

**FINAL DISTRICT SURVEY REPORT OF
NUAPADA DISTRICT, ODISHA**

FOR SAND MINING

(For Planning & Exploitation of Minor Mineral Resources)

As per Notification No. S.O. 3611(E), date 25th July, 2018

Of

**Ministry of Environment, Forest & Climate Change, Govt. of
India, New Delhi**

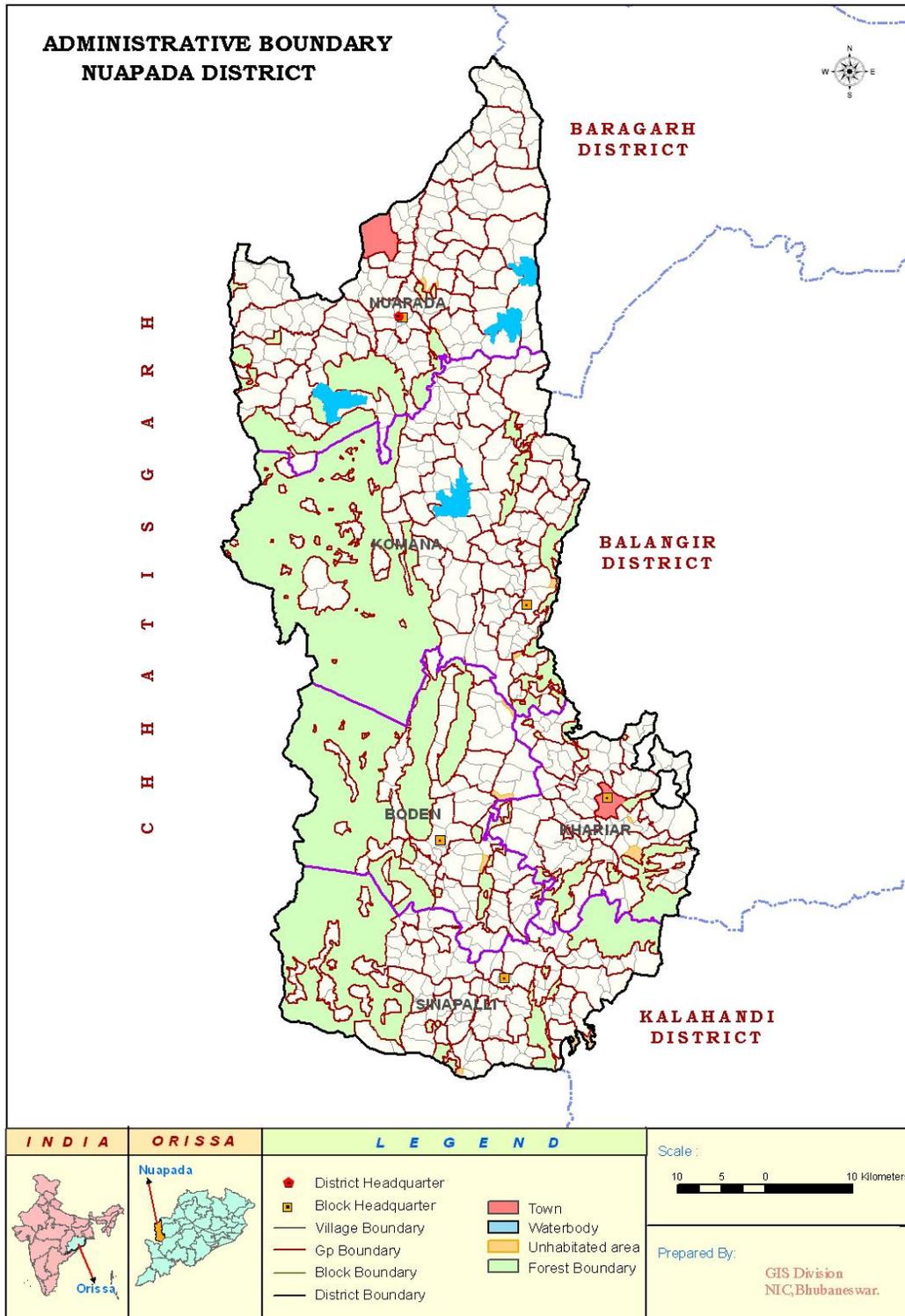
COLLECTORATE, NUAPADA


**COLLECTOR
NUAPADA**

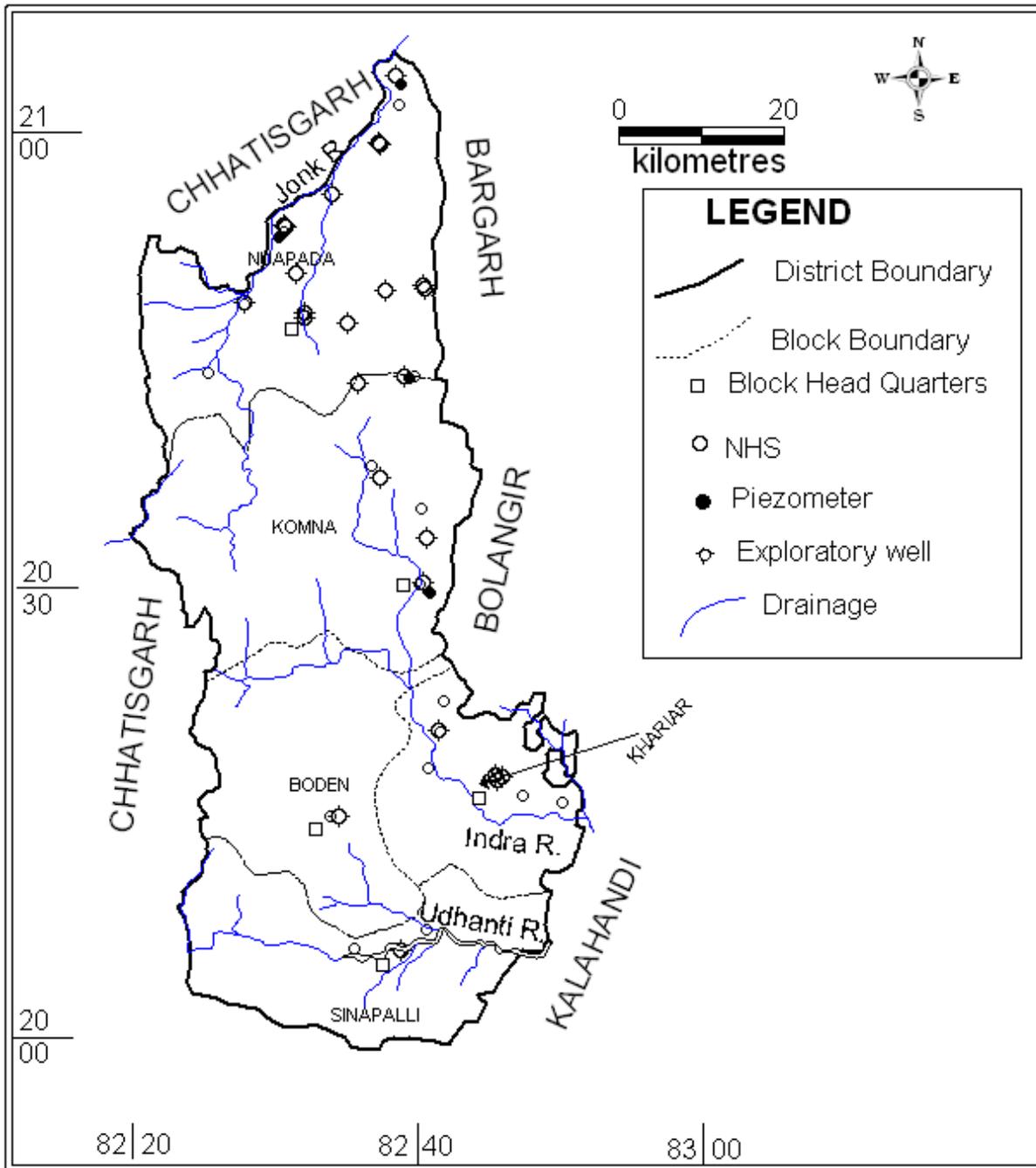
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LOCATION AND COMMUNICATION MAP OF NUAPADA DISTRICT



