EXECUTIVE SUMMARY OF DRAFT EIA REPORT

FOR

PROPOSED LIMESTONE MINING PROJECT

(Minor mineral)

Total Minearea is 3.106 ha

At

Near Village: -Bheski , Tehsil- Rajpur, District- Balrampur- Ramanujganj, State- Chhattisgarh

APPLICANT

M/s. Madan Goyal
S/o. Late Shri Pannalal Agarwal
Village/City : Ambikapur, Dist– Surguja
State- Chhattisgarh, Pin no: 497001

ENVIRONMENTAL CONSULTANT

ULTRA-TECH
Environmental Consultancy & Laboratory
(Lab. Gazetted by MoEF-Govt. of India)

M/s. ULTRA-TECH
ENVIRONMENTAL LABORATORY AND CONSULTANCY

NABET Accredited EIA Consulting Organization
NABET Accreditation Number: NABET/EIA/2023/RA0194

May, 2022

TABLE OF CONTENTS

EXECUTIVE SUMMARY 3

1.0 INTRODUCTION..... 3
2.0 PROJECT DESCRIPTION..... 6
3.0 DESCRIPTION OF ENVIRONMENT 9
4.0 ANTICIPATED ENVIRONMENT IMPACTS AND ENVIRONMENT MANAGEMENT PLAN..... 14
5.0 ANALYSIS OF ALTERNATIVES..... 17
6.0 ENVIRONMENTAL MONITORING PROGRAM..... 18
7.0 RISK ASSESSMENT 18
8.0 EMERGENCY RESPONSE AND DISASTER MANAGEMENT PLAN..... 18
9.0 CAPITAL INVESTMENT AND PROJECT SCHEDULE..... 18
10.0 PROJECT BENEFITS 18
11.0 NEED BASED ACTIVITY 19
12.0 ENVIRONMENT MANAGEMENT PLAN (EMP) 19
13.0 CONCLUSIONS..... 20

LIST OF TABLES

Table E.1: Environmental Setting around Project Site 4

Table E.2: Salient Features of Proposed Project.....7

Table E.3: Water Requirment Details.....9

Table E.4: Summary of the Meteorological Data generated at Site 10

LIST OF FIGURE

Figure E-1: Location map of the Project Site 4

Figure E-2: Area of the proposed Mining site 7

Figure E-3: LULC Classification (10 km radius of the Proposed Project Area).....12

Figure E-4: Population Concentration map of the study area SC and ST Population 14

EXECUTIVE SUMMARY

1.0 Introduction

The proposed limestone mining mineral project of area 3.106 Hectare situatednear Village- Bheski , Tehsil- Rajpur, District, Balrampur - Ramanujganj, State-Chhattisgarh. The project is issued in favour of Madan Goyal by the Office of Collector, Mining Branch Balrampur Chhattisgarh, under Chhattisgarh Minor Mineral Rule 2015.

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 dated13th September 2018.

Project Location

278/5,278/6, 278/16,248/1, 248/2 & 325,of district Balrampur - Ramanujganj Tehsil Rajpur village Bheski . Bheski Limestone mine of Lessee Madan Goyal featured in the Survey of IndiaToposheet No. 64 M/7.

