

INTRODUCTION

1.0 KANDHAMAL DISTRICT AT A GLANCE:

Kandhamal district is one among the 30 Districts of Odisha State. The administrative head-quarters of Kandhamal District is Phulbani. It is Located 198 Km East towards State capital Bhubaneswar. The geographical area of the District is 8021 sq.kms. Area-wise the district rank is 6th among all the districts of Orisha.

Kandhamal literally "the land of Kondhs" is a districts with a substantial tribal population. It was formed by bifurcating the former Boudh-Phulbani or Kandhamal District on 1st January, 1994. The agro-climatic condition of the districts is otherwise very rich in organic contents.

Ever Since Boudh-Phulbani district was created in 1948 by merging feudatory state of Boudh with Phulbani sub-division with its Headquarters at Phulbani, the movement to separates Phulbani from Boudh began in early 1980"s when two Tribal outfits named "Kui Samaj" and "Pahadi Sangram Manch" fight for the separation. When the movement becomes vociferous, the state Government had to concede the demand of the people ultimately and Kandhamal came into existence.

The Government of India, Ministry of Environment, Forests and Climate Change (MoEF&CC) has made certain amendment vide notification No.S.o.141(E) dated 15.01.2016 and Notification No.S.O.190(E) dated 20.01.2016 in Environmental Impact Assessment (EIA) Notification no.S.O.1533(E) Dated 14.09.2006 issued by the erstwhile ministry of Environment and Forest (MoEF).

District Survey report (DSR) is required to identify the areas of aggradations or depositions under the guidance of District sub-level committee where mining can be

allowed and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited and calculation of annual rate of replenishment after mining in that area. Every effort has been made to cover sand mining locations, area and overview of mining activity in the district with all its relevant features pertaining to geology and mineral wealth in replenishable and non-replenishable areas of rivers, stream and other sand sources.

1.1 Location and Geographical Area:

The un-divided Phulbani district was separated from Boudh in 1984 and renamed as Kandhamal District. It has 2 sub-divisions namely. Phulbani & Baliguda in Kandhamal district. Phulbani is the District Head Quarter of Kandhamal district, and the district is spreading over an area of 8021 sq.km lies between 19° 34' North and 20° 34' North latitudes and 83°30' and 84°35' East longitudes. The District is surrounded by Rayagada district in its South, Ganjam and Nayagarh District in its East, Kalahandi District in its West and Boudh district in its north side. This District consists of Two Sub-Divisions namely Phulabani & Baliguda. There are 12 Tahasils for 12 Blocks, 2506 Villages, 171 Gramapanchayat and 18 Police stations of the District. Phulbani is the main town of the District and is also its centre of economic growth.

Phulbani sub-divisions forms a broken plateau about 518 meters above sea level. Continuous mountains surrounded this sub division from all sides. The high plateau lying within these ranges is broken up by numerous smaller ranges which form an endless series of valleys varying in size. Thick forest cover much of these tracts and villages lie in scattered clearings along hill sides. The whole of this sub-division is a network of hills and forests interspersed with small hamlets of the Kandhas. The hilly tract is intersected in all directions

by streams and Rivers, which run dry after the cessation of rains.

Baliguda Sub-division is one of the plateau and lies at heights varying from 300 meters to 1100 meter above sea-level. The eastern side of the sub-division consists of wide well cultivated valleys. The hills of this sub-division are a part of the Eastern Ghats. The uplands and slopes leading from the foot of the hills are utilized for growing dry crops periodically depending on the rain.

The area of cultivated land is small in this district. The primary occupation of people in the District is cultivation, collection of Forest Products like Mahua Flower, Kendu Leaf, Bamboo. Sal Leaf etc.. Economy of Kandhamal District is agrarian in character. Except a few agro-processing units, there is no major industry in the District. Being an agrarian economy, collection of jungle product is the main stay of the people of Kandhamal District. The District has a rich mineral base of soft stones, granite stone, stone chips are available in the District, which are mainly used for development work in the District. The huge deposits of Graphite at different regions provides tremendous scope for development of few more industries based on this resources. Except these, no minerals in large quantity which can be explored for commercial purpose found in the District.



1.2 Administrative Units:-

Phulabani is the administrative head-quarter of Kandhamal District. It is located at a distance of 198 Km from Bhubaneswar, State capital of Odisha. It has 2587 villages covering 12 Blocks, 12 Tahasil and 2 sub- Division, namely Phulabani and Baliguda . The 12 Blocks and tahasils are namely,

i) Balliguda, ii) Chakapada, iii) G. Udayagiri, iv) Daringbadi, v) K. Nuagoan, vi) Kandhamal, vii) Kotagarh. Viii) Khajuripoda, ix) Raikia, x) Phiringia, xi) Tikabali, xii) Tumudibandha.

Total population of the Kandhamal District (2011 census) was 7,33,110 comprising total 3,59,945 male population and 3,73,165 female population. Total SC population of the District is 115544 (15.8%) and total ST population of the District is 3,,92,820 (53.6%). Average literacy rate in Kandhamal district as per census 2011 is 86.81 % of which males and females are 93.30 % and 80.29 % literates.

There are one municipality, two Notified Area Council, 171 Gram Panchayats 2,506 villages with 2415 inhabited and 91 uninhabited villages, Baliguda, G. Udayagiri and Phulbani are three assembly constituencies.

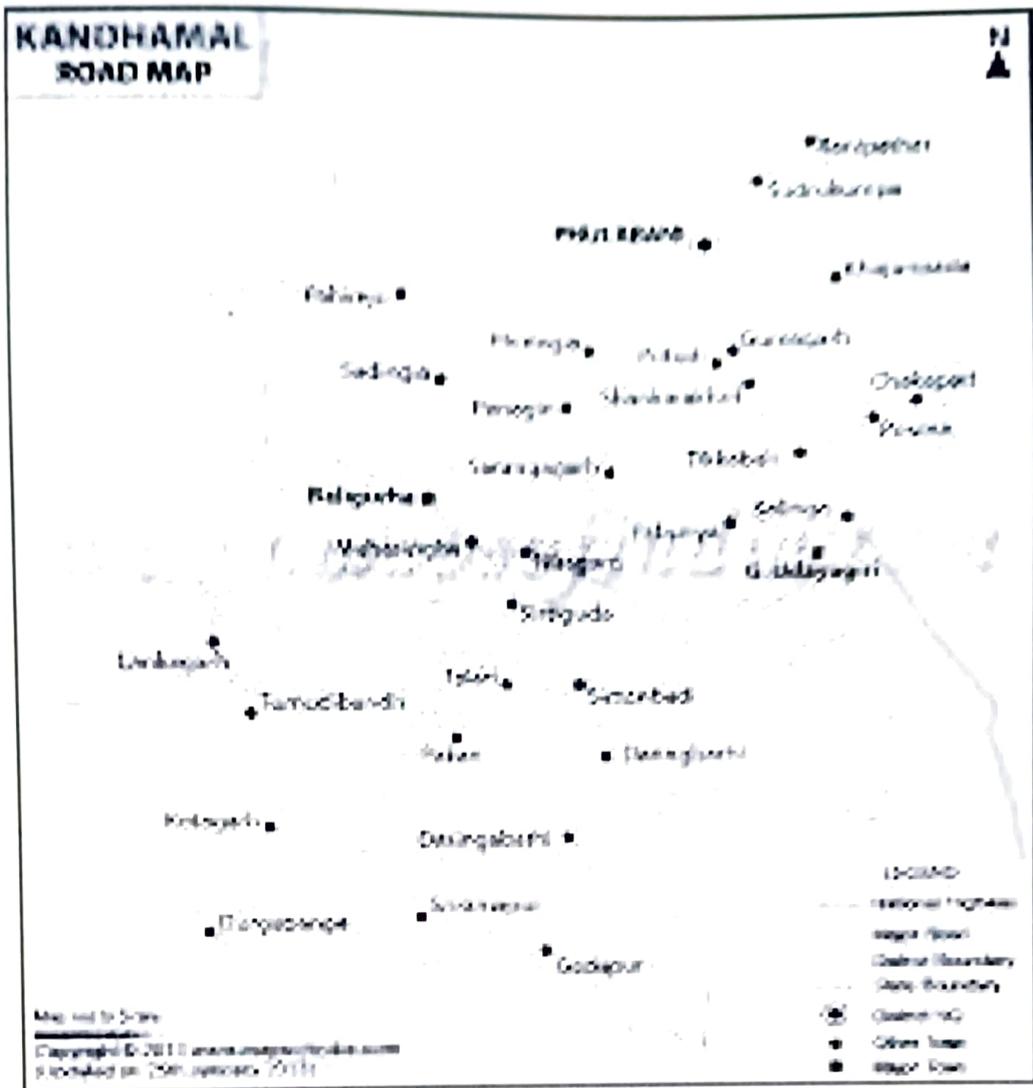
Administrative Unit	Numbers
Sub-divisions	2
Tahasil	12
Block	12
Municipally	1
NAC	2
Police Stations	18
Gram Panchayats	171
Total no. of Villages	2506
Inhabited Villages	2415
Uninhabited Villages	91
Assembly Constituencies	3



1.3 Connectivity Facilities:-

1.3.1 Road Network

The District is well served by a network of good roads and has been called the motorists paradise. The chief roads emanating from Phulbani town are NH-16 and NH-60 passes the District. Kandhamal is 160 Kms from Brahmapur, 185 Kms from Bhubaneswar, 185 Kms from Sambalpur. It is also connected with other cities such as Bhubaneswar, Brahmapur, Sambalpur, Bolangir, Nawarangpur ,via Odisha State Road Transport Corporation and some private transport services.



1.3.2 Rail Network

Kandhamal District is not connected by any Rail link. Only Roadway link is available to connect with different places of the district and state. Daspalla Rail station and Brahmapur Rail Station is the nearest operational Station from this district.

