

## EXECUTIVE SUMMARY

FOR  
“PROPOSED KURDI LIMESTONE MINING PROJECT”  
&  
“KURDI FARSHI PATTHAR MINING PROJECT”

MINE LEASE AREA (LIMESTONE) =2.58 HA.  
MINE LEASE AREA (FARSHI PATTHAR) = 2.65 HA.  
TOTAL MINE LEASE AREA-5.23 HA.  
TOTAL CLUSTER AREA-19.247 HA

TOTAL PROPOSED PRODUCTION CAPACITY  
LIMESTONE=2,00,023.69 TPA  
FARSHI PATTHAR=18,881.25 TPA

AT

NEAR VILLAGE: - KURDI, TEHSIL- GUNDERDEHI & DISTRICT- BALOD (C.G)

PROJECT ACTIVITY- MINING OF MINERALS 1(a) (i)  
PROJECT CATEGORY – B1 (DUE TO CLUSTER)

MONITORING PERIOD- MARCH, 2021 TO MAY, 2021

<p><b>PROJECT PROPONENT</b> M/S SINGHANIA ENTERPRISES Partner: Rohit Singhania R/o:-Manjusha, 15/480, Civil Lines, Tehsil:- Raipur, District:- Raipur (C.G.) 492001 Email id:- 2021.rohitsinghania@gmail.com</p>	<p><b>PROJECT PROPONENT</b> ASHWIN PATEL S/O Shri Haribhai Patel R/o:-Ward No. 12, City/P.o.:- Ganjpara, Tehsil &amp; District:-Balod (C.G.)- 493445 Email id: ashwinpatelbalod@gmail.com</p>
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## **EXECUTIVE SUMMARY**

### **1.0 INTRODUCTION**

#### **1.1 Project proposal**

This is a proposal of obtaining Environment Clearance of Proposed Kurdi Limestone Mining Project (Area:- 2.58 hect, Production Capacity-2,00,023.69 TPA) & Kurdi Farshi Patthar Mining Project (Area:- 2.65 Hect. with Production Capacity: 18,881.25 TPA) and at Village-Kurdi, Tehsil- Gunderdehi & District:- Balod (Chhattisgarh).

Total Mine area is a Pvt. Land (Non-Forest Land)

Letter of Intent has been issued in favor of M/s Singhania Enterprises, Partner: Rohit Singhania , R/o Manjusha, 15/480, Civil Lines, Tehsil:- Raipur, District:- Raipur (C.G.). vide letter No. 748/Kha.Li./U.P./LOI/2020-21 Balod, on dated: 25/01/2021 & Shri Ashwin Patel S/o Shri Haribhai Patel , R/o Ward No. 12, City/P.o.:- Ganjpara, Tehsil & District:-Balod (C.G.). vide letter No. 774/KHANI.LI/U.P.LOI/2020-21 on dated 05/02/2021. LOI Attached as **Annexure-1**.

Quarry Plan, EMP & Quarry Closure Plan has been approved by Mining officer, district –North Baster Kanker Chhattisgarh vide letter No. 1092/ KHANIJ/ UTKHA. YO.ANU./ U.P./ 2020-21 Kanker, on Dated: - 09/02/2021& vide letter no.- 1278/ KHANIJ/ UTKHA.YO.ANU/ U.P./2020-21Kanker, dated:- 09/03/2021 &. Approved letter Attached as **Annexure-2**.

#### **1.2 Terms of Reference**

The application for the Terms of Reference for the proposed project was considered in the 363th meeting of the Chhattisgarh. SEAC held on 24th March, 2021. Based on the submissions and presentation made by the project proponent in SEAC Raipur CG, & SEIAA has issued the TOR for the EIA study on vide letter No. 589/S.E.A.C., C.H/Mine /1582/New Raipur/Atal Nagar (M/s Singhania Enterprises) & 591/S.E.A.C., C.H/Mine /1605/New Raipur/Atal Nagar (Shri Ashwin Patel), Raipur, dated 25/06/2021. A copy of the same has been annexed as in Draft EIA/EMP Report.

