# **Environment Management Plan For**

**Uperbeda Stone Quarry** Over 5.76 Areas or 2.331 Ha.

For Extension period from 2021-22 to 2023-24

# In Village Uperbeda Tahasil: Kusumi , District: Mayurbhanj, Odisha

**B2** Category Project

Quarry	Village	Tahasil	District	Khata	Plot	Kissam	Area in Acres
Name				No.	No.		
Uperbeda	Uperbeda	Kusumi	Mayurbhanj	697	1100	Patharbani	5.76
Stone							
Quarry							
						Total	Ac. 5.76 dec
							or 2.331 Ha.

# Lessee

Sri Manoj Kumar Agrawal Partner-Gayatri Traders Village- 4<sup>th</sup> Nagar Marg Choubey Colony Po/Ps/Dist - Raipur

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# **Environment Management Plan**

For

**Uperbeda Stone Quarry** 

Lease over 2.331 ha

In village Uperbeda

Tehasil: Kusumi, District: Mayurbhanj, Odisha

**B2** Category Project

1. Environmental Management Plan (EMP) consists of a set of impact mitigation, management monitoring waste minimization and institutional measures to be taken during implementation and operation of the project to eliminate the adverse environmental impacts or to reduce them to the acceptable level. This Environmental Management plan addresses, the component of environment, which are likely to be affected by the different operation in the Stone Quarrying/Mining in cluster.

# 2. The objectives of EMP are:-

- Overall conservation of environment.
- Minimization of waste generation and pollution.
- Judicious use of natural resources and water.
- Safety, welfare and good health of the work force and populace.
- Ensure effective operation of all control measures.
- Vigilance against probable disasters and accidents.
- Monitoring of cumulative and long term impacts.
- Ensure effective operation of all control measures.

# 3. The purpose of an EMP is to:

- (i) Assists proponent in the preparation of an effective and user friendly activity chart for environment management.
- (ii) Ensure that the commitments made as part of the project's life are implemented throughout the project period.
- (iii) Ensure that environment management details is captured and documented at all stages of a project.

#### 4. Baseline information:

The Uperbeda stone quarry is situated in Uperbeda village of Kusumi Tehasil Mayurbhanj district. The extend of area is 2.331 Ha.. The period of lease extended up to 31.01.2024.

The area of lease is 2.331 ha. The leased out land is non forest Government category. The Quarries are depicted in Toposheet no. 73 J/4 and bounded by latitude and longitude is . latitude of 22°10′ 1.9" N to 22°10′ 6.8" N & Longitude: 86°03′ 39.3" E to 86°03′ 47.3" E.

The lease are situated at 300-306 mrl.

The proposed quarrying will be only involving excavation of construction material for road making. These lease areas doses not have any public road and railway line. However the areas are approachable from Uperbeda village

which is located at a distance of 1.5 Km. There is no existence of Public road and railway line within the Lease area. However, the area is approachable from Kusumi by a metal road, which is located at a distance of 12 km. The nearby market is at Uperbeda located at a distance of 1 km from the lease area. Similipal Biosphere Reserve exists at 22.5 kms of project area. No ecologically sensitive area exists within 10 kms from the lease areas. The district headquarter Baripada situated at a distance of 86 kms while the state headquarter Bhubaneswar at around 249 kms from the project site.

#### (i) Land Use Pattern

Proposed Quarrying of stone is only utilise non forest waste land of Parbat category. While mining proper safety barrier and distance of quarry from water course will be maintained. The land scape after mining will be reclaimed and plantation will be done all around.

# (ii) Quality of air, ambient noise level and water

The quality of air could be said quite clean and natural, free from any harmful gases arising out of any industrial establishment/ complex including mining ventures. The area in and around the project could be said free from any nuisance of repetitive nature such as noise. Thus, it is quite calm. The noise level is also not much high.

# (iii) Water regime

The average annual rainfall in the area is more than 1500 mm per year. The area is abundant source of surface and ground water.

# (iv) Flora and fauna

There are few shrubs, bushes & few trees Near the lease area. No Wild Fauna exist in the lease area.

### (v) Climatic conditions

The weather is hot through the months of March to July – the average summer maximum is 40 °C (104 °F), and the average minimum is 23 °C (73 °F). From November to February, the average maximum temperature is 30 °C (86 °F), the average minimum is 15 °C (59 °F), and the climate is extremely dry. Cold northerly winds are responsible for a mild chill in January.

#### (vi) Human settlements

The area has very sparse population.

# (vii) Public buildings, places of worship and monuments

No National Monument, place of Worship exists with in 10 km periphery of the area.

# (viii) Solid waste Management:

In Stone quarry operation with generate solid waste however these waste will be utilized for road construction.

# 5. Socio-economic Impact:

# **Positive impacts:**

# **Employment:**

Employment will be created during planning and preparation, construction and operational phases of the project. Employment opportunities created by lessee will provide a sustainable and safe working environment for women.

# **Community Skills Development:**

The employees will benefit from the training programmers that will be instituted by leases to enable the community labour force to work in the different areas of project operations. This training will increase the number of technicians, electricians, and mechanics, among others, that will not only benefit leases but also the community at large during and after the project life.

# **Improved Standard of Living:**

Employment opportunities created by the projects will increase income and therefore improve the overall standards of living in the area.

# **Community Organizational Capacity Development:**

Through engagement of community members in development structures such as Community Development Committees, the community organizational capacity will be developed.

# **Improved Water Supply:**

Supply of safe water for the community by leases will improve health standards and living conditions in the villages.

# **Economic Exposure and Development:**

Running of these projects will make infrastructure and services available to the people. This will expose and introduce the local population to factors of economic development.

# **Adverse Social Impact**

#### **Price Inflation:**

Increase in purchasing power of the community members through higher incomes from the mining, compounded by population increase and low agricultural productivity as a result of project will lead to inflation in the cost of goods and services, much to the detriment of the local population especially the poor and vulnerable.

# Livelihood change

Due to the labour intensity of the mining, the project will attract the more able bodied/ persons from the community which in turn will lead to low labour availability in other sectors of the economy including agricultural, education and health skilled workers. Local employment opportunities will be created by the project. This impact will not be significant due to low level of education and skills in the area which will result in sourcing skilled

workforce from outside the immediate area. But the magnitude of this impact will be high due to high number of dependants in a household.

#### Historical monuments etc.

There is no historical monument with in 10 km the lease area. So, there will be no impact on the historical monument due to proposed quarry activity in the area

### 6. PROJECT ACTIVITY

The proposed project activity for stone quarry of Uperbeda is as below:

As per the Approved Mining Plan, size of the quarry lease area is 5.76 acres or 2.331 Ha. with geological reserve of 2,40,212 cum. and Mineable reserve of 1,93,760 cum of stone material. Magnitude of the proposed operation is to produce 10,990 to 11,200 cu.m /annum of road metals or average 11,200cum/annum and waste material of 14,280 cum in 3 years which will be further used in construction of road. The waste material generation in 3 years will be 14,280 cum. The waste material will be dump in temporary dump yard and use for road maintenance The mining operation shall be carried out by semi-mechanized method to achieve the production level. The bench height and width will be maintain at 5m to 5 m and ultimate quarry floor at 289 mrl. The total manpower requirement will be 21 nos. Machinery will be use such as excavator, Tipper, Tractor, Compressor, Jack Hammer Drill, Hand shovel, Pick-axe, Chisel, Hammer and safety equipment like Helmets, Shoes, Goggles & Hand Gloves. Plantation: 60 in 3 years over 300 Sq. M of land.

# **Geological Reserve**

Category	Quantity M <sup>3</sup>
Proved	1,87,243
Probable	52,969
TOTAL	2,40,212

# **Summary of Mineable Reserve**

Category	Quantity (M <sup>3</sup> )
Proved	1,54,000
Probable	39,760
TOTAL	1,93,760

Year wise production of Road metal with waste are indicated below

Year	Waste/Reject (m <sup>3</sup> )	Production Road Metal (m <sup>3</sup> )
1st Year 2021-22	10,990	4710
2nd Year 2022-23	11,130	4770
3rd Year 2023-24 (Remaining Lease Period)	11,200	4800
Total :-	33,320	14,280

#### 7. ENVIRONMENTAL MANAGEMENT PLAN

(i) AIR ENVIRONMENT MANAGEMENT:- The air Pollution in black trap mining occurs because of activities likes, Drilling, Blasting, Quarrying, loading unloading, crossing Transportation etc. Air Pollution cause by Quarrying activity is mainly SPM and vehicular emission.

Following mitigation measure is taken to minimize SPM generation.

- 1. Sparkling of water on haul road.
- 2. Proper drilling practice by spraying water during drilling operation.
- 2. To control the emission of harmful gasses regular maintenance of equipment will be carried out on regular basis.
- 3. Proper mitigation measures like water sprinkling will be adopted to control dust generation on the quarry site.
- 4. Plantation will be carried out on approach roads barrio zone of the lease.
- 5. It is being ensured that all transportation vehicles will carry a valid PUC certificate.

During the course of mining no-toxic substance shall be released into the atmosphere being potential threat to health of human being. Proper maintenance of engines will be done to improve combustion process and brings reduction in pollution.

# (ii) CONTROL OF DUST POLLUTION-

The main pollutant in air is PM10, which is generated due to various mining activities. However to reduce the impact of dust pollution the following steps should be taken during various mining activities.

# a) During loading operation

- (i) Care to reduce dust emission during drilling, blasting, mining & loading operations.
- (ii) Avoid overloading of trucks and consequent spillage on the roads.

# b) During Transport operation

- (i) All the transport roads including the main ramp be kept wide, levelled, compacted and properly maintained and watered regularly during the shift operation to prevent generation of dust due to movement of dumpers, and other vehicles.
- (ii) Stone carrying trucks shall be effectively covered by Tarpaulin to avoid escape of fines to atmosphere.
- (iii) Regular Compaction and grading of haul roads to clear accumulation of loose material.
- (iv) Air quality shall be regularly monitored both in the core zone and the buffer zone.

# c) Plantation work to be carried out

In order to reduce air pollution in the surroundings, green belt will be developed around mine approach road & barrier zone.

# d) Monitoring of air pollution

Periodic air quality survey will be carried out to monitor the changes consequent upon mining activities as per the norms of Sate Pollution Control Board.

#### 8. NOISE AND VIBRATION ENVIRONMENT

The ambient noise level monitoring carried out in and around the mine lease area / cluster to assess the ambient noise levels are well within the stipulated limits of MoEF & CC

Noise pollution due to excavation & transportation will cause some problem to the inhabitants of this area if there is human settlement in close proximity to the link roads in the lease area. Effective steps should be taken to keep the noise level well below the DGMS prescribed limit of 85 dBA.

#### **Noise Abatement and Control**

- (i) All the machineries including transport vehicles will be properly maintained to minimize generation of noise.
- (ii) Dense plantation in mining area will also reduce propagation of noise outside the core zone
- (i) Rock breakers will be used instead of secondary blasting
- (ii) Blasting will be avoided under unfavorable atmospheric conditions.
- (iii) Periodical monitoring of noise will be done to adopt corrective actions wherever needed
- (iv) Plantation will be taken up along the approach roads. The plantation minimizes propagation of noise and also arrests dust

#### 9. WATER MANAGEMENT:

There will be negligible quantity of waste water generation from the mining operations.

# **Surface Water Management**

There is no chance of surface water pollution. The Quarry will be done away from water course on the river bed only.

# **Ground Water Management**

- 1. Necessary arrangement shall be made at the stockpiles to prevent silt and sediment flowing in water
- 2. No In stream mining will be done.
- 3. No effluent will be generated due to mining activities.

#### **Water Conservation**

The project do not consume any process water except for drinking, dust suppression and plantation. Plantation is proposed, which will increase the water holding capacity and help in recharging of ground water. Artificial rainwater harvesting is proposed for the present project.

# 10. SOLID WASTE AND TOP SOIL MANAGEMENT

# **Waste Management**

The waste to be generated from each lease will be utilised for road construction

# **Top Soil Management**

No top soil to be generated

#### 11. GREEN BELT DEVELOPMENT FOE EACH LEASE SEPARATELY

The proposed green belt shall be designed to control PM10, gaseous pollutants, noise, surface run off and soil erosion etc. Suitable local plant species shall be planted.

# **Plantation Program**

Under the afforestation plan, plantation shall be carried out with in barrior zone & nearby villages and connecting roads, school and the areas allocated by the Panchayat/State authorities. Native plants like Neem, Peepal, Khejri and other local species will be planted.

# Plant for Afforestation in each Quarry as follows:

Year	Saplings	Species	Place of Plantation
I	10	Neem, Khejari, Imli,	Nearby area of the School, at the
II	10	Bel, Ashok, Amaltas,	Dump, at the govt. waste land
III	10	Babool and Mango etc.	provided by the Govt., at Own
IV	10	as per soil condition and	Private Land and nearby State
V	10	suggestion of forest	Highway road
		official	

# List of Species for Greenbelt Development

S.	Scientific Name	Common	Type	<b>Effective in Control</b>
No.		Name		
1	Azadirachta indica	Neem	Tree	Dust, air pollution, noise
				pollution
2	Prosopis cineraria	Khejari	Tree	Air Pollution
3	Tarmarindus indica	Imli	Tree	Air Pollution
4	Aegle marmelos	Bel	Tree	Air Pollution
5	Polyalthia langifolia	Ashok	Tree	Dust, Air Pollution
6	Cassia Fistua	Amalthus	Tree	Dust
7	Acacia nilotica	Babool	Tree	Air Pollution
8	Mangifera induca	Mango	Tree	Dust, air pollution, noise
				pollution

9	Tectona grandish	Teak	Tree	Dust, air pollution, noise
				pollution
10	Sysgium cumini	Jamun	Tree	Dust, air pollution, noise
				pollution

Source: Guidelines for Greenbelt Development, CPCB, March, 2000.

#### 12.SOCIO-ECONOMIC ENVIRONMENT

# Management Plan for Socio-Economic Environment

- (i) In general, socio-economic environment will have positive impact due to the mining project in the area.
- (ii) The deployed laborers will be from nearby villages only as these people are mainly dependent upon such mining activities.

#### 13. OCCUPATIONAL HEALTH AND SAFETY

Occupational Health and Safety are important. Periodic assessment of it will be useful. Identifying workplace hazards, assessing risks to employee health and safety, are important. Health and Safety points are also important in many of the environmental aspects of the workplace

# Occupational Health and Safety works

- (i) The collection of sample of minor minerals from the Stone mine to analyse that it does not cause any occupational ill effects.
- (ii) Except dust generation there is no source which can show a probability for health related diseases and proper dust suppression will control dust generation and dispersion.
- (iii) Dust masks be provided to the workers working in the dust prone areas as additional personal protective equipment.
- (iv) Awareness program be conducted about likely occupational health hazards so as to have preventive action in place.
- (v) Any workers health related problem be properly addressed.
- (vii Periodical medical checkup be conducted.
- (vii) Promote occupational health and safety within workers in mine and develop safer and healthier ways of working;

- (viii) Help supervise the investigation of accidents and unsafe working conditions, study possible causes and recommend remedial action;
- (ix) Develop and implement training sessions for management, supervisors and workers on health and safety practices and legislation;
- (x) Coordinate emergency procedures, mine rescues, fire fighting and first aid crews;

# **Budget for Occupational Health and Safety of the workers (Lakhs) for the lease**

Items	Capital	Recurring cost
	Cost	
Drinking water facility		Rs. 15000.00
Shelter and sanitation facility		Rs. 15000.00
Health Facility and first aid kit		Rs. 15000.00
Fuel for cooking		Rs. 5000.00
Total		Rs. 50000.00

### 14.COST OF EMP MEASURES

Following provisions are proposed to be taken for improving, control and monitoring of environment protection measures

**Budget for EMP for each Quarry** 

S. No.	Particulars	Capital Cost (Lakhs)	Recurring Cost
		(=3:222)	
1	Pollution Control		Rs. 20,000.00
	i) Dust Suppression		
2	Pollution Monitoring		Rs. 20,000.00
	i) Air pollution		
	ii) Water pollution		
	iii) Noise Pollution		
3	Plantation		Rs. 10,000.00
Total			Rs. 50,000.00

#### 15.ENVIRONMENT MONITORING PLAN

#### 15.1 INTRODUCTION

Regular monitoring of environmental parameters is of immense importance to assess the status of environment during project operation. The knowledge of baseline conditions comes through monitoring of environmental parameters; the monitoring program will serve as an indicator for environmental conditions due to operation of the project. Monitoring is an important tool for the management, environmentalist and policy maker to make changes in pollution control equipments, environmental policy to save environment. It is decision making tool for the state of environment carried out through periodic monitoring. Further, impact assessment study is carried over short period of time and the data cannot bring out all variations induced by the natural or human activities. Therefore, regular monitoring program of the environmental parameters is essential to take into account the changes in the environmental quality over the period of time to comply environmental conditions necessary to save environment.

#### 15.2 MONITORING OBJECTIVE

Monitoring will conform to commitments and compliances. This may take the form of direct measurement and recording of quantitative information, such as amount and concentrations of discharges. The objectives of the monitoring are:-

- Very effectiveness of planning decisions;
- Measure effectiveness of operational procedures;
- Conform statutory and corporate compliance; and
- Identify unexpected changes.

# 15.3 ENVIRONMENTAL MONITORING CELL OF EACH LEASE SEPARATELY

A centralized Environmental Monitoring Cell will be established for monitoring of important and crucial environmental parameters which are of immense importance to assess the status of environment during mine operation. With the knowledge of initial parameters, deviations in environmental conditions due to operation of the mine will be assessed and mitigation steps will be taken to safeguard the environment. The routine monitoring program will be implemented under the project monitoring as per CPCB & MoEF & CC guidelines. Officer not below the rank of General Manager will be responsible of Environmental Management Cell and execution of environmental monitoring program.

# **Hierarchy of Environmental Management Cell**

In order to maintain the environmental quality within the stipulated standard, regular monitoring of various environmental parameters will be necessary. Environmental Management Cell under Senior Officer (not below the rank of General Manager) will be constituted for regular monitoring, compliances, supervision and hearing of complain and reporting

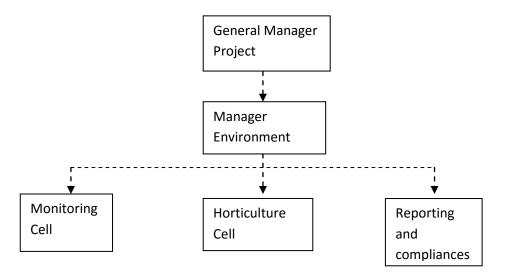


Fig: Hierarchical Structure of Environmental Cell

The core responsibilities of the Environmental Monitoring Cell will be:-

- The organization and interpretation of the environmental monitoring data to establish a record of change associated with the implementation of a project or the operation of an organization.
- The process of verification that all or selected parameters measured by Environmental Monitoring Program are in compliance with regulatory requirements, internal policies and standards, and established environmental quality performance limits.
- Assessment of the effective environmental management system, practices and procedures:
- The environmental monitoring and audit work will be carried out by qualified personnel.
- A summary of non-compliance of the environmental quality performance limits.
- To implement and monitor the control and protective measures based on the EMP.
- To coordinate the environment related activities to the top management within as well as with outside concerned agencies.

- To provide of health check up of workers and the people living in nearby villages.
- To develop greenbelt in the nearby villages, schools, Govt. offices and transportation routes.

# 15.4 ENVIRONMENTAL PARAMETER

Environmental monitoring schedules will be prepared covering various phases of project advancement, such as Mining and regular operational phase. Environmental Monitoring Program will be conducted once in season except monsoon.

**Table: Environmental Parameter and Frequency** 

S.No.	Potential	Parameters	Frequency of Monitoring	Location	
	Impact	For Monitoring			
1	Air Emission	PM10, PM2.5,	As per CPCB / MoEF &	Two locations in	
		SO2, NOX &	CC requirement i.e. 24	the	
		CO	hourly monitoring, twice in	core mining area	
			a week for	(8 hourly	
			one month in each	monitoring) and	
			season except	four in buffer	
			monsoon season.	area.	
2	Noise	Spot Noise	Periodic / As per CPCB	Two locations in	
		level	norms i.e. Once in	the	
		recording	season (1-hourly)	core mining area	
		Leq (day),		and	
		Leq (night),		four in buffer	
		Leq (dn)		area	
3	Surface Water	As per	Once in a season	Two locations in	
	Quality	drinking	except monsoon.	the	
		water		core mining area	
		standards		and	
				four in buffer	
				area.	
4	Ground Water	As per	Once in a season	Two locations in	

	Quality	drinking	except monsoon.	buffer area.
		water		
		standards		
5	Soil Quality	Analyzed as	Once in a season	Two locations in
		CPCB method	except monsoon.	core
				and two in the
				buffer
				area.
6	Health	Total health	Initial Medical	All employees
		parameters	Examination (IME)	
			and Periodic Medical	
			Examination – Once in	
			a five year as per	
			Mines Rules, 1955.	

# Ambient air quality monitoring

# **Workspace Monitoring**

The concentration of air born pollutants in the workspace / work zone environment will be monitored periodically. If concentrations higher than threshold limit values will be observed, the source of fugitive emissions will be identified and necessary measures will be taken as detailed in EMP.

The ground level concentrations of PM10, PM 2.5, SO2, NOx and CO in the ambient air will be monitored at regular intervals except monsoon. Monitoring locations will be decided on the meteorology of the area, topography potential of receptors in the core and buffer area locations. Any abnormal rise will be investigated to identify the causes. Greenbelt will be developed for minimizing dust propagation.

# Monitoring of water quality

Monitoring of Ground Water: The monitoring of groundwater is the most important tool to find out the depletion in level of water table. Water table will be monitored at regular interval to check the behavior pattern of the water table. It is suggested to collect water samples and analyze. Records of analysis will be maintained.

# **Monitoring of Surface Water:**

Samples will be collected from well-mixed section of the river (main stream) and will be analyzed. There are two locations to collect the samples from the surface water. The objective is to collect the water samples in upstream and down-stream of the river and analyzed for physical, chemical and biological parameters to study the seasonal variation of water quality except monsoon.

# **Monitoring noise levels**

Potential receptors of Noise levels in the core and buffer areas are identified based on the present noise levels and proposed increment. Noise levels in the work zone environment shall be monitored. The frequency will be once in three months (one season) in the work zone. Noise monitoring will be conducted in three seasons except monsoon with monitoring frequency once in a season carried on hourly basis for 24-h representing site, human settlements, close to high ways, commercial and residential areas and for the industrial area (if any). Similarly, ambient noise levels near habitations will also be monitored once in three months. Audiometric tests will be conducted

periodically for the employees working close to the high noise sources.