INDEX MAP OF NAWAPADA DISTRICT, ORISSA



DISTRICT SURVEY REPORT OF NUAPADA DISTRICT, ODISHA ON SAND MINING

Preface

In compliance to the notification issued by the Ministry of Environment and Forest and Climate Change Notification no. S.O.3611 (E) NEW DELHI dated 25-07-2018 the preparation of district survey report of road metal/building stone mining has been prepared in accordance with Clause II of Appendix X of the notification. Every effort has been made to cover river sand mining locations, future potential areas and overview of sand mining activities in the district with all its relevant features pertaining to geology and mineral wealth. This report will act as a compendium of available mineral resources, geological set up, environmental and ecological set up of the district and based on data of various departments like Revenue, Water Resources, Forest, Geology and Mining in the district as well as statistical data uploaded by various state Government departments for preparation for district survey report. The main purpose of preparation of District Survey Report is to identify the mineral resources and developing the mining activities along with other relevant data of the District.

District Survey Report (DSR) is required to identify the areas or aggradations or depositions where mining can be allowed and identifications of erosion and proximity to infrastructural structures and installations where mining should be prohibited and calculations of annual replenishments and allowing time for replenishments after mining in that area. This report contains details of lease, sand mining and Revenue which comes from minerals in the district.

A survey has been carried out by the District Level Environment Impact Assessment Authority (DEIAA), Nuapada with the assistance of Geology Department or Forest Department or Public Works Department or Mining Department etc in the district as per MoEF , New Delhi, Notification S.O. 141 (E), date 15th January, 2016 to prepare the District Survey Report of Nuapada District in the year 2019.

1. INTRODUCTION:-

The District of Nuapada was a part of Kalahandi District up to March 1993, but for administrative convenience, Kalahandi district was divided into two parts – Kalahandi and Nuapada. Nuapada district now comprises of one Sub-division, Nuapada, five tehsils (Nuapada, Komna, Khariar, Sinapali and Boden) and five community development blocks (Nuapada, Komna, Khariar, Boden and Sinapali).

Nuapada district is in the western part of Odisha, lying in between latitude 20°0'N and 21°5' and between longitude 82° 20E and 82° 40 E'. Its boundaries extended in the north, west and south to

Mahasamund district in Chhattisgarh and in the east to Bargarh, Balangir and Kalahandi District. The district has an area of 3407.5 Km² and the administrative headquarters is located at Nuapada.

The plains of Nuapada subdivision fringed by rugged hill ranges stretch southward, which belong to the main line of Eastern Ghats and contains extensive plateaus of about 4000ft (1200m) in elevation with long tropical grass growth over them. They contain mineral deposits such as laterite, graphite and bauxite. The hill sides rising up precipitously from the plains are covered with dense sal forest. The forest of the District are managed under Forest Division named as Khariar division. According to the composition of forests in the District, it can be classified into Sal forests, Teak forests and miscellaneous forests. There are other forest species such as Teak and Bamboo. All these are situated in the dry deciduous forest zone. Timber is by far the major forest products and Sal is no doubt, a major, constituent of these products. Other important species of Nuapada forest are Bija, Asan, Bandhan. The language spoken in Nuapada is a mixture of Odia and Chhatisgarhi dialect. Although it is a district headquarters, the culture is predominantly rural and agrarian.

There are some other minor forest produces of this region which include Kendu leaf, Broom-grass, Mohua flower and its seed, Antia bark and Sabai-grass. Timber, Bamboo and kendu leaf are the major produces which are exported outside of the state. Nuapada District was created on 1st April 1993 by carving out of undivided Kalahandi District with an area of 3408 Sq.Kms. It consists of 670 nos of Revenue villages having population of 5,30,690 as per 2001 census. The total no. of rural households in the District is 1,27,022 as per the 2001 census. Total no, of BPL families is 99,465 in the District which is 78% of the total population. As per the administrative is concerned there are 131G.Ps, 3 NACs and 9 Police Stations. The total Scheduled Caste (SC) population of the District is 72,296 and Scheduled Tribe (ST) population is 1,84,221 which comprise 13.62% and 34.71% respectively of the total population.

The Office of the Collector & District Magistrate is located at Nuapada. One of the important constituent of development, DRDA is also situated inside the Collectorate premises. Other important Govt. authorities like Additional District Magistrate, Sub-Collector also deliver their administration from District Head quarter, Nuapada Nuapada is a District having an unique feature in administrative setup apart from other districts of Odisha.

District Overall Statistics:

Geographical and Population details of the District			
Geographical Area	3,852 Sq. kms.		
Population (2001 Census)	Total :	530,690	
	Male :	264,396	
	Female :	266,294	
	SC :	236,019	
	ST :	184,221	
	OBC :	NA	
Administrative details of the District			
No. of Sub-Divisions :	1	No. of Tehsils :	5
No. of Municipalities/Corporation :	0	No. of N.A.Cs :	3
No. of Blocks :	5	No. of Police Stations :	9
No. of Gram Panchayats :	131	No. of Inhabited Villages :	655
No. of Uninhabited Villages :	15	No. of villages :	670

Sub-Division

Block

Tahasil

List of Subdivisions of the District	
SL.No.	Name
1	Nuapada

List of Blocks of the District	
SL.No.	Name
1	Boden
2	Khariar
3	Komna
4	Nuapada
5	Sinapali

List of Tahasils of the District	
SL. No.	Name
1	Boden
2	Khariar
3	Komna
4	Nuapada
5	Sinapali

2. OVERVIEW OF MINING ACTIVITY OF THE DISTRICT:-

Mainly the types of minor minerals constituents such as sand, stone, Murrom and bajri are required for any type of construction apart from other material like cement and steel. In earlier times, the houses / buildings were constructed in form of small dwellings with walls made up of mud plaster, stone and interlocking provided with wooden frames and there were negligible commercial as well as developmental activities resulting in less demand of building material. However with the passage of time, new vistas of developmental activities were started. The quantity of minor minerals consumption in a particular area is a thermometer to assess the development of the area. Thus with the pace of development activities, the consumption of minor minerals also increased. As such the demand of minor minerals in the district has started an increasing trend. In order to meet the requirement of raw material for construction, the extraction of sand is being carried out exclusively from the river beds. In district brick earth and ordinary earth mining is carried out with prior

Environment Clearance (EC) to meet the requirements of brick lines and for filling / leveling purposes respectively.

