

EXECUTIVE SUMMARY OF DRAFT EIA REPORT

FOR

*Environmental Clearance for Proposed Sukulpara Limestone Mine Project
(Minor mineral)*

Total Mine area is 1.061 ha

At

**Near Village:-Sukulpara, Tehsil- Pamgarh,
District- Janjgir - Champa, State- Chhattisgarh**

APPLICANTS

	Applicant	Number and date of Terms of reference	Land Khasra	Area of appli ed lease (Ha)	Annual Producti on Capacity	Address of Applied land	Cluster Area
1	Sukulpara Limestone Mine (Prop. – Govind Prasad Yadav)	Vide letter no. A. 726/S.E.A.C.C.G/Mi ne /1926 Nawa Raipur Atal Nagar, Dated 07/08/2022	1143, 1137/3, 1136/3, 1137/2, 1136/2, 1136/1, 1137/1	1.061	20,007.00	Village – Sukulpara , Tehsil – Pamgarh District – Janjgir - Champa Chhattisgarh	9.726

ENVIRONMENTAL CONSULTANT



**M/s. ULTRA-TECH
ENVIRONMENTAL LABORATORY AND CONSULTANCY**

**NABET Accredited EIA Consulting Organization
NABET Accreditation Number: NABET/EIA/2023/RA019-Rev 01
Valid Upto - Oct 18,2024**

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EXECUTIVE SUMMARY

1.0 Introduction

The proposed Limestone mining mineral project of area 9.726 Hectare situated near Village-Sukulpara, Tehsil- pamgarh , District – Jangir Champa, State-Chhattisgarh. The Proposed Lease is issued in favour of Shri Govind Prasad Yadav by Collector, office of Collector (Mining Branch), Janjgir – Champa Chattisgarh-

Govind Prasad Yadav – Vide letter no. 1336/Gaun Khanij/Na.Kra./2021-22 Janjgir Dated 20/09/2021.

extension of validity of LOI were granted by Director, Directorate of Geology and Mining (DGM) Nawa Raipur through letter number 5102/Khani 02/U.Pa.-Anu. Nispa/Na. Kra.50/2017(4) Nawa Raipur dated 30/09/2022 for up to grant of Environmental clearance and mining lease grant of project proponent

This mining project comes under Category ‘B1’ (Cluster situation) Project or activity 1(a) as per EIA Notifications 2006, and its subsequent amendments and will be appraised at SEAC, Chattisgarh. The lease is falling in the cluster as per 15th January 2016 EIA Notification of MoEF&CC and NGT order dated 13th September 2018.

Project Location -

Khasra No: 1143, 1137/3, 1136/3, 1137/2, 1136/2, 1136/1, 1137/1 of district– Jangir Champa, Tehsil- pamgarh , village- Sukulpara . Limestone Quarry of Lessee Shri Govind Prasad Yadav featured in the Survey of Indian Toposheet No. 64K/5, 64K/6, 64K/9, 64K/10

