

DISTRICT SURVEY REPORT (DSR) 2020 OF KHORDHA DISTRICT, ODISHA FOR

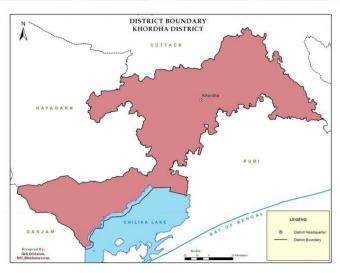
ROAD METAL / BUILDING STONE / BLACK STONE

(FOR PLANNING & EXPLOITING OF MINOR MINERAL RESOURCES)





KHORDHA



As per Notification No. S.O. 3611(E) New Delhi, 25th July, 2018 MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (MoEF & CC)

COLLECTORATE, KHORDHA

CONTENT

SL NO	DESCRIPTION	PAGE NO
1	INTRODUCTION	1
2	OVERVIEW OF MINING ACTIVITIES IN THE DISTRICT	2
3	GENERAL PROFILE	2
4	GEOLOGY	4
5	DRAINAGE AND IRRIGATION PATTERN	7
6	LANDUSE PATTERN	7
7	SURFACE WATER & GROUND WATER SCENARIO	8
8	RAINFALL & CLIMATIC CONDITION	8
9	DETAILS OF MINING LEASES	9
10	DETAILS OF ROYALTY COLLECTED	9
11	DETAILS OF PRODUCTION	9
12	MINERAL MAP OF THE DISTRICT	9
13	LIST OF LOI HOLDERS ALONG WITH VALIDITY	10
14	TOTAL MINERAL RESERVE AVAILABLE IN THE DISTRICT	10
15	QUALITY/GRADE OF MINERAL	10
16	USE OF MINERAL	10
17	DEMAND & SUPPLY OF THE MINERAL	10
18	MINING LEASES MARKED ON THE MAP OF THE DISTRICT	10
19	19 DETAILS OF AREAS WHERE THERE IS A CLUSTER OF	
	MINING LEASES	
20	DETAILS OF ECO-SENSITIVE AREA	13
21	IMPACT ON THE ENVIRONMENT (AIR, WATER, NOISE,	13
	SOIL FLORA & FAUNAL, LAND USE, AGRICULTURE,	
	FOREST ETC.) DUE TO MINING	
22	REMEDIAL MEASURES TO MITIGATE THE IMPACT OF	14
	MINING ON THE ENVIRONMENT	
23	RECLAMATION OF MINED OUT AREA (BEST PRACTICE	17
	ALREADY IMPLEMENTED IN THE DISTRICT, REQUIREMENT	
	AS PER RULES AND REGULATION, PROPOSED	
	RECLAMATION PLAN)	
24	RISK ASSESSMENT & DISASTER MANAGEMENT PLAN	17

25	DETAILS OF THE OCCUPATION HEALTH ISSUES IN THE	18
	DISTRICT. (LAST FIVE- YEAR DATA OF NUMBER OF	
	PATIENTS OF SILICOSIS & TUBERCULOSIS IS ALSO NEEDS	
	TO BE SUBMITTED)	
26	PLANTATION OF GREEN BELT DEVELOPMENT IN	19
	RESPECT OF LEASES ALREADY GRANTED IN THE	
	DISTRICT	
27	ANY OTHER INFORMATION	19

LIST OF PLATES

DESCRIPTION	PLATE NO
INDEX MAP OF THE DISTRICT	1
MAP SHOWING TAHASILS	2
ROAD MAP OF THE DISTRICT	3
MINERAL MAP OF THE DISTRICT	4
LEASE/POTENTIAL AREA MAP OF THE DISTRICT	5