3. LIST OF MINING LEASES IN THE DISTRICT:-

The list of mining leases of Nuapada district with location, area and period of validity is as follows:-

Sl No	Name of Tahasil	Name of the Sairat Sources	Location of Sairat source	Area in (Ha)	Period of validity
1	Nuapada	Sarabang Sand quarry	N 20°48'49.8' to 20°49'05.2" and E 82°26'49.7" to 82°27'00.6"	5.00	2015-16 to 2019-20
		Haldi Sand quarry	N 20°50'35.7' to 20°50'49.5" and E 82°27'57.0" to 82°28'15.1"	5.00	2015-16 to 2019-20
		Kolda Sand quarry	N 20°51'57.9' to 20°52'21.0" and E 82°29'10.9" to 82°29'17.6"	5.00	2015-16 to 2019-20
		Bhaleswar Sand quarry	N 21°03'14.9' to 21°03'40.6" and E 82°37'02.6" to 82°37'09.8"	5.00	2015-16 to 2019-20
		Mandirpada Sand Quarry	N 20°55'15.4' to 20°55'23.8" and E 82°30'23.2" to 82°30'36.8"	5.00	2015-16 to 2019-20
		Dumerdihi Sand quarry	N 20°55'5.09' to 20°55'16.05" and E 82°30'57.07" to 82°31'16.09"	5.00	2015-16 to 2019-20
		Chingarasara Sand quarry	N 20°58'27.11' to 20°58'40.06" and E 82°34'31.05" to 82°34'47.12"	5.11	2017-18 to 2021-22
		Beheradihi Sand quarry	N 20°55'58.16' to 20°56'07.33" and E 82°31'58.12" to 82°32'08.18"	5.05	2017-18 to 2021-22

2	Komna	Tenganabasa Krishna Ghotsar Sand quarry	N 20°40'11.90" to N 20°40'23.00' & E 82°39'1.40" to E82°39'6.30"	5.00	2015-16 to 2019-20
		Tenganabasa Sand quarry	N 20°30'49.00" to N 20°30'59.90' & E 82°39'46.80" to E82°40'6.10"	5.00	2015-16 to 2019-20
		Tenganabasa Komna	Mining plan yet to be submit		
		Bhella Kisna Sand quarry	No bidder finalised		
3	Khariar	Bichhanapali Sand quarry-I	N 20°14'23.4" to N 20°14'28.8' & E 82°45'28.4" to E82°45'29.3"	4.97	2015-16 to 2019-20
		Kushmal Sand quarry	N 20°16'53.9" to N 20°16'54.5' & E 82°44'00.2" to E82°44'00.9"	4.97	2015-16 to 2019-20
		Sikuan Sand quarry	N 20°21'25.2" to N 20°21'34.3' & E 82°47'02.4" to E82°47'03.1"	4.97	2015-16 to 2019-20
		Goddhuapadar Sand quarry	N 20°14'59.05" to N 20°15'23.13' & E 82°44'20.12" to E82°46'45.22"	5.26	2017-18 to 2021-22
		Khudpej Sand quarry	N 20°18'00.03" to N 20°18'10.72' & E 82°41'03.62" to E82°41'09.51"	5.26	2017-18 to 2021-22
		Chandgiri Sand quarry	N 20°15'16.12" to N 20°15'25.18' & E 82°49'28.57" to E82°49'39.11"	5.46	2018-19 to 2022-23
		Kikiribeda Sand quarry	N 20°17'26.83" to N 20°17'37.56' & E 82°41'23.56" to E82°41'36.54"	5.05	2018-19 to 2022-23
		Torli Sand quarry	N 20°14'57.23" to N 20°15'04.53' &	6.07	2018-19 to

			E 82°44'41.88" to E82°44'48.87"		2022-23
4	Sinapali	Gadramal Sand quarry	N 20°05'43.0" to N 20°5'46.5' & E 82°36'14.2" to E82°36'23.2"	4.85	2015-16 to 2019-20
		Palsapada Sand quarry	N 20°05'39.8" to N 20°5'44.6' & E 82°37'21.4" to E82°37'33.1"	4.77	2015-16 to 2019-20
		Sinapali Sand quarry	N 20°06'10.7" to N 20°6'15.4' & E 82°38'36.2" to E82°38'41.4"	4.65	2015-16 to 2019-20
		Bargaon Sand quarry	N 20°06'39.6" to N 20°6'46.0' & E 82°41'14.1" to E82°41'15.2"	4.65	2015-16 to 2019-20
		Chalana Sand quarry	N 20°06'20.6" to N 20°6'24.5' & E 82°42'56.3" to E82°56'58.5"	4.85	2015-16 to 2019-20
		KopiaSand quarry	N 20°06'32.3" to N 20°6'33.2' & E 82°44'01.2" to E82°43'01.9"	4.85	2015-16 to 2019-20
		Gidhmal Sand quarry	N 20°05'56.5" to N 20°6'02.6' & E 82°45'34.9" to E82°45'31.1"	4.85	2015-16 to 2019-20
		Gorla Sand quarry	20°06'28.25'' to 20°06'33.69''N 82°31'53.40'' to 82°32'20.61''E	5.26	2017-18 to 2021-22
		Gandabahali Sand quarry	Non working	4.85	
		Liad Sand quarry	Non working	4.85	
		Sagunbhadi Sand quarry	Non working	4.65	

4. **DETAILS OF ROYALTY OR REVENUE RECEIVED IN LAST THREE YEARS:-**

The details of royalty or revenue received in last three years are as below:

SI No	Name of Tahasil	Name of sources	Royalty / Revenue received in last three years		
			2016-17	2017-18	2018-19
1	Nuapada	Sarabaong Sand quarry	416628.00	306800.00	377141.00
		Haldi Sand Quarry	0.00	0.00	117209.00
		Kolda Sand quarry	0.00	0.00	123150.00
		Bhaleswar Sand quarry	0.00	0.00	0.00
		Mandirpada Sand quarry	0.00	0.00	200286.00
		Dumerdihi Sand quarry	0.00	0.00	142247.00
		Chingarasara Sand quarry	0.00	0.00	0.00
		Behradihi Sand quarry	0.00	325807.00	379952.00
2	Komna	Tenganabasa Krishna Ghotsar	105560.00	180676.00	150692.00
		Tenganabasa	89813.00	128232.00	121943.00
		Tenganabasa Komna	0.00	0.00	0.00
		Bhella Kisna	0.00	0.00	0.00
3	Khariar	Bicchanapali Sand quarry	59517.00	134875.00	303246.00
		Sikuan Sand quarry	30000.00	64505.00	74194.00
		Baddohel Sand quarry	0.00	133059.00	303437.00
		Kushmal Sand quarry	11266.00	137142.00	135198.00
		Godduapadar Sand quarry	0.00	47409.00	111274.00
		Areda Sand quarry	0.00	105662.00	67442.00
		Bicchanapali Sand quarry	41410.00	127361.00	131422.00
		Khudpej Sand quarry	0.00	39323.00	78646.00
4	Sinapali	Gadramal Sand quarry	91608.00	83886.00	78687.00
		Palsapada Sand quarry	61857.00	126439.00	67664.00
		Sinapali Sand quarry	57335.00	100422.00	90282.00
		Bargaon Sand quarry	57087.00	103645.00	67376.00

5. DETAILS OF PRODUCTION OF SAND OR BAJRI OR MINOR MINERALS IN LAST THREE YEARS:-

Sl No	Name of Tahasil	Name of Sources	Production of Minor mineral in last three years(in CuM)		
			2016-17	2017-18	2018-19
1	Nuapada	Sarabaong Sand quarry	5200	5200	5200
		Haldi Sand Quarry	0	0	1600
		Kolda Sand quarry	0	0	0
		Bhaleswar Sand quarry	0	0	0
		Mandirpada Sand quarry	0	0	2520
		Dumerdihi Sand quarry	0	0	1560
		Chingarasara Sand quarry	0	0	0
		Behradihi Sand quarry	0	5000	5000
2	Komna	Tenganabasa Krishna Ghotsar	2200	2400	2600
		Tenganabasa Sand quarry	2300	2400	2500
		Tenganabasa Komna	0	0	0
3	Khariar	Bichhanapali-II Sand quarry	297	685	1550
		Sikuan Sand quarry	542	1302	1508
		Baddohel Sand quarry	0	674.75	1552
		Kushmal Sand quarry	142	1700	1700
		Godduapadar sand quarry	0	670	1209
		Arede Sand quarry	0	633	400
		Bicchanapali Sand quarry	517	1600	1652
		Khudpej Sand quarry	0	800	1600
4	Sinapali	Gadramal Sand quarry	1251	1173	1258
		Palsapada Sand quarry	1580	1806	1766
		Sinapali Sand quarry	1825	1825	1825
		Bargaon Sand quarry	1732	1911	1734
		Chalana Sand quarry	1375	1400	1425
		Kopia Sand quarry	1550	1550	1550
		Gidhmal Sand quarry	1800	1800	1800