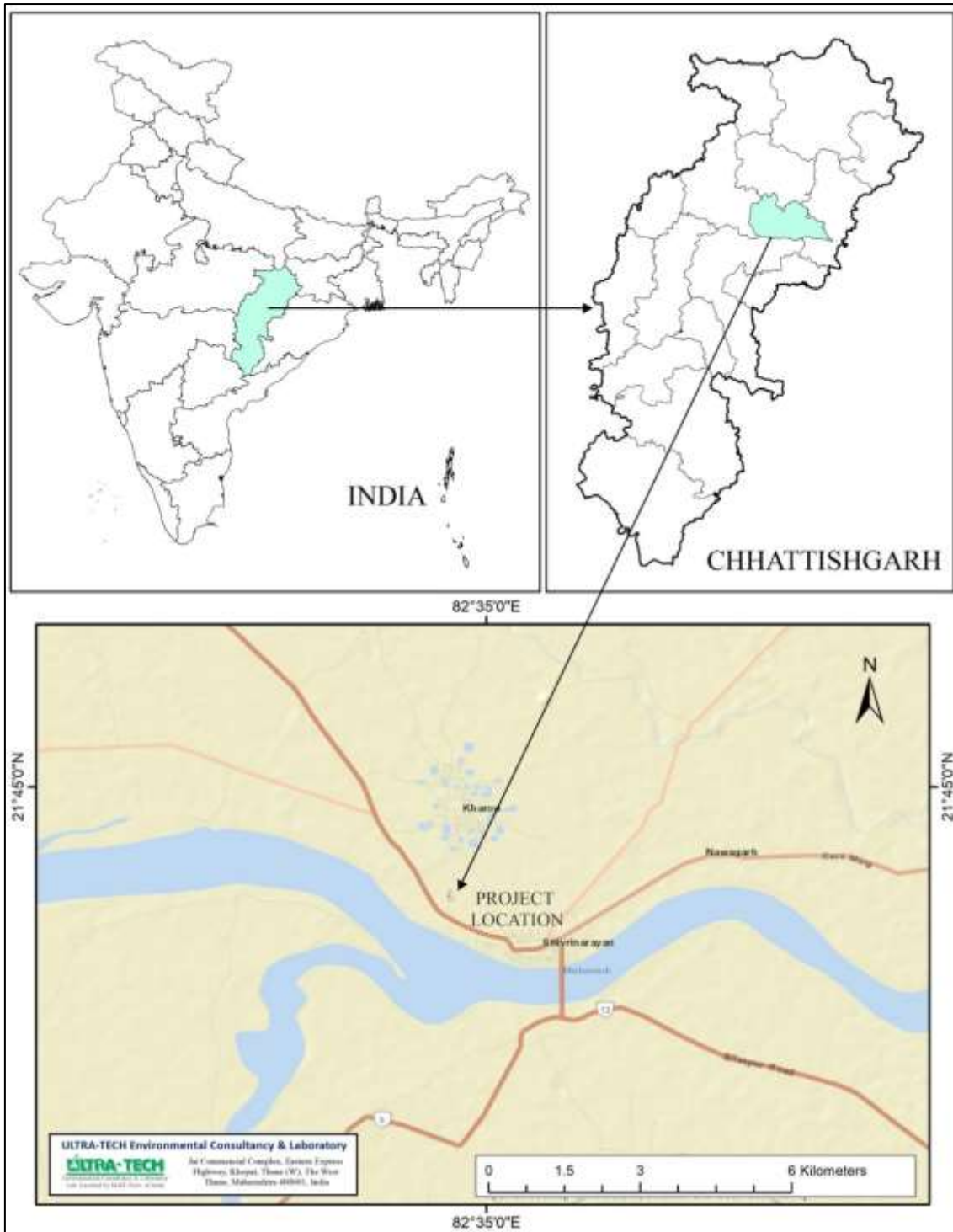


Figure E-1: Location map of the Project Site

Executive Summary of Draft EIA Report of Sukulpara Limestone Mine at Village Sukulpara , Tehsil-Pamgarh , District- Janjgir-Champa , State- Chattishgarh .

