



# **DRAFT DISTRICT SURVEY REPORT (DSR)**

**OF**

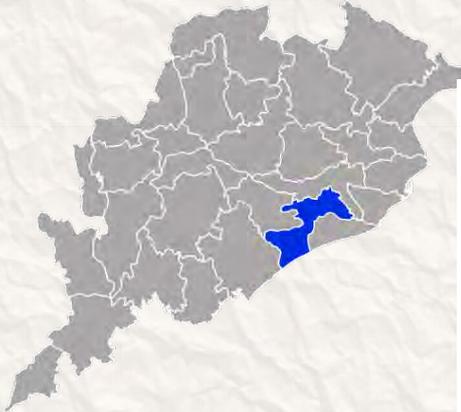
**KHORDHA DISTRICT, ODISHA**

**FOR**

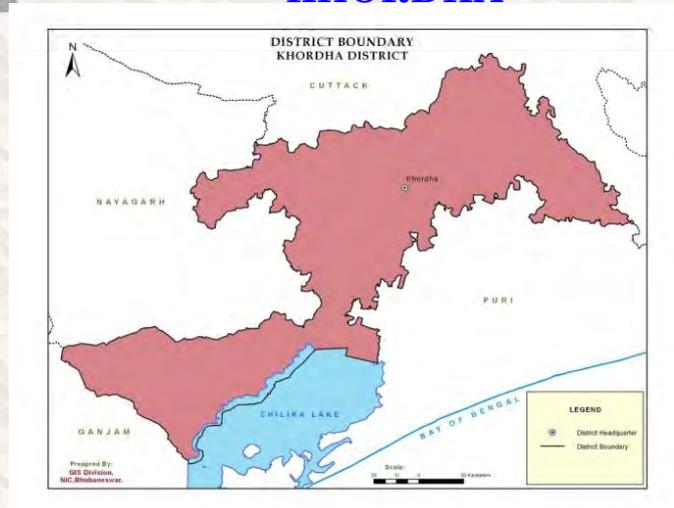
**ROAD METAL / BUILDING STONE / BLACK STONE**

**(FOR PLANNING & EXPLOITING OF MINOR  
MINERAL RESOURCES)**

**ODISHA**



**KHORDHA**



**As per Notification No. S.O. 3611(E) New Delhi,  
25<sup>th</sup> July, 2018**

**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(MoEF & CC)**

**COLLECTORATE, KHORDHA**

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## 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 road metal/building stone mining locations, future potential areas and overview of road metal 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.

### 1. INTRODUCTION

Khordha district has a unique place in history as the last kingdom to be conquered by the British in 1803. Khordha is famous for the Paik revolution of 1817 led by Jai Rajguru and Bakshi Jagabandhu Bidyadhar. The district came into being with effect from 2<sup>nd</sup> October 1992.

Khordha district is located in the south-eastern part of Odisha, adjoining the coastal area. It occupies an area of about 2887.5 sq km. The district is bounded by latitudes 19° 40' to 20° 25' and longitudes is 84° 56' to 86°05' and occupies parts of degree sheets 73 H, L, P & 74 I,A,E. It is surrounded by Cuttack district to the north, Ganjam and part of Puri district to the south, Puri district to the east and Nayagarh district to the west. Bhubaneswar – Vizayanagaram segment of the East-coast railway runs through the district along NE –SW direction. National Highway No. 16 running almost sub-parallel to the East coast railway line, passes through Khordha, the district headquarters and Bhubaneswar the state capital. Khordha is about 30 km from

Bhubaneswar and 12 km from Jatani, the nearest railway station of East coast railway. It has an average elevation of 75 m (246ft).

## 2. OVERVIEW OF MINING ACTIVITIES IN THE DISTRICT.

(a) In khordha district, presently there is one specified minor mineral lease i.e. for decorative stone in Village Tutumberpalli in favour of Sri Maa Granites. The lease area is 3.399 hecets. The lease has been commenced from 22.06.2015 and the lease period is for 20 years. The mining operation of the said lease is currently stopped due to want of Consent to Operate from OSPCB.

There are two nos. of Prospecting license; one is located at Naranagarh village over an area 4.672 hecets in favour of Shree Jagannath Temple Administration, Puri which has commenced from dt. 20.03.2018 for 2 years. The final prospecting report in respect of the said PL area has been sent to the Director of Mines, Odisha, Bhubaneswar for further examination at their end. Another one is located at Santasinghpur village over an area of 3.996 hecets in favour of Sri maa Granites which has commenced from dt. 14.02.2017 for 2 years. The final prospecting report along with ML application over the said PL area has been sent to Director of Mines, Odisha, Bhubaneswar for further examination at their end.

(b) Other than specified minor minerals such as river sand, laterite slabs, building stone/black stone/road metals etc. are also available in the district. Most of the building stone/black stone/road metals potentials are located in Khordha, Begunia and Tangi tahasils of the district. Others like laterite, morrum and earth are distributed in almost all tahasils.

## 3. GENERAL PROFILE

Geographical position	Longitude -84 <sup>o</sup> 55' to 86 <sup>o</sup> 5' Latitude- 19 <sup>o</sup> 40' to 20 <sup>o</sup> 25'
Area & Population	The district has an area of 2813 sq. km and 22.52 lakhs of population as per 2011 census. The district accounts for 1.81 percent of the states territory and shares 5.36 percent of the state's population. The density of population of the district is 800 per sq. Km as against 270 person per sq.km of the state. It has 1534 villages (including 178 un-inhabited villages) covering 10 blocks. 10 Tahasils and 2 sub-divisions.

	As per 2011 census the schedule caste population is 297472 (13.2%) and schedule tribe population 115051 (5.1 %). The literacy percentage of the district covers 86.9 against 72.9 of the state.
Climate	The climate condition of the district is generally hot with high humidity during April and May and cold during December and January The monsoon generally breaks during the month of July
Industry & Mining	Khordha is an important centre of handloom industry. The lungi, napkin and saree produced here have an all Odisha market. Besides during the year 2014-15, 2187 nos. of small scale industries have been established with total capital investment of about Rs.10870.89 lakhs with 2176 nos. of Employment generated in the district.  The district is also important for mining of minerals like decorative stone (Khondalite), building stone, laterite blocks, morrum & earth.
Power	Consumption of electricity in Khordha district during the year covers 1437.75 million units and revenue villages so far electrified as on 2013-14 is 1343 which constitutes 98.9 % to the total villages of the district.
Tourist Places	There are 19 nos. of tourist center such as Bhubaneswar, Dhauli, Khandgiri & Udayagiri, Nadankanan, Atri, Banapur, Barunei, Bhusandapur, Chilika (Barakul), Hirapur, Jayadev Kenduli, Gadamanitri, Rameswar, Madangiri (Mundiapada), Salia Dam-Barbara Hills, Kosalasuni, Thakuranipitha, Balipatna (Sisu Ananta Pitha), Shree Ananta Purusottam Dev (Jagulaipatna) and Sankat Mochan Mahavir Temple identified by department of Tourism and Culture, Odisha.
Transport & Communication	NH- 162.98 km SH- 25.97km Major district Road- 2555.08 km Other district road- 775.74 km

	Rural road- 1188.89 km Inter village road- 2424.00 km Intra village road- 1471.24 km Besides, 117.39 Kms. of Railway lines with 23 nos. of railway stations and passenger halts are there in the district.
Health	The medical facilities are provided by different agencies like Govt., Private individuals and voluntary organizations in the district. There were 282 nos. of the govt. Allopathic medical institutions with 965 beds facilities, 23 nos. of Homoeopathic dispensaries and 27 nos. of Ayurvedic dispensaries in the district during the year 2013-14.

#### 4. GEOLOGY

Western & south-western part of the district is occupied by the hilly terrain of Eastern Ghats. The hilly area in the west gradually passes on to the low undulating rugged terrain towards the central part of the district. In the northern, eastern and south-eastern sides, the district is surrounded by the flood plain and deltaic deposits of Mahanadi river basin. Parts of Chilika lake and its set of tributaries are the most conspicuous geomorphic features in the south. Daya, Bhargabi, Kuakhai and Kushabhadra rivers, emerging as distributaries from Mahanadi river system, drain southerly through the eastern flank of the district and merge either with the Chilika lake or with the Bay of Bengal. Kaipadar, about 10 km south west of Khurda, marks a water divide with Ran River flowing northerly to Mahanadi and Mandakini river flowing southerly to Chilika. The highest elevation attained in the district is at 568 mts. in its southwestern corner, while Chilika represents the lowest at mean sea level.

The Major geology in the district can be broadly classified into Eastern Ghat Super Group of Archean to Proterozoic age, Proterozoic intrusive, Gondwana Super Group of Mesozoic and Pleistocene to Holocene age of Quaternary period of Cenozoic Era.

The rocks belonging to EGSG are mostly quartzite, khondalite and their variants, charnockite and pyroxene granulite. They are found mostly on the western and south western parts of the district. The Eastern Ghat Super Group of rocks have

been intruded by plugs/apophyses of anorthosite, popularly known as Banpur anorthosite/ Chilika lake complex, and are found as cluster of anorthosite bodies around Banpur, Rambha and Balugaon region in the southern & western side of Chilika lake and partly within the lake also. This pluton is emplaced in the core of an antiform (Perraju, 1960). Sarkar et al. (1981) deciphered 3 phases of folding ( $F_1$ - $F_3$ ) in the khondalite host rocks and considered emplacement of anorthositic complex syntectonoc with  $F_3$ . Xenoliths of metasediments (khondalite and calc-silicate gneisses) and charnockite in anorthosite and locally developed pyroxene hornfels grade skarn zones indicate the intrusive nature of the complex.

The rocks of Eastern Ghat Supergroup show foliation in NE-SW direction. Joint planes, wherever present, follow the same structural alignment. A prominent fault running ENE-WSW is recorded in north-western part of the district. Major lineaments trend in NE-SW direction. The NE-SW trending lineament passing through Baghamari houses a sulphurous hot spring at Atri and is of immense tectonic significance.

Granite gneiss of Archean to Proterozoic age, exposed in the western part of the district, are well foliated and are often garnetiferous. Quartz veins cut across the granulitic country at random.

The exposures belonging to Athgarh formation of Upper Gondwanas (Lower Cretaceous) mostly occur as a cluster forming upland in the north, NE parts of the district, i.e. west of Bhubaneswar. They are comprising dominantly of sandstones classified as quartz arenite, sub-lithic arenite and lithic wacke (Mishra, 1988; Pal, 1990), characteristically lacking in feldspars in clastic components. This also includes conglomerates, grits, carbonaceous shale, variegated shale and fire clay; most of them as small lenticular bodies breaking the monotonous vastness of sandstones. Deep drilling in the coastal Odisha has indicated the extension of the formation below the alluvial cover of the Mahanadi delta and the coastal Tertiary succession (Pandya et al. 2000).

The earliest Quaternary deposit, the Bolgarh formation (Pleistocene age) occupies central and northern part of the district, overlying the khondalite group of rocks. It comprises hard crust laterite, latosol and also residual soil.

Brahmani formation (Pleistocene to Holocene) consists of residual soil and alluvium and occupies an appreciable part of the district and are particularly conspicuous in the eastern and southern part of the district adjoining Chilika lake.

Bankigarh formation (Middle to Late Holocene) is occupied by north and NE part of the district i.e. east of Bhubaneswar. It mostly comprises brownish silty clay and occur in the flood plain / deltaic plains of Mahanadi River basin.

The district lacks any major mineral deposit of economic significance. Few fire clay deposits located in the north-eastern part of the district are the only deposits of minor minerals that are being mined presently by Tata Refractories Ltd. The other deposits that are being profusely exploited as Dimension and decorative stone for construction material/polished slabs and artisan grade of khondalite around Tapanga and Kurumpada area.

Ground water occurs in the porous sedimentary formations and in the fractured igneous and metamorphic rocks in unconfined to confined conditions. The nala and gully erosion in the tributaries and distributaries of Mahanadi river basin and in Chilika lake are quite common.

**Stratigraphy:**

Phanerozoic	Quarternary	Mid to Late Holocene	Bankigarh Fm	Brownish silty clay
		Pleistocene to Holocene	Brahmani/ Mahanadi Fm	Residual soil and alluvium
		Pleistocene	Bolagarh Fm	Laterite/Latosol
	Gondwana Sup Gp	Lr Cretaceous	Athagarh Fm	Sandstone, Shale
Precambrian	Archean to Proterozoic	Eastern Ghat Sup Gp		Quart vein Granite gneiss Anorthosite Chanockite gp of rocks Khondalite gp of rocks Quartzite

## 5. DRAINAGE AND IRRIGATION PATTERN.

The drainage of the district is mainly controlled by rivers like Kuakhai, Kusabhadra, Bhargavi & Daya. Detail of the river system is narrated below.