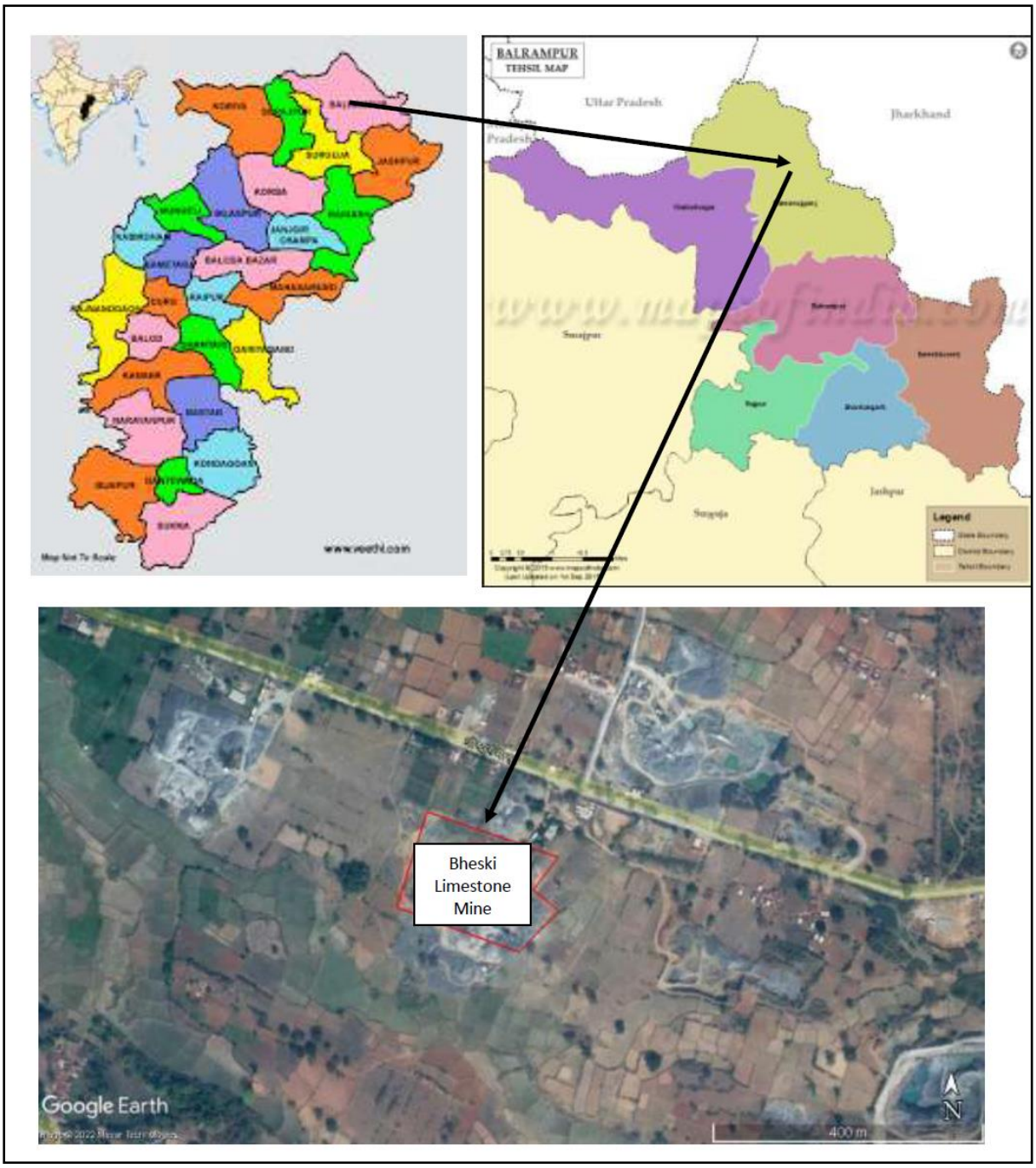

Figure E-1: Location map of the Project Site

The details of environmental setting are given below.

Table E.1: Environmental Setting around Project Site

Particulars	Details
Name of the Project	Bheski Limestone Mining Project, Area: 3.106 Ha. (Pvt. Land)
Location of the Project	Near Village- Bheski, Tehsil- Rajpur, District- Balrampur - Ramanujganj State- Chhattisgarh

