

EXECUTIVE SUMMARY
OF
ENVIRONMENTAL IMPACT ASSESSMENT REPORT
AND
ENVIRONMENT MANAGEMENT PLAN

FOR
PUBLIC HEARING

OF

Sedam Limestone Mine
(ML Area: 995.97 ha)
with Proposed Limestone Production Capacity
5.2 Million TPA, Soil 0.062 Million TPA and
Waste 0.98 Million TPA (Total Excavation 6.242 Million TPA)
along with 1500 TPH Crusher (13 ha Area Outside the ML Area)

At

Villages: Beeranahalli, Arebammanahalli, Taranahalli,
Konkanhalli and Shettihuda (Sedam), Taluka: Sedam,
District: Kalaburagi, Karnataka

APPLICANT



M/s. Dalmia Cement (Bharat) Ltd.

Hansalya Building, 12th Floor,
15, Barakhamba Road, New Delhi - 110001

Fax No. 011-23313303

E mail: env.head@dalmiacement.com

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EXECUTIVE SUMMARY

1.0 PROJECT DESCRIPTION

1.1 INTRODUCTION OF PROJECT PROPONENT

Dalmia Cement Group is one of the leading cement producers of India. It was founded in 1935 by Shri Jaidayal Dalmia. First Cement Plant of DCBL was established in 1939 at Dalmiapuram, Tamil Nadu, thus enjoying a heritage of over 81 Years of expertise and experience.

DCBL currently has cement plants in Tamil Nadu (Dalmiapuram & Ariyalur), Andhra Pradesh (Kadapa), Meghalaya (Thangskai) Karnataka (Belgaum), Jharkhand (Bokaro), Assam (Umrangso & Lanka), Odisha (Rajgangpur & Kapilas), Bihar (Kalyanpur) and West Bengal (Medinipur). DCBL now controls a cement capacity of about 27 Million Tonnes & has a strong presence in Southern, Eastern & North East Regions of the Country.

1.2 TYPE OF PROJECT

DCBL has proposed Sedam Limestone Mine (ML Area: 995.97 ha) with Limestone Production Capacity 5.2 Million TPA, Soil: 0.062 Million TPA and Waste (OB/IB/SB):0.98 Million TPA; (Total Excavation: 6.242 Million TPA) along with 1500 TPH crusher (13 ha area outside the ML area) at Villages: Beeranahalli, Arebammenahalli, Taranahalli, Konkanhalli and Shettihuda (Sedam), Taluka: Sedam, District: Kalaburagi, Karnataka.

Conventional Opencast mechanized mining method will be adopted which includes drilling, blasting, loading, crushing and transportation to proposed interlinked cement plant.

As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category “A”, Project or Activity 1 (a) – 3 for “Mining of Mineral”. ToR for the project has been granted by MoEF&CC, New Delhi vide letter no. J-11015/26/2020-IA.II (M) dated 9th July 2020.

The proposed mine will be a captive mine and limestone excavated shall be transported to the proposed Greenfield cement plant.

1.3 Brief Description of the Project

Table – 1
Brief Description of the Project

S. No.	Particulars	Details
A.	Nature of project	Opencast Mechanized Limestone Mine
B.	Size of project	
1.	Area	Total mining lease area is 995.97ha. Out of which, 11.15 ha is Govt. land and 984.82 ha is Pvt. Land. Additionally, 13 ha Pvt. Land is earmarked for crusher & other infrastructure outside the ML Area
2.	Proposed Production Capacity	Limestone: 5.2 Million TPA, Top Soil: 0.062 Million TPA, Waste: 0.98 Million TPA (Total Excavation: 6.242 Million TPA) along with 1500 TPH Crusher
C	Project Location	