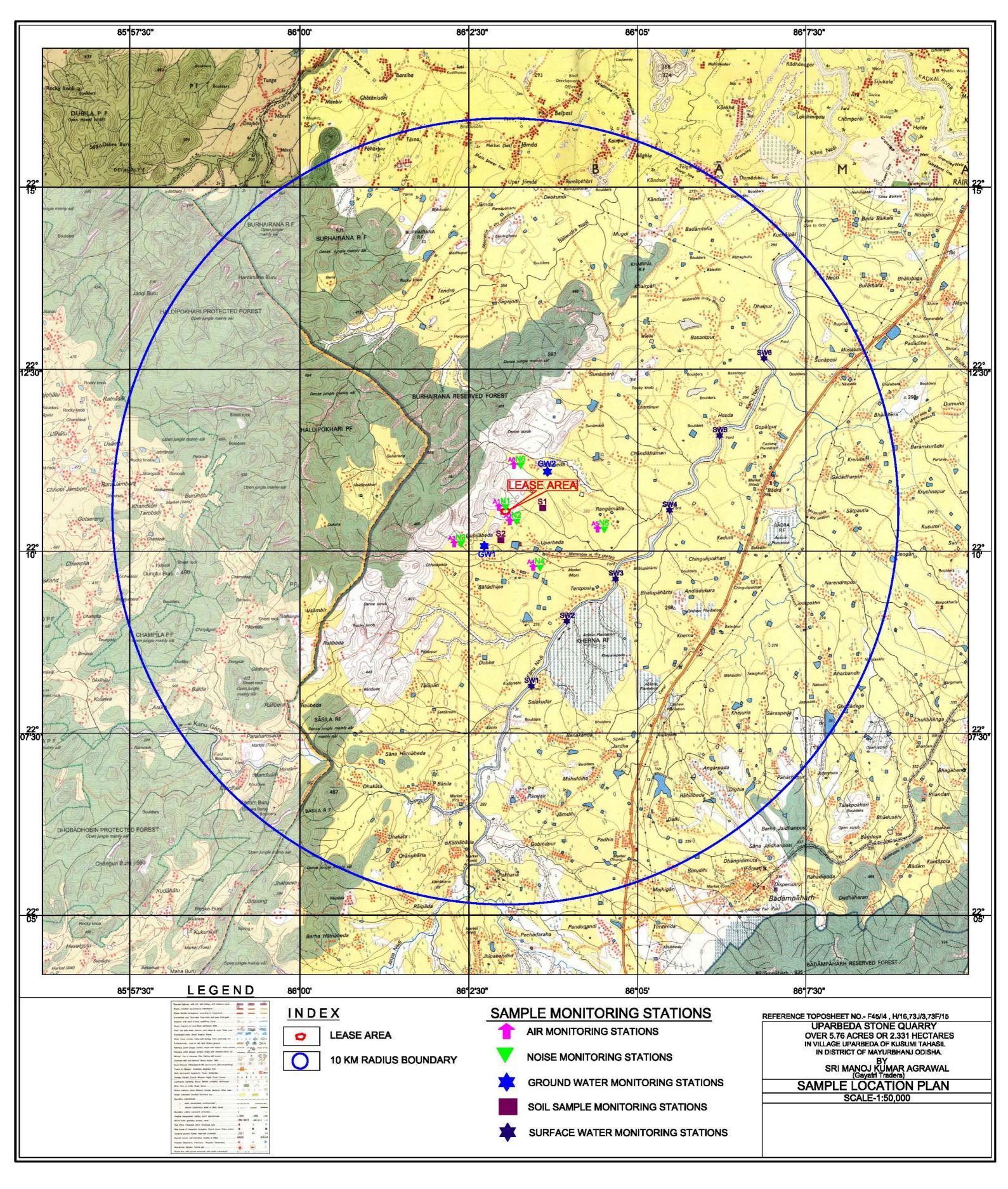
# Reporting schedules of the reporting data

It is proposed that voluntary reporting of environmental performance with reference to the EMP will be undertaken.

The Environmental Monitoring Cell will co-ordinate all monitoring programs at site and data thus generated will be regularly furnished to the State regulatory agencies/ State Pollution Control Board at the frequency of six month. The Environmental audit reports will be prepared for the entire year of operations and will be regularly submitted to regulatory authorities.

#### 16. SUMMARY

As per above discussion there is no major impact on the environment due to mining except fugitive emission in the form of dust generated during handling and loading of mineral. The adequate preventive measures will be adopted to contain the various pollutants within permissible limits. Plantation development will be carried out in the mine premises, along the approach roads, around Govt. buildings, schools approx 50 trees per year. It will prove an effective pollution mitigate technique, and help avoid soil erosion during monsoon season. Employment opportunities will be provided to the locals as extraction of minerals from the mine site is an important prevailing occupation for them for their livelihood. A budget of Rs. 0.50 Lakhs for Occupational Health and Safety and budget of Rs. 0.50 Lakhs for EMP for the lease.





# DISTRICT SURVEY REPORT (DSR) OF

# MAYURBHANJ DISTRICT, ODISHA. FOR ROAD METAL/BUILDING STONE/BLACK STONE

(FOR PLANNING & EXPLOITING OF MINOR MINERAL RESOURCES)







As per Notification No. S.O. 3611(E) New Delhi dated 25<sup>th</sup> July 2018 of Ministry of Environment, Forest & Climate Change ( MoEF & CC)

( Prepared by DEIAA, Mayurbhanj, Odisha )

# **CONTENT**

CH. NO.						
	Preamb	Preamble				
1	Introduction					
	1.1	Location and Geographical Area	4			
	1.2	Administrative Units	5			
	1.3	Connectivity	7			
2	Overvi	ew of Mining Activity in the District	10			
3	Genera	l Profile of the District	11			
	3.1	Demography	11			
4	Geolog	y of the District	11			
	4.1	Physiography & Geomorphology	12			
	4.2	Stratigraphy.	13			
	4.3	Mineral Resources.	14			
	4.4	Soil	17			
5	Drainag	ge of Irrigation Pattern	17			
	5.1	River System	19			
6	Land U	tilization Pattern in the District	21			
	6.1	Forest and non forest land.	21			
	6.2	Agricultural land.	24			
	6.3	Horticultural land.	25			
7	Surface	Water and Ground Water Scenario of the District	25			
	7.1	Hydrogeology.	25			
	7.2	Depth to water level.	26			
	7.3	Ground Water Quality.	28			
	7.4	Ground Water Development.	29			
	7.5	Ground water related issues & problems.	29			
	7.6	Mass Awareness Campaign on Water Management	30			
		Training Programme by CGWB				
	7.7	Area Notified By CGWB/SGWA	30			
	7.8	Recommendations	30			
8	Rainfal	l of the District and Climate Condition	31			
	8.1	Month Wise rainfall.	31			
	8.2	Climate.	31			
9	Details	of Mining Lease in the District	32			
	9.1	List of Mines in operation in the district	Annexure-B			
	9.2	List of Mines not in operation in the district	Annexure-B			
10	<b>Detail</b> o	of Royalty or Revenue received in last 3 years	33			

11	Detail of production of minor mineral in last 3 years	34
12	Mineral Map of the District.	35
13	List of Letter of Intent (LOI) Holders in the District along	35
	with its Validity.	
14	Total Mineral Reserve Available in the District.	36
15	Quality/Grade of Mineral Available in the District.	37
16	Use of Mineral.	37
17	Demand and Supply of the Mineral in the Last Three Years.	38
18	Map of Existing Mining Leases in the District.	38
19	Details of the Area of where there is a cluster of mining	39
	lease viz. Number of mining leases, location (latitude and	
	longitude).	
20	Details of Eco-Sensitive Area, if Any, in the District	39
21	Impact of Mining on Environment	39
22	Remedial Measures to Mitigate the Impact of Mining on	40
	the Environment	
23	Reclamation of Mined Out Area	40
24	Risk Assessment and Disaster Management Plan	42
25	Details of the Occupational Health Issue in the District	45
26	Plantation and Green Belt Development in Respect of	46
	Lease Already Granted in the District	
27	Conclusion & References	46

# **PREAMBLE**

Odisha is the major mineral reach in India. Mayurbhanj is a unique district in Odisha lies on the northern most part of the state with varied mineral resources. In pursuance of the order of Hon'ble Supreme Court Petition (C) No. 19628-19629 of 2009, dated 27<sup>th</sup> Feb. 2012 in the matter of Deepak Kumar Vs State of Haryana and others etc., prior environmental clearance has now become mandatory for mining of minor minerals irrespective of the area of Mining Lease. And also in view of the Hon'ble National Green Tribunal, order dated the 13<sup>th</sup> Jan. 2015 the matter regarding Road metal/stone, Sand, Brick earth, & burrowed earth cutting for Road Construction has to take prior Environmental Clearance for Mining Lease area more or less than 5 hectares also suggested making a policy on Environmental Clearance for minor minerals lease and leases in cluster. As per MOEF & CC Notification S.O.-1533(E) dated 14<sup>th</sup> Sept. 2006 and subsequent MoEF & CC Notification S.O. 141(E) dated 15<sup>th</sup> Jan. 2016, District Environment Impact Assessment Authority (DEIAA) & District level Expert Appraisal Committee (DEAC) has been formed for Category –B2 Minor Minerals having area less than or equal to 5 ha. 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/stone mining has been prepared in accordance with Clause II of Appendix X of the notification.

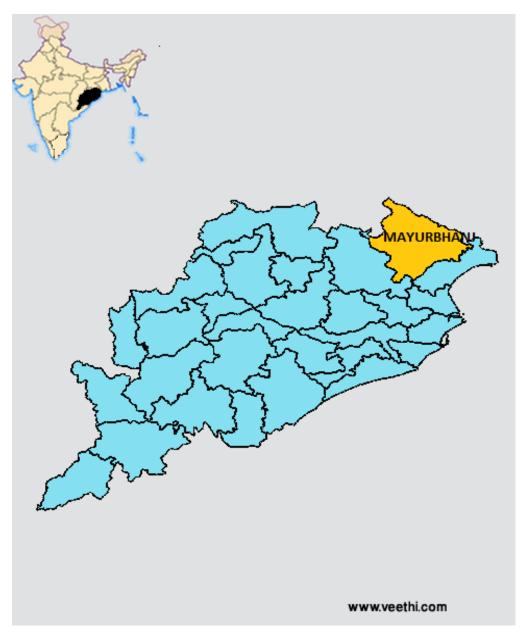
Keeping in view of the prior information of Odisha Minor Mineral Concession Rule 2004, (OMMCR -2004) the mining operation for minor minerals were carried out in unscientific manner. Identifying this fact in exercise of power, Conferred by Section 15 by Mines and Minerals (Development and Regulation) Act 1957 as amended in 2015 and all other powers enabling it in that behalf, the Mining & Geology Department, Govt. of Odisha framed the aforementioned rule. Further, 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.

### 1. INTRODUCTION:

# **Mayurbhanj at a Glance:**

# 1.1 Location and Geographical Area:

Mayurbhanj district is the largest among the thirty districts of Odisha and Baripada is the District head quarter, spreading over an area of 10,418 sq.km lies between latitudes 21° 17′ North and 22° 34′ North and longitudes 85°40′ East and 87°10′ East. It is bounded on the north by the Singhbhum district of Jharkhand and Midnapore district of West Bengal, on the south by the districts of Balasore and Keonjhar, on the east by the Midnapore and Balasore districts and on the west by the districts of Keonjhar and Singhbhum. Mayurbhanj occupies a unique position being endowed with lush green vegetation, different fauna & flora and rich cultural heritage. The district has a rich mineral base and is home to the Similipal Biosphere. Iron-ore (hematite), vanadiferous and titaniferous magnetic, chaina clay, galena (lead ore), Kyanite, asbestos, steatite (soap stone) and quartzite constitute the principal mineral resources of Mayurbhanj district, of these the iron-ore deposits of Gorumahisani, Badampahar and Suleipat, which have been exploited for a period of about half a century, deserve special mention.

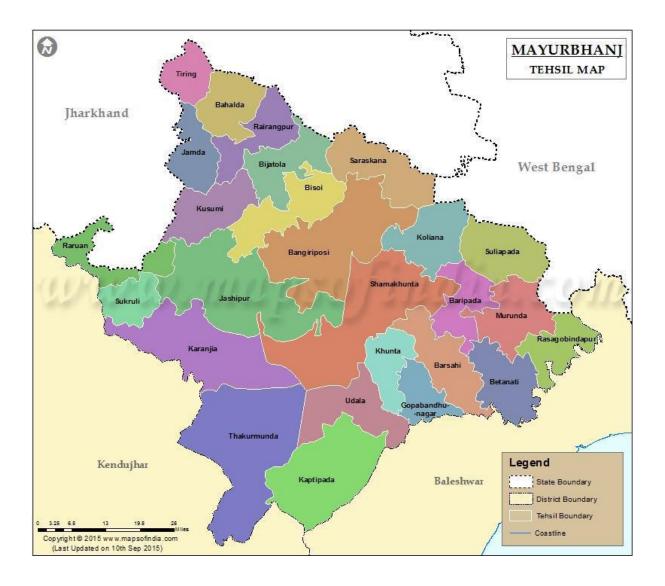


### 1.2 Administrative Units:-

Baripada is the administrative headquarter of Mayurbhanj district. It is located at a distance of 263 km from Bhubaneswar, state capital of Odisha. In order of size, the district is the largest among the thirty districts of Odisha. It has 3980 villages (including 178 uninhabited villages) covering 26 Blocks, 26 Tahasils and 4 Sub-Divisions. The district is divided into 4 Sub-Divisions namely 1) Sadar Sub-Division Baripada, 2) Kaptipada Sub-Division Udala, 3) Bamanghaty Sub-Division, Rairangpur, 4) Panchapir Sub-Division, Karanjia. which are given below:-

SI No	Name of the Block/Tehsil	Name of the Sub-Division with	
	5	Head quarter	
1	Baripada		
2	Samakhunta		
3	Kuliana		
4	Bangriposi		
5	Saraskana		
6	Suliapada	Sadar Sub-Division, Baripada	
7	Betnoti		
8	Badsahi		
9	Rasgovindpur		
10	Moroda		
11	Udala	Kaptipada Sub-Division, Udala	
12	Kaptipada		
13	Khunta		
14	Gapabandhu Nagar		
15	Rairangpur		
16	Bisoi		
17	Bijatala	Bamanghaty Sub-Division,	
18	Kusumi	Rairangpur	
19	Bahalda		
20	Tiring	Bamanghaty Sub-Division,	
21	Jamda	Rairangpur	
22	Karanjia		
23	Jashipur	Danahnir Suh Division Karaziia	
24	Sukruli	Panchpir Sub-Division, Karanjia	
25	Thakurmunda		
26	Raruan		

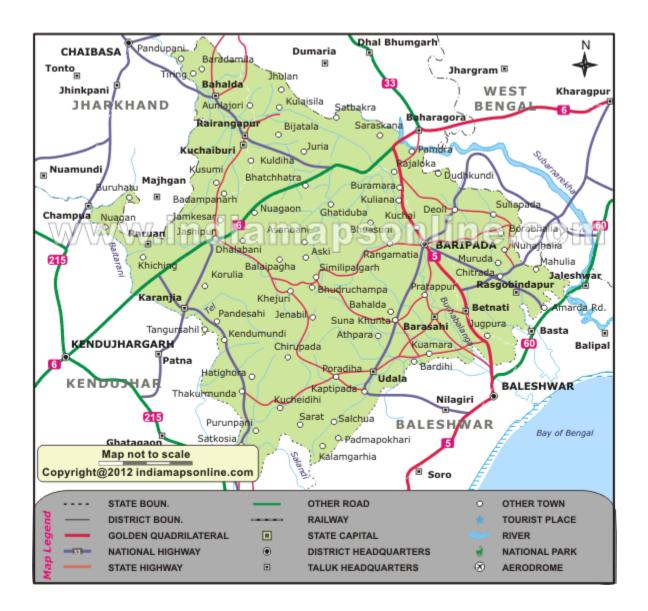
The population of the district 25,19,738 according to the 2011 Census. The district accounts for 6.69% of the state's territory and about 6% of state's population. The density of population of the district is 242 per square km as against 270 per square km of the state. As per 2011 census, the population of Scheduled Caste is 1,84,682 (7.30%), that of Scheduled Tribe is 14,79,576 (58.7%). The literacy percentage of the district covers 63.2 against 72.9 of the state.



# 1.3 Connectivity facilities:-

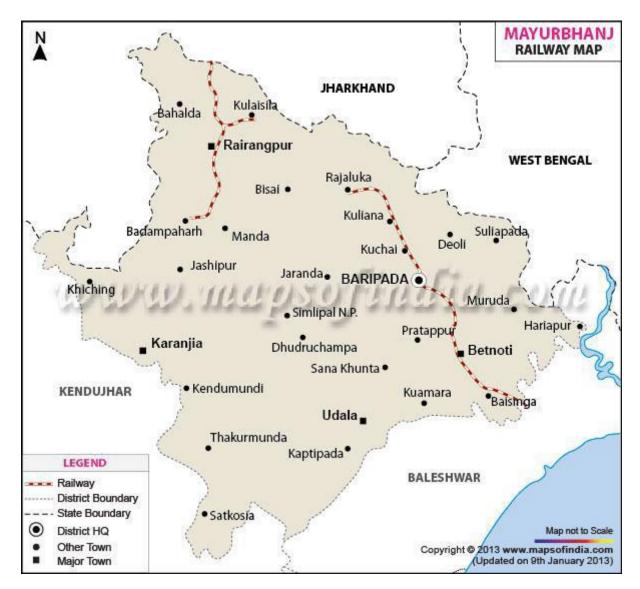
#### **Road Network**

The district is well served by a network of good roads and has been called the motorists paradise. The chief roads emanating from Mayurbhanj town are NH-18 and NH-49 passes the district. Baripada is 60 Kms from Mayurbhanj, 103 Kms from Kharagpur, 163 Kms from Jamshedpur, 231 Kms from Cuttack, 255 Kms from Bhubaneswar and 368 Kms from Rourkela. It is also connected with other cities such as Sambalpur, Puri, Bolangir, Bhadrak, Jhargram, Angul, Ranchi and Kolkata via Odisha State Road Transport Corporation and some private travel services.



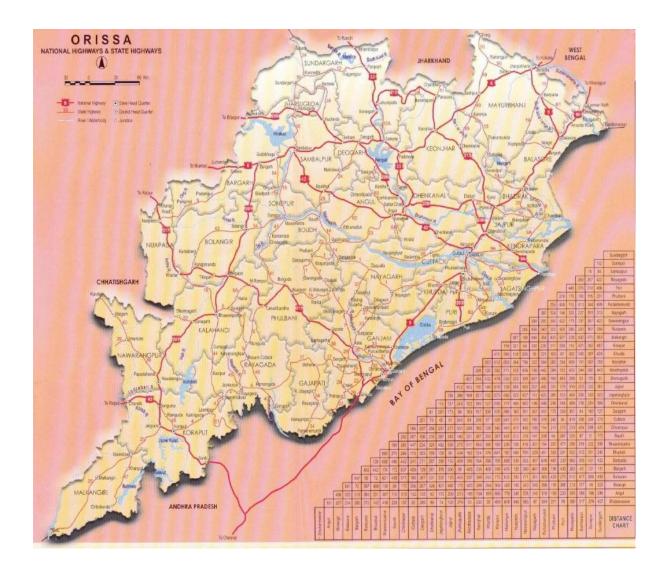
#### **Rail Network**

Mayurbhanj district is well connected by rail link to different places, the city of Baripada is well connected to many places in India like Mayurbhanj, Bhubaneswar, Kolkata, Jamshedpur and Cuttack,



#### **Air Network**

At present, Mayurbhanj has no connection by airway. The site selection for aerodrome is presently under process. Nearest aerodrome is Dum Dum Airport (International Airport) Kolkata, roughly 195 Kms from Baripada. The other nearest airport to Baripada is Biju Patnaik Airport, Bhubaneshwar, 207 Kms from Baripada.



### 2. OVERVIEW OF MINING ACTIVITY IN THE DISTRICT:

Mayurbhanj district is land features of both plain and hilly region. Most of the mineralized area coming under safety zone eco-sensitive zone, mining activity only confined out of safety zone of eco-sensitive zone. The mining activity in the district is not only restricted to minor minerals i.e. of sand, stone, granite and brick clays. Altogether there are leases of Iron-ore (hematite), vanadiferous and titaniferous magnetic, chaina clay, galena (lead ore), Kyanite, asbestos, steatite (soap stone) and quartzite constitute the principal mineral resources of Mayurbhanj district, of these the iron-ore deposits of Gorumahisani, Badampahar and Suleipat, which have been exploited for a period of about half a century. Stone, granite and sand which has been granted to the district is regulated as per minerals concession rules of Odisha. There is no lease of major mineral in the district. At present Leases of stone, sand and bricks making units are operational in the district. Stone chips, granite stones, ordinary sand

constitute the principal mining activity of Bangirposi, Badasahi, Kaptipada, Kuliana area etc. of Mayurbhanj district. Out of these huge granite stones deposits are available near Badasahi, Kaptipada, Kuliana area and major potential sand in G.B Nagar, Morada & Kaptipada area of the district, which have been provides tremendous scope for development of few more industries based on this resources.

Iron-ore (hematite), vanadiferous and titaniferous magnetic, chaina clay, galena (lead ore), Kyanite, asbestos, steatite (soap stone) and quartzite constitute the principal mineral resources of Mayurbhanj district, of these the iron-ore deposits of Gorumahisani, Badampahar and Suleipat, which have been exploited for a period of about half a century.

# 3.0 GENERAL PROFILE OF THE DISTRICT:

## 3.1 Demography:

Census - 2011				
Geographical Area	10,418 Sq. Km.			
Total population	25,19,738			
Male Population	12,56,213			
Female Population	12,63,525			
Male Literacy	794,171			
Female Literacy	575,226			
SC Male	92,127			
SC Female	92,555			
ST Male	730,487			
ST Female	749,089			
OBC	855,480			
Illiterate Male	462,042			
Illiterate Female	688,299			

# **4.0 GEOLOGY OF THE DISTRICT:**

Mayurbhanj is a unique district in Odisha with rich and varied geology. Similipal Complex being at its central part. The mountain ranges comprise mainly of highland plateau and valleys with intrusive running through them. The second physiographic unit is Tertiary Plain occurring in the eastern part of the district. The third physiographic unit is Alluvial Plain .The drainage density is observed to be fairly moderate and drainage pattern is dendritic in nature. The major rock types

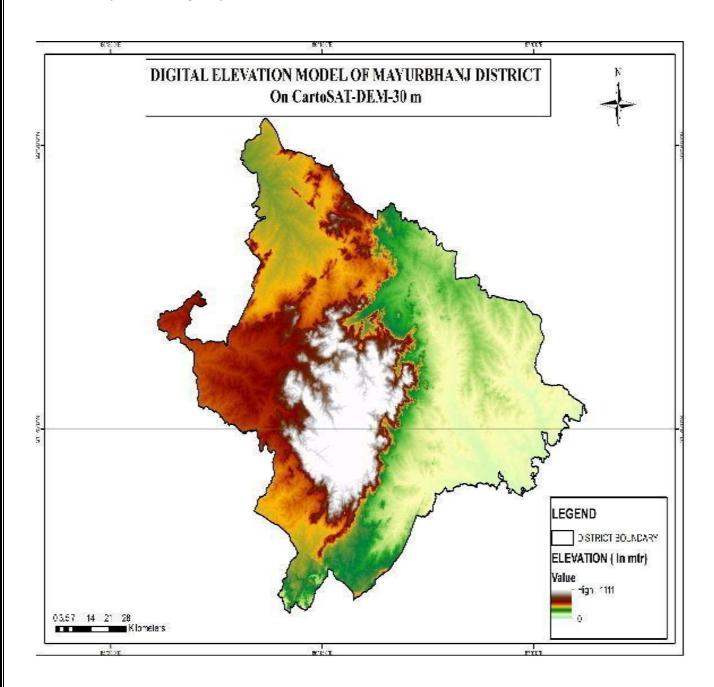
encountered in the district are Granite Gneiss, Quartzite, Orthoquartzite, Arkose, Shale, Phyllite, Gabbro, Px-granite. The geology of the district is constituted by the Similipal complex at its central part belonging the Archaean age, unconformably lying over Singhbhum Granite and Banded Iron Formation (BIF). It consists of three alternate bands of volcano sedimentary units uniquely disposed in a ring like circular pattern formed under sub- marine conditions. Baripada Beds outcrops of tertiary formation occur around Baripada town. These comprise stratified clay and sand with marly clay or limestone interbands. Important mineral resources include iron, copper, itanium, vanadium, chinaclay, nickel, kyanite ,quartz, talc, steatite ,soapstone and bauxite.

# 4.1 Physiography & Geomorphology:

Mayurbhanj district presents diverse physiographic features, Physiographically the study area can be divided into 3 categories. The first physiographic unit of the district is high mountain ranges, Similipal Complex being at its central part (Figure 1). The mountain ranges comprise mainly of highland plateau and valleys with intrusive running through them. The second physiographic unit is Tertiary Plain occurring in the eastern part of the district. The third physiographic unit is Alluvial Plain which lies partly in Rasgovindpur, Morada, Samakhunta, Betnoti, Baripada, Badasahi and Suliapada Blocks. The highest elevation of about 559m at Bahalda near Similpal hill and higher elevations of the district, due to scarp landforms some waterfalls are observed in the district. The general slope of the district is from north to south. Geologically the area is comprised with Archean granites and gneisses. Geomorphologically the district is divided into 3 units:

- i) The denudational hills with moderate to high slope occurring in the western part of the district.
- ii) Dissected pediments having gentle slope.

iii) Pediplain having slope between 0° to 5°.