<table>
<tr><th>Particulars</th><th>Details</th></tr>
<tr><td>Geographical Coordinates:</td><td>
<table>
<tr><th>Pillars</th><th>Latitude(N)</th><th>Longitude(E)</th></tr>
<tr><td>BL1</td><td>23º14’50.60” N</td><td>83º19’54.75”E</td></tr>
<tr><td>BL2</td><td>23º14’51.59” N</td><td>83º19’53.39”E</td></tr>
<tr><td>BL3</td><td>23º14’53.17” N</td><td>83º19’54.62”E</td></tr>
<tr><td>BL4</td><td>23º14’55.35” N</td><td>83º19’47.76”E</td></tr>
<tr><td>BL5</td><td>23º14’50.76” N</td><td>83º19’46.13”E</td></tr>
<tr><td>BL6</td><td>23º14’48.58” N</td><td>83º19’52.60”E</td></tr>
</table>
</td></tr>
<tr><td>Maximum Temperature</td><td>46° C</td></tr>
<tr><td>Minimum Temperature</td><td>4.5° C</td></tr>
<tr><td>Annual rainfall</td><td>1287.4 mm</td></tr>
<tr><td>Size of the Project</td><td>3.106 Ha</td></tr>
<tr><td>Nearest Highway</td><td>NH 343 at 1.15 Km towards West (Ambikapur- Rajpur Road)
SH 12 at 12.00 km towards north-east (Rajpur – Pratappur Road)(As per Mining Plan)</td></tr>
<tr><td>Nearest railway station</td><td>Ambikapur Railway Station – 22.61 km SW</td></tr>
<tr><td>Nearest Airport</td><td>Bilaspur City Airport – 186 km, SW</td></tr>
<tr><td>Nearest town/City</td><td>Ambikapur – 19.56 km SW</td></tr>
<tr><td>Nearest water body</td><td>Gagar River at 3.44 km Towards NE</td></tr>
<tr><td>Major water bodies within 10 km radius</td><td>Gagar River at 3.44 km Towards NE</td></tr>
<tr><td>Densely populated or built-up area</td><td>Ambikapur – 19.56 km SW
District Headquarter, Balrampur - Ramanujganj – 65.83 km North-east</td></tr>
<tr><td>Archaeologically important places</td><td>None within 10 km radius</td></tr>
<tr><td>Protected areas as per Wildlife Protection Act (Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves)</td><td>None within 10 km radius</td></tr>
<tr><td>Reserved / Protected Forests</td><td>1. Geor RF: 6.8 Km, NE
2. Bansbora RF : 1.93 Km, NE
3. Pandoli Katara RF : 5.25 Km, SE
4. Ratgada RF : 7.26 Km, SSE
5. Khairbar RF: 14.22 Km, SSW
6. Kalyanpur PF: 12.20 Km, SW
7. Ankor PF: 8.71 Km, WSW
8. Kadura PF:9.60 Km, WNW
9. Narsingpur RF: 4.27 Km, NW</td></tr>
<tr><td>Defense Installations</td><td>None within 10 km radius</td></tr>
<tr><td>Seismicity</td><td>Since project site comes under Seismic zone II, which is least active zone for earthquakes as per IS: 1893 (Part</td></tr>
</table>

Particulars	Details
	1: 2002).
WildlifeSanctuary	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
Critically Environmental polluted Area	None within 10 km radius
Pollution Sources	None within 10 km radius

2.0 Project Description

The porposed project of Bheski Limestone mine having an area of 3.106 Ha is situated at Village- Bheski , Tahsil- Rajpur, District: Balrampur - Ramanujganj, State: Chattishgarh. The life span of proposed mine block is 30/10 years with an estimated production of 18525 MTPA (ROM). The proposed method of mining is open cast semi mechanized mining

Figure E-2: Area of the proposed Mining site

Table E.2: Salient Features of Proposed Project

INFORMATION	DETAILS
Name of the project	Proposed Limestone Mining Project, Area 3.106 Ha
Village	Bheski
Tahsil	Rajpur
District	Balrampur - Ramanujganj
State	Chhattisgarh
Toposheet No	64 M/7
Name of Leaseholder	Madan Goyal
Address and Contact details of Lease Holder	S/o Late Shri Pannalal Agarwal Village / City – Ambikapur, Tehsil & District – Surguja (C. G.), Pin No – 497001 Contact no. : 9179690508 (RQP) Email : ec.madan211@gmail.com
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)	NewProject
Mine Area	3.106 Ha

Ultimate depth of mining	6 m
Minable Reserve	1,91,905.00 MT
Production Capacity	18,525.00 MT
Life of Mine	As per Lease period - 30 years
Quantity of topsoil and Overburden estimated to be removed	11,272 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	300 Days
SeismicZone	Seismic Zone II

Mining methodology

The mode of working will be open cast semi mechanized method of mining with low capacity blast. Small scale drilling and blasting will be carried out for exploration of stone. Rock breaker, Jack Hammer will yield the sufficient quantity of stone. Further the stone will be sized and dressed according to the required specification and stacked on the mine surface. Loading of sized stone will be done with help of mahines.