### **2.0 PROJECT DESCRIPTION**

#### **2.1 Location & surrounding features**

The Proposed Limestone Mining Project & Kurdi Farshi Patthar mine Project of Near Village: - Kurdi, Tehsil:- Gunderdehi, District:- Balod (C.G.).The mining lease area is located in survey of India Toposheet No. 64H/1. Geographical coordinates of different boundary pillars (BP) of the lease area are given in **Table-1**

## Table 1 Detail of Co-ordinates

### Kurdi Limestone Mining Project

BOUNDARY POINT	LATITUDE	LONGITUDE
BL1	20°51'2.03"N	81°12'49.06"E
BL2	20°51'1.89"N	81°12'53.45"E
BL3	20°51'1.66"N	81°12'55.87"E
BL4	20°51'2.12"N	81°12'55.91"E
BL5	20°51'2.08"N	81°12'56.53"E
BL6	20°51'0.52"N	81°12'56.56"E
BL7	20°51'0.46"N	81°12'56.77"E
BL8	20°50'59.91"N	81°12'56.77"E
BL9	20°50'59.87"N	81°12'57.81"E
BL10	20°50'59.74"N	81°12'57.77"E
BL11	20°50'59.71"N	81°12'58.15"E
BL12	20°50'59.32"N	81°12'58.15"E
BL13	20°50'59.19"N	81°12'58.39"E
BL14	20°50'58.76"N	81°12'58.39"E
BL15	20°50'58.67"N	81°12'55.76"E
BL16	20°50'59.29"N	81°12'55.66"E
BL17	20°50'59.16"N	81°12'55.18"E
BL18	20°50'58.05"N	81°12'54.72"E
BL19	20°50'57.99"N	81°12'54.07"E
BL20	20°50'57.66"N	81°12'54.00"E
BL21	20°50'57.83"N	81°12'52.06"E
BL22	20°50'56.24"N	81°12'52.06"E
BL23	20°50'56.50"N	81°12'50.92"E
BL24	20°50'58.03"N	81°12'50.95"E
BL25	20°50'58.09"N	81°12'51.09"E
BL26	20°50'59.36"N	81°12'51.06"E
BL27	20°50'59.13"N	81°12'50.47"E
BL28	20°50'59.98"N	81°12'50.44"E
BL29	20°51'0.04"N	81°12'49.33"E
BL30	20°50'59.59"N	81°12'49.22"E
BL31	20°50'59.95"N	81°12'48.64"E

### Kurdi Farshi Patthar Mining Project

<b>Pillars</b>	<b>Latitude (N)</b>	<b>Longitude (E)</b>
BL1	20°51'7.61"	81°13'22.91"
BL2	20°51'7.72"	81°13'19.45"
BL3	20°51'9.60"	81°13'19.17"
BL4	20°51'9.60"	81°13'18.34"
BL5	20°51'7.72"	81°13'18.24"
BL6	20°51'7.82"	81°13'17.34"
BL7	20°51'7.13"	81°13'17.23"
BL8	20°51'7.17"	81°13'17.13"
BL9	20°51'6.68"	81°13'17.06"
BL10	20°51'6.64"	81°13'17.44"
BL11	20°51'5.64"	81°13'17.44"
BL12	20°51'5.90"	81°13'16.19"
BL13	20°51'7.30"	81°13'13.67"
BL14	20°51'7.40"	81°13'15.19"
BL15	20°51'8.40"	81°13'15.29"
BL16	20°51'8.44"	81°13'14.84"
BL17	20°51'10.13"	81°13'14.95"
BL18	20°51'10.48"	81°13'17.10"
BL19	20°51'10.48"	81°13'17.93"
BL20	20°51'11.46"	81°13'18.07"
BL21	20°51'11.71"	81°13'22.32"
BL22	20°51'10.77"	81°13'22.63"
BL23	20°51'10.77"	81°13'23.02"

Locations of environmentally sensitive & site connectivity objects in the area surrounding the project site are presented in Table-2

