

**EXECUTIVE SUMMARY OF  
DRAFT ENVIRONMENTAL IMPACT ASSESSMENT AND  
ENVIRONMENTAL MANAGEMENT PLAN  
FOR  
LIMESTONE QUARRY,  
TOTAL MINE LEASE AREA- 3.977 Ha.  
TOTAL AREA OF DULNA MINE CLUSTER IS 7.85 Ha.**

S. No.	Project Proponent	Khasra No.	Area	Production/Year
1	Smt. Kavita Jain	433/1, 590, 591	1.377 Ha.	53,485 Ton/Year
2	Shri Saket Jain	657, 658, 663, 665, 666, 668, 693, 694, 695, 696, 697 & 698	2.60 Ha.	50,002.5 Ton/Year

**AT**

**Village - Dulna, Tehsil- Abhanpur, District Raipur, Chhattisgarh**

**Project Activity - Mining of Minerals 1(a) (i)  
Project Category – B1**

1. Smt. Kavita Jain ToR Letter No. 3007 dated 14/02/2024
2. Shri Saket Jain ToR Letter No. 3005 dated 14/02/2024

**MONITORING PERIOD- 1<sup>st</sup> December 2022 to 31<sup>th</sup> MARCH 2023**

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A NABET ACCREDITED CONSULTANT**

## **EXECUTIVE SUMMARY**

### **Project Proposal**

**“Limestone Quarry” at Dulna, Tehsil- Abhanpur, District Raipur, Chhattisgarh**

### **Proponent**

**M/s Smt. Kavita Jain, Shri Saket Jain**

S. No.	Particular	Details
<b>Environmental Sensitivity</b>		
	Nearest Village	Dulna Village, Approx 0.25 km in NE direction
	Nearest Town	Gobra Nawapara, approx 3.5 Km in NE direction
	Nearest National / State Highway	NH- 130C is approx. 3.5 km in North direction.
	Nearest Railway Station	Arang railway station which is approx. 36 km in NNE direction
	Nearest Airport	Swami Vivekanand International Airport, Raipur- Approx. 38.6 km in NE.
	Ecological Sensitive Areas (National Park, Wild Life Sanctuaries, Biosphere Reserve etc.) within 15 km radius.	None
	Reserved / Protected Forest within 15 km radius	No any Reserved/Protected Forest within 15 km radius.
	Water bodies within 15 km radius of the mine site.	Kurud Dam- Approx. 3.1 km in South Direction
	Archaeological Important Place	None
	Seismic Zone	III

### **1.0 Introduction**

The proposed **“Limestone Quarry”** Mine comes under located at Village Dulna, Tehsil- Abhanpur, District- Raipur, Chhattisgarh. The proposed production capacity of Limestone Quarry belongs to Smt. Kavita Jain and Shri Saket Jain. The lease area is private land. As per the EIA notification of Ministry of Environment Forests and Climate Change, Government of India (MoEF&CC), dated 14<sup>th</sup> September, 2006, as amended from time to time. this project falls under category ‘B’ project, activity 1(a) of EIA Notification (due to cluster of mine lease area is more than 5ha.), an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) is required for obtaining Environmental clearance based on TOR as approved by the statutory authority, the TOR was granted by State Environment Impact Assessment Authority .

This EIA has been prepared as per the Terms of Reference granted and the EIA Notification. Further to assess the impact on environment, it is necessary to ascertain present status of environment prevailing at the project site and proposed operation including identification and Assessment of impact on the environment.

Keeping these points and statutory requirement in view, this Environment Impact Assessment Report and Environmental Management Plan (EMP) (here in after described as the EIA/EMP Report) has been prepared. Environmental Study has been carried out within 10 km radius of the mine area over a period of **01<sup>st</sup> December, 2022 to 31<sup>th</sup> March.**

### **1.1 Need for the Project**

Limestone is an essential mineral commodity of national importance. The region surrounds the project area is economically backward mostly dependent on seasonal farming. The per capita income of villages is much below the national average. The proposed project will have positive impact interm of the socio-economic status of the people, increase opportunities for employment, and earn revenue in term of royalty, sales tax and district mineral fund to the state government. In India Limestone is used in the manufacturing of cement which fulfills the requirement of Industrial, infrastructure, and residential construction activities. It is also used in the manufacturing of Poly fibre. The proposed limestone production will be used by cement plant of the region and overburden will be utilized for backfilling.