The gradient of the ramp with benches will be maintained to 1:15 i.e 15 meter log ramp for every 1meter of depth. Width of ramp will be 3-4 m. advancement benches will be maintained sufficiently broad to ease of transportation within the mine during mining operation.

Width of the benches will be maintained similar to height of benches. The quarry will be developed with 1 bench pf 3m height x 3m width each and 2nd bench i.e last bench of 3 m height only. Along with 0.50 m top soil in first bench. However during advancement of mining operation the mine will be worked into 1.5m - 1.5m height of sub- benchers

Power Requirement

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

Water Requirement

The total water requirement shall be 8.06 KLD for domestic, green belt and sprinkling purpose, which will be sourced from Water Tankers from nearby village. Detail of water requirement is given below:

- Dust suppression – 5.0 KLD

- Green Belt –2.73 KLD
- Domestic – 0.33 KLD

Table E.3: Water Requirment Details

Sr. No.	Usage	Water Requirement	
1.	Greenbelt Development@ 2.5 L/tree	1089 Trees X 2.5Lit/day = 2722.5 Lit/day	2.73 KLD
2.	Dust Suppression @ 0.5 L/Sqm (twice a day)	Haul road Area = (1250 m Length x 4 m width = 5000 sqm.) x 0.5 li/sqm = 25000 lit /day x 2 time = 5000 lit/day	5.0 KLD
3.	Domestic Purpose @25 lpd/worker	13 workers x 25 lit per day = 325 Lit/Day	0.33 KLD
		Total ::	**8.06 KLD**

Manpower

The mining project will generate direct & indirect employment. About 13 per daypeople will get direct employment, andsome 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:-

S.No.	Category	No. of persons
1	Mine Mate	1
2	Supervisor	1
3	Skilled Labour	5
4	Machine Operator	3
5	Crusher Supervisor	1
6	Crusher Operator & Assistant	2
Total		**13**

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 2021 to December 2021**(Post Monsoon Season).

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.4.**

Table E.4: Summary of the Meteorological (Site Ambikapur)

Period	Wind Speed (Km/Hr)		Temp (°C)		Relative Humidity (%)		Rainfall (mm)
	Max	Min	Max	Min	Max	Min	
October 2021	5.18	0.10	29.61	12.9	100	56.44	70.86
November 2021	3.98	0.13	26.21	10.55	100	47.06	9.46
December 2021	5.01	0.03	24.14	3.44	100	25.69	20.76

Air Environment

Particulate Matter (PM_{10}):

A maximum concentrationofPM_{10} is 99 μg/m^3 was observed at the AAQM-2 and minimum value of 61μg/m^3 was observed atAAQM-4.

Respirable Particulate Matter ($PM_{2.5}$):

A maximum concentration of $PM_{2.5}$ is recorded to be 56μg/m^3 at AAQM-1and minimum value of 30μg/m^3 was observed at AAQM-3.

Sulphur Dioxide (SO_2):

Maximum concentration of SO_2 is observed to be 30 μg/m^3 atAAQM -2 & 4 and minimum value of 12μg/m^3 observed at AAQM- 1& 3..

Oxides of Nitrogen (NO_X):

Maximum concentration of NO_x is observed to be 38μg/m^3 at AAQM-1 & 2 and minimum value of 10 μg/m^3 observed at AAQM-8.

Carbon Monoxide (CO):

Maximum concentrations in the region are observed to be 1.6 mg/m^3 at AAQM-1& 2 and minimum value of 0.5 mg/m^3 observed at AAQM- 5 & 6.