Table E.1: Environmental Setting around Project Site

Particulars	Details																																													
Name of the Project	Sukulpara Limestone Mine , Total Area 1.061 Ha. (private land)																																													
Location of the Project	Village Sukulpara , Tehsil - Pamgarh , District-Janjgir Champa State- Chhattisgarh																																													
Geographical Coordinates:	<u>Sukulpara Limestone mine</u> <table border="1" data-bbox="555 495 1348 1422"> <thead> <tr> <th>BOUNDRY POINT</th> <th>LATITUDE</th> <th>LONGITUDE</th> </tr> </thead> <tbody> <tr><td>BL1</td><td>21°43'47.35"N</td><td>82°34'35.50"E</td></tr> <tr><td>BL2</td><td>21°43'46.84"N</td><td>82°34'38.31"E</td></tr> <tr><td>BL3</td><td>21°43'49.44"N</td><td>82°34'38.62"E</td></tr> <tr><td>BL4</td><td>21°43'49.53"N</td><td>82°34'36.08"E</td></tr> <tr><td>BL5</td><td>21°43'51.67"N</td><td>82°34'36.59"E</td></tr> <tr><td>BL6</td><td>21°43'51.63"N</td><td>82°34'37.08"E</td></tr> <tr><td>BL7</td><td>21°43'53.65"N</td><td>82°34'37.17"E</td></tr> <tr><td>BL8</td><td>21°43'53.79"N</td><td>82°34'36.13"E</td></tr> <tr><td>BL9</td><td>21°43'52.00"N</td><td>82°34'35.72"E</td></tr> <tr><td>BL10</td><td>21°43'51.65"N</td><td>82°34'35.34"E</td></tr> <tr><td>BL11</td><td>21°43'49.70"N</td><td>82°34'35.04"E</td></tr> <tr><td>BL12</td><td>21°43'49.63"N</td><td>82°34'35.73"E</td></tr> <tr><td>BL13</td><td>21°43'48.49"N</td><td>82°34'35.62"E</td></tr> <tr><td>BL14</td><td>21°43'48.26"N</td><td>82°34'35.41"E</td></tr> </tbody> </table>	BOUNDRY POINT	LATITUDE	LONGITUDE	BL1	21°43'47.35"N	82°34'35.50"E	BL2	21°43'46.84"N	82°34'38.31"E	BL3	21°43'49.44"N	82°34'38.62"E	BL4	21°43'49.53"N	82°34'36.08"E	BL5	21°43'51.67"N	82°34'36.59"E	BL6	21°43'51.63"N	82°34'37.08"E	BL7	21°43'53.65"N	82°34'37.17"E	BL8	21°43'53.79"N	82°34'36.13"E	BL9	21°43'52.00"N	82°34'35.72"E	BL10	21°43'51.65"N	82°34'35.34"E	BL11	21°43'49.70"N	82°34'35.04"E	BL12	21°43'49.63"N	82°34'35.73"E	BL13	21°43'48.49"N	82°34'35.62"E	BL14	21°43'48.26"N	82°34'35.41"E
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Maximum Temperature	30.4° C																																													
Minimum Temperature	8.9° C																																													
Annual rainfall	48.31 mm																																													
Size of the Project	Cluster Area – 9.726 Hect. Applied Mines Area - 1.061 Hect.																																													
Nearest Highway	NH 200 at 30 km towards north (Champa-Raigarh road)																																													
Nearest railway station	Champa railway line 32.25 km towards north .																																													
Nearest Airport	Bilasa Devi Kevat Airport , Bilaspur 56 km , towards ESE .																																													
Nearest town/City	Janjgir - 30 Km toward North.																																													
Nearest water body	Village pond 780 m towards north .																																													
Major water bodies within 10 km radius	Mahanadi river 620 m towards south west .																																													

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Particulars	Details		
Densely populated or built-up area	Shivrinarayan – 1.02 Km (ESE)		
Archaeologically important places	None within 10 km radius		
Protected areas as per Wildlife Protection Act (Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves)	None within 10 km radius		
Reserved / Protected Forests	Sonakhan R.F	15.20	
	Open Mixed Jungle	2.60	
	Gindola R.F	13.80	
Defense Installations	None within 10 km radius		
Seismicity	Since project site comes under Seismic zone II, which is least active zone for earthquakes as per IS: 1893 (Part 1: 2002).		
Wildlife Sanctuary	None within 10 km radius		
National Park	None within 10 km radius		
Biosphere reserves	None within 10 km radius		
Important migration routes of birds	None within 10 km radius		
Ramsar sites (Wetlands of International Importance)	None within 10 km radius		
Unique or threatened ecosystems	None within 10 km radius		
Important topographical features, including ridges, river valleys, shorelines, and riparian areas	None within 10 km radius		
Mangrooves	None within 10 km radius		
Physical Sensitive Receptors	None within 10 km radius		
Notified Ground Water Zone by CGWA	None within 10 km radius		

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Particulars	Details
Critically Environmental polluted Area	None within 10 km radius
Pollution Sources	None within 10 km radius

2.0 Project Description

The proposed project of Sukulpara Limestone Quarry of 1.061 Ha is situated at Village-Sukulpara , Tehsil- Pamgarh , District: Jangir champa, State: Chattishgarh. The life span of proposed mine block is 30 years. The proposed method of mining is open cast semi mechanized mining.