1.3.3 Air Network

At present, Kandhamal has no connection by Airway. Nearest airport is Biju Patnaik Airport, Bhubaneswar, 200 Kms from Kandhamal district.

2.0 OVERVIEW OF MINING ACTIVITIES IN THE DISTRICT:

2.1. MINERALS:

The district has a variety of mineral occurrences which include Graphite, Bauxite and Quartzite stones. Brief description of the mineral occurrences is given below.

2.1.1. Graphite:

An occurrence of Graphite has been reported near Madagurha (Tumudibandh), Bargaon, Dhursi, Mahabali. The chemical analysis indicates that more than 40% of Al_2O_3 and less than 0.5% of SiO_2 .

2.1.2 Bauxite:

An occurrence of Graphite has been reported near Anamini Parbat, Rukuni Cuttack, Demoli, Ushabali etc. The chemical analysis indicates that more than 40% of Al_2O_3 and less than 0.5% of SiO_2 .

2.1.3. Quartz & Quartzite:

Quartz occurs in the form of veins and as a constituent of pegmatite's. In Orissa, quartz and silica sand deposits are located in the Precambrian terrains Quartzite occurs as beds interstratified with other metasedimentary in few places of the district.

3.0. GENERAL PROFILE:

a) Area and Population:

The district has an area of 8021 sq.km. and 7.34 lakh of population as per 2011 census. The district accounts for 2.78 percent of the states territory and shares 1.75 percent of the state population. The density population of the district is 91 person per sq.km. of the state. As per 2011 census, 90.14 % population of Kandhamal districts lives in rural areas of

villages. Average literacy rate in Kandhamal district as per census 2011 is 86.81 % of which males and females are 93.30 % and 80.29 % literates whereas Literacy rate in rural areas of Kandhamal district is 61.52 %.

b) Climate & Rainfall:

The climate condition of the district comes under North Eastern Ghat agro climatic zone covering 15% of area with Hot & Moist, Sub humid climate, characterized by hot & dry summer and dry cold winter. As the geographical situation of the district is characterized by undulated topography with hilly terrain where the rain water is carried through hill streams and nallahs. The average annual rainfall of the district was 1428.15mm and temperature ranges between a maximum of 40 degree to minimum 1 degree centigrade. The humidity of the air is generally high especially in the south-west monsoon and post monsoon months. April is the driest month. Afternoon period is compared drier and more so from March to May. The peak period of rainy season is from 15th June to September month.

Year/ Month	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
20-21	2.55	42.97	204.37	238.17	273.88	267.34	118.9	1.81	0	30.87	14.75	30.78	122.39
21-22	0.60	62.66	238.82	211.64	242.04	216.44	195.39	33.76	0.00	0.00	0.00	30.27	1231.62
22-23	92.56	75.33	146.24	461.87	385.98	309.47	293.33	0	61.54	0.00	0.00	0.13	1826.45

Avg.	23-24
30.90	131.75
60.32	103.43
196.48	149.31
303.89	367.33
300.63	325.74
264.42	202.44
202.54	320.19
11.86	0.93
20.51	77.93
10.29	0.00
4.92	2.08
20.39	19.55
1428.15	1700.68

c) Agriculture:

The land utilization of Kandhamal district is as follows:

The Total Geographical Area is 802100 Hectare.

802100	Geographical Area
570983	Forest Area
14245	Cultivated waste land
9103	Land put to Non-Agril. Use
10079	Permanent Pastures
33775	Land under miscellaneous
6182	Other fallow
935	Current Fallow
126855	Net Area sown
133972	Gross cropped area
29943	Barren/non culturable land

Name
Paddy
Maize
Arhar
Black
Niger
Horse
Groundn
Mustard
Potatoes
Sweet
Patato
Turmeric
Ginger

Production in KG/H a.	2447	1706	961	242	312	358	1507	305	14784	9363	9569	10560
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d) Horticulture:

In the year 2023-24 total 21678.8 ha. land area has been used for horticulture purposes in 12 nos. of Blocks of the districts where 2338 nos of beneficiaries have been benefited.

e) Tourist Places:

There are four nos. of tourist spots in Kandhamal district namely Daringbadi, Belghar, Mandasur, Putudi waterfall has identified by department of Tourism, Government of Odisha. So many nos. of domestic tourist were visited to the tourist centers of Kandhamal district.

f) Forest areas:

Kandhamal has abundant of Forest areas that contributed 71.9% of the total geographical area of the district. Out of total geographical area of 8021 Sq.Km. around 5859.85 Sq.Km. is forest area of this district. The total reserve forest area is 2050.42 Sq. Km.

The entire division is traversed by a number of rivers and nallahs. The rivers originate from almost the centre of the division and run parallel to the general direction of North and North-West. The perennial rivers and streams found in this districts are summarized in the below table.

Name of Range	Name of Stream/River
Balliguda Sub-Division	
Balliguda	Khadaga, Budhanai merged with Rouladi & Jhiripani Nallah
K. Nuagam	Kalipen Nallah
Daringbadi	Gumardihi Nallah
Daringbadi	Periaju Nallah
Tumudibandha	Rouladi
Brahmanigaon	Rushikulya River originates from Rushimal forest Block
Kotagarh	Chauldhua, Dimuru & Rouladi
Belghar	Pipilli, Penaju Nallah
Phulbani Sub-Division	
Phulabani	Salki
Chakapad	Brutanga

g) Mining:

The total area under mining activities in Kandhamal district is found to be 67.235 Ha. out of which 18.715 Ha. area is for stone quarries and rest 48.520 Ha. is for sand quarries area of the district. The total Minavble reserve in existing stone quarries in Kandhamal district is 1331919 Cum.

4.0 Geology:

The geological formation of Kandhamal district is in archian crystalline form of Eastern Ghat phases which are comprises of associate minerals such as Granite, Khondolite, Charcolite and Quartzite etc.

Geology of the District and mineral wealth:

Geologically the area forms part of the Eastern Ghats Super Group and is divided into khondalite group, Charnockite group and migmatite group. The alluvium is of Pleistocene to recent age. Khondalite group of rocks are of meta-sedimentary origin and represented by quartzgarnet-sillimanite schist and gneisses without graphite, sillimanite quartzite and quartzsillimanite sericite schist occurring as enclaves within granite. Occurrences of basic charnockite are very restricted as bands or lensoid patches within the granites. Intermediate or acid charnockite are common being distributed throughout the hilly area. Migmatite group comprising augen gneiss, garnetiferous leucogranites are the most abundant rock types of the area. This constitutes high hill ranges at several places towards north and south and smooth rolling topography in the plains. Rocks of lower Gondwana group especially the Talchir formation is exposed in the northern part of the area. The contact between Talchir and older rocks is faulted at places. Pockets of laterites commonly found in khondalite bearing ridges mainly over the hill tops. The laterite exposed in the area is of Cainozoic age. The river beds of the area are covered by recent alluvium. The general strike of the foliation is WNW-ESE to ENE-WSW through NE-SW and NS. The amount of dip ranges between 500 to sub-vertical. There is one major shear zone near Ranipathar area. Mylonite and silicification occur along this zone at several places. Both vertical as well as inclined joint planes are observed. Numbers of fault planes occur in the area with varieties of strike direction. A number of lineaments are deciphered in this area from LANDSAT imageries. Two major sets of these lineaments are deciphered running along NW-SE to NNWSSE and NS directions. A number of mineral

occurrences are noticed in the area. Bauxite deposits have been located in the plateau of khondalite hills. Rucy, mica-bearing pegmatite vein is located East of Mundagaon. Several occurrences of dimension stones are found at the southern bank of kalipana river. Graphite occur in the garnet-quartz-silimanite schist of khondalite suite in the form of bands, enechelon veins and lenses or disseminated forms. They are usually disposed conformably along the foliation planes of the host rocks. A number of graphite deposits have 13 been found in the western part of the area at NW of Tumudibandha. Only occurrence of bed ocher, found in the district is situated south of Ghumusar Udayagiri.

5.0. DRAINAGE AND IRRIGATION PATTERN

A) Hydrology:

The major water bearing of kandhamal district are measure through pre-monsoon dept to water level i.e. 6.40 mtr to 12.35 mtr & the post-monsoon that water level is 0.14 mtr to 10.70 mtr

B) River:

The Kandhamal physiographic units are remark by valley pediment, hills & flood plain. The major drainage system is being regulated by the river Mahanadi, Tel & their tributaries.

The total irrigation potential of Kandhamal district for Kharif 2023 is 3380 Ha. Covers around 25.89 percentage of cultivated area. The drainage of irrigation pattern is designed is designed for 33080 Ha. as belows such as :-medium irrigation project-2033 Ha., MIP + Check dam – 10314Ha., Lift irrigation project- 11524 heets, W.H.S.- 982 Ha., DBW + Micro River lift – 3070 Ha. and other sources – 5157 Ha. .