### **2.0 Topography and Drainage Pattern**

#### ***Topography:1. Smt. Kavita Jain***

The area is about 0.32 km in North direction from Dulna village. The maximum elevation is about 288m. The whole lease area is a flat land in which there is a worked out area is present. The worked out area area is having maximum depth 5.5m the area is devoid of vegetation.

#### ***2. Saket Jain***

The area is about 250 m from the village Dulna in the north east direction. The lease area is flat terrain with devoid of vegetation. The general surface level is 287 m from M.S.L. The lease area has been surveyed on a scale of 1:1,000 with contour interval of one meter. Mahanadi River is present about 100 m south of the lease area.

Source- Approved Mine Plan

### **2.1 Geology**

#### **The area showing a nature and extent of the mineral body**

The area around Dulna village comes under Charmuria Formation of Raipur Group of Chhattisgarh Supergroup. Charmuria Formation comprises of Phosphatic limestone with shale inter-beds, cherty limestone and Phosphatic dolomite, chert-shale interbeds.

#### **The area showing a nature and extent of the mineral body**

The area around Dulna which is situated in Tehsil Abhanpur is covered by limestone of Charmuria formation of Raipur Group of Chhattisgarh Supergroup. This mineral body is homogeneous in nature. On the basis of detailed geological mapping nearby pits etc of the area and lithology of the area following sequence:

Soil

Limestone

**(Source- Approved Mining Plan)**

## 2.2 Reserves

**Geological Reserve:**

### Reserves Calculation

Reserves	Smt. Kavita Jain	Shri Saket Jain
<b>1) Geological Reserve (in Tons)</b>	9,12,575 Tons	16,43,730 Tons
<b>2) Mineable Reserve</b>	3,65,209.25 Tons	5,31,440 Tons
<b>3) Recoverable Reserve</b>	3,46,948.78 Tons	5.15,496.8 Tons

### Mineral Benefication:

No mineral benefication is needed as the mineral produced from this mine is to be displaced in crude form. No activity for up gradation of mineral at the mine site shall be carried out.

*(Source- Approved mine plan)*

### Resources optimization / Recycling and reuse envisaged in the project

- a. All the machinery & equipment used in the present will be put to use in other similar project once the project is completed.
- b. Waste water generated will be sent to septic tank/soak pit.
- c. Rainwater harvesting will be carried out during the operational phase and harvested water will be stored in ponds in the slope areas. This water will be used for sprinkling plantation and sanitary use.
- d. Safety zone will be created around the mining lease area to avoid any eventualities and barrier will impose through plantation.
- e. Proper restoration of the mine lease area will be carried out at the end of the mining through scientific way. Mine restoration plan will be suggested.

Year	Production in Year	
	Smt. Kavita Jain	Shri Saket Jain
<b>1<sup>st</sup> Year</b>	5135.7	50002.5
<b>2<sup>nd</sup> Year</b>	53437.5	50002.5
<b>3<sup>rd</sup> Year</b>	55724.62	50002.5
<b>4<sup>th</sup> Year</b>	48820.5	50002.5
<b>5<sup>th</sup> Year</b>	44714.12	50002.5
<b>Total</b>	<b>254053.74</b>	<b>250012.5</b>

### **2.3 A tentative Plan of quarrying, annual program and plan for excavation from year to year for five year.**

#### **2.3.1 A tentative Plan of quarrying, annual program and plan for excavation from year to year for five year.**

The Quarrying operations will be carried out by semi mechanized open-cast method with benching system of 3.0m height. Mechaneries will be deployed for production & development.