3.	Villages	Beeranahalli, Arebammanahalli, Taranahalli, Konkanhalli and Shettihuda (Sedam)
4.	Taluka	Sedam
5.	District	Kalaburagi
6.	State	Karnataka
7.	Coordinates	Latitude: 17°11'03.2" N to 17°12'55.0" N Longitude: 77°12'14.2" E to 77°15'55.8" E
8.	Toposheet No.	Project Area: E43R4 Study Area: E43R3, E43R4, E43R7 & E43R8
D	Environmental Setting Details (with approx. aerial distance & direction from the mining lease boundary)	
1.	Highway	<ul style="list-style-type: none"> ➤ SH-10 (~0.2 km in SE direction) ➤ SH-15 (~2.0 km in ESE direction) ➤ SH-126 (~8.5 km in W direction) ➤ SH-122 (~7.6 km in ESE direction)
2.	Railway Station	<ul style="list-style-type: none"> ➤ Sedam Railway Station (~3.0 km in ESE direction) ➤ Malkhaid Road Railway Station (~7.0 km SW direction) ➤ Kurgunta Railway Station (~9.5 km ESE direction)
3.	Nearest Airport	Rajiv Gandhi Hyderabad International Airport (~124 km in East direction)
4.	National Park, Wild Life Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant Reserves etc. and Reserve/Protected Forest within 10 km radius study area	No National Park, Wildlife Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant Reserves etc. and Reserve/Protected Forest are within 10km radius of mining lease boundary.
5.	Water Bodies within 10 km radius of the mine site	<ul style="list-style-type: none"> ➤ Kagina River (~0.3 km in NW direction) ➤ Kamalavati Nadi (~1.0 km in NE direction) ➤ Kona Halla (~1.5 km in NNW direction) ➤ Benithora River (~4.0 km in West direction) ➤ Sopkunta Nadi (~9.5 km in West direction)
6.	Seismic Zone	Zone - II [as per IS 1893 (Part - I) : 2002]
E	Cost Details	
1.	Total Estimated Project Cost	Rs. 185 crores/-
2.	Cost of EMP	Capital Cost: Rs. 10.64 Crores/- (Including Rs. 7.94 crore for Greenbelt/Plantation) Recurring Cost: Rs. 19.2 Lakh /Annum