S L NO	NAME OF RIVER	PLECE OF ORIGIN	ALTITUDE OF ORIGIN	TOTAL LENGTH IN THE DISTRICT (IN Km)	Area drained (sq.km)	%GE AREAS DRAINED IN THE DISTRICT	PROCESS OF DEPOSITION OF SEDIMENTS
1	Kushabhadra	Bhubanapur (khorda dist)	11.8m	30.0km	212.32sq.km	48.86%	Slow
2	Bhargavi	Balakati ( khordha dist )	7.80 m	14.0 km	Nil	Nil	Slow
3	Kuakhi	Mukameswra	25.92 m	26.500	21.85	45.60	Moderate
4	Daya	Nathapur	18.180 m.	10.100	10.10	51.80%	slow
5	Malaguni	Baunshagarh (nayagarh dist)	21.20m	35	8.40	62.50%	slow
6	Hada	Hatibari (Nayagarh dist)	19.80m	14	0.92	60.87%	No deposition
7	Kusumidhar	Randa (khordha dist)	60m	33	1.32	100.00%	No deposition

During the year 2013-14, it is reported by District Agriculture Officer that the irrigation potential created during Kharif and Rabi are 52655 hectares and 20346 hectares respectively from all sources.

## 6. LANDUSE PATTERN

SI No	Landuse	Area in '000Ha
1	Forest Area	62
2	Misc.Tree & Groves	10
3	Permanent Pasture	5
4	Culturable Waste	8
5	Land Put to Non Agril Use	45
6	Barren & Unculturable Land	15
7	Current Fallow	21
8	Other Fallow	6
9	Net Area Sown	108
10	Mining	1
	Geographical Area	281

## 7. SURFACE WATER & GROUND WATER SCENARIO

The drainage systems i.e. rivers of the district gets filled with water during the monsoon and the gradually it decreases from the month of January to June of each year. In the summer season all rivers become almost dry excepting narrow flow of water within the basin.

The variation of ground water table in the district is as follows:

Depth of water level (mbgl)/ Period	April	August	November	January
Minimum	0.4	0.10	0.10	0.06
Maximum	14.2	6.20	9.15	12.60

## 8. RAINFALL & CLIMATIC CONDITION

The district is generally hot with high humidity during April and May and cold during December and January. The monsoon generally breaks during the month of July and continues till end of October. The temperature goes as high as up to 45°C in the summer and up to 7<sup>o</sup>-8<sup>o</sup> C during peak winter.

The rainfall statistics of the district for last four years is given below:

MONTH – WISE RAINFALL (mm) DATA OF KHORDHA DISTRICT (LAST 4 YEARS)													
Year/ Month	April	May	June	July	August	Sept	Oct	Nov	Dec	Jan	Feb	March	Total
15-16	72.2	14.7	135.2	225.1	252.9	198.9	43.3	4.8	3.6	0.6	3.5	9.2	964
16-17	0.7	87.9	138.64	262.83	291.25	299.37	75.9	15.4	0	0.7	0	52.7	1225.39
17-18	10.26	17.58	164.93	402.23	313.31	239.07	249.3	59.96	20.02	0	0	0	1476.66
18-19	51.89	136.37	162.23	577.66	296.79	333.66	234	2	17.02	11	8.6	11.8	1841.02
Avg.	33.8	64.1	150.3	367.0	288.6	267.8	150.6	20.0	10.2	3.1	3.0	18.4	1376.8

## 9. DETAILS OF MINING LEASES OF ROAD METAL

Attached as Annexure I

## 10. DETAILS OF ROYALTY COLLECTED

### Year-wise Calculation of Royalty (Rs) of Road metal

Sl.No	Name Of Tahasil	2015-16	2016-17	2017-18	2018-19
1	Khordha	5252543	12197549	20576307	18205860
2	Bolagarh	0	444724	399699	580081
3	Tangi	0	0	0	0

<b>4</b>	Chilika	0	0	0	0
<b>5</b>	Begunia	0	0	0	0
<b>6</b>	Jatni	0	0	0	0
<b>7</b>	Balianta	0	0	0	0
<b>8</b>	Balipatana	0	0	0	0
<b>9</b>	Bhubaneswar	0	0	0	0
<b>10</b>	Balugaon	0	0	0	0
<b>TOTAL</b>		<b>5252543</b>	<b>42642273</b>	<b>20976006</b>	<b>18785941</b>

## 11. DETAILS OF PRODUCTION OF MINOR MINERAL

### Yearwise Production of Road metal in cum

Sl.No	Name of Tahasil	2015-16	2016-17	2017-18	2018-19
<b>1</b>	Khordha	0	65524	68367	70261
<b>2</b>	Bolagarh	2414	2560.8	2698	3289.8
<b>3</b>	Tangi	20169	31202	40300	40571
<b>4</b>	Chilika	0	0	0	0
<b>5</b>	Begunia	0	0	0	0
<b>6</b>	Jatni	0	0	0	0
<b>7</b>	Balianta	0	0	0	0
<b>8</b>	Balipatana	0	0	0	0
<b>9</b>	Bhubaneswar	0	0	0	0
<b>10</b>	Balugaon	0	0	0	0
<b>TOTAL</b>		<b>22583</b>	<b>99286.8</b>	<b>111365</b>	<b>114121.8</b>

## 12. MINERAL MAP OF THE DISTRICT

Attached as Plate No 4.

## 13. LIST OF LOI HOLDERS ALONG WITH VALIDITY

Attached as Annexure II

## 14. TOTAL MINERAL RESERVE AVAILABLE IN THE DISTRICT

Total mineral reserve of road metal/buildingstone/blackstone/white stone is 79551771 cum which may increase after detail investigation.

Details of the potential areas submitted as Annexure III.

## 15. QUALITY/GRADE OF MINERAL

Road metal/building metal of the district are very much suitable for various construction purposes after its crushing and screening. The in-situ rocks are fractured making these unsuitable for decorative purpose.

## 16. USE OF MINERAL

Road metal/building metal of the district are used mainly for various construction purposes like road making, concrete making, dams etc.

## 17. DEMAND & SUPPLY OF THE MINERAL

Name Of Tahasil	Year	Road Metal (cum)
Bhubaneswar	2015-16	
	2016-17	9203.66
	2017-18	5222.83
	2018-19	9847.71
	2019-20	11040
Tangi	2015-16	
	2016-17	
	2017-18	
	2018-19	
	2019-20	15650
Balianta	2015-16	
	2016-17	4558.5
	2017-18	1427.25
	2018-19	1203.38
	2019-20	7327
Jatni	2015-16	
	2016-17	5368
	2017-18	9051
	2018-19	25062
	2019-20	13140
Banpur	2015-16	
	2016-17	4530
	2017-18	6550
	2018-19	7765
	2019-20	8400
Chilika	2015-16	
	2016-17	8695
	2017-18	6467
	2018-19	10297
	2019-20	14546
Balipatna	2015-16	
	2016-17	10433
	2017-18	10433
	2018-19	10433
	2019-20	10600
Begunia	2015-16	
	2016-17	7368.7
	2017-18	6164.8
	2018-19	6867.2
	2019-20	7479.55
E.E NH Division Bhubaneswar	2015-16	
	2016-17	3800
	2017-18	2792
	2018-19	38521.47
	2019-20	26642.22

E.E R.W. Division Bhubaneswar	2015-16	
	2016-17	72920.8
	2017-18	119927.6
	2018-19	123598.3
	2019-20	138420.3
Tangi-BBSR NH-16	2015-16	
	2016-17	
	2017-18	
	2018-19	
	2019-20	
E.E (R & B) Division Bhubaneswar	2015-16	
	2016-17	5410
	2017-18	4902
	2018-19	3319
	2019-20	4543
E.E (R & B) Division II Bhubaneswar	2015-16	
	2016-17	65634.84
	2017-18	32982.95
	2018-19	70770.61
	2019-20	84924.73
E.E (R & B) Division III Bhubaneswar	2015-16	
	2016-17	69072.76
	2017-18	80822.05
	2018-19	93435.86
	2019-20	112123
E.E (R & B) Division IV Bhubaneswar	2015-16	
	2016-17	57191.73
	2017-18	57281.39
	2018-19	33842.86
	2019-20	38919.29
E.E (R & B) Division V Bhubaneswar	2015-16	
	2016-17	858507.9
	2017-18	1044182
	2018-19	1920255
	2019-20	7515788
Nimapara Irrigation division, Nimapara	2015-16	
	2016-17	5300
	2017-18	4900
	2018-19	4360
	2019-20	4280
	2020-21 (Probable)	6000
	2021-22 (Probable)	6000
	2022-23 (Probable)	6000
E E, Prachi Division, Bhubaneswar	2015-16	
	2016-17	100670
	2017-18	21118

	2018-19	7530
	2019-20	5400
<b>Total</b>		<b>17999927.37</b>

### 18. MINING LEASES MARKED ON THE MAP OF THE DISTRICT.

Attached as Plate No 5.

### 19. DETAILS OF AREAS WHERE THERE IS A CLUSTER OF MINING LEASES

Three clusters have been designated in Khordha Tahasil namely Cluster 1, Cluster 2 & Cluster 3. Details of the clusters are as below:

<b>CLUSTER 1</b>				
<b>NAME OF SUB CLUSTER</b>	<b>SL NO</b>	<b>NAME OF THE LEASE</b>	<b>AREA IN HA</b>	<b>STATUS</b>
Cluster-1A (Tangeni)	1	Tangeni building stone quarry	9.97	<b>NOT RUNNING</b>
Cluster-1B (Sankhari)	1	Sankhari East West (Ka)	4.82	
	2	Sankhari East West (Kha)	3.42	
	3	Sankhari East West (Ga)	3.98	
	4	Sankhari East West (Gha)	4.4	
	5	Sankhari South (Ka) Building stone quarry	2.02	
	6	Sankhari new building stone quarry joda amba (Gha)	4.05	
	7	Sankhari dhobi new building stone quarry (Uan)	3.04	
	8	Sankhari south new building stone quarry (Cha)	1.416	
	9	Sankhari south new building stone quarry (Chha)	4.05	
	10	Sankhari South new building stone quarry	0.4	
Cluster-1C (Dhaniala)	1	Dhaniala west (Ka) Building stone quarry	3.37	
	2	Dhaniala west (Kha) Building stone quarry	1.01	
	3	Dhaniala west (Ga) Building stone quarry	1.73	
	4	Dhaniala west (Gha) Building stone quarry	1.07	
	5	Dhaniala new building stone quarry (Uan)	4.05	
	6	Dhaniala new building stone quarry east taraf (cha)	4.05	
	7	Dhaniala new building stone quarry south east(chha)	3.89	
	8	Dhaniala new building stone quarry (Ja)	1.82	
	9	Dhaniala new building stone quarry middle (Jha)	2.83	
	10	Dhaniala new building stone quarry utara taraf (Ta)	3.03	
	11	Dhaniala South East stone quarry	2.02	
	12	Dhaniala new building stone quarry utara taraf (Da)	4.55	
	13	Kaipadar New Building Stone quarry	4.05	

	14	Dhania (Gha)	0.51

<b>CLUSTER 1</b>				
<b>NAME OF SUB CLUSTER</b>	<b>SL NO</b>	<b>NAME OF THE LEASE</b>	<b>AREA IN HA</b>	<b>STATUS</b>
Cluster-1B (Sankhari)	1	Kaipadar New Building stone quarry (Ga)	1.01	<b>RUNNING</b>
Cluster-1C (Dhania)	2	Dhania Building stone quarry (E)	1.35	
	3	Dhania Building stone quarry (F)	2.53	
	4	Kaipadar New Building stone quarry (Ka)	3.04	
	5	Kaipadar New Building stone quarry (Kha)	3.04	

