer point or Material Recovery Facility	<ul style="list-style-type: none"> <li>• 1 no. of MRF center is available at NAC, Boudhgarh</li> <li>• NA</li> <li>• Yes, tagged with waste pickers &amp; Kawadi wala</li> <li>• NA</li> <li>• NA</li> </ul>	Identify agencies at local and district level to implement and monitor progress respectively.	NAC, Boudhgarh, SHG (SwachhaKarmi) member D2D collection & M. Power Agency, BBSR	NA

## District Environment Plan Boudh District

Sl. No	Action points For village panchayats/ blocks/ municipalities / corporations	Identification of gap	Action plan	Agencies Responsible	Target time for Compliance
3.	PW collection Centres	1 no. of MRF center available at NA,C, Boudhgarh	<ul style="list-style-type: none"> <li>Plastic waste collection centre should be established in adequate numbers.</li> <li>Coordination with State Urban Department may be necessary.</li> </ul>	NAC, Boudhgarh, SHG (SwachhaKarmi ) member D2D collection & M. Power Agency, BBSR	NA
4.	Awareness and education programs implementation	As per the instruction of Govt. for people's awareness we do mike announcement, wall paintings, rally etc is being conducted regularly.	Education through mass media, schools, Producer/ brand owner campaigns and other channels	SHG Members and ULB official staff	NA
5.	Access to Plastic Waste Disposal Facilities	NAC, Boudhgarh collect PW from D2D and separated at MRF center and ship to the Cement factory for processing and recycleable PW sold to local Kawadiwala.	NA	NAC, Boudhgarh	NA

**(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)	Nearly 0.02 TPD
Does the District has access to C&D waste recycling facility?	NA

**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.	Already collected from all wards.	<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 head quarters.</li> <li>Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/ Vendors/ Market associations.</li> </ul>	NAC, Boudhgarh & M. Power Agency, BBSR (through Jamdar)	NA

**District Environment Plan Boudh District**

Sl. No.	Action points for blocks / town municipalities / City corporations	Identification of Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
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?	Yes, ULBs have been notified about C&D waste and also mentioned about user fee & fine.	<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 head quarters.</li> <li>• Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/ Vendors/ Market associations.</li> </ul>	NAC, Boudhgarh & M. Power Agency, BBSR (through Jamadar)	NA
3.	C&D recycling Facility	For setting up C&D recycling facility in the District or tie-up with any other District or ULB for setting up facilities in Boudhgarh NAC request letter has been send to Tehsildar, Boudh for provision of land.	<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 head quarters.</li> <li>• Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/ Vendors/ Market associations.</li> </ul>	NAC, Boudhgarh & M. Power Agency, BBSR (through Jamadar)	NA

## District Environment Plan Boudh District

Sl. No.	Action points for blocks / town municipalities / City corporations	Identification of Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
4.	Usage of recycled C&D waste in non-structural concrete, paving blocks, lower layers of road pavements, colony and rural roads	Not implemented yet. At present only collocation of C&D is been made and dumped in low land area.	<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 head quarters.</li> <li>• Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/ Vendors/ Market associations.</li> </ul>	NAC, Boudhgarh & M. Power Agency, BBSR (through Jamadar)	NA
5.	ICE on C & D waste management	For people's awareness mike announcement, wall paintings, Leaflet distribution are done regularly by this NAC.	<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 head quarters.</li> <li>• Inclusion of EPR in by laws of ULBs &amp; GPs &amp; also fixing responsibilities on whole sellers/ Vendors/ Market associations.</li> </ul>	NAC, Boudhgarh & M. Power Agency, BBSR (through Jamadar)	NA