(a) Drainage system with description of main Rivers:

Sl.no	Name of the River	Area drained (Sq.Km)	% area drained in the District
1	Salki	1581	78%
2	Khadaga	2020	93%
3	Pilasalki	87.36	100%
4	Kalava	95.85	100%

Salient Features of Important Rivers & Streams:

Sl.no	Name of the River or Stream	Total Length in the District (in km)	Place of origin	Altitude at Origin
1	Salki	85	Bakamaha of G.Udayagiri Block	652 m
2	Khadaga	142	Gumamaha of Raikia Block	702 m
3	Pilasalki	3	Sanabeda of Chakapada Block	863 m
4	Kalava	15	Linepada of Chakapada Block	530 m

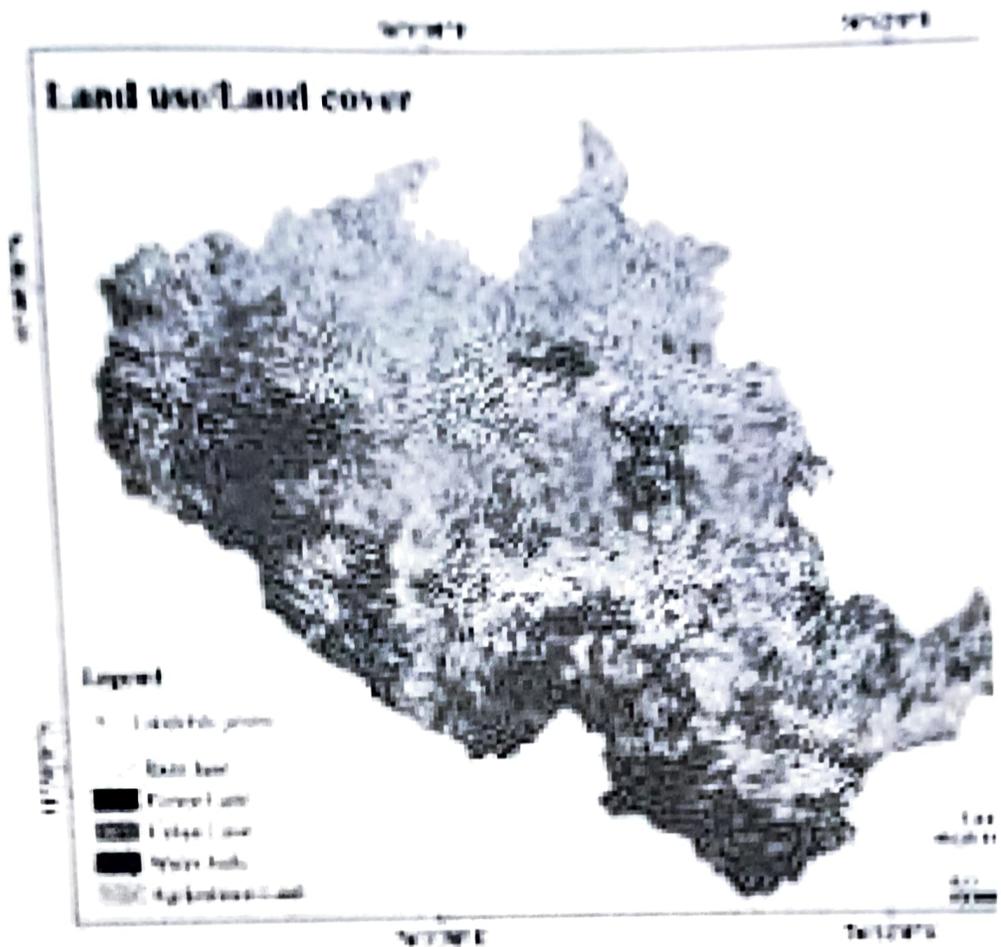
6.0. Land utilization Pattern in the District

District of Kandhamal has abundant of Forest area that contributed 71.19% of the total geographical area of the district .total Geographical area of Kandhamal District is 8021 sq kms.Out of total geographical area the total forest area is 5859.85 sq.kms. the total reserve forest area is 2050.42 sq.kms.

The entire division is traversed by a number of rivers/nallahs. These rivers originate from almost the centre of the division and run parallel to the general direction of North and North west. The perennial river and streams found in Balliguda Division are summarized in the table below.

6.1. The land utilization of Kandhamal district is as follows:-

As most of the area comes under forests, the people of the district basically depend upon the forest products. Most of the farmers are economically backward with higher percentage of SC & ST families. Majority of the farmers are small and marginal landless labours and depend on the forest and other minor forest products for their livelihoods. Some important crop grown in district are paddy, Maize, Turmeric, Ginger, Mustard and vegetable. As per agricultural census 2010-11 the no. of operational holdings of the district is 91512 with 92801 Ha. operational area. The average size of land holding for all social groups is 1.01 Ha. Out of 8,02,100 hectares of geographical area of the district, 71% of land is under forest cover. Land under non-agricultural use constitutes 1.77%. Cultivable waste land, permanent pasture and land under miscellaneous tree crops and grooves constituting 7.24%, where the land comes under current fallows during 2012-13 & 2013-14 was 0.35%, which has decreased to 0.11% of the total land during 2014-15.Likewise, the net sown area during the year 2012-13 and 2013-14 was 15.57%, which has increased to 15.81% of total land during the year 2014-15.



7.0 SURFACE WATER & GROUND WATER SCENARIO

in the Kandhamal district the water exploration programme is executed through drilled wells having depth range of 20.30mtr to 266.00mtr where discharge ips is coured from 0.21ps to 3.73lps. in the ground wter mostly presence of chemical consituance are found more than permissible limit and this types of water is fit for irrigation & drinking with a few abstention. the annual replenishable ground water resources are 70266.00 where the net ground water drafts are 8748.00 the projected demand for domestic& industrial useds of ground water provision resources upto 2025 is 2524.00 & the stage of ground water development ae found

12.45 percentage board to assess the ground mentioned by quite a large no. of permanent hydrograph stations 4 times a year.

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

Depth of water level (mbgl)/ Period	April	August	November	January
Minimum	2.1	0.27	0.7	0.85
Maximum	10.2	7.13	7.29	10.5

8.0. DETAILS OF MINING LEASES OF KANDHAMAL DISTRICT

8.1 DETAILS OF ROAD METAL MINING LEASES:

Attached as Annexure- I (A), I (B), I (C)

8.2. DETAILS OF MINING LEASES OF SPECIFIED MINOR MINERALS:

Attached as Annexure- I (D)

8.3. DETAILS OF MORRUM MINING LEASES:

Attached as Annexure I(E)

9 DETAILS OF ROYALTY COLLECTED

Year-wise calculation of Royalty (Rs) of Road metal

Finacial Year	Amount in Rupees
2021-22	
2022-23	22,69,38,171/-
2023-24	20,44,87,763/-

10 DETAILS OF PRODUCTION OF MINOR MINERAL

Year	Amount
2020-21	123857.00 cum
2021-22	115072.00 cum
2022-23	103476.00 cum

11 MINERAL MAP OF THE DISTRICT

Attached as plate No.4.

12 LIST OF LOI HOLDERS ALONG WITH VALIDITY

Attached as Annexure II

13 TOTAL MINERAL RESERVE AVAILABLE IN THE DISTRICT

The estimated deposit of graphite in the district is around 1.68 lakhs MT. Though occurrence of some minerals like Bauxite and Lime stone have been reported, the commercial production/exploitation is not viable. About 531 numbers of areas were applied for prospecting License, Reconnaissance Permit or mining leases for minerals like Bauxite, Iron Ore & Manganese, Quartz, Feldsper, Mica, Precious and Semi-Precious Stone, Graphite, Limestone, Dolomite, Coal, Lime kankar, China Clay, Red Ochre, Granite, Decorative Stone, Sand and Road Metals. The mining activity in the Kandhamal District is currently dependent on the decision of the government because of the restriction imposed by the ministry of Environment and forest of the Government of India, and the leases for major minerals expired in the due course of time were listed for auction through International Bidding.

The Geological prospecting report indicates as such that in the Kandhamal District the Bauxite deposit is found to be 33.7 million tones, Graphite(Industrial grade) is 1.477 million tones and Dimension stone is about 3.396 million cum.

14.0. Quality/Grade of Minerals available in the District:

Graphite (Mineral Grade), Bauxites (All Grades)

Minor minerals - Massive and boulder deposit of granites gneiss along with float Zone of river based and mixed with clay and pebbles.

15.0. Use of Mineral:

The river sand and granite boulders are crushed and used as building and road material. People of this district depend mostly on agriculture and mineral resources for their livelihood. The development of mining provides direct and indirect employment opportunities, Infrastructure development and communication and Socio-economic infrastructure. Mainly, two types of minor mineral constituents such as sand and stone are required for any type of construction apart from other material like cement and Steel.

16.0. Demand and Supply of the Mineral in the last Three Years:

Name of the Minerals	2020-21		2021-22		2022-23	
	Demand in Cum.	Supply in Cum.	Demand in Cum.	Supply in Cum.	Demand in Cum.	Supply in Cum.
Stone	123857	123857	115072	115072	103476	103476
Sand						

17.0. MINING LEASES MARKED ON THE MAP OF THE DISTRICT

Attached as plate No.5

18.0. DETAILS OF AREAS WHERE THERE IS A CULTURE OF MINING LEASES

Not applicable

19.0. DETAILS OF ECO-SENSITIVE AREA

The Kotaghar Wildlife Sanctuary has been notified by Govt. of Orissa U/s 18 of wildlife (protection) Act 1972. Erstwhile Forst and Environment Deptt. Notification No.8f 162/87 - 30253 Dt.03.12.1981 for the purpose of protection, propagation, development and research on wildlife. The extent of area of the sanctuary is 399.5 sq.km. spread over the part jurisdiction of Kotaghar, Tumaudibandha and Daringbadi CD Block of Balliguda civil Sub-Division. Out of the above the Forst area comes to 269.5096 sqkm, over 10 Forest Blocks and revenue area of 129.9904 sqkm. Over 65 nos. of revenue village.the Sanctuary area is rich in floral diversity having 165 no. of species, 38 shrub species, 48 climber species and herbs 132 species having high economic and ethno botanical importance which provide food security to the animals. The Kotaghar sanctuary is a paradise for a no. of wildlife and have an encouraging faunal diversity. There are 43 species of Mammals, 144 species of Bird, 41 specics of Reptiles, 19 specice of Amphibians, 76 species of Butterflies and 23 species of Odonates. The Northern and south westrn portion of Sanctuary constitute a part of Chandrapur Elephant corridor and it is migratory route for Elephant from Kalahandi Forest Division and from Lakhari valley Sanctuary through Muniguda Range of Rayagada Forest Division. The other area are Forest land and habitation area, paddy fielda, roads, river, nalah etc.