**Table 2: Details of Environmental Sensitivity/ site connectivity**

S. No.	Area	Aerial Distance in Km and Direction from M.L area															
		Core Zone	Buffer Zone														
1.	<b>National Parks/ Wildlife Sanctuaries</b>	Nil	Nil														
2	<b>Biosphere Reserves/ Tiger Reserves/ Elephant Reserves and any other reserves</b>	Nil	Nil														
3.	<b>Forest (PF/RF/Unclassified) &amp; Water body</b>	Nil	<b>Kurdi Limestone Mining Project</b> <ul style="list-style-type: none"> <li>• Tandula River ~2.80 km, South-East</li> <li>• Goraiyan Nalla ~0.05 km, South</li> <li>• Village Pond~0.4 km, North</li> <li>• Canal~0.35 km, North</li> <li>• Reservoir~3.0 km , North-West</li> </ul>														
			<b>Kurdi Farshi Patthar Mining Project</b> <ul style="list-style-type: none"> <li>➤ Tandula River ~2.30 km, East</li> <li>• Goraiyan Nalla ~0.6 km, South</li> <li>• VillagePond~0.74 km, North-West</li> <li>• Canal~0.01 km, South</li> <li>• Reservoir~6.95 km , North</li> </ul>														
4	<b>Habitat for migratory birds</b>	Nil	Nil														
5	<b>Corridor for animals of Schedule I and II of the wildlife (Protection Act 1972)</b>	Nil	Nil														
6	<b>Archaeological Site (notified, Other)</b>	Nil	Nil														
7	<b>Defense Installation</b>	Nil	Nil														
8	<b>Industries / Thermal Power Plant</b>	Nil	Nil														
9	<b>Other Mines</b>	Nil	<table border="1"> <thead> <tr> <th>Name</th> <th>Area (Ha.)</th> </tr> </thead> <tbody> <tr> <td>M/s Gupta Marbals</td> <td>0.65</td> </tr> <tr> <td>Shri Durvasa Prasad</td> <td>2.25</td> </tr> <tr> <td>M/s Shrijee Taiels</td> <td>1.10</td> </tr> <tr> <td>Divya Mines</td> <td>1.31</td> </tr> <tr> <td>Shri Krishan Kumar</td> <td>0.85</td> </tr> <tr> <td>Shri Arvind</td> <td>1.31</td> </tr> </tbody> </table>	Name	Area (Ha.)	M/s Gupta Marbals	0.65	Shri Durvasa Prasad	2.25	M/s Shrijee Taiels	1.10	Divya Mines	1.31	Shri Krishan Kumar	0.85	Shri Arvind	1.31
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<b>10</b>	<b>Airport</b>	<b>Nil</b>	<b>Nil</b>																						
<b>11</b>	<b>Railway Lines</b>	<b>Nil</b>	Sikosa Railway Station at a distance of ~7.60 Km towards NE direction from Kurdi Limestone Mine site & Sikosa Railway Station at a distance of ~6.80 Km towards NE direction from Kurdi Farshi Patthar Mine site.																						
<b>12</b>	<b>National Highways/ State Highway</b>	<b>Nil</b>	<p>Kurdi Limestone Mining Project</p> <p>NH-6 at a distance of ~31.10 km (Raipur-Rajnandgaon road) towards North direction from Mine site.</p> <p>2. SH-7 at a distance of ~4.60 km (Durg-Balod road) towards east from mine site.</p> <p>3. Gramin Kacha Road ~0.35 km towards North direction form mine site.</p> <p>4. Major District Road ~11.35 km (Balod-Lohara road) towards South-West direction from Mine site.</p> <p>Kurdi Farshi Patthar Mining Project</p> <p>1. NH-6 at a distance of ~31.05 km (Raipur-Rajnandgaon road) towards north direction from mine site</p> <p>2. SH-7 at a distance of ~3.95 km (Durg-Balod road) towards east from mine site.</p> <p>3. Gramin Kacha Road ~0.01 km towards south direction form mine</p>																						

S. No.	Area	Aerial Distance in Km and Direction from M.L area	
		Core Zone	Buffer Zone
			site. 4. Major District Road ~12.00 km (Balod-Lohara road) towards South-West direction from mine site..
<b>13</b>	<b>Human Habitations</b>	Nil	Kurdi Village ~0.720 km north-from Kurdi Limestone mine & ~0.720 km north-west from Kurdi Farshi Patthar Mine site)

## 2.2 METHOD OF MINING

### **Present and Proposed Method of Mining for Kurdi Limestone-**

Mining will be done Semi-Mechanized open cast method with small scale low capacity blast .Small scale of drilling & blasting for exploration of stone. Heavy hammer & hard chisels will yield the sufficient quantity for stone.