# 4.2 Stratigraphy:

Geological Age Geological Formation / Group

Quaternany: Recent Alluvium, Clays, silt, Sand, Gravel

Tertiary : Older Alluvium, Laterite, Baripada Beds.

Mesozoic/ Palaeozoic : Volcanics / Epidiorite

Precambrian : Slate/ Phyllite/ Schist / Gneiss

Archean : Granite/ Granite Gneiss

# **4.3 Mineral Resources:**

The earliest known geological survey in Mayurbhanj dates back to 1903, when P.N. Bose brought to light the extensive iron-ore deposits of high quantity on the Gorumahisani and Suleipat hills in Bamanghaty Sub-Division. These deposits were considered to be almost inexhaustible and were pronounced to be of excellent quality, perhaps second to none in the whole of Asia by the famous American and English experts like M/s Perin, Weld and Colonel Staddart, who visited these deposits during 1905-06. This discovery was a momentous one as the steel plant of the Tata Iron & Steel Co. at Jamshedpur was entirely based on the exploitation of these deposits. By 1915, important discoveries of Steatite near Lulung and placer gold from the sands of Subarnarekha, Kharkhai and Barhai rivers had been made. The placer gold deposits were being worked by M/s J.B. Bettie of Calcutta, Mr. V.G. Piggot of Ghatsila and the Mayurbhanj Prospecting Concession Syndicate.

**Gold:** The mid-Archaean Gorumahisani-Badampahar schist belt composed of basic ultrabasic, volcanic rocks and volcanogenic sediments. This belt has been prognosticated as a rift-type of volcanic dominated one and is highly potential for economic grade gold mineralization. Likely targets include: a) auriferous quartz veins close to the contact of sulphide chert volcanics, b) sheared and sulphidised Fe-rich tholeiite with anomalous copper, c) epigenetic vein type of mineralization and BIF volcanic association, and d) sulphidic conglomerate resting over the basic volcanics. Placer gold occurrence are known from rivers and stream of Mayurbhanj district. An area of about 5 square kilometers of alluvium at the headwaters of Sapgora and Borai rivers near Kudersai was indicated as promising.

**Iron:** Bose discovered iron ore deposits in Gorumahisani and Badampahar in the eastwhile princely state of Mayurbhanj (now Mayurbhanj District). Gorumahisani deposits were investigated by Perin & Weld (1905). Gorumahisani- Badampahar-Suleipat deposits are associated with banded hematite / magnetite grunerite and BHJ.

# **Gorumahisani – Badampahar- Suleipat (Broad geological sequence)**

Laterite & Alluvium

**Newer Dolerite** 

Gabhro-Anorthosite Granite

---Unconformity---

Ultramafic dyke

Singhbhum Granite

Banded magnetite/ Martite quartzite with Fe-Ores

**Ouartzite** 

**Basal Conglomerate** 

----Unconformity----

Older metamorphic

**Vanadium Ores & Titanium:** Vanadium is an important alloying element. Magnetite associated with gabbro- anorthosite suite of rocks contain vanadium and titanium. Deposits of vanadium-magnetite occur in association with gabbro-Anorthosite suite of rocks in the precambrian metamorphites. Vanadium bearing magnetite belts are :-

- (a) Rairangpur Bisoi belt (Kumardubi, Betjharan Amdabeda)
- (b) Bisoi Joshipur belt (Mayurbeka, Kesham, Sialnoi)
- (c) Baripada Podadiha belt (Andipur, Bahalda)

**Pyrophyllite :** is mainly used as a high grade ceramic product, electric insulator and refractory material. The comp. is Al<sub>2</sub>O<sub>3</sub>4SiO<sub>2</sub> H<sub>2</sub>0. It is formed as an alteration product of feldspar. Pyrophyllite occurrences are reported at Kankrani, Jashipur, Gorumahisani, Bangriposhi and Manada in Mayurbhnaj dist. Ichinda, Khairakocha, Jamukunda, Nakulkocha, Kapadiha, Dunguridiha, Maheshpur, Kashidiha, Sagragora and Pokpoka. Dimension stone of the district are granite, granite-gneiss, migmatites, syenite, gabbro, anorthosite, charnockite, leptynite, pyroxene granulite, dolerite, pyroxinite and dunite etc.

**Bauxite:** In Similipal complex (Mayurbhanj) aluminous laterite/ Bauxite are observed around 1000 m AMSL. The spongy aluminous laterite/bauxite occurs as sheets and boulders occupying the flat-topped hills made up of metavolcanics. Both ultramafics and metavolcanics are lateritised giving rise to nickeliferous laterite and aluminous laterite respectively.

**China Clay** clay like material approximating the mineral Kaolinite (Al<sub>2</sub>O3, 2SIO<sub>2</sub>, 2H<sub>2</sub>O). China clay is found to occur in a long belt stretching from Singhbhum to Mayurbhanj. Badampahar-Joshipur- Karanjia — Ramachandrapur belt is the most important china-clay producing area of the state. The important deposits in Mayurbhanj district are found near Jashipur, Chanchbani, Dumuria, Jamda, Kodadiha, Jamkeswar and Thakurmunda. China clay has many industrial applications as filler in paper, textile, rubber, in the manufacture of potteries, ceramics, sanitary wares, glazed tiles, white cement, insecticides, paints, cosmetics, refractory bricks etc. Soap stone and Steatite Asbestos is mined from Mayurbhanj area.

**Talc, Steatite and Soapstone:** Important localities of these deposits in Mayurbhanj dist are Tiring, Kendumundi and Kharidamak.

**Kyanite:** Kyanite deposits of refractory grade occur in Panijia area of Mayurbhanj dist, where it is associated with dumortierite bearing rocks, qtz-veins, quartz-micaschists and talc-tremolite-schist. Other kyanite occurrence include Purnapani & Similipal.

**Quartz & Quartzite:** Quartz and silica sand are mostly used in glass foundry, ferrosilicon alloy, ceramic industry, abrasive, paint, rubber, textile industries. Transparent varieties of quartz such as rock crystal, amethyst, citrine, Rosequartz and smoky quartz are used as semi-precious gemstone. Quartz is a piezoelectric material and is used in radio circuit, Radars and ultra-sonic devices. Quartzite is a monomineralic rock constituted predominantly of quartz. There are 6 mining leases for quartz and quartzite in Mayurbhani dist.

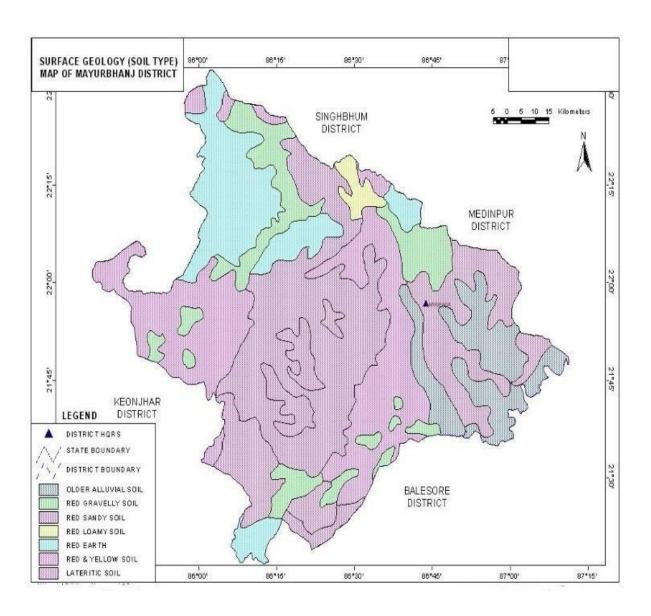
**High Magnesia rock:** are found in Notapahar, Thakurmunda, Amjori and Badampahar of Mayurbhanj Dist.

**Nickel:** Nickel is concentrated within chemically weathered ultramafic rocks and found in the laterite and soil capping in Similipal area. The mineral occurs in silicate

form i.e. garnierite. The important patches of prospective ore zones are: Gurguria and Nawana.

# 4.4 Soil:

The district comprises chiefly of lateritic, sandy loam and clayey loam type of soil (Figure 3). Laterite soil is mostly marked in the area occupied by crystalline rocks. The low lying valley fields are covered with clayey loam type of soil.

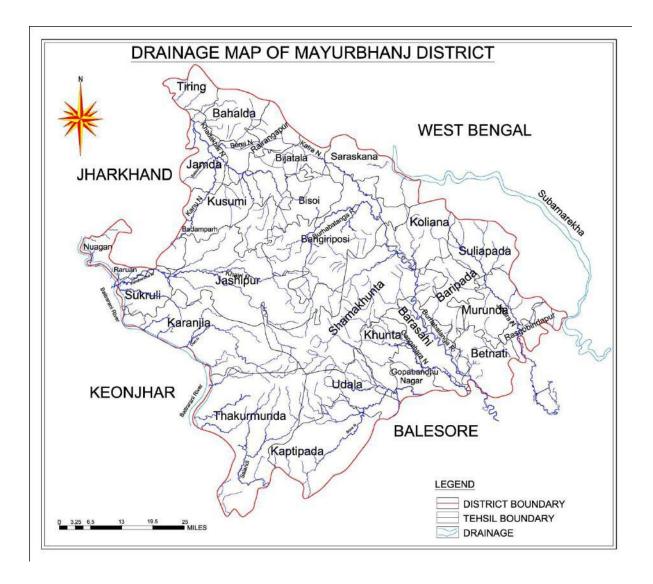


# 5. DRAINAGE OF IRRIGATION PATTERN

The district has considerable flat land, which provide suitable site for agricultural use. The hilly areas are mostly under forest with patches of cultivation on scarp areas. Major rivers flowing in the district are Budhabalanga, Subarnarekha, Jambhira, Sona,

Khadkhai, Deo, Katra, Khairibandhan & Baitarani. Major crops grown in the district are rice Only. 14.82 percent area of agricultural use are net irrigated and major source of irrigations are well and tube-wells.

SI.	Name of the	Area drained	% Area drained
No.	River	(Sq.Km.)	in the District
1	Budhabalanga	2143	21%
2	Subarnarekha	265	0.25%
3	Jambhira	1377	13%
4	Sona	1062	10%
5	Khadkhai	1131	10.8%
6	Khairibandhan	1014	0.09%
7	Deo	473	0.04%
8	Katra	352	0.03%
9	Gangahar	594	0.057%
10	Baitarani	260	24.6%
11	Tel	96	0.009%
12	Kantamauli	82	0.007%
13	Sim	165	0.015%
14	Jhagada	30	0.002%
15	Balijori	56	0.005%
16	Kantakhaira	186	0.017%
17	Kanhu	383	0.036%
18	Balisudura	170	0.016%



# **5.1 River System**

The Budhabalanga River (also called Balanga River) flows through the districts of Mayurbhanj & Balasore and finally reached Bay of Bengal. The Budhabalanga, rises from Similipal hills and plunges through Barehipani Falls, the second-highest waterfall in India, located in Similipal National Park. It then flows in a northerly direction up to the village Karanjiapal in Bangiriposi police-station. Thereafter, it turns to the northeast and flows along the railway track up to the village Jhankapahadi. There it changes its course to the south and meets the Katra nala. The other tributaries are the Palpala and the Chipat both of which are hill streams rising from the Similipal hills. Then the river passes through Baripada. It later flows through Balasore district and into the Bay of Bengal. The Budhabalanga is about 175 kilometres (109 mi) long and has a total catchment area of 4,840 square kilometres (1,870 sq mi). Its major tributaries are the Sona, Gangahar, and the Katra. Burhabalang and its tributaries, viz.

Sona Nadi, Amrutia Nadi, Gangahar Nadi drain almost round the year in the present area. Sona Nadi receives the watery effluent load through a nalah (Sankh nalah) from the Balgopalpur Industrial Estate and flows from west to east. Amrutia Nadi flows from NNW to SSE and carries the waste water load of East Coast. Subarnrekha originate from Nagri of Jharkhand and then enter into Mayurbhanj district, very less portion of the river flows within Mayurbhani district, Major portion of Subarnarekha River passes in the Balasore district. Another river Jambhira runs in Mayurbhani district then enters into Balasore district and Renamed as river Jalaka flows into Bay of Bengal. Other small rivers run in this district like River Khadkhai originates from Tunhgru R.F. and plunges through Suleipat Dam (Khadkhai Reserviour). It then runs towards Rairangpur, Bahalda, Tiringi area of western direction of Mayurbhani district and finally reached at River Subarnarekha. River Deo rises from Similipal R.F. and runs towards western part of the district and flows through Karanjia area and then joins with Baitarani River. River Khairabandhan originates from Similipal R.F. and flows towards western part of the Mayurbhani district through Jashipur, Raruan, Sukruli area of district and then joins with River Baitarani This river maintains a sluggish flow in the pre-monsoon period, but swells menacingly with the onset of monsoon often flooding large tracts. Another small tributary named as Kanhu starts from River Khadkhai and branched into Jalapa, Ghagera nala meets at Jharbeda area of Mayurbhani District.

SI. No.	Name of the River or Stream	Total Length in District (in Km.)	Place of Origin	Altitude at Origin
1	Budhabalanga	161	Similipal Hill	940 mrl.
2	Subarnarekha	4	Nagri,	610 mrl.
			Jharkhanda	
3	jambhira	64	Chandra R.F.	60 mrl.
			Mayurbhanj	
4	Sona	70	Jaymal Hill,	340 mrl.
			Dugdha	
			Mayurbhanj.	
5	Khadkhai	75	Tunhgru R.F.	500 mrl.
6	Khairibandhan	65	Similipal R.F.	800 mrl.
7	Deo	65	Similipal R.F.	930 mrl.
8	Katra	55	Jari R.F.	700 mrl.
9	Gangahar	55	Similipal R.F.	740 mrl.
10	Baitarani	48	Gonasika,	900 mrl.

			Guptaganga Hills	
11	Tel	20	Similipal R.F.	940 mrl.
12	Kantamauli	25	Similipal R.F.	360 mrl.
13	Sim	85	Similipal R.F.	900 mrl.
14	Jhagada	15	Jhagada R.F.	430 mrl.
15	Balijori	22	Similipal R.F.	520 mrl.
16	Kantakhaira	36	Similipal R.F.	420 mrl.
17	Kanhu	42	Similipal R.F.	400 mrl.
18	Balisudura	15	Similipal R.F.	450 mrl.



# 6.0 LAND UTILIZATION PATTERN IN THE DISTRICT

# 6.1 Forest and non forest land

The forest of Mayurbhanj district is full variety of medicinal plants, Kendu leaves, Bamboo, Sal, Teak, other timber species and a wide range of carnivorous & herbivorous wild animals. The district has one Wildlife Sanctuaries known as the Similipal Wildlife Sanctuary situated at the heart of the district, which hosts all type of wildlife even

tigers. The area of the sanctuary is 26, 886.23 hectares. And two kilometer safety zone of eco-sensitive zone of Suleipat Wildlife Sanctuary are coming in Mayurbhanj district. In these sanctuary areas the principal animals that are found are Elephant, Bear, Nilgai, Sambhar, Peacock, Wild Boar and Deer, together with variety of snakes and birds.

# District-wise Forest Cover Area in Odisha (Area in Km<sup>2</sup>)

	2017 Assessment									
District	Geograph ical Area Km²	Very Dense Forest	Moder- ate. Dense Forest	Open Forest	Total	Percent of GA	Change	Scrub		
Angul	6375	371	1380	1004	2755	43.22	43	84		
Bolangir	6575	70	224	837	1131	17.2	151	142		
Balasore	3806	23	127	234	380	9.98	30	48		
Bargarh	5837	176	371	484	1031	17.66	88	47		
Bouda	3098	263	546	480	1289	41.61	27	57		
Bhadrak	2505	0	9	66	75	2.99	2	0		
Cuttack	3932	53	226	517	796	20.24	11	68		
Deogarh	2940	191	667	614	1472	50.07	-3	14		
Dhenkanal	4452	174	418	825	1417	31.83	9	82		
Gajapati	4325	84	1490	946	2520	58.27	12	262		
Ganjam	8206	164	1075	864	2103	25.63	15	655		
Jagatsinghpur	1668	0	5	131	136	8.15	6	0		
Jajpur	2899	6	72	225	303	10.45	3	50		
Jharsugada	2114	3	140	179	322	15.23	9	36		
Kalahandi	7920	362	729	1327	2418	30.53	36	362		
Kandhamal	8021	661	2588	2143	5392	67.22	16	380		
Kendrapada	2644	84	88	133	305	11.54	14	2		
Keonjhar	8303	289	1404	1519	3212	38.68	4	55		
Khorda	2813	21	186	250	457	16.25	0	92		
Koraput	8807	94	740	1255	2089	23.72	120	944		
Malkangiri	5791	158	709	1475	2342	40.44	20	45		
Mayurbhanj	10418	1335	1718	1027	4080	39.16	42	34		
Nabarangpur	5291	168	428	507	1103	20.85	8	47		
Nayagarh	3890	189	965	556	1710	43.96	28	173		
Nuapada	3852	86	482	705	1273	33.05	33	109		
Puri	3479	0	54	160	214	6.15	8	11		
Rayagada	7073	422	853	1851	3126	44.2	7	349		

<b>Grand Total</b>	155707	6967	21730	23008	51345	32.98	885	4306
Sundargarh	9712	1019	1814	1431	4264	43.9	107	89
Subarnapur	2337	2	187	161	350	14.98	26	29
Sambalpur	6624	499	1675	1106	3280	49.52	13	40

(Source: India state of forest report 2017-Odisha)

The major portion of the district is covered by forest (39.16 % of TGA) and has scattered settlement pattern. The forest is full of variety of medicinal plants. The district has considerable flat land, which provide suitable site for agricultural use. The hilly areas are mostly under forest with patches of cultivation on scarp areas. Major crops grown in the district are rice and pulses. Only 14.82 percent area of agricultural use are net irrigated and major source of irrigations are well and tube wells.

Source: Fertilizer and Agriculture Statistics, Eastern Region

Tahasil	Forest	Misc	Permanent	Cultivated	Non	Barren	Current	Other	Net
	Area	Tree	Pasture	waste	Agricultural	land	Fallow	Fallow	area
					uses				sown
Bahalda	964	471	1397	1262	2590	1900	875	944	14031
Bangiriposi	3712	281	1037	1688	3046	684	2054	922	16951
Baripada	216	673 3	128	1628	1376	8	2752	2156	4219
Badasahi	288	180 7	1194	1874	3840	24	3378	2110	17630
Betnoti	2271	911	1198	1728	3227	21	1915	578	17022
Bijatala	2841	224	681	3100	1792	1636	1214	600	11228
Bisoi	3116	471	757	2508	2193	459	2298	1643	15860
G.B.Nagar	191	116	683	582	1147	590	643	1209	10960
Jamda	408	100	1650	434	2060	785	840	1149	13608
Jashipur	8932	141	1389	2655	3637	400	3873	2634	17754
Kaptipada	8745	387	3292	5596	4123	2165	3123	4930	19932
Karanjia	1644	838	1444	2441	3065	462	3493	1362	16690
Khunta	400	226 0	314	672	2061	21	1332	2213	12879
Kuliana	1749	162 6	2222	1902	2529	608	4919	1504	11108
Kusumi	1434	32	2320	2679	2337	587	1086	1682	18032
Morada	993	412 7	513	4340	1941	61	1909	3633	10179
Rairangpur	2260	107	1759	1373	2027	504	1276	631	9713
Raruan	1210	171	890	1120	1899	503	1609	1020	12818
Rasgovindpur	288	214 5	665	1091	2774	142	2002	1537	10054
Shamakhunta	1354	764	1378	2472	1859	334	1861	941	6695
Saraskana	3464	275	689	2658	4042	115	1864	1837	15384
Sukruli	412	211	734	1295	1271	502	1286	1294	10352
Suliapada	2937	553 5	97	2262	2148	86	1589	2906	8971
Thakurmunda	10885	96	1530	1438	2034	795	5317	2670	17681

# **6.2 Agriculture Land:**

Mayurbhanj is surrounded by no of forest areas as well as Rocky Mountains. People used to cultivate Paddy in most parts of the hill slopes and in plain lands. Most of the cultivators grow short duration local paddy in the un-bonded upland during Kharif season. The crop suffers moisture stress at different stages due to inadequate rainfall. The primary objective of Agriculture Department is increase of production as well as productivity of major crops like paddy, groundnut, mustard, Mung, Biri & vegetables which is widely covered in this District in both Kharif & Rabi season. Another key objective is the all round development of the farming community of the District. The Deputy Director of Agriculture is the head of office so far as agriculture is concerned & he is the Principal Agriculture Officer of the District. Under him there are 5 District Agriculture Officers & the block under them. As already pointed out, that agriculture is the main livelihood of the people in Mayurbhanj District. It is therefore also designated as the food bowl of Odisha. Rice is the principal crop grown in this district, followed by other cereals, pulses, oilseeds, vegetables, spices and sugarcane. The agricultural statistics for the district is shown in subsequent tables below:

Table – 3.6a: Crop Coverage Area of Mayurbhanj District, Odisha

Crop	Khariff		Rab	oi Di	Annual		TAL
	Area (ha)	(% of Cropped Area	Area (ha)	% of Cropped Area	Area (ha)	Gross Croppe d Area (ha)	% of Gross Cropped Area
Rice	301.37	82.353%	3.80	4.015%		305.17	62.051%
Cereals	9.99	2.730%	2.1 7	2.293%		12.16	2.472%
Pulses	32.37	8.846%	36.20	38.255%		68.57	13.943%
Oilseeds	5.92	1.617%	28.30	29.906%		34.22	6.958%
Vegetables	12.39	3.386%	21.74	22.974%		34.13	6.940%
Fibres	2.43	0.664%				2. <del>4</del> 3	0.494%
Spices	1.48	0.404%	2.42	2.557%		3.90	0.792%
Sugarcane			00			00	
Tobacco			00			00	
Fruits						31.23	6.350%
TOTAL	365.95	100.00%	94.63	100.00%		491.81	100.00%

# **6.3 Horticulture Land:**

The primary objective of Horticulture Department is increase of production as well as productivity of major fruits like Mango, Guava, Citrus etc., which is widely covered in this District. Another key objective is the all round development of the farming community of the District. The Deputy Director of Horticulture is the head of office.

# 7.0 SURFACE WATER AND GROUND WATER SCENARIO OF THE DISTRICT 7.1 Hydrogeology

# **Distribution of Saline / fresh water aquifers:**

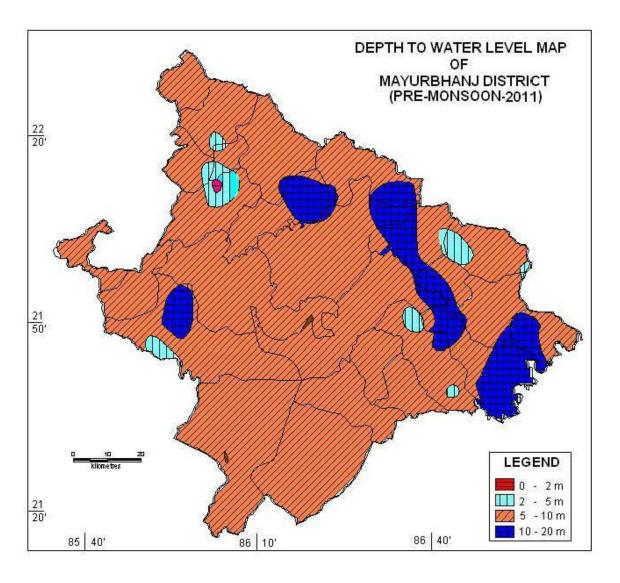
The occurrence of fresh water aquifers in coastal tract of Mayurbhanj restricted by two important factors- (i) Occurrence of hard rocks in the western side and (ii) Salinity hazard problems in the eastern part. The water bearing formation of the area can be divided into (a) areas underlain by fractured, fissured and consolidated basement rock formations (b) areas underlain by recent unconsolidated alluvial formations.