Source: Site Visit & Pre-feasibility Report

1.4 LOCATION MAP

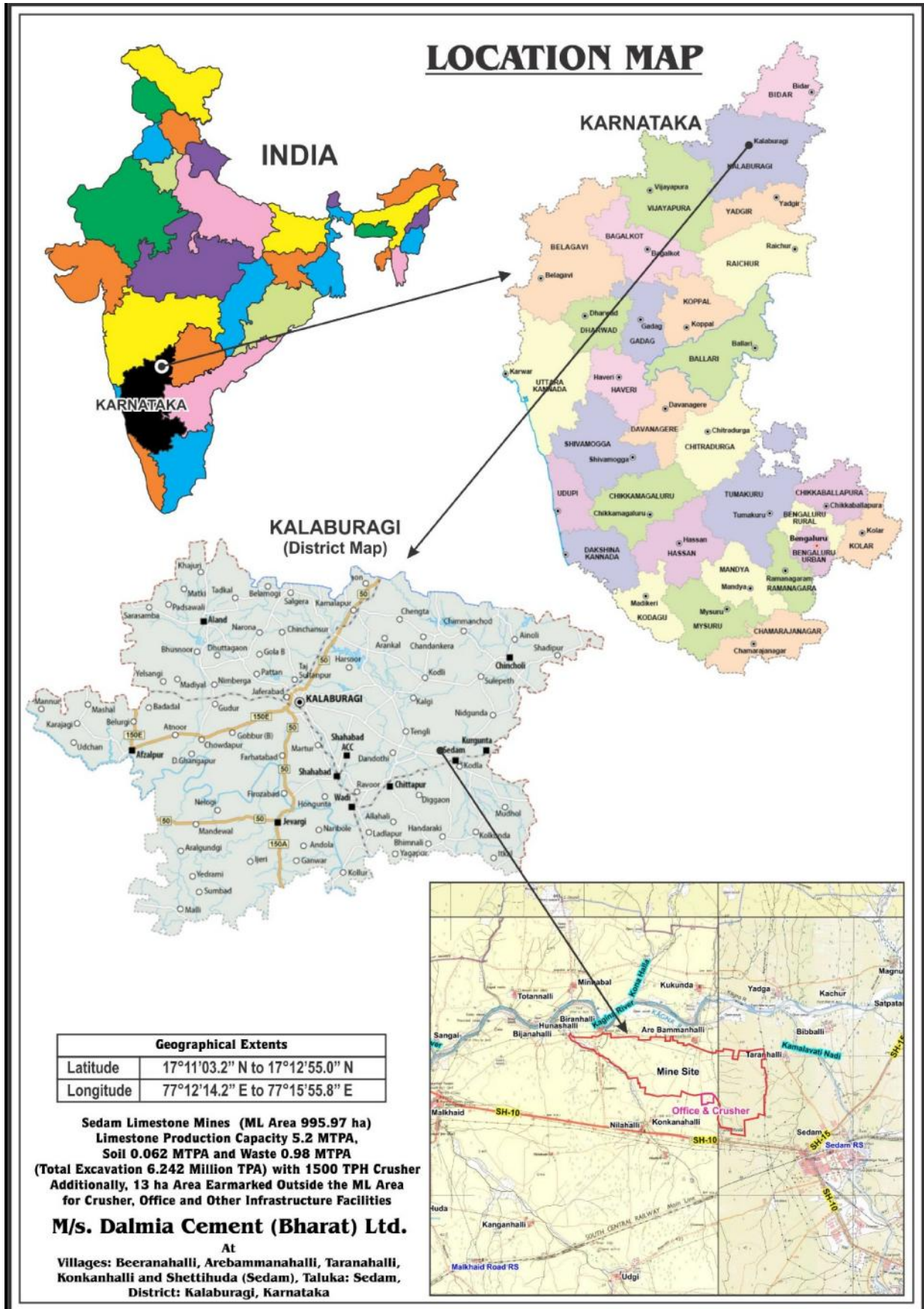


Figure 1: Location map (Showing general as well as specific location of the ML area)

1.5 MINE DESCRIPTION

1.5.1 Mining Lease Status

- DCBL has carried out prospecting over an area of 1221.88 ha and applied for Mining Lease for an area admeasuring 995.97 ha. Subsequently, Govt. of Karnataka has granted mining lease vide Govt. order no. CI 98 CMC 2018, Bengaluru, dated 16.07.2019 over an area of 995.97 ha in favor of DCBL.
- Mining Plan with Progressive Mine Closure Plan has been approved by IBM vide letter no 279/1107/2019/BNG/144, dated 23.01.2020.

1.5.2 Mining Details

Table – 2
Mining Details

S. No.	Particulars	Details
1.	Method of mining	Opencast Mechanized Mining
2.	Total Geological Reserves	315.67 Million tonnes
3.	Total Mineable reserves	145.53 Million tonnes
4.	Proposed Life of the Mine	32 years (The life of the Mine may increase after detailed exploration of the balance area)
5.	Validity of lease	50 years
6.	Bench Height	9 m
7.	Working Bench Width:	14 m (Average)
8.	Ultimate Pit Slope	33°
9.	Elevation Range	401 to 424 m AMSL
10.	Working day	300
11.	Number of shifts per day	2 shifts
12.	Soil, OB and waste generation at conceptual stage	Top Soil/ Sub Soil- 0.513 Million tonnes waste (OB/IB/SB) 9.92 million tones

Source: Approved Mining Plan & Progressive Mine Closure Plan

1.5.3 METHOD OF MINING

Mining operations will be carried out by mechanized opencast method. It includes drilling, blasting, loading, Crushing and transportation to end use plant. Drilling will be carried out by crawler mounted DTH/Top hammer Drill machine. Conventional blasting will be done using SME/ ANFO along with NONEL (Non- Electrical Initiation system). Hydraulic rock breaker will be used for breaking oversized boulders in place of secondary blasting. Loading will be done by Hydraulic Excavators and transport of mineral will be done by dumper to crusher (1500 TPH), which is proposed outside the lease area adjoining the Southern boundary. Crushed limestone will be transported to proposed interlinked cement plant via covered conveyor belt Crossing the SH no. 10 (Sarassamba-Ribbonpalli) at village Sedam (Shettihuda) with prior permission from the Competent Authorities. Limestone will be used for cement manufacturing and low grade limestone may be used in CPP to control emission of Sulphur di-oxide.

1.5.4 YEAR WISE PRODUCTION & EXCAVATION DETAILS

Year-wise production for first five years has been given in below table no 3:

Table – 3

Year-wise Proposed Excavation Details (in Tonne)

Year	Total tentative Excavation	Topsoil	Waste (OB)	Limestone	Mineral Reject	Total Top Soil/OB	ROM/ Waste Ratio
1 st Year	No production is proposed during the first year Land agreement/Purchase + Exploration + obtaining various clearances						
2 nd Year	579,063	19,912	58,842	5,00,310	Nil	78,753	1 :0.16
3 rd Year	1,200,304	40,417	1,59,163	10,00,724	Nil	1,99,580	1 :0.20
4 th Year	2,365,813	61,369	3,04,261	20,00,183	Nil	3,65,630	1 :0.18
5 th Year	4,154,012	23,462	1,34,177	39,96,373	Nil	1,57,639	1 :0.04
Peak Production	62,42,000	62,00,0	98,00,00	52,00,000	Nil	10,42,000	1:0.20