Some part of the area (about 3444 m<sup>2</sup> upto 6m and 9068 m<sup>2</sup> upto a 9m depth from surface) is excavated & about 12050 me area is developed (only soil/OB removed) while rest area is covered with 1.5m thick soil cover. As production will be continued below southern working pit, hence there is no development work in this plan period. The proposed method of quarry will be open cast.

#### **Exploration:**

As the quarry area is less than five hectares, the prospecting / exploration work is not required as per the provision of rule 6(b) of Chhattisgarh Minor Miner Rules, 2015..

### **2.4 Drilling and Blasting**

#### **Drilling**

Drilling will not be required for exploration work but jack hammer drilling may be used for blasting purpose to break the hard rock in this mine scheme period.

#### **Blasting: (Broad Parameters)**

The quarry operation will be in small scale and the maximum production per year will be for Smt. Kavita Jain is 53485 Tons and Saket Jain is 50002.50 tons in five year. In view of this small scale quarrying activity the blasting parameters will be simple and use of explosive will also be less. Blasting will be done by Simple Square and triangle pattern. Blasting will be done by licensed contractor.

The mineralization in the QL area is mineable to direct excavation by hydraulic excavators only after blasting and based up on the nearby mining activity, about 70% of the total excavation is consider for the blasting.

### **2.5 RESOURCES**

#### **2.5.1 Mining Machines and Transport Vehicles**

The details of mining machines and transport vehicles are given in above table No 2.4.

#### **2.5.2 Water Balance**

The water required is mainly for dust suppression, green belt development, drinking and other domestic purpose during mining operations. Water requirement will meet from hired Tanker supply. The total water requirement will be approx. **5.0 and 7.5 KLD.**

**“Limestone Quarry” at Dulna, Tehsil- Abhanpur, District Raipur, Chhattisgarh by M/s Smt.  
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<b>Water Requirement</b>		
<b>Particulars</b>	<b>Smt. Kavita Jain</b>	<b>Shri Saket Jain</b>
<b>Domestic</b>	1.0	1.0
<b>Green Development</b>	1.5	4.0
<b>Dust Suppression</b>	2.5	2.5
<b>Total</b>	<b>5.0</b>	<b>7.5</b>

### 2.5.3 Electric Power

All the activity will be carried out in day time only. All machineries used for mining will be driven by diesel. Electricity will be required for Mine Office and Rest Room, which will be provided by State Electricity Board through temporary connection.

### 2.5.4 Manpower

The mine will provide direct and indirect employment. Directly employment will be employed for extraction/collection, breaking, sorting, sizing/ powdering and loading of minerals in the mining area. All the workers will be employed as contract laborers.

<b>Manpower in Numbers</b>		
<b>Particulars</b>	<b>Smt. Kavita Jain</b>	<b>Shri Saket Jain</b>
<b>Skilled</b>	10	10
<b>Un-skilled</b>	22	20
<b>Total</b>	<b>32</b>	<b>30</b>

## 3.0 Baseline Data, Impact Assessment and Management Plan

The EIA report incorporates one season data generated for a period from **01<sup>st</sup> December, 2022 to 31<sup>th</sup> March**. A summary of the same is presented below:

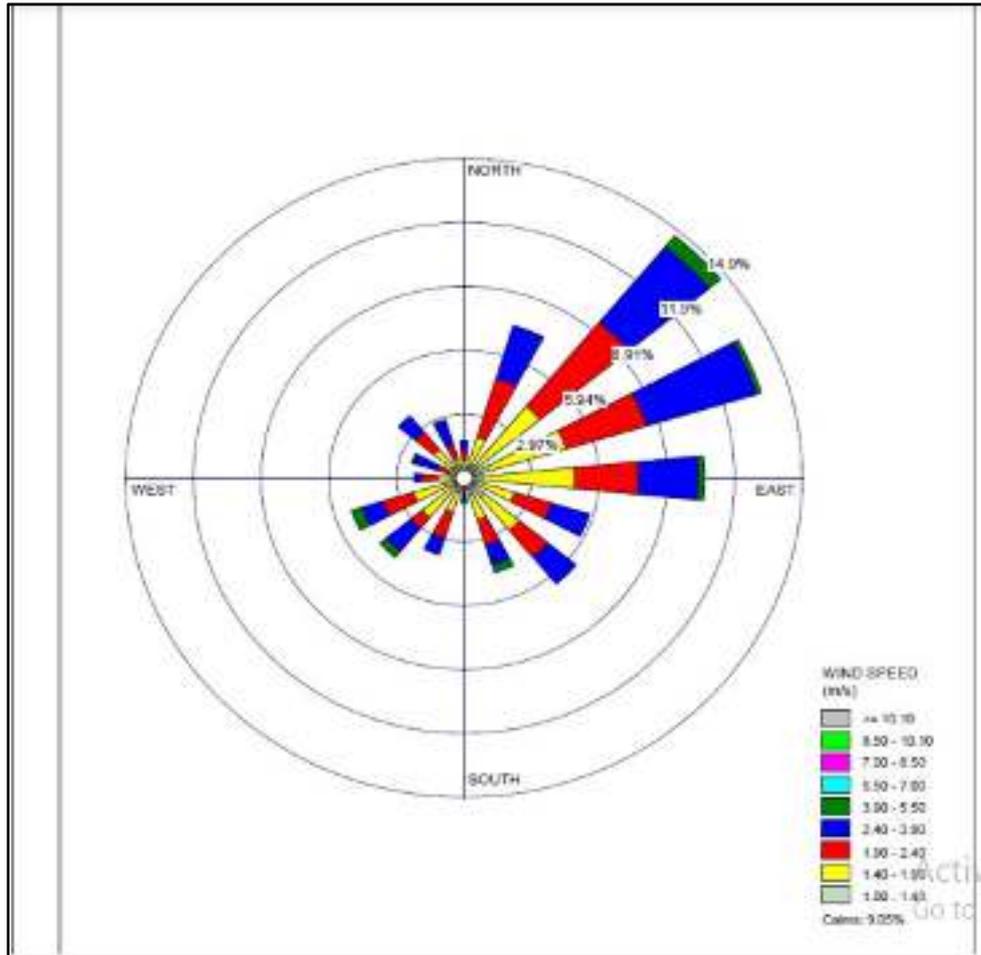
### 3.1 Meteorology

Site Specific meteorological data is given in **Table4** and wind rose is given in **Figure 1**.

**Table 4: Site Specific Meteorological Data**

<b>Month</b>	<b>Temperature °C</b>		<b>Wind Speed (Km/hr.)</b>
	<b>Min</b>	<b>Max</b>	<b>Avg.</b>
December,2022	7.0	30.0	2.9
January, 2023	2.0	25.0	3.6
February, 2023	8.0	30.0	4.7
March, 2023	13.0	33.0	5.1

**Source: Meteorological at station site.**



**Figure 1: Wind Rose Diagram at Site**

### 3.1 Baseline Environment Status

Ambient Air Quality Monitoring reveals that the **minimum** and **maximum** concentrations of **PM<sub>10</sub>** for all the **08 Air Quality** monitoring stations were found to be **45.3  $\mu\text{g}/\text{m}^3$**  and **75.4  $\mu\text{g}/\text{m}^3$**  respectively, while for **PM<sub>2.5</sub>** Varies between **21.1  $\mu\text{g}/\text{m}^3$**  and **33.8  $\mu\text{g}/\text{m}^3$** . As far as the gaseous pollutants **SO<sub>2</sub>** & **NO<sub>2</sub>**, are concerned, the prescribed limits under NAAQ Standards for residential and rural areas has never surpassed at any station. The **minimum** and **maximum** concentrations of **SO<sub>2</sub>** were found to be **9.6  $\mu\text{g}/\text{m}^3$**  and **16.6  $\mu\text{g}/\text{m}^3$**  respectively. The **minimum** and **maximum** concentrations of **NO<sub>2</sub>** were found to be **12.1  $\mu\text{g}/\text{m}^3$**  and **26.4  $\mu\text{g}/\text{m}^3$**  respectively. The prescribed limits of **SO<sub>2</sub>** and **NO<sub>2</sub>** are 80  $\mu\text{g}/\text{m}^3$  residential and rural areas has never surpassed at any monitoring station. *The standards of Ambient Air Quality in India are available online at <http://cpcb.nic.in/National Ambient Air Quality Standards.php>*