- (a) Consolidated Formation These are most predominant rock types occurring in the undulating plains of the district. Groundwater occurs under unconfined condition in the shallow weathered zone and circulates through fractures and joints. The thickness of the weathered zone varies from 3 to 35 m. Depth of open wells in these formations varies from 5 to 14 m below ground level.
- (b) Unconsolidated alluvial formations The unconsolidated formations consists of laterite and alluvium. Laterites at places are highly consolidated and used as building stones. The laterites have high degree of effective porosity and form potential aquifers commonly tapped in dug wells. The alluvium comprises an admixture of clay, silt, sand and calcareous concretions in varying proportions. The coarse sediments like sand and gravel form the main repository of ground water. Ground water occurs under both unconfined condition in shallow aquifers and in confined condition in deeper parts.

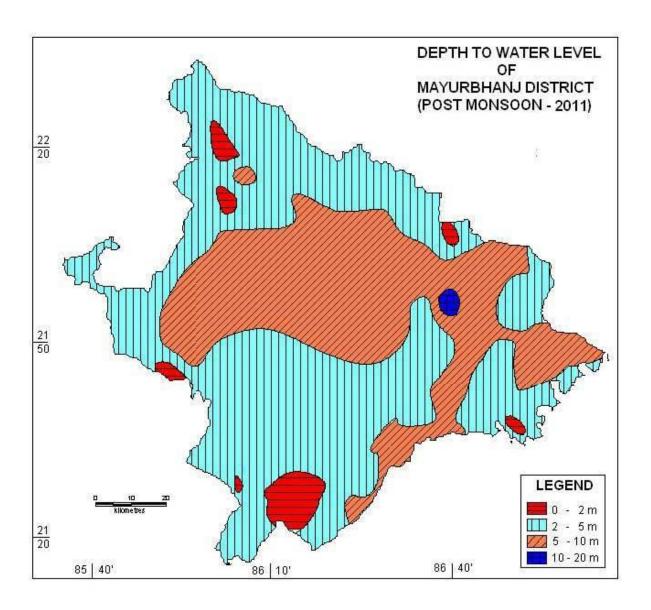
# 7.2 Depth of water level:

The depth to water level map for pre and post monsoon periods 2011 are prepared based on the ground water monitoring data of 77 Nos of National Hydrograph Stations of C.G.W.B. monitored during the month of April and November 2006 are presented below respectively. The pre and post monsoon depth to water levels in the district range from 3.54 to 14.50 m below ground level and 1.39 to 8.20 m below ground level respectively. It is observed that during pre monsoon about 75% of the total areas show the water level varying between 5 to 10 m below ground level. During post monsoon nearly 60% of the area has water levels within 2 to 5 m, while the rest part has between 0 to 2 and 4 to 6 m below ground levels. In localized part of Morada, Kaptipada and Thakurmunda the water level is > 5 mt.

Depth & categorization of ground water levels during pre monsoon period (April 2011) of Mayurbhanj districts is presented below:



Depth & categorization of ground water levels during pre monsoon period (November 2011) of Mayurbhanj districts is presented below:



# 7.3 Ground Water Quality

The chemical quality of ground water in the district has been assessed on the basis of chemical analysis of ground water samples collected during groundwater monitoring, Hydrogeological surveys and groundwater exploration. The results of the chemical analysis are presented in Table.

**Table showing chemical constituents in aquifers** 

Constituent	Shallow aquifer	Deeper aquifer
pH	6.97 – 8.25	6.84 – 8.25
Sp. Conductance (micromohs/cm at 25°C)	53 – 974	92 – 867
TDS (mg/l)	58 – 1430	106 – 429

Calcium (mg/l)	6 – 92	16 – 86
Magnesium (mg/l)	0.6 – 17	3.6 – 22
Sodium (mg/l)	1.6 – 100	3.5 – 168
Potassium (mg/l)	0.4 – 8	<16.4
Bicarbonate (mg/l)	15 – 256	49 – 366
Chloride (mg/l)	7 – 238	5.3 – 85
Sulphate (mg/l)	0.1 – 9	<1 - 82
Nitrate (mg/l)	<0.01 - 53	0.1 – 78
Fluoride (mg/l)	0.08 - 20.3	0.21 - 0.61
Total hardness as calcium	10 – 245	35 - 285
carbonate		

# 7.4 Ground Water Development

In the rural areas the entire water supply is dependent on ground water. Ground water development is mainly carried out in the district through dug wells and Hand pumps. In general dug wells are of 2 m diameter and the depth ranges between 8 to 15 m depending on the thickness of the weathered zone, tapping the shallow aguifer in the weathered zone and uppermost slice of the basement. Large number of dug wells used for drinking water is under private ownership for which there is no reliable data. Over the years Mark II/ Mark III hand pumps are being drilled in large numbers for ground water development. These hand pumps have the following two major advantages i) less susceptible to contamination from surface sources and ii) tap fractures between 20-60m depth which have been found to be less affected by seasonal water level fluctuation and thus have lesser chances of failure even during extreme summer. Over all the present level of ground water development is only 27.21 percent in the district with the maximum in Badasahi Block viz. 64.65% and minimum in Bijatala Block. Block wise development figure indicate that all the blocks come under the white categories. Thus there is ample scope for development of groundwater in the district to augment irrigation potentials through suitable ground water abstraction structure

### 7.5 Ground Water Related Issue and Problems

# Some of key ground water related issues are

- Locating suitable sites for bore wells
- II. Suitable design of dug wells and hand pumps
- III. Taking up artificial recharge projects to augment the resource availability in

Mayurbhanj district.

- IV. Optimal development of irrigation potential by developing ground water available for future uses.
- v. Creating public awareness for conserving ground water through awareness camps, NGO's and mass media.

# 7.6 Mass Awareness Campaign (MAP) & Water Management Training Programme (WMTP) by CGWB

NIL

# 7.7 Area Notified by Cgwb/Sgwa

None

# 7.8 RECOMMENDATIONS:

- 1) Intensive groundwater exploration should be taken up to delineate deeper potential water saturated fracture zones and to compute aquifer parameter.
- Large scale planning for ground water development should be preceded by intensive hydrogeological and geophysical surveys aided by remote sensing studies.
- 3) Effective measures may be taken to conserve the surface run off by contour bonding at suitable sites. Also proper maintenance of reservoir, tanks and spring channels by periodical disillation should be carried out.
- 4) Existing dug-wells should be deepened to tap the maximum saturated thickness of the weathered mantle or vertical bores may be drilled through the bottom to enhance the well yield.
- 5) Energy station of wells already constructed should be stepped up to ensure optimal utilization of the irrigation potential already created.
- 6) The farmers should be educated through agricultural extension services fro adopting suitable cropping pattern for optimal utilization of available groundwater resources.
- 7) Programmes for artificial recharge may also be taken up for augmentation of groundwater through construction of percolation tanks, subsurface dykes, and check dams and through contour bonding etc.
- 8) An intensive network of groundwater monitoring stations are required to be

established in the command areas of irrigation projects to monitor the changes in groundwater regime consequent on application of surface water irrigation.

# 8.0 RAINFALL OF THE DISTRICT AND CLIMATE CONDITION

### 8.1 Month wise rainfall:

The driest month is November, with 3 mm of rain. There is on average 0 mm of precipitation in December. In July, the precipitation reaches its peak, with an average of 324 mm. May is the warmest month of the year. The temperature in May averages 32.3 °C. January has the lowest average temperature of the year. It is 16.5 °C.

Ye	ear	2016	2017	2018	Average
Sl. No.	Month	(mm)	(mm)	(mm)	(mm)
1	Jan	9.23	2.71	0.00	3.98
2	Feb	52.61	0.00	0.04	17.55
3	Mar	12.29	44.87	0.72	19.29
4	Apr	22.38	23.36	172.10	72.61
5	May	118.73	139.31	125.30	127.78
6	Jun	195.46	169.39	208.83	191.22
7	Jul	245.28	385.31	300.05	310.21
8	Aug	351.25	291.03	371.30	337.86
9	Sep	285.27	170.11	285.17	246.85
10	Oct	85.39	189.09	154.08	142.85
11	Nov	12.10	34.79	0.00	15.63
12	Dec	0.00	1.80	36.69	12.83
To	tal	1389.99	1451.77	1654.28	1498.68

Source: Indian Meteorological Department

The Indian Meteorological Department, Bhubaneswar, vide letter No. BBS/RMC/CS-312, dated 18th January, 2016 has provided the period of Rainy Season viz. Normal dates of Onset and Withdrawal of South West Monsoon over India as state-wise. The duration for the period is 10th June to 15th October.

### 8.2 Climate

The climate in Mayurbhanj is warm and temperate. In winter, there is much less rainfall in Mayurbhanj than in summer. The general climate of the district is characterized by oppressive heat in summer, severe cold in winter with high humidity throughout the year. The rainfall distribution is equal during the monsoon period. The period from June to October is the rainy season and the district experiences it from the southwest monsoon. May is the hottest month when the mean daily maximum

temperature rises up to 47° Celsius. The Köppen-Geiger climate classification is Cwa & as per they the average temperature in Mayurbhanj is 24.7 °C. The temperature in May averages 32.3 °C. January has the lowest average temperature of the year, it is 16.5 °C. There is a difference of 321 mm of precipitation between the driest and wettest months. During the year, the average temperatures vary by 15.8 °C., when the mean daily minimum temperature dips to 4° Celsius. The higher reaches of the Similipal experiences frosting during the peak of winter.

# 9.0 DETAILS OF MINING LEASE OF ROAD METAL/ BUILDING STONE/BLACK STONE IN THE DISTRICT

9.1 List of Mines is operation in the district:

Attached as **Annexure-B** 

9.2 List of Mines is not operation in the district:

Attached as **Annexure-B** 

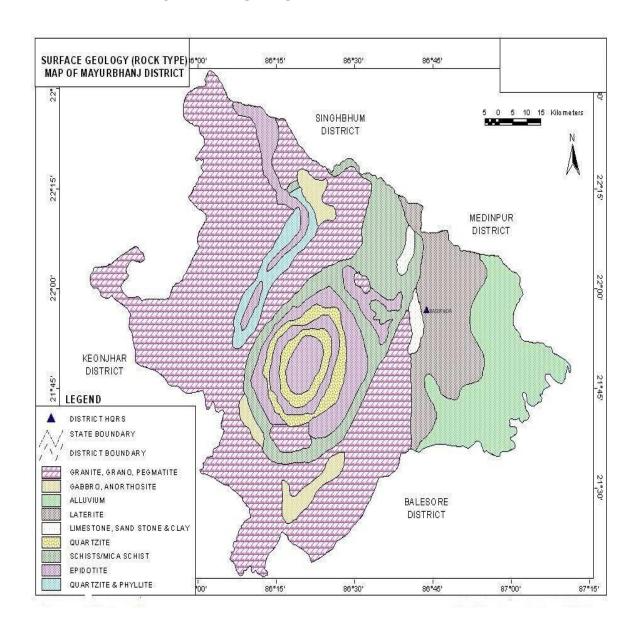
# 10. DETAIL OF ROYALTY OR REVENUE RECEIVED IN LAST THREE YEARS:

SI. No.	Name of the	2016-17	2017-18	2018-19	<b>Total Amount</b>
	Tahasil				(Rs.)
1	Baripada	0	0	0	0
2	Samakhunta	0	0	0	0
3	Kuliana	550217	593244	610626	1754087
4	Bangriposi	8313635	6539799	39895884	54749318
5	Saraskana	0	0	0	0
6	Suliapada	0	0	0	0
7	Betnoti	0	0	0	0
8	Badsahi	0	0	0	0
9	Rasagovindpur	0	0	0	0
10	Morada	0	0	0	0
11	Udala	84507	554305	557307	1196119
12	Kaptipada	314039	7581657	6610173	14505869
13	Khunta	0	0	330750	330750
14	G.B Nagar	3397741	272700	363945	4034386
15	Rairangpur	135975	155400	159840	451215
16	Bisoi	0	0	0	0
17	Bijatala	270776	1858902	769212	2898890
18	Kusumi	1113524	1687760	2939320	5740604
19	Bahalda	553420	1082260	914290	2549970
20	Tiring	518440	735770	726590	1980730
21	Jamda	1214213	1247103	1509560	3970822
22	Karanjia	469908	1468647	8124533	10063088
23	Jashipur	175000	0	0	175000
24	Sukruli	1130314	1900097	2028861	5059272
25	Thakurmunda	265954	417012	468238	1151204
26	Raruan	26260	559933	1186258	1772451
G	rand Total	18533923	26654519	67195333	112383775

# 11. DETAIL OF PRODUCTION OF MINOR MINERALS IN LAST THREE YEARS:

SI.	Name of the	2016-17	2017-18	2018-19	Total in Cum.
No.	Tahasil				
1	Baripada	0	0	0	0
2	Samakhunta	0	0	0	0
3	Kuliana	3252	3443	3558	10253
4	Bangriposi	179892	180945	308820	669657
5	Saraskana	0	0	0	0
6	Suliapada	0	0	0	0
7	Betnoti	0	0	0	0
8	Badsahi	0	0	0	0
9	Rasagovindpur	0	0	0	0
10	Morada	0	0	0	0
11	Udala	534.85	3667.94	3686.75	7889.54
12	Kaptipada	2291	30045.5	31055.2	63391.7
13	Khunta	0	0	4400	4400
14	G.B Nagar	5846	4408	4640	14894
15	Rairangpur	1325	1400	1400	4125
16	Bisoi	0	0	0	0
17	Bijatala	2588	13970	11472	28030
18	Kusumi	10028	10844	17603	38475
19	Bahalda	3953	8302	7033	19288
20	Tiring	5315	5528	5711	16554
21	Jamda	750	3300	1833	5883
22	Karanjia	47959	49170.2	69695.26	166823.96
23	Jashipur	0	0	0	0
24	Sukruli	10187	11097	18411.6	39695.6
25	Thakurmunda	2414	3192	3608	9214
26	Raruan	202	9774.85	12172.15	22149
	Grand Total	276536.35	339087.49	505098.96	1120722.8

# 12. MINERAL MAP OF THE DISTRICT:



# 13. LIST OF LETTER OF INTENT (LOI) HOLDERS IN THE DISTRICT ALONG WITH ITS VALIDITY

SI. No.	Name of the Mineral	Name of the Lessee	Address	Letter of Intent Grant Order No. & date	Area of Mining lease to be allotted	Validity of LoI	Use (Captive/ Non- Captive)	Location of the Mining lease (Latitude & Longitude)		
1	1 2 3 4				6	7	8	9		
	Attached as <b>Annexure-B</b>									

# 14. TOTAL MINERAL RESERVE AVAILABLE IN THE DISTRICT

Total mineral reserve of road metal/Building stone is **18050977.30** cum which may increase after detail investigation as per details below.

- (i) Blocks were identified based on geological studies through field observation.
- (ii) Mineable resource was calculated by considering detail prospecting.
- (iii) Area calculated as per GPS co-ordinates and information obtained from local people. Land detail need to be verified from revenue record.
- (iv) Since this is an interim report, as per the present requirement of minerals, more such blocks need to be identified and the data should be updated periodically, after certain intervals to update the data bank of DSR.

# **Summary of Identified Mineral Potential:**

SI.	Name	Name	Address and	Letter of	Area of	Validity	Use	Location of	
No.	of the	of the	contact No. of	Intent	mining	of LoI	(Captive	the Mining	
	mineral	lessee	the lessee	Grant	lease to		/ Non-	lease	
				Order	be		Captive	(Latitude & Longitude)	
				No. and	allotted		•	Longitude	
date									
1	2	3	4	5	6	7			
Attached as <b>Annexure-B</b>									

SI. No.	Name of the Tahasil	Mineral Resources in cum.	Mineable Reserve in cum.		
1	Baripada	Nil	Nil		
2	Samakhunta	Nil	Nil		
3	Kuliana	405456	278238		
4	Bangriposi	3955649	2695559.2		
5	Saraskana	177408	139616		
6	Suliapada	Nil	Nil		
7	Betnoti	Nil	Nil		
8	Badsahi	114828	96030		
9	Rasagovindpur	Nil	Nil		
10	Morada	Nil	Nil		
11	Udala	88746	34010		
12	Kaptipada	29972122.50	1045240.50		
13	Khunta	Nil	Nil		

14	G.B Nagar	208877	112258	
15	Rairangpur	49048	46115	
16	Bisoi	Nil	Nil	
17	Bijatala	840851	403800	
18	Kusumi	1339729	666508	
19	Bahalda	1688661	840673.5	
20	Tiring	1293828	605328	
21	Jamda	1111020	912448	
22	Karanjia	997536.8	540673.26	
23	Jashipur	422770	258793	
24	Sukruli	1794871.2	1014172.55	
25	Thakurmunda	347010	160893	
26	Raruan	242565	104310.86	
	Total	18050977.30	10314666.87	

# 15. QUALITY/GRADE OF MINERAL AVAILABLE IN THE DISTRICT: Rocks and Minerals found in Mayurbhanj District:-

The district is endowed with various types of mineral resources like Iron ore, China Clay, Quartz, Soap stone, Granite, Manganese, etc. Due to presence of huge mineral resources, mining activities have been undertaken in a big scale. Bahalda, Jashipur, Karanjia, Koshorpur, Bisoi, Gorumahisani and Rairangpur are the places in the district having deposits of the above mineral products. The availability of mineral deposits is given in the table below. The district's mineral deposits have not been utilized to maximum extent for industrial purpose. Some of the items like China clay, Soap stone, Asbestos, etc. can be used in small scale sector. So the available resources of the district need harnessing properly for industrial and productive use. Road metal/Building stone of the district are very much suitable for various construction purposes after crushing and screening. The granite gneisses are well foliated, jointed and weathered easily.

### 16. USE OF MINERAL:

# **Uses of Road Metal:**

• **Building Stone**:- Weathered granitic rocks having more cleavage and joints have been extensively used as road metal/building stone for construction of roads,

buildings and various infrastructure development works.

- **Sub base and base material in road and highway construction:** Crushed stone is the most basic use of granite. Crushed granite is used as a sub base and base material in road, railway and highway construction. It is used as crushed stone media in sewage system drain fields and as a base material for foundations and construction slabs. Crushed granite in attractive colors is used as a landscape stone and in planters. It also makes great railroad ballast, and in larger sizes it makes good riprap.
- **Granite Paving Stone**:- Granite paving stones or "pavers" can make a colorful and interesting way of paving a driveway or patio. The beauty of natural stone combined with expert craftsmanship and design can produce a unique and lasting result. In the past granite blocks were often used to pave city streets.
- **Engineering:-** Engineers have traditionally used polished granite surface plates to establish a plane of reference, since they are relatively impervious and inflexible. Sandblasted concrete with a heavy aggregate content has an appearance similar to rough granite, and is often used as a substitute when use of real granite is impractical. Granite block is usually processed into slabs, which can be cut and shaped by a cutting center. Granite tables are used extensively as bases for optical instruments because of granite's rigidity, high dimensional stability, and excellent vibration characteristics.

### 17. DEMAND AND SUPPLY OF THE MINERAL IN THE LAST THREE YEARS:

As such there are huge infrastructural activities such as road, building, railways are coming up by Govt. of India & PSUs under "Make in India" programme. The Granitic rocks are the main raw minerals for the above activities and considering the last three years' actual production of Mayurbhanj with respect to the requirement of the state has a huge gap. It is proposed to start the stone production from larger block/area to at least double the production of the district which will enhance the revenue of the district and also support the livelihood of the local people.

# 18. MAP OF EXISTING MINING LEASES IN THE DISTRICT:

Enclosed as Plate-I

# 19. DETAILS OF THE AREA OF WHERE THERE IS A CLUSTER OF MINING LEASE VIZ. NUMBER OF MINING LEASES, LOCATION (LATITUDE AND LONGITUDE)

Currently there are two such clusters of mining leases in Kaptipada area of the district (Enclosed as Annexure-II). However, it is proposed to consider the cluster of mining lease while planning for new lease area in coming years.

# 20. DETAILS OF ECO-SENSITIVE AREA, IF ANY, IN THE DISTRICT:

Eco sensitive zone of Similipal wild life sanctuary is located within the district.

### 21. IMPACTS OF MINING ON ENVIRONMENT:

The most important environmental impact of mining projects is:-

# **Transportation sources:**

Transportation sources of air pollutants include heavy vehicles used in excavation operations, cars that transport personnel at the mining site, and trucks that transport mining materials. The level of polluting emissions from these sources depends on the fuel and conditions of the equipment. Even though individual emissions can be relatively small, collectively these emissions can be of real concern. In addition, mobile sources are a major source of particulate matter, carbon monoxide, and volatile organic compounds that contribute significantly to the formation of ground-level ozone

# **Fugitive emissions:**

Common sources of fugitive emissions include: storage and handling of materials; mine processing; fugitive dust, blasting, construction activities, and roadways associated with mining activities; leach pads, and tailing piles and ponds; and waste rock piles. Sources and characteristics of fugitive emissions dust in mining operations vary in each case, as do their impacts. Impacts are difficult to predict and calculate but should be considered since they could be a significant source of hazardous air pollutants.

# Noise and vibration:

Noise pollution associated with mining may include noise from vehicle engines, loading and unloading of rock into steel dumpers, chutes, power generation, and

other sources. Cumulative impacts of shoveling, ripping, drilling, blasting, transport, crushing, grinding, and stock-piling can significantly affect wildlife and nearby residents.

Vibrations are associated with many types of equipment used in mining operations, but blasting is considered the major source. Vibration has affected the stability of infrastructures, buildings, and homes of people living near large-scale open-pit mining operations. According to a study commissioned by the European Union in 2000:

"Shocks and vibrations as a result of blasting in connection with mining can lead to noise, dust and collapse of structures in surrounding inhabited areas. The animal life, on which the local population may depend, might also be disturbed."

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

- 1.\_Following are the remedial measures to mitigate the in Water sprinkling on haul road, loading and unloading points.
- 2. Plantation along the safety zone and dump area.
- 3. Providing dust masks to workers.
- 4. Regular monitoring of ambient air quality.
- 5. Provision of air conditioned cabin of Excavators and Dumpers.
- 6. Regular and proper maintenance of working equipments.
- 7. Periodic medical examination of the workers and organize medical camp in the area.
- 8. Use Milli Second Delay Detonator in blasting operation.
- 9. Provisions of ear plug to the workers.
- 10. Regular training programme to the mines workers and operators.

# 23. 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:

- i. **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 inconformity with a prior land use. Reclamation always may not be a single- phase operation.
- ii. **Rehabilitation** Rehabilitation is to bring batch 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.
- iii. **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 to what they were. This is a rate phenomenon.
- iv. 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.

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.

# 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

# **Statutory requirement:**

As per the Mineral Conservation Development Rule, 2017, the following rules must be bare 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

### 24. 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 turn 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 taking into account 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 may 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 risks 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 to unhygienic conditions which affect the human health causing malaria, dengue etc. and causing a 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,
П	Private Nursing Homes of Localities

Attendance roaster and duty charge register should be properly maintained so the record of missing people can be obtained.

# 25. DETAILS OF THE OCCUPATIONAL HEALTH 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 like Pneumoconiosis, Silicosis, Tuberculosis, Hearing Impairment etc. caused by exposure to health hazards at work. Almost all occupational diseases can be prevented by adopting proper occupational health measures and engineering control on airborne dust pollution at workplace. Occupational Diseases in mines or 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. The essential features of health surveillance programme required to be carried out in mines are:

- (a) Initial Medical Examination of persons to be conducted at the time of appointment.
- (b) Periodic Medical Examination or General physical examination to be conducted once in every year.
- (c) Maintenance of medical records and health services till the person is in service.
- (d) The Details of Tuberculosis cases in last 5 years is given below

	RNTCP Activities from 2014 to 2018										
Year	Projected Population	No of Sputum Examined	Sputum Examine d per Lakh/Qr	No of Sputum Positive	Sputum Positive %	Total Case put on DOTS /No of	Child DOTS out of Total DOTS	Case detectin per Lakh/Yr	Sputu m Conver sion Rate	NSP Cure Rate	NSP Death Rate
	(in Lakh)		Norm- 150		Norm- 8-15 %	TB cases		Norm- 170 /L/Y	Norm- 90 %	Norm- 90%	Norm < 5%
2014	26.01	16848	161.9	2825	16.8%	4883	103	187.7	90.2%	89.0%	7.4%
2015	26.30	18118	172.2	2836	15.7%	4831	123	183.7	90.5%	89.0%	6.7%
2016	26.59	20060	188.6	2975	14.8%	5171	119	194.5	95.0%	90.9%	6.5%
2017	26.88	31035	289.4	3152	11.4%	5127	111	190.7	94.0%	91.6%	5.5%
2018	27.18	21273	195.6	2853	13.4%	4894	95	173.4	95.3%	92.7%	6.4%

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

During mining operation green belt development through plantation is most important for environment safe guard, which should be supervision by mining department. Different type of species should be planted near lease periphery to keep environment clean at post mining period through reclamation. Where specific usefulness of land could be decided, a forestation is normally planned through the site could have been considered for better possibilities of land use.