Silica

Silica in the ambient air of the 10 Km study area of the project site has been analised from the PM10 filter paper of the Ambient Airquality monitoring stations mentioned in Table 3.3 (7601 ,Issue 3 as per NIOSH Methods). The results indicates that silica concentration in the surrounding of project site was found to be in the range of 0.02μg/$m^3$to 0.08 μg/m^3.

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.

3.3 Noise Environment

Noise levels were monitored in nine locations including project within the study area. The noise levels ranged between 49.9to 52.4dB (A) during day time and noise levels ranged between 41.9 to 45.9 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

Ground Water Quality

- The analysis results indicate that the pH ranges in between 7.1 to 7.6, which is well within the specified standard of 6.5 to 8.5. The minimum pH of 7.2 was observed at GW2; the maximum pH of 7.6 was observed at GW6.
- Total hardness was observed to be ranging from 132 to 229 mg/l. The minimum hardness (132 mg/l) was recorded at GW5 and the maximum (229 mg/l) was recorded at GW4.
- Chlorides were found to be in the range of 68 to 82 mg/l, the minimum concentration of chlorides (68 mg/l) was observed at GW3, whereas the maximum value of 84 mg/l was observed at GW4.
- Sulphates were found to be in the range of 21 to 29 mg/l. The minimum value observed at GW1 and GW5 (21 mg/l) whereas the maximum value observed at GW7 (29 mg/l).
- The Total Dissolved Solids (TDS) concentrations were found to be ranging in between 449 to 578 mg/l, the minimum TDS observed at GW7 (449 mg/l) and maximum concentration of TDS observed at GW4 (578 mg/l).
- Zinc and iron found below detectable limit.

Surface Water Quality

- The analysis results indicate that the pH values in the range of 7.4 to 8.3, the minimum value was observed at SW1 and SW 2 and maximum value was observed at SW5.
- DO was observed to be in the range of 3 to 5 mg/l. The minimum DO value was observed at SW3 and maximum DO was observed at SW2.
- The TDS was observed in the range of 222 to 298 mg/l, the minimum TDS value was observed at SW5, and where as maximum value was observed at SW1.
- The chlorides and Sulphates were found to be in the range of 32 to 55 mg/l and 31 to 43 mg/l, respectively.
- Total hardness expressed as $CaCO_3$ ranges between 156 to 215 mg/l.
- The calcium & magnesium were found to be in the range of 31 to 44 mg/l and 19 to 25 mg/l, respectively. Zinc is found below detectable limit.

3.5 Soil Quality

- It has been observed that the pH of the soil in the study area varied from 7.3 to 7.8. The maximum pH value of 7.8 was observed at S1 and S2 where as the minimum value of 7.2 was observed at S5.

- The electrical conductivity was observed to range from 0.254 to 0.429 ms/cm, with the maximum observed at S2 with the minimum observed in S4.
- The available Nitrogen value varies from 231 to 251 kg/ha.
- The available Phosphorus value varies from 54 to 77 kg/ha.
- The available Potassium value varies from 481 to 499 kg/ha.

The project site is near Bheski, a village in Rajpur Tehsil in the Balrampur-Ramanujganj District of Chattisgarh, India. The residents of this village live in peace, and agriculture is their primary source of income. However, this region has the potential for industrial development. The nearest town, Rajpur, is 10.50 kilometers away from the project site. The residential and educational component of Bheski village is 400 meters and 1.10 kilometres to the southwest