20.0. REMEDIAL MEASURES TO MITIGATE THE IMPACT OF MINING ON THE ENVIRONMENT:

20.1 Remedial Measures to mitigate Air pollution

- Water sprinkling on mineral transport road from the mines to the main road .
- Block topping of the main transportation road to the possible extent.
- Avoiding crowding of trucks by properly spacing them to avoid the concentration of dust emission at any time
- Covering the trucks by tarpaulin sheets during ore transportation.
- Proper maintenance of HEMM to minimize gaseous emission
- Importing sufficient training to operators on safety and environmental parameters
- Development of green belt / plantation around mine, along the roads, backfilled area in various undisturbed areas within the lease areas etc.

20.2. RECLAMATION OF MINED OUT AREA

Necessity of Reclamation & Rehabilitation:

- Exponential growth in mineral production since 1980.
- Mining activities causes physical, chemical, biological and socio-economic changes in the area.
- Surface mining activities disturb the original land profile.
- In India, mineral production comes mostly from opencast mines & hence Land degradation problems are of serious concern.
- An intricate, in-depth and site-specified techniques involving integrated approach is necessary.

Reclamation has three vital roles:

Reclamation – Reclamation means return the mined-out land with useful life. It implies restoring the land to a form and productivity that is useful and in conformit with a prior land use. Reclamation always may not be a single- phase operation.

Rehabilitation – Rehabilitation is to bring back the degraded land to a normal stage by a special treatment. It is a process of taking some mitigation measures for disturbed environmental condition created through mining activities.

- i. **Restoration** – Restoration is the process of returning the mined out land being fit to an acceptable environmental condition. However, the general acceptable meaning of the term is bringing the disturbed land to its original form. Restoration is often used to indicate that biological properties of soil are put back ot what they were. This is a rare phenomenon.
- ii. When active mining ceases, mine facilities and the site are reclaimed and closed. The goal of mine site reclamation and closure should always be to return the site to a condition that most resembles the pre-mining condition. Mines that are notorious for their immense impact on the environment often made impacts only during the closure phase, when active mining operations ceased. These impacts can persist for decades and even centuries.
- iii. Mine reclamation and closure plans must describe in sufficient detail how the mining company will restore the site to a condition that most resembles pre-mining environmental quality; how it will prevent – in perpetuity – the release of toxic contaminants from various mine facilities (such as abandoned open pits and tailings impoundments); and how funds will be set aside to insure that the costs of reclamation and closure will be paid for.

20.3. Proposed future land use after reclamation:

- a. Forestry,
- b. Recreation,
- c. Water Reservoir,
- d. Crop Land,
- e. Residential/Commercial,
- f. Fish & wildlife Habitat,
- g. Undeveloped Land,
- h. Grazing/Pasture Land

20.4. Statutory requirement:

As per the Mineral Conservation Development Rule, 2017, the following rules must be bear in mind by the mine owner/agent/manager, which is a part of reclamation activities – Rule 22, Mine Closure Plan Rule 23, Submission of Progressive Mine Closure Plan Rule 24, Submission of Final Mine Closure Plan Rule 26, Responsibility of holder of mining lease Rule 27, Financial assurance Rule 35, Sustainable Mining

21.0. RISK ASSESSMENT AND DISASTER MANAGEMENT PLAN:

Mining activity because of the very nature of the operation, complexity of the systems, procedures and methods always involves some amount of hazards. Hazard identification and risk analysis is carried for identification of undesirable events that can leads to a hazard, the analysis of hazard mechanism by which this undesirable event could occur and usually the estimation of extent, magnitude and likelihood of harmful effects. The activities which can cause high risk related to face stability and the person blasting the shots. It was observed

that on a working face of the mine, there were large cracks and unsupported rocks were present, which can lead to a serious hazard and injure workers engaged in loading operation and machineries because of rock falls or slides. This type of condition turns out because improper dressing of the bench and improper supervision. To avoid the hazards due to fall of rocks the face must be examined, made suitable for working and the remedial measures must be taken to make it safe if there is any doubt that a collapse could take place. Working of the face should be in the direction considering the geology of the area such that face and quarry side remain stable. Another major risk identified in mines is due to the firing of explosive by an unqualified person. In the mines there is problem of fly rocks and the village is located close to the mine and so it is rated high as it can affect many people. Explosives by nature have the potential for the most serious and catastrophic accident. Planning of round of shots, holes correctly drilled, direction logged, weight of explosive suitable for good fragmentation are the few of the steps necessary to ensure its safe use and if the shots are not properly designed can result in misfires, early ignition and flying rocks. No person is allowed to use explosives without being properly trained in its handling. In the mine a large numbers of heavy vehicles were in operation and the roads were not proper for haulage purpose. The haulage roads were not even and were not wide enough for the crossing purpose and hence the chances of hazards are very high. The main hazards arising from the use large earth moving vehicles are incompetent drivers, brake failure, lack of all-around visibility from the driver position, vehicle movements particularly reversing, roll over, and maintenance. Those most at risk are the driver and pedestrians likely to be struck by the vehicle, and drivers of smaller vehicles, which cannot be seen from the cabs of large vehicles. Edge protection is always necessary to prevent inadvertent movement over the edge of roadway or a bench. Seatbelt will protect driver in case of roll. Good maintenance and

regular testing are necessary to reduce the possibility of brake failure. Access to the vehicles should always be restricted to those people necessary for the work in hand. The use of personal protective equipment and proper arrangements is essential to check if the person is wearing protective equipment or not. The personal protective equipment includes helmet, non-skid safety boots, safety glasses, earmuffs etc. The required personal protective equipment should be provided and used in a manner that protects the individual from injury. Few minor injuries which can be prevented are slip, trip, or fall hazards; hazards due to rock falls and collapse of unstable rocks, atmosphere containing toxic or combustible gases; protects from chemical or hazardous material etc. A disaster management plan should be prepared for taking care of for any disaster. Other risk which are included in this category are noise, as it occurs and it can lead to permanent disability. There are problems related to road traffic in and out issuers; inappropriate exposure of moving machines; mechanical failure and because of large number of moving trucks and dumpers there is large quantity of dust present in roadways which affects the operators and can lead to accidents causing injury. They are in acceptable range because of precautions measures taken but no step is taken it can cause hazard hence steps should be taken to reduce the hazards such as for dust suppression system should be installed. Other problems like occurrence of lots of mosquitoes in the area due tounhygienic conditions which affect the human health causing malaria, dengue etc. and causinga person to be hospitalized.

Disaster in the mines like fires, explosions, entrapments, and inundations can occur any time, so emergency preparedness is a must. The Disaster management plan and risk assessment in the mines will include all sorts of above-mentioned emergency and the extent that this plan will be implemented will depend on the nature and scope of the emergency. The basic purpose of Disaster management plan and risk assessment to ensure that mine rescue

and recovery activities are conducted safely for rescuer and survivors. According to MMR act 1961 a standard operating procedure should be drawn for involvement different category of staff and officers. The SOP should be updated periodically to reduce the chaos and response to the emergency should be quick and smooth. The responsible person should be familiar with his responsibility during the mock drills. One or two standby should be there to replace the person in Emergency situation. Rescue operations should not include the survivors for any assistance.

First Information of Disaster / Emergency should go to the attendance clerk on duty. Duties of attendance Clerk (Emergency Siren) the attendance clerk or other designated person should on getting information of major accident, sound a hooter or a siren immediately declaring a state of emergency at the mine and then to contact the manager and on his advice to call key personnel using the information listed in the Emergency Organization Chart. It is important that all telephone calls are recorded in a telephone log book. Duties of Other Officials should be displayed and handed over to all concerned. Copy the same should be kept at Manager's Office for ready reference. Establishment of Control Room at Unit Level, Area Level and Company Level is essential. Control Room should keep the contact information about –

- Company Manager
- Company owner/ Administrative officer.
- District Administration
- Govt. Hospitals in Nearby Localities,
- Private Nursing Homes of Localities

Attendance roster and duty charge register should be properly maintained so the

record of missing people can be obtained.

22.0. DETAILS OF THE OCCUPATIONAL HELTH ISSUE IN THE DISTRICT:

The persons employed in the mines are exposed to a number of hazards at work which adversely affect their health. Some of the important ones are dust, noise, heat, humidity, vibration etc. In recent times, there has been increasing awareness among mining industry and the workers about occupational diseases such as Coal Worker's Pneumoconiosis, Silicosis, Manganese Poisoning, Hearing Impairment etc. caused by exposure to health hazards at work. Almost all occupational diseases are known to cause permanent disablement and there is no effective treatment. However, most of the occupational diseases can be prevented by adopting proper occupational health measures and engineering control on airborne dust at workplace.

Following diseases have been notified as the diseases connected with mining operations for the purpose of sub-section (1) of Section 25 of the Mines Act, 1952: S.R.O. 1306 dated the 21st July, 1952

1. Silicosis
2. Tuberculosis
3. Cancer of lung or the stomach or the pleura and peritoneum (i.e. mesothelioma)

25 S.O. 399(E) dated 21st February, 2011

1. Noise Induced Hearing Loss
2. Contact Dermatitis caused by direct contact with chemical.
3. Pathological manifestations due to radium or radioactive substances

System of Detection of Occupational Diseases in Mines In order to detect occupational

diseases the industry is required to conduct medical examinations and health surveillance of workers as per the provisions of Mines Act. The present efforts of mines management are concentrated on detection of silicosis, Pneumoconiosis and other notified diseases. Very little attention is paid to other occupational diseases. The essential features of health surveillance programme required to be carried out in mines are:

- (a) Initial Medical Examination of persons to be employed in mines.
- (b) Periodic Medical Examination once every five years. General physical examination, chest radiographs, lung function tests and audiometry.
- (c) Classification of chest radiographs of workers as per ILO Classification.
- (d) Medical examination within one year of superannuation. Evaluation of all cases of suspected pneumoconiosis by Pneumoconiosis Medical Board.
- (e) Maintenance of medical records till the person is in service and 10 years thereafter.