Ambient noise levels were measured at **08 locations** around the proposed project site. **Minimum and maximum** noise levels recorded during the **day time** were from **47.9 Leq dB** and **54.4 Leq dB** respectively and **minimum and maximum** level of noise during **night time** were **39.4 Leq dB** and **44.2 Leq dB** respectively and noise levels at all locations were observed to be within the prescribed limits

and Ambient Air Quality Standards in respect of Noise is available online at [http://cpcb.nic.in/divisionsofheadoffice/pci2/noise\\_rules\\_2000.pdf](http://cpcb.nic.in/divisionsofheadoffice/pci2/noise_rules_2000.pdf). From the above study and discussions it can be concluded that noise levels in the study area are well within the prescribed limits as prescribed by the CPCB and State Pollution Control Board.

Analysis results of **Ground Water** reveal the following:

- **pH** varies from to 6.84 to 7.61
- **Total Hardness** varies from 122 to 786 mg/L.
- **Total Dissolved Solids** varies from 106 to 776 mg/L.

Analysis results of **Surface Water** reveal the following:

- **pH** varies from to 7.26 to 7.89
- **Total Dissolved Solids** varies from 215 to 338 mg/L.
- **BOD** varies from 1.6 to 2.4 mg/L.
- **COD** varies from 12.0 to 18.6 mg/L.

A review of the above chemical analysis reveals that there is some variation in chemical composition of water tapped from different sources but the ground water from all sources remains suitable for drinking purposes as all the constituents are within the limits prescribed for drinking water standards promulgated by Indian Standards (IS: 10500). It can be observed that the surface water quality does not indicate any industrial pollution.

The analysis Interpretation show that soil is basic in nature as pH value ranges from **6.40 to 7.42** with organic matter **0.06 % to 1.67 %**. The concentration of Nitrogen, Phosphorus and Potassium has been found to be in good amount in the soil samples. Soil texture is Silt Loam to Silty Clay Loam.

## **Biological Environment**

### **Rare and Endangered Flora in the Study Area**

The IUCN Red List is the world's most comprehensive inventory of the global conservation status of plant and animal species. It uses a set of criteria to evaluate the extinction risk of thousands of species and subspecies. These criteria are relevant to all species and all regions of the world. With its strong scientific base, the IUCN Red List is recognized as the most authoritative guide to the status of biological diversity. **Among the enumerated flora in the study area, none of them were assigned any threat category, by RED data book of Indian Plants.**

## **4.0 IMPACT ASSESSMENT AND MITIGATION MEASURES**

### **4.1 AIR Pollution**

The air quality modeling has been done and the details are given below:

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Sr. No.	Activity in the Quarry	Maximum Baseline Concentration ( $\mu\text{g}/\text{m}^3$ )	Incremental GLCs ( $\mu\text{g}/\text{m}^3$ )	Resultant Concentration ( $\mu\text{g}/\text{m}^3$ )	Limit (Industrial, Residential, Rural and other area) ( $\mu\text{g}/\text{m}^3$ )
1.	Excavation+Loading+Transportation	71.2	0.00527	741.20527	100

**Prevention and Control of Air Pollution**

- The dust generated during the process will be minimized by water spray at the working faces before and after the activity.
- Plantation will be carried out on approach roads and in Lease boundary.
- Planning transportation routes of mined material so as to reach the nearest paved roads by shortest route. (minimize transportation over unpaved road;
- Personal Protection Equipment’s (PPE) like dust masks, ear plugs etc. will be provided to mine workers.
- Speed limit will be enforced to reduce airborne fugitive dust from vehicular traffic.
- Deploying PUC certified vehicles to reduce their noise emission.
- Spillage from the trucks will be prevented by covering tarpaulin over the trucks.