<b>CLUSTER 2</b>				
<b>NAME OF SUB CLUSTER</b>	<b>SL NO</b>	<b>NAME OF THE LEASE</b>	<b>AREA IN HA</b>	<b>STATUS</b>
Cluster-2A (Golaputakhua)	1	Golaputakhua Building stone quarry (Ka)	23.86	<b>RUNNING</b>
Cluster-2C (Hatia)	2	Hatia New building stone quarry (Ka)	0.52	
	3	Hatia New building stone quarry (Ga)	1.05	
	4	Hatia New building stone quarry (Gha)	2.43	
	5	Hatia New building stone quarry (Uan)	2.43	

<b>CLUSTER 2</b>				
<b>NAME OF SUB CLUSTER</b>	<b>SL NO</b>	<b>NAME OF THE LEASE</b>	<b>AREA IN HA</b>	<b>STATUS</b>
Cluster-2A (Golaputakhua)	1	Golaputakhua Building stone quarry (Kha)	2.784	<b>NOT RUNNING</b>
	2	Kiajhari white stone quarry	0.400	
Cluster-2B (Duburi)	3	Duburi new building stone quarry	2.720	
Cluster-2C (Hatia)	4	Hatia New building stone quarry (Cha)	2.43	
	5	Hatia New building stone quarry (Chha)	3.64	
	6	Hatia New building stone quarry (Ja)	2.43	
	7	Hatia New building stone quarry (Jha)	2.43	
	8	Hatia New building stone quarry (Ta)	3.64	
	9	Hatia New building stone quarry (Tha)	3.24	
Cluster-2D	10	Chhatrama (Ka) building stone quarry	3.53	

(Kalinga)	11	Chhatrama (Kha) building stone quarry	3.24	
	12	Chhatrama (Ga) building stone quarry	2.475	
	13	Kalinga New Building stone quarry (Ka)	2.82	
	14	Kalinga New Building stone quarry (Kha)	3.01	
	15	Kalinga New Building stone quarry (Ga)	3.07	

<b>CLUSTER 3</b>				
<b>NAME OF SUB CLUSTER</b>	<b>SL NO</b>	<b>NAME OF THE LEASE</b>	<b>AREA IN HA</b>	<b>STATUS</b>
Cluster-3 (Dangarapada)	1	Kalachua Building stone quarry	3.12	<b>RUNNING</b>
	2	Dangarapada new Building stone quarry	1.01	

<b>CLUSTER 3</b>				
<b>NAME OF SUB CLUSTER</b>	<b>SL NO</b>	<b>NAME OF THE LEASE</b>	<b>AREA IN HA</b>	<b>STATUS</b>
Cluster-3 (Dangarapada)	1	Kalachua New Building stone quarry (Cha)	1.47	<b>NOT RUNNING</b>
	2	Kalachua New Building stone quarry (Chha)	2.43	
	3	Kalachua New Building stone quarry (Ja)	2.12	
	4	Kalachua New Building stone quarry (Jha)	3.84	
	5	Kalachua New Building stone quarry (Nian)	2.7	
	6	Kalachua New Building stone quarry (Ta)	2.74	
	7	Kalachua New Building stone quarry (Tha)	1.98	
	8	Dangarapada New Stone quarry (North side)	2.02	
	9	Dangarapada White Bulding Stone quarry	0.81	
	10	Santarapur Building stone quarry	0.4	

## **20. DETAILS OF ECO-SENSITIVE AREA**

Eco-Sensitive Zone of Chandaka-Damapada Wildlife Sanctuary is located within the district.

## **21.IMPACT ON THE ENVIRONMENT (AIR, WATER, NOISE, SOIL FLORA & FAUNAL , LAND USE , AGRICULTURE, FOREST ETC.) DUE TO MINING**

### **Activities attributed to Mining:-**

Generally, the environment impact can be categorized as either primary or secondary. Primary Impacts are those, which are attributed directly by the project. Secondary impacts are those which are indirectly induced and typically include the associated investment and changed pattern of social and economic activities by the proposed action.

The impact has been ascertained for the project assuming that the pollution due to mining activity has been completely spelled out under the base line environmental status for the entire ROM which is proposed to be exploited from the mines.

### **Impact on Ambient Air**

Mining operation are carried out by opencast manual, semi mechanized/ mechanized methods generating dust particles due to various activities likes, excavation, loading, handling of mineral and transportation. The air quality in the mining areas depends upon the nature and concentration of emissions and meteorological conditions.

The major air pollutants due to mining activities include:-

- Particulate matter (dust) of various sizes.
- Gases, such as sulphur dioxide, oxides of nitrogen, carbon monoxide etc from machine & vehicular exhaust.

Dust is the single air pollutant observed in the open cast mines. Diesel operating drilling machines, blasting and movement of machineries/ vehicles produce NO<sub>x</sub> , SO<sub>2</sub> and CO emissions, usually at low levels. Dust can be of significant nuance surrounding land user and potential health risk in some circumstances.

### **Water Impact**

Sometimes the mining operation leads to intersect the water table causing ground water depletion. Due to the interference with surface water sources like river, nallah etc drainage pattern of the area is altered.

### **Noise Impact**

Noise pollution mainly due to operation of machineries and occasional plying of machineries. These actives will create noise pollution in the surrounding area.

### **Impact on Land environment**

The topography of the area will change certain changes due to mining activity which may cause some alteration to the entire eco system.

## **Impact on Flora & Fauna**

The impact on biodiversity is difficult to quantify because of its diverse and dynamic characteristics.

Mining activities generally result in the deforestation, land degradation, water, air and noise pollution which directly or indirectly affect the faunal and flora status of the project area.

However, occurrence and magnitude of these impacts are entirely dependent upon the project location, mode of operation and technology involved.

## **22. REMEDIAL MEASURES TO MITIGATE THE IMPACT OF MINING ON THE ENVIRONMENT:-**

Air

Mitigation measures suggested for air pollution controls are to be based on the baseline ambient air quality of the project/cluster area and would include measures such as:

- Dust generation shall be reduced by using sharp teeth of shovels.
- Wet drilling shall be carried out to contain the dust particles.
- Controlled blasting techniques shall be adopted.
- Water spraying on haul roads, service roads and overburden dumps will help in reducing considerable dust pollution.
- Proper and regular maintenance of mining equipment's have to be undertaken.
- Transport of materials in trucks are to be covered with tarpaulin.
- The mine pit water can be utilized for dust suppression in and around mine area.
- Information on wind direction and meteorology are to be considered during planning, so that pollutants, which cannot be fully suppressed by engineering techniques, will be prevented from reaching the nearby agricultural land, if any.
- Comprehensive greenbelt around overburden dumps and periphery of the mining projects/clusters has to be carried out to reduce to fugitive dust

transmission from the project area in order to create clean & healthy environment.

### **Water**

- Construction of garland drains and settling tanks to divert surface run –off of the mining area to the natural drainage.
- Construction of checks dams/ gully plugs at strategic places to arrest silt wash off from broken up area.
- Retaining walls with weep hole are to be constructed around the mine boundaries to arrest silt wash off.
- The mined out pits shall be converted in to the water reservoir at the end of mine life. This will help in recharging ground water table by acting as a water harvesting structure.
- Periodic analysis of mine pit water and ground water quality in nearby villages are to be undertaken.
- Domestic sewage from site office & urinals/latrines provided within ML/QL areas is to be discharged in septic tank followed by soak pits.

### **NOISE**

- Periodic maintenance of machineries, equipments shall be ensured to keep the noise generated within acceptable limit.
- Development of thick green belt around mining/cluster area, haul roads to reduce the noise.
- Provision of earplugs to workers exposed to high noise generating activities like blasting, excavation site etc. Worker and operators at work sites will be provided with earmuffs.
- Conducting periodical medical checkup of all workers for any noise related health problems.
- Proper training to personnel to create awareness about adverse noise related effects.
- Periodic noise monitoring at locations within the mining area and nearby habitations to assess efficacy of adopted control measures.
- During blasting optimum spacing, burden and charging of holes will be made under the supervision of competent qualified mines foreman, mate etc.

### **Biological Environment**

- Development of green belt/gap filling saplings in the safety barrier left around the quarry area/ cluster area.
- Carrying out thick greenbelt with local flora species predominantly with long canopy laves on the inactive mined out upper benches.
- Development of dense poly culture plantation using local floral species in the mining areas at conceptual stage if the mine is not continued much below the general ground level.
- Adoption of suitable air pollution control measures as suggested above.
- Transport of materials in trucks covered with tarpaulin.

### **23. RECLAMATION OF MINED OUT AREA (BEST PRACTICE ALREADY IMPLEMENTED IN THE DISTRICT, REQUIREMENT AS PER RULES AND REGULATION, PROPOSED RECLAMATION PLAN) :-**

As per statute all mines/quarries are to be properly reclaimed before final closure of the mine. Reclamation of exhausted mines are planned to be undertaken in below three possible means:

1. If, substantial amount of waste is there, the exhausted quarry can be fully or partly backfilled using the stored waste. The backfilled areas are to be brought under plantation of local species.
2. If the generation of waste is much less as in the case of minor mineral mining, the exhausted quarries can be reclaimed by
  - a. Plantation on the broken up surface if the depth of quarry is not much below the surrounding surface level.
  - b. Converted to water reservoir after stabilization of the slopes if the exhausted quarry continues much below the surrounding surface level. It is preferred to cordon the water reservoir either through wire fencing or retaning wall with plantation from the safety point of view.

Most of the quarry/mining lease areas are yet to be exhausted from ore point of view. Hence, reclamation would be taken up only after exhaustion of the ore/mineral content from these areas. The exhausted minor mineral quarries of the district have been converted to water reservoirs.

### **24. RISK ASSESSMENT & DISASTER MANAGEMENT PLAN**

The only risk involved related to mining of minor mineral excepting natural calamities is slope failure and probable accidents due to high and ill maintained bench walls. This can only be addressed through making of regular benches and undertaking mining in benching pattern.

The disaster management plan (DMP) is supposed be a dynamic, changing, document focusing on continual improvement of emergency response planning and arrangements.

The disaster management plan is to be aimed to ensure safety of life, protection of environment, protection of installation, restoration of production and savage operations in this same order of priorities. For effective implementation of the disaster management plan, it should be widely circulated through rehearsal/induction conducted by the respective department from time to time .

**General responsibilities of employees' during an emergency:**

During an emergency, it becomes more enhanced and pronounced when an emergency warning is raised, the worker in charge, should adopt safe and emergency shut down and attend to any prescribed duty. If no such responsibility is assigned, the workers should adopt a safe course to assembly point and wait instructions. He should not resort to spread panic. On the other hand, he must assist emergency personnel towards objectives of DMP.

**Co-ordination with local authorities:**

The Mine Manger who is responsible for emergency will always keep a jeep ready at site. In case of any eventuality, the victim will be taken to the nearby hospitals after carrying out the first aid at the site. The Manger should collect and have adequate information of the nearby hospitals, fire station, police station, village panchayat heads, taxi stands, medical shops, district revenue authorities etc. and use them efficiently during the case of emergency.

**25. DETAILS OF THE OCCUPATION HEALTH ISSUES IN THE DISTRICT. (LAST FIVE- YEAR DATA OF NUMBER OF PATIENTS OF SILICOSIS & TUBERCULOSIS IS ALSO NEEDS TO BE SUBMITTED):-**

As per the guidelines of the Mine Rules 1995, occupational health safety has been stipulated by the ILO/WHO. The proponent's will take necessary precautions to fulfill the stipulations. Normal sanitary facilities have to be provided within the lease area. The management will carry out periodic health checkup of workers.

Occupational hazards involved in mines are related to dust pollution, noise pollution, blasting and injuries from moving machineries & equipment and fall from high places. DGMS has given necessary guidelines for safety against these occupational hazards. The management has to strictly follow these guidelines.

All necessary first aid and medical facilities are to be provided to the workers. The mine shall be well equipped with personal protective equipment (PPE). Further, all the necessary ported equipments such as helmet, safety goggles, earplugs, earmuffs ets are to be provided to mine workers as per Mines Rules. All operators and mechanics are to be trained to handle fire fighting equipments.

#### **TUBERCULOSIS DATA RNTCP KHORDHA**

YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
<b>15-16</b>	95	85	83	93	87	75	86	79	78	92	88	84	<b>1025</b>
<b>16-17</b>	96	84	86	88	78	69	104	103	98	118	115	128	<b>1167</b>
<b>17-18</b>	127	113	130	142	102	105	97	83	84	121	102	140	<b>1346</b>
<b>18-19</b>	160	156	124	121	119	116	98	124	123	117	142	130	<b>1530</b>
<b>TOTAL</b>	478	438	423	444	386	365	385	389	383	448	447	482	<b>5068</b>
<b>AVG.</b>	<b>120</b>	<b>110</b>	<b>106</b>	<b>111</b>	<b>97</b>	<b>91</b>	<b>96</b>	<b>97</b>	<b>96</b>	<b>112</b>	<b>112</b>	<b>121</b>	<b>1267</b>

There is no case of Silicosis found in khordha within the time frame mentioned above.