# **27. CONCLUSION:**

Since it is an interim report, 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. 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 equipments 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 Mayurbhanj 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.

# Plate No.-I



#### ANNEXURE-II

# Cluster of Sukhuapata Hill Stone Quarry Cluster quarry Lease Area Over 5.624 ha. (6 LEASES)

Quarry No.	Village	Tehasil	District	Khata No.	Plot No.	Kissam	Area in Acres/Ha.
1	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/1	Parbat-1	5.00/2.023
2	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/2	Parbat	1.50 /0.607
3	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/3	Parbat	2.40 / 0.971
4	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/4	Parbat	1.60 /0.647
5	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/5	Parbat	1.00 /0.405
6	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/6	Parbat	2.40 / 0.971

#### ANNEXURE-II

## Cluster of Sukhuapata Hill Stone Quarry Cluster quarry Lease Area Over 6.105 ha. (8 LEASES)

Quarry No.	Village	Tehasil	District	Khata No.	Plot No.	Kissam	Area in Acres/Ha.
7	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/7	Parbat	1.90/ 0.768
8	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/8	Parbat-1	1.70 / 0.687
9	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/9	Parbat	1.70 /0.687
10	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/10	Parbat	2.05 / 0.829
11	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/11	Parbat	2.40 / 0.971
12	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/12	Parbat	1.60 / 0.647
13	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/13	Parbat	1.85 / 0.748
14	Sukuapata Hill	Kaptipada	Mayurbhanj	53	571/14	Parbat	1.90 / 0.768

### ROAD METAL/BUILDING STONE MINING DSR OF MAYURBHANJ DISTRICT.

The District Survey Report for Road Metal/Building Stone/Black Stone Mining (Minor Mineral) in respect of Mayurbhanj District prepared in accordance with Appendix-X, Para -7 (iii) (a) of S.O. 3611 (E) Dt. 25.07.2018 of Ministry of Environment, Forest and Climate Change, New Delhi is approved for final publication in the district website.

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Collector & DM-cum- Chairman, DEIAA
Mayurbhanj (Odisha)

			C	THER THA	N SAND MII	NING (ROAD	ME	ĒΤ	AL/	BU	ILDIN	G SOTN	E/BLAC	CK STONE	≣)	Annexur	e - B	
Name of the Tahasil	SI No	Name of Mineral s	Name of Lessee	Address and Contact No. of Lessee	Mining Lease Grant Order No. & Date	Area of Mining lease (Ha.) with Village,Khata No, plot No & Kisam	Per o min Lea (Ini	of ing ase tial)	(1	f iing se st id ewa	Date of Comme ncemen t of mining Operati on	working/ temp working	Captive/ Non- Captive	Obtained environment al Clearance (Yes/No). If yes Letter no with date of EC	Location of Mining Lease ( Latitude & Longitued)	Method of Mining Open Cast/ Under Ground)	Geological Reserve (MT/Cums)	Mineable reserve (MT/Cums)
							From	To	From	To		etc.)						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Samakhunta	1	Stone	-	-	-	Area- 1.24 Ha , Vill- Mahulkarkachia, Khata No- 263, Plot No159/1, Kisam-Patharbani	-			-	-	Non Working	-	-	-	-	-	-
Samakhunta	2	Stone	-	-	-	Area -1.22 Ha, Vill- Mahulkarkachia, Khata No-263, plot No159/2, Kisam- Patharbani	-		1	1	1	Non Working	-	-	-	-	-	-
Samakhunta	3	Stone	-	-	-	Area -1.22 Ha, Vill- Mahulkarkachia, Khata No-263, plot No159/3 , Kisam- Patharbani						Non Working	-	-	-	-	-	-
Samakhunta	4	Stone	-	-	-	Area -1.25 Ha, Vill- Mahulkarkachia, Khata No-263, plot No159/1, Kisam- Patharbani						Non Working	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Samakhunta	5	Stone	-	-	-	Area- 0.88 Ha, Vill- Mahulkarkachia, Khata No-263, plot No694, Kisam-Patharbani	-	-	-	-	-	Non Working	ı					-
Samakhunta	6	Stone	-	-	-	Area -1.30 Ha, Vill- Rangibhole, Khata No-158, Plot No 328/1, Kisam- Patharbani	-	-	1	-	-	Non Working	,		-			-
Samakhunta	7	Stone	•	-	-	Area -1.30 Ha , Vill- Rangibhole, Khata No-159 , plot No 328/2, Kisam- Patharbani	-	-	-	-		Non Working	1	٠	٠	٠	٠	-
Samakhunta	8	Stone	٠	-	-	Area- 1.22 Ha , Vill-Gundihudi , Khata No-167, plot No398/1 , Kisam- Patharbani	-	-	-	-		Non Working	•	٠	-	٠	٠	-
Samakhunta	9	Stone	,	-	-	Area -1.25 Ha , Vill- Gundihudi , Khata No-167, plot No 398/2, Kisam- Patharbani	-	•		-		Non Working	ı	·	·	·	·	-
Samakhunta	10	Stone	-	-	-	Area - 0.87 Ha, Vill- Saratchandrapur, Khata No-419, Plot No307, Kisam- Patharbani	-	-	-	-		Non Working	ı	-	-	•	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Kuliana	11	Stone	Narendra Pradhan	At- Bijayramchand rapur, Ward No-21, Po- Baripada, dist- Mayurbhanj	992 dt.27.03.2015	Area- 1.510 Ha Vill-Kothabila Khata No-177, Plot No 1160, Kisam-Dunguri, Plot No- 1163, Kisam-Pathar Chatan, Plot No- 1177, Kisam- Dunguri	2015-16	2019-20		•	02.12.2016	Working	Non- Captive	Yes, No- DEIAA48, Dt.27.05.201 6	Latitude-22 05' 43" to 22 05' 49.3"N o Longitude-86 42' 35" to 86 42' 39.8"E	Open Cast	1,28,088 cum	68726 Cum
Kuliana	12	Stone	Narendra Pradhan	At- Bijayramchand rapur, ward no-21, Po- Baripada, dist- Mayurbhanj	No-VI-01/2015- 1730/CZ dt 29.06.2015	Area 1.093 Ha, Vill-Panijia, Khata No-152, Plot No 994, Kisam- Dunguri, Plot No- 1019, Kisam- Pathar Chatan 1047, Kisam- Dunguri, Plot No- 1087 1089, 1097, 1091, 1095, 1099, 1102 & 1108	2015-16	2019-20		-	31.12.2015	Working	Non- Captive	Yes, No- SEIAA- 4527, Dt.17.08.201 5	0 0 Latitude-22 02' 33" to 22 02' 36.1"N 0 Longitude-86 41' 25" to 86 41' 37"E	Open Cast	81,312 cum	69,688 cum
Kuliana	13	Stone	Su- Kumar Dash	At- Bijayramchand rapur, ward no-21, Po- Baripada, dist- Mayurbhanj	990/ 27.03.2015	Area- 3.166 Ha. Vill- Srichandanpur, Khata No-88, Plot- 319, Kissam- Patharbani	2015-16	2019-20	-	-		Non- working	Non- Captive	No	Latitude-20 03' 35" to 20 03' 41"N 0 Longitude-86 36' 21" to 86 36' 30"E	Open Cast	196056 cum	139824 cum
Bangriposi	14	Stone	Biswaraj Mohanty	At/Po- Baripada, Mayurbhanj,94 37189062	64 Dt.27.05.2016	Area - 0.81Ha, Village:-Nafri, Khata No 178, Plot No: - 264, Kisam : - Patharbani	2015-16	2019-20	-	-		Working	-	64 dt. 27.05.2016	22 07"20" to 22 07"25"North and 86 33" 59" to 86 34"02"East	-	39428	30960

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bangriposi	15	Stone	Suguda Murmu & others	At/Po- Dhobanisole, Bangriposi, Mayurbhanj,94 37935744	66 Dt.27.05.2016	Area- 2.43 Village:-Nafri Khata No178 Plote No:- 695/1 Kisam :- Patharbani	2015-16	2019-20	-	-	-	Working	-	66 Dt. 27.05.16	22 07"28" to 22 07"233"North and 86 33" 65" to 86 34"02"East		248760	170550
Bangriposi	16	Stone	Bibudhendu Ku. Das	At- Ambikasahi, Baripada, 9437161645	163 Dt.14.01.2016	Area- 3.24 Ha, Village:- Mundhabani , Khata No - 74, Plot No:- 406/2, Kisam : Patharbani	2015-16	2019-20	-	-	-	Working	-	163 Dt. 26.01.2016	22 06"55.2" to 22 07" 01.9"N & 86 39" 49.3" to 86 39 "57.1E		245221	117647
Bangriposi	17	Stone	Bibudhendu Ku. Das	At- Ambikasahi, Baripada, 9437161645	6227 Dt.27.05.2016	Area:- 2.83 Ha Village:- Mundhabani Khata No 74 Plot No:- 406/1 Kisam :- Patharbani	2015-16	2019-20	-	-		Working	-	6227 Dt. 27.05.2016	22 06"55.02"N to 22 07"8.8"N & 86 39"38.3"E to 86 39"46.6" E	-	280704	211392
Bangriposi	18	Stone	Nirbhay Kumar Pallei, D.G.M. Hi-tech rock product, agrrigates ltd	3rd floor, landmark B. Suren Road Kolkata, 6370119380	2006, Dt. 27.05.2016	Area:- 3.2 Ha Village:- Mundhabani , Khata No- 74 Plot No: - 406/3, Kisam - Patharbani	2015-16	2019-20	-	-	-	Working	-	-	22 06"55.9"N to 22 07"17"N & 86 39"50"E to 86 39"56.6" E		848394	499228
Bangriposi	19	Stone	Bibudhendu Ku. Das	At- Ambikasahi, Baripada, 9437161645	6229, Dt. 27.05.2016	Area:- 0.31 Ha,Village:- Jagannathkhunta, Khata No 321, Plot No- 1310, Kisam :- Huli	2015-16	2019-20		-	-	Working	-	3792 30.07.2015	22 06"09 to 22 06"11 north & 86 38"58 to 86 38 58 east	-	10080	9264
Bangriposi	20	Stone	Jalandhar Reddy	Anusaha project pvt. Ltd, Bhubaneswar 9491383888	4255Dt.17.08.1 5	Area:- 3.24 Ha Village:-K.M.kata Khata No 488, Plot No:- 3371/1, Kisam- Patharbani	2015-16	2019-20		-		Working	-	4255 Dt 17.08.2015	22 05"10 to 22 05"15 N& 85 40"50to 85 40"58 E	-	194720	211392

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bangriposi	21	Stone	Suresh Kumar Behera	At/Po- Budamara, Bangriposi Mayurbhanj, 7008583860	3794, Dt.30.07.15	Area :- 0.983 Ha Village:-J.khunta Khata No- 322/68, Plot No:- 1092 &1093, Kisam -Patharbani	2015-16	2019-20				Working	-	3793 dt. 30.07.2015	22 06"12" to 22 06" 14 North & 86 38"52" to 86 38"42 east	-	16080	11460
Bangriposi	22	Stone	Shyamlal Bhattar & others	At/Po- Lalbazar, Baripada, 9438427038	673 Dt.27.03.2016	Area - 2.43 Ha Village:-Nafri Khata No 178, Plot No:- 695/1, Kisam -Patharbani	2015-16	2019-20	•		-	Working	-	66 dt. 27.05.2015	22 07"20" to 22 07"25"North and 86 33" 59" to 86 34"02"East	-	218304	138528
Bangriposi	23	Stone	Backbone Enterprises	At/po- Jagannathkhu nta, 7978956610	6231 Dt.27.05.2016	Area:- 3.42 Ha Village:- Mundhabani Khata No 74, Plot No: - 406/4, Kisam -Patharbani	2017-18	2022-23	-	-	-	Working	-	6227 dt 27.05.16	22 06"58.8"N to 22 07"17"N & 86 39"60"E to 86 39"58.6" E	1	546756	358918.2
Bangriposi	24	Stone	Arun Ku. Sarkar	Bhanjpur, Baripada, 9437161344	238 Dt. 28.02.2018	Area - 2.84 Ha Village:- Mundhabani, Khata No- 74 Plote No:- 406/5 Kisam -Patharbani	2018-19	2024-25	-		-	Working	-	3562 Dt. 15.08.2016	22 06" 45.2"N to 22 06"53.3N & 86 39"43.8"E to 86 39"51.3"E		374624	236400
Bangriposi	25	Stone	Priyabrata Das	Baripada, 9437681682	253 Dt.16.03.2018	Area - 4.30 Ha Village:- Mundhabani, Khata No- 74 Plot No:- 406/6 Kisam-Patharbani	2018-19	2024-25	•			Working	-	3568 15.08.2016	22 06"51.5"N to 22 06"56.5N & 86 39"41.3"E to 86 39"51.1"E	-	316432	171372

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bangriposi	26	Stone	Arun Ku. Sarkar & D.D. Bilder	Baripada, 9437161344	266 Dt.16.03.2018	Area :- 4.30 Ha Village:- Mundhabani, Khata No 74, Plot No:- 406/7, Kisam-Patharbani	2018-19	2024-25	•	-	•	Working	-	-	22 06"53.5 N to 22 06"59.9N & 86 39"44.3 E to 86 39"54.4E	-	308058	165248
Bangriposi	27	Stone	Mishra Construction	Baripada, 9437161344	266 Dt. 16.03.2018	Area - 4.30 Ha Village:- Mundhabani, Khata No- 74 Plote No- 406/8 Kisam -Patharbani	2018-19	2024-25		-	-	Working	-	3572 dt 15.08.2016	22 06"50.3" N to 22 06"56.9 N & 86 39"49.7" E to 86 39"59.1"E	-	308088	363200
Saraskana	28	Stone	-	-	No.1304/ Dt.08.5.2017	Area:-0.315Ha , Vill : - Ramachandrapur, Khata No114, Plot No 481, Kisam: -Patharbani	-	•	,	•		Non- working	-	Yes	Lat: 22'08' 47.3" N to 22'08' 49.4"N Longi : 86'40' 5.8" E to 86'40' 9.4" E	Under Ground	23560	9996
Saraskana	29	Stone	1	-	No.1342/ Dt.12.5.2017	Area:-1.40 Ha Vill :- Ichinda Khata No 809 Plot No136 kisam:- Patharbani		-		-		Non- working	-	No	Lat: 22'18' 20.1" N to 22'18' 24.5"N Longi : 86'30' 51.5" E to 86'30' 57.1" E	Under Ground	89224cum	80320cum
Saraskana	30	Stone		-	-	Area:- 0.979 Ha,Vill - Ambadiha, Khata No131, Plot No 690, Kisam:- Patharbani	-	-	•	-		Non- working	-	No	Lat: 22'13' 20.8" N to 22'13' 25.9"N Longi : 86'30' 46.8" E to 86'30' 49.9" E	Under Ground	64624cum	49300cum
Badasahi	31	Stone	SRI DILLIP KUMAR JENA	AT/PO- MORADA DIST- Mayurbhanj	Order No. 3167 dated 28.09.2015	Area- 2.063 Ha. Vill Tangasole Khata No 315 Plot No 720/1 Kisam- Hudi	2015-16	2019-20		•		Non- Working	Non- Captive	-	Lati. 21°51'16.4" N to 21°51'23.3"N Long. 86°39'2.1" E to 86°39'14"E	Open Cast	1,14,828 cum.	96,030 cum.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Udala	32	Stone	Bijay Ku. Behera	At-Manandi, Udala, Mayurbhanj	1897/02 dt.21.09.2016	Area - 0.8093 Ha, Vill- Hill Block-2, Khata No- 2, Plot No 1/02, Kisam-Patharbani	2015	2019-20	2017-18	2018-19	21.10.2016	Working	-	No.4072 dt.17.08.201 5	N21 34' 33"-21 34' 35" E86 36' 47"-86 36' 48"	Open cast	32946 CUMS	12,635 (Cums)
Udala	33	Stone	Askhay Ku. Behera	At-Manandi, Udala, Mayurbhanj	308/02 dt.03.06.2015	Area 0.2428 Ha ,Vill- Hill Block- 1,Khata No-2 , Plot No 01/01,Kisam- Patharbani	2015	2019-20	2017-18	2018-19	24.07.2017	Working	-	No.27 Dt.01.03.201 7	N21 34' 34.2"-21 34' 40.4" E86 36' 47.3"- 86 36' 51.2"	Open cast	55,800/- cums	21,375 (Cums)
Kaptipada	34	Stone	Sri Laxmidhar Nayak	Guapal P.S. Khaira Dist. Balasore Mob. No 9937312961	2231 Dt. 30.07.15	Area2.023 Ha, Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/1, Kisam- Parbat -I	2015-16	2019-20	•		01.02.2018	Non Working	Non- Captive	132/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'9.8" N to 21 <sup>0</sup> 19'13.9" N 86024'7.4" E to 86024'13.7"E	Open cast	314954	230849
Kaptipada	35	Stone	Narendra Nath Dhar	Mituani P.S Khaira Dist Balasore Mob.No 9437077411	2244 Dt. 31.07.15	Area0.607 Ha, Vill- Sukhuapata Hill Khata No- 53, Plot No 571/2, Kisam- Parbat -l	2015-16	2019-20	•		01.02.2018	Non Working	Non- Captive	134/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'13.8" N to 21 <sup>0</sup> 19'17.1" N,86024'9" E to 86024'11.9"E	Open cast	120000	58512
Kaptipada	36	Stone	Dambarudhar Nayak	Guapal P.S. Khaira Dist. Balasore Mob. No.943753189 7	2237 Dt. 30.07.15	Area-0.971 Ha Vill- Sukhuapata Hill , Khata No- 53, Plot No 571/3 , Kisam- Parbat -I	2015-16	2019-20	•	,	01.02.2018	Non- working	Non- Captive	136/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'15" N to 21 <sup>0</sup> 19'18.6" N,86024'11" E to 86024'16.4"E	Open cast	302616	177336
Kaptipada	37	Stone	Narendra Nath Dhar	Mituani P.S Khaira Dist Balasore Mob. 9437077411	2243 Dt. 31.07.2015	Area-0.647 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/4, Kisam- Parbat -I	2015-16	2019-20			01.02.2018	Non working	Non- Captive	138/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'17" N to 21 <sup>0</sup> 19'20.1" N, 86024'12.7" E to 86024'16.8"E	Open cast	183870	85320

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Kaptipada	38	Stone	Sanjay Ku. Puhan	Kainsari P.S. Udala Dist. Mayurbhanj Mob. 9777784222	2194 Dt.27.07.15	Area -0.4.5 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/5, Kisam- Parbat -l	2015-16	2019-20	-	-	01.02.2018	Non working	Non- Captive	140/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'19.1" N to 21 <sup>0</sup> 19'21.7" N, 86024'13.7" E to 86024'16.8"E	Open cast	84710	28814
Kaptipada	39	Stone	Dambarudhar Nayak	Guapal P.S. Khaira Dist. Balasore Mob. No.943753189	2235 Dt.30.07.15	Area -0.971 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/6, Kisam- Parbat -l	2015-16	2019-20	-		01.02.2018	Non- working	Non- Captive	142/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'16.8" N to 21 <sup>0</sup> 19'19.4" N, 86024'6.1" E to 86024'11.3"E	Open cast	207986	82496
Kaptipada	40	Stone	Bhramarabar Nayak	Mahumuhan P.S. SORO Dist. Balasore Mob. 9937664955	2234 Dt. 30.07.15	Area-0.768 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/7, Kisam- Parbat -I	2015-16	2019-20	-	1	01.02.2018	Non- working	Non- Captive	144/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'13.2" N to 21 <sup>0</sup> 19'15.1" N, 86023'18.6" E to 86023'24.2"E	Open cast	160177.5	67770
Kaptipada	41	Stone	Sushanta Parida	Sarat P.S. Sarat Dist. Mayurbhanj Mob. 9438116464	2251 Dt,31.07.15	Area -0.687 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/8, Kisam- Parbat -I	2015-16	2019-20	-	-	01.02.2018	Non- working	Non- Captive	146/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'16.0" N to 21 <sup>0</sup> 19'19.7" N,86023'18.7" E to 86023'22.0"E	Open cast	208656	97861
Kaptipada	42	Stone	Sanjay Ku. Puhan S/O Kulamani of Kainsari	Kainsari P.S. Udala Dist. Mayurbhanj Mob. 9777784222	2195 Dt. 27.07.15	Area -0.687 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/9, Kisam- Parbat -l	2015-16	2019-20	-	1	01.02.2018	Non- working	Non- Captive	148/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'20.6" N to 21 <sup>0</sup> 19'23.3" N, 86023'18.7" E to 86023'22.5"E	Open cast	142747	59265