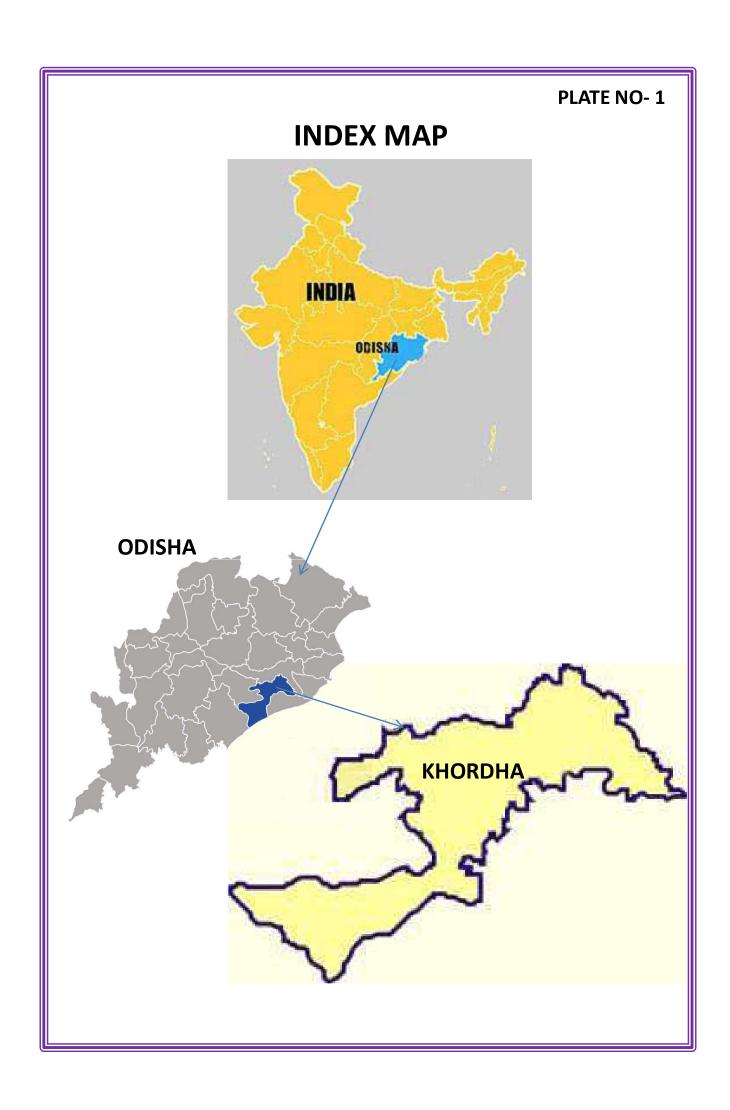


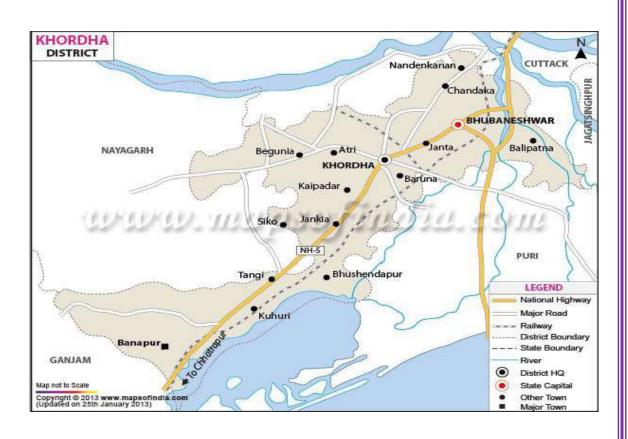
PLATE NO-2

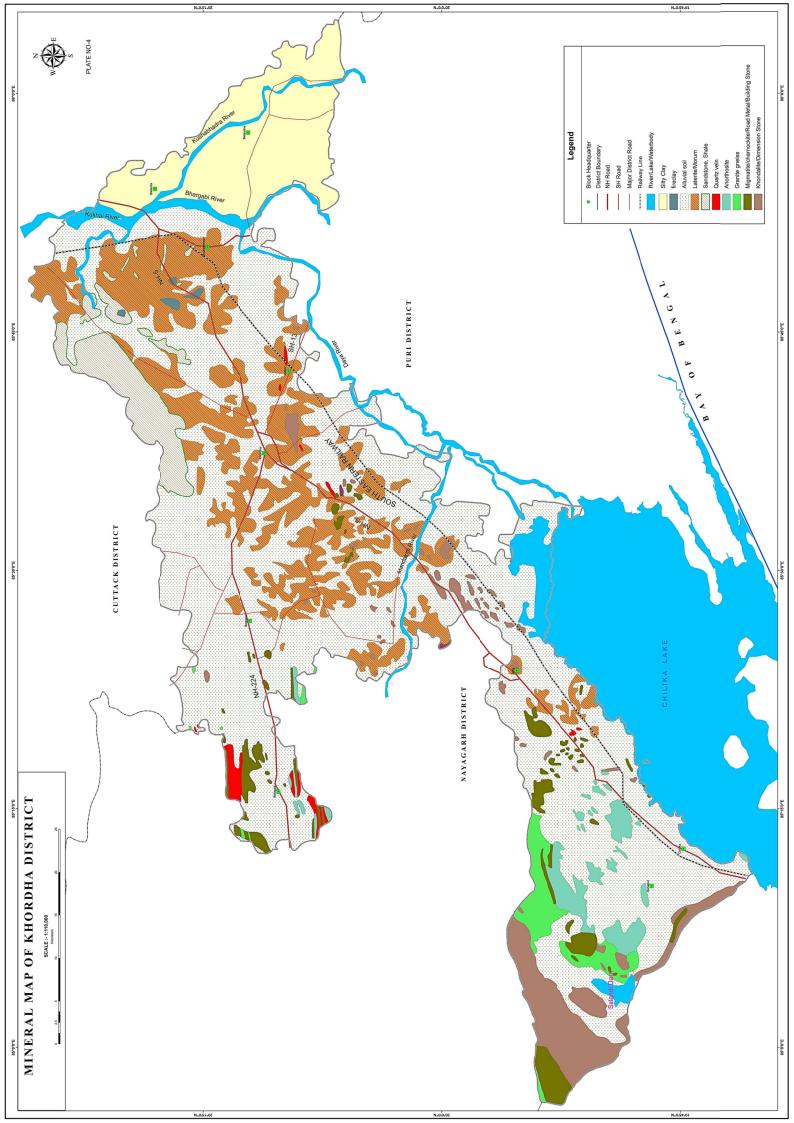
MAP SHOWING THE TAHASILS OF KHORDHA DISTRICT

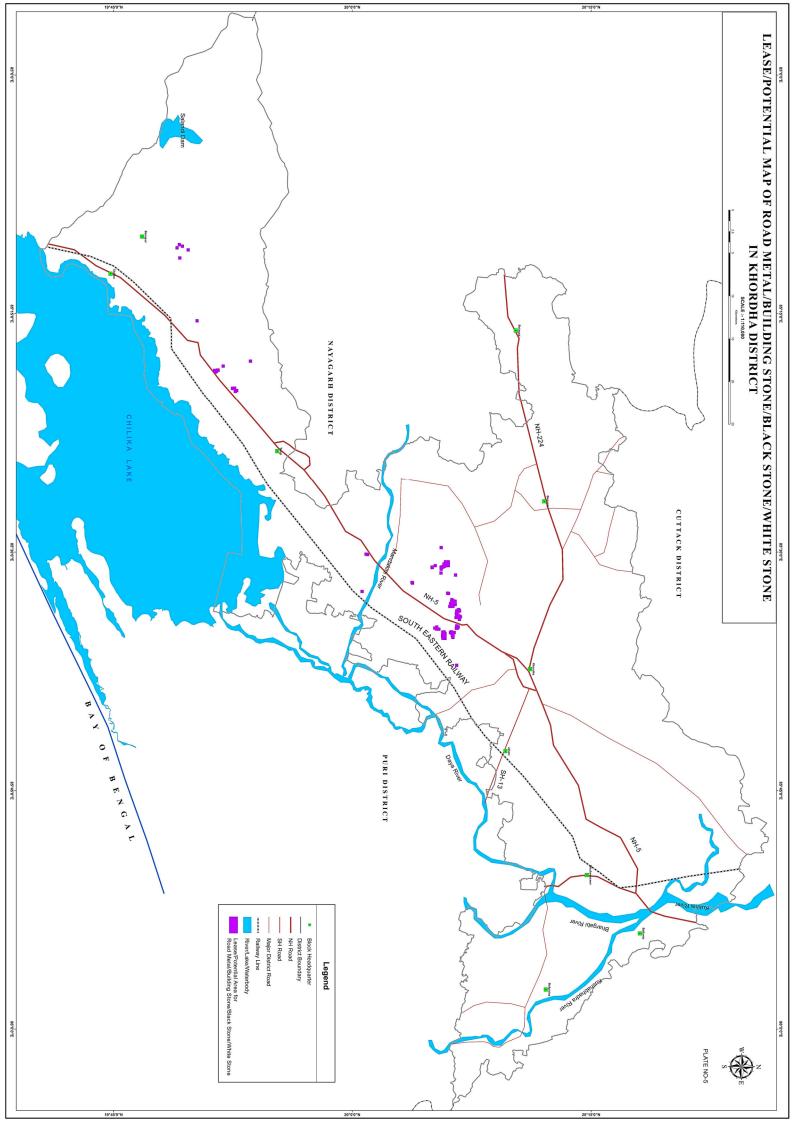


PLATE NO-3

MAP SHOWING THE MAJOR ROADS OF KHORDHA DISTRICT







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 the present District Survey Report is to update the possible mineral resources and developing the mining activities along with other relevant data of the district keeping equilibrium with the involved environmental issues.

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 2nd 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.

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 hects. 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 other potential sources; one is located at Naranagarh village and the other at Kurumpada village of Khordha Tahasil and both are within the area of ownership of Shree Jagannath Temple Administration, Puri. Both these areas have been reserved by Govt of Odisha for ML to M/s OMC Ltd which would be supplied to Shree Jagannath Temple Administration, Puri for beautification of Puri town.

Another one located at Santasinghpur village over an area of 3.996 hects has been under PL 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		Longitude -84° 55' to 86° 5'
position		Latitude- 19° 40' to 20° 25'
Area	&	The district has an area of 2813 sq. km and 22.52 lakhs of
Population		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 &	NH- 162.98 km				
Communication	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.					
Forest Area	3 Forest Divisions are there in the district.					
	Chilika Wildlife Division-					
	Sunakhala DPF- 212.46 Ha					
	Chandaka Wildlife Division-					
	Chandaka-Dampara WL Sanctuary- 3765Ha					
	RF- 9140.81 Ha					
	PRF- 4519.88 Ha					
	City Forest Division-					
	RF- 317.28 Ha					
	Total- 17955.43 Ha					
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 Khordha, 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 Quartenary 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 (F₁-F₃) in the khondalite host rocks and considered emplacement of anorthositic complex syntectonoc with F₃. 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 lithick 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 Quarternary 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 guite common.