#### **26. PLANTATION OF GREEN BELT DEVELOPMENT IN RESPECT OF LEASES ALREADY GRANTED IN THE DISTRICT**

As most of the minor mineral mines/quarries of the district are yet to be exhausted of their mineral content no sort of reclamation measures including plantation has been undertaken excluding gap plantation of local species in the peripheral safety zones of the quarries/ clusters and in some of the haul roads.

#### **27. ANY OTHER INFORMATION**

Nil

## Annexure I

Sl. No.	Name of Tahasil	Name of Minor Mineral	Name of village/Date of registration of lease	Status	Name of lessee	Address & contact No of lessee	Mining lease grant order No & date	Period of QL		Date of commencement of mining operation	Status (working/non-working/Temp working for depar ch)	Captive or Non-captive	Lt No & date of grant of EC	Location of Resource (GPS coordinates or Khata & Plot No) (Sketch map to be attached)	Length of area leased for mineral concession (in km)	Average width of area leased for mineral concession (in km)	Area leased for mineral concession (in sq m)
								From	To								
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Khordha	Road Metal / Kalachua BUILDING STONE QUARRY	Dangarapada	Close	Girish chandra Barisal	S/O-Late Narayana barisal, Managing partner Rupayana construction & multi project Unit, Plot No-217 Pandiapada, Po-Retanga, PS - Tamando, Khordha	12006 7.9.15	2015	2020	NA	NA	Non-captive	79 11.7.16	Khata No.17, Plot No. 1246(P), 1237(P)	NA	NA	31200
2	Khordha	Road Metal / Dangarapada New Building Stone Quarry	Dangarapada	Close	Dagara minerals & construction Pvt. Ltd	M/D, D.K. Dagara, At-L-3/81, Acharya Vihar, Bhubaneswar	NA	2015	2020	NA	NA	Non-captive		Khata No.17, Plot No. 1246(P)	80 mtrs	NA	10100
3	Khordha	Road Metal	Dangarapada	Close	NA	NA	NA	NA	NA	NA	NA	Non-captive	NA	Khata No.17, Plot	NA	NA	20200

	ha	/ Dang arapa da New Buildin g Stone North side	ada	e								e		No. 1237(P)			
4	Kh ord ha	Road Metal / Dang apad a White Buildin g Stone	Dang arap ada	Cl os e	NA	NA	NA	NA	NA	NA	NA	Non- captiv e	NA	Khata No.17, Plot No. 1517(P)	NA	NA	8100
5	Kh ord ha	Road Metal / Santar apur New Buildin g Stone Quarr y	Santa rapur	Cl os e	Naren dra Kuma r	S/o-Bikash Chandra jha,Vill- SivapurPO/ DIST- Goda,State - Jhadakhan da	142 5.1.16	2015	2020	NA	NA	Non- captiv e	109 15.9.16	Khata No.349/1, Plot No. 1250(P), 1251(P)	NA	NA	4000
6	Kh ord ha	Road Metal/ Hatia Ka	Nijgar htap anga	Cl os e	Chitta ranja n Swain	S/o- Hrusikesh Swain,At- Plot No- 128,Dharma vihar,Po/Ps- Khandgiri,Di st-Khordha	12008 7.9.15	2015	2020	NA	NA	Non- captiv e	17 5.5.16	Khata No.832/1, Plot No. 276(P)	NA	NA	5200
7	Kh ord ha	Road Metal / Kaipa dar Ka	Kaipa dar	Ru nni ng	M/S miner al trader s Partn er- subha	At-Plot No.2/131, HouseNo1/ BAditya Royal apartment,I RC village Nayapalli,P		2015	2020	NA	NA	Non- captiv e		Khata No.849, Plot No. 2867(P), 2825 (P)	NA	NA	NA

					brata Mohanty	o/Ps-Khandgiri, Khordha											
8	Khordha	Road Metal / Kaipadar Kha	Kaipadar	Running	NA	NA	NA	NA	NA	NA	NA	Non-captive	NA	Khata No.849, Plot No. 2864(P)	NA	NA	30400
9	Khordha	Road Metal / Kaipadar New Ga	Kaipada	Running	M/S mineral traders Partner-subhabrata Mohanty	At-Plot No.2/131, HouseNo1/ BAditya Royal apartment, I RC village Nayapalli, Po/Ps-Khandgiri, Khordha		2015	2020	NA	NA	Non-captive	NA	Khata No.937/1, Plot No. 3502(P)	NA	NA	10100
10	Khordha	Road Metal / Hatia Ga	Nijgarhtapanga	Closure	Durgamhaba Baliarsingh	S/o Late Sarangadhar Baliarsingh, At-Bikash Nager, Po/P S-Jatani Dist-Khordha	12018 7.9.15	2015	2020	NA	NA	Non-captive	17 5.5.16	Khata No.832/1, Plot No. 276(P), 277(p)	NA	NA	10500
11	Khordha	Road Metal / Hatia Gha	Nijgarhtapanga	Running	Anima Pahantasingh	W/o-Susanta Pahantasingh, At/Po-Nijagadapanga, Ps/Dist-Khordha	12020 7.9.15	2015	2020	NA	NA	Non-captive	23 9.5.16	Khata No.832/1, Plot No. 277(p)	NA	NA	24300
12	Khordha	Road Metal / Hatia Uan	Nijgarhtapanga	Closure	Durgamhaba Baliarsingh	S/o Late Sarangadhar Baliarsingh, At-Bikash Nager, Po/P S-Jatani Dist-Khordha	6189 22.5.15	2015	2020	NA	NA	Non-captive	17 5.5.16	Khata No.832/1, Plot No. 277(P)	NA	NA	24300
13	Khord	Road Metal/	Kiajhari	Running	Durgamadh	S/o Late Sarangadhar	6187 22.5.15	2015	2020	NA	NA	Non-captive	357 25.1.16	Khata No. 320, Plot	NA	NA	238600

	ha	Golap utakh ua Ka		ng	aba Baliars ingh	ar Baliarsingh, At-Bikash Nager,Po/P S-Jatani Dist- Khordha						e		No. 1947(F)			
14	Kh ord ha	Road Metal / Dhani a E	Kaip dar	Ru nni ng	Chi tta ran ja n Swain	S/o- Hrusikesh Swain,At- Plot No- 128,Dharma vihar,Po/Ps- Khandgiri,Di st-Khordha	12004 7.9.15	2015	2020	NA	NA	Non- captiv e	77 11.7.16	Khata No.849, Plot No. 2847(P)	NA	NA	13500
15	Kh ord ha	Road Metal / Dhani a F	Kaip dar	Ru nni ng	Susan ta kumar Rath	S/o.Sarat Chandra Rath,Vill/Po- jurudi,Ps- Joda, Dist- Keonjhar	12006 7.9.15	2015	2020	NA	NA	Non- captiv e	79 11.7.16	Khata No.849, Plot No. 2847(P)	NA	NA	25300
16	Kh ord ha	Road Metal/ Hanu mant a buildin g stone quarry (Ka)	Malip ada	Ru nni ng	Sanju kta Kahal singh	W/o-Sarat Ch. Kahalsingh, Vill/Post- Kumarbasta ,PS/Dist- Khordha	7748 17.6.15	2015	2020	NA	NA	Non- captiv e	107 12.9.16	Khata no.- 733, plot no. 6(p)	NA	NA	42700
17	Kh ord ha	Road Metal / Dhani a West Ka	Kaip dar	Cl os e	NA	NA	NA	NA	NA	NA	NA	Non- captiv e	48 30.5.16	Khata No.849, Plot No. 2900(P), 2825(P)	NA	NA	33700
18	Kh ord ha	Road Metal r/ Dhani a West Gha	Kaip dar	Cl os e	NA	NA	NA	NA	NA	NA	NA	Non- captiv e	50 30.5.16	Khata No.849, Plot No. 2900(P), 2825(P)	NA	NA	10700

19	Khordha	Kalinga Black Stone Quarry	Jhinkijhari	Close	NA	NA	NA	NA	NA	NA	NA	Non-captive	05 7.4.16	Khata no.-180, plot no. 140(p)	NA	NA	45890
20	Khordha	Road metal/Malipada White stone quarry	Malipada	Running	Prafulla kumar Sahu	S/oUdaynath SahuVill/Po-Kaipadar,Ps /Dist-Khordha		2015	2020			Non-captive		Khata no.-726/2, plot no. 9(p)			4000
21	Bolagarh	Road Metal	Bolagarh	Running	Sri Subhendu Kumar Champati	Vill/PS/PO-Bolagarh	Lt.4334 /rev dt.22.07.16	2015-16	2019-20	28.06.16	Working	Captive	SEIAA/737 dated 30.01.16	Lattitude 20°09'51.4" N to 20°09'52.2" N longitude 85°16'27.5" E to 85°16'28.9" E Khata No-1279, Plot No- 2381 Area Ac 0.23518	NA	NA	950.94
22	Bolagarh	Road Metal	Kusupalla	Running	Sri Rabin dra kumar Parida	Vill- Trutiapada PO-Bolagarh PS-Bolagarh	238 dt. 06.01.16	2015-16	2019-20	23.07.18	Working	Captive	SEIAA/6362 dated 17.08.15	Lattitude 20°08'56N to 20°08'59 longitude 85°14'32E to 85°14'34 E Khata No-425, Plot No- 683 Area Ac 0.300	NA	NA	1213.96
23	Bolagarh	Road Metal	Gopalipada	Running	Jayakrushna Swain	Vill- Chuda PO-Debardhuapatan PS-Bolagarh	3762/ Rev 25.06.16	2015-16	2019-20	20.07.16	Working	Captive	SEIAA/605 dated 30.01.16	Lattitude 20°09'21.1" N to 20°09'21.9" N longitude 85°17'27.3"			1618.63

													E to 85°17'28.1" E Khata No- 217, Plot No- 883 Area Ac 0.400				
24	Bolagarh	Road Metal	Panchukota	Ruinning	Sri Rabin dra kumar Parid a	Vill- Trutiapada PO- Bolagarh PS-Bolagarh	3762/ Rev25. 06.16	2015- 16	2019- 20	20.07.1 6	Workin g	Captiv e	SEIAA/ 719 dated 30.01.16	Latitude 20°09'10.13 "N to 20°09'11.1" N longitude 85°15'16.3" E to 85°15'17.5" E Khata No- 231, Plot No- 734 Area Ac 0.120			485.59
25	Bolagarh	Road Metal	Srichandanpur	Ruinning	Sri Satru ghan Mansi ngh	Vill- SiulaPO- PichukuliPS- Begunia	5359 dt. 31.03.1 7	2015- 16	2019- 20	23.06.1 7	Workin g	Captiv e	SEIAA/ 4360 dated 17.08.15	Latitude 20°11'48.4" N to 20°11'53.2" N longitude 85°18'22.9" E to 85°18'30.2" E Khata No- 562, Plot No- 1 Area Ac 4.635			18715.6
26	Bolagarh	Road Metal	Dauniapalli	Ruinning	Prash anta kumar Parid a	AT- Trutiapada PO- Bolagarh	Lt. 238 Dt. 06.01.1 6	2015- 16	2019- 20	21.03.1 6	Workin g	Captiv e	SEIAA/ 4360 dated 17.08.15	Latitude 20°09'11.N to 20°09'13 N longitude 85°14'31E to 85°14'33 E Khata No- 326, Plot			1011.64