Table E-2: Salient Features of the Proposed Mining Project

INFORMATION	DETAILS
Name of the project	Sukulpara Limestone mine
Village	Sukulpara
Tahsil	Pamgarh
District	Janjgir Champa
State	Chhattisgarh
Toposheet No	64K/5, 64K/6, 64K/9, 64K/10
Name of Leaseholders	Sukulpara Limestone Mine Prop. – Govind Prasad Yadav
Address and Contact details of Lease Holders	Govind Prasad Yadav s/o. Shri Rajaram Yadav Village - Sukulpara, Nagar panchayat – kharaud Tehsil- pamgarh , Janjgir Champa, (C.G.), Pin Code - 495556
Name of the Mineral to be mined	Limestone
Type of land	Private Land . There is no Forest land. No human settlement.
Status of Operation (New Project or Existing Project operating since)	New Project
Mine Area	1.061 Hect.
Ultimate depth of mining	18 m
Minable Reserve	1,01,900.00 MT
Production Capacity	20,007.00 TPY

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Life of Mine	As per Lease period -30 years
Quantity of topsoil and Overburden estimated to be removed	Topsoil – 1030.00 Cum Overburden – 3090 Cum
Depth of Ground Water Table	Approx. 40 meter of below from the normal surface level
Method of Mining	Opencast Semi-Mechanized
No.of working days	240 Days
SeismicZone	Seismic Zone II

2.1 Water Requirement-

The total water requirement shall be 7.00 KLD for Sukulpara Limestone Mine for domestic, green belt and sprinkling purpose, which will be sourced from Water Tankers from nearby village. Detail of water requirement is given below:

Table E-3: Water Requirement Details

Sr. No.	Usage	Water Requirement	
1.	Greenbelt Development@ 2.5 L/tree	888 Trees X 2.5 Lit/day = 2220 Lit/day	2.50 KLD
2.	Dust Suppression @ 0.5 L/Sqm (twice a day)	Haul road Area = (1000 m Length x 4 m width = 4000 sqm.) x 0.5 li/sqm =2000 lit /day x 2 time = 4000 lit/day	4.00 KLD
3.	Domestic Purpose @25 lpd/worker	15 workers x 25 lit per day = 375Lit/Day	0.50KLD
Total ::			7.00 KLD

2.2 Power Requirement

No power is required for mining purpose other thanforlabour, admin building and for crusher plant. State electricity board will supply the electricity. Electric power is available in the lease area.

2.3 Manpower Requirement

The mining project will generate direct & indirect employment. About 15 per day people will get direct employment, and some persons will also be affected indirectly and employed with allied and related industries, such as transportation, maintenance, etc. Following staff & workers are proposed to be employed : -

Table E-4: Manpower Details

S. No	Particulars	
1	Mining mate	1
2	Supervisour	1
3	Skilled labour	6
4	Machine Operator	4
5	Crusher Supervisor	1
6	Crusher Operator& Assistant	2
TOTAL		15

3.0 Description of Environment

The area around the proposed mining site has been surveyed for physical features and existing environmental scenario. The field survey and baseline monitoring has been done from the period of **October 2022 to December 2022** (Winter Season).

The observations for Winter season-(October 2022 to December 2022) are summarized below:

3.1 Meteorology

The secondary meteorological data of the study period collected from www.imdpune.gov.in/. The month wise meteorological data is given in Table E-5.