The cases of silicosis detected during health surveillance programme are referred to Pneumoconiosis Medical Board of the mining companies for evaluation and certification. If certified, the case is notified to the enforcement authority and evaluated for disability and payment of compensation. Many cases of silicosis and other pneumoconiosis go undetected and a large number of cases of silicosis are misdiagnosed due to lack of training of medical professionals.

The details of number of patients treated for silicosis and Tuberculosis for the last five years in the district is given below.

Sl.no	Year	Number of patients treated for silicosis	Number of patients treated for Tuberculosis

1	2019	Nil	1016
2	2020	Nil	1030
3	2021	Nil	1250
4	2022	Nil	1402
5	2023	Nil	1364

23.0. PLANTATION GREEN BELT DEVELOPMENT IN RESPECT OF LEASE ALREADY GRANTED IN THE DISTRICT:

The greenbelt development plan aims to overall improvement in the environmental conditions of the region. The plan with a five-fold objective addresses issues such as prevention of land degradation due to activities

During mining operation, enhancing the forest cover for increasing the biodiversity of the region, providing aesthetic value to the project area for enhancing the ecological equilibrium of the area and to a large proportion in combating soil erosion.

Need for greenbelt development plan with scheme for greenbelt development:

The implementation for development of green belt be paramount importance as it will not only add up as an aesthetic feature, but also act as a pollution sink.

The scheme of plantation inside the cluster area is given as follow:

- I. The species to be grown in the area should be dust tolerant and fast growing species so thst permanent green belt is created.
- II. The green belt development will be done along the haul roads.
- III. The Green belt development will be done nearby the mining leases to minimize the pollution level.

IV. The green belt will be put under a protective regulatory framework to ensure that it is not degraded or disturbed. No ecologically disruptive activity will be allowed in the zone.

V. The Green belt Development should be Approx. 33% of the area of the mining leases.

Sl.no	Name of the Site	Plantation / nearby Forest Block
1	Mediadami Stone quarry under Raikia Tahasil	-5 km from Dibari RF. -5km from 10ha. of ANR with gap plantation under scheme CAMPA 2020-21 in Dibari RF.
2	Alamramu Stone quarry under raikia Tahasil	-1 km from Dibari RF. -7 km from Kilondi RF
3	Rudabidingia Stone quarry under Tikabali Tahasil	-1 km from Tikabali KF (proposed new site for plantation of 10 ha.under IGC Bald hill 2024-25) -500mtr.from Talarimaha PRF -2 km from Burtang South RF .
4	Dadanga Stone quarry under Tumudibandha Tahasil	-Avenu plantation Tumudibandha to Dadanga to Rkm. Under MGNREGS inside Budhansi South PRF. Distance from Quarry to plantation 1 km. -ANR with gap plantation at Kapibire over 50 ha. inside Budhanai south PRF. Distance from Quarry to plantation is 12

		<p>km.</p> <ul style="list-style-type: none"> -ANR with gap plantation at kapibira over 50 ha. inside Budhanai south PRF. Distance from Quarry to plantation is 3 km. - The proposed stne is coming unde Budhanai 'S' PRF.
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24.0. CONCLUSION:

To meet the requirement of minerals in the present scenario, it is proposed to identify such potential areas at certain interval and get the data bank of DSR to be updated regularly. The insitu mining activity in any area is on one hand bring revenue and employment (Direct and indirect) and on other hand if not done properly potential pollution and ecological imbalance increases, the ability of the ecosystem can also be reduced. Particulate matter transported by the wind as a result of excavations, blasting, transportation of materials, heavy equipment used raise these particulate levels; and Gas emissions from the combustion of fuels in stationary and mobile sources, explosions, and mineral processing. All these activities indirectly affected the biodiversity of area. Larger potential and smaller areas have been identified in Kandhamal District on the basis of geological study carried out during field observation, which can be considered for mining concession after all the parameters for statutory clearances are verified by consulting with concerned authorities.

ANNEXURE-II (A)

MINERAL CONCESSION DETAILS IN RESPECT OF EXISTING OPERATIONAL SAND SAIRAT SOURCES UNDER KANDHAMAL DISTRICT, ODISHA.

SL NO	Name of River/ Stream	Name of Tahasil	Name of Minor Minerals	Name of Village	Name of Lessee	Address & Contact no. of Lessee	Mining lease grant order no. date	AREA OF LEASE IN HECTARE	Location of Resources		Kisam	Period of QL		Renewal (1st/2nd)	Date of commencement of Mining Operation	Status (Working/Non-working Temp. Working)	Captive/Non-captive	Letter no & Grant of EC	Latitude	Longitude	Method of Mining	Production proposed in the mining Plan	LOI Issued (Yes or No)	Existing/Proposed
									Khata no	Plot no		From	To											
Phulabani Sub-Division																								
1	Salunki	Phulabani	Tudpaju Sand	Tudpaju	Jogendra Mohanty	Phulabani	11442300195, 11442200599, Dtd. 23/12/2022	2.5	89	1	Nadi	2022	2027	NA	4/3/2023	Working	Captive	SIA/OR/MIN/29 SIA/OR/MIN/29	20°30'20.15" - 20°30'30.04"	84°10'56.78" - 84°11'13.31"	Manual	10938	Yes	Existing
2	Pila Saliki	Phulabani	Sartaguda Sand Quarry	Sartaguda	Jogendra Mohanty	Phulabani	11442200608, Dtd. 23/12/2022	2.5	121	693	Nadi	2022	2027	NA	4/3/2023	Working	Captive	SIA/OR/MIN/2 SIA/OR/MIN/2	20°30'01.38" - 20°30'05.13"	84°12'52.10" - 84°13'03.53"	Manual	5420	Yes	Existing
3	Salunki	Phulabani	Bigapadar Sand Quarry	Bigapadar	Deba Narayan Pradhan	Sanagadu, Keredi	11442300196, Dtd. 03/04/2023	3.84	99	586	Nadi	2023	2028	NA	6/5/2023	Working	Captive	SIA/OR/MIN/2934 SIA/OR/MIN/2934	20°22'26.20" - 20°22'34.10"	84°14'01.20" - 84°14'08.50"	Manual	18549	Yes	Existing
4	Salunki	Phulabani	Sainipadar Sand Quarry	Sainipadar	Deba Narayan Pradhan	Sanagadu, Keredi	11442300195, Dtd. 03/04/2023	4	76	1	Nadi	2023	2028	NA	6/5/2023	Working	Captive	273900/281-MINB2105-2022, Dtd. 30/07/2022	20°27'53.70" - 20°27'58.00"	84°11'32.10" - 84°11'45.90"	Manual	8920	Yes	Existing

S	Salunki	Phulabani	Kumurguda Sand Quarry	Kumurguda	Gitanjali Panigrahi	Bhawanipatna	1144220433	04/03/2022	2.7	123	1414	Nadi	2022	2027	NA	22/09/2022	Working	Captive	SIA/OR/MIN/281 018/2022 Dt 13/07/2022	20*24*01.10* 20*24*01.90*	84*12*42.20* 84*12*59.30*	Manual	20595	Yes	Existing
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MINERAL CONCESSION DETAILS IN RESPECT OF EXISTING NON-OPERATIONAL SAND SAIRAT SOURCES UNDER KANDHAMAL DISTRICT, ODISHA.

SL NO	Name of River/ Stream	Name of Tahasil	Name of Minor Minerals	Name of Village	Name of Lessee	Address & Contact no. of Lessee	Mining lease grant order no. date	AREA OF LEASE IN HECTARE	Khata no	Plot no	Kisam	Period of QI		Renewal (1st/2nd)	Date of commencement of Mining Operation	Status (Working/Non-working Temp. Working)	Captive/Non-captive	Letter no & Grant of EC	Latitude	Longitude	Method of Mining	Production proposed in the mining Plan	LOI issued (Yes or No)	Existing/Proposed
												From	To											
Baliguda Sub-Division																								
1	Khadaga	Baliguda	Katari Sahi sand Quarry	Katari sahi	Abani Kanta Nayak	Baliguda	4211/Dtd. 05/11/2022	7.972	771	1720	Nadi	2022	2027	NA	NA	Non-working	Captive	Not obtained	20°11'06.50" - 20°11'45.50"	83°55'58.80" - 83°56'12.20"	Manual	58032	Yes	Existing
2	Salunki	Tikabali	Chhatijhar sand quarry	Chhatijhar	Krushna Chandra Jena	Kantabania, Puri	2900/Dtd. 17/12/2022	6.26	175	04 12 231 250	Nadi	2022	2027	NA	NA	Non-Working	Captive	NA	20°14'28.59" - 20°15'05.58"	84°20'05.32" - 84°20'20.12"	Manual	43820	Yes	Existing

ANNEXURE-II (A)

MINERAL CONCESSION DETAILS IN RESPECT OF EXISTING OPERATIONAL SAND SAIRAT SOURCES UNDER KANDHAMAL DISTRICT, ODISHA.