													No- 309 Area Ac 0.250				
27	Ta ngi	Black stone  (Jarip ut BS -1( 0.500 Ac))	Jarip ut	Ru nni ng	Suba sh chan dra sen	At- Kaithapall a,Khordha	Letter No.12 20 Date- 7.4.20 15	2015- 16	2019- 20	01.03. 2016	Worki ng	Non capti ve		Khata no- 296, Plot No.1112/1	0.05	0.04	2023
28	Ta ngi	Black stone  Jarip ut BS-2( 0.500 Ac)	Jarip ut	Ru nni ng	Ajay a Kum ar Biswa l	At- Sarlasinghi ,Khordha	Letter No.12 20 Date- 7.4.20 15	2015- 16 to 2019- 20	2019- 20		Worki ng	Non capti ve		Khata no- 296, Plot No.1112/2	0.05	0.04	2023
29	Ta ngi	Black stone Jarip ut BS- 3( 0.800 Ac)	Jarip ut	Ru nni ng	Ragh unat h Sen	At- Kaithapall a,Khordha	Letter No.12 20 Date- 7.4.20 15	2015- 16 to 2019- 20	2019- 20		Worki ng	Non capti ve		Khata no- 296, Plot No.1112/3	0.05	0.04	2023
30	Ta ngi	Black stone  Jarip ut BS- 4( 0.500 Ac)	Jarip ut	Ru nni ng	Babu li Sena	At- Kaithapall a,Khordha	Letter No.12 20 Date- 7.4.20 15	2015- 16 to 2019- 20	2019- 20		Worki ng	Non capti ve		Khata no- 296, Plot No.1112/4	0.05	0.04	2023
31	Ta ngi	Black stone Jarip ut BS- 5( 0.500 Ac)	Jarip ut	Ru nni ng	Purn a Chan dra Biswa	At- Kaithapall a,Khordha	Letter No.12 20 Date- 7.4.20	2015- 16 to 2019- 20	2019- 20		Worki ng	Non capti ve		Khata no- 296, Plot No.1112/5	0.02	0.07	2023

		0.500 Ac)			I		15										
32	Ta ngi	Black stone  Jarip ut BS- 6( 0.600 Ac)	Jarip ut	Ru nni ng	Saroj Kum ar Moh anty	At- Singhpursa san,Khord ha	Letter No.16 94 Date- 4.5.20 17	2017- 18	2022- 23		Worki ng	Non capti ve		Khata no- 296, Plot No.1061	0.09	0.10	10117
33	Ta ngi	Black stone  Jarip utBS- 8 ( 2.000 Ac)	Jarip ut	Ru nni ng	Prad eep Kum ar Jena	At- Kaithapall a,Khordha	Letter No.12 20 Date- 7.4.20 15	2015- 16 to 2019- 20	2019- 20		Worki ng	Non capti ve		Khata no- 296, Plot No. 1112(p)10 61(p)1	0.08	0.03	3237
34	Ta ngi	Black stone Jarip ut BS -9 ( 0.900 Ac)	Jarip ut	Ru nni ng	Taran i Bala bantr ay	At- Sikharpad ar, Khordha		2015- 16 to 2019- 20	2020- 21		Worki ng	Non capti ve		Khata no- 296, Plot No.1112/1	0.06	0.03	1821
35	Ta ngi	Black stone  Jaya man galpu r BS Q No.1 (2.200 Ac)	Jaya man galpu r	Ru nni ng	Sank ar Chah atray	At- Kaithapall a, Khordha	Letter No.12 20 Date- 7.4.20 15	2015- 16	2019- 20		Worki ng	Non capti ve		Khata no- 432, Plot No.1632	0.05	0.15	8903
36	Ta ngi	Black stone  Jaya man galpu	Jaya man galpu r	Ru nni ng	Sang ram Kesh ari Sen	At- Kaithapall a, Khordha		2015- 16	2021- 22		Worki ng	Non capti ve		Khata no- 432, Plot No.1632	0.06	0.07	5261



**A. FOR SOURCES ALREADY AUCTIONED BUT NOT EXECUTED (LOI ISSUED)**

**ANNEXURE II**

Sl. No.	Name of village	Name of Minor Mineral and Area of Sairat (Ha)	Name of the Successful auction holder	Address & Contact No of Letter of Intent Holder	Letter of Intent Grant Order No. & date	Validity of Loi	Use (Captive/Non-Captive)	Location of the Source recommended for mineral concession (GPS co-ordinates or Khata & Plot No) (Sketch map to be attached)	Area of the mineral potential patch (in sq m)	Average height of potential patch (in m)	Mineable mineral potential (in cum)	MGQ (cum)
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Dan gara pada	Road Metal/ Kalachua New Building stone ( Cha)	M/S KUKUMINA CONSTRUCTION PVT. LTD	MD-KAILASH CH PARIJA , AT-364,BOMIKHAL,BHUBANESWAR				Khata No.17, Plot No. 1237(P)	80 mtrs	14660	10143857	10000
2	Dan gar pada	Road Metal / Dangapada White Building Stone	M/S KUKUMINA CONSTRUCTION PVT. LTD	MD-KAILASH CH PARIJA , AT-364,BOMIKHAL,BHUBANESWAR				Khata No.17, Plot No. 1517(P)	80 mtrs	8100	10143857	1500
3	Dan gar pada	Road Metal / Kalachua New (Jha)	DION INFRA TECH PRIVATE LIMITED	MD-MANOJ KUSHAHO, PLOT NO: 43, UNIT - VII, SURYA NAGAR,BBSR - 03				Khata No.17, Plot No. 1517(P)	80 mtrs	38400	10143857	15000
4	Dan gar pada	Road Metal / Kalachua New (Chha)	M/S KUKUMINA CONSTRUCTION PVT. LTD	MD-KAILASH CH PARIJA , AT-364,BOMIKHAL,BHUBANESWAR				Khata No.17, Plot No. 1247(P)	80 mtrs	24280	10143857	12000
5	Dan gar pada	Road Metal / Dangarapada New Building Stone North side	PRAGYAN PARAMITA PADHI	W/O SUBHRANSU SANKAR PADHI 3840, BARIMUNDA, MANCHESWAR,BBSR				Khata No.17, Plot No. 1237(P)	80 mtrs	20200	10143857	10000
6	Dan gar pada	Road Metal / Kalachua New (nian)	M/S KUKUMINA CONSTRUCTION PVT. LTD	MD-KAILASH CH PARIJA , AT-364,BOMIKHAL,BHUBANESWAR				Khata No.17, Plot No. 1517(P)	80 mtrs	27000	10143857	12000
7	Dan gar	Road Metal / KAlachua	URMILA BUILDERS PVT LTD	MD-DILLIP KU JENA, S/O LATE MAHENDRA KU JENA				Khata No.17, Plot No. 1517(P)	80 mtrs	27400	10143857	10000

	apa da	New (Ta)		PLOT NO-2508,LWIS ROAD, BBSR - 02								
8	Dan gar apa da	Road Metal / Kalachua New (Tha)	M/S KUKUMINA CONSTRUCTION PVT. LTD	MD-KAILASH CH PARIJA , AT-364,BOMIKHAL,BHUBANESWAR				Khata No.17, Plot No. 1517(P)	80 mtrs	19800	10143857	7000
9	Dan gar apa da	Road Metal / Kalachua (Ja)	M/S KUKUMINA CONSTRUCTION PVT. LTD	MD-KAILASH CH PARIJA , AT-364,BOMIKHAL,BHUBANESWAR				Khata No.17, Plot No. 1517(P)	80 mtrs	21200	10143857	8000
10	Nijgarht apa nga	Road Metal / Hatia Ta	FORTUNE ASSOCIATES PVT LTD	MD-PRADYUMNA KU HOTA PLOT NO: FLAT # B-202, 2ND. FLOOR, SHREE NIKETAN APPARTMENTS, AT/PO: BARBIL, DIST.: KEONJHAR - 35				Khata No.832/1, Plot No. 277(P)	36400	140 mtrs	14219245	20000
11	Nijgarht apa nga	Road Metal / Hatia Cha	SASMITA ROURAY	W/O SUDIPTA KU ROURAY AT/PO: NIJIGARH TAPANGA, DIST.: KHORDHA - 752018				Khata No.832/1, Plot No. 277(P)	24300	140 mtrs	14219245	15000
12	Nijgarht apa nga	Road Metal / Htia Chha	SATYA MULTIPLEX PVT. LTD	MD-JAGDISH SANKAR SAHOO S/O RAGHUNATH SAHOO N-6/321, IRC VILLAGE, NAYAPALLI,BBSR - 751015				Khata No.832/1, Plot No. 277(P)	36400	140 mtrs	14219245	20000
13	Nijgarht apa nga	Road Metal / Hatia Ja	SASMITA ROURAY	W/O SUDIPTA KU ROURAY AT/PO: NIJIGARH TAPANGA, DIST.: KHORDHA - 752018				Khata No.832/1, Plot No. 277(P)	24300	140 mtrs	14219245	15000
14	Nijgarht apa nga	Road Metal / Hatia Jha	PRASANNA KUMAR SAHOO	S/O LATE UDAYANATH SAHOO , AT: PALTANPADIA, PS: KHORDHA,DIST.: KHORDHA - 752055				Khata No.832/1, Plot No. 277(P)	24300	140 mtrs	14219245	15000
15	Nijgarht apa nga	Road Metal / Hatia Tha	SIBA SANKAR SAMANTARAY	S/O- RAMENDRANATH SAMANTARAY Barunei				Khata No.832/1, Plot No. 277(P)	32400	140 mtrs	14219245	17000

				Sahi,Jajarasingh,Bajapur, Khordha								
16	Nijgarht apanga	Road Metal/ Duburi New Building Stone Quarry	SUKANTA KUMAR BISWAL	S/O-RABINDRA KUBISWAL AT: PNO.-669, PRATIKHYA, EKAMRAVIHAR, NAYAPALLI, BBSR				Khata No.832/1, Plot No. 944(F)	27190	20mtrs	119279	5000
17	Kaipadar	Road Metal/ Dhania West Ka	SUBRAT KUMAR NAYAK	S/O-RAMAKANTANAYAK,PLOT NO-54,BUDHESWARI COLONY,LAXMISAGAR ,BHUBANESWAR				Khata No.849, Plot No. 2900(P), 2825(P)	33700	140	21505714	25000
18	Kaipadar	Kaipadar/ Dhania West Kha	MEENAKHI PRADHAN	W/O LATE JAGANNATHPRADHAN,AT-SAMANTARAPUR,PS /DIST-KHORDHA				Khata No.849, Plot No. 2900(P)	10100	140	21505714	7000
19	Kaipadar	Road Metal/ Dhania West Ga	PRAVASINI MOHANTY,	W/O-RANJANKUMAR MOHANTY,N.A.45,GGP COLONY,RASULGARH, BHUBANESWAR				Khata No.849, Plot No. 2825(P)	17300	140	21505714	10000
20	Kaipadar	Road Metal/ Dhania West Gha	SUBRAT KUMAR NAYAK	S/O-RAMAKANTANAYAK,PLOT NO-54,BUDHESWARI COLONY,LAXMISAGAR ,BHUBANESWAR				Khata No.849, Plot No. 2900(P), 2825(P)	10740	140	21505714	7000
21	Kaipadar	Road Metal/ Dhania Uttar Taraf Ta	SOUBHAGYA CHANDRA DAS	S/O LATE SACHIDANANDADAS,AT/PO: BYEPASS ROAD, TALCHER, ANGUL - 759107				Khata No.849, Plot No. 2847(P)	30350	140	21505714	25000
22	Kaipadar	Road Metal/ Dhania Uttar Taraf Da	AJAY AGARWAL	S/O LATE BAMDASAGRAWALA PLOT NO: 143, VIP COLONY, NAYAPALLI, IRC VILLAGE, BBSR				Khata No.849, Plot No. 2825(P)	45500	140	21505714	30000
23	Kaipadar	Road Metal/ Dhania Southeast	SOUBHAGYA CHANDRA DAS	S/O LATE SACHIDANANDADAS,AT/PO: BYEPASS ROAD, TALCHER, ANGUL -				Khata No.849, Plot No. 2864(P)	20200	140	21505714	15000