6. PROCESS OF DEPOSITION OF SEDIMENTS IN THE RIVERS OF THE DISTRICT:-

Deposition is the geological process in which sediments, soils and rocks are added to a landform or land mass. Wind, ice, water, and gravity transport previously weathered surface material, which, at the loss of enough kinetic energy in the fluid, is deposited, building up layers of sediment. Deposition occurs when the forces responsible for sediment transportation are no longer sufficient to overcome the forces of gravity and friction, creating a resistance to motion; this is known as the null-point hypothesis. Deposition can also refer to the buildup of sediment from organically derived matter or chemical processes. For example, chalk is made up partly of the microscopic calcium carbonate skeletons of marine plankton, the deposition of which has induced chemical processes (diagenesis) to deposit further calcium carbonate. Similarly, the formation of coal begins with deposition of organic material, mainly from plants, in anaerobic conditions.

When rivers flood the velocity of water slows. As the result of this the river's capacity to transport material is reduced and deposition occurs. This deposition leaves a layer of sediment across the whole floodplain. After a series of floods layers of sediment form along the flood plain.

Larger material and the majority of deposition occurs next to the river channel. This is the result of increased friction (with the flood plain) causing the velocity of the river to slow and therefore rapidly reduce its ability to transport material. This leaves a ridge of higher material next to the river channel on both banks of the river known as a levee.

7. GENERAL PROFILE OF THE DISTRICT:-

Sl No	Particulars	Statistics
1	General Information	
	Geographical Area	3852.00 sq. km
	Geographical Position	latitude 20° 0' N and 21° 5' and between longitude 82° 20' E and 82° 40' E
	Administrative Division/Number of Tehsil	5
	No. of villages/Panchayats	Villages -670 / Panchayats - 131
	Population (as per Census 2011)	606490
	Population Density(as per census 2011)	157 inhabitants per square kilometre (410/sq mi)
2	Geography	
	Major Physiographic units	Gently undulating terrain, Isolated Mounds & Hills
	Major drainage	the Upper Jonk, the Sunder dam, and the upcoming Lower Indira Irrigation Project

3	Land Use (Km)	
	Forest area	1849.00 sq km
4	Major soil types	alluvial, black, red, red and yellow and red and black
5	NUMBERS OF GROUND WATER MONITORING WELLS OF CGWB	
	No of Dugwells	19
	No of Piezometers	4

8. LAND UTILIZATION PATTERN OF THE DISTRICT:

i. **FOREST:-**

Land is the first and foremost factor of production in any economic activity. So, land is a vital resource. Underdeveloped land is a drag on the cultivator and need to be brought into cultivable status. Land development has become an important activity in Nuapada district in the context of implementation of several irrigation projects. Land development activities help in increasing the yield of various crops by conserving soil moisture. Land development includes land leveling and on-farm development works, watershed development, water management, fodder development and pasture land management, integrated farm development etc. 1,39,781.499 Ha of different kind of forest land available. The district forest division has taken up different forest activities for conservation of flora and fauna as per the working plan duly approved by Govt. of India. The forest cover has been augmented through different plantation activities in the form of artificial regeneration, associated natural regeneration & soil moisture conservation under different schemes. Protection and conservation of forest and protection from encroachment and any other non forestry activities is strictly enforced under the purview of Odisha Forest conservation Act, 1972 and rules made there under & Forest Conservation Act, 1980 over the above mentioned forest area except Revenue Forest, as Revenue forest are coming under the administrative control of Revenue Department. The details are given below:-

Land Utilization Pattern of Nuapada District (Area in 000 hectares)

Sl No	Items	Area (in 000 hectares)
1	R.F. 02Nos	86.93
2	PRF 122 NOs	98,374,9695
3	V.F. 23 Nos	1,70,824
4	DPF 29 Nos	2,433.016
5	Revenue Forest	32,904.79
6	Un classed Forest	45
7	Plantation area:-	15
	a) Govt. land	267.33
	b) Pvt. land	5498.64

Total	1,39,781.499
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List of PRF Block area in Hect of Khariar Forest Division, Khariar

Sl No	Name of the District	Name of the Forest Block	Name of the Range	Area in Ha
1	Nuapada	Adendungri	Sinapali	22.800
2		Adipita	Sinapali	6475.04
3		Ainlajuba-A	Nuapada	58.000
4		Ainlajuba-B	Nuapada	40.000
5		Ainlajuba-C	Nuapada	45.8000
6		Babebir	Khariar	58.8400
7		Badibahal	Sinapali	10.2000
8		Bajeni	Khariar	1916.0000
9		Bankapur	Khariar	71.7000
10		Barkot-A	Komna	294.7600
11		Barkot-Extension	Komna	502.0000
12		Basini-A	Khariar Road	15.6200
13		Basini-B	Khariar Road	89.3000
14		Belgarh-A	Khariar	15.6200
15		Belgarh-B	Khariar	13.4800
16		Bijakhman	Komna	118.4000
17		Bijakhman(Extn.)	Komna	29.1200
18		Bijili	Khariar	26.2200
19		Budharaja	Khariar	185.4800
20		Budharaja	Khariar	50.0000
21		Bundia	Khariar	440.0000
22		Chakadonger	Khariar	40.0000
23		Chandkuamrikachhar	Khariar	148.5200
24		Chaulmachi	Khariar	1984.6400
25		Choura-A	Khariar	5737.6000
26		Choura-B	Khariar	376.0000
27		Chhata	Komna	451.2000
28		Chereipani	Sinapali	663.3180
29		Danjihola	Komna	46.0000
30		Deobahal-A	Khariar	21.6000
31		Deobahal-B	Khariar	43.5200
32		Dharambandha	Nuapada	39.0200
33		Dharamsagar-A	Khariar	1388.0000
34		Dharamsagar-B	Khariar	25.0000
35		Dharamsagar-C	Khariar	16.4000
36		Dharamsagar-D	Khariar	15.1000
37		Gardhanakachhar	Khariar	210.0000
38		Gatibeda	Komna	645.6000
39		Gharsani	Sinapali	12.9500
40		Ghati	Nuapada	953.1400
41		Ghati(Extn.)	Nuapada	96.0000