Stratigraphy:

Phanerozoic	Quarternary	Mid to Late	Bankigarh Fm	Brownish silty clay
		Holocene		
		Pleistocene	Brahmani/	Residual soil and alluvium
		to Holocene	Mahanadi Fm	
		Pleistocene	Bolagarh Fm	Laterite/Latosol
	Gondwana	Lr	Athagarh Fm	Sandstone, Shale
	Sup Gp	Cretaceous		

Precambrian	Archean to	Eastern Ghat	Quart vein	
	Proterozoic	Sup Gp	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	ALTITUDDE 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 (khordha dist)	11.8m	30.0km	212.32sq.km	48.86%	Slow (2090 cum from 15-16 to 19- 20)
2	Bhargavi	Balakati (khordha dist)	7.80 m	14.0 km	NA	NA	Slow(25000 cum from 15-16 to 18- 19)
3	Kuakhai	Mukameswra	25.92 m	26.500	21.85	45.60	Moderate(77200 cum from 15-16 to 19-20)
4	Daya	Nathapur	18.180 m.	10.100	10.10	51.80%	slow(950 cum from 15-16 to 19- 20)
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	281
	Area	

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° - 8° C during peak winter.

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

			MONTH	– WISE RA	INFALL (mr	n) DATA O	F KHORDH	A DISTRIC	T (LAST 5	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	1843.02
19-20	23.48	185.59	14048	370.29	317.46	426.77	328.23	2.12	0	12.2	50.32	28.47	15792.93
Avg.	31.706	88.428	2929.8	367.622	294.342	299.554	186.146	16.856	8.128	4.9	12.484	20.434	4260.4

9. DETAILS OF MINING LEASES OF ROAD METAL

Attached as Annexure.

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	2019-20
1	Khordha	5252543	13566119	21202105	15218700	0
2	Bolagarh	0	444724	399699	580081	18000
3	Tangi	2279879	3780462	4686784	9945524	4296500
4	Chilika	0	0	0	0	65340
5	Begunia	0	1985584	0	0	15722060
6	Jatni	0	0	0	0	0
7	Balianta	0	0	0	0	0
8	Balipatana	0	0	0	0	0
9	Bhubaneswar	0	0	0	0	0
10	Banpur	0	0	0	0	0
TOTAL		75,32,422	1,97,76,889	2,62,88,588	2,57,44,305	2,01,01,900

Penalty collected in Rs

SI.No	Name of Tahasil	2019-20
1	Bolagarh	852000
2	Chilika	237300
2	TOTAL	1089300

11. DETAILS OF PRODUCTION OF MINOR MINERAL

Yearwise Production of Road metal in cum

SI.No	Name of Tahasil	2015-16	2016-17	2017-18	2018-19	2019-20
1	Khordha	60439	63383	65221	67829	0
2	Bolagarh	2414	2560.8	2698	3289.8	130
3	Tangi	41095	42213	45779	46565	28644
4	Chilika	0	0	0	0	503
5	Begunia	9968	9968	10080	10192	60000
6	Jatni	0	0	0	0	0
7	Balianta	0	0	0	0	0
8	Balipatana	0	0	0	0	0
9	Bhubaneswar	0	0	0	0	0
10	Balugaon	0	0	0	0	0
TOTAL		113916	118124.8	123778	127875.8	89277

12. MINERAL MAP OF THE DISTRICT

Attached as Plate No 4.

13. LIST OF LOI HOLDERS ALONG WITH VALIDITY

Attached as Annexure.

14. TOTAL MINERAL RESERVE AVAILABLE IN THE DISTRICT

Total mineral reserve of road metal/buildingstone/blackstone/white stone is 5,46,06,413.8 cum which may increase after detail investigation.

Details of the potential areas submitted as Annexure.

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

The tentative annual demand is to the tune of 25 lakh cum of road metal and is mainly supplied from Khordha and Tangi tahasils of the district.

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:

		CLUSTER 1		
NAME OF SUB CLUSTER	SL NO	NAME OF THE LEASE	AREA IN HA	STATUS
Cluster-1A (Tangeni)	1	Tangeni building stone quarry	9.97	
Cluster-1B	1	Sankhari East West (Ka)	4.82	NOT
(Sankhari)	2	Sankhari East West (Kha)	3.42	RUNNING
	<u>3</u>	Sankhari East West (Ga) Sankhari East West (Gha)	3.98 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	4.05	

		(Chha)	
	10	Sankhari South new building stone quarry	0.4
Cluster-1C	1	Dhania west (Ka) Building stone quarry	3.37
(Dhania)	2	Dhania west (Kha) Building stone quarry	1.01
(Dilaila)	3	Dhania west (Ga) Building stone quarry	1.73
	4	Dhania west (Gha) Building stone quarry	1.07
	5	Dhania new building stone quarry (Uan)	4.05
	6	Dhania new building stone quarry east taraf (cha)	4.05
	7	Dhania new building stone quarry south east(chha)	3.89
	8	Dhania new building stone quarry (Ja)	1.82
	9	Dhania new building stone quarry middle (Jha)	2.83
	10	Dhania new building stone quarry utara taraf (Ta)	3.03
	11	Dhania South East stone quarry	2.02
	12	Dhania new building stone quarry utara taraf (Da)	4.55
	13	Kaipadar New Building Stone quarry	4.05
	14	Dhania (Gha)	0.51

		CLUSTER 1		
NAME OF SUB CLUSTER	SL NO	NAME OF THE LEASE	AREA IN	STATUS
Cluster-1B (Sankhari)	1	Kaipadar New Building stone quarry (Ga)	1.01	RUNNING
Cluster-1C	2	Dhania Building stone quarry (E)	1.35	
(Dhania)	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	

		CLUSTER 2		
NAME OF SUB CLUSTER	SL NO	NAME OF THE LEASE	AREA IN HA	STATUS
Cluster-2A	1	Colony takhua Building atong guara (Ka)	02.07	RUNNING
(Golaputakhua	'	Golaputakhua Building stone quarry (Ka)	23.86	
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	

		CLUSTER 2		
NAME OF SUB CLUSTER	SL NO	NAME OF THE LEASE	AREA IN HA	STATUS
Cluster-2A	1	Golaputakhua Building stone quarry (Kha)	2.784	NOT RUNNING
(Golaputakhua	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	

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

		CLUSTER 3		
NAME OF SUB CLUSTER	SL NO	NAME OF THE LEASE	AREA IN HA	STATUS
Cluster-3	1	Kalachua New Building stone quarry (Cha)	1.47	NOT
(Dangarapada	2	Kalachua New Building stone quarry (Chha)	2.43	RUNNING
	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	2.02	

		side)	
•	9	Dangarapada White Bulding Stone quarry	0.81
1	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 having an area of 37.65 sq km. In total 47 villages of Khordha district comes within the boundary of this WL sanctuary.

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 NOx, SO2 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 it's 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.