Further the stone will be sized and dresses by stone crusher according to customer satisfaction, demand of market & stacked on mine surface.

Crushing will be done with the help of stone crushing unit which will be installed within granted area. loading of sized stone chip will be done semi-mechanized with the help of local labour Mining will be started from the surface.

The gradient of ramp with benches will be maintained to 1:15 ie. 15-meter-long ramp for every 1meter of depth. Width of ramp will be 3-4 meter.

### **Present and Proposed Method of Mining for Kurdi Farshi Pathar -**

Method of mining will be opencast mining. Mode of working will be manual. Only top soil and murum will be removed by excavator and cutting of stone on the stone layer on mine surface will be done by stone cutter rest all the other operations like excavation and sizing etc. will be done manually by local labours by hardened chisels. Loading of sized stone on tractors will be done manually with the help of local labours. Transportation of Farshi Pattar will be done by tractors. Rejects of Farthi Pattar will be sizedv in to stone chip through stone crusher plant. Stone bolders will be also be loaded on tractors manually.

**Drilling & Blasting-** Not Required

The production of Limestone mining Project & Kurdi Farshi Patthar mining Project given in **table 3**

**Table 3: Details of Year Wise Production  
Proposed Kurdi Limestone Mining Project**

<b>Year</b>	<b>Limestone Capacity (MT)</b>
1 <sup>st</sup>	2,00,023.69
2 <sup>nd</sup>	85,920.38
3 <sup>rd</sup>	88,285.88
4 <sup>th</sup>	84,189.00
5 <sup>th</sup>	84,324.38

**Proposed Kurdi Farshi Patthar Mining Project**

<b>Year</b>	<b>Production Capacity MT ( Farshi Patthar and Rejects stone )</b>
1 <sup>st</sup>	18,881.25
2 <sup>nd</sup>	18,168.75
3 <sup>rd</sup>	18,346.88
4 <sup>th</sup>	17,613.00
5 <sup>th</sup>	18,525.00
6 <sup>th</sup>	18,168.75
7 <sup>th</sup>	18,382.50
8 <sup>th</sup>	18,525.00
9 <sup>th</sup>	17,762.63
10 <sup>th</sup>	18,525.00



## 2.3 WATER REQUIREMENT

The Total water requirement will be approx. 12.22 KLD at the mine site for drinking and dust suppression purpose which will be met from hired Tanker supply from Gram Panchayat.

S. No	Activity	Water requirement (KLD)
1.	Dust suppression	1.08
2.	Plantation	3.00
3.	Domestic	8.14
<b>Total</b>		<b>12.22 KLD</b>

## 2.4 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 Chhattisgarh Kshetra Vidyut Vitaran Company Limited (CGKVVCL) Kurdi through temporary connection.

## 2.5 MANPOWER

The total manpower required for the mining activity will be 36. Preference for employment will be given to local workers.

## 3. DESCRIPTION OF ENVIRONMENT

The scope of the study is as per standard TOR issued by SEAC M.P. Based on the submissions and presentation made by the project proponent, the SEAC has issued the TOR for the EIA study on vide letter No. 589/S.E.A.C., C.H/Mine /1582/New Raipur/Atal nagar (M/s Singhania Enterprises) & 591/S.E.A.C., C.H/Mine /1605/New Raipur/Atal nagar (Shri Ashwin Patel), Raipur, dated 25/06/2021. As part of the study, description of biological environment and human environment such as environmental settings, demography & socio-economics, land-use/ land cover, ecology & biodiversity have been carried out for entire 10 km radius.

- Air Environment
- Noise Environment
- Soil Environment
- Water Environment
- Biological Environment
- Socio-economic Environment

### 3.1 AIR ENVIRONMENT

Ambient Air Quality Monitoring reveals that the **minimum** and **maximum concentrations of PM<sub>10</sub>** for all the 09 Air Quality monitoring stations were found to be **60.0 ug/m<sup>3</sup> To 87.0 ug/m<sup>3</sup>** respectively, while for **PM<sub>2.5</sub>** Varies between **31µg/m<sup>3</sup> and 49 µg/m<sup>3</sup>**. As far as the gaseous pollutants SO<sub>2</sub>, NO<sub>2</sub>, & CO 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 **6.0 µg/m<sup>3</sup> and 17.0 µg/m<sup>3</sup>** respectively. The **minimum** and **maximum concentrations of NO<sub>2</sub>** were found to be **12.0 µg/m<sup>3</sup> and 32.0 µg/m<sup>3</sup>** respectively.