**(iv) Biomedical Waste Management**

**a. Current Status related to biomedical waste**

<b>Inventory of BMW in the District</b>	<b>Quantity</b>
Total no. of Bedded Healthcare Facilities	7 Nos. (Govt. 6 Nos. & Private 1 No.)
Total no. of non-bedded HCF	25 Nos.(Health & FW Deptt. 18 Nos. & Veterinary Deptt. 7 Nos.)
No. of HCFs authorised by SPCBs/PCCs	26 Nos. (Health & FW Deptt. 25 Nos. & Veterinary Deptt. 1 No.)
No. of Common Biomedical Waste Treatment and Disposal Facilities (CBWTFs)	1 no. (Veterinary Deptt.)
Capacity of CBWTFs	7.5 Kg./Day (Veterinary Deptt.)
No. of Deep burials for BMW if any	19 Nos.(Health & FW Deptt.)
Quantity of biomedical waste generated per day	20 Kg./day (Health & FW Deptt. 18 Kg./Day & Veterinary Deptt. 2 Kg./Day)
Quantity of biomedical waste treated per day	20 Kg./day (Health & FW Deptt. 18 Kg./Day & Veterinary Deptt. 2 Kg./Day)

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

<b>Sl. No.</b>	<b>Action points</b>	<b>Identification of Gaps</b>	<b>Action Plan</b>	<b>Responsible agency</b>	<b>Timeline for completion of action plan</b>
1.	Inventory and Identification of Healthcare Facilities	Dist. Veterinary Hospital, Boudh has been authorized by SPCB.	PHC (N) M.Os applied for authorization to SPCB	CDM & PHO, Boudh & CDVO, Boudh, SPCB	2021-22
2.	Adequacy of facilities to treat biomedical waste	There is no gap between quantity of BMW generated per day & treated per day	CBWTF or providing access to CBWTF with 75Km from places waste generation is yet to be completed. Managed by Captive disposal facilities by HCF	CDM & PHO, Boudh & CDVO, Boudh	NA

## District Environment Plan Boudh District

Sl. No.	Action points	Identification of Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
3.	Tracking of BMW	No bar code system is implemented by all HCFs and CBWTFs.	Plan for implementation of bar code system by all HCFs and CBWTFs in the district is yet to be completed.	CDM & PHO, Boudh & CDVO, Boudh	NA
4.	Awareness and education of healthcare staff	Training has been organised for all stakeholders.	Awareness & Trainings have been completed for health care staff and ULB officials.	CDM & PHO, Boudh & CDVO, Boudh	NA
5.	Adequacy of funds	Adequate funds have been allocated to Govt. Health care facilities for biomedical waste management by State Govt.	Adequate funds to Govt. health care facilities for bio-medical waste management by State Govt. is ensured.	CDM & PHO, Boudh & CDVO, Boudh	NA
6.	Compliance to Rules by HCFs and CBWTFs	Yes	Compliance of HCFs and CBWTFs through SPCBs/PCCs are being monitored regularly.	CDM & PHO, Boudh & CDVO, Boudh	NA
7.	District Level Monitoring Committee	DLMC have been constituted in 2016. Meetings have been organised.	Teams in health department to monitor compliance are yet to be identified.	CDM & PHO, Boudh & CDVO, Boudh	NA
8.	Wastewater Treatment	DHH, Boudh is required to install ETPs for wastewater generated.	ETP is yet to be installed at DHH, Boudh	CDM & PHO, Boudh & CDVO, Boudh	NA

**(v) Hazardous Waste Management**

**a. Current Status related to Hazardous Waste Management**

<b>Details of Data Requirement</b>	<b>Present Status</b>
No of Industries generating HW	1 No.
Quantity of HW in the district	1 MT/Annum
(i)Quantity of Incinerable HW	Nil
(ii)Quantity of land-fillable HW	Nil
(iii)Quantity of Recyclable / utilizable HW	1 MT/Annum
No of captive/common TSDF	Nil
Contaminated Sites or probable contaminated sites	Nil