42		Gohirpadar	Sinapali	935400
43		Gujiki	Khariar	121.2800
44		Gumapalanbasa	Khariar	29.7600
45		Gurudongar	Komna(p)	5367.8100
46		Haldi	Khariar Road	112.9000
47		Hatpada	Khariar	42.5600
48		Jamlikachhar	Sinapali	79.3200
49		Jampani	Khariar Road	912.0000
50		Jhagrai	Komna	20.6000
51		Jholpathari	Nuapada	240.0000
52		Konabhaira	Nuapada	258.0000
53		Kanduldongri	Sinapali	39.2000
54		Kapsidongri	Sinapali	4.5000
55		Karadongri	Khariar	23.0800
56		Karanbahali	Sinapali	14.0600
57		Karlakote	Khariar	142.7200
58		Kathibadi-A	Sinapali	79.3600
59		Kathibadi-B	Sinapali	12.0500
60		Katingpani(Extn.)	Nuapada	126.0000
61		Kendubahara	Nuapada	1550.0000
62		Kendumunda-A	Sinapali	102.8000
63.		Kendumunda-B	Sinapali	33.2300
64		Kendumunda-C	Sinapali	75.8200
65		Kendumunda-D	Sinapali	26.7600
66		Khairbadi	Khariar	24.8000
67		Khirmal	Khariar	229.7200
68		Khamtarai	Khariar	279.7200
69		Kharsedongri	Sinapali	10.0500
70		Khasbahal	Khariar	1173.2000
71		Kechupani	Nuapada	624.0000
72		Koilakhala	Sinapali	10470.1400
73		Kulihadongri	Sinapali	13.3000
74		Kukurimundi	Khariar Road	63.0000
75		Kumudi	Khariar	612.0000
76		Laikhaindongri	Sinapali	3.7400
77		Lamipani	Khariar	75.2000
78		Lankeswari	Komna	272.0000
79		Latabanji	Khariar	82.0000
80		Lakhmipur	Khariar	88.8000
81		Lodra	Nuapada	1566.8440
82		Luhakhainphuljharia	Khariar	13.1200
83		Manikgarh-A(Extn)	Nuapada	46.6000
84		Manikgarh-B(Extn)	Nuapada	60.0000
85		Masankunda-A	Khariar Road	368.0000
86		Masankunda-B	Khariar	188.0000

			Road	
87		Mendhatal	Nuapada	1095.2000
88		Musharangi	Nuapada	1997.2000
89		Nagesh-A	Sinapali	163.8300
90		Nagesh-B	Sinapali	213.1725
91		Nagesh-C	Sinapali	15.0700
92		Nagesh-D	Sinapali	20.2300
93		Narayandungri-A	Sinapali	243.5200
94		Narayandungri-B	Sinapali	66.4050
95		Narayandungri-C	Sinapali	164.4100
96		Nimna	Khariar	336.0000
97		Nuapara	Sinapali	13.7400
98		Palsipani(A+B)	Komna	5.2000
99		Patdhara	Khariar	36492.0000
100		Patidongar	Komna	1563.2800
101		Pipalpani	Khariar	1738.4000
102		Raikalalachhar	Komna	31.4600
103		Rajanakchhar	Komna	548.0000
104		Ranidongri-A	Khariar	120.1900
105		Ranidongri-B	Khariar	15.3800
106		Ranidongri-D	Komna	221.7000
107		Ranimai	Nuapada	803.4600
108		Ranimaunda	Khariar	29.2500
109		Risipiti	Khariar	37.8300
110		Redhamal	Khariar	152.6700
111		Salodongri	Sinapali	5.5600
112		Sardhapurdongri	Sinapali	6.1000
113		Satparlia	Khariar	170.7700
112		Singhpur	Khariar Road	22.6200
113		Sukulibhata	Khariar	311.8500
114		Supli	Nuapada	87.0600
115		Tandel-A	Komna	283.2000
116		Tandel-B	Komna	162.4000
117		Tandel-C	Komna	1990.4000
118		Thelkodongri	Khariar	7.6000
119		Udulu	Khariar	53.7800
		Total		98374.9695

List of Reserve Forest

SL No	Name of the District	Name of the Forest Block	Name of the range	Area in Hectare
1	Nuapada	Amodi	Khariar Road	71.96
2		Lakhna-B	Nuapada	14.97
			Total	86.93

List of Village Forest:-

SL No	Name of the District	Village Forest	Name of the range	Area in Hectare
1	Nuapada	Goutama	Khariar Road	7

2		Amsena	Khariar Road	7
3		Mahulibhata	Nuapada	10
4		Teleijhar	Nuapada	7
5		Pagarpani	Nuapada	2
6		Kotenchuan	Nuapada	2
7		Kotenchuan	Nuapada	8
8		Teleijhar	Nuapada	2
9		Pagarpani	Nuapada	7
10		Tanwat	Nuapada	10
11		Ratipali		10
12		Sialati		10
13		Junani		10
14		Silva	Khariar Road	10
15		Bhurkadhoda	Khariar Road	8.86
16		Samarsingh	Nuapada	10
17		Bhurkadhoda	Khariar Road	3.712
18		Sinapali	Nuapada	9.184
19		Kurumpuri	Nuapada	4.876
20		Kurumpuri	Nuapada	7.192
21		Kusdahana	Nuapada	10
22		Darlipada	Nuapada	10
23		Darlipada	Nuapada	5
Total				170.824

ii. AGRICULTURE:-

The predominant economic activity prevalent in the district is traditional agriculture involving cultivation of paddy and pulses, oil seeds, onion, cotton, and collection of minor forest produce. The major food crops are paddy, maize, ragi, pulses, onion and oil seeds like ground nut, sesamum etc. The agricultural production fluctuates from year to year under the impact of natural calamities, droughts and floods which is frequent in the district. A large proportion of rural poor and tribals face severe food insecurity. Weak agro climatic condition, poor connectivity and infrastructure, physical isolation and low social capabilities among tribals characterize this region which suffers from multiple deprivations and backwardness, tribal backwardness, hill area backwardness. Household investment in agriculture has been negligible. Due to absence of irrigation facilities farmers are not able to take advantage of the advanced agricultural technologies appropriate to irrigated conditions. As such, agricultural productivity has remained abjectly low. The block wise land utilization pattern during the year 2016 of Nuapada district are as follows:-

SL No	Name of the block	Geographical Area	Culturable waste	Land put to non-agricultural use	Barren & unculturable land	Current fallow	Other fallow	Net area
1	Nuapada	112988	587	525	305	0	190	54430
2	Komna	120683	1011	555	840	1257	405	47253
3	Khariar	45688	66	480	76	139	95	28901
4	Boden	52379	75	390	452	35	80	28255
5	Sinapali	53262	173	340	317	317	41	29060
Total		385000	1912	2290	1990	1748	811	187899

iii. HORTICULTURE:-

Nuapada District comes under Eastern plate & hill region –VII, Agro climatic zone- western undulating zone characterized by hot & moist sub humid climate with mean rainfall 1352mm, mean max summer temp 37.8°C and mean minimum winter temp 11.9°C. The broad soil groups are red mixed, red black and black.

The Horticulture crops are taken up in upland and medium land of the district with available irrigation facility. The major horticultural crops like sweet pea, cabbage, brinjal, Okra, Onion, Ginger, Chilly, garlic, coriander and medicinal aromatic plants like Aswagandha, Sarpagandha, and flower like rose, tube rose, marigold, gladiolus, and fruit crops like mango, guava, aonla, lemon/lime, pomegranate, custard apple, papaya, banana are grown throughout the district. Through Departmental intervention new fruit gardens have been added over the years under area expansion programme by supplying quality planting materials of grafted mango, budded/gootees like guava, lemon, Ber to the beneficiaries providing technical guidance on modern horticulture practices since functioning of separate horticulture department branch Office from the year 1980. The various departmental schemes have been executed like State plan, NHM/MIDH, MGNREGS, RKVY, Micro Irrigation / PMKSY to contribute to the overall development of Horticulture sector in the district. The present status on area/production of various horticultural crops in Nuapada district is given as below.