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Kaptipada	43	Stone	Premalata Mohanty	Dunduria P.S. Kaptipada Dist. Mayurbhanj Mob.94372945 99	2254 Dt.31.07.15	Area-0.829 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/10, Kisam- Parbat -I	2015-16	2019-20	-		01.02.2018	Non- working	Non- Captive	150/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'21.8" N to 21 <sup>0</sup> 19'25.2" N, 86023'18.4" E to 86023'23.1"E	Open cast	235008	88956
Kaptipada	44	Stone	Sushanta Parida	Sarat P.S. Sarat Dist. Mayurbhanj Mob. 9438116464	2252 Dt. 31.07.15	Area-0.971 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/11, Kisam- Parbat -I	2015-16	2019-20		ı	01.02.2018	Non- working	Non- Captive	152/ DEIAA dt. 22.11.17	21 <sup>0</sup> 19'19.2" N to 21 <sup>0</sup> 19'22.5" N, 86023'21.1" E to 86023'26.4"E	Open cast	208656	97861
Kaptipada	45	Stone	Gyanaranjan Das	Goudagan P.S. Kaptipada Dist. Mayurbhanj 7606834870	2255 Dt. 31.07.15	Area-0.647 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/12, Kisam- Parbat -I	2015-16	2019-20	1	ı	01.02.2018	Non- working	Non- Captive	154/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'20.4" N to 21 <sup>0</sup> 19'24.2" N, 86023'24.9" E to 86023'29"E	Open cast	158320	69984
Kaptipada	46	Stone	Saroj Ku. Mohapatra	Khunta P.S. Soro Dist Balasore Mob. 9937664955	2250 Dt. 31.07.15	Area -0.748 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/13, Kisam- Parbat -l	2015-16	2019-20	1		01.02.2018	Non- working	Non- Captive	156/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'21.2" N to 21 <sup>0</sup> 19'25.3" N, 86023'30.2" E to 86023'32.4"E	Open cast	216908	80964
Kaptipada	47	Stone	Dambarudhar Nayak	Guapal P.S. Khaira Dist. Balasore Mob. No.943753189	2251 Dt.31.07.15	Area -0.768 Ha Vill- Sukhuapata Hill, Khata No- 53, Plot No 571/14, Kisam- Parbat -l	2015-16	2019-20			01.02.2018	Non- working	Non- Captive	158/ DEIAA dt 22.11.17	21 <sup>0</sup> 19'18.07" N to 21 <sup>0</sup> 19'23.5" N, 86023'29.1" E to 86023'31.8"E	Open cast	111086	73588.5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Kaptipada	48	Stone	Parshuram Mishra	Kaptipada P.S. Kaptipada Dist. Mayurbhanj Mob. 9853194199	2261 Dt. 31.07.2015	Area -0.006 Ha Vill- Kaladahi, Khata No- 378, Plot No 468, Kisam- Hudi	2015-16	2019-20	-	•	22.12.2017	Working	Non- Captive	160/ DEIAA dt 22.11.17	21 <sup>0</sup> 30'7.4" N to 21 <sup>0</sup> 30'8.08" N, 86032'54.09" E to 86032'55.07"E	Open cast	14508	3960
Kaptipada	49	Stone	-akantha Swain	Kuannrpur mahala P.S - igiri Dist balasore Mob. 9853225726	1749Dt.22.06.2 016	Area -1.226 Ha, Vill- Kaladahi, Khata No - 378, Plot No 67/1, Kisam- Hudi	2015-16	2019-20	1	1	22.12.2017	Working	Non- Captive	162/ DEIAA dt 22.11.17	21 <sup>0</sup> 30'30.8" N to 21 <sup>0</sup> 30'39.2" N, 86032'57.09" E to 86033'30.0"E	Open cast	33750	4050
Kaptipada	50	Stone	Bhaskar Chandra Parida	Udala P.S. Udala Dist. Mayurbhanj Mob. 9439640950	933 Dt.02.04.15	Area -0.56 Ha Vill- Narasinghabeda, Khata No- 213, Plot No 934/1, Kisam- Hudi -l	2015-16	2019-20	1	1	10.02.2016	Working	Non- Captive	164/SEIAA Dt. 14.01.16	21 <sup>0</sup> 32'54.4" N to 21 <sup>0</sup> 32'57.4" N, 86028'37.5" E to 86028'40.3"E	Open cast	49560	28985
Kaptipada	51	Stone	Sujit Kumar Khuntia of Udala	Udala P.S. Udala Dist. Mayurbhanj Mob. 9437237569	932 Dt.02.04.15	Area-0.404 Ha Vill- Narasinghabeda, Khata No- 213, Plot No 934/2, Kisam- Hudi -I	2015-16	2019-20	-	•	25.02.2016	Working	Non- Captive	369/SEIAA Dt. 25.01.16	21 <sup>0</sup> 32'57" N to 21 <sup>0</sup> 33'01.2" N, 86028'37" E to 86028'40"E	Open cast	42700	10192
Kaptipada	52	Stone	Hemanta Kumar Behera of Udala	Udala P.S. Udala Dist. Mayurbhanj Mob. 9437237569	1127 Dt. 20.04.2015	Area -1.618 Ha Vill- Hill Block 171, Khata No- 107, Plot No 129/1, Kisam- Parbat -I	2015-16	2019-20			25.02.2016	Working	Non- Captive	371/SEIAA Dt. 25.01.16	21 <sup>0</sup> 33'34.6" N to 21 <sup>0</sup> 33'43.3" N, 86027'58" E to 86028'4"E	Open cast	92476	31360

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Kaptipada	53	Stone	Prafulla Kumar Singh	AT/Po- Uttar Bc Pur	-	Area-1.04 Ha, Village- Uttar Bc Pur, stone quarry- 1, Khata No- 390 & 162, Plot No- 1145 & 1142, Kisam- Chaka-303 & 330	2018-19	2018-19	2018-19	2018-19	29.01.2019	Temp. Working	Non- Captive	Yes, Letter No- 34 dt. 25.09.2018 of DEIAA, 138 dt. 21.01.2019 of SPCB, Odisha	Lattitude-21 39' 2.1" N to 21 39' 11.7"N Longitude- 86 37' 29.8" E to 86 37' 36.2"E	Open	35,263	8032
Kaptipada	54	Stone	Ratha Majhi	AT/Po- Padampur	-	Area -0.44 Ha, Village- Khudapotali, stone quarry-1, Khata No- 208, Plot No- 447,449 & 467, Kisam- Sarad-II	2018-19	2018-19	2018-19	2018-19	29.01.2019	Temp. Working	Non- Captive	Yes, Letter No- 36 dt. 25.09.2018 of DEIAA, 128 dt. 21.01.2019 of SPCB, Odisha	Lattitude-21 39' 4.7" N to 21 39' 9.3"N Longitude- 86 37' 47.1" E to 86 37' 48.9"E	Open	14,032	4887
Kaptipada	55	Stone	Swarup Kumar Mishra	AT/Po/Ps- Betnoti	-	Hect0.26, Village- Uttar Bc Pur stone quarry-II , Khata No- 430, Plot No-1379, Kisam- Pathar Bani	2018-19	2018-19	2018-19	2018-19	29.01.2019	Temp. Working	Non- Captive	Yes, Letter No- 30 dt. 25.09.2018 of DEIAA, 136 dt. 21.01.2019 of SPCB, Odisha	Lattitude-21 38' 56.9" N to 21 38' 58.7"N Longitude- 86 37' 22.1" E to 86 37' 25.1"E	Open	34,139	14198
GB Nagar	56	Stone	Manas Ranjan Moharana, Vill - Satdharia, Sainkula	Satdharia, Sainkula, GB Nagar, Mob - 9668462062	2768/ 28.10.2015	Banakati Stone quarry, Village - Banakati, Khata - 301, Plot - 104, 2.04 Acres, (0.8256 Ha.) Kisam - Patharbani	2015 - 16			-	09.09.2015	Working		4112/ 17.08.2015 of SEIAA Bhubaneswa r	21° 39' 58" to 21° 40' 02"N 86° 39' 03" to 86° 39' 0.7" E	Open Cast	45150	33060

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
GB Nagar	57	Stone	Maheswa Jena, Vill - Machhua, Balasore	Macchua, Balasore	470/ 12.2.19	Surukuna Stone querry 2, Village - Surukuna, Khata - 287, Plot No - 1093, Area- 1.16 Acres,(1.278 Ha.) Kisam - Patharbani	2017-18	2021-22	-	-	01.2.2019	Working	-	26/ 25.9.18.2015 of DEIAA MAYURBHA NJ	21° 42' .15.5 to 21° 42' 18.9."N 86° 38' 58.7" to 86° 39' 2.5	Open Cast	14868	7700
GB Nagar	58	Stone	Raghunath Das, Vill - Kalyani, Balasore	Kalyani, Balasore, Mob - 8917296929	2265, dt - 24.05.2017	Surukuna Stone querry 1 , Village - Surukuna, Khata No - 287, Plot No - 1394 , Area- 3.16 Acres, (1.278 Ha), Kisam - Patharbani	2016-17	2020-21		-	24.05.2017	Non Working	•	37/ 1.3.2017 of DEIAA MAYURBHA NJ	21° 41' 56.8. to 21° 42'5.4 86° 39' 39.3 to 86° 39'7.9 E	Open Cast	50640	43068
GB Nagar	59	Stone	Sudhakar Rout, Vill - Pundal, Mitrapur Balasore	Nilagiri, Balasore	1462 dt. 28.03.2017	Raidiha Stone querry Village - Raidiha, Khata No -128, Plot No - 218, Area - 2.78 Acres (1.125 Ha), Kisam - Patharbani	2016 - 17	2020- 21		-	28.03.2017	Non Working	-	39/ 01.03.2017 of DEIAA Mayurbhanj	21° 37' 37.2" to 21° 37' 40.2"N 86° 38' 45.9"to 86° 38' 58.4" E	Open Cast	64080	14232
GB Nagar	60	Stone	-	-	-	Guddiha Stone querry, Village - Guddiha, Khata No -333, Plot No - 1739, Area - 2.39 Acres (0.967 Ha), Kisam - Patharbani	•		1	-		Non Working	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
GB Nagar	61	Stone	-	-	-	Anantasahi Stone querry, Village - Anantasahi, Khata No -151, Plot No - 262, Area - 6.00 Acres ( 2.428 Ha), Kisam - Patharbani	-	-	-	-		Non Working	-	-	-	-	-	
GB Nagar	62	Stone	,			Sialia-B Stone querry, Village - Sialia 152, Khata No -247, Plot No - 792, Area - 3.50 Acres (1.416 Ha), Kisam - Patharbani			-	-		Non Working	,	,		,		
GB Nagar	63	Stone	-	-	-	Sialia-B Stone querry, Village - Sialia-152, Khata No -247, Plot No - 1791, Area - 12.50 Acres (5.059 Ha), Kisam - Patharbani	•			•		Non Working	-	-	-	-	-	-
GB Nagar	64	Stone	-	-	-	Sialia-B Stone querry, Village - Sialia-152, Khata No -247, Plot No - 1713, Area - 05.64 Acres (2.283 Ha), Kisam - Patharbani	•					Non Working	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
GB Nagar	65	Stone	-	-	-	Sialia-B Stone querry , Village - Sialia-152, Khata No -247, Plot No - 1705, Area - 08.12 Acres (3.286 Ha), Kisam - Patharbani	-	-		-		Non Working	-	-	-	-	-	-
GB Nagar	66	Stone	-	-	-	Sialia-B Stone querry, Village - Sialia-152, Khata No -247, Plot No - 1819, Area - 04.95 Acres (2.003 Ha), Kisam - Patharbani	-	-				Non Working	-	-	-	-	-	-
Rairangpur	67	Stone	JADUMANI GIRI	At/PO- Rairangpur	2315/ Dt 07.10.2016	Area- 0.2019 Ha Vill- Dhalabeda Khata No 57 Plot No 138 & 144/346, Kisam- Patharbani	2015-2016	2019-2020			27.10.2016	Working	Non captive	YES, 82/ 27.05.2016	LO. 86°15'21.4" TO 86°15'24.1"E LA 22°18'11.2" TO 22°18'19.9"N	Open Cast	21612	10356
Rairangpur	68	Stone	ANURAG GUPTA	At/PO- Rairangpur	1625/ Dt 09.08.2016	Khata No 144 Plot No 799/1 Kisam- Patharbani Area- 0.846 Ha	2016-2017	2020-2021	·		24.07.2019	Working	Non captive	YES, 159/ 22.01.2019	LO. 86°13'58.8" TO 86°13'57.5"E LA 22°18'19.7" TO 22°18'19.8"N	Open Cast	27436	35759
Bijatola	69	Stone	Dillip Karmakar S/o- Lt. Ajay Karmakar	At/PO/PS- Rairangpur Mob No. 8249781068	Office Order No. 1061 / dt. 17.04.2015	Area- 0.279 Ha, Ac. 0.69 dec. Vill- Baghiatangar Khata No- 188, Plot No 1394, Kisam- Patharbani	2015 -16	2019-20		-	06.12.2016	Working	Non Captive	Yes	Baghiatangar 22°13'1.3" to 22°13'4.5" N 86°16'41.1" to 86°16'43.7" E	Open cast	44688	16032

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bijatola	70	Stone	Alok Kumar Agarwal S/o- Lt. Sri R.N. Agarwal	At/PO/PS- Rairangpur Mob No. 7008444022	Office Order No. 1419 / dt. 27.07.2016	Area- 0.404 Ha, Ac. 1.00 dec. Vill- Bhalkichua, Khata No- 96, Plot No 706, Kisam- Patharbani	2015-16	2019-20		•	23.11.2016	Working	Non Captive	Yes	Bhalkichua 22°12'0.6" to 22°12'7.1" N 86°16'16.4" to 86°16'18.1" E	Open cast	38496	12288
Bijatola	71	Stone	Pawan Kumar Agarwal S/o- Om Prakash Agarwal	At/PO/PS- Rairangpur Mob No. 9337188741	Office Order No. 778 / dt. 04.04.2015	Area- 0.999 Ha ( Ac. 2.47 dec.) Vill- Golmunda, Khata No- 173, Plot No 124,126,138,172,18 1 & 186, Kisam- Patharbani	2015-16	2019-20			07.12.2016	Working	Non Captive	Yes E.C. No. 1975 /Dt. 08.08.2016	Bhalkichua 22°12'26.4" to 22°12'34" N 86°14'31.1" to 86°14'52" E	Open cast	261145	48623
Bijatola	72	Stone	Birat Chandra Dogra S/o- Bisikesan Dogra	At/PO/PS- Rairangpur Mob No. 9437001739	Office Order No. 1237 / dt. 20.07.2018	Area- 0.169 Ha (Ac. 2.89 dec.) Vill- Raihari, Khata No- 217, Plot No 418, Kisam- Patharbani	2015-16	2019-20	•	,	30.10.2018	Working	Non Captive	Yes E.C. No. 1237 /Dt. 20.07.2018	Raihari 22°09'28.2" to 22°09'35.3" N 86°18'32.1" to 86°18'37.9" E	Open cast	89440	60284
Bijatola	73	Stone	Chandan Kumar Gupta S/o- Late Jyotish Gupta	At/PO/PS- Rairangpur (W. No6) Mob No. 9437239621	Office Order No. 2468 / dt. 14.12.2017	Area - 2.379 ( Ac. 5.88 dec.) Vill- Mundakati, Khata No- 195, Plot No 796, Kisam- Patharbani	2017-18	2021-22	-		18.01.2018	Non- working	Non Captive	Yes E.C. No. 34 /Dt. 04.01.2018	Mundakati  22°12'53.7" to 22°13'3.6" N 86°15'21.4" to 86°15'37.7" E	Open cast	240246	161560

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bijatola	74	Stone	Chandan Kumar Gupta S/o- Late Jyotish Gupta (2nd bidder)	At/PO/PS- Rairangpur (W. No6) Mob No. 9437239621	Office Order No. 296(1)/ dt. 03.02.2019	Area- 1.076 Ha(Ac.2.66 dec. ) Vill- Patpur, Khata No- 84, Plot No 583, Kisam- Patharbani	2017-18	2021-22	-	1	15.02.2019	Non- working	Non Captive	Yes E.C. No. 404 /Dt. 28.02.2018	Patpur 22°14'18.7" to 22°14'23.9" N 86°18'9.1" to 86°18'13.4" E	Open cast	97572	55724
Bijatola	75	Stone	Pradeep Parichha S/o- Late Maheswar Parichha (2nd bidder)	At/PO/PS- Rairangpur (W.No. 5) Mob No. 9437238627	Office order No. 386/ Dt. 28.02.2019	Area- 1.100 Ha (Ac.2.72 dec.) Vill- Taldiha, Khata No-76, Plot No 518/1, Kisam- Patharbani	2017-18	2021-22			01.03.2019	Non- Working	Non Captive	Yes E.C. No. 406 /Dt. 28.02.2018	Patpur 22°10'43.3" to 22°10'47.0" N 86°15'24.3" to 86°15'30.8" E	Open cast	69264	49289
Bijatola	76	Stone	-	-	-	Area- 2.496 Ha ( Ac. 6.17 dec) Vill- Mundakati , Khata No- 195, Plot No 1529, Kisam- Patharbani	-		-		•	Non- Working	-	-	-	-		
Bijatola	77	Stone	-	-	-	Area- 1.598 Ha (Ac. 3.95 dec. ) Vill- Damudibeda , Khata No- 167 , Plot No 705,708,732,733,84 4 & 846, Kisam- Patharbani						Non- Working	-	-	-	-		
Bijatola	78	Stone	-	-	-	Area- 1.294 Ha (Ac. 3.20 dec.) Vill- Tulasibani, Khata No- 96, Plot No 313, 331 & 362, Kisam- Patharbani	-		-	-		Non- Working	-	-	-	-		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bijatola	79	Stone	1	-	-	Area- 0.299 Ha ( Ac. 0.74 dec. ) Vill- Dambeda, Khata No- 66, Plot No 485, Kisam- Patharbani	-	•	-	-	•	Non- Working	1	1	•	1		
Bijatola	80	Stone	-	-	-	Area- 0.465 Ha ( Ac. 1.15 dec.) Vill- Bankadunguri, Khata No- 60, Plot No 570, Kisam- Patharbani	-		-	-	-	Non- Working	-		-			
Bijatola	81	Stone	-	-	-	Area- 1.315 Ha ( Ac. 3.25 dec.) Vill- Chhanpal, Khata No. 120, Plot No. 944, Kisam - Patharbani & Khandadeuli, Khata No- 165, Plot No 791, Kisam- Patharbani	-	1	-	-		Non- Working	-	-	-	-		
Bijatola	82	Stone		-	-	Area- 2.711 Ha ( Ac. 6.70 dec.) Vill- Barajiani, Khata No- 247, Plot No 2461, Kisam- Patharbani	-	•	-	-	-	Non- Working	,	٠	•	,		
Bijatola	83	Stone	-	-	-	Area- 3.791 Ha ( Ac. 09.37 dec.) Vill- Jaunti , Khata No-65, Plot No 239, 526 , 527 & 561 , Kisam- Patharbani		•				Non- Working	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bijatola	84	Stone	1	1	1	Area - 7.203 Ha ( Ac. 17.80 dec.) Vill- Belpahadi, Khata No-230, Plot No 921, Kisam- Abad Ajagya Anabadi	-	-		-		Non- Working	,	1	1	1	1	-
Bijatola	85	Stone	-	-	-	Area - 0.530 Ha ( Ac. 1.31 dec. ) Vill- Badjharan, Khata No-184, Plot No 958, 959 & 960, Kisam- Patharbani	-		-	-		Non- Working	-	-	-	-	-	-
Bijatola	86	Stone	-	-	-	Area- 3.456 Ha (Ac. 8.54 dec. ) Vill- Asana Khata No-89 , Plot No 388, 403, 695 & 697 , Kisam- Patharbani	•	,		-		Non- Working	-	-	-	-	-	-
Kusumi	87	Stone	Bimal Kumar Swain S/o- Late Radhakanta Swain	At/P.o- Dhangdimuta, P.s- Badampahar, Pin- 757047, Mayurbhanj, Odisha Contact No- 9437878610	716 Dated 23.03.2015	Area- 0.83 Ha, Vill-Raipada, Khata No- 150, Plot No 965,980 & 981, Kisam- Patharbani	2015-16	2019-20		-	29.08.2016	Working	Captive	Yes DEIAA Letter No. 34 / dt. 27.05.2016	Latitude( 22° 05' 3.0" to 22° 05' 9.5" N) Longitude ( 86° 01' 52.1" to 86° 01' 52.1" E)	Open Cast	145190	37500
Kusumi	88	Stone	Dukhishyam Mandal, S/o- Upendra Mandal	At/P.o- Murumdihi, P.s- Badampahar, Pin-757047, Mayurbhanj, Odisha	718 Dated 23.03.2015	Area - 1.03 Ha, Village-Langalsila, Khata No 361, Plot No 2243, Kisam- Patharbani	2015-16	2019-20			29.08.16	Working	Captive	Yes DEIAA Letter No. 38 / dt. 27.05.2016	Latitude( 22° 09' 20.8" to 22° 9'27.4" N) Longitude ( 86°12'43.3" to 86° 12' 53.5" E)	Open Cast	248196	130332

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Kusumi	89	Stone	Niranjan Giri S/o- Srinibasa Giri	At/P.o- Langalsila, P.s- Badampahar, Pin- 757050, Mayurbhanj , Odisha Contact No- 8018252209/738 1583800.	3102 /Dated 05.11.2015	Area - 0.979 Ha, Village-Langalsila, KhataNo361, Plot No 1307, Kisam- Patharbani	2015-16	2019-20			03.03.2017	Working	Captive	Yes DEIAA Letter No. 42 / dt. 27.05.2016	Latitude( 22° 10' 21.8"N to 22° 10'25.2" N) Longitude ( 86°12'55.9"E to 86° 13' 5.9" E)	Open Cast	70308	29808
Kusumi	90	Stone	Sri Krishna Kumar, S/o- Late Chandra Sekhar Prasad Sahu	289/2/4, Road No 10 Near Hanuman Mandir, P.o- Adityapur, Adityapur2, Seraikela- Kharsawan, Jharkhand Pin.No- 831013	2314 Dated 30.09.2015	Area - 1.01 Ha, Village-Langalsila, Khata No 361, Plot No2196, Kisam- Patharbani	2015-16	2019-20		-	25.04.2017	Working	Captive	Yes DEIAA Letter No. 42 / dt. 27.05.2016	Latitude( 22° 09' 26.4"N to 22° 09' 37.8" N) Longitude ( 86°12' 43.4" to 86°12' 48.9" E)	Open Cast	70344	23676
Kusumi	91	Stone	Bimal Kumar Swain, S/o- Late Radhakanta Swain	At/P.o- Dhangdimuta, P.s- Badampahar, Pin- 757047, Mayurbhanj, Odisha Contact No- 9437878610	724Dated 24.03.2015.	Area- 1.32 Ha, Village-Jodida, Khata No203, Plot No 4, Kisam - Patharbani	2015-16	2019-20			29.08.16	Working	Captive	Yes DEIAA Letter No. 40 / dt. 27.05.2016	Latitude( 22° 7' 29.5"N to 22° 7'45.7" N) Longitude ( 86°4'11.5" to 86° 4'25.4" E)	Open Cast	233000	53300
Kusumi	92	Stone	A- Kumar Sahu, S/o- Late Dwarika Nath Sahu	Vill- Dhangidimuta, P.S Badampahar, Pin- 757047, Mayurbhanj, Odisha, Contact- 9937134741	788 Dated 31.03.2015	Area - 0.70 Ha, Village-Tirildihi, Khata No94, Plot No316, Kisam - Patharbani	2015-16	2019-20			29.08.16	Working	Captive	Yes DEIAA Letter No. 14 / dt. 21.05.2016	Latitude( 22° 03' 43.8" to 22° 03'50.7" N) Longitude ( 86°03'50.8" to 86° 03'54.2" E)	Open Cast	84560	35475

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Kusumi	93	Stone	A- Kumar Sahu, S/o- Late Dwarika Nath Sahu	Vill- Dhangidimuta, P.S Badampahar, Pin- 757047, Mayurbhanj, Odisha, Contact- 9937134741	3122/ Dated 05.11.2015	Area- 0.94 Ha, Village- Purunapani, Khata No 265, Plot No 104 & 105, Kisam - Patharbani	2015-16	2019-20	-	-	29.08.2016	Working	Captive	Yes DEIAA Letter No. 34/ dt. 27.05.2016	Latitude( 22° 07' 48.0"N to 22° 07' 50.9" N) Longitude ( 86°10' 19.0" to 86°10' 22.2" E)	Open Cast	81720	44415
Kusumi	94	Stone	Bimal Kumar Swain, S/o- Late Radhakanta Swain	At/P.o- Dhangdimuta, P.s- Badampahar, Pin- 757047, Mayurbhanj, Odisha, Contact No- 9437878610	1373/ Dated 20.05.2015	Area- 0.829 Ha, Village- Purunapani, Khata No 265, Plot No 280/1, Kisam- Patharbani	2015-16	2019-20		-	29.08.2016	Working	Captive	Yes DEIAA Letter No. 30/ dt. 27.05.2016	Latitude( 22° 07' 11.4"N to 22° 07' 14" N) Longitude ( 86°10' 41.5" to 86°10' 46" E)	Open Cast	70380	49623
Kusumi	95	Stone	Satyendra Kumar Mishra, S/o- Late - amani Mishra	Being the Managing Director of SKM Infraenture PVT.Ltd, 242 New ColonyMining Road, P.O Keonjhar Garh, P.STown, Dist- Keonjhar, Odisha, Pin - 758001, Contact No-9437038114.	-	Area - 2.53 Ha, Village-Hatisikuli, Khata No 56 , Plot No- 418 , Kisam- Patharbani	2018-19	2022-23	-	-	02.02.2019	Working	Captive	Yes DEIAA Letter No. 215 / dt. 01.12.2017	Latitude( 22° 07' 59.8"N to 22° 08'6.2" N) Longitude ( 86°11'47.2" to 86° 11'53.9" E)	Open Cast	159348	125874