Table E-5: Meteorological Data of the study area (IMD – Champa)

Period	Wind Speed (m/s)			Temp (°C)			Relative Humidity (%)			Rainfall (mm)		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
OCT 2022	6.02	0.15	2.06	30.4	13.54	23.81	100	51.5	82.34	2.76	0	0.11
NOV 2022	3.05	0.1	1.52	27.6	9.08	19.54	100	0	0.02	0.04	0	0.02
DEC 2022	3.7	0.01	1.70	27.01	8.9	18.64	100	34.5	72.81	0.68	0	0.04

Source: Weather Summary for October 2022-December 2022(<https://www.imdpune.gov.in/>)

3.2 Air Environment

The ambient air quality is carried out at 8 locations in and around the project site and studies are carried out as per CPCB standards. It is observed that, all the values are within the prescribed limits as per National Ambient Air Quality Standards (NAAQS), 2009.

The results are compared with the standards prescribed by Central Pollution Control Board (CPCB). The overall ambient air quality around the proposed mine lease is within the limits of ambient air quality standards prescribed by CPCB.

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The observations for Winter season - (Oct 2022 – Dec 2022) are given in table-

E-5.

3.3 Noise Environment

Noise levels were monitored in eight locations including project within the study area. The noise levels ranged between 60.2 to 71.5 (A) during day time and noise levels ranged between 47.7 to 60.5 dB (A) during night time. Over all the monitored noise levels are found to be within the stipulated standards set by CPCB.

3.4 Water Environment

In order to establish the baseline water quality, 4 ground water and 4 surface water samples were collected and analyzed in the study area. The quality of surface water samples was compared with surface water specification IS 2296:1982 and the surface water quality comes under Class D (Propagation of wildlife and fisheries). The ground water samples were compared with drinking water specification IS 10500:2012 standards.

3.5 Soil Quality

A total of 8 samples in and around the project site are collected and analysed. It has been observed that the pH of the soil quality ranged from 6.8 (S6) to 7.5 (S3) indicating that the soil is slightly alkaline in nature.

Table E- 6: ENVIRONMENTAL BASELINE STUDY

Particular	Number of Locations	Description
Background Ambient Air Quality Monitoring	Sampling was done at 8 Locations	PM ₁₀ :-65 to 82 µg/m ³ PM _{2.5} :-31 to 42 µg/ m ³ SO ₂ :- 8 ug/m ³ to 15 µg/ m ³ NO _x :- 9 to 26 µg/ m ³ CO:- 0.4 to 0.7 mg/ m ³ SiO ₂ - 0.1 to 0.3 µg/ m ³
Noise Level Monitoring	Monitored at 8 Locations	Noise Level During Day Time :- 60.2 to 71.5 dB (A) Noise Level During Night Time:- 47.7 to 60.5 dB (A)
Water Sampling	Ground water sampling was done at 4 Locations	pH :- 7.1 to 7.5 ; TDS :- 548 -612 mg/l ; Total Hardness :- 360 -466mg/l SO ₄ :-74 mg/l to 86 mg/l; Chloride :- 71 mg/l to 79 mg/l;

	Sampling:- 4 at Surface water	pH :- 7.0 to 7.4 ; TDS :- 328 mg/l to 358 mg/l; Dissolve oxygen: - 5.2 to 5.7 mg/l. Chloride :- 51 mg/l to 61 mg/l; Calcium :- 42 mg/l to 55 mg/l; Magnesium :- 17 mg/l to 26 mg/l; Total Hardness :- 206 to 214 mg/l ;
Soil Sampling	Sampling was done at 8 Locations	pH :- 6.8 to 7.5; Nitrogen:- 111 to 131 kg/ha Phosphorus:- 56 to 82 kg/ha Potassium :- 220 to 265 kg/ha Electric Conductivity:- 0.248 to 0.452 ms/cm

Land Use/Land Cover of the Study Area

The location of the project is situated near Janjgir champa is a town and a nagar panchayat in Janjgir-Champa district in the Indian state of Chhattisgarh. The land use classification of Hybrid Level-2 was carried out using the Supervised Classification System. Bands 3, 4, 5 are the most appropriate ones. The LULC map in Figure 2 indicates that the analysis consists of 10 areal classes (Water Body, Canal, Crop Land, Settlement, Vegetation, Open Land, Sand, River, Dense Vegetation, and Mining Area). Table 3.7 reveals that between the area, cropland and vegetation are the two major patches that occupy a significant part of the study area.