Total Area under fruits	Area 10079.5 Ha	Prod. 55096.65MT
Total Area under vegetable	Area 11076 Ha	Prod. 149271 MT
Total Area under Flower	Area 147 Ha	Prod 821MT+80lakh nos.
Total Area under spices	Area 3293 Ha	Prod 7078 MT
Total Area under Plantation	Area 1740 Ha	Prod 68 MT

Crop wise Area Production Sheet

Crop Name	Area in Ha	Production in MT
Fruits Crop		
Aonla	150	56.65
Bael	340	1680
Banana	524	9700

Ber	286	1090
Guava	686	4510
Jack fruit	483	6673
Litchi	26	117
Mango	5996	18350
Papaya	73	1425
Pineapple	12	85
Pomegranate	6	23
Sapota	10	47
Other fruit	679	1834
Lime & Lemon	558	5064
Other citrus (grape & fruit)	26	194
Water Melon	221	4192
Muskmelon	3.5	57
Total	10079.5	55096.65
Vegetable crop		
Mushroom		40
Okra	840	7333
Onion	892	11915
Peas(green)	154	1253
Pointed gourd	15	135
Potato	366	5803
Radish	342	3692
Leafy Vegetable	452	4649
Sweet Potato	1152	1014
Tapioca	4	48
Tomato	2132	29967
Other Vegetables	569	4736
Beans	292	1396
Bitter ground	248	2365
Bottle Gour	250	4567
Brinjal	1649	29765
Cabbage	568	19367
Capsicum	4	38
Carrot	6	56
Cauliflower	673	9739
Cucumber	19	185
Pumpkin	449	11210
Total	11076	149271
Spices Crop		
Coriander	425	242
Garlic	329	1081
Ginger	127	1101
Turmeric	179	1003
Other Spices	224	1761
Red Chilly	2009	1890
Total	3293	7078
Flowers Crop		

Gladiolus	25	26 Lakh
Marigold	86	810MT
Rose	32	54 Lakh
Tube Rose	4	11 Mt
Total	3293	821MT+80 lakh

Nuapada District				
MAJOR MINERAL			SPECIFIED MINOR MINERALS	
TOTAL AREA(In Hect)	FOREST AREA(In Hect)		TOTAL AREA(In Hect)	FOREST AREA(In hect)
552.195	8.599		0.000	16.017

iv. MINING:-

The total area considered for mining activity for all minerals shall be the mining area within the district.

9. PHYSIOGRAPHY OF THE DISTRICT:-

The district Nuapada is situated at the south western part of Odisha constituting part of Western Ghat Mobile belt normally a rugged hilly terrain. The District covers a number of new series Topo sheets i.e. F44W5, F44W6, F44W7, F44W8, F44W9, F44W10, F44W11, F44W12, F44W13, F44W14.

Nuapada district is in the western part of Odisha lying between latitude 20° 0' N and 21° 5' and between longitude 82°20'E and 82°40'E. Its boundary extends in the north, west and south to Mahasamund district in Chhatisgarh and in the east to Bargarh, Balangir and Kalahandi district. The district has an area of 3407.5km² and the administrative headquarters is located at Nuapada.

The Plains of Nuapada subdivision are fringed by rugged hill ranges stretching southward, which belongs to the main line of the Eastern Ghats and contain extensive plateaus of about 4000ft(1200m) in elevation.

Nuapada district is physiologically a complex terrain having numerous numbers of hill, moulds, plane lands, river beds, agricultural lands, forest growth areas etc. Hills and mounts are more common in the district where as in the western part is more hill ranges as compared to other parts. As the district is a part of Eastern ghat mobile belt so the rock types are mostly homogenous in nature, so the drainage pattern developed in the region is dendritic pattern. Some drainage trend flows within the district. There are several seasonal nala / dry nala & a few perineal natural drainage exists within the district. Main river system that flows in the district namely Udanti, Jonk , Sundar etc.

The main township those developed in the district are Nuapada, Rajkhariar and Khariar Road. Also the district head quarter Nuapada is present in the central part of the district and connect to all parts of the district through roadways.

10. RAINFALL: MONTH WISE

The south-west monsoon is the principal source of rainfall in the district. Average annual rainfall of the district is 1378.2 mm. About 75% of the total rainfall is received during the period from June-September. Droughts are quite common in the district. As the district falls in the rain shadow region the rainfall is very erratic. The climate of the district is subtropical with hot and dry summer and pleasant winter. The summer season extends from March to middle of June followed by the rainy season from June to September. The winter season extends from November till the end of February. Humidity is high during middle of June and it's less in post-monsoon period. The potential evapo-transpiration values varies from 3.62 cm to 23.74 cm. Wind is generally light to moderate. During summer and southwest monsoon months wind velocity increases.

Year	Jan		Feb		March		April		May		June		July		August		Sept		Oct		Nov		Dec		
	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	R/F	%DEP	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
2014	0	-100	9.7	-18	12.4	-27	7.1	-70	156	359	135	-26	534.1	54	366	21	295	60	55.2	-9	0	-100	0	-100	
2015	0.2	-98	0	-100	2.4	-86	78.6	228	22.4	-34	264	45	280.9	-19	204	-33	292	58	2	-97	0	-100	1.4	-76	
2016	0	-100	2.4	-80	5.6	-67	0	-100	4.2	-87	169	-8	290.2	-16	184	-39	333	80	59	-3	0	-100	0	-100	
2017	0	-100	0	-100	0	-100	0	-100	1.2	-96	194	6	160.9	-54	268	-11	218	18	115	89	0	-100	0	-100	
2018	0	-100	4	-66	-66	-99	26.5	10	44.4	31	116	-37	274.1	-21	475	57	137	-26	0	-100	0	-100	75	1246	

11. GEOLOGY AND MINERAL WEALTH

Nuapada district is part of Eastern Ghats super group, the Eastern Ghats are a discontinuous range of mountains along India's eastern coast. The Eastern Ghats runs from the northern Odisha through Andhra Pradesh to Tamil Nadu in the south passing some parts of Karnataka and in the Wayanad district of Kerala. They are eroded and cut through by four major rivers of peninsular India viz. Godavari, Mahanadi, Krishna, and Kaveri.

The mountain ranges run parallel to the Bay of Bengal. The Deccan plateau lies to the west of the range, between the Eastern Ghats and Western Ghats. The coastal plains, including the Coromandel Coast region, lie between the Eastern ghats and the Bay of Bengal. The Eastern Ghats are not as high as the Western Ghats. The Eastern Ghats are older than the Western Ghats, and have a complex geologic history related to the

assembly and breakup of the ancient supercontinent of Rodinia and the assembly of the Gondwana supercontinent.

The Eastern ghats on the east coast of India is a largely granulite terrain but also exposes granites, migmatites, anorthosites and alkaline rocks. This granulite belt has a prolonged history of mountain building from late Archaen to late Proterozoic. During this long period the Eastern Ghats mobile belt witnessed repeated folding and possibly polycyclic metamorphism. Some recent findings suggest breaks between orogenic cycles and proterozoic reworking of Archean granulites. Extreme temperature crustal metamorphism under fluid-absent conditions crustals anataxis in huge thickness of pelitic to psammitic protoliths producing leptynites are some of the important results of recent investigations of the Eastern ghats mobile belt. Different generation of charnockites are present in the Eastern Ghats belt, but charnockitisation of granitic gneisses is yet to be documented. Some apparently nascent growths, the patchy charnockites in the Chilika area are shown to be relict of older charnockitic rocks that suffered granulite-facies metamorphism and attendant migmatitisation.

As per UNFC (United Nations Framework Classification) of potentials of minerals, A 'Mineral Reserve' is the economically mineable part of a measured and / or indicated mineral resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments which may include feasibility studies, have been carried out and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is justified.