**4.2 Water Quality Management**

The impact of mining project on groundwater hydrology and surface water regime are site specific and depends upon the characteristics of the mineral, hydrogeology and requirement of groundwater for other uses.

**ANTICIPATED IMPACTS**

- No natural course of water stream is interrupted or diverted due to mining activity; hence no impact on natural drain is anticipated.
- Surface run off distribution during rainy season may get affected due to excavated pits and overburden stack.
- Runoff from the mining benches or from overburden during the rainy season may get contaminated.
- Ground water pollution can take place only if the mining rejects contain toxic substances, which get leached by the precipitation water and percolate to the ground water table thus polluting it. Any nearby wells or other sources of water can be rendered unfit for drinking and even for industrial use.
- Domestic sewage will be generated which can create contamination.

**MITIGATION MEASURES**

- Overall drainage planning has been done in such a manner that the existing pre-mining drainage conditions will be maintained to the extent possible so that run off distribution is not affected.

- The waste dump will be protected by retaining walls around the dump., moreover the excavated mineral itself is non-toxic and hence no effect due to water flow during rains following the contours of the area is expected.
- The excavated pit will be converted into the water reservoir at the end of mine life. This will help in recharging ground water table by acting as a water harvesting structure.
- Garland drain will be constructed on all sides of quarry along with settling pond in the lowermost part to remove the suspended solids from storm water. The collected water shall be used in plantation and spraying on haul roads. Settling ponds will be designed on the basis of silt loading, slope of the lease, detention time required etc.
- Septic tanks and soak pits will be provided for the disposal of domestic effluent generated from mine site.

### **4.3 Noise Pollution Control**

The area generally represents calm surroundings. There is no heavy traffic, industry or noisy habitation in the area except the existing mine. As the project is proposed for open cast manual method mining.

Noise pollution is mainly due to occasional plying of trucks. These activities will not cause any problem to the inhabitants of this area because there is no human settlement in close proximity to the lease area.

#### **ANTICIPATED IMPACT**

- The source of Noise pollution will be the vehicular movements.
- Noise will be generated by the digging of mine area using shovels, crowbars etc.

#### **MITIGATION MEASURES**

- **Maintenance of Machinery:** - The vehicles operating will be maintained and provided with good silencers. All machines will be used at optimum capacity.
- **Vegetation:** Plantation of trees around haul roads will be done to reduce the noise.
- **Hearing Protection:** Equipment like ear-muffs, ear-plugs, etc. are commonly used devices for hearing protection.

### **4.4 Greenbelt Development and Plantation**

A green belt will be developed along the roads, barren area, surrounding office, rest shelter and other social forestry program. Green belt is erected not from biodiversity conservation point of view but is basically developed as a screen to check the spread of dust pollution. It is proposed to total number of plants 3152 numbersapling during Istfive years. Afforestation will be taken up in the statutory restricted zone of 7.5 m along the lease boundary.