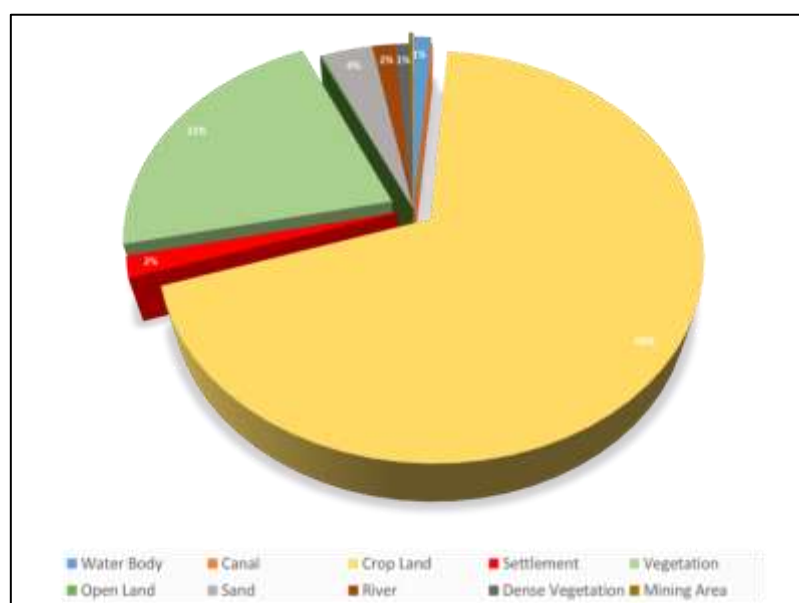


Figure 2: LULC Classification (10 km radius Proposed Project Area) of the project site

3.6 Biological Environmentical

Study of biological environment is one of the most important aspects for Environmental Impact Assessment. In view of the need for conservation of environmental quality and biodiversity study, biological environment is one of the most important aspects for Environmental Impact Assessment. Ecological systems show complex inter-relationships between biotic and abiotic components including dependence, competition and mutualism. Biotic components comprise of both plant and animal communities, which interact not only within and between them but also with the abiotic components viz. physical and chemical components of the environment. Generally, biological communities are the indicators of climatic and edaphic factors. The biological environment includes mainly terrestrial ecosystem and aquatic ecosystem. The mining activities are one such external influence, which might affect the ecology of an area, if proper management measures are not taken.

Objectives of Ecological Studies

- To assess the nature and distribution of vegetation in and around Core Zone and buffer Zone.
- To enlist the major agricultural crops, plantations and cultivated species.
- To evaluate the distribution of animal life spectra, including avifauna and butterflies, available in this area.
- To document the major fauna both invertebrate and vertebrate occurring in the selected 10 km study area.

3.7 Socio-economic Environment

An environmental factor is a socio economic concern. The emphasis is mostly on the social and economic consequences of the proposed development's construction and operation. It covers characteristics such as demographic composition, access to basic utilities such as housing, education, health and health services, occupation, water supply, sanitation, connectivity, and power, prevalent local diseases, and characteristics such as tourist sites and ancient monuments. The examination of these criteria aids in defining and assessing the potential implications of project activity on the surrounding area. Every development effort has an immediate and indirect, positive and negative impact. Every development activity has an immediate and indirect, good and bad impact on the region's socioeconomic environment.

4.0 Anticipated Environment Impacts and Environment Management Plan

Land/Soil Environment Impact Mitigation

The mitigation measure of the land environment includes:

- Before the mining activity the top soil will be scrapped and stored in the lease area and will be utilized for plantation purpose. Balance top soil if any preserved separately will be used to spread over partially reclaimed land.
- The Limestone excavated from the lease area will be completely sellable resulting no dump within the lease area.
- At the end of conceptual period the excavated quarry will converted into water reservoir to supply water for local use like irrigation and pisciculture.
- Due to manual mining operation emission from the Limestone mines are very less, there will be no impact on the surrounding soil quality and cropping pattern of the area.
- The propose project falls under the seismic zone –II (Low Hazard Risk Zone). Since this project will not have physical infrastructure to be constructed, no impact of seismicity is envisaged in this project. Further, this project will not change/alter the seismic behavior of the area.