### 3.2 NOISE ENVIRONMENT

Ambient noise levels were measured at 9 locations around the proposed project site. Minimum and maximum noise levels recorded during the day time were from 42.7 Leq dB and 62.5 Leq dB respectively and minimum and maximum level of noise during night time were 38.5 Leq dB and 47.5 Leq dB respectively.

### 3.3 SOIL ENVIRONMENT

The analysis results show that soil is basic in nature as pH value ranges from 7.22 to 7.95 with organic carbon 0.39 % to 0.67%. The concentration of Nitrogen (11.4 mg/100gm to 23.5 mg/100gm and Potassium (0.42 mg/100gm to 0.92 mg/100gm.) has been found to be in good amount in the soil samples. The consumption of fertilizers is as important factor as their production.

### 3.4 WATER ENVIRONMENT

Ground Water was measured at 08 locations around the proposed project site.

Analysis results of **ground water** reveal the following:

- pH varies from to 7.24 to 7.77
- Total Hardness varies from 141.0 to 256.0 mg/L.
- Total Dissolved Solids varies from 372 to 547.0 mg/L.

Surface Water was measured at 02 locations around the proposed project site.

- pH varies from to 7.68 to 7.87
- Total Hardness varies from 112 to 232 mg/L.
- Total Dissolved Solids varies from 240 to 382 mg/L.
- BOD varies from 6 to 9 mg/L
- COD varies from 32 to 48 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.

### 3.5 BIOLOGICAL ENVIRONMENT

The environment baseline study was conducted in the project area by both secondary data & primary data collection. Abiotic factors including air, water and soil were studied for the core & buffer zone. It was found that most of the parameters were within the limits as per the Indian Standards. In general, there is no major threat to the quality of these parameters. Similarly, the study for the biotic factors was conducted. Hence it can be concluded that the present environment status of the study area is good enough for the project activity. Adoption of adequate pollution control measures will protect the surrounding environment.

No ***schedule I*** species found in Project area within 10 to 15 Km radius.

### **3.6 SOCIO ECONOMIC**

The implementation of this mining project will generate both direct and indirect employment. The project will also provide impetus to industrialization of the area and mining would be boon for the district as it will not only result in employment opportunity but also infrastructure development and overall growth of the area. At present agriculture is the main occupation of the people as more than half of the population depends on it. With the implementation of the proposed mining project the occupational pattern of the people in the area will change making more people. It was found that most of the parameters were within the limits as per the Indian Standards. In general, there is no major threat to the quality of these parameters. Similarly, the study for the biotic factors was conducted. Hence it can be concluded that the present environment status of the study area is good enough for the project activity. Adoption of adequate pollution control measures will protect the surrounding environment.

## **4. ANTICIPATED ENVIRONMENTAL IMPACTS & MITIGATION MEASURES**

### **4.1 Air Environment:**

The mining is proposed to be carried out by opencast method. The air borne particulate matter generated by ore and handling operations as well as transportation is the main air pollutant. The emissions of Particulate Matter, Sulphur dioxide (SO<sub>2</sub>), Oxides of Nitrogen (NO<sub>x</sub>) contributed by vehicles plying on haul roads are marginal. Prediction of impacts on air environment has been carried out taking into consideration proposed production and net increase in emissions.

### **MITIGATION MEASURES**

- ✓ The better maintenance of diesel operated equipment/vehicle will help to reduce emissions (SO<sub>x</sub> and NO<sub>x</sub>) and maintain below permissible limit as these are dispersed by the wind.
- ✓ No overloading of Stone for transportation will be committed so that no spillage of stone takes place.
- ✓ Mineral carrying trucks will be effectively covered by tarpaulin to avoid escape of fines to atmosphere.
- ✓ Only P.U.C. certified vehicles will be permitted.
- ✓ Development of green belt/plantation will be done.
- ✓ Half yearly monitoring will be carried out for assessment of impact for generation of dust due to vehicular movement and loading etc. and measures will be carry out to minimize the pollution.