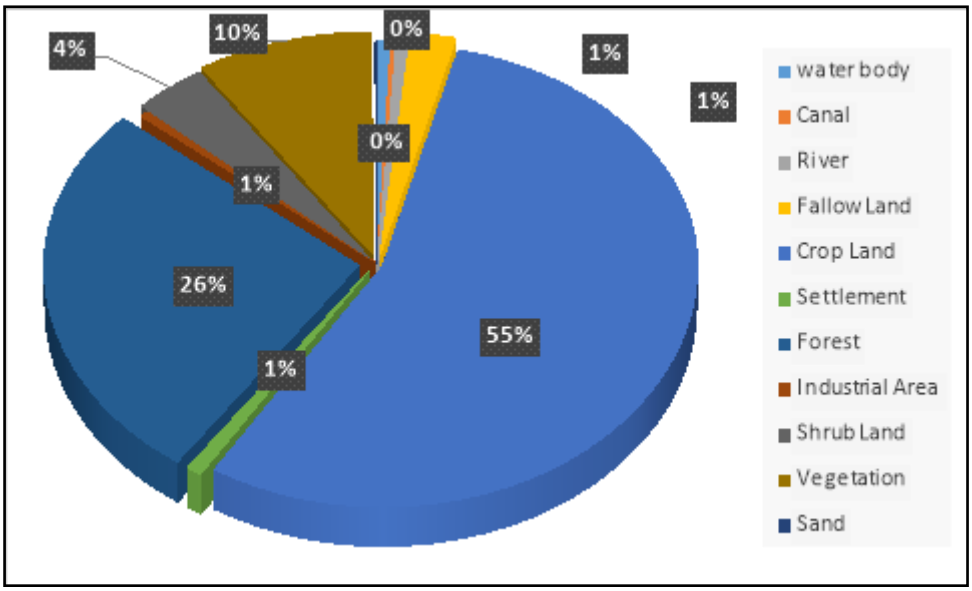

Figure E-3: LULC Classification (10 km radius of the Proposed Project Area)

3.7 Ecology and Biodiversity

The ecological study of the area has been conducted within 10 km radius of the project site in order to understand the existing status of flora and fauna to generate baseline information. Following Rf and PF are being observed within 10 km surrounding from the project site.

Sr. No.	Name of forest block	Type of Forest	Direction	Distance (km)
1	Geor	Reserved forest	NE	7.02
2	Bansbora	Reserved forest	E	0.63
3	Narsingpur	Reserved forest	NW	5.18
4	Ratgada	Reserved forest	SE	6.64

3.8 Socio Economics

According to Census 2011 statistics, the location code or village code for Bheski village is 433312, where the project location is situated. Bheski village is located in the Rajpur tehsil of Chhattisgarh's Balrampur-Ramanujganj district. It is 28 kilometres from Rajpur's sub-district headquarters (tehsildar office) and 28 kilometres from Ambikapur's district headquarters. Bheski village comprised around 196 housholds as per 2011 census.

In the study area, the total male population is 27094, which is somewhat higher than the male population of 26542. Figure E-3 depicts the village-wise population concentration in the study region defined by a 10-kilometer radius from the project location. A map of the research area has been developed based on the concentration of people within a 10 km radius of the study area—the biggest number of inhabitants in the hamlet of Bariyon in the southern areas. The population of Bheski , where the project location is located, is 1241, which is a small number. Figure E-3 depicts the five demographic classes, indicating that the villages of Dhandapur, Parsagudi, and Sidhama have a large population. Rewatpur, Badauli, Kakna, Ara, and Sakholi have a modest population. The majority of the population lives in the intermediate villages of Batidand, Khumri, Changori, Bitthi Khurd, Jamuniya, and Aarma Kalan. The remaining settlements in the study region have a moderate to low population density..