Air Impact Mitigation

The mitigation measures undertaken in the mine for control of air pollution are:

- Checking of vehicles and machinery to ensure compliance to Indian Emission Standards Transportation vehicles and machinery to be properly and timely maintained and serviced regularly to control the emission of air pollutants in order to maintain the emissions of NO_x and SO_x within the limits established by CPCB.
- 4 KLD water required towards dust suppression purpose for which 2 no. of water tanker with 2000 litter capacity will be hired and used for water sprinkling twice in a day in haul roads, dumping site, loading and unloading site of each lease within the cluster and this will be regularly monitored by the cluster management. Water sprinkling on transport road side, stock yard (if any) etc. will be done by tractor mounted water sprinkler.
- Regular compaction and grading of haul roads will be done to clear the accumulation of loose material
- All the mines workers will be provided with the dust masks.

- Trees can act as efficient biological filters. As this is a small lease, the area available for plantation is very less. However, a well-planned plantation programme has been proposed for the mining area to arrest the dust pollution within the lease boundary. There is the proposal for continuous plantation along the cluster boundary and both side of the road connecting the cluster.
- Vehicles with valid PUC shall be used for transporting the minerals to avoid the exhaust emission.
- A greenbelt development plan is prepared with local species. The greenbelt on the periphery will reduce the dust levels its
- Water mounted stonecutter will be used for stone cutting.
- Regular monitoring of the air quality as per the monitoring plan detailed in Chapter 6 of this EIA report shall be adopted during the operation phase, to ensure that, the air quality is within the desired limits prescribed by CPCB.

Noise Impact Mitigation

- No noise polluting work shall be carried out in the night hours
- Provision of PPE's for the workers
- Vehicles to be serviced regularly and maintained properly to avoid any unwanted generation of noise or vibration from them
- Green belt plantation and garden trees will help in reducing the noise, traffic related pollution and heat island effects.
- Proper lubrication, muffling and modernization of equipment shall be used to reduce the noise during operation phase.
- Regular monitoring of the noise levels as per the monitoring plan detailed in Chapter 6 of this EIA report shall be adopted during the operation phase, to ensure that, the noise levels are within the limits prescribed by CPCB.

Water Impact Mitigation

- Provision of temporary toilets for labourers.
- Domestic waste water will be treated into septic tank followed by soak pit outside of the proposed cluster project with a safe distance and no wastewater will be allowed to be get discharged into the water body
- All stacking and loading areas should be provided with proper garland drains.
- Check dams should be provided to prevent solids from wash off.

- Construction of garland drains around freshly excavated and dumped areas so that flow of water with loose material is prevented.
- The mine water should be passed through specially constructed catch pits to arrest any loose material being carried away with water.
- Any areas with loose debris within the leasehold should be planted.
- Garland drains should be constructed surrounding the waste dumps and should be connected to the surface water reservoir to avoid the run-off mixing directly to natural water channels before settling.
- Ground water table will not be intersected during the mining activity.

Biological Impact Mitigation

- Green belt will be developed along the core zone boundary which will act as a pollution barrier for the biological environment.
- There is the proposal for plantation along the core zone. The drilling and transportation will be carried out during the day time only minimizing the impact on the wild fauna movement.
- Fencing around the entire mine lease area is recommended in order to restrict the entry of stray animals into the mining area.

Socio-Economic Environment Impact Mitigation

In order to mitigate the adverse impacts likely to arise in the surrounding area due to proposed project activity, it is necessary to formulate an effective mitigation plan. The suggestions are as follows:

Before Commencing and During Initial Phase :-

Communication with the local community should be institutionalized and done on a regular basis. The forum could provide opportunities to discuss local critical issues and prepare programmes of mutual benefits.