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

<b>Sl. No.</b>	<b>Action points</b>	<b>Identification of Gaps</b>	<b>Action Plan</b>	<b>Responsible agency</b>	<b>Timeline for completion of action plan</b>
1.	Regulation of industries and facilities generating Hazardous Waste	All the industries are having authorization under Hazardous Waste Management Rules, 2016 and are in compliance as per the rules.	All hazardous waste industries are authorised and a system of safe disposal is ensured by SPCB.	SPCB	NA
2.	Establishment collection centres	District doesn't have collection centres for hazardous wastes with linkage to common TSDFs / recyclers	Action Plan is to be prepared.	SPCB	NA

## District Environment Plan Boudh District

Sl. No.	Action points	Identification of Gaps	Action Plan	Responsible agency	Timeline for completion of action plan
3.	Training of workers involved in handling / recycling / disposal of HW	All the industries are having authorization under Hazardous Waste Management Rules, 2016 and are in compliance as per the rules.	Action plan to train the workers on safety aspects through Department of Industries as per provisions under HOWM Rules, 2016	SPCB	NA
4.	Availability / Linkage with common TSDF or disposal facility	All the industries are having authorization under Hazardous Waste Management Rules, 2016 and are in compliance as per the rules.	Action Plan is to be prepared.	SPCB	NA
5.	Contaminated Sites	No	Action Plan is to be prepared.	SPCB	NA

### (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	Nearly 0.42MT/Year
Collection centers established by ULBs in the District	1 no.
Collection centers established by Producers or their PROs	Nil
No authorized E-Waste recyclers / Dismantler	NA

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

<b>Sl. No.</b>	<b>Action points</b>	<b>Gaps in implementation</b>	<b>Action Plan</b>	<b>Responsible agency</b>	<b>Timeline for completion of action plan</b>
1	Inventory / Generation of E-Waste / Bulk-waste generators	SPCB/PCC has completed inventory of E-Waste in the District.	Action Plan is to be prepared.	SPCB/ PCC	NA
2	E-Waste collection points	Not applicable as there is no generation of E-waste	Action Plan is to be prepared.	SPCB/ NAC, Boudhgarh	NA.
3	Linkage among Stakeholders to channelize E-Waste	Not applicable as there is no generation of E-waste	Action Plan is to be prepared.	SPCB/ NAC, Boudhgarh	NA.
4	Regulation of Illegal E-Waste recycling / dismantling	Not applicable as there is no generation of E-waste	Action Plan is to be prepared.	SPCB/ NAC, Boudhgarh	NA.
5	Integration of informal sector	Not applicable as there is no generation of E-waste	Action Plan is to be prepared.	SPCB/ NAC, Boudhgarh	NA.
6	Awareness and Education	For people's awareness mike announcement, wall paintings, Leaflet distribution are done regularly by NAC.	Special workshops and awareness campaigns through Producers / PROs are to be planned.	NAC, Boudhgarh	NA

**3.0 Air Quality Management**

**a. Current Status related to Air Quality Management**

<b>Details of Data Requirement</b>	<b>Present Status</b>
Number of Automatic Air Quality monitoring stations in the district. - Operated by SPCB / State Govt / Central govt./ PSU agency : - Operated by Industry:	NIL
Number of manual monitoring States operated by SPCBs	1 No.
Name of towns / cities which are failing to comply with national ambient air quality stations	AAQ conducted in Boudh town every month at Dist. Head Quarter Hospital since January 2020 by SPCB
No of air pollution industries	56 Nos.
Prominent air polluting sources [Large Industry] / [Small Industry] / [Unpaved Roads] / [Burning of Waste Stubble] / [Brick Kiln] / [Industrial Estate] / [Others] (Multiple selection)	Large Industry 16 Nos. & Small Industry 235 Nos.