18. 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 diction 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 18ulfil 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
15-16	95	85	83	93	87	75	86	79	78	92	88	84	1025
16-17	96	84	86	88	78	69	104	103	98	118	115	128	1167
17-18	127	113	130	142	102	105	97	83	84	121	102	140	1346
18-19	160	156	124	121	119	116	98	124	123	117	142	130	1530
19-20	162	142	119	152	140	156	138	130	120	150	150	142	1701
TOTAL	640	580	542	596	526	521	523	519	503	598	597	624	6769
AVG.	128	116	108	119	105	104	105	104	101	120	119	125	1354

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

								ADDRE	DATE	NO &	NAM	ADDR ESS &	LA	TITU	DE	LC	NG DE	ITU	
SL NO	NAM E OF TAHA SIL	NAM E OF VILL AGE	STATU S	NAME OF SOUR CE	LAND SCHE DULE	ARE A IN AC	NAM E OF LESS EE	SS & CONT ACT NO OF LESSEE	OF REGIST RATIO N OF LEASE DEED	OF GRANT OF ENV CLEAR ANCE	E OF SUC CESF UL BIDD ER	ACT NO OF SUCCE SFUL BIDDE R	D E G R E	M I N U T E	S E C O N	D E G R E	M I N U T E	SECOND	RESERVE IN CUM AS PER MINING PLAN
1	Khordh a (SJTA)	Kaipad ar	Lease period complet ed & to be auction ed.	Road Metal / Kaipada r NBSQ (Ga)	Khata No.849, Plot No. 3502(P)	2.5							2 0	6	1 8. 6	8 5	3 3	2	100000
2	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania BSQ (E)	Khata No.849, Plot No. 2847(P)	3.345							2 0	6	4 3. 8	8 5	3 4	1 3. 8	130000
3	Khordh a (SJTA)	Kaipad ar	-Do-	Road Metal / Dhania BSQ (F)	Khata No.849, Plot No. 2847(P)	6.241							2 0	6	4 3. 4	8 5	3 4	8. 5	2400000
4	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Kaipada r NBSQ (Ka)	Khata No.849, Plot No. 2867(P), 2825 (P)	7.5							2 0	6	3 7. 9	8 5	3	4 6. 3	300000
5	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Kaipada r NBSQ (Kha)	Khata No.849, Plot No. 2864(P)	7.5							2 0	6	3 2. 5	8 5	3 3	5 2	300000
6	Khordh a (SJTA)	Nijagar htapa nga	-do-	Road Metal / Hatia (Gha)	Khata No.832/ 1, Plot No. 277(P)	6							2 0	5	4 9. 5	8 5	3 5	6. 1	240000
7	Khordh a (SJTA)	Kiajhari	-do-	Road Metal/ Golaput akhua (Ka)	Khata No. 53/2, Plot No. 1947(P)	58.97							2	5	1 0. 5	8 5	3 4	4 6. 5	1600000
8	Khordh a (SJTA)	Malipa da	-do-	Road Metal/ Hanuma ntia	Khata no 733, Plot no. 6(P)	10.549							2 0	0. 6	0. 7	8 5	3 2	2 8. 3	400000

				building												
				stone quarry (Ka)												
9	Khordh a (SJTA)	Malipa da	To be auction ed	Road metal/ Malipad a White stone quarry	Khata no 726/2, plot no. 9(P)	1				2 0	6	2. 7	8 5	3 2	3 6	25225
10	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Sankhari -Dhobi NBSQ (Uan)	Khata No.849, Plot No. 3502(P)	7.5				2 0	6	1 5	8 5	3 2	5 9	320000
11	Khordh a (SJTA)	Nijagar htapa nga	-do-	Road Metal/ Hatia (Ka)	Khata No.832/ 1, Plot No. 276(P)	1.275				2 0	5	4 5. 4	8 5	3 5	0. 9	45000
12	Khordh a (SJTA)	Nijgarh tapan ga	-do-	Road Metal / Hatia (Ga)	Khata No.832/ 1, Plot No. 276(P),2 77(P)	2.6				2 0	5	4 1. 2	8 5	3 5	1.	96000
13	Khordh a (SJTA)	Nijgarh tapan ga	-do-	Road Metal / Hatia (Uan)	Khata No.832/ 1, Plot No. 277(P)	6				2 0	5	4 9. 5	8 5	3 5	1 4. 7	240000
14	Khordh a (SJTA)	Saman tarapur	-do-	Road Metal / Samant arapur New Building Stone Quarry	Khata No.349/ 1, Plot No. 1250(P), 1251(P)	1				2 0	6	1.	8 5	3 0	5 0. 7	28000
15	Khordh a (SJTA)	Chhatr ama	Auction ed during 17-18 but EC wanting	Road Metal / Kabara (Kha)	Khata No.401, Plot No.1498 (P),1499(P)	8.115				2 0	6	3 7. 2	8 5	3 4	4 6. 6	320000
16	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania NBSQ Uttar taraf (Uan)	Khata No.849, Plot No. 2847(P)	10				2 0	6	3 9. 8	8 5	3 4	5. 3	400000

17	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Sankhari South NBSQ (Chha)	Khata No.849, Plot No. 3502(P)	10				2 0	6	8	8 5	3	2 5	400000
18	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Sankhari - Jodaam ba (Gha) NBSQ	Khata No.849, Plot No. 3502(P)	10				2 0	6	1 6. 8	8 5	3	2 4. 1	400000
19	Khordh a (SJTA)	Chhatr ama	Auction ed during 18-19 but stayed by HHC	Road Metal / Kabara (Ka)	Khata No.401, Plot No. 1672(P)	6.584				2 0	6	3 3. 9	8 5	3 4	3 8. 2	250000
20	Khordh a (SJTA)	Chhatr ama	-do-	Road Metal / Chhatra ma (Ka)	Khata No.401, Plot No. 1821 (P)	8.734				2 0	6	1 8. 9	8 5	3 5	2 2. 1	430000
21	Khordh a (SJTA)	Chhatr ama	-do-	Road Metal / Chhatra ma (Kha)	Khata No.401, Plot No. 1821 (P)	8.00				2 0	6	1 9. 7	8 5	3 5	1 3.	420000
22	Khordh a (SJTA)	Chhatr ama	-do-	Road Metal / Chhatra ma (Ga)	Khata No.401, Plot No. 1821 (P), 1769 (P)	6.117				2 0	6	2 4. 3	8 5	3 5	3. 2	300000
23	Khordh a (SJTA)	Jhinkijh ari	-do-	Road Metal / Kalinga (Ka)	Khata No.602, Plot No. 150(P)	6.963				2 0	6	1 3. 4	8 5	3 5	0. 7	350000
24	Khordh a (SJTA)	Jhinkijh ari	-do-	Road Metal / Kalinga (Kha)	Khata No.602, Plot No. 150(P)	7.438				2 0	6	1 4. 6	8 5	3 5	6. 5	400000
25	Khordh a (SJTA)	Jhinkijh ari	-do-	Road Metal / Kalinga (Ga)	Khata No.602, Plot No. 150(P)	7.575				2	6	1 6. 8	8 5	3 5	1 4. 9	500000
26	Khordh a (SJTA)	Jhinkija ri, Chhatr ama	Stayed by HHC	Road metal / Tanguri no 1 BSQ	Khata no 557/1, Plot No 142(p), 1769(p)	10.2 10.2 10.14				2 0	6	9. 9	8 5	3 5	4 . 1	1000000