SL NO	Name of River/ Stream	Name of Tahasil	Name of Minor Minerals	Name of Village	Name of Lessee	Address & Contact no. of Lessee	Mining lease grant order no. date	AREA OF LEASE IN HECTARE	Location of Resources		Kisam	Period of QI		Renewal (1st/2nd)	Date of commencement of Mining Operation	Status (Working/Non-working Temp. Working)	Captive/Non-captive	Letter no & Grant of EC	Latitude	Longitude	Method of Mining	Production proposed in the mining Plan	LDI Issued (Yes or No)	Existing/Proposed	
									Khata no	Plot no		From	To												
Baliguda Sub-Division																									
1	Khadaga	Baliguda	Ganjupadi Sand Quarry	Ganjupadi	Amit Kumar	Baliguda Nayak	11452200122	2	5	45	135 207	Nadi	2022	2027	NA	21/05/2024	Working	Captive	EC228001OR1 23577, 53967, EC228001OR1	20°14'43.4"	83°55'48.3"	Manual	49900	Yes	Existing
2	Khadaga	Baliguda	Sindraon Sand Quarry	Sindraon	Bipin Bihari	Patra	11452200203	8.32	8.32	207	1326	Nadi	2022	2027	NA	16/06/2024	Working	Captive	EC228001OR1 23577, 53967, EC228001OR1	20°14'43.4"	83°55'48.3"	Manual	99840	Yes	Existing
3	Salunki	Tikabali	Gutan Nagrigudari Sand Quarry	Gutan Nagrigudari & Kainjar	Satyam Kanhar	Kainjar	11472200160	5.156	29 55 290	1 420 348	1817/1 955	Nadi	2022	2027	NA	17/02/2024	Working	Captive	EC228001OR1 23577, 53967, EC228001OR1	20°16'52.84"	84°14'45.93"	Manual	77340	Yes	Existing
4	Salunki	Tikabali	Pradhanpada Sand Quarry	Pradhanpada	Kanhu Charan Pradhan	Katadi, Tikabali	11472000124	5	264	984	Nadi	2020	2025	NA	22/02/2021	Working	Captive	SEIA-192/06-2022, Dt.14/09/2020	20°17'06.11"	84°17'40.27"	Manual	75000	Yes	Existing	

5	Salunki	Tikabali	Jignagon Sand	Jignagon Sand Quarry	Jignagon	Jagabandhu Samal	Badaku, Kendrapada	11472200042, Dtd 08/03/2022	5.68	187	314	Nadi	2023	2028	NA	6/5/2023	Working	Captive	3860/SEIA, Dt.06/12/2017	20°17'43.78" - 20°18'01.55"	90" - 84"	Manual	30639	Yes	Existing
6	Khadaga	K Nuagon	Jignagon Sand Quarry	Kudtulli Sand Quarry	Kudtulli	Subhasree RoutRay	Cuttack	11452200170, Dtd 26.09.2022	5	253	848 843	Nadi	2022	2027	NA	19/11/2022	Working	Captive	SIA/OR/MIN/286160/2022, Dt.12/08/2022	20°09'28.13" - 20°09'39.46"	106" - 84"	Manual	27381	Yes	Existing
7	Khadaga	K Nuagon	Bagada sand Quarry	Bagada sand Quarry	Bagada	Panchanan Das	RKD Construction, BBSR	11452400242, Dtd 02/09/2024	5	28	156 158 159	Nadi	2024	2029	NA	25/09/2024	Working	Captive	409033/932-MINB2/05-2023, Dt.28/12/2023	20°10'29.83408" - 20°10'49.49349"	83°56'17.28673" - 83°56'24.91518"	Manual	13969	Yes	Existing
8	Brutanga	Chakapad	Purnagada Sand Quarry	Bagada sand Quarry	Purnagada	Sribas Bhol	Tikabali	11472100073, Dtd 28/04/2022	2.5	144	1	Nadi	2021	2026	NA	2/12/2021	Working	Captive	SEIAA/OR/MIN/247445/2021, Dt.13/01/2022	20°13'47.00" - 20°14'08.80"	84°20'16.10" - 84°20'23.00"	Manual	15700	Yes	Existing

ANNEXURE-IV(A)

TRANSPORTATION ROUTES FOR INDIVIDUAL LEASES

SL.NO	Name of Tahasil	Source Name	Lease No.	Transportation Route No.	No. of Tipplers/Day of Lease	No. of Tipplers/Day of All the Lease on route	Length of route in KM.	Type of Road (Black Topped/Unpaved)	Recommendation for Road (Black Topped/Unpaved)	Road will be constructed by Govt / Lease Owner	Route Map & Location
1	Tikabali	Pradhanpara Sand Quarry	1	Village Road	1	1		Un-Paved	Un-Paved	Lease Owner	Attached
2	Tikabali	Guitana sand Quarry	1	Village Road	1	1		Un-Paved	Un-Paved	Lease Owner	Attached
3	Phulabani	Sattaguda sand Quarry	1	Village Road	1	1		Un-Paved	Un-Paved	Lease Owner	Attached
5	Phulabani	Kumbhari guda Sand Quarry	1	Village Road	1	1		Un-Paved	Un-Paved	Lease Owner	Attached
6	Baliguda	Sindriguda Sand Quarry	1	Village Road	1	1		Un-Paved	Un-Paved	Lease Owner	Attached
7	K Nuagam	Kudutulli sand Quarry	1	Village Road	1	1		Un-Paved	Un-Paved	Lease Owner	Attached
8	K Nuagam	Tudipaju Sand quarry	1	Village Road	1	1		Un-Paved	Un-Paved	Lease Owner	Attached

MINERAL CONCESSION DETAILS IN RESPECT OF STONE / ROAD METAL EXISTING OPERATIONAL SOURCES IN KANDHAMAL DISTRICT, ODISHA.

SL NO	Name of Tahsil	Name of Minor Minerals	Name of Village	Name of Lessee	Address & Contact no. of Lessee	Mining lease grant order no. date	AREA OF LEASE IN HECTARE	Location of Resources		Kisam	Period of QL		Renewal (1st/2nd)	Date of commencement of Mining Operation	Status (Working/Non-working Temp. Working)	Captive/Non-captive	Letter no & Grant of EC	Latitude	Longitude	Method of Mining	Mineable Reserve	LOI Issued (Yes or No)	Existing/Proposed
								Khata no	Plot no		From	To											
BALIGUDA SUB-DIVISION																							
1	Raikia	Stone	Alaramu Stone Quarry	Smt. Sasmita Behera	Masterpada, Phulbani	1147210160, dt-02.12.2021	1.000	30	1/249	Parbat	2021-22	2025-26	NA	02.12.2021	working	Non-Captive	694/SEIAA dt-26.06.2021	84°14'24.27"	200508.7	Open cast semi-mechanized	177567	Yes	Existing
2	Raikia	Stone	Dadingia Stone Quarry	Smt. Sasmita Behera	Masterpada, Phulbani	11472100161, dt-12.2021	2.613	299	1453	Parbat	2021-22	2025-26	NA	02.12.2021	working	Non-Captive	696/SEIAA dt-26.02.2021	84°22'59.8"	195738.4	Open cast semi-mechanized	163800	Yes	Existing
3	Raikia	Stone	Landabali Stone Quarry	Sri Krushna Chandra Jena	Kantabania, Puri	11472100162, dt-02.12.2021	2.613	47	51	Parbat	2021-22	2025-26	NA	02.12.2021	working	Non-Captive	696/SEIAA dt-26.02.2021	84°22'59.8"	20124585-	Open cast semi-mechanized	149490	Yes	Existing
4	Tikabali	Stone	Rudabidingia Quarry	Sri Narayana Senapati	Shyam Condev Pvt. Ltd Rasulgada	11472300058, dt-18.03.2023	1.000	150	39	Parbat	2023-24	2027-28	NA	18.03.2023	working	Captive	EC22B010R 181371Dt-22.08.2022	84°22'05.39"	20124585-	Open cast semi-mechanized	149490	Yes	Existing
5	Tumudibandha	Stone	Dadanga Stone Quarry	Sri Ramakrishna Padhy	Tumudibandha, Kandhamal	1145200100, dt-18.11.2020	3.176	16	158 (A)	Patita	2020-21	2024-25	NA	18.11.2020	working	Captive	8650/SEIAA, dt-06.08.2020	83°42'16.78"	200042.81-	Open cast semi-mechanized	208491	Yes	Existing
6	Baliguda	Stone	Madinata stone Quarry	Sri Simanchal A charya	Baliguda, Kandhamala	11452200117, dt-22.06.2022	2.100	76	236	Parbat	2022-23	2026-27	NA	10.12.2021	working	Captive	3904/SEIAA dt-28.01.2022	84°06'39.13"	195653.62-	Open cast semi-mechanized	265725	Yes	Existing

MINERAL CONCESSION DETAILS IN RESPECT OF STONE / ROAD METAL EXISTING NON-OPERATIONAL SOURCES UNDER KANDHAMAL DISTRICT, ODISHA.

SL.NO	Name of Tahasil	Name of Minor Minerals	Name of Village	Name of Lessee	Address & Contact no. of Lessee	Mining lease grant order no. date	AREA OF LEASE IN HECTARE	Location of Resources		Kisam	Period of QL		Renewal (1st/2nd)	Date of commencement of Mining Operation	Status (Working/Non-Working Temp.)	Captive/Non-captive	Letter no & Grant of EC	Latitude	Longitude	Method of Mining	Mineral Reserve In CUM.	LOI Issued (Yes or No)	Existing/Proposed
								Khata no.	Plot no.		From	To											
Baliguda Sub-Division																							
1	Baliguda	Stone	Iriguda Stone Quarry	Voola Sandeep Kumar	Ambadola Rayagada	3357, Dtd. 03/05/2022	12.72	60	343	Parbat	2024	2029	NA	NA	Non-Working	Non-Captive	NA	20°05'39.80"	83°44'36.70"	Open Cast/Semi-Mechanized	2995521	Yes	Existing
2	Baliguda	Stone	Kutikia Stone Quarry	Simanchal Acharya	Baliguda	3444, Dtd. 14/12/2021	2.452	230	1597	Parbat	2022	2027	NA	NA	Non-Working	Non-Captive	EC22B 001OR 15187 0/17/08/2022	20°17'14.40"	83°53'59.10"	Open Cast/Semi-Mechanized	117799	Yes	Existing
3	Tikabali	Stone	Bengasahi Stone Quarry	NA	NA	NA	1.04	149	191	Parbat	2024	2029	NA	NA	Non-Working	Non-Captive	NA	20°16'28.50"	84°16'05.30"	Open Cast/Semi-Mechanized	64220	Yes	Existing

MINERAL CONCESSION DETAILS IN RESPECT OF STONE / ROAD METAL PROPOSED SOURCES UNDER KANDHAMAL DISTRICT, ODISHA.