The mineability (Economic viability) is demonstrated in consecutive feasibility assessment stages which may be in order of increasing detail, prefeasibility study and feasibility study/mining report. A probable mineral reserve may derive from a prefeasibility study and documentation. Hence for the reserve potential estimation of the Nuapada district, the approved mining plans of each existing quarry has been referred as it provides details of the mineable & geological reserve potentials of the quarry lease.

For the nonworking quarries the resource figures are quoted as being of intrinsic economic interest, depending on the results of a Prefeasibility study and feasibility study. Generally, only in-situ resource figures are reported at this stage of geological assessment. Mineral Resources are subdivided, in order of increasing geological confidence, into inferred, indicated and measured categories. Portions of a deposit that do not have reasonable prospects for eventual economic extraction must not be included in a Mineral Resource.

For assessments of potential resources of new Sairat sources and non working sources of sand, a joint field survey, a detail study of each source is not feasible, hence the said sand area of proposed quarry lease has

been multiplied with the average sand bed thickness of the respective source to obtain the Geological resources whereas for Mineable resources has been considered about 60% of geological resources.

As per the approved mining plan of the quarry leases till September 2019 in Nuapada district the total mineral potential are as follows:

Sl No	Name of Tahasil	Name of Source	Geological reserve as per approve mining plan of existing quarries	Mineable reserve as per approved mining plan of existing quarries
1	Nuapada	Sarabang Sand quarry	97050	78900
		Haldi Sand Quarry	56600	48200
		Kolda Sand quarry	52611	42500
		Bhaleswar Sand quarry	23072	7200
		Mandirpada Sand quarry	41655	37968
		Dumerdihi Sand quarry	105600	98250
		Chingarasara Sand quarry	50991	40851
		Behradihi Sand quarry	43115	43115
2	Komna	Tenganabasa Krishna Ghotsar Sand quarry	11700	7800
		Tenganabasa Sand quarry	8060	7735
		Tenganabasa-II Sand quarry	132454	113027
		Bhella Komna Sand quarry	NA	NA
3	Khariar	Khudpej Sand quarry	52609	44944
		Kushmal Sand quarry	26810	21862
		Bichhanapali sand quarry-I	26709	21076
		Bichhanapali Sand quarry-II	50586	40589
		Sikuan Sand quarry	21124.4	13879.2
		Gaddhuapadar Sand quarry	36826.3	28721
		Baddohel sand quarry	55847	45383
		Arede Sand quarry	53418	39010
		Torli sand quarry	60703	44883

		Chandgiri sand quarry	54633	46398
		Kikiribeda Sand quarry	50586	35726
4	Sinapali	Gadramal Sand quarry	26304.5	21969.5
		Palsapada Sand quarry	25293	20949.5
		Sinapali Sand quarry	25292	21918
		Bargaon Sand quarry	23293	19887
		Chalana Sand quarry	25292	21443
		Kopia Sand quarry	26304.5	21588
		Gidhmal Sand quarry	25292	21918
		Gorla Sand quarry	36826.3	28222

- District wise detail of river or stream and other sand source
- District wise availability of sand or gravel or aggregate resources
- District wise detail of existing mining leases of sand and aggregates

a. Drainage system with description of main rivers

Sl No	Name of the river	Area drained (Sq.Km)	% of area drained in the district
1	Jonk River	3484.00	100%
2	Sundar River	645.00	87.00%
3	Indra River	510.00	100%

b. Salient features of Important Rivers and streams

SlNo	Name of the river or stream	Total length in the district(in Km)	Place of origin	Altitude at origin
1	Jonk River	196 Km	Sunabeda Sanctuary	20°29'59.66''N 82°26'35.08''E
2	Sundar River	29.50 Km	Sunabeda Sanctuary	82-40'E & 21-05N
3	Indra River	26.75Km	Sunabeda Sanctuary	82-38'E & 31-06'N

Portion of the river or stream recommended for mineral Concession	Length of area recommended for mineral concession(in kilometer)	Average width of area recommended for mineral concession(in meters)	Area recommended for mineral concession(in square meter)	Mineable mineral potential(in metric tone)(60% of total mineral potential)
34 portion	10.87	172MT	910060	2463731.46 MT 1478238.87 MT

c. District wise details of existing mining leases of sand and aggregates:

Please refer to table at Annexure-I

Mineral potential

Boulder (MT)	Bajri(MT)	Sand(MT)	Total Minerable Mineral Potential(MT)
Nil	Nil	2463731.46	1478238.87

Annual deposition

Sl No	River or stream	Length of area recommended for mineral concession(in kilometer)	Average width of area recommended for mineral concession(in meters)	Area recommended for mineral concession(in square meter)	Mineable mineral potential(in metric tone)(60% of total mineral potential)
1	River	10.87	172	910060	2463731.46 MT 1478238.87 MT


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C. District wise details of existing mining leases of sand and aggregates

Annexure-I

Sl No	Name of Tahasil	Name of the Mineral	Name of the lessee	Address of lessee	Mining lease grant order No. date	Area of Mining lease(ha)	Period of mining lease		Date of commencement of mining operation	Status(workin g/Non-working)	Environmental clearance obtained(Yes/No)	Location of the Mining leases
							From	To				
1	Nuapada	Sarabang Sand quarry	Surendra Kumar Agrawal,9437965236	Nuapada	1253,dt 30.3.2015	5.00	2015-16	2019-20	11.4.2016	Working	3934,dt 14.8.2015	N 20°48'49.8" to 20°49'05.2" and E 82°26'49.7" to 82°27'00.6"
		Haldi Sand quarry	Santosh Kumar Sahu,8658149111	Nuapada	1457,dt 8.4.2015	5.00	2015-16	2019-20	27.5.2019	Working	4214,dt 27.2.2018	N 20°50'35.7" to 20°50'49.5" and E 82°27'57.0" to 82°28'15.1"
		Kolda Sand quarry	Surendra Kumar Agrawal,9437965236	Nuapada	1257,dt 30.3.2015	5.00	2015-16	2019-20	Non functional	Not Operationalised due to want of CTO	No	N 20°51'57.9" to 20°52'21.0" and E 82°29'10.9" to 82°29'17.6"
		Bhaleswar Sand quarry	Pyarilal Chandrakar	Nuapada	1716,dt 27.4.2015	5.00	2015-16	2019-20	Non functional	Lease order cancelled		N 21°03'14.9" to 21°03'40.6" and E 82°37'02.6" to 82°37'09.8"

		Mandirpada Sand quarry	Krushna Kumar Agrawal	Nuapada	1259,dt 30.3.2015	5.00	2015-16	2019-20	26.6.2018	Non-working	4368,dt 11.4.2018	N 20°55'15.4" to 20°55'23.8" and E 82°30'23.2" to 82°30'36.8"
		Dumerdihi Sand quarry	Gurubakhs Singh	Nuapada	1261,dt 30.3.2015	5.00	2015-16	2019-20	14.11.2018	Working	4171,dt 27.2.2018	N 20°55'5.09" to 20°55'16.05" and E 82°30'57.07" to 82°31'16.09"
		Chingarasara Sand quarry	Rameshlal Sahu	Nuapada	3632,dt 20.9.2018	5.11	2017-18	2021-22	Non functional	Non-working	No	N 20°58'27.11" to 20°58'40.06" and E 82°34'31.05" to 82°34'47.12"
		Beheradihi Sand quarry	Khyrod Kumar Padhi	Nuapada	3632,dt 6.9.2017	5.05	2017-18	2021-22	18.3.2019	Working	4187,dt 27.2.2018	N 20°55'58.16" to 20°56'07.33" and E 82°31'58.12" to 82°32'08.18"
2	Komna	Tenganabasa Krishna Ghotsar Sand quarry	Ratikanta Mohanty	At-Po-Bhella, Dist- Nuapada,7894 636910	1183,dt 17.4.2015	5.00	2015-16	2019-20	9.10.2015	Working	4350,dt.17.8.2015	N 20°40'11.90" to N 20°40'23.00' & E 82°39'1.40" to E82°39'6.30"