Note: Tonnage conversion factor 2.5 T/CuM is considered for Limestone, and 1.8T/CuM is considered for topsoil and overburden

Source: Approved Mining Plan & Pre-feasibility Report

2.0 DESCRIPTION OF THE ENVIRONMENT

2.1 Wind Pattern of the area

The nearest IMD station from the plant site is Kalaburagi located at approx. 45.0 km in North-West direction. The Pre-dominant wind direction in the area during the winter season is from East. Thus, the site selection for assessing the ambient air quality within the 10 km radius from the mine & plant site is done in the upwind and downwind of the pre-dominant wind direction.

2.2 Micro-Meteorology of the area

Meteorological station was set-up at plant site to record surface meteorological parameter during Winter Season (December 2019 to February 2020). Summary of the micro-meteorology condition near to the site is given in Table – 4:

Table - 4

Micro-Meteorology at Site

Study Period: Winter Season (December 2019 to February 2020)

Month	Temperature (°C)	Relative Humidity (%)	Wind Speed (m / sec)
Dec., 2019	12.2 - 30.8	56.0 - 76.0	0.1 - 8.3
Jan., 2020	11.0 - 34.0	37.0 - 57.9	0.1 - 5.1
Feb., 2020	12.0 - 34.4	26.0 - 56.4	0.2 - 5.0

Source: Meteorological Station at Site

2.3 PRESENTATION OF RESULTS (AIR, NOISE, WATER AND SOIL)

Composite monitoring for Air, Noise, Water (Ground & Surface) and Soil has been carried out within the 10 km study area from the proposed Plant site and Captive Sedam Limestone mine site.

The summary of the baseline Study is given below table no. 5:

Table – 5
Summary of Air, Noise, Water and Soil Parameters

Parameters	Number of locations	Description	Standards
Ambient Air Quality Monitoring	12 Locations	PM10 – 54.9 to 89.3 µg/m ³	100 µg/m ³ (24 hours)
		PM2.5 - 26.8 to 48.2 µg/m ³	60 µg/m ³ (24 hours)
		SO ₂ - 5.8 to 17.5 µg/m ³	80 µg/m ³ (24 hours)
		NO ₂ - 8.5 to 29.9 µg/m ³	80 µg/m ³ (24 hours)
		CO – BDL to 0.96 µg/m ³	4 mg/m ³
Noise Level Monitoring	10 Locations	Noise Level During Day Time - 52.1 to 54.7 Leq dB (A)	75 Leq dB (A)
		Noise Level During Night Time – 40.8 to 44.0 Leq dB (A)	70 Leq dB (A)
Surface Water (Kagina River & Kamalavati Nadi)	2 Locations	pH - 7.43 to 7.49	-
		Total Hardness – 109.45 to 113.65 mg/l	-
		Alkalinity - 95.87 to 106.87 mg/l	-
		TDS – 198 mg/l to 212 mg/l	-
Ground Water Sampling	9 locations	pH – 7.62 to 7.87	6.5 to 8.5
		Total Hardness – 194.97 to 382.78 mg/l	600 mg/l
		Alkalinity - 244.77 to 300.44 mg/l	600 mg/l
		TDS – 371 to 694 mg/l	2000 mg/l
Soil Sampling	9 Locations	Soil nature – neutral to moderately alkaline pH – 7.24 to 7.96 Organic Matter - 0.99% to 1.24% Nitrogen - 198.65 to 287.65 kg/ha Phosphorous - 23.68 to 54.23 kg/ha Potassium - 398.65 to 246.87 kg/ha Sodium - 50.83 to 71.50 mg/kg	-

2.4 BIOLOGICAL ENVIRONMENT

Flora Diversity:

The common floral species found in the study area are: *Azadirachta indica* (Neem), *Dalbergia sissoo* (Shisham), *Delonix regia* (Gulmohar), *Mangifera indica* (Mango), *Annona squamosa* (Sitaphal), *Butea monosperma* (Palas), *Polyalthia longifolia* (Ashok), *Prosopis juliflora* (Vilayati babool), *Dendrocalamus strictus* (Bamboo) etc.

Fauna Diversity:

The common faunal species found in the study are: *Boselaphus tragocamelus* (Nilgai), *Rattus rattus* (House Rat), *Semnopithecus entellus* (Common Langur), *Ptyas mucosa* (Indian Rat Snake), *Bufo melanostictus* (Common Indian Toad), *Vanessa cardui* (Painted lady), *Acridotheres tristis* (Common myna), *Bubulcus ibis* (Cattle Egret) etc.