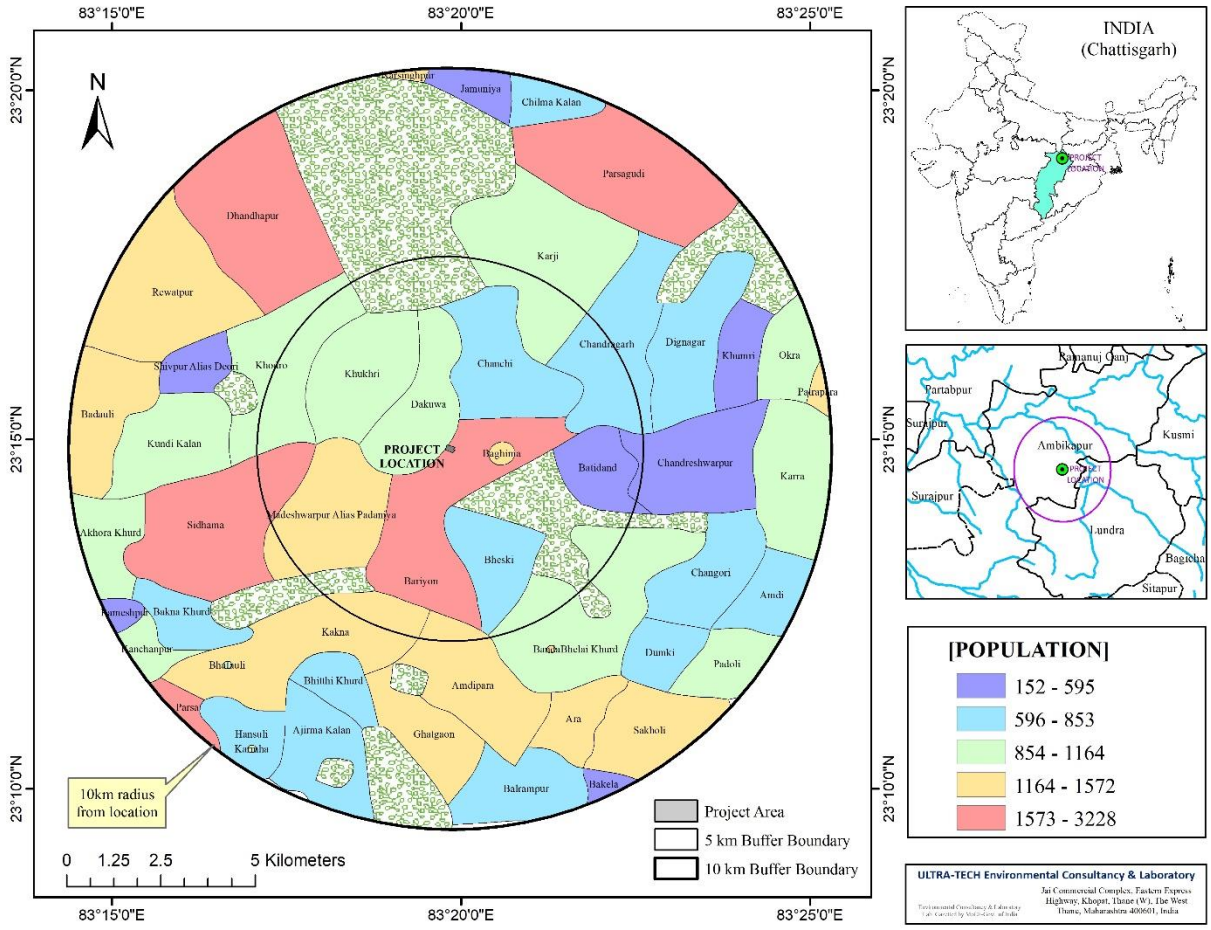

Figure E-4: Population Concentration map of the study area SC and ST Population

4.0 Anticipated Environment Impacts and Environment Management Plan

Land/Soil Environment Impact Mitigation

Adopting suitable, site-specific mitigation measures can reduce the degree of impact of mining on land & soil. Some of the land & soil related mitigation measures are as follows:

- 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 selleable resulting no dumpwithin 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

- 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.
- 5 KLD water required towards dust suppression purpose for which 1 no. of water tanker with 6000 liter 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 ompaction and grading of haul roads will be done to clear the accumulaion of loose material
- All the mines workers will beprovided 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 levelsits
- Sharp drill bits will be used for drilling and regrinding willb be done periodically to reduce generation of dust.
- Fugitivde emission by stone crusher plant will be supressed by adopting following measures as per norms:
    - ✓ Construction of tin walls around the crusher plant and equipment.
    - ✓ Regular cleaning and wetting of the ground within the premises.
    - ✓ Better maintenance of crusher plant and equipment will help to reduce such emissions.
    - ✓ water spray at dust generating points on crusher plant.