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

<b>Sl. No.</b>	<b>Action points</b>	<b>Indicative Action Plan</b>	<b>Responsible agency</b>	<b>Timeline for completion of action plan</b>
1.	Identification of prominent air polluting sources?	Action Plan is to be prepared.	SPCB & RTO, Boudh	NA
2.	Ambient Air quality data?	Action Plan is to be prepared.	SPCB & RTO, Boudh	NA
3.	Setting up of Continuous Ambient Air Quality Monitoring Station	AAQ conducted in Boudh town every month at Dist. Head Quarter Hospital since January 2020 by SPCB.	SPCB & RTO, Boudh	NA

## District Environment Plan Boudh District

Sl. No.	Action points	Indicative Action Plan	Responsible agency	Timeline for completion of action plan
4.	District Level Action Plan for Air Pollution	Action Plan is to be prepared.	SPCB, RTO, Boudh & Dist. Administration	NA
5.	Hotspots of air pollution in District	Action Plan is to be prepared.	SPCB, RTO, Boudh & Dist. Administration	NA
6.	Awareness on Air Quality	Action Plan is to be prepared.	SPCB, RTO, Boudh & Dist. Administration	NA

### 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 – 108 Km., Tel 65 Km., Salki 83 Km. & Bagh 78Km.
Length of Coastline (if any)	Nil
Nalas/ Drains/Creeks meeting Rivers	11 Nos.
Lakes / Ponds	Ponds 563 Nos. (57 Ha.)
Total Quantity of sewage from towns and cities in District	NA
Quantity of industrial wastewater	NA
Percentage of untreated sewage	NA
Details of bore wells and number of permissions given for extraction of groundwater	2707 Nos.
Groundwater polluted areas if any	NA
Polluted river stretches if any	NA

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

<b>Sl. No.</b>	<b>Action points</b>	<b>Gaps and Action Plan</b>	<b>Responsible agency</b>	<b>Timeline for completion of action plan</b>
1.	Inventory of water bodies	Detail inventory of each category of water bodies yet to be done.	Department of Water Resources, SPCB, Department of Industry, RWSS, PHD, Lift Irrigation Deptt. Ground Water Department, ULBs, DUDA	NA
2.	Quality of water bodies in the district	Periodic check of water quality of major water bodies & Ground water based on their specific use.	Department of Water Resources, SPCB, Department of Industry, RWSS, PHD, Lift Irrigation Deptt. Ground Water Department, ULBs, DUDA	NA
3.	Hotspots of water contamination	Identification of pollution prone water bodies & Ground water	Department of Water Resources, SPCB, Department of Industry, RWSS, PHD, Lift Irrigation Deptt. Ground Water Department, ULBs, DUDA	NA
4.	Protection of river / lake water front	Campaign against open defecation & Provision of community Toilets is being carried out. Self-sustainable River / Lake front Development Plan (Bathing Ghats, Joggers Park, Restaurants provision, Water sports , Lighting along River Banks, Aqua cultures to support Livelihoods of locals etc) are to be implemented.	Department of Water Resources, SPCB, Department of Industry, RWSS, PHD, Lift Irrigation Deptt. Ground Water Department, ULBs, DUDA	NA

## District Environment Plan Boudh District

Sl. No.	Action points	Gaps and Action Plan	Responsible agency	Timeline for completion of action plan
5.	Inventory of sources of water pollution	Identification of Drains, Sewer Lines outfalls in water bodies Identification of Solid wastes disposal area in & around Water bodies Identification & quantitative assessment of areas & type of Chemical Fertilizers, Pesticides & Herbicides being used in the District. Preparation of remedial measures	Department of Water Resources, SPCB, Department of Industry, RWSS, PHD, Lift Irrigation Deptt. Ground Water Department, ULBs, DUDA	NA
6.	Oil spill disaster management (for coastal districts)	NA	SPCB, R.O. Sambalpur	NA
7.	Protection of flood plains	Regulation for protection of Flood Plain	District Administration, Boudh Water Resource Department, Boudh	NA
8.	Rejuvenation of groundwater	Identification of vulnerable areas of over exploitation of Ground water Periodical Monitoring of Ground Water quality.	District Administration, Boudh Water Resource Department, Boudh	NA
9.	Complaints redressal system	Availability of Public complaints Redressal systems i.e. Email, Public complaint Box etc.	District Administration, Boudh Water Resource Department, Boudh	Continuing