2.5 Socio-Economic Environment

The 10 km radius study area from plant and mine site, comprises of District Kalaburagi, Taluka Sedam, Chincholi and Chittapur. Total no. of villages observed within the 10 km radius from the project area are 46.

As per 2011 Census, the population recorded is 74,162 (for 10 km radius buffer zone). Total no. of household is 3137, 4925 and 6109 respectively in primary, secondary and outer zone. Sex ratio is 1034, 1011 and 1013 (females per 1000 males) observed in primary, secondary and outer zone respectively. SC population distribution is 4688, 6221 and 10199 respectively in primary, secondary and outer zone. ST population distribution is 712, 85 and 397 respectively in primary, secondary and outer zone respectively. Average household size is 5 which is the standard family size in India. The literacy rate of the study area is 58.7% which is lower than the State and District Average i.e., 75.36% and 64.85%. The sex ratio of the study area is 1017.

3.0 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

3.1 Impact on Air Environment -

The key air emissions from the mining activities (drilling, blasting, loading, haulage, crushing and transportation) are Particulate Matter, Oxides of Nitrogen (NO_x) and Sulphur dioxide (SO₂). Gaseous emissions will be generated from HEMMs & transportation of vehicles. Impact on ambient air quality in the study area after the implementation of project were predicted which includes the cumulative effects of the proposed mine operation and captive plant operation. As per the prediction, the impact of the proposed project has been found to be within the prescribed limits of CPCB/MoEF&CC. The max. predicted incremental values of various pollutants are given below table no 6:

Table – 6
Predicted Incremental & Ground Level Concentration (GLC)

S. No.	Particular	Concentration			
		Composite (Mine & Plant)			
		PM10	PM2.5	SO ₂	NO ₂
1.	Predicted incremental Max concentrations (In µg/m ³)	4.48	1.43	5.57	7.85
2.	Distance (km)	1.5	1.5	0.5	0.5
3.	Monitored Max concentrations (In µg/m ³)	73.1	42.6	13.2	23.4
4.	Resultant Maximum concentrations (In µg/m ³)	77.58	44.03	18.77	23.5
5.	NAAQS (dated 2009)	100	60	80	80

3.2 Mitigation measures and suggested EMP:

- Wet drilling is proposed to prevent dust from being air borne.
- Controlled blasting with optimum use of explosive will help in reducing the air pollution. Rock breaker will be used in place of secondary blasting. Avoiding blasting during high wind periods where the fine dust is carried away easily affecting the ambient air quality.
- Haul roads & loading & unloading areas will be regularly sprayed with water.
- Provision of Bag filters and automatic water spray system at crusher.
- Crushed limestone will be transported to interlinked cement plant via covered conveyor belt.
- PUC certified vehicles will be used and Regular maintenance of HEMMs & transportation vehicles will be done.
- Personal protective equipments and training on safety and environmental parameters will be provided to employees.
- Development of green belt/plantation around mine boundary, roads and other places will be carried out to control the air pollution.
- Periodic air quality monitoring will be carried out.

3.3 Impact on Water Environment and Mitigation measures with EMP-

The limestone and associated rocks do not contain any toxic substance so that there will not be any adverse on ground water quality. As the mining progresses in depth, it is likely that there will be seepage along with probability of ground water intersection. However, prior permission will be taken from CGWA before intersection of ground water, if any and required measures will be adopted. Therefore, no adverse impact on water quality is envisaged due to the proposed mining project and entire seepage will be duly utilized for various conjunctive purposes. Periodical monitoring of ground water quality will be carried out.

Seasonal Nallahs flowing through the lease area, are not proposed to be disturbed till conceptual stage and statutory safety barrier of 50m will be left. Hence, any major impact on the drainage of the area is not envisaged.

Storm Water: Surface Runoff may carry sediments & silts to natural water bodies

- Retaining Wall & Garland drains will be constructed around the working mine pits and waste dump to channelize rain water flowing into working mine pit.
- Catch drains and siltation ponds will also be constructed within mine lease to check flow of surface runoff as well as to prevent siltation of natural courses.
- The rainwater falling directly into the mine pits will be stored and used for plantation & dust suppression.

Waste Water: Waste water will be generated from Workshop as well as Mine Office.