				759107								
24	Kaip ada r	Road Metal / Dhania East TaraFCha	VEENET LALANI	S/o Late Tilak Chanda lalani Plot No: 3433, B- 29,Jayadurga Nagar, Po./ Ps: Laxmi Sagar,Bhubaneswar				Khata No.849, Plot No. 2864(P)	40500	140	21505714	30000
25	Kaip ada r	Road Metal / Dhania Ja r	VEENET LALANI	S/o Late Tilak Chanda lalani Plot No: 3433, B- 29,Jayadurga Nagar, Po./ Ps: Laxmi Sagar,Bhubaneswar				Khata No.849, Plot No. 2864(P)	18200	140	21505714	10000
26	Kaip ada r	Road Metal / Dhania Middle Jha	RAJENDRA PRASAD SINGH	S/O-LATE HARIHAR SINGH AT: NEW RAUSA PATNA, PS: PURIGHAT, DIST.: CUTTACK				Khata No.849, Plot No. 2847(P)	28300	140	21505714	20000
27	Kaip ada r	Road Metal / Dhania South East (Chha)	JATINDRA DAS	S/O LATE BASUDEDEB DAS AT: KAKATA, PO/DIST: KENDRAPADA				Khata No.849, Plot No. 2864(P)	38900	140	21505714	30000
28	Kaip ada r	Road Metal / Dhania Uttar Taraf Tha	TARAK NATH DAS,	S/o Denesh Chandra Das, AT/PO/PS- ChandrasekharpurDi st-Khordha				Khata No.849, Plot No. 2847(P)	12100	140	21505714	7000
29	Kaip ada r	Road Metal / Sankhari South New (Cha)	SOUBHAGYA CHANDRA DAS	S/O LATE SACHIDANANDA DAS,AT/PO: BYE PASS ROAD, TALCHER, ANGUL - 759107				Khata No.849, Plot No. 3502(P)	14160	60 mrs	5795485	25000
30	Kaip ada r	Road Metal/ Sankhari east-West (Ga)	PREMIER ROCK PRODUCT PVT. LTD,	AT-DANKARI,PO- MAHISARA, DIST- JAJPUR,ODISH				Khata No.849, Plot No. 3502(P)	39800	60 mrs	5795485	25000
31	Kaip ada r	Road Metal/ Sankhari East-West (Gha)	PREMIER ROCK PRODUCT PVT. LTD,	AT-DANKARI,PO- MAHISARA, DIST- JAJPUR,ODISH				Khata No.849, Plot No. 3502(P)	44000	60 mrs	5795485	30000
32	Kaip	Road	FORTUNE	MD-PRADYUMNA				Khata No.849, Plot	34200	60 mrs	5795485	25000

	ada	Metal/ Sankhari East-West (kha)	ASSOCIATES PVT LTD	KU HOTA PLOT NO: FLAT # B-202, 2ND. FLOOR, SHREE NIKETAN APPARTMENTS, AT/PO: BARBIL, DIST.: KEONJHAR - 35				No. 3502(P)				
33	Kaip ada r	Road Meal/ Sankhari East-West (Ka)	Rajendra Prasad Singh					Khata No.849, Plot No. 3502(P)	48200	60 mrs		30000
34	Kaip ada	Road Metal r/ Sankhari South New	MALATI RAUTARAY	W/O: PRAKASH CHANDRA RAUTARAY,AT: DURGAPUR, PO: BAJAPUR, DIST.: KHORDHA - 752 060				Khata No.849, Plot No. 3502(P)	4000	60 mrs	5795485	1892
35	Kaip ada	Road Metal/ Sankhari South (Ka)	SAGAR KU RAY	S/o.Purna Chandra Behura,At-Plot No MIG-19,stage-2,ps- laxmisager,Bhubane swar,Khordha				Khata No.849, Plot No. 3502(P)	20200	60 mrs	5795485	2448
36	Kaip ada r	Road Metal / Kaipadar New Building Stone	DEBENDRANATH JENA	S/O DWIJENDRALAL JENA VILLAGE : UPPAR SAHI PO/PS/DIST: KHORDHA - 752055				Khata No.849, Plot No. 2825(P)	40500	140	21505714	30000
37	Mali pad a	Road Metal/ Hanumant a (GA) building stone quarry	SARAT CHANDRA KAHALSINGH	AT/PO" KUMARBASTA, PS: KHORDHA, DIST: KHORDHA - 752055				Khata no.- 726/2, plot no. 9(p)	4400	15mtrs	30008	3000
38	Kiaj hari	Road Metal / Kiajhari White Stone Quarry	DRAUPADI SRICHANDAN	W/O LATE SURENDRA SHREECHANDAN,AT/ PO: GURUJANGA, PS/DIST. KHORDHA				Khata No. 320, Plot No. 755(P)	4000	10 mtrs	9980107	1500
39	Nijg arht	Road Metal /	DRAUPADI SRICHANDAN	W/O LATE SURENDRA				Khata `No.832/1, Plot No. 953(F)	27840	30 mtrs	9980107	12000

	apa nga	Golaputak hua Kha		SHREECHANDAN,AT/ PO: GURUJANGA, PS/DIST. KHORDHA								
40	Kaip ada	Road Metal / Sankhari- Jodaamba (Gha)	Ranjen Choudhury	S/O-Late Laxminarayana Choudhury,PlotNo- 302/A,Nayapally,Beh erasahi,P/S- Nayapally,Bhubanes war,Khordha				Khata No.849, Plot No. 3502(P)	40500	60 mrs	5795485	48000
41	Kaip ada r	Road Metal / Dhania Una	Sunita Swain	W/O-Mruta Kumar Swain,At-Pratap Nagar,P/O- Bhanapur,P/S- Cuttacksadar,Cuttac k				Khata No.849, Plot No. 2847(P)	40500	140	21505714	48000
4 2	Kaip ada r	Road Metal /Tangeni Building Stone Quarry	biraja Prasad Das					Khata No.937/1, Plot No. 3222	99700	20 mtrs	700000	1600
43	Kaip ada	Road Metal / Sankhari South New (Chha)	Debasmita Samantray					Khata No.849, Plot No. 3502(P)	40500	60 mrs	5795485	48000

**B.FOR SOURCES ALREADY AUCTIONED BUT NOT EXECUTED (LOI ISSUED)**

**ANNEXURE II CONTD.**

Sl. No.	Name of village	Name of Minor Mineral and Area of Sairat (Ha)	Name of the Successful auction holder	Address & Contact No of Letter of Intent Holder	Letter of intent Grant Order No. & date	Validity of Lol	Use (Captive/Non-Captive)	Location of the Source recommended for mineral concession (GPS co-ordinates or Khata & Plot No) (Sketch map to be attached)	Area of the mineral potential patch (in sq m)	Average height of potential patch (in m)	Mineable mineral potential (in cum)	MGQ (cum)
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Brusaband	Black stone Brusabandha BS Q No.1(1.232 Ac)					Non captive	Khata no-212, Plot No.558	4986	10	16365	2000
2	Brusaband	Black stone Brusabandha BS Q No.2(2.000 Ac)	Subha brata Mohanty	At- Mehendipur , Kaleegali			Non captive	Khata no-214, Plot No.554	8093	10	50048	3000
3	Brusaband	Black stone Brusabandha BS Q No.3(4.5 Ac)					Non captive	Khata no-214, Plot No.554	18211	10	49972	3000
4	Brusaband	Black stone Brusabandha BS Q No.5(3.000 Ac)	Subha brata Mohanty	At- Mehendipur , Kaleegali			Non captive	Khata no-214, Plot No.554	8093	10	57096	4000
5	Brusaband	Black stone Brusabandha BS Q No.6(2.000 Ac)	Subha brata Mohanty	At- Mehendipur , Kaleegali			Non captive	Khata no-214, Plot No.554	14164	10	25385	4000

6	Brusaband	Black stone Brusabandha BS Q No.7(3.500 Ac)	Subha brata Mohanty	At-Mehendipur , Kaleegali			Non captive	Khata no-214, Plot No.554	20922	10	308248	4000
7	Jagatpur	Jagatpur Laterite Stone quarry No.1					Non captive	Khata No.395,(ban abibibhag),plot no.246, Ac. 4.000,Kisam-Chhotajungle	-16187	6	58273	2000
8	Jagatpur	Jagatpur Laterite Stone quarry No.2					Non captive	Khata No.392,(Anabadi),plot no.262, Ac. 2.605,Kisam-Pathartangi	10542	6	37951	2000
9	Balarampur	Balarampur Black Stone Quarry					Non captive					
10	Rasulpur	Rasulpur morrum Quarry					Non captive	,Khata No.286, Plot no.887	17705	6	73738	2000
11	Nayakote	Nayakote Black Stone					Non captive	, Khata no.293,plot no.685	4047	6	14569	2000
12	Patrapada	Patrapada LSQ No.1					Non captive	Khata no-107, Plot No.207	1202	6	8232	1800
13	Rasulpur	Rasulpur LSQ No.1					Non captive	Khata no-286, Plot No.68	5301	6	9836	1800
14	Rasulpur	Rasulpur LSQ No.2					Non captive	Khata no-286, Plot No.77	2040	6	15720	1800
15	Sundarpur	Sundarpur LSQ					Non captive	Khata no-986, Plot No.2511	1396	6	13508	1800
16	Singarama	Singarama Laterite Stone quarry no-1 (2.081 Ac.)					Non captive	Khata no-211, Plot No.42	8422	6	17375	2700
17	Singarama	Singarama LSQ No-2(0.793 AC					Non captive	Khata no-211, Plot No.217	3209	6	12632	2700

18	Ramachandrapur	Ramachandrapur LSQ No-1 0.868 AC					Non captive	Khata no-463, Plot No.651	3513	6	25592	2700
19	Ramachandrapur	Ramachandrapur LSQ No-2 4.825 AC					Non captive	Khata no-465, Plot No.640	19526	6	70293	2700

**LOI ISSUED/POTENTIAL AREAS OF ROAD METAL/ BLACKSTONE/WHITESTONE IN KHORDHA DISTRICT**

Sl. No.	Name of Tahasil	Name of village	Status	Name of Minor Mineral and Area of Sairat	Location of the Source (Total Hillock) recommended for mineral concession (GPS co-ordinates or Khata & Plot No) (Sketch map to be attached)	Area of the mineral potential patch (in sq m)	Average height of potential patch (in m)	Mineable mineral potential (in cum)
A	B	C		D	E	F	G	H
1	Khordha	Kaipada	Runnig	Road Metal / Kaipadar New Ga	Khata No.937/1, Plot No. 3502(P)	10100	60 mrs	5795485
2	Khordha	Kaipadar	Runnig	Road Metal / Dhania E	Khata No.849, Plot No. 2847(P)	13500	140	21505714
3	Khordha	Kaipadar	Runnig	Road Metal / Dhania F	Khata No.849, Plot No. 2847(P)	25300	140	21505714
4	Khordha	Kaipadar	Runnig	Road Metal / Kaipadar Ka	Khata No.849, Plot No. 2867(P), 2825 (P)	30400	140	21505714
5	Khordha	Kaipadar	Runnig	Road Metal / Kaipadar Kha	Khata No.849, Plot No. 2864(P)	30400	140	21505714
6	Khordha	Nijgarhta panga	Runnig	Road Metal / Hatia Gha	Khata No.832/1, Plot No. 277(p)	24300	140 mtrs	14219245
7	Khordha	Kiajhari	Runnig	Road Metal/ Golaputakhua Ka	Khata No. 320, Plot No. 1947(F)	238400	80mtrs	9980107
8	Khordha	Malipada	Runnig	Road Metal/ Hanumanta building stone quarry (Ka)	Khata no.- 733, plot no. 6(p)	42700	30mtrs	464050
9	Khordha	Malipada	Runnig	Road metal/ Malipada White stone quarry	Khata no.- 726/2, plot no. 9(p)	4000	15 mtrs	25225
10	Khordha	Nijgarhta panga	New	Road Metal/ Hatia Ka	Khata No.832/1, Plot No. 276(P)	5200	140 mtrs	14219245
11	Khordha	Nijgarhta panga	New	Road Metal / Hatia Ga	Khata No.832/1, Plot No. 276(P),277(p)	10500	140 mtrs	14219245
12	Khordha	Nijgarhta	New	Road Metal /	Khata No.832/1, Plot No. 277(P)	24300	140 mtrs	14219245

		panga		Hatia Uan				
13	Khordha	Dangarapada	New	Road Metal / Kalachua BUILDING STONE QUARRY	Khata No.17, Plot No. 1246(P), 1237(P)	31100	80mtrs	10143857
14	Khordha	Dangarapada	New	Road Metal / Dangarapada New Building Stone Quarry	Khata No.17, Plot No. 1246(P)	10100	80mtrs	10143857
15	Khordha	Santarapur	New	Road Metal / Santarapur New Building Stone Quarry	Khata No.349/1, Plot No. 1250(P), 1251(P)	4000	10mtrs	10143857
16	Khordha	Chhatrama	New	Road Metal / Kabara (Ka)	Khata No.401, Plot No. 1672(P)	26600	60 mtrs	2758519
17	Khordha	Chhatrama	New	Road Metal / Kabara (Kha)	Khata No.401, Plot No.1498(P),1499(P)	32800	60 mtrs	2758519
18	Khordha	Chhatrama	New	Road Metal / Kabara (Ga)	Khata No.401, Plot No. 1499(P)	29000	60 mtrs	2758519
19	Khordha	Chhatrama	New	Road Metal / Kabara (Gha)	Khata No.401, Plot No. 1678(P)	6000	60 mtrs	2758519
20	Khordha	Chhatrama	New	Road Metal / Chhatrama (Ka)	Khata No.401, Plot No. 1821(P)	35300	100 mtrs	5772029
21	Khordha	Chhatrama	New	Road Metal / Chhatrama (Kha)	Khata No.401, Plot No. 1821(P)	32400	100 mtrs	5772029
22	Khordha	Chhatrama	New	Road Metal / Chhatrama (Ga)	Khata No.401, Plot No. 1821(P),1769(P)	24750	100 mtrs	5772029
23	Khordha	Jhinkijhari	New	Road Metal / Kalinga (Ka)	Khata No.602, Plot No. 150(P)	28200	100 mtrs	5772029
24	Khordha	Jhinkijhari	New	Road Metal / Kalinga (Kha)	Khata No.602, Plot No. 150(P)	30100	100 mtrs	5772029
25	Khordha	Jhinkijhari	New	Road Metal / Kalinga (Ga)	Khata No.602, Plot No. 150(P)	30700	100 mtrs	5772029
26	Khordha	Kaipada	New	Road Metal / Sankhari-Dhobi New (Una)	Khata No.849, Plot No. 3502(P)	30400	60 mrs	5795485
27	Khordha	Dangarapada	LOI issued	Road Metal/ Kalachua New Building stone ( Cha)	Khata No.17, Plot No. 1237(P)	80 mtrs	14660	10143857