Information regarding the proposed development plan, community programmes etc. should be communicated to the local community.

Mining and Dragging Phase:

- Project proponent should take appropriate steps to keep environment clean and healthy during construction phase.
- Provision of adequate drinking water, rest room, first aid instrument and toilet facilities should be made available on project site also in labour camp site.

- Water shall be sprinkle/spread over the truck and road to suppress dust during transportation of mining material to control air pollution and thereby avoid adverse health impact.
- A barrier located in the direction of the wind, with a height of approximately three times the height of the storage pile, would reduce PM10 emissions
- While transportation of dragging material, truck, tractors should be covered.
- Proper Training and awareness programme should be carried out so that the workers understand the importance of wearing the personal protective and safety equipment's.

5.0 Environmental Monitoring Program

Environmental monitoring shall be carried out at the locations to assess the environmental health in the post period. A post study monitoring programme is important as it provides useful information on the following aspects.

- It helps to verify the predictions on environmental impacts presented in this study.
- It helps to indicate warnings of the development of any alarming environmental situations, and thus, provides opportunities for adopting appropriate control measures in advance.

Detailed EMP plan during the operation phase is given chapter 6 of EIA report.

6.0 Risk Assessment

The hazards and its risk assessed during the operation phase of the proposed Limestone mining project are low, medium & high. The project proponents are proposed to implement all the mitigation measures to prevent the impact or consequences of the risk expected to be happened in both the project sites. The level of impact after implementing the mitigation measures will be low/medium in all the hazards identified.

7.0 Emergency Response and Disaster Management Plan

Impact of disaster can be significantly reduced through attempts at preparedness, mitigation, and post-event rehabilitation work. Based on hazard identification in the proposed project, an emergency plan has been prepared and the same plan will be implemented by the project implementing agency with the coordination of District Authorities to minimize the damage. The risk assessment and disaster management plan is detailed in Chapter 7 of the EIA report.

8.0 Project Benefits

Mining is back bone of infra-structure development of country. Proposed project has following benefits as given below:

- Employment for local people
- Revenue for the State Government in form of excise duties, GST, taxes, levies etc.
- Generate business opportunity for the people
- Need based funds will be used for welfare of people in villages
- EMP funds will improve environmental quality.
- The operation of the limestone mining would help to improve socio-economic condition of people in villages through separate fund allocated for Need Based Activity.

9.0 Budget for Social Development

The total estimated cost of the project is 42.70 lacs . Rs 1,15,000/- lac will be allocated for Need based activity for causes of village for drinking water, sanitation, education, health.

10.0 Environment Management Plan (EMP)

The detailed Environment Management Plan has been prepared based on the mining activities and the impacts imparting on land/soil, air, noise, water by the activities. The EMP and the cost for the environment protection measures are detailed in Chapter 10 of EIA report.

Expenditure Proposed for Environmental Protection Activities:

S.No.	Particulars	Govind Prasad Yadav	
		Capital Cost in Rs	Recurring Cost in Rs
1	Air Pollution Control	-	72,000
2	Green Belt Development	1,63,000	2,69,000
3	Maintenance of Road	-	40,000
4	Facilities for Mine workers	50,000	67,500
	Total ::	2,13,000	4,49,000
Total Capital Cost in Rs		2,13,000	
Total Recurring Cost in Rs		4,49,000	
Total Cost of EMP in Rs		6,62,000	

11. 0 Conclusion

As discussed, it is safe to say that the collection of minor minerals from the proposed lease area is not likely to cause any significant impact on the ecology of the area as the mineral is and waste generated is non-toxic and does not harm the surrounding environment.

Adequate measures will be taken to control the fugitive emissions to be generating during mining operation. Socio-economic condition of the surrounding villages will improve in long run due to involvement of local population and improvement of infrastructure facilities. Green belt development in the statutory boundary, approach roads, schools are proposed with the participation of local people. This proposed plantation in the area will improve the aesthetic look along with betterment of ecology and environment of the locality.