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**Table- Details of Greenbelt sapling during 1<sup>st</sup> three years**

PLANTATION EXPENDITURE ALONG WITH FENCING IN THE PAVITRA VAN AREA IN AS PER RECOMMENDED BY GRAM PANCHAYAT								
S. No.	ITEM	RATE (in Rs.)	QUANTITY (kg/days)	AMOUNT (in Rs.)				
				1 <sup>st</sup> Year	2nd year (90% survival)	3rd year (90% trees)	4th Year (90% trees)	5 <sup>th</sup> Year (90% trees)
1	Plants of local species ie. Neem, Aam, Bel, Kadam, Jamun, Aamla, Bargad, Peepal, etc.	300 Plants (Rs 30per sapling)	300 Plants	9000	900	900	900	900
2	Fencing around with chain link wire including cement pillar	Number of Pillar (Rs 100 per Pillar)	50 Pillars	5000	-	-	-	-
		Rs. 200/ Mtr	150m	30000				
3	Labour charge	-	-	50000	-	-	-	-
4	Plantation dig (45cm x 45cm x 45cm) size	Rs 20 per dig	300 Plants	6000	600	600	600	600
5	Manure (cow dung / vermi compost ) 250gm/plant	Rs 20 /kg	75 kg	1500	150	150	150	150
6	Water Tank For Water sprinkling	Rs 500 /day	240 days	120000	120000	120000	120000	120000
7	Gardner (Maintenance)	Rs 3000/month @ 12 month		36,000	36,000	36,000	36,000	36,000
8	Insecticide Powder	-		20,000	2000	2000	2000	2000
9	Miscellaneous for Board	-		5,000	-	-	-	-
	<b>Total</b>			<b>2,82,500</b>	<b>1,59,650</b>	<b>1,59,650</b>	<b>1,59,650</b>	<b>1,59,650</b>

**4.5 OTHER BENEFIT**

It is proposed to undertake the need specific proposed CER activities in the surrounding areas of the mine. The project proponent has proposed to incur budget of Rs 3,20,0 00/-for CER activities for 1st year cost and five year cost is Rs. 9,68,000/- . Plantation of 400 No's of Treed under Pavitra Van Area Yojna. Details of CER activities proposed by project proponent are given here.

The detailed CER activities will be decided after public Hearing and same will be incorporated in Final EIA.

PLANTATION EXPENDITURE ALONG WITH FENCING IN THE PAVITRA VAN AREA IN GOVT. LAND								
S. No.	ITEM	RATE (in Rs.)	QUANTITY (kg/days)	AMOUNT (in Rs.)				
				1 <sup>st</sup> Year	2nd year (90% survival)	3rd year (90% trees)	4th Year (90% trees)	5 <sup>th</sup> Year (90% trees)
1	Plants of local species ie. Neem, Aam, Bel, Kadam, Jamun, Aamla, Bargad,	400 (Rs 50 per sapling)	400 Plants	20000	2000	2000	2000	2000

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	Peepal, etc.							
2	Fencing around with chain link wire including cement pillar	Rs. 200/ Mtr wire	200 mtr	40000	-	-	-	-
		Number of Pillar (Rs 100 per Pillar)	40 Tree Guard	4000	-	-	-	-
3	Labour charge	-	-	50000	-	-	-	-
4	Plantation dig (45cm x 45cm x 45cm) size	Rs 20 per dig	400 Plants	8000	800	800	800	800
5	Manure (cow dung / vermi compost ) 250gm/plant	Rs 20 /kg	100kg	2000	200	200	200	200
6	Water Tank For Water sprinkling	Rs 500 /day	240 days	120000	120000	120000	120000	120000
7	Gardner (Maintenance)	Rs 3000/month @ 12 month		36,000	36,000	36,000	36,000	36,000
8	Insecticide Powder	-		30,000	3000	3000	3000	3000
9	Miscellaneous for Board	-		10,000	-	-	-	-
	<b>Total</b>			<b>3,20,000</b>	<b>1,62,00</b>	<b>1,62,00</b>	<b>1,62,00</b>	<b>1,62,00</b>

#### 4.6 Solid and Hazardous Waste Generation and Management

No solid waste will be generated.