## 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	1 No.
No of Class-I towns and above	Nil
No of Towns STPs installed	1 no.
No of Towns needing STPs	Nil
No of ULBs having partial underground sewerage network	Nil
No of towns not having sewerage network	One
Total Quantity of Sewage generated in District from Class II cities and above	5 MLD
Quantity of treated sewage flowing into Rivers (directly or indirectly)	Nil
Quantity of untreated or partially treated sewage (directly or indirectly)	5 MLD
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 Plats (STPs)	The existing capacity of STPs is not adequate for treatment of sewage. Action plan for additional treatment capacity required is to be prepared in association with ULBs / department of UD,	Dist. Administration, NAC, Boudhgarh	NA
2.	Underground network	NA	Dist. Administration, NAC, Boudhgarh	NA

## 5.0 Industrial Wastewater Management

### a. Current Status related to Industrial Wastewater Management

Number of Red, Orange, Green and White industries in the District	[1 No. of Red industries], [53 Nos. of Orange industries], [02 Nos. of Green industries]
No of Industries discharging wastewater	40 Nos.
Total Quantity of industrial wastewater generated	0.99 MLD
Quantity of treated industrial wastewater discharged into Nalas / Rivers	Nil
Common Effluent Treatment Facilities	Nil
No of Industries meeting Standards	40 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	Identify gaps w.r.t industries not meeting the standards. Necessary action be initiated through SPCBs against the industries not meeting the standards.	SPCB	Regular inspection are conducted to check the compliances. If non-compliances are found actions are taken as per the law.
2.	Complaint redressal system	Check if there is any complaint redressing system based on Mobile App / Online, is available? If not, a complaint redressing system based on Mobile App / Online portal may be prepared at district level.	Dist. Administration & Water Resource Department	Continuing

**6.0 Mining Activity Management plan**

**a. Current Status related to Mining Activity Management**

<b>Details of Data Requirement</b>	<b>Existing Mining operations</b>
Type of Mining Activity	<ol style="list-style-type: none"> <li>1. DGPS Survey for Demarcation cleared by Collector, Boudh vide Office Order No. 10498/TZ-X-25/21 in villages- Sanasulia, Kalasulia&amp;Sigadi for mining of Graphite over 21.19 Ha. of M/S I.M.&amp;C Ltd.</li> <li>2. DGPS survey conducted for Mining of Quartz in village Lumurjhala over 7.987 Ha.</li> <li>3. Mining lease granted in favour of Smt. P. Ramadevi for mining of Decorative stone in village Panighara over 26.535 Ha.</li> <li>4. DGPS survey cleared for mining of Quartz in village Sariapali over 7.96 Ha. of Smt. Sebati Mallick</li> <li>5. DGPS survey cleared for mining of Quartz in village Sekamal over 26.04 Ha. of I.M &amp; C Ltd.</li> </ol>
No of licenced Mining operations in the District	Returns on Mining Operation has not been received from any Mining Company since 2014
% Area covered under mining in the District	0.03%
Area of Sand Mining	0.13 Km <sup>2</sup>
Area of sand Mining	River bed – 0.13 Km <sup>2</sup>

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

<b>Sl. No.</b>	<b>Action points</b>	<b>Gaps and Action Plan</b>	<b>Responsible agency</b>	<b>Timeline for completion of action plan</b>
1.	Monitoring of Mining activity	District Level Task team is to be contituted to identify mining activity and to monitor status wither respect to environmental compliance	DLTT, Boudh, Forest, Mining & Revenue Department	3 months
2.	Inventory of illegal mining if any mining	DLES of the Directorate of Mines headed by the Mining Officer is existing and functioning of its town	Dist. Level Enforcement Squad with Mining, Forest, Revenue & Police Officers headed by Mining Officer	NA
3.	Environment compliance by Mining industry	Inspection & Monitoring of Mines on periodic basis.	DLTT, Boudh, Forest, Mining & Revenue Department	3 months