					& 1769(p)												
27	Khordh a (SJTA)	Chhatr ama	-do-	Road Metal / Kabara (Ga)	Khata No.401, Plot No. 1499(P)	7.179					2 0	6	3 9	8 5	3 4	4 2	2750000
28	Khordh a (SJTA)	Chhatr ama	-do-	Road Metal / Kabara (Gha)	Khata No.401, Plot No. 1678(P)	1.5					2	6	3 2. 1	8 5	3 4	4 7. 3	50000
29	Khordh a (SJTA)	kaipad ar	-do-	Road metal / Sankari south (kha) BSQ	Khata No.849, Plot No. 3502(P)	2.5					2 0	6	1 4. 5	8 5	3	5. 5	96000
30	Khordh a (SJTA)	kaipad ar	-do-	Road metal / Sankari south (Ga) BSQ	Khata No.849, Plot No 3502(P)	2.5					2 0	6	1 2. 7	8 5	3	2 4. 9	100000
31	Khordh a (SJTA)	Kaipad ar	Auction ed during 15-16 but stayed by HHC	Road Metal /Tangen i Building Stone Quarry	Khata No. 849, Plot No. 3222	24.63	Biraja Prasad Das	Sastri Nagar, BBSR			2 0	6	2 7. 5	8 5	3 3	5. 4	3002836
32	Khordh a (SJTA)	Nijagar htapa nga	Auction ed during 18-19 but EC wanting	Road Metal / Hatia NBSQ (Ta)	Khata No.832/ 1, Plot No. 277(P)	9	M/s Fortun e Associ ates Pvt Ltd,	Flat No B- 202, 2nd floor, Sriniketan Apartme nt, Badbil, Odisha			2 0	5	4 1. 3 5	8 5	3 5	2 4. 9 8	240352
33	Khordh a (SJTA)	Nijagar htapa nga	-do-	Road Metal / Hatia NBSQ (Cha)	Khata No.832/ 1, Plot No. 277(P)	6	Sasmit a Routro y	Nijagarha tapanga, Khordha			2 0	5	4 8. 8 8	8 5	3 5	1 9. 0 1	311875
34	Khordh a (SJTA)	Niajgar htapa nga	-do-	Road Metal / Hatia NBSQ (Chha)	Khata No.832/ 1, Plot No. 277(P)	9	Jagdis h Shanka r Sahoo, MD, Satya Multipl ex P Ltd	N/6- 321, IRC Village, BBSR			2 0	5	4 0. 7 9	8 5	3 5	1 3. 5 9	505919

35	Khordh a (SJTA)	Nijagar htapa nga	-do-	Road Metal / Hatia NBSQ (Ja)	Khata No.832/ 1, Plot No. 277(P)	6	Sasmit a Routro y	Nijagarha tapanga, Khordha			2 0	5	4 2. 2	8 5	3 5	9. 2 2	174980
36	Khordh a (SJTA)	Nijagar htapa nga	-do-	Road Metal / Hatia NBSQ (Jha)	Khata No.832/ 1, Plot No. 277(P)	6	Prasan na Ku Sahoo	Palatana Padia, Khordha			2 0	5	4 0. 7 9	8 5	3 5	1 7. 8 4	300122
37	Khordh a (SJTA)	Nijagar htapa nga	-do-	Road Metal / HatiaNB SQ (Tha)	Khata No.832/ 1, Plot No. 277(P)	8	Sibash ankar Saman taray (applie d for surrend er)	Baruneisa hi, Jajarsingh , Khordha			2 0	5	4 9. 4 3	8 5	3 5	2 5. 6 8	451374
38	Khordh a (SJTA)	Nijagar htapa nga	-do-	Road Metal/ Duburi New Building Stone Quarry	Khata No.832/ 1, Plot No. 944	6.72	Sukant Ku Biswal	Plot 669, Pratiksha, Ekamra Vihar, IRC village, BBSR			2 0	5	2 6. 1 6	8 5	3 4	5 0. 4 3	119279
39	Khordh a (SJTA)	Nijagar htapa nga	-Do-	Road Metal / Golaput akhua (Kha)	Khata `No.832/ 1, Plot No. 953	6.88	Droup adi Srichan dan	Gurujang a, Khordha			2 0	5	1 7. 1 8	8 5	3 4	5 0. 1 3	234150
40	Khordh a (SJTA)	Kaipad ar	-Do-	Road Metal / Dhania West (Ka)	Khata No.849, Plot No. 2900(P), 2825(P)	8.323	Subrat Kumar Nayak	Plot No 54, Bhudhes wari Colony, Laxmisagr , BBSR			2 0	6	3 3. 7 4	8 5	3 3	4 2. 0 4	342418
41	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal/ Dhania West (Kha)	Khata No.849, Plot No. 2900(P)	2.509	Meena khi Pradha n	Samantar apur, Khordha			2 0	6	4 1. 0 6	8 5	3	3 6. 8 1	115150
42	Khordh a (SJTA)	Kaipad ar	do	Road Metal / Dhania West (Ga)	Khata No.849, Plot No. 2825(P)	4.279	Pravasi ni Mohan ty	W/o- Ranjan Ku Mohanty, NA-45, GGP Colony, Rasulgad, BBSR			2 0	6	4 1. 0 5	8 5	3	3 6. 7 9	217352

43	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania West (Gha)	Khata No.849, Plot No. 2900(P), 2825(P)	2.655	Subrat Kumar Nayak	Plot No 54, Bhudhes wari Colony, Laxmisagr , BBSR			2 0	6	3 8. 5 1	8 5	3 3	4 1. 5 1	79187
44	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania Uttar Taraf (Ta)	Khata No.849, Plot No. 2847(P)	7.5	Soubh agya Chand ra Das	Bypass road, Talcher, Anugul			2 0	6	4 1. 5 9	8 5	3	5 9. 8	701043
45	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania Uttar Taraf (Da)	Khata No.849, Plot No. 2825(P)	11.25	Ajay Agraw al	Plot No 143, VIP colony, Nayapalli, IRC Village, BBSR			2 0	6	3 8. 5	8 5	3	3 8. 1 6	486259
46	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania Southea st New BS quarry	Khata No.849, Plot No. 2864(P)	5	Soubh agya Chand ra Das	Bypass road, Talcher, Anugul			2 0	6	3 3. 3 8	8 5	3 3	5 7. 4 5	203344
47	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania NBS quarry East Taraf (Cha)	Khata No.849, Plot No. 2864(P)	10					2 0	6	3 0. 9	8 5	3 4	6. 7	550000
48	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania NBSQ (Ja)	Khata No.849, Plot No. 2864(P)	4.5					2 0	6	3 3. 2	8 5	3 4	0. 5	250000
49	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania NBSQ Middle (Jha)	Khata No.849, Plot No. 2847(P)	7	Rajend ra Prasad Singh	New Routpata na, Buxi Bazar, Cuttack			2 0	6	3 7. 9 8	8 5	3 4	6. 1 3	518472
50	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania NBSQ South East (Chha)	Khata No.849, Plot No. 2864(P)	9.6	Jatindr a Das	S/o- Late Basudev Das, Kakata, Kendrapa da			2 0	6	3 3. 3 4	8 5	3 7	7. 0 5	641410