SL.NO	Name of Tahasil	Name of Minor Minerals	Name of Village	Name of Lessee	Address & Contact no. of Lessee	Mining lease grant order no. date	Area of lease in Hectare	Location of Resources		Kisam	Period of QL		Renewal (1st/2nd)	Date of commencement of Mining Operation	Status (Working/Non-Working Temp. Working)	Captive/Non-captive	Letter no & Grant of EC	Latitude	Longitude	Method of Mining	Mineral Reserve in CUM.
								Khata no	Plot no		From	To									
Phulbani Sub-Division																					
1		Stone	Gumagada	New	NA	NA	0.2	391	156	Bastijogya	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 15' 18"	84° 15' 46.8"	Semi-Mechanized	NA
2		Stone	Gumagada	New	NA	NA	2.64	394	265	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 21' 21.6"	84° 15' 54"	Semi-Mechanized	NA
3		Stone	Gumagada	New	NA	NA	1.192	394	71	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 21' 36"	84° 15' 43.2"	Semi-Mechanized	NA
4		Stone	Pakhnagaon	New	NA	NA	4.579	149	1464	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	19° 58' 19.2"	84° 4' 55.2"	Semi-Mechanized	NA
5		Stone	kamepada	New	NA	NA	0.73	47	111	Gochara	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 31' 48"	84° 9' 54"	Semi-Mechanized	NA
6		Stone	Ramadi	New	NA	NA	4.054	47	7	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 29' 16.8"	84° 9' 14.4"	Semi-Mechanized	NA
7		Stone	Dakeni	New	NA	NA	6.4	12	71	Patra jungle	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 30' 43.2"	84° 3' 43.2"	Semi-Mechanized	NA
8		Stone	Pabedi	New	NA	NA	3.19	41	353	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 28' 4.8"	84° 5' 16.8"	Semi-Mechanized	NA
9		Stone	Pitabari	New	NA	NA	9.6	127	605	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	19° 40' 41.59"	84° 10' 1.2"	Semi-Mechanized	NA
10		Stone	Sartaguda	New	NA	NA	9.64	121	343	Salajungle	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 29' 45.6"	84° 12' 43.2"	Semi-Mechanized	NA
11		Stone	Palpasahi	New	NA	NA	23.487	47	01 02 12	Salajungle	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 24' 28.8"	84° 22' 15.6"	Semi-Mechanized	NA
12		Stone	Jhagadapatta	New	NA	NA	10.116	144	296	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 23' 34.8"	84° 21' 43.2"	Semi-Mechanized	NA
13		Stone	R.Nuagaon	New	NA	NA	0.931	383	2606 2650	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 13' 4.70"	83° 54' 32.4"	Semi-Mechanized	NA
14		Stone	Lambabadi	New	NA	NA	1.36	160	129	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 22' 46"	84° 25' 8.4"	Semi-Mechanized	NA
KHAURIPADA																					

Phungia	25	Stone	Pokan	New	NA	NA	25 59	127	843	1079	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ²⁸ 26 ⁴	83 ⁵⁴ 36	Semi-Mechanized	NA	
	24	Stone	Dadlail	New	NA	NA	3 18	66	39	39	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ²⁷ 43 ⁷	83 ⁵⁶ 34 ⁸	Semi-Mechanized	NA	
	23	Stone	Dimriguda	New	NA	NA	6	196	1439	1439	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ¹⁵ 49 ¹¹	83 ³⁰ 32 ⁸	Semi-Mechanized	NA	
	22	Stone	Phirngia	New	NA	NA	8 42	366	186	187	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ²¹ 39 ⁸	84 ⁸ 25 ²	Semi-Mechanized	NA	
	KHAURIPADA	21	Stone	Khalberana	New	NA	NA	5 025	38	307	314	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ³⁰ 7 ⁷	84 ²¹ 39 ⁸	Semi-Mechanized	NA
		20	Stone	Khntladar	New	NA	NA	2 2	23	53	53	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ³⁰ 7 ⁷	84 ²¹ 39 ⁸	Semi-Mechanized	NA
		19	Stone	Chuchundi	New	NA	NA	3 76	43	28	28	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ³⁰ 36 ⁷	84 ¹⁹ 22 ⁸	Semi-Mechanized	NA
		18	Stone	Chuchundi	New	NA	NA	0 733	43	25	25	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ³⁰ 36 ⁷	84 ¹⁹ 19 ²	Semi-Mechanized	NA
		17	Stone	Gedpaju	New	NA	NA	6	150	308	308	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ²⁴ 43 ²	84 ¹⁷ 56 ⁴	Semi-Mechanized	NA
		16	Stone	Babahum	New	NA	NA	4 141	181	1093	1093	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ²⁴ 39 ⁸	84 ¹⁷ 9 ⁸	Semi-Mechanized	NA
15		Stone	Jhamp	New	NA	NA	34 478	162	42	43	71	Pravat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20 ²³ 24 ⁷	84 ²⁴ 48 ⁸	Semi-Mechanized	NA

MINERAL CONCESSION DETAILS IN RESPECT OF STONE / ROAD METAL PROPOSED SOURCES UNDER KANDHAMAL DISTRICT, ODISHA.

S/L NO	Tahsil & Name	Name of Minor Minerals	Name of Lessee	Address & Contact no of Lessee	Mining lease grant order no date	AREA OF LEASE IN HECTARE	Location of Resources	Plot no	Khata no	From	To	Renewal (1st/2nd)	Date of commencement of Mining Operation	Status (Working/Non-working Temp. Working)	Captive/Non-captive	Letter no & Grant of EC	Latitude	Longitude	Method of Mining	Mineral Reserve In CUM
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Baliguda Sub-Division

1	Stone	Sitapaga	New	NA	NA	2.00	22(AAA)	199	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 0' 3.5"	84° 7' 4.8"	Semi-Mechanized	NA
2	Stone	Sitapaga	New	NA	NA	2.00	22(AAA)	200	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	19° 59' 52.8"	84° 7' 4.8"	Semi-Mechanized	NA
3	Stone	Larbadi	New	NA	NA	3.00	24(AAA)	87	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	19° 59' 56.4"	84° 5' 50.4"	Semi-Mechanized	NA
4	Stone	Simanabadi	New	NA	NA	1.60	389(AAA)	2498/1	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	19° 58' 19.2"	84° 4' 55.2"	Semi-Mechanized	NA
5	Stone	Simanabadi	New	NA	NA	0.80	389(AAA)	2500	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	19° 58' 15.6"	84° 5' 14.4"	Semi-Mechanized	NA
6	Stone	Ludubandha	New	NA	NA	2.28	60(AAA)	255	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 1' 58.94"	84° 3' 3.5"	Mechanized	NA
7	Stone	Ludubandha	New	NA	NA	1.68	60(AAA)	257	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 1' 58.94"	84° 3' 3.5"	Mechanized	NA
8	Stone	Bharamarabac	New	NA	NA	1.36	53(AAA)	58/346	Patharbani	2024	2029	NA	NA	Proposed	Non-Captive	NA	19° 50' 13.09"	84° 10' 51.6"	Mechanized	NA
9	Stone	Mahaguda	New	NA	NA	1.76	99(AAA)	967/976	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	19° 40' 41.59"	84° 10' 1.2"	Semi-Mechanized	NA
10	Stone	Ludubandha	New	NA	NA	2.28	60(AAA)	255/257	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 1' 58.8"	84° 3' 3.5"	Mechanized	NA
11	Stone	Sahajhal	New	NA	NA	9.36	49(AAA)	39/449	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	19° 56' 45.6"	84° 27' 50.4"	Semi-Mechanized	NA
12	Stone	Talamaha	New	NA	NA	2.14	177(AAA)	341/760	Gochar	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 5' 20.4"	84° 15' 7.2"	Semi-Mechanized	NA
13	Stone	Badagan	New	NA	NA	0.23	108	21	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 13' 4.70"	83° 56' 32.4"	Semi-Mechanized	NA
14	Stone	Dungerkia	New	NA	NA	12.00	56	380	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 4' 14.42"	83° 48' 10.8"	Semi-Mechanized	NA
15	Stone	Dungerkia	New	NA	NA	10.00	56	394	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 4' 8.90"	83° 48' 14.4"	Semi-Mechanized	NA
16	Stone	Dungerkia	New	NA	NA	15.09	56	394	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 4' 1.43"	83° 48' 18"	Semi-Mechanized	NA
17	Stone	Dungerkia	New	NA	NA	5.29	56	380/463	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 4' 14.088"	83° 48' 21.6"	Semi-Mechanized	NA
18	Stone	Dungerkia	New	NA	NA	10.63	56	363/464	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 4' 8.70"	83° 48' 25.2"	Semi-Mechanized	NA

Baliguda

Raika

Darningbadi

19	Baliguda	Stone	Sirubali	New	NA	NA	33.00	33	16/393	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 15' 1.80"	83° 49' 48"	Semi-Mechanized	NA
20		Stone	kutikia	New	NA	NA	9.28	230	447/1781	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 17' 39.94"	83° 54' 10.8"	Semi-Mechanized	NA
21		Stone	kutikia	New	NA	NA	7.70	230	382/1780	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 17' 54.22"	83° 53' 24"	Semi-Mechanized	NA
22		Stone	Salaguda	New	NA	NA	3.50	74	835	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 15' 54"	83° 51' 28.8"	Semi-Mechanized	NA
23		Stone	Salaguda	New	NA	NA	2.00	73	833/848	Parvat	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 15' 48.11"	83° 30' 3.8"	Semi-Mechanized	NA
24		Stone	Salaguda	New	NA	NA	7.00	NA	NA	R.F	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 16' 5.088"	83° 51' 43.2"	Semi-Mechanized	NA
25		Stone	Khamankhol	New	NA	NA	2.68	81	528	Patharabani	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 22' 17.04"	83° 44' 31.2"	Semi-Mechanized	NA
26		Stone	Bindhadangar	New	NA	NA	2.40	1	1	Sala Jungle	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 24' 20.17"	83° 40' 12"	Semi-Mechanized	NA
27	Tumudibandha	Stone	Dadanga	New	NA	NA	3.18	16	158	PRF	2024	2029	NA	NA	Proposed	Non-Captive	NA	20° 0' 17.11"	83° 25' 37.2"	Semi-Mechanized	NA

ANNEXURE-I (D)

MINERAL CONCESSION DETAILS IN RESPECT OF MORRUM PROPOSED SOURCES UNDER KANDHAMAL DISTRICT, ODISHA.