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
(Kusumi)	96	Stone	Manoj Kumar Agrawall, S/o- Shankar Hari Agrawall	4th Nagar Marg Choubey Colony, (P.O/Ps/Dist- Raipur	•	Area- 2.33Ha, Village- Uparbeda, Khata No697 ,Plot No 1100, Kisam- Patharbani	2018-19	2022-23	-	=	01.02.2019	(Working)	Captive	Yes DEIAA Letter No. 216/ dt. 01.12.2017	Latitude( 22° 10' (1.9"N to 22° 10' (06.8" N) (Longitude () 86°03' 39.3" to 86°03' 47.3" E)	Open Cast	176683	(136505)
Kusumi	97	Stone	-	-		Area-1.614 Ha, Village-Langalsila, Khata No-361, Plot No- 208 & Village- Mayurdar, Khata No138, Plot No 957, Kisam- Patharbani		-				Non Working	-	-	-	-	-	-
Bahalda	98	Stone	Basumati Sahoo	At/Po/PS- Bahalda, 9439219921	719/ 8.3.2017	Area -1.47 Ha , Village - Jhadgan , Khata No -141, Plot No -666, Kisam - Patharbani	2016-17	2020-21	•		8.3.2017	Working	Non Captive	Yes (78/ 27.5.2016)	Lat- 22°24'34" to 22°24'47" Lon-86°4'22.1" to 86°4'36.1"	Open Cast	158334	72380
Bahalda	99	Stone	Dhiren Ku. Misha,	At-Jhadgan PO/PS- Bahalda, 9437237493	824/ 23.03.2017	Area - 0.53 Ha, Village - Indkholi, Khata-544, Plot No -63/1, Kisam- patharbani	2015-16	2019-20		•	23.03.2017	Working	Non Captive	Yes (114/ 5.7.2016)	Lat- 22°24'46.3" to 22°24'49.1" Lon-86°6'37" to 86°6'40.3"	Open Cast	61824	41600
Bahalda	100	Stone	Rahul Yadav	At/PO/PS- Bahalda, Mb No.943754503 6	3404/ 9.11.2017	Area - 4.33 Ha, Village - Kanki, Khata No -186, Plot No - 39,185,186 & 187, Kisam- Patharbani	2016-17	2020-21		-	09.11.2017	Working	Non Captive	Yes (55/ 1.3.2017)	Lat- 21°23'39.5" to 21°23'51.3" Lon-85°5'49" to 85°6'1.1"	Open Cast	268009	160977

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bahalda	101	Stone	Dibyasachi Mohanta	At/Po/PS- Bahalda, 8249602769	3715/ 12.2.2017	Area - 3.24 Ha, Village - Bahalda, Khata No -587, Plot-2234/3199, Kisam- Patharbani	2015-16	2019-20		•	12.02.2017	Working	Non Captive	Yes 162/ 22.12.2016	Lat- 22°22'55.8" to 22°22'59.5" Lon-86°5'5.07" to 86°5'11.8"	Open Cast	643800	368298
Bahalda	102	Stone	Bishnu Ku. Sarada	At- Rairangpur, W.No6,Mbj,	3428/ 30.12.2016	Area - 1.04 Ha, Village - Gambharia, Khata No -219, Plot No - 1138 & 1147, Kisam- Patharbani	2016-17	2019-20		•	30.12.2016	Working	Non Captive	Yes 112/ 5.7.2016	Lat- 22°19'43.96" to 22°20'00.2" Lon-86°8'55.79" to 86°8'45.40"	Open Cast	6975	4720.5
Bahalda	103	Stone	Dinesh Ch. Das	At- Majhigan PO- Bahalda Road- PS- Tiring, 9583832109	1504/ 30.5.2017	Area - 0.59 Ha, Village - Sovapur, Khata No -65, Plot No-22, Kisam- Patharabni	2015-16	2019-20		•	30.5.2017	Working	Non Captive	Yes 76/ 27.5.2016	Lat- 22°22'15.1" to 22°22'18.2" Lon-86°5'37.9" to 86°5'41.0"	Open Cast	45210	23120
Bahalda	104	Stone	Dinesh Ch. Das	At- Majhigan PO- Bahalda Road- PS- Tiring, 9583832109	1802/ 22.6.2017	Area -0.41 Ha, Village - Tikhia, Khata No -224, Plot No -887, Kisam- Gochar	2015-16	2019-20	-	-	22.6.2017	Working	Non Captive	Yes, 74/ 27.5.2016	Lat- 21°19'38.7" to 21°19'45.3" Lon-86°09'47.6" to 86°09'53.2"	Open Cast	42297	22330
Bahalda	105	Stone	Dinesh Ch. Das	At- Majhigan PO- Bahalda Road- PS- Tiring, 9583832109	997/ 12.4.2017	Area -1.12 Ha, Village - Asana, Khata -98, Plot No- 741, Kisam - Patharbbani	2015-16	2019-20		•	12.4.2017	Working	Non Captive	Yes, 72/ 27.5.2016	Lat- 22°22'4.0" to 22°22'11.2" Lon-86°11'42.7" to 86°11'46.5"	Open Cast	8000	5432

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bahalda	106	Stone	Dinesh Ch. Das	At- Majhigan PO- Bahalda Road- PS- Tiring, 9583832109	184/ 18.1.2018	Area -1.21 Ha, Village - Tarana, Khata No - 304, Plot No -1472, Kisam - Patharbbani	2015-16	2019-20		-	18.1.2018	Working	Non Captive	Yes, 164/ 22.12.2016	Lat- 22°24'50.3" to 22°25'09.3" Lon-86°09'14.5" to 86°09'35.9"	Open Cast	421960	202658.8
Bahalda	107	Stone	Dinesh Ch. Das	At- Majhigan PO- Bahalda Road- PS- Tiring, 9583832109	186/ 18.1.2018	Area - 1.33 Ha, Village - Tarana, Khata No - 304, Plot No -1240, Kisam- Patharbbani	2015-16	2019-20	•	•	18.1.2018	Working	Non Captive	Yes, 166/ 22.12.2016	Lat- 22°25'18.3" to 22°25'26.5" Lon-86°08'39.3" to 86°08'46.17"	Open Cast	32252	141816
Bahalda	108	Stone				Area - 1.5 Ha, Village- Badkedam, Khata No- 597, Plot No - 2246 & 2273, Kisam - Patharbani						Non Working						
Bahalda	109	Stone				Area- 1.18 Ha, Vill- Anlajodi, Khata No - 164, Plot No - 586, Kisam- Patharbani						Non Working						
Tiring	110	Stone	Biswanath Saha	At- Randisahi, PO- Tiring PS- Tiring Dist Mayurbhanj	No. 641/ Dt.24.03.2015	Area 1.39 Ha Vill- Randisahi Khata No-153 Plot No 892/1 Kisam-Patharbani	2015-16	2019-20	•		12/15/2017	Working	Non- Captive	Yes, No.56/ 27.05.2016	Latitude- 22°31'27" N to 22°31'65.1" N Longitude- 86°5'3.0" E to 86°5'10" E	Open Cast	147980 Cum	90860 Cum

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Tiring	111	Stone	Mohini Ranjan Hota	At-Ichinda, W.No. 14, PS- Rairangpur Town Dist Mayurbhanj	No.393/ Dt.24.02.2015	Area 1.962 Ha Vill- Dolajodi, Khata No-172, Plot No 190, Kisam-Patharbani	2015-16	2019-20		-	16.01.2017	Working	Non- Captive	Yes No.54/ 27.05.2016	Latitude- 22°28'3.5" N to 22°28'10" N Longitude- 86°05'19.8" E to 86°05'25.1" E	Open Cast	328000 Cum	113275 Cum
Tiring	112	Stone	Smt. Ranjita Mishra	At-Jhadgan, Po- Bahalda, PS- Bahalda Dist Mayurbhanj	No.2054/ Dt.01.10.2015	Area- 0.54 Ha Vill- Baddalima Khata No-432, Plot No 208, Kisam-Patharbani	2015-16	2019-20			29.03.2017	Working	Non- Captive	Yes No.168/ 22.06.2016	Latitude- 22°27'27.42" N to 22°27'30.26" N Longitude- 86°03'57.92" E to 86°03'59.43" E	Open Cast	21408 Cum	9000 Cum
Tiring	113	Stone	Ranjit Sahu	At-Bahalda PS- Bahalda Dist Mayurbhanj	No.687/ Dt.31.03.2015	Area- 0.44 Ha Vill- Sandalima Khata No-118, Plot No 1133, Kisam-Patharbani	2015-16	2019-20			02.06.2017	Working	Non- Captive	Yes No.58/ 27.05.2016	Latitude- 22°25'45.4" N to 22°25'55.2" N Longitude- 86°04'5.7" E to 86°04'12.7" E	Open Cast	126000 Cum	71200 Cum
Tiring	114	Stone	Bipadara Mandal	At-Pandhada, PS- Tiring Dist Mayurbhanj	No.410/ Dt.27.03.2015	Area- 0.44 Ha Vill- Rengalbeda, Khata No-118, Plot No 1133, Kisam-Patharbani	2015-16	2019-20		•	02.06.2017	Working	Non- Captive	Yes No.58/ 27.05.2016	Latitude- 22°24'5.0" N to 22°24'58" N Longitude- 86°4'3.4" E to 86°4'8.7" E	Open Cast	97000 Cum	27600 Cum
Tiring	115	Stone	Abhimanyu Basa	At-Baddalima PS-Tiring Dist Mayurbhanj	No.599/ Dt.18.03.2015	Area- 0.75 Ha Vill- Nischintpur Khata No-82, Plot No 2, Kisam-Patharbani	2015-16	2019-20		-	26.09.2016	Working	Non- Captive	Yes No.50/ 27.05.2016	Latitude- 22°25'8.8" N to 22°25'15.3" N Longitude- 86°04'18.8" E to 86°04'27.5" E	Open Cast	154360 Cum	57139 Cum

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Tiring	116	Stone	·	-		Area- 1.456 Ha Vill- Bhagabandi, Khata No-119, Plot No 1125, Kisam-Patharbani	-		•	-			·	-	Latitude- 22°24'41.0" N to 22°24'48.1" N Longitude- 86°03'53.2" E to 86°03'58.5" E		48457	20790
Tiring	117	Stone		-		Area- 3.541 Ha Vill- Henseldihi Khata No-60, Plot No 707, Kisam-Patharbani	-		•	-			٠	-	Latitude- 22°27'6.0" N to 22°27'15.0" N Longitude- 86°02'55.5" E to 86°03'5.1" E		258215	162225
Tiring	118	Stone	·	-	·	Area- 1.319 Ha Vill- Mankididihi Khata No-106, Plot No 876,878 &1114, Kisam-Patharbani	-	-	•	-		-	•	-	Latitude- 22°27'46.3" N to 22°27'53.0" N Longitude- 86°04'0.1" E to 86°04'9.0" E		112408	53239
Tiring	119	Stone				Area - 0.11 Ha , Village- Damadihi, Khata No - 38, Plot No- 164, Kisam - Patharbani						Non Working						
Jamda	120	Stone	Deepak Kumar	At/po Rairangpur,Di st-	2173	Area - 2.784 Ha, Village - Kainpur, Khata No - 271 ,	3-17	)-21			08.11.2016	working	Non	Yes,L No- 130/ dt	Lat-22°16'5.9" to 22°16'12.5"	open cast	378000	319500
Jamua	120	Sione	Mohanty	MBJ,8658040 057	DT30.07.15	Plot No - 251, Kisam - Patharbani	2016-17	202		•	08.11	working	Captive	5.7.16	long-86°05'1.9" to 86°05'9.9"	open cast	370000	319300

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Jamda	121	Stone	Amiya ku Das	At/po Rairangpur,Di st- MBJ,8658040	2168 dt 30.07.2016	Area -2.23 Ha, Vill - Kainpur, Khata No- 273, Plot No - 260, Kisam-	2016-17	2020-21	•	1	08.11.2016	working	Non Captive	Yes,L No- 126/dt 05.07.16	Lat-22°16'11" to 22°16'18"	open caste	259200	207450
				057		Patharbani					0				long-86°05'6.1" to 86°05'13.9"			
	100	0.	Deepak	At/po Rairangpur,Di	2178 dt	Area - 0.676 Ha, Vill - Talgaon, Khata No- 172,	-17	-21			.02.2017		Non	Yes, L No -	late-22°15' 27.8" to 22°15'37.5"		00000	70500
Jamda	122	Stone	Kumar Mohanty	st- MBJ,8658040 057	30.07.15	Plot No - 484 & 477, Kisam - Patharbani	2016-17	2020	•	•	07.02.	working	Captive	132/ dt 05.07.16	long-22°15' 27.8" to 22°15'37.5"	open caste	90360	76560
				At-Gohira, Po- Pasna, Ps-		Area -2.064 Ha,					91				late-22°14' 17" to 22°14'24.3"			
Jamda	123	Stone	Manoj Kumar Mohanty	Jamda,Dist Mayurbhanj,	2163/dt. 30.07.2015	Vill - Deokundi, Khata No201,	2016-17	20-21			08.11.2016	working	Non Captive	Yes,L No- 128/ dt		open caste	263700	238950
			monanty	Mb- 9438038762	00:07:120:10	Plot. No 664, Kisam -Patharbani	20	07			08.7		Capave	05.07.10	long-22°15' 27.8" to 22°15'37.5"			
			Mrs. Diti	Mrs. Diti Krushna Mandal At- Ichinda,Po/Ps-		Area - 2.064 Ha, Vill - Mugudi, Khata No112,	9	4			119			Yes.L No-	late-22°14' 17" to 22°14'24.3"			
Jamda	124	Stone	Krushna Mandal	Rairangpur,Di st Mayurbhanj, Mb- 9437237638	1903/ dt.15.11.2018	Plot No 933,936,964 & 967, Kisam- Patharbani	2018-19	2013-2	1	ı	19.01.2019	working	Non Captive	198/ dt 01.12.17	long-22°15' 27.8" to 22°15'37.5"	open caste	119760	69988

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Jamda	125	Stone		-	-	Area - 1.63 Ha, Vill - Laxmiposi, Khata No 85, Plot No 71, Kisam - Patharbani	-	•	-	-		Non working			-	-	•	-
Jamda	126	Stone	-	-	-	Village- Baghia, Khata No-113, Plot No 52 (Area- 1.813 Ha) ,Plot No- 60 (Area- Ac 0.178 Ha), Kisam-Patharbani	-		-	-		Non working			-	-	-	-
Jamda	127	Stone	1	-	-	Village- Rumapahadi, Khata No149, Plot No 374, Area- 2.125 Ha, Kisam - Patharbani	-		-	-	-	Non working		1	1	1	1	-
Jamda	128	Stone	-	-	-	Area - 0.773 Ha, Vill - Kainpur, Khata No271, Plot No. 1372 & 1376, Kisam- Patharbani	-			-	٠	Non working		-	-	-	•	-
Karanjia	129	Stone	Nirbhay Kumar Palei,	Hi-Tech Rock Product & Aggregates, LTD, R/o Mount Poonamallie Road Manapakham P.O. Box 979 Chennai	-	Area-4.198 Ha, Vill-Murgapat, Khata No 189, Plot No98, Kissam- Patharabani	2015-16	2019-20			11.01.2016	Working	Captive	Yes ,13 dt. 01/03/2017	20 49'55.80" to 21 50' 12.60" N 8550' 55.10" to 85 51' 09.40" E	Open Cast	304550	258867.5

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Karanjia	130	Stone	Harish Chandra Saha, S/o Sachidananda Saha,	AT- SARADHA KARANJIA	1282//dt. 25.03.2015	Area -0.421 Ha, Vill-Andharjhari, Khata No 81, Plot No703, Kissam- Patharabani	2016-17	2020-21			10.03.2016	Working	Captive	470//dt. 30.01.2016	La-21'47'32.7" to 21'47'36.3 N Lo- 85'56'46.2 to 85'56,50.4 E	Open Cast	46,800	44460
Karanjia	131	Stone	Sumeet Kumar Agarwalla, S/o Ghanashya Agarwalla, Karanjia	AT/PO- KARANJIA	1362//dt. 27.03.2015	Area -0.817 Ha, Vill-Pingu, Khata No 146, Plot No1822, Kissam- Patharabani	2015-16	2019-20	,		18.02.2016	Working	Captive	468// dt. 30.01.2016	La-21'48'.5" to 21'48'12"N Lo- 85'53'3" to 85'53'6.6" E	Open Cast	13,880	9716.00
Karanjia	132	Stone	Deepak Kumar Sahu, S/o Baidhara Sahu of Hatiatangar	Hatianagar	-	Area -0.615 Ha, Vill-Chitraposi, Khata No 152, Plot No1383, Kissam- Patharabani	2018-19	2022-23			06.05.2108	Working	Captive	195/ 05.12.2017	21 48'33.29" to 21 48' 38.21" N 85 51' 18.29" to 85 51' 21.73"	Open Cast	1852	1814.96
Karanjia	133	Stone	Susanta Kumar Mohanty, S/o Gojendra Mohanty of Zeropoint	Zero Point	3047/15.07.201 5	Area -2.004 Ha, Vill-Murgapat, Khata No 189, Plot No50, Kissam- Patharabani	2017-18	2021-22		,	03.02.2017	Working	Captive	yes ,110/ 05/07/2016	21 49' 32.20" to 21 49' 48.50" N 85 50'45.0" to 85 50' 59.00" E	Open Cast	22840	13704
Karanjia	134	Stone	Rajendra Kumar Mohanta, S/o Lt.Naresh Chandra Mohanta, AT- Kerkera, Karanjia	AT- KERKERA, PO- KARANJIA, Mayurbhanj	1284// 25.03.2015	Area -1.2955, Vill- Kerkea, Khata No 270, Plot No 1771, Kissam- Patharabani	2017-18	2021-22			20.12.2017	Working	Captive	178// 22.12.2016	La-21'48'37'6" to 21'48'50'9" N Lo- 85'56'07'2" to 85'56'14'3" E	Open Cast	42575	25545

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Karanjia	135	Stone	Maheswar Jena, S/o Kartika Jena,	AT-Machhua, Balasore	2415//dt. 12.07.2018	Area -3.287 Ha, Vill-Jhaddumuria, Khata No 63, Plot No36, Kissam- Patharabani	2018-19	2022-23	-		03.07.2018	Working	Captive	168//dt. 01.12.2017	La- 21'48'4.4'N to 21'48'17.5 N Lo- 85'57'11.8'E to 85'57'17.4'E	Open Cast	125,850	0.90
Karanjia	136	Stone	Maheswar Jena, S/o Kartika Jena, AT-Machhua, Balasore	AT-Machhua, Balasore	2523//dt. 21.07.2018	Area -0.607 Ha Vill-Jhaddumuria Khata No 63, Plot No12/1, Kissam- Patharabani	2018-19	2022-23		·	03.07.2017	Working	Captive	176//dt. 01.12.2017	La-21'48'8.5N to 21'48'13.1'N Lo- 85'57'10'E to 85'57'14E	Open Cast	6,630	0.60
Karanjia	137	Stone	Sudhamayee Das, W/o Harish Chandra Das, AT-Karanjia,	AT/PO- KARANJIA	2970// 30.08.2018	Area -0.736 Ha, Vill-Diajodi, Khata No 152, Plot No898,918 & 919, Kissam- Patharabani	2018-19	2022-23	-	-	06.08.2018	Working	Captive	182// 01.12.2017	21°48'35.8"N 85°57'57.2"E	Open cast	55665	33399
Karanjia	138	Stone	Akshaya Kumar Behera,S/o Chakradhar Behera,	AT-Hirapur, PO-Rambag, PS-Jajpur, Dist- Jajpur	2914 /24.08.2018	Area -0.663 Ha, Vill-Diajodi, Khata No 152, Plot No950 & 952, Kissam- Patharabani	2018-19	2022-23			12.06.2018	Working	Captive	166//dt. 01.12.2017	21°48'39.5"N 85°57'55.4"E	Open cast	41374	24825
Karanjia	139	Stone	Md Nasir Hussen, S/o Md Abul Hassim,	AT- Chadheibhol, Karanjia	2873/ 21.08.2018	Area-0.736 Ha, Vill-Pahadbhanga, Khata No 81, Plot No273, Kissam- Patharabani	2018-19	2022-23	-		27.06.2018	Working	Captive	170//dt. 01.12.2017	La-21"50'17"N to 21'50,21"N Lo- 85'51'58" E to 85'52'8.4"E	Open cast	34,830	0.70