28	Khordha	Dangarapada	LOI issued	Road Metal / Dangarapada White Building Stone	Khata No.17, Plot No. 1517(P)	80 mtrs	8100	10143857
29	Khordha	Dangarapada	LOI issued	Road Metal / Kalachua New (Jha)	Khata No.17, Plot No. 1517(P)	80 mtrs	38400	10143857
30	Khordha	Dangarapada	LOI issued	Road Metal / Kalachua New (Chha)	Khata No.17, Plot No. 1247(P)	80 mtrs	24280	10143857
31	Khordha	Dangarapada	LOI issued	Road Metal / Dangarapada New Building Stone North side	Khata No.17, Plot No. 1237(P)	80 mtrs	20200	10143857
32	Khordha	Dangarapada	LOI issued	Road Metal / Kalachua New (nian)	Khata No.17, Plot No. 1517(P)	80 mtrs	27000	10143857
33	Khordha	Dangarapada	LOI issued	Road Metal / KAlachua New (Ta)	Khata No.17, Plot No. 1517(P)	80 mtrs	27400	10143857
34	Khordha	Dangarapada	LOI issued	Road Metal / Kalachua New (Tha)	Khata No.17, Plot No. 1517(P)	80 mtrs	19800	10143857
35	Khordha	Dangarapada	LOI issued	Road Metal / Kalachua (Ja)	Khata No.17, Plot No. 1517(P)	80 mtrs	21200	10143857
36	Khordha	Nijgarhtapanga	LOI issued	Road Metal / Hatia Ta	Khata No.832/1, Plot No. 277(P)	36400	140 mtrs	14219245
37	Khordha	Nijgarhtapanga	LOI issued	Road Metal / Hatia Cha	Khata No.832/1, Plot No. 277(P)	24300	140 mtrs	14219245
38	Khordha	Nijgarhtapanga	LOI issued	Road Metal / Htia Chha	Khata No.832/1, Plot No. 277(P)	36400	140 mtrs	14219245
39	Khordha	Nijgarhtapanga	LOI issued	Road Metal / Hatia Ja	Khata No.832/1, Plot No. 277(P)	24300	140 mtrs	14219245
40	Khordha	Nijgarhtapanga	LOI issued	Road Metal / Hatia Jha	Khata No.832/1, Plot No. 277(P)	24300	140 mtrs	14219245
41	Khordha	Nijgarhtapanga	LOI issued	Road Metal / Hatia Tha	Khata No.832/1, Plot No. 277(P)	32400	140 mtrs	14219245
42	Khordha	Nijgarhtapanga	LOI issued	Road Metal/ Duburi New Building Stone Quarry	Khata No.832/1, Plot No. 944(F)	27190	20mtrs	119279

43	Khordha	Kaipadar	LOI issued	Road Metal / Dhania West Ka	Khata No.849, Plot No. 2900(P), 2825(P)	33700	140	21505714
44	Khordha	Kaipadar	LOI issued	Kaipadar/ Dhania West Kha	Khata No.849, Plot No. 2900(P)	10100	140	21505714
45	Khordha	Kaipadar	LOI issued	Road Metal / Dhania West Ga	Khata No.849, Plot No. 2825(P)	17300	140	21505714
46	Khordha	Kaipadar	LOI issued	Road Metal r/ Dhania West Gha	Khata No.849, Plot No. 2900(P), 2825(P)	10740	140	21505714
47	Khordha	Kaipadar	LOI issued	Road Metal / Dhania Uttar Taraf Ta	Khata No.849, Plot No. 2847(P)	30350	140	21505714
48	Khordha	Kaipadar	LOI issued	Road Metal / Dhania Uttar Taraf Da	Khata No.849, Plot No. 2825(P)	45500	140	21505714
49	Khordha	Kaipadar	LOI issued	Road Metal / Dhania Southeast	Khata No.849, Plot No. 2864(P)	20200	140	21505714
50	Khordha	Kaipadar	LOI issued	Road Metal / Dhania East TarafCha	Khata No.849, Plot No. 2864(P)	40500	140	21505714
51	Khordha	Kaipadar	LOI issued	Road Metal / Dhania Ja	Khata No.849, Plot No. 2864(P)	18200	140	21505714
52	Khordha	Kaipadar	LOI issued	Road Metal / Dhania Middle Jha	Khata No.849, Plot No. 2847(P)	28300	140	21505714
53	Khordha	Kaipadar	LOI issued	Road Metal / Dhania South East (Chha)	Khata No.849, Plot No. 2864(P)	38900	140	21505714
54	Khordha	Kaipadar	LOI issued	Road Metal / Dhania Uttar Taraf Tha	Khata No.849, Plot No. 2847(P)	12100	140	21505714
55	Khordha	Kaipada	LOI issued	Road Metal / Sankhari South New (Cha)	Khata No.849, Plot No. 3502(P)	14160	60 mrs	5795485
56	Khordha	Kaipada	LOI issued	Road Metal/ Sankhari east-West (Ga)	Khata No.849, Plot No. 3502(P)	39800	60 mrs	5795485
57	Khordha	Kaipada	LOI issued	Road Metal/ Sankhari East-	Khata No.849, Plot No. 3502(P)	44000	60 mrs	5795485

				West (Gha)				
58	Khordha	Kaipada	LOI issued	Road Metal/ Sankhari East-West (kha)	Khata No.849, Plot No. 3502(P)	34200	60 mrs	5795485
59	Khordha	Kaipadar	LOI issued	Road Meal/ Sankhari East-West (Ka)	Khata No.849, Plot No. 3502(P)	48200	60 mrs	5795485
60	Khordha	Kaipada	LOI issued	Road Metal r/ Sankhari South New	Khata No.849, Plot No. 3502(P)	4000	60 mrs	5795485
61	Khordha	Kaipada	LOI issued	Road Metal/ Sankhari South (Ka)	Khata No.849, Plot No. 3502(P)	20200	60 mrs	5795485
62	Khordha	Kaipadar	LOI issued	Road Metal / Kaipadar New Building Stone	Khata No.849, Plot No. 2825(P)	40500	140	21505714
63	Khordha	Malipada	LOI issued	Road Metal/ Hanumanta (GA) building stone quarry	Khata no.- 726/2, plot no. 9(p)	4400	15mtrs	30008
64	Khordha	Kiajhari	LOI issued	Road Metal / Kiajhari White Stone Quarry	Khata No. 320, Plot No. 755(P)	4000	10 mtrs	9980107
65	Khordha	Nijgarhta panga	LOI issued	Road Metal / Golaputakhua Kha	Khata `No.832/1, Plot No. 953(F)	27840	30 mtrs	9980107
66	Khordha	Kaipada	LOI issued	Road Metal / Sankhari-Jodaamba (Gha)	Khata No.849, Plot No. 3502(P)	40500	60 mrs	5795485
67	Khordha	Kaipadar	LOI issued	Road Metal / Dhania Una	Khata No.849, Plot No. 2847(P)	40500	140	21505714
68	Khordha	Kaipadar	LOI issued	Road Metal /Tangeni Building Stone Quarry	Khata No.937/1, Plot No. 3222	99700	20 mtrs	700000
69	Khordha	Kaipada	LOI issued	Road Metal / Sankhari South New (Chha)	Khata No.849, Plot No. 3502(P)	40500	60 mrs	5795485
77	Begunia	Parichhal	New	ROAD METAL\2.276	Khata No- 373, plot No 724	22760	28	7356720

78	Begunia	Parichhal	New	ROAD METAL\1.972	Khata No- 373, plot No 725	19720	28	7356720
79	Begunia	Parichhal	New	ROAD METAL\2.276Ha	Khata No- 373, plot No 726	22760	28	7356720
80	Begunia	Parichhal	New	ROAD METAL\2.377 Ha	Khata No- 373, plot No 727	23770	28	7356720
81	Begunia	Parichhal	New	ROAD METAL\2.023 Ha	Khata No- 373, plot No 728	20230	28	7356720
82	Begunia	Parichhal	New	ROAD METAL\1.815 Ha	Khata No- 373, plot No 608	18150	28	7356720
83	Begunia	Parichhal	New	ROAD METAL\0.196 Ha	Khata No- 373, plot No 702	1960	28	7356720
84	Begunia	Parichhal	New	ROAD METAL\0.202 Ha	Khata No- 372, plot No 1309	2020	28	7356720
85	Bolagar h	Panchukota	New	Panchukota Boulder Quarry	Khata No- 231 Plot No- 622 Area Ac 1.210 Kissam- Mundia	600 sqm	6-9 mtr	537 cum
86	Bolagar h	Sampur	New	Sampur Boulder Quarry	Khata No- 400 Plot No- 141 Area Ac 1.210 Kissam- Pahada	650 sqm	3 mtr	458 cum
87	Bolagar h	Gobardhanpur	New	Gobardhanpur Boulder Quarry	Khata No- 365 Plot No- 6 Area Ac 2.500 out of Ac 16.250 Kissam- Chhota Pahada	550 sqm	12 mtr	965 cum
88	Bolagar h	Bolagarh	Running	Bolagarh Boulder Quarry ( Sairat case No- 1/15-16 )	Khata No-1279 Plot No-2381 Area Ac 0.235	950.94 sqm	5 mtr	238 cum
89	Bolagar h	Kusupalla	Running	Kusupalla Boulder Quarry ( Sairat case No- 13/15-16 )	Khata No-425 Plot No-683 Area Ac 0.300	1213.96 sqm	5 mtr	468 cum
90	Bolagar h	Gopalipada	Running	Gopalipada Boulder Quarry ( Sairat case No- 6/15-16 )	Khata No-217 Plot No-883 Area Ac 0.400	1618.63 sqm	5 mtr	405 cum
91	Bolagar h	Panchukota	Running	Panchukota Boulder Quarry ( Sairat case No- 4/15-16 )	Khata No-231 Plot No-734 Area Ac 0.120	485.59 sqm	5 mtr	60 cum
92	Bolagar h	Srichandanpur	Running	Srichandanpur Boulder Quarry ( Sairat case No- 10/15-16 )	Khata No-562 Plot No-1 Area Ac 4.625	18715.66 sqm	5 mtr	540.8 cum