### **4.2 NOISE ENVIRONMENT- Negligible**

#### **MITIGATION MEASURES**

- Proper care and maintenance of the trucks will be carried out.
- Personal protective equipments will be provided to the workers.
- Dense plantation will be carried out, on the sides of approach roads & around office complex, safety zone. This would help in arresting noise at source due to mining activities in the area.

- Periodical monitoring of noise level of mining machines and at mine and records will be maintained.
- **Blasting:** -If Applicable, only in Kurdi Limestone project
- **Drilling:** - If Applicable, only in Kurdi Limestone project

#### 4.3 WATER ENVIRONMENT

##### ANTICIPATED IMPACTS

- As there is no river or nallah passing through the mine site, hence no impact is anticipated on the hydrological regime of the area due to mining activity.
- 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

There will be no waste water generation from the mining operation. Only waste water generation will be sanitary waste water, which will be treated in septic tank followed by subsurface vehicle etc.

**Surface water:** no surface water source such as rivers, streams & dam exists in the mining lease area. Proper maintenance of transport vehicle & prevention of washing of transport vehicle in ponds etc. be helpful to control water pollution, and it is mandatory for lessee.

Garland drain of appropriate size will be constructed along with settling tank at mine boundary to manage the drainage and runoff.

**Ground water:** Mining for each successive year is proposed to its optimum depth of Limestone and the mining will not go to touch the ground water table so there is no chance to disturbance in ground water table. The dug out pit will help in recharging of Ground water by decreasing the runoff.

- Natural pits will be used for rainwater conservation and harvesting.
- Rain water harvesting practices will be done which will lead to ground water recharge.
- After complete extraction of limestone from land the balance unclaimed pit is proposed to be developed as Reservoir.
- The project do not consume any process water except for drinking, dust suppression and plantation.

#### **4.4 BIOLOGICAL ENVIRONMENT ANTICIPATED IMPACTS**

The mine lease area is private land with no vegetation. Thus there shall not be any adverse impact on biological environment due to expansion of the mine.

The mine area after reclamation will be planted resulting in an improvement in surrounding environment.

#### **MITIGATION MEASURES**

Keeping all this in mind the following mitigations have been suggested under environmental management plan. With the above understanding of the role of plant species as bio-filter to control air pollution, appropriate plant species (mainly tree species) have been suggested conceding the area/site requirements and needed performance of specific species.

#### **4.5 SOICO-ECONOMIC ENVIRONMENT**

The Socio-Economic Impact Assessment is the systematic analysis used during EIA to identify and evaluate the potential socio-economic and cultural impacts of a proposed development on the lives and circumstances of people, their families and their communities. It can identify and distinguish numerous measurable impacts of a proposed development but not every impact may be significant. The populations who are impacted either directly or indirectly have a say whether the impacts are significant or not.

#### **ANTICIPATED IMPACTS**

- As the proposed project is a Private land and is devoid of any settlements of habitation. No Resettlement & Rehabilitation is required.
- Increased funding to improve social infrastructure and cultural maintenance programs. Since the surrounding study area is an undeveloped area, the overall Socio-economic status of the local population is below average.
- From the primary Socio-economic survey & through secondary data available from established literature and census data 2001 & 2011, it is found that Socio-economic condition of the nearby area is good. They have ample opportunity for employment and there is positive impact on the current employment scenario as the proposed project will create additional job opportunities.
- The villages and their inhabitants in the buffer zone will not be disturbed from their settlements due to the mining operations. There is no inhabitation within the lease area. Therefore neither villages nor any part of village or any hamlet will be disturbed during the entire life of the mine. As the mining operations will not disturb or relocate any village or settlement, no adverse impact is anticipated on any human settlement.
- The local people only employment to depend on is agriculture, which is seasonal. In the absence of any high employment potential activities, the people are economically backward.

## **MITIGATION MEASURES**

- Through mining activities, jobs and opportunities will be created in local people, and significant contributions are made to the State's economy. Mining can provide a significant source of revenue through profit related royalty payments and fixed taxation.
- It is suggested that during mining the site services like rest room shelter, first aid box, drinking water & toilet facilities of a portable toilet and portable disposal system of fecal sewage will be provided for the workers at the mine site.
- Various direct and indirect employment opportunities will be generated.
- A better standard of living due to increased access to employment, business opportunities training and education.
- The area is poor in the health care facilities. The project authorities would provide mobile vans for emergency services in the area.