#### Budgets for Common Environmental Management Plan for Cluster

**Table Budgets for Common Environmental Management Plan for Cluster**

PLANTATION EXPENDITURE ALONG WITH TREE GUARD IN THE BOTH SIDES OF ROAD								
S no.	ITEM	RATE	QUANTITY	AMOUNT 1 <sup>st</sup> Year (Rs.)	2 <sup>nd</sup> year (in Rs)	3 <sup>rd</sup> year (in Rs)	4th year (in Rs)	5th year (in Rs)
Total length of road 2.0 km = 2000m , 2 sides of road = 2000 + 2000 = Total 4000 m Number of Plants = 4000/3 m gap = 1333 trees								
1	Plants of local species ie. Neem, Aam, bargad , peepal,	50 rs per sapling	1334	66,700	134 plant ( 90% survival )= 6700			
3	Tree Guard	400/tree guard		5,33,600	-	-	-	-
4	Labour charge			2,00,000	-	-	-	-
5	Plantation dig (45cm x 45cm x 45cm) size	20 rs per dig	1333	26,680	134 x 20 = 2680			
6	Manure ( cow dung / vermi compost ) 250gm/plant	20rs /kg	333.5 kg	6,670	33.5 kg = 670 Rs			
7	Water sprinkling	500rs	3 tanker	3,36,000	3,36,000	3,36,000	3,36,000	3,36,000

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	cost (Dust suppression)	/day						
8	Gardner	3000/month @12 month	2 person =	72,000	72,000	72,000	72,000	72,000
9	Environment Monitoring (Quarterly)		-	3,00,000	3,00,000	3,00,000	3,00,000	3,00,000
10	Road maintenance 0.5 lac quarterly			2,00,000	2,00,000	2,00,000	2,00,000	2,00,000
11	Other Miscellaneous (Insecticides & Board)			50,000	50,000	50,000	50,000	50,000
	<b>Total</b>			<b>17,91,650</b>	<b>9,68,050</b>	<b>9,68,050</b>	<b>9,68,050</b>	<b>9,68,050</b>

**Participation of Project proponent in Common EMP**

**PLANTATION EXPENDITURE ALONG WITH TREE GUARD IN SIDES OF ROAD**

S No.	ITEM	RATE	QUANTITY	AMOUNT 1st Year (Rs.)	2nd year (in Rs)	3rd year (in Rs)	4th year (in Rs)	5th year (in Rs)
	Total length of road 178m , 2 sides of road = 178+178= Total 356m Number of Plants = 356/3 m gap = 118 trees							
1	Plants of local species ie. Neem, Aam, bargad , peepal,	30 rs per sapling	118	3540	12 plant ( 90% survival )=360			
3	Tree Guard	400		47200	-	-	-	-
4	Labour charge		10000	10000				
5	Plantation dig (45cm x 45cm x 45cm) size	20rs per dig	118	2360	12x 20 = 240			
6	Manure ( cow dung / vermi compost ) 250gm/plant	20rs /kg	29.5 kg	590	3kg = 60 Rs			
7	<b>Total</b>			<b>63690</b>	<b>660</b>	<b>660</b>	<b>660</b>	<b>660</b>
8	Others (water sprinkling and Gardner road maintenance, Environment Monitoring (Quarterly)			74503	74503	74503	74503	74503

**“Limestone Quarry” at Dulna, Tehsil- Abhanpur, District Raipur, Chhattisgarh by M/s Smt.  
Kavita Jain, Shri Saket Jain**

	miscellaneous Insecticides & Board)							
	<b>Total amount paid</b>			<b>138193</b>	<b>74563</b>	<b>74563</b>	<b>74563</b>	<b>74563</b>

It is proposed to undertake the need specific proposed CER activities in the surrounding areas of the mine. The all project proponent has proposed to be incurred budget of **2% of Project cost** for CER activities.

The detailed CER activities will be decided after public Hearing and same will be incorporated in Final EIA.

## **5.0 CONCLUSION**

As discussed, it is safe to say that the project is not likely to cause any significant impact on the ecology of the area, as adequate preventive measures will be adopted to contain the various pollutants within permissible limits. Green belt development around the area will also be taken up as an effective pollution mitigative technique, as well as to control the pollutants released from the premises of the project