51	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Dhania NBSQ Uttar Taraf (Tha)	Khata No.849, Plot No. 2847(P)	3					2 0	6	4 7. 8	8 5	3 4	3. 9	120000
52	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Sankhari South BSQ (Cha)	Khata No.849, Plot No. 3502(P)	3.5	Soubh agya Chand ra Das	Bypass road, Talcher, Anugul			2 0	6	1 0. 8 4	8 5	3	1 4. 9 8	139335
53	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal/ Sankhari east- West (Ga)	Khata No.849, Plot No. 3502(P)	9.84	Mr Ram Nivas Yadav, Directo r, M/s Premie r Rock Produc t Pvt Ltd	Dankari, Mahisara, Jajpur			2 0	6	1 9. 3 6	8 5	3 3	1 5. 6 3	300122
54	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal/ Sankhari East- West (Gha)	Khata No.849, Plot No. 3502(P)	10.879	Mr Ram Nivas Yadav, Directo r, M/s Premie r Rock Produc t Pvt Ltd	Dankari, Mahisara, Jajpur			2 0	6	1 9. 3 6	8 5	3 3	2 4. 3 4	494386
55	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal/ Sankhari East- West (kha)	Khata No.849, Plot No. 3502(P)	8.449	M/s Fortun e Associ ates Pvt Ltd,	Flat No B- 202, 2nd floor, Sriniketan Apartme nt, Badbil, Odisha			2 0	6	2 0. 2 4	8 5	3 3	3. 6 5	688454
56	Khordh a (SJTA)	Kaipad ar	-do-	Road Meal/ Sankhari East- West (Ka)	Khata No.849, Plot No. 3105(P)	11.9	Rajend ra Prasad Singh	New Routpata na, Buxi Bazar, Cuttack			2 0	6	2 7. 7 6	8 5	3	1 7. 7 5	411012
57	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Sankhari South NBSQ	Khata No.849, Plot No. 3502(P)	1					2 0	6	1 1. 2	8 5	3	1 4. 3	35000

58	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal/ Sankhari South NBSQ (Ka)	Khata No.849, Plot No. 3502(P)	5					2 0	6	1 5. 9	8 5	3 3	8.	200000
59	Khordh a (SJTA)	Kaipad ar	-do-	Road Metal / Kaipada r New Building Stone quarry	Khata No.849, Plot No. 2825(P)	10	Deben dra Nath Jena	S/ Dwijendr a Lal Jena, Uparsahi, Khordha			2 0	6	4 3. 9 1	8 5	3 3	4 1. 8 5	443955
60	Khordh a (SJTA)	Malipa da	-do-	Road Metal/ Hanuma ntia (GA) building stone quarry	Khata no 726/2, plot no. 9(P)	1.087	Sarat Chand ra Kahalsi ngh	At/Po- Kumarbas ta, Khordha			2 0	5	5 9. 1 1	8 5	3 2	3 4. 8	30008
61	Khordh a (SJTA)	Kiajhari	-do-	Road Metal / Kiajhari White Stone Quarry	Khata No. 320, Plot No. 755(P)	1					2 0	5	1 8. 3	8 5	3 4	4 2. 6	28000
62	Khordh a (SJTA)	Deuli	New	Road Metal	Khata No. 319, Plot No. 953	12.025					2 0	5	3 5. 4	8 5	2 9	4 3. 2	500000
63	Khord ha	Brahm apura	New	Blackst one	Khata No. 329, Plot No. 2	5.415					2 0	0 9	4. 4 2	8 5	3 7	2 4. 1 8	1,70,000
64	Beguni a (SJTA)	Danga rapad a	To be auction ed	Road Metal / Kalachu a BUILDIN G STONE QUARRY	Khata No.17, Plot No. 1246(P), 1237(P)	7.7					2 0	5	5 9. 7	8 5	3 0	4 2. 1	200000
65	Beguni a (SJTA)	Danga rapad a	-do-	Road Metal / Dangar apada New Building Stone Quarry	Khata No.17, Plot No. 1246(P)	2.5					2 0	5	5 9. 5	8 5	3 0	4 2. 2	80000

66	Beguni a (SJTA)	Danga rapad a	Auction ed during 18-19 but EC wanting	Road Metal/ Kalachu a New Building stone (Cha)	Khata No.17, Plot No. 1237(P)	3.624	Kailash Ch Parija, MD, Kukumi na Constr n Pvt Ltd	Plot 364, Bomikhal, BBSR			2 0	6	1. 2 3	8 5	3 0	3 6. 4 9	100107
67	Beguni a (SJTA)	Danga rapad a	-do-	Road Metal / Dangar pada White Building Stone quarry	Khata No.17, Plot No. 1517(P)	2	Kailash Ch Parija, MD, Kukumi na Constr n Pvt Ltd	Plot 364, Bomikhal, BBSR			2 0	5	5 2. 6 8	8 5	3 0	5 1. 5 5	59080
68	Beguni a (SJTA)	Danga rapad a	-do-	Road Metal / Kalachu a NBSQ (Jha)	Khata No.17, Plot No. 1517(P)	9.5	Manoj Ku sahoo, M/s Dio Infrate ch P Ltd	Plot 43, Unit VII, Suryanag ar, BBSR			2 0	5	5 0. 4 2	8 5	3 0	4 4. 7 2	479500
69	Beguni a (SJTA)	Danga rapad a	-do-	Road Metal / Kalachu a New (Chha)	Khata No.17, Plot No. 1247	6	Kailash Ch Parija, MD, Kukumi na Constr n Pvt Ltd	Plot 364, Bomikhal, BBSR			2 0	5	5 6. 0 2	8 5	3 0	4 3. 4 4	265243
70	Beguni a (SJTA)	Danga rapad a	-do-	Road Metal / Dangar apada New Building Stone North side	Khata No.17, Plot No. 1237(P)	5	Pragya n Parami ta Padhi	Plot 3840, Barimund a, Manches war, BBSR			2 0	6	1.	8 5	3 0	4 0. 1	151952
71	Beguni a (SJTA)	Danga rapad a	-do-	Road Metal / Kalachu a NBSQ (nian)	Khata No.17, Plot No. 1517(P)	6.682	Kailash Ch Parija, MD, Kukumi na Constr n Pvt Ltd	Plot 364, Bomikhal, BBSR			2 0	5	4 5. 5 2	8 5	3 0	4 4. 7 2	300122