93	Bolagarh	Dauniapalli	Running	Dauniapalli Boulder Quarry ( Sairat case No-12/15-16 )	Khata No-326 Plot No-309 Area Ac 0.250	1011.64 sqm	5 mtr	1088 cum
94	Tangi	Jariput	Running	Black stone (Jariput BS -1 ( 0.500 Ac))	Khata no-296, Plot No.1112/1	2023	6	32054
95	Tangi	Jariput	Running	Black stone Jariput BS-2( 0.500 Ac)	Khata no-296, Plot No.1112/2	2023	6	2967
96	Tangi	Jariput	Running	Black stone Jariput BS-3( 0.800 Ac)	Khata no-296, Plot No.1112/3	2023	6	9083
97	Tangi	Jariput	Running	Black stone Jariput BS-4( 0.500 Ac)	Khata no-296, Plot No.1112/4	2023	6	2800
98	Tangi	Jariput	Running	Black stone Jariput BS-5( 0.500 Ac)	Khata no-296, Plot No.1112/5	2023	6	9129
99	Tangi	Jariput	Running	Black stone Jariput BS-6( 0.600 Ac)	Khata no-296, Plot No.1061	10117	6	73456
100	Tangi	Jariput	Running	Black stone Jariput BS-7 ( 0.800 Ac)				
101	Tangi	Jariput	Running	Black stone JariputBS-8 ( 2.000 Ac)	Khata no-296, Plot No. 1112(P) 1061 (p)	3237	6	7065
102	Tangi	Jariput	Running	Black stone Jariput BS -9 ( 0.900 Ac)	Khata no-296, Plot No.1112/1	1821	6	14823
103	Tangi	Jayamangalpur	Running	Black stone Jayamangalpur BS Q No.1 (2.200 Ac)	Khata no-432, Plot No.1632	8903	6	96390
104	Tangi	Jayamangalpur	Running	Black stone Jayamangalpur BS Q No.2 (1.300 Ac)	Khata no-432, Plot No.1632	5261	6	19784

105	Tangi	Brushabandha	Running	Black stone Brusabandha BS Q No.4(0.600 Ac)				
106	Tangi	Kunjari	New	Black stone quarystone	Khata no-160 Plot no-474		6	
107	Tangi	Jariput	New	Black stone (Jariput BS -10( 0.315 Ac))	Khata no-296, Plot No.1112/1	1275	6	6000
108	Tangi	Jayamangalpur	New	Black stone Jayamangalpur BS Q No.1 (2.200 Ac)	Khata no-432, Plot No.1632	8094	6	15000
109	Tangi	Brusabandha	LOI issued	Black stone Brusabandha BS Q No.1(1.232 Ac)	Khata no-214, Plot No.554	20922	10	308248
110	Tangi	Brusabandha	LOI issued	Black stone Brusabandha BS Q No.2(2.000 Ac)	Khata no-214, Plot No.554	20922	10	308248
111	Tangi	Brusabandha	LOI issued	Black stone Brusabandha BS Q No.3(4.5 Ac)	Khata no-214, Plot No.554	20922	10	308248
112	Tangi	Brusabandha	LOI issued	Black stone Brusabandha BS Q No.5(3.000 Ac)	Khata no-214, Plot No.554	20922	10	308248
113	Tangi	Brusabandha	LOI issued	Black stone Brusabandha BS Q No.6(2.000 Ac)	Khata no-214, Plot No.554	14164	10	25385
114	Tangi	Brusabandha	LOI issued	Black stone Brusabandha BS Q No.7(3.500 Ac)	Khata no-214, Plot No.554	20922	10	308248
115	Tangi	Nayakote	LOI issued	Nayakote Black Stone	, Khata no.293,plot no.685	4047	6	14569

# INDEX MAP



**ODISHA**



### MAP SHOWING THE TAHASILS OF KHORDHA DISTRICT



MAP SHOWING THE MAJOR ROADS OF KHORDHA DISTRICT

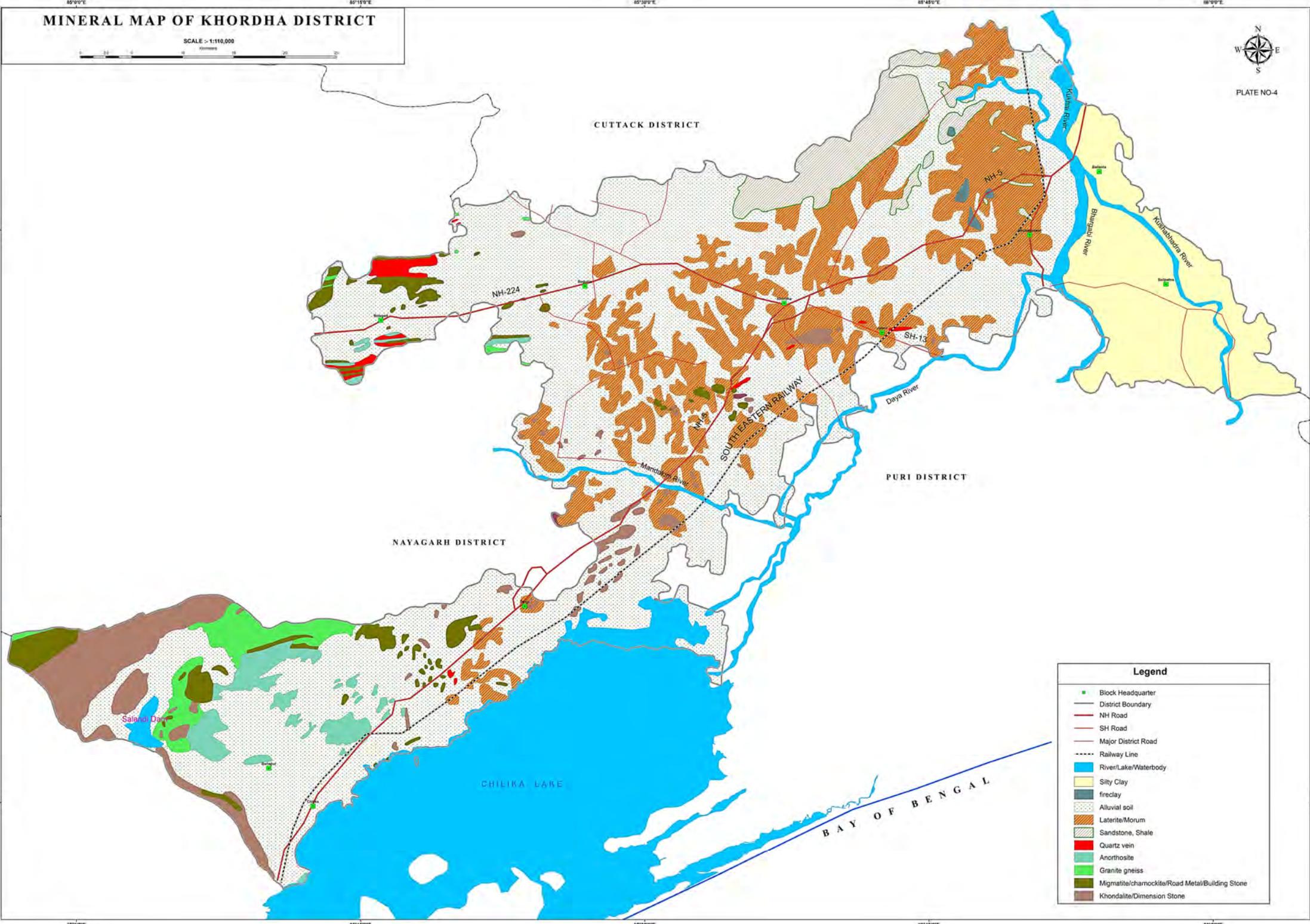


# MINERAL MAP OF KHORDHA DISTRICT

SCALE - 1:110,000



PLATE NO-4



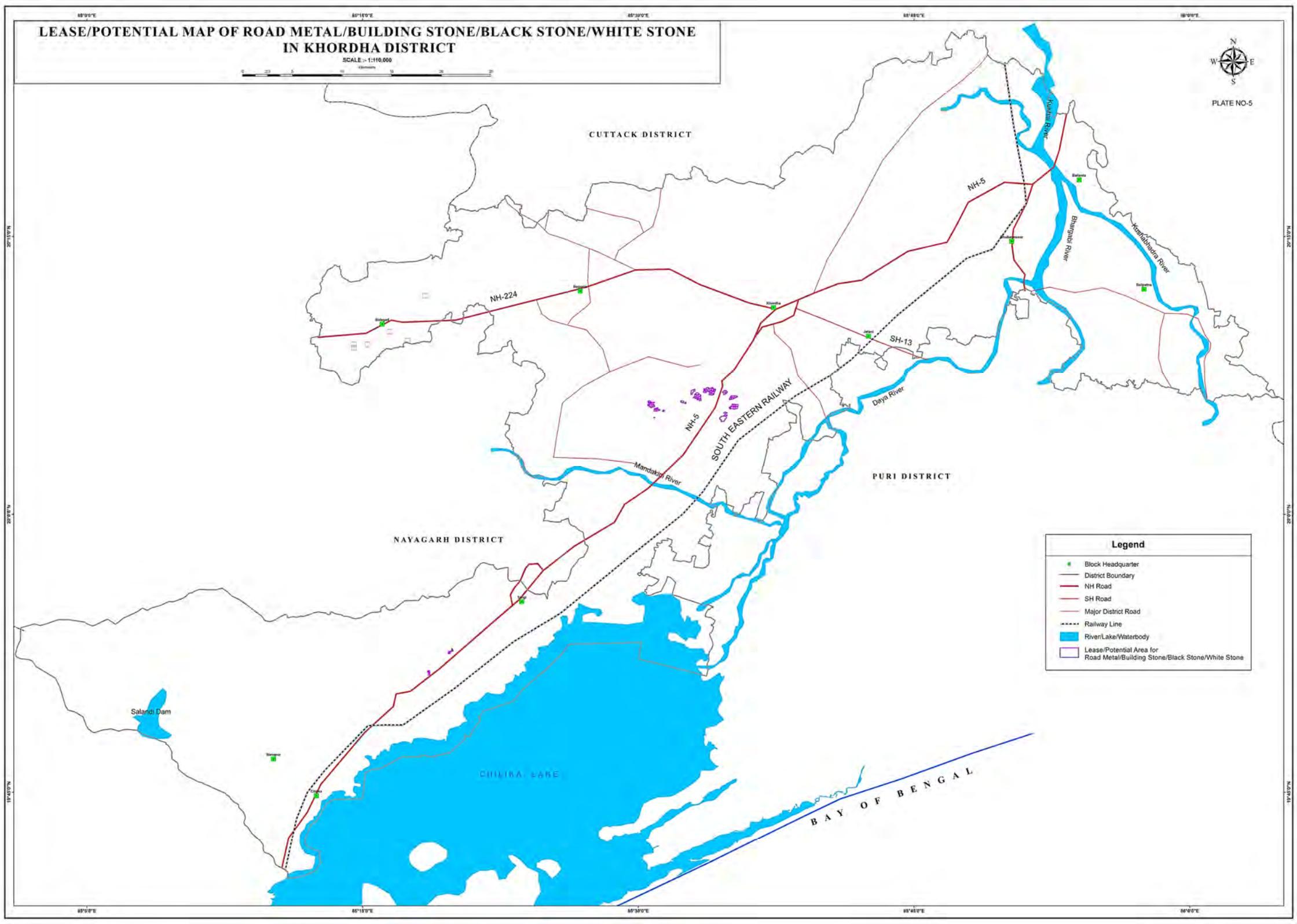
Legend	
	Block Headquarter
	District Boundary
	NH Road
	SH Road
	Major District Road
	Railway Line
	River/Lake/Waterbody
	Silty Clay
	fireclay
	Alluvial soil
	Laterite/Morum
	Sandstone, Shale
	Quartz vein
	Anorthosite
	Granite gneiss
	Migmatite/charnockite/Road Metal/Building Stone
	Khondalite/Dimension Stone

# LEASE/POTENTIAL MAP OF ROAD METAL/BUILDING STONE/BLACK STONE/WHITE STONE IN KHORDHA DISTRICT

SCALE :- 1:110,000



PLATE NO-5



Legend	
	Block Headquarter
	District Boundary
	NH Road
	SH Road
	Major District Road
	Railway Line
	River/Lake/Waterbody
	Lease/Potential Area for Road Metal/Building Stone/Black Stone/White Stone

Salandi Dam

CHILIKA LAKE

BAY OF BENGAL

CUTTACK DISTRICT

PURI DISTRICT

NAYAGARH DISTRICT

SOUTH EASTERN RAILWAY

NH-5

NH-224

SH-13

Mandakini River

Daya River

Bhargabi River

Kashachandri River

88°00'E 88°15'E 88°30'E 88°45'E 89°00'E

20°45'N 20°30'N 20°15'N 20°00'N

88°00'E 88°15'E 88°30'E 88°45'E 89°00'E