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Karanjia	140	Stone		-	-	Area- 0.15 Ha, Vill- Dari, Khata No- 178, Plot No 212, Kisam- Patharabani	•	•	-	-	1	Non- working	Non- captive		21°52'49.7"N 85°57'44.1"E	-		
Karanjia	141	Stone	·	-	·	Area- 0.48 Ha, Vill- Dihajodi, Khata No- 152, Plot No 210, Kisam- Patharabani		-		-	-	Non- working	Non- captive	·	21°48'59.5"N 85°57'31.5"E	ı		
Karanjia	142	Stone		-	-	Area - 0.96 Ha, Vill- Thianali, Khata No- 33, Plot No 107, Kisam- Patharabani		-	1	-	1	Non- working	Non- captive		21°52'06.7"N 85°57'03.5"E	-	32508	16805
Karanjia	143	Stone		-	-	Area- 0.052 Ha, Village- Birajadunathpur Sasan, Khata No61, Plot No29, Kissam- Patharabani	-	•	-	-		Non- working	Non captive		-			-
Karanjia	144	Stone	-	-	-	Area- 0.947 Ha, Village-Baddeuli ,Khata No - 146, Plot No -102,121 & 1630, Kissam- Patharabani		1	-	•	,	Non- working	Non captive	-	-	-	-	-
Karanjia	145	Stone	-	-	-	Area- 0.4696 Ha, Village-Sandeuli ,Khata No128, Plot No205, Kissam- Patharabani		•		•	·	Non- working	Non captive	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Karanjia	146	Stone	-	-	-	Area- 0.8249 Ha, Village-Bhanra, Khata No. 215, Plot No. 1110, Kissam- Patharabani			-	-	1	Non- working	Non captive	-	21'47'29.8N to 21'47'32.4N 85'53'57.1 E to 85'53'59.9E	-	18,855	6535.10
Karanjia	147	Stone	-	-	-	Area- 0.9554 Ha,Village-Bhanra ,Khata No. 215 , Plot No. 1088, 1998 , Kissam- Patharabani	·	·	-		,	Non- working	Non captive	-	Lt-21'47'25.4 N to 21'47'27.8N Ln- 85'53'45.02E to 85'53'49.3E	-	45,907	16766.40
Karanjia	148	Stone	-	-	-	Area- 0.4777 Ha, Village-Bhanra , Khata No. 215, Plot No. 1798 , Kissam- Patharabani	·		1	•	,	Non- working	Non captive	-	21'47'16.2N to 21'47'18.6N 85'53'55.3E to 85'53'58.9E	-	15985.2	4706.1
Karanjia	149	Stone	Sr Manager Odisha Construction Corporation Ltd (D.D. Builders ltd)	Karanjia	-	Area- 4.97 Ha , Village- Ramchandrapur , Khata No. 54, Plot No. 654, Kissam- Patharabani			,	-		Non- working	Captive	-	-	-	-	-
Karanjia	150	Stone	-	-	-	Area- 0.7044 Ha, Village-Nuagaon, Khata No. 142 , Plot No. 1128, Kissam- Patharabani				•		Non- working	Non captive	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Karanjia	151	Stone	-	-	-	Area- 0.5344 Ha, Village-Kerkera , Khata No. 270 , Plot No. 1968, Kissam- Patharabani	-	•	-	•		Non- working	Non captive	-	-	-	-	-
Karanjia	152	Stone	-	-	-	Area-0.8056 Ha, Village- Rengalbeda, Khata No. 140, Plot No. 293, Kissam- Patharbani	-		-	-	-	Non- working	Non captive	-	-	-	,	-
Karanjia	153	Stone	-	-	-	Area-1.0926 Ha, Village- Ghodaghagudi, Khata No. 117, Plot No. 110, Kissam-Patharbani	-			-	-	Non- working	Non captive	-	21'47'24' N to 21'47'34.3N and 85'58'23.4E to 85'58'31E	-	65718	23004
Karanjia	154	Stone	1	1	1	Area -1.25 Ha, Vill- Dihajodi, Khata No- 152, Plot No 88, Kisam- Patharabani	-	-		-		Non- working	Non- captive		21°48'28.4"N 85°57'12.0"E	ı	76752	32799
Karanjia	155	Stone	,	,	,	Area -0.5344 Ha, Vill- Patulidihi, Khata No- 46, Plot No 142 & 155, Kisam- Patharabani	-	-		-		Non- working	Non captive		21'49'14.6N to 21'49'18.1N 86'4'35.8E to 86.4.38.9E	1	28360	15625
Karanjia	156	Stone	-	-	-	Area- 0.4251 Ha, Village-Ghasada ,Khata No. 275 , Plot No. 2453 , Kissam- Patharabani	•	•		-		Non- working	Non captive	-	-		-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Karanjia	157	Stone	-	-	-	Area- 1.6639 Ha, Village-Ghasada, Khata No. 275, Plot No. 2383, Kissam- Patharabani	-		-	-	1	Non- working	Non captive	-	-	-	16605.6	12099
Jashipur	158	Stone	Birat Chandra Dagara, MD, Nabadurga Construction Pvt. Ltd, Rairangpur	At-Rairangpur (Ward No.15) PO- Rairangpur, PS- Rairangpur, Dist. Mayurbhanj	No.1261 Dt.19.04.16	Vill - Kumbharpandugan di , Khata No -182, Plot No -329, 331, 338 & 341, Area - 2.375 Ha, Kisam- Patharbani	2016-17	2020-21				Non- working	-	Yes. No.172 Dt.22.12.16	Latitude-22.00' 10.8" N to 22.00' 16.00" N Longitude- 86.03' 52.2" E to 86.04' 3.8" E	Open Cast	59,391 MT	21,766 MT
Jashipur	159	Stone	Birat Chandra Dagara, MD, Nabadurga Construction Pvt. Ltd, Rairangpur	At-Rairangpur (Ward No.15) PO- Rairangpur, PS- Rairangpur, Dist. Mayurbhanj	No.3457 Dt.01.10.16	Vill - Chaturisahi, Khata No -29, Plot No - 190, Area - 1.214 Ha, Kisam- Patharbani	2017-18	2020-21		•	,	Non- working	-	Yes. No.41 Dt.01.03.17	Latitude - 21.55' 23.9" N to 21.55' 28.9" N Longitude - 85.58' 28.1" E to 85.58' 33.2" E	Open Cast	24,243 MT	14,651 MT
Jashipur	160	Stone	Sri Dusashan Mohanta, Rugudi	At-Rugudi PO-Rugudi PS-Jashipur Dist. Mayurbhanj	No.687 Dt.24.03.15	Village- Rugudi, Khata No -243, Plot No - 1857/2, Area - 2.975 Ha, Kisam-Patharbani	2017-18	2019-20		-	-	Non- working	-	Yes. No.172 Dt.22.12.16	Latitude - 22.00' 10.8" N to 22.00' 16.00" N Longitude - 86.03' 52.2" E to 86.4' 3.8" E	Open Cast	339136 CM	222376 CM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Sukruli	161	Stone	Bishal Ku. Agarwalla	At/Po/P.S- Karanjia, Dist- Mayurbhanj	Order dt. 6.2.2016	Area -0.461 Ha Vill- Singda, Khata No-175, Plot No 1630, Kisam-Patharbani	2015-16	2019-20	2016-17	2018-19	6.2.2019	Working	Captive	Yes, 982 dt 16.03.2016	Location of Mining Lease( Latitude-21° 49'57.3" to 21° 50'01.5" N & Longitued-85° 54'55.8" to 85° 54'59.2" E)	Open Cast	39825	11936
Sukruli	162	Stone	Bishal Ku. Agarwalla	At/Po/P.S- Karanjia, Dist- Mayurbhanj	Oder dt. 17.3.2016	Area -4.451 Ha, Vill- Badbil , Khata No-119 , plot No 1363/1, 1364 & 1365, Kisam-Hudi	2015-16	2019-20	2016-17	2018-19	17.3.2016	Working	Captive	Yes, 601dt 30.01.2016	Location of Mining Lease( Latitude- 21°51'8.5" to 21°51'16.1 N & Longitued- 85°53'22.1" to 85°53'29.9 E	Open Cast	427310	356395
Sukruli	163	Stone	Bishal Ku. Agarwalla	At/Po/P.S- Karanjia, Dist- Mayurbhanj	Oder dt. 25.1.2016	Area -0.639 Ha Vill- Badbil -l, Khata No-119, Plot No 897, Kisam-Patharbani	2015-16	2019-20	2016-17	2018-19	25.01.16	Working	Captive	Yes, 4152 dt. 17.08.15	Location of Mining Lease( Latitude- 21°51'20.4" to 20°51'26.2"N & Longitued- 85°53'56.6" to 85°54'00.00")	Open Cast	59735	17635
Sukruli	164	Stone	Parwej Alam	At/Po/P.S- Barbil, Dist- Keonjhar	Order dt. 30.08.2016	Area -0.809 Ha Vill- Jambani, Khata No-16, Plot No 66/1, Kisam-Patharbani	2015-16	2019-20	2016-17	2018-19	30.08.16	Working	Captive	Yes, 122 dt. 05.07.2016	Location of Mining Lease( Latitude- 21°51'44.3" N to 21°51'49.6" & Longitued- 85°51'42.0" E to 85°51'45.6" E)	Open Cast	36660	25920

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Sukruli	165	Stone	Wasim Bari	At- Magurgadia, Keonjhar Town, Po/P.S- Keonjhar, Dist- Keonjhar	Order dt 28.3.2018	Area -1.833 Ha Vill- Fulguntha-1, Khata No-130, Plot No 967, Kisam-Patharani	2016-17	2020-21	2017-18	2018-19	28.03.2018	Working	Captive		Location of Mining Lease( Latitude- 21°50'27.05" N to 21° 50'37.89 N & Longitued- 85°53'04.12"E to 85° 53'1174" E)	Open Cast	185641	13839
Sukruli	166	Stone	Wasim Bari	At- Magurgadia, Keonjhar Town, Po/P.S- Keonjhar, Dist- Keonjhar	Order dt. 10.06.2016	Area -0.777 Ha, Vill- Fulguntha, Khata No-130, Plot No 671, Kisam-atharbani	2015-16	2019-20	2016-17	2018-19	10.06.2016	Working	Captive	Yes, 184 dt. 01.12.2018	Location of Mining Lease(     Latitude- 21°50'43"N to 21°50'47.5 N &     Longitued- 85°53'7.3" E to 85°53'12.9"E)	Open Cast	23856	14616
Sukruli	167	Stone	Babish Prusty	At- Pandarsil, Po- Sukruli, P.s- Raruan, Dist- Mayurbhanj	Order dt. 26.3.2018	Area -4.196 Ha, Vill- Bhramarposi, Khata No-169, Plot No 755, Kisam-Patharbani	2016-17	2020-21	2017-18	2018-19	26.3.2018	Working	Captive	Yes, 190 dt. 01.12.17	Location of Mining Lease( Latitude- 21°55'14.10" N to 21°55'40.81 N & Longitued- 85°53'31.42 E to 85°53'39.80" E)	Open Cast	216699.6	113932.8
Sukruli	168	Stone	Kalyan Sarkar	At/po- Joda, (Hudisahi), P.S- Joda, Dist- Keonjhar	Order dt. 6.3.2018	Area -3.213 Ha, Vill- Baliposi, Khata No-44, Plot No 81, Kisam- Patharani	2015-16	2019-20	2016-17	2018-19	21.3.2018	working	Captive	Yes, 108 dt.05.07.201 6	Location of Mining Lease( Latitude- 21°55'14.10"N to 21°55'40.81" N & Longitued- 85°48'49.2" E to 85°49' 00" E)	Open Cast	216699.6	113932.8

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Sukruli	169	Stone	Parameswar Sahu	At-Kakharupanha ,po- Sukruli, P.S- Raruan, Dist- Mayurbhanj	Order dt 6.3.18	Area -0.797 Ha, Vill- Kasiaeda, Khata No-136, Plot No1196, Kisam-Patharbani	2015-16	2019-20	2016-17	2018-19	27.1.2018	Working	Captive	Yes, 124/ 05.07.2016	Location of Mining Lease( Latitude-N 21°51'16.62" to 21°51'33.49"N & Longitued-E 85°26'25.21" to 85°49'41.77"E)	Open Cast	67745	24417.95
Sukruli	170	Stone	Babish Prusty	At- Pandarsil, Po- Sukruli, P.s- Raruan, Dist- Mayurbhanj	Order dt. 27.1.2018	Area -2.707 Ha, Vill- Galusahi, Khata No-155, Plot No 1528 & 1526, Kisam-Patharbani	2016-17	2020-21	2018-19	2019-20	27.1.2018	Working	Captive	Yes, 186/ 01.12.2017	Location of Mining Lease( Latitude- 21°53'05.56 N to 21°53'20.75" N & Longitued- 85°52'21.34" E to 85°52'29.57" E)	Open Cast	319110	198528
Sukruli	171	Stone	Pradeep Parichha	At- Pichhilighaty, Po/PS- Rairangpur town , Dist- Mayurbhanj	Order/ 2.7.2015	Area -0.857 Ha, Vill- Kusunpur-I, Khata No-186, Plot No 1987, Kisam-Parbat-II Hudi	2015-16	2019-20	2016-17	2018-19		Non- working	Captive	Yes, 118 dt.5.7.2016	Location of Mining Lease( Latitude- 21°50'12.6" N to 21°50'17.3"N & Longitued- 85°50'58.4" E to 85°51'00" E)	Open Cast	35040	14250

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Sukruli	172	Stone	Parwej Alam	At/Po/P.S- Barbil, Dist- Keonjhar	Order/ 30.8.2016	Area -0.752 Ha, Vill- Kusunpur, Khata No-186, Plot No 1506, Kisam-Patharbani	2015-16	2019-20	2016-18	2018-20	30.8.2016	Working	Captive	Yes, 120 dt.5.7.2016	Location of Mining Lease( Latitude- 21°50'17" N to 21°50'24" N & Longitued- 85°50'45.1" E to 85°50'47.3" E)	Open Cast	54894	21734
Sukruli	173	Stone	-	-	-	Area -1.619 Ha, Vill- Bad Teranti, Khata No-355, Plot No 1594, Kisam- Patharbani	2016-17	2020-21	2017-18	2018-19		Non- Working	Captive	-	Location of Mining Lease( Latitude- 21°55'51.23" N to 21°55'58.90" N & Longitued- 85°53'40.47" E to 85°53'44.46" E)	Open Cast	92031	72836
Sukruli	174	Stone	No biddr Found	-	-	Area -1.254 Ha, Vill- Nuabeda, Khata No-193, Plot No 168, Kisam-Patharbani	2016-17	2020-21	2017-18	2018-19	-	Non- Working	Captive	Yes, 192 dt.1.12.2017	Location of Mining Lease( Latitude- 21°55'6.6" N to 21°55'14.2" N & Longitued- 85°53'24.3" E to 85° 53'29.9" E)	Open caste	19625	14200
Thakurmunda	175	Stone	SK Taslim Arif	At/Po./Ps - Thakurmunda, Dist- Mayurbhanj, Mobile- 8327789225	1127 dt. 14.05.2015 & 1540 dt. 29.6.2015	Area -0.4046 Ha, Vill-Ghulughulia, Khata-202, Plot- 10/1, Kisam- Patharbani	2015-16	2019-20	1		8.7.16	Working	Non Captive	Yes Letter No. DEIAA /60 dt. 27.05.16	Latitude - 21° 23' 55.4"N to 21° 23' 59.4"N Longitude - 86° 08' 5.3"E to 86 08' 8.7"E	Open Cast	41000	18300

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Thakurmunda	176	Stone	Sri Pradeep Kumar Muduli	At/Po Anandpur,Dist- Keonjhar,mobile- 9437179179	1976 dt. 04.06.16	Area-0.2712 Ha, Vill- Nada, Khata No -104, Plot No- 134, Kisam- Patharbani	2017-18	2021-22	-	-	1.12.17	Working	Non Captive	Yes Letter No. DEIAA /29 dt. 01.03.17	Latitude - 21° 17' 9.2"N to 21° 17' 11.3"N Longitude - 85 °10' 54.8"E to 85° 54' 58.8"E	Open Cast	9432	4455
Thakurmunda	177	Stone	Sri Anjan Kumar Mohanta	At- Nishaposi, Po- Padiabeda, Ps- Thakurmunda Dist - Mauurbhanj, Mobile- 8658002409	3007 dt. 11.12.15	Area -0.165 Ha, Vill- Khandabandha, Khata No - 104, Plot No - 202, Kisam-Patharabani	2015-16	2019-20	-		23.7.16	Working	Non Captive	Yes Letter No. DEIAA /102 dt. 5.7.16	Latitude - 21° 35' 8.7"N to 21° 35' 12.7"N Longitude - 86° 04' 51.6"E to 86° 04' 53"E	Open Cast	11004	2244
Thakurmunda	178	Stone	Sri Anjan Kumar Mohanta	At- Nishaposi, Po- Padiabeda, Ps- Thakurmunda Dist - Mauurbhanj, Mobile- 8658002409	3001 dt. 11.12.15	Area -0.623 Ha, Vill- Khandabandha, Khata - 118, Plot- 49 & 49/1, Kisam- Patharabani, Patharbani	2015-16	2019-20			23.7.16	Working	Non Captive	Yes Letter No. DEIAA /104 dt. 5.7.16	Latitude - 21° 32' 55.4"N to 21° 32' 1.2"N Longitude - 86° 04' 12.9"E to 86° 04' 16.8"E	Open Cast	26760	12024
Thakurmunda	179	Stone	Sri Basanta Kumar Paibarty	At/Po./Ps Thakurmunda, Dist Mauurbhanj, Mobile - 9437252261	1126 dt. 14.05.15	Area -0.315 Ha, vill- Baliposi, Khata No - 140, Plot No- 297 & 297/1/1, Kissam- Patharachatana		2019-20	-	-	31.12.16	Working	Non Captive	Yes Letter No. DEIAA /36 dt. 27.5.16	Latitude - 21° 23' 21.2"N to 21° 23' 26.9"N Longitude - 86° 04' 26.2"E to 86° 04' 27.8"E	Open Cast	21684	9228

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Thakurmunda	180	Stone	Sri Anjan Kumar Mohanta	At- Nishaposi, Po- Padiabeda, Ps- Thakurmunda Dist - Mauurbhanj, Mobile- 8658002409	3005 dt. 11.12.15	Area -0.250, Vill- Nishaposi, Khata - 45, Plot- 139 & 139/1, Kisam- Patharabani	2015-16	2019-20	-	-	23.7.16	Working	Non Captive	Yes Letter No. DEIAA /106 dt. 5.7.16	Latitude - 21° 35' 26.8"N to 21° 35' 31.3"N Longitude - 86° 03' 57.8"E to 86° 04' 1.2"E	Open Cast	14832	3198
Thakurmunda	181	Stone	Baikur Raheman Khan	At- Kazisahi Samil Baliorada, Po./ Ps- Purunabazar Dist -Bhadrak,	2936 dt.07.06.17	Area -0.404 Ha, Vill- Satkosia, Khata - 93, Plot- 1056, Kisam- Patharabani	,			-		Non Working	-	-	Latitude - 21° 22' 24.3"N to 21° 22' 28.7"N Longitude - 86° 07' 56.3"E to 86° 07' 58.1"E	Open Cast	57474	35287
Thakurmunda	182	Stone	SK Taslim Arif	At/Po./Ps - Thakurmunda, Dist- Mayurbhanj, Mobile- 8327789225	2937 dt.07.06.17	Area -0.404 Ha, Vill- Ghulughulia, Khata - 202, Plot- 10/2, Kisam- Patharabani	-		-	-	-	Non Working	-	-	Latitude - 21° 23' 59.1"N to 21° 24' 3.9"N Longitude - 86° 08' 7.3"E to 86° 08' 10.6"E	Open Cast	38304	19152
Thakurmunda	183	Stone	Sri Anjan Kumar Mohanta	At- Nishaposi, Po- Padiabeda, Ps- Thakurmunda Dist - Mauurbhanj, Mobile- 8658002409	2394 dt.02.08.2018	Area -1.011 Ha, Vill- Purunapani, Khata - 170, Plot- 1160/1 & 1160, Kisam-Patharabani	-	ı		-		Non Working	-	-	Latitude - 21° 36' 21.5"N to 21° 36' 26.6"N Longitude - 86° 05' 51.9"E to 86° 05' 58.8"E	Open Cast	77350	40229

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Thakurmunda	184	Stone	Sri Anjan Kumar Mohanta	At- Nishaposi, Po- Padiabeda, Ps- Thakurmunda Dist - Mauurbhanj, Mobile- 8658002409	2396 dt.02.08.2018	Area -1.12 Ha, Vill- Khasakudar, Khata - 61, Plot- 496/1, 496 & 494 Kisam- Patharabani	-	•		-	-	Non Working	-	No	Latitude - 21° 35' 22.5"N to 21° 35' 34.6"N Longitude - 86° 03' 30.7"E to 86° 03' 32.5"E	Open Cast	49170	16776
Thakurmunda	185	Stone	-	-	-	Area -0.1093 Ha, Vill- Khandabandha, Khata No - 104, Plot No -307, Kisam-Patharbani	-			•	,	Non- working	-	-	-	-	-	-
Thakurmunda	186	Stone	-	-	-	Area -0.0809 Ha, Vill- Gourigada, Khata No - 58, Plot No -30, Kisam- Patharbani	-			-	,	Non- working	-	-	-	-	-	-
Thakurmunda	187	Stone	-	-	-	Area-0.4048 Ha, Vill- Taramara, Khata No - 292, Plot No -1657/1, Kisam-Patharbani	1		1	-	-	Non- working	-	-	-	-	-	-
Thakurmunda	188	Stone	-	-	-	Area-0.4048 Ha, Vill- Taramara, Khata No- 292, Plot No-1657/2, Kisam-Patharbani	-		1	•	,	Non- working	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Thakurmunda	189	Stone	-	-	-	Area-0.2024 Ha, Vill- Jadibil, Khata No - 85, Plot No - 749/1, Kisam- Patharbani	•	1	-	-	-	Non- working	-		-	-	,	ı
Thakurmunda	190	Stone	-	-	-	Area-0.2024 Ha, Vill- Sunariposi, Khata No - 70, Plot No -603/1, Kisam- Patharbani	-	•	,	-		Non- working	-	-	-	-	-	-
Thakurmunda	191	Stone	Sri Ajay Kumar Nayak, on behalf of Sri Durga Condev. Pvt. Ltd	Vill- Ichhapur, Po/Ps- Jagatpur, Dist- Cuttack at present At/Po/Ps- Thakurmunda	2016 dated 26.08.15	Area-0.2429 Ha, Vill- Sunariposi, Khata No- 70, Plot No-569/1, Kisam- Patharbani			-	-		Non- working	-	-	-	-	-	-
Thakurmunda	192	Stone	Sri Pradeep kumar Muduli	Vill / Po/Ps- Anandpur, Dist- Keonjhar	2033 dated 27.08.15	Area-0.0607 Ha, Vill- Duarsuni, Khata No- 39, Plot No-682/1, Kissam- Patharbani	-	1	1	-		Non- working	-	-	-	-	-	-
Thakurmunda	193	Stone				Area-3.340 Ha, Vill- Khandabandha, Khata No - 104, Plot No -272, Kisam-Patharbani	-		-	-	-	Non- working	1	-	<u>-</u>	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Thakurmunda	194	Stone				Area -1.655 Ha., Vill- Daunlikila, Khata No - 66, Plot No-483, Kisam- Patharbani	-	•	-	-		Non- working	-	-	-	-	-	-
Thakurmunda	195	Stone				Area-0.668 Ha, Vill- Nada, Khata No- 104, Plot No-133, 141 & 146 Kisam- Patharbani	-	-	-	-		Non- working	-	,	-	-	-	-
Raruan	196	Stone	Kamalakanta Mahanta,	At/P.O- Nuagan, P.S- Ghagarbeda, Mob. 9439091905	831 Dt.24.03.2015	Area-0.623 Ha Vill- Bamanposi, Khata No-174, Plot No 965/1, Kisam-Patharbani	2015-16	2019-20	-	1	16.05.2017	Working	Non- captive	Yes , 182/DEIAA 22.12.2016	GPS- Lat. 22° 03' 50.1"N to 22° 04' 01" N Long. 85° 46' 51.9"E to 85° 46' 56.2" E	Open Cast	40843 cum.	21123 cum.
Raruan	197	Stone	Kamalakanta Mahanta,	At/P.O- Nuagan, P.S- Ghagarbeda, Mob. 9439091905	810 Dt.23.03.2015	Area-1.133 Ha Vill- Jamuti Khata No-179 Plot No 602/2 Kisam-Patharbani	2015-16	2019-20	-		25.03.2017	Working	Non- captive	Yes , 242/SEIAA 14.01.2016	GPS- Lat. 21° 58' 45.4"N to 21° 58' 55.9" N Long. 85° 48' 32.2"E to 85° 48' 39.8" E	Open Cast	20505 cum.	15144 cum.
Raruan	198	Stone	Kamalakanta Mahanta,	At/P.O- Nuagan, P.S- Ghagarbeda, Mob. 9439091905	823 Dt.23.03.2015	Area-0.404 Ha Vill- Raikala, Khata No-151, Plot No 945/1, Kisam-Hudi	2015-16	2019-20	•	-	28.02.2018	Working	Non- captive	Yes , 68/DEIAA 27.05.2016	GPS- Lat. 22° 01' 31"N to 22° 01' 34.3" N Long. 85° 41' 52.9"E to 85° 41' 55.9" E	Open Cast	23587.2 cum.	10034.4 cum.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Raruan	199	Stone	M/S S.G Minerals, Partner,Sangra m Kehari Mohanty	At/P.O-Moudi, P.S-Jashipur, Mob.98616360 60	818 Dt.23.03.2015	Area-0.808 Ha Vill- Balanposi, Khata No-194, Plot No 225/1 & 225/3 Kisam-Patit	2015-16	2019-20	-		14.11.2017	Working	Non- captive	Yes , 94/SEIAA 11.01.2016	GPS- Lat. 22° 00' 41.3"N to 22° 00' 47.4" N Long. 85° 58' 14.8"E to 85° 58' 20.8" E	Open Cast	111209.8 cum.	35853 cum.
Raruan	200	Stone	Kamalakanta Mahanta,	At/P.O- Nuagan, P.S- Ghagarbeda, Mob. 9439091905	820 Dt.23.03.2015	Area-0.389 Ha Vill- Nayabeda, Khata No-220, Plot No 648, Kisam-Patharbani	2015-16	2019-20			16.05.2017	Working	Non- captive	Yes , 184/DEIAA 22.12.2016	GPS- Lat. 21° 58' 48.1"N to 21° 58' 52.3" N Long. 85° 47' 18.9"E to 85° 47' 22.0" E	Open Cast	7995 cum.	2835 cum.
Raruan	201	Stone	-	-	-	Area-0.364 Ha Vill- Rangamatia, Khata No-173, Plot No 78, Kisam-Patharbani	2015-16	2019-20	-			Non Working	-	Yes , 70/DEIAA 27.05.2016	GPS- Lat. 22° 05' 43.9"N to 22° 05' 44.3" N Long. 85° 47' 07"E to 85° 47' 07.9" E	-	15980.8 cum.	7226.47 cum.
Raruan	202	Stone	-	-	-	Area-0.607 Ha Vill- Jamuti, Khata No-179 , Plot No 602/1, Kisam- Patharbani	2016-17	2020-21	-	•		Non Working	-	Yes , 17/DEIAA 01.03.2017	GPS- Lat. 21° 58' 43.7"N to 21°58' 48.1" N Long. 85° 48' 19.2"E to 85° 48' 25.7" E	-	9701 cum.	4535 cum.
Raruan	203	Stone	SK Immam Hossain	At/P.O/P.S- Jashipur, Mob.94373215 25	3467 Dt.13.12.2016	Area-0.405 Ha , Vill- Kantasimila, Khata No-158, Plot No 381/1, Kisam- Patharbani	2016-17	2020-21			16.08.2018	working	Non- captive	Yes , 63/DEIAA Dt.10.05.201 7	GPS- Lat. 21° 59' 56.5"N to 21°59' 59.8" N Long. 85° 54' 6.2"E to 85° 54' 58.8" E	Open Cast	12744 cum.	7560 cum.