72	Beguni a (SJTA)	Danga rapad a	-do-	Road Metal / Kalachu a NBSQ (Ta)	Khata No.17, Plot No. 1517(P)	6.772	Dilip Ku Jena, Urmila Builder s P Ltd	Plot 2508, Lewis Road, BBSr					1 0	5	4 6. 5 2	8 5	3 0	4 8. 5 8	264736
73	Beguni a (SJTA)	Danga rapad a	-do-	Road Metal / Kalachu a NBSQ (Tha)	Khata No.17, Plot No. 1517(P)	4.894	Kailash Ch Parija, MD, Kukumi na Constr n Pvt Ltd	Plot 364, Bomikhal, BBSR					2 0	5	4 7. 2 5	8 5	3 0	5 3. 4 4	204177
74	Beguni a (SJTA)	Danga rapad a	-do-	Road Metal / Kalachu a NBSQ (Ja)	Khata No.17, Plot No. 1517(P)	5.228	Kailash Ch Parija, MD, Kukumi na Constr n Pvt Ltd	Plot 364, Bomikhal, BBSR					2 0	5	5 1. 0 1	8 5	3 0	3 6. 5 5	158246
75	Tangi	Jariput	New	Black stone (Jariput BS –A	Khata no-296, Plot No.1112	3							1 9	5 1	2 3. 4 3	8 5	1 8	3 8. 1 9	4522
76	Tangi	Jariput	New	Black stone Jariput BS-B	Khata no-296, Plot No.1112	3							1 9	5 1	2 5. 1 5	8 5	1 8	3 5. 8 1	29133
77	Tangi	Jariput	New	Black stone Jariput BS-C	Khata no-296, Plot No.1112	3							1 9	5 1	2 6. 7 3	8 5	1 8	3 8. 7 9	5506
78	Tangi	Jariput	Running	Black stone Jariput BS-6	Khata no-296, Plot No.1061	2.5	Saroj Kumar Mohan ty	At- Nachuni Dist- Khordha	06.09.201	No.41 Dtd- 8.3.2018			1 9	5 1	2 9. 5 4	8 5	1 8	3 4. 6 8	65961
79	Tangi	Jariput	New	Black stone JariputB S-D	Khata no-296, Plot No. 1112(P) 1061(p)	3							1 9	5	2 0. 1 6	8 5	1 8	3 4. 3 7	14256
80	Tangi	Jariput	Running	Black stone Jariput BS -9	Khata no-296, Plot No.1112	0.45	Tarani Baalab anta ray	At- Chilika Dist khordha	01.07.201	No.41 Dtd- 8.3.2018			1 9	5 1	2 3. 6	8 5	1 8	4 0. 1	11544
81	Tangi	Jariput	LOI	Black stone Jariput BS -10	Khata no-296, Plot No.1112	0.315					Pranay a Ranasi ngh	At- Kaithap alla Dist- Khordha	1 9	5 1	2 3. 6	8 5	1 8	4 0. 1	3430

	I			Plack	1			1	1	1						1			
82	Tangi	Jayam angalp ur	Running	Black stone Jayama ngalpur BS Q No.1	Khata no-432, Plot No.1632	2.2	Sandip Bhasin	At- Chilika Dist khordha	04.08.202	583 Dated 30.04,201 6.			1 9	5 1	3 3. 8 6	8 5	1 8	3 3. 5 4	20216
83	Tangi	Jayam angalp ur	Running	Black stone Jayama ngalpur BS Q No.2	Khata no-432, Plot No.1632	1.3	Sangra m Keshori Sen	At- Kaithapall a, pO- Biribadi, Dist- Khordha	29.08.201 8	16.03.201 8			1 9	5	3 1. 9 6	8 5	1 8	3 2. 9 4	28270
84	Tangi	Jayam angalp ur	New	Jayama ngalpur BS Q No.3	Khata no-432, Plot No.1632	2.2							1 9	5 1	3 1. 9 6	8 5	1 8	3 2. 9 4	24990
85	Tangi	Balara mpur	Running	Balaram pur Chips Metal Quarry	Khata No.272 Plot No.46	2.162							2 0	0	5 7. 3	8 5	3 0	9. 1	84084
86	Tangi	Brusab andha	LOI issued	Black stone Brusaba ndha BS Q No.1	Khata no-212, Plot No.558	1.232					Satyap riya Srichan dan	Dist - Khordha	1 9	5 2	3 9	8 5	1 9	5 3. 7	4986
87	Tangi	Brusab andha	LOI issued	Black stone Brusaba ndha BS Q No.2	Khata no-214, Plot No.554	2					Subha brata Mohan ty	At- Kaligali Cuttack	1 9	5 2	4 4. 3 1	8 5	1 9	5 0. 5	50041
88	Tangi	Brusab andha	LOI issued	Black stone Brusaba ndha BS Q No.3	Khata no-214, Plot No.554	4.5					Satyap riya Srichan dan	Dist - Khordha	1 9	5 2	4 0	8 5	1 9	5	18210
89	Tangi	Brusab andha	Running	Black stone Brusaba ndha BS Q No.4	Khata no-214, Plot No.554	5.6					Subha brata Mohan ty	At- Kaligali Cuttack	1 9	5 2	3 3. 5 5	8 5	1 9	4 2. 1	60489
90	Tangi	Brusab andha	LOI issued	Black stone Brusaba ndha BS Q No.5	Khata no-214, Plot No.554	3					Subha brata Mohan ty	At- Kaligali Cuttack	1 9	5 2	3 6. 2 3	8 5	1 9	4 1. 4 1	57096
91	Tangi	Brusab andha	LOI issued	Black stone Brusaba ndha BS	Khata no-214, Plot No.554	2					Subha brata Mohan ty	At- Kaligali Cuttack	1 9	5 2	3 0. 6 7	8 5	1 9	4 2. 6 5	25385

				Q No.6															
92	Tangi	Brusab andha	LOI issued	Black stone Brusaba ndha BS Q No.7	Khata no-214, Plot No.554	3.5					Subha brata Mohan ty	At- Kaligali Cuttack	1 9	5 2	2 8. 1 6	8 5	1 9	4 1. 6 2	326817
93	Tangi	Nayak ote	Running	Nayakot e Black Stone	Khata no.293,p lot no.685	2.46	Satya Multipl ex	At- Nayapalli, Dist Khordha	20.03.202	7805 Dated 03.02.202 0			2 0	5	0. 5	8 5	3	5 6. 5	75091
94	Tangi	Kunjari	New	Kunjari Black Stone	Khata no.160,p lot no.474	2.56							1 9	5 3	3 6. 1	8 5	1 7	5 9. 3	49083
95	Tangi	Dama nabhui n	New	Daman abhuin Black Stone Quarry-1	Khata no.206,p lot no.887	9.15							2	3	4 4. 8 8	8 5	3	5 4. 2 4	193861.5
96	Tangi	Dama nabhui n	New	Daman abhuin Black Stone Quarry-2	Khata no.149,p lot no.878	0.603							2 0	3	4 7. 1 6	8 5	3	5 6. 7 4 7	7020
97	Tangi	Jariput	New	Jariput Black Stone -	Khata no.296,p lot no.689	12							1 9	5	5 3. 3 5 8	8 5	1 8	1 8. 0 0	3807745
98	Tangi	Botand a	New	Botanda Black Stone	Khata no.168,p lot no.422	2.578							2 0	0	5 1. 9 4	8 5	3 0	7. 6 8 7	66021
99	Banap ur	Suliapa li	New	Stone Quarry	Khata no 165 Plot No 425	14.55							1 9	4 9	4 1. 1 9	8 5	1 0	5 9. 6 8	102207
100	Banap ur	Kolath adihi	New	Stone Quarry 17.070 Hect.	Khata no 151 Plot No 421	42.18							1 9	4 9	9. 3	8 5	1 0	4 5. 3 6	6883755
101	Banap ur	Naren drapur	New	Stone Quarry	Khata no339 Plot No 131	13.18							1 9	4 9	8. 0 6	8 5	1	3 9. 6 4	322283
102	Banap ur	Naren drapur	New	Stone Quarry	Khata no339 Plot No 201	82.208							1 9	4 8	5 9. 0 8	8 5	1	5 1. 6 5	9850323