- 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.
- Vibration and noise due to blasting will be reduced by adopting controlled blasting technique.
- Blasting will be avoided under unfavourable conditions.
- Rock breakers is being/ will be used instead of secondary blasting.
- 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 laborers
- 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.

Ecology and Biodiversity Impact Mitigation

Flora

- Green Belt will be developed around the lease boundary, haul roads and plantation will be done on undisturbed area, reclaimed area, dump site, workshop & mine office.
- Total area of green belt proposed would be 20 % of the mining lease and surrounding area.
- Local species will be planted in consultation with Forest Department..

Fauna

- All workers and drivers involved in the project will be trained to avoid harming any animal spotted. No mining activity shall be carried out at night.
- No night time mining will be allowed which will disturb wildlife.
- Workers will be made aware of the importance of the wildlife and signage will be displayed at the sensitive areas to caution the workers & other passerby.
- Access roads will not encroach into the riparian zones and if any riparian vegetation cleared off for the mining activity will be restored at the end of closure of mine.

Socio-Economic Environment Impact Mitigation

- Employing local people for construction work.
- Providing proper facilities for sanitation for the construction workers such as temporary toilets.
- Barricades, fences and necessary personnel protective equipment shall be provided to the construction workers.
- The health of workers will be checked for general illness; first time upon employment and thereafter at periodic intervals, as per the local laws and regulations.

5.0 Analysis of Alternatives

The proposed Bheski Limestone Mine, which includes the Limestone Quarry of Leases, is owned by four lessees and will be operated within the lease grant area.

So no alternate sites have been assessed. The mining technology is semi-mechanized open cast method in single shift manual mining without any change in technology.

This project is being granted to the respective project proponents by the Office of Director of Geology & Mining, Chhattisgarh in the approved mineralized zone. This project is far distance from habitation & on maximum non productive land hence this is best suitable for

mining activity. For recovery of mineral the procedure used here is the traditional method and as labour intensive, this is adopted for the site proved as the best practice

6.0 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 construction and operation phase is given chapter 6 of EIA/EMP report.

7.0 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.

8.0 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.

9.0 Capital Investment and Project Schedule

The proposed Limestone mining project is estimated to cost Rs 44.74 Lacs.

Once the statutory clearance being obtained, the mine will start operating.

10.0 Project Benefits

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

- Employment for localpeople
- Revenue for the State Government in formofexcise 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.

11.0 Need Based Activity

The proposed mining project is aware of the obligations towards the society and to fulfill the social obligations unit will employ semi-skilled and unskilled labor from the nearby villages for the proposed project as far as possible. Unit will also try to generate maximum indirect employment in the nearby villages by appointing local contractors during construction phase as well as during operation phase. The Project Proponents will contribute reasonably as part of social development as a part of EMP and will carry out various activities in nearby villages.

The total estimated cost of the project is 44.74 lacs . Rs 95,000/- lac will be allocated for Need based activity for causes of poor people of nearby villages for drinking water, sanitation, education, health.

12.0 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.	Activity	Sub Activity	Capital Cost (Rs.)	Recurring Cost (Rs.)
1	**Green Belt Plantation & Maintenance**	Green belt will be developed along with safety zone	95,000	1,95,000
2	**Air Pollution Control**	Sprinkling on haulage route for dust suppression / dust control	-	90,000
3	**Maintenance of Ramp and haul road**	Maintenance of Ramp and haul road across the mine area	-	40,000
4	**Facilities for Mine workers**	Insurance cover, Health Check-up, Shelter, Safe Drinking water, Sanitation Facility, Personal Protective equipment such as Goggles, Hamate, safety Shoes, Face Mask and Hand Gloves	1,00,000	58,500
Grand Total			1,95,000	3,83,500

13.0 Conclusions

As discussed, it is safe to say that the collection of minor mineral 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. Green belt development in the statutory boundary, approach roads, Govt. buildings, Schools also proposed with the help of local Govt. department and local people as social forestry in the area for betterment of environment.