**7.0 Noise Pollution Management Plan**

**a. Current Status related to Noise Pollution Management**

Details of Data Requirement	Measurable Outcome
No. of noise measuring devices available with various agencies in district	R.O, SPCB, Sambalpur- 1 No.

**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, Boudh, District Administration, Boudh, Traffic Department, Boudh & SPCB, Odisha.	SPCB/ Police Administration/ Dist. Administration	NA
2.	Ambient Noise Level monitoring.	Training to Field officers & Staff for operation, Data evaluation & reporting using Noise Level meter w.r.t. legal compliances.	SPCB/ Police Administration/ Dist. Administration	NA
3.	Signboards in Noise zones	Identification of No Horn Zone in ULBs, Semi Urban Towns(Block Head quarters) Provision of Sign Boards in Silence Zones/Sensitive Zones.	SPCB/ Police Administration/ Dist. Administration	NA
4.	Complaint redressing system	Availability of Public complaints Redressal systems i.e. Email, Public complaint Box etc. & Imposition of Penalty for Violators	SPCB/ Police Administration/ Dist. Administration	NA

### 8.0 Wetland Management plan

The total geographical area of Boudh district is 4289 sq km with an estimated area under wetlands to be is 11011 ha (Table 28). Besides mapping of 309 (> 2.25 ha) an additional, 958 wetlands < 2.25 ha have also been discerned. River/Stream singularly comprised the majority (about 77 %) of extent of wetlands. The other major wetland types in terms of area are Reservoir/barrage (657 ha) and Tank/Ponds (569 ha). On the other hand small wetlands (<2.25 ha) accounted for about 9 per cent of the wetland area in the district. Aquatic vegetation has shown a marginal increase of about 2 per cent from post-monsoon (842 ha) to pre-monsoon (981 ha). Open water is dominated by moderate turbidity followed by low in both the seasons. High turbidity is not observed in post-monsoon. However, a small area (52 ha) was observed in pre-monsoon season.

#### a. Current Status related to Wetland Management Plan

Details of Data Requirement	Measurable Outcome
No. of Wetland and its extent	No- 1267; Area = 11011 in Ha.

Sr. No.	Wetland Category	No. of wetlands	Total wetland area (in Ha)
<b>Inland Wetlands - Natural</b>			
1	Waterlogged	58	354
2	River/Stream	37	8458
<b>Inland Wetlands - Man-made</b>			
1	Reservoirs/Barrages	52	657
2	Tanks/Ponds	158	569
3	Waterlogged	1	4
	<b>Total Inland</b>	<b>309</b>	<b>10053</b>
4	Wetlands (<2.25 Ha.)	958	958
	<b>Total</b>	<b>1267</b>	<b>11011</b>

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

<b>Sl. No.</b>	<b>Action points</b>	<b>Gaps and Action Plan</b>	<b>Responsible Agency</b>	<b>Timeline for completion of action plan</b>
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
2.	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
3.	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
4.	Preventing siltation	Almost all wetland silted up over the years and water bearing capacity got reduced. De-siltation of the water bodies. Impose penalty clause on disposal of waste into wetland	Water Resource department	Occasional
5.	Demarcation of flood protection zone	Any such demarcation is yet to be done. Special initiative/ study requires for such demarcation.	Water Resource department	NA

## District Environment Plan Boudh District

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Sl. No.	Action points	Gaps and Action Plan	Responsible Agency	Timeline for completion of action plan
6.	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

  
21/11/2022

**Collector & District Magistrate  
Boudh**

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