SLNO	Name of Tahasil	Name of Minor Minerals	Name of Village	Name of Lessee	Address & Contact no. of Lessee	Mining lease grant order no. date	AREA OF LEASE IN HECTARE	Location of Resources	Kisam	Period of QL		Renewal (1st/2nd)	Date of commencement of Mining Operation	Status (Working/Non-working Temp. Working)	Captive/Non-captive	Letter no & Grant of EC	Latitude	Longitude	Method of Mining	Production proposed in the mining Plan	LOI Issued (Yes or No)	Existing/Proposed
										From	To											
Baliguda Sub-Division																						
1	Darhnbadi	Morum	Gadringia	NA	NA	New	2.00	63	Rakhita Gohar	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 7' 24 25"	83° 49' 49 86"	Open cast semi-mechanized	NA	NO	Proposed
2		Morum	Brahmika	NA	NA	New	0.40	57	Parvat	2024	2029	NA	NA	Non-Working	Non-Captive	New	19° 54' 20 6"	84° 9' 49 42"	Open cast semi-mechanized	NA	NO	Proposed
3		Morum	Makapata	NA	NA	New	0.18	32(AAA)	Jungle	2024	2029	NA	NA	Non-Working	Non-Captive	New	19° 54' 23 07"	84° 9' 18 29"	Open cast semi-mechanized	NA	NO	Proposed
4		Morum	Makapata	NA	NA	New	0.23	32(AAA)	Jungle	2024	2029	NA	NA	Non-Working	Non-Captive	New	19° 54' 22 81"	84° 9' 18 29"	Open cast semi-mechanized	NA	NO	Proposed
5		Morum	Makapata	NA	NA	New	0.40	31(AAA)	Parvat	2024	2029	NA	NA	Non-Working	Non-Captive	New	19° 54' 14 6"	84° 9' 38 03"	Open cast semi-mechanized	NA	NO	Proposed
6		Morum	Gadringia	NA	NA	New	9.94	53	Jungle patra	2024	2029	NA	NA	Non-Working	Non-Captive	New	19° 51' 24 24"	84° 5' 39 36"	Open cast semi-mechanized	NA	NO	Proposed

7	Balliguda																						
8	Morrum	Muthabali	NA	NA	New	19.94	77	44	1550	Patra Jungle	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 24' 41"	83° 42' 35"	Open cast semi-mechanized	NA	NO	Proposed
9	Morrum	Sindirgoan	NA	NA	New	19.92	206	1409	1550	Jungle patra	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 13' 43.05"	83° 56' 14.1"	Open cast semi-mechanized	NA	NO	Proposed
10	Morrum	Barakhama	NA	NA	New	5.60	347	587	1550	Gochar	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 14' 33.65"	83° 50' 10.7"	Open cast semi-mechanized	NA	NO	Proposed
11	Morrum	Dapasahi	NA	NA	New	2.00	37	1	1550	Parvat	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 13' 43.01"	83° 55' 35.51"	Open cast semi-mechanized	NA	NO	Proposed
12	Morrum	Balliguda	NA	NA	New	7.00	771	2806	1550	Patra Jungle	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 11' 12"	83° 54' 7.55"	Open cast semi-mechanized	NA	NO	Proposed
13	Morrum	kanjanehdi	NA	NA	New	1.00	233	10	1550	Patra Jungle	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 8' 23.16"	84° 0' 24.75"	Open cast semi-mechanized	NA	NO	Proposed
	Morrum	Sarangada	NA	NA	New	0.10	483	1550	1550	Patra Jungle	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 13' 8.05"	84° 7' 10.8"	Open cast semi-mechanized	NA	NO	Proposed

ANNEXURE-I (D)

MINERAL CONCESSION DETAILS IN RESPECT OF MORRUM PROPOSED SOURCES UNDER KANDHAMAL DISTRICT, ODISHA.

SL NO	Name of Tahasil	Name of Minor Minerals	Name of Village	Name of Lessee	Address & Contact no. of Lessee	Mining lease grant order no. date	AREA OF LEASE IN HECTARE	Location of Resources		Kisam	Period of QL		Renewal (1st/2nd)	Date of commencement of Mining Operation STATUS (WORKING/NON-Working Temp. Workline)	Captive/Non-captive	Letter no & Grant of EC	Latitude	Longitude	Method of Mining	Production proposed in the mining Plan	LOI Issued (Yes or No)	Existing/Proposed	
								Khata no	Plot no		From	To											
14	Khaljarpada	Morum	Kutbari	NA	NA	New	0.145	53	110	Gochara	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 25' 4.8"	84° 24' 10.8"	Open cast semi-mechanized	NA	NO	Proposed
								46	395	patharabani	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 26' 56.4"	84° 19' 1.2"	Open cast semi-mechanized	NA	NO	Proposed
								46	394	Patharabani	2024	2029	NA	NA	Non-Working	Non-Captive	New	NA	NA	Open cast semi-mechanized	NA	NO	Proposed
								110	111	Patharabani	2024	2029	NA	NA	Non-Working	Non-Captive	New	NA	NA	Open cast semi-mechanized	NA	NO	Proposed
								113	114	Gochara	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 38' 56.4"	84° 16' 48"	Open cast semi-mechanized	NA	NO	Proposed
15	Khaljarpada	Morum	Kutbari	NA	NA	New	1.755	53	117	Gochara	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 38' 56.4"	84° 16' 48"	Open cast semi-mechanized	NA	NO	Proposed
								110	111	Patharabani	2024	2029	NA	NA	Non-Working	Non-Captive	New	NA	NA	Open cast semi-mechanized	NA	NO	Proposed
16	Khaljarpada	Morum	Adimunda	NA	NA	New	0.56	46	394	Patharabani	2024	2029	NA	NA	Non-Working	Non-Captive	New	NA	NA	Open cast semi-mechanized	NA	NO	Proposed
								110	111	Patharabani	2024	2029	NA	NA	Non-Working	Non-Captive	New	NA	NA	Open cast semi-mechanized	NA	NO	Proposed
17	Khaljarpada	Morum	Adimunda	NA	NA	New	0.56	46	394	Patharabani	2024	2029	NA	NA	Non-Working	Non-Captive	New	NA	NA	Open cast semi-mechanized	NA	NO	Proposed
								110	111	Patharabani	2024	2029	NA	NA	Non-Working	Non-Captive	New	NA	NA	Open cast semi-mechanized	NA	NO	Proposed
18	Khaljarpada	Morum	Kutbari	NA	NA	New	1.755	53	117	Gochara	2024	2029	NA	NA	Non-Working	Non-Captive	New	20° 38' 56.4"	84° 16' 48"	Open cast semi-mechanized	NA	NO	Proposed
								110	111	Patharabani	2024	2029	NA	NA	Non-Working	Non-Captive	New	NA	NA	Open cast semi-mechanized	NA	NO	Proposed

Phulbani Sub-Division

TRANSPORTATION ROUTES FOR INDIVIDUAL LEASES OF KANDHAMAL DISTRICT

SL.NO	Name of Tahasil	Source Name	Lease No.	Transportati on Route No.	No. of Tippers/ Day of Lease	No. of Tippers / Day of All the Lease on route	Length of route in KM.	Type of Road (Black Topped/ Unpaved)	Recommen dation for Road (Black Topped/ Unpaved)	Road will be constructed by Govt / Lease Owner	Route Map & Location
1	Raikia	Alamramu Stone Quarry	NA	Village Road	1	1	1.5	Un-Paved	Un-Paved	Lease Owner	Attached
2	Raikia	Dadlingia Stone Quarry	NA	Village Road	1	1	1.8	Un-Paved	Un-Paved	Lease Owner	Attached
3	Raikia	Landabali Stone Quarry	NA	Village Road	1	1	1.5	Un-Paved	Un-Paved	Lease Owner	Attached
4	Tikabali	Bengasahi Stone Quarry	NA	Village Road	1	1	0.4	Un-Paved	Un-Paved	Lease Owner	Attached
5	Tikabali	Rudabidingia Stone Quarry	NA	Village Road	2	2	2	Un-Paved	Un-Paved	Lease Owner	Attached
6	Tumudibandha	Dadanga Stone Quarry	NA	Village Road	2	2	2.05	Un-Paved	Un-Paved	Lease Owner	Attached
7	Baliguda	Irpiguda Stone Quarry	NA	Village Road	2	2	1.3	Un-Paved	Un-Paved	Lease Owner	Attached
8	Baliguda	Madinata Stone Quarry	NA	Village Road	1	1	2.75	Un-Paved	Un-Paved	Lease Owner	Attached
9	Daringbadi	Dalibandha Stone Quarry	NA	Village Road	18	18	3.01	Un-Paved	Un-Paved	Lease Owner	Attached
10	Daringbadi	Kumbharmun da Stone Quarry	NA	Village Road	7	7	2.75	Un-Paved	Un-Paved	Lease Owner	Attached
11	Baliguda	Kutkia Stone Quarry	NA	Village Road	1	1	2.25	Un-Paved	Un-Paved	Lease Owner	Attached