		Т	1	1			1	1	1	1		ı							
103	Banap ur	Torasin gh	New	Stone Quarry	Khata no232 Plot No 649/752	18							1 9	4 9	9. 6 2	8 5	1	2 9. 7 5	745070
104	Banap ur	Nilaka nthapu r	New	Stone Quarry	Khata no68 Plot No 79	9.04							1 9	5 0	1 4. 4 3	8 5	1 5	2 7	82726
105	Beguni a	Parich hal	Running	ROAD METAL	Khata No- 373, plot No 724	5.62	M/s Agraw al Infrabu ild P Ltd	1st Floor, VR Plaza, Link road, Bilaspur, CG					2 0	5	4 1. 2	8 5	3 0	5 4. 8	491822
106	Beguni a	Parich hal	LOI	ROAD METAL	Khata No- 373, plot No 725	4.87					M/s Agraw al Infrabu ild P Ltd	1st Floor, VR Plaza, Link road, Bilaspur, CG	2 0	5	4 1. 3 7	8 5	3 0	5 6. 9	137654
107	Beguni a	Parich hal	LOI	ROAD METAL	Khata No- 373, plot No 726	5.62					M/s Agraw al Infrabu ild P Ltd	1st Floor, VR Plaza, Link road, Bilaspur, CG	2 0	5	3 7. 9 7	8 5	3 0	5 6. 8 7	219166
108	Beguni a	Parich hal	LOI	ROAD METALH a	Khata No- 373, plot No 727	5.87					M/s Agraw al Infrabu ild P Ltd	1st Floor, VR Plaza, Link road, Bilaspur, CG	2 0	5	3 4. 5 1	8 5	3 0	5 6. 7 5	142390
109	Beguni a	Parich hal	LOI	ROAD METALH a	Khata No- 373, plot No 728	5					M/s Agraw al Infrabu ild P Ltd	1st Floor, VR Plaza, Link road, Bilaspur, CG	2 0	5	3 8. 3	8 5	3 0	5 6. 2	411169
110	Beguni a	Parich hal	New	ROAD METAL	Khata No- 373, plot No 608	4.48						-	2 0	5	3 4. 1	8 5	3	1 9	90000
111	Beguni a	Parich hal	New	ROAD METAL	Khata No- 373, plot No 702	0.48							2 0	5	3 5. 3	8 5	3	4. 5	16000
112	Beguni a	Parich hal	New	ROAD METAL	Khata No- 372, plot No	0.5							2 0	5	1 2. 6	8 5	3	5 0. 9	16000

					1309														
113	Beguni a	Parich hal	New	ROAD METAL	Khata No- 373, plot No 1858, 606 & 607	8							2 0	6	2 9. 3	8 5	3	2 6. 6	280000
114	Beguni a	Parich hal	New	ROAD METAL	Khata No- 373, plot No 1512, 1514 & 1520	2.165							2 0	5	1.	8 5	3 0	5 8. 2	70000
115	Bolagar h	Panch ukota	LOI	Panchu kota Boulder Quarry A	Khata No- 231 Plot No- 622 Kissam- Mundia	1.21					Ramah ari Subud hi	At/Po- Bolagar h Dist Khordha	2 0	9	2 9. 1 2	8 5	1 4	3 9. 9	3528
116	Bolagar h	Sampu r	LOI	Sampur Boulder Quarry A	Khata No- 400 Plot No- 141 Kissam- Pahada	0.4					Gopab andhu Deo Mohap atra	At- Sampur Dist - Khordha	2 0	1 2	1 1. 3	8 5	1 5	3 9. 9 4	1581
117	Bolagar h	Gobar dhanp ur	New	Gobard hanpur Boulder Quarry	Khata No- 365 Plot No- 6 Kissam- Chhota Pahada	2.5							8 5	1 3	0. 2 2	2 0	1 2	5 9. 1 6	25000
118	Bolagar h	Bolaga rh	Running	Bolagar h Boulder Quarry (Sairat case No- 1/15-16)	Khata No-1279 Plot No- 2381	0.809	Sri Subhe ndu kumar Cham pati S/o- Raghu natha Cham pati	Vill/Po/P s- Bolagarh mob- 9238984 599 Dist- Khordha	28.06.1 6	SEIAA / 737 dated 30.01.1 6			2 0	9	5 1. 4	8 5	1 6	2 7. 5	238
119	Bolagar h	Kusupa Ila	Running	Kusupall a Boulder Quarry (Sairat case	Khata No-495 Plot No- 683	3	Sri Rabind ra Kumar Parida	vill- Trutiapa da Po/Ps- Bolagarh	23.07.1 8	SEIAA / 6362 dated 17.08.1			2 0	8	5 6	8 5	1 4	3 2	468

				No- 13/15-16				Dist- Khordha		5								
120	Bolagar h	Gopali pada	Running	Gopalip ada Boulder Quarry (Sairat case No- 6/15-16)	Khata No-217 Plot No- 883	0.4	Sri Jayakr ushna Swain, S/o- Hrusik esh Swain	vill- Chuda, po- Dabardh ua, Ps- Bolagarh, Khordha	20.07.1	SEIAA / 605 dated 30.01.1 6		2 0	9	2 1. 1	8 5	1 7	2 7. 3	405
121	Bolagar h	Panch ukota	Running	Panchu kota Boulder Quarry (Sairat case No- 4/15-16)	Khata No-231 Plot No- 734	0.603	Sri Rabind ra Kumar Parida	vill- Trutiapa da Po/Ps- Bolagarh Dist- Khordha	20.07.1	SEIAA / 719 dated 30.01.1 6		2 0	9	1 0. 1 3	8 5	1 5	1 6. 3	60
122	Bolagar h	Srichan danpur	Running	Srichand anpur Boulder Quarry (Sairat case No- 10/15-16)	Khata No-562 Plot No- 1	4.625	Sri Satrug hna Mansi ngh, S/o- Arakhi ta Mansi ngh	Vill-Siula Po- Pichukuli , Ps- Begunia, Khordha	23.06.1 7	SEIAA /4360 dated 17.08.1 5		2 0	1 1	4 8. 4	8 5	1 8	2 2. 9	540.8
123	Bolagar h	Daunia palli	Running	Dauniap alli Boulder Quarry (Sairat case No- 12/15-16)	Khata No-326 Plot No- 809	0.25	Prasan t Kumar Parida, S/o- Sadhu Chara n	At- Trutiapa da, po/ps- Bolagarh, Khordha	21.03.1 6	SEIAA /4360 dated 17.08.1 5		2 0	9	1 1	8 5	1 4	3 1	1088
124	Bolagar h	Dabar dhua	New	Dabard hua Boulder Quarry	Khata No-532 Plot No- 43	1						2 0	9	4 3. 3	8 5	1 6	5 7. 2	10000
125	Bolagar h	Gobar dhanp ur	New	Gobard hanpur Boulder	Khata No-365 Plot No-	1						2	1 2	5 8. 7	8 5	1 3	1 9. 4	10000

		Quarry	96					4		2	
											5,46,06,413.
				TC	OTAL						8