	Tenganabasa Sand quarry	Sekhar Chandra Sena	At-PO-Komna, Dist-Nuapada,8658835393	1144,dt 17.4.2015	5.00	2015-16	2019-20	9.11.2015	Working	4321,dt.17.8.2015	N 20°30'49.00" to N 20°30'59.90" & E 82°39'46.80" to E82°40'6.10"
	Tenganabasa Komna	Sekhar Chandra Sena	At-PO-Komna, Dist-Nuapada,8658835393	1781,dt 14.3.2017	13.25	2017-18	2021-22	NA	Non-working		Mining Plan Yet to Submit
	Bhella Kisna Sand quarry	No bidder finalised									

3	Khariar	Bichhanapali Sand quarry-I	Hempati Tandi	Bhaludungri, PS-Khariar, District-Nuapada	1423,dt 217.7.2015	4.97	2015-16	2019-20	30.11.2016	Working	1644,dt 23.6.2016	N 20°14'23.4" to N 20°14'28.8' & E 82°45'28.4" to E82°45'29.3"
		Kushmal Sand quarry	Hempati Tandi	Bhaludungri, PS-Khariar, District-Nuapada	1423,dt 21.7.2015	4.97	2015-16	2019-20	4.3.2017	Working	2584,dt 20.02.2017	N 20°16'53.9" to N 20°16'54.5' & E 82°44'00.2" to E82°44'00.9"
		Sikuan Sand quarry	Sanjay Kumar Agrawal	Bhuliasikuan, PS-Khariar, District-Nuapada	2427,dt 21.12.2015	4.97	2015-16	2019-20	15.11.2016	Working	1298,dt 24.4.2016	N 20°21'25.2" to N 20°21'34.3' & E 82°47'02.4" to E82°47'03.1"
		Goddhuapada r Sand quarry	Mahindra Singh Challan	Kasipala, PS-Khariar, District-Nuapada	1199,dt 5.6.2017	5.26	2017-18	2021-22	30.10.2017	Working	3624,dt 25.9.2017	N 20°14'59.05" to N 20°15'23.13' & E 82°44'20.12" to E82°46'45.22"
		Bichhanapali Sans quarry-II	Hero Kumar Bag	Gandabahali, PS-Sinapali	1208,dt 5.6.2017	5.05	2017-18	2021-22	20.10.2017	Working	1208,dt 5.6.2017	N 20°14'37.61" to N 20°14'58.82' & E 82°46'00.22" to E82°46'12.01"

		Baddohel Sand quarry	Hero Kumar Bag	Gandabahali, PS-Sinapali	1418,dt 21.7.2015	5.58	2017-18	2021-22	19.1.2018	Working	3659,dt 11.10.2017	N 20°15'12.23" to N 20°19'19.04' & E 82°47'33.39" to E 82°47'48.17"
		Areda Sand quarry	Dolamani Bibhaar	Khariar, PS-Khariar, District-Nuapada	1196,dt 5.6.2017	5.34	2017-18	2021-22	7.11.2017	Working	3711,dt 23.10.2017	N 20°19'23.50" to N 20°19'47.32' & E 82°49'08.70" to E 82°49'21.18"
		Khudpej Sand quarry	Shyam Kumar Agrawal	Khariar, PS-Khariar, District-Nuapada	1428,dt 21.07.2015	5.26	2017-18	2021-22	26.5.2018	Working	3626,dt 25.9.2017	N 20°18'00.03" to N 20°18'10.72' & E 82°41'03.62" to E 82°41'09.51"
		Chandgiri Sand quarry	Pawan Kumar Agrawal	Khariar, PS-Khariar, Dist-Nuapada	1480,dt 4.7.2018	5.46	2018-19	2022-23	Non-functional	Non working	No	N 20°15'16.12" to N 20°15'25.18' & E 82°49'28.57" to E 82°49'39.11"
		Kikiribeda Sand quarry	Smt. Sushila Agrawal	Khariar, PS-Khariar, Dist-Nuapada	NA	5.05	2018-19	2022-23	Non-functional	Non working	No	N 20°17'26.83" to N 20°17'37.56' & E 82°41'23.56" to E 82°41'36.54"
		Torli Sand quarry	Pawan Kumar Agrawal	Khariar, PS-Khariar, Dist-Nuapada	1492,dt 4.7.2018	6.07	2018-19	2022-23	Non-functional	Non working	No	N 20°14'57.23" to N 20°15'04.53' & E 82°44'41.88" to E 82°44'48.87"
4	Sinapali	Gadramal Sand quarry	Prasant Ku. Naik	Sinapali	1011, dt15.4.2015	4.85	2015-16	2019-20	8.10.2015	Working	4312,dt 17.8.2015	N 20°05'43.0" to N 20°5'46.5' & E 82°36'14.2" to E 82°36'23.2"

Palsapada Sand quarry	Bighnaraj Meher	Sinapali	1014,dt 15.4.2015	4.77	2015-16	2019-20	8.10.2015	Working	4305,dt 17.8.2015	N 20°05'39.8" to N 20°5'44.6' & E 82°37'21.4" to E 82°37'33.1"
Sinapali Sand quarry	Santosh Ku. Meher	Sinapali	1016,dt 15.4.2015	4.65	2015-16	2019-20	8.10.2015	Working	4307,dt 17.8.2015	N 20°06'10.7" to N 20°6'15.4' & E 82°38'36.2" to
Bargaon Sand quarry	Bighnaraj Meher	Sinapali	1012,dt 15.4.2015	4.65	2015-16	2019-20	8.10.2015	Working	4309,dt 17.8.2015	N 20°06'39.6" to N 20°6'46.0' & E 82°41'14.1" to
Chalana Sand quarry	Bijaya Ku. Meher	Sinapali	1013,dt 15.4.2015	4.85	2015-16	2019-20	15.7.2016	Working	1675,dt 25.6.2016	N 20°06'20.6" to N 20°6'24.5' & E 82°42'56.3" to
Kopia Sand quarry	Tulsi Meher	Sinapali	1010,dt 15.4.2015	4.85	2015-16	2019-20	15.7.2016	Working	1685,dt 25.6.2016	N 20°06'32.3" to N 20°6'33.2' & E 82°44'01.2" to
Gidhmal Sand quarry	Bighnaraj Meher	Sinapali	1015,dt 15.4.2015	4.85	2015-16	2019-20	8.10.2015	Working	4301,dt 17.8.2015	N 20°05'56.5" to N 20°6'02.6' & E 82°45'34.9" to
Gorla Sand quarry	Subhash Chandra Agrawal	Sinapali	451,18.2.2019	5.26	2017-18	2021-21	1.6.2019	Working	3460,dt 24.8.2017	20°06'28.25" to 20°06'33.69"N 82°31'53.40" to 82°32'20.61"E
Gandabahali Sand quarry	-	-	-	4.85	-	-	-	Non working	-	-
Liad Sand quarry	-	-	-	4.85	-	-	-	Non working	-	-
Sagunbhadi Sand quarry	-	-	-	4.65	-	-	-	Non working	-	-


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