## **4.6 TRAFFIC STUDY**

Traffic study measurements were performed at State Highway-7 (Durg-Balod road) to assess impact on local transport infrastructure due to this mining project.

## **CONCLUSION**

Not much impact on local transport. The LOS value from the proposed mining will change i.e. LOS value for State Highway-7 (Durg-Balod road) will same i.e. Very Good. So the additional load on the carrying capacity of the concern roads is not likely to have major affect.

## **5. ANALYSIS OF ALTERNATIVES**

The proposed project is Limestone Mine & Farshi Pattar Mine. It is a site specific mining project; therefore no alternate site has been selected.

## **6. ENVIRONMENTAL MONITORING PROGRAM**

Regular monitoring of environmental parameters is of immense importance to assess the status of environment during project operation. With the knowledge of baseline conditions, the monitoring programme will serve as an indicator of any deterioration in environmental conditions due to operation of the project, to enable taking up suitable mitigatory steps in time to safeguard the environment. Monitoring is also important to evaluate the efficiency of control measures. The objectives of monitoring are to:-

- Verify effectiveness of planning decisions;
- Evaluate effectiveness of operational procedures;
- Confirm statutory and corporate compliance;
- Identify unexpected changes; and
- Energy and resources conservation

## **7. ADDITIONAL STUDIES**

The details and proceedings of public hearing will be incorporated in the final report after conduct of public hearing. This is a requirement of the Occupational Health and Safety Act 2000. Risk assessments will help to prioritize the risks and provide information on the need to safely control the risks. In this way, mine owners and operators will be able to implement safety improvements. A worker in a mine will be able to work under conditions, which are adequately safe and

healthy.

A green belt will be developed around the core zone. The Green belt plantation will be started with the beginning of the mining and will be completed within five years from the beginning. This plantation will be done at selected places only and only local species will be used in the plantation.

## **8. PROJECT BENEFIT**

The management will recruit the semi-skilled and unskilled workers from the nearby villages. The project activity and the management will definitely support the local Panchayat and provide another form of assistance for the development of public amenities in this region. The company management will contribute to the local schools, dispensaries for the welfare of the villagers. A suitable combination of trees that can grow fast and also have good leaf cover will be adopted to develop the green belt. It is proposed to plant 3256 no's of native species along with some fruit bearing and medicinal trees during the mining plan period. The project proponent has allocated Rs. 2.10Lakhs for 5 year CER Activities. This amount will be spent by lease holder for the protection of the environment in the nearby surrounding area. Other than this social development of the village will be considered as per social activities.

## **9. ENVIRONMENTAL COST BENEFIT ANALYSIS**

Shri Rohit Singhania Partner of M/s Singhania Enterprises & Shri Ashwin Patet will operate the mining activities for the extraction of Limestone & Farshi Pattar to supply to the various consumers in the state and outside the state. The improved market conditions witnessed recently, after a grip of recession over a long period, are expected to continue due to high priority being given by the Government to housing and infrastructure and also in view of the massive investment proposed in industry and rural sectors to enhance or improve their capacity for the end users which will support the economic growth and industrial improvement.

The cost of the project is estimated to be Rs. 58.22 lakh for the production of 2,00,023.69TPA of Limestone for Kurdi Limestone Mining Project has been practiced since ancient times in India.

The cost of the project is estimated to be Rs. 46.83 lakh for the production of 18,881.25 TPA for Kurdi Farshi Patthar Mining of Farshi Patthar has been practiced since ancient times in India.

## **10.0 ENVIRONMENT MANAGEMENT PLAN**

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 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. It will prove an effective pollution mitigate technique, and help avoid soil erosion during monsoon season. Employment opportunities will be provided to the locals only as providing extraction of minerals from the mine site is the only prevailing occupation for them for their livelihood.

## 11.0 CONCLUSION

From the baseline study and various discussions on the probable impacts of all the operational activity, it has been concluded that this project will more positive impact and will generate the revenue and employment in the area. On the above facts and baseline study, the proposed activity is recommended for the commencement with proper mitigation measure as suggested.

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