- No waste water will be discharged outside lease boundary.
- Waste water (4 KLD) generated from workshop will be treated using Oil–Water separator and treated water will be used in dust suppression & Vehicle Washing.

- Domestic waste water (4 KLD) generated from mine office will be treated in modular STP of capacity 7 KLD and treated waste water will be used for plantation.

3.4 Impact of Noise & Vibration and Mitigation measures with EMP-

Noise will be generated from various mining activities as well as vehicular movements. In order to mitigate, following EMP is proposed:

- Use of sharp drill bits to achieve optimum drilling performance and to reduce noise generation at source.
- Noise & vibration generated from blasting will be for a very short duration and localized. However, Controlled Blasting will be done in accordance with standards prescribed by DGMS. Blasting will be conducted using ANFO and high explosives. NONEL shall be used to control ground vibration, noise and fly rocks.
- Explosives charge per hole and per delay will be maintained as per DGMS guidelines and vibration study.
- Blasting will be carried out during day time only and Rock breaker will be used to avoid the secondary blasting.
- Adequate silencers in HEMM will be provided to reduce generation of noise.
- Proper maintenance, oiling and greasing of machines at regular intervals will be done to reduce generation of noise.
- Proper mitigation measures i.e. insulators will be provided in the crusher to control the noise pollution.
- All employees will be provided with protective equipment, earmuffs and earplugs as a protective measure from the high noise level generated at the mine site and wherever required.
- Planting of trees will be done along the mining lease boundary which will confine the noise within mine boundary.
- Monitoring of noise and blast vibration will be carried out and record will be maintained.

3.5 Impact on Land Environment and Mitigation measures with EMP-

The land use of the lease area will alter due to mining activities such as formation of pits, temporary dumps, built up areas of office, workshop, crusher, greenbelt, water reservoir etc.

- There are existing roads passing through the lease area. Both village roads are not proposed to be disturbed; 50m statutory safety barrier will be left.
- Electric lines, passing through the lease area, are not proposed to be disturbed and 50m statutory safety barrier will be left. However, in future the same may be diverted after obtaining necessary permission from the Competent Authority.
- Seasonal nallahs flowing through the lease area are not proposed to be disturbed and statutory safety barrier of 50m will be left.
- The current land use of the ML area is predominantly rain fed agriculture. Apart from undertaking mining developmental activities, it is proposed to develop greenbelt/plantation

over an area of 15 ha in the first plan period which will be gradually increased to 198.52 ha at conceptual stage. This will not only help in confining the dispersal of dust & noise within the ML area but also will have positive impacts on overall environment of the area.

- Apart from development of greenbelt, excavated pits will be converted into water reservoir which will not only help in recharging the ground water but also will be put to community use. As the area is dry and agriculture is rain fed, the community may benefit from the development of reservoir.

3.6 Post Mining Land Use Pattern -

As per the Approved Mining Plan along with Progressive Mine Closure Plan, out of the total ML area (995.97 ha) 456.72 ha will be utilized and rest 539.25 ha will remain unutilized. An area of 255.50 ha will be used for mining out of which an area of 185.10 ha at the bottom will be left as water reservoir and the rest 70.40 ha will be left as worked out benches. An area of 2.70 ha will be used for roads and 198.52 ha for green belt along safety zone and ML area periphery.

Since the limestone beds likely to continue further from the proposed UPL of 30 m, concurrent reclamation is not feasible. No backfilling is proposed, since the bottom of limestone is not yet proved at certain places. The company has proposed core drilling to prove the bottom of the limestone/UPL and also in the unexplored areas during the plan period.

Total excavated area as per present approved mining plan is 255.50 ha considering in G1 and G2 exploration only as per IBM guidelines for preparations of Mining Plan. Detailed exploration is proposed to be carried out during the present plan period itself in the unexplored area. Therefore, to carry out the impact assessment, the entire constraint free mineralized area i.e. 778.88 ha within the granted area, is considered for excavation based on trends of geology & lithology of the area.

Table – 7
Stage Wise Land Use Details

S. No.	Head	Existing land use (Ha)	At the end of the Plan period (Ha)	Conceptual period up to the life of the mine (Ha)
A	Within Mining Lease Area			
1	Area of excavation	Nil	20.36	778.88
2	Storage of top soil	Nil	1.54	Nil
3	Infrastructure *	Nil	Nil	Nil
4	Roads	1.33	2.70	2.70
5	Green belt/Plantation	Nil	15.00	198.52
6	Undisturbed Area/ Future Exploration	994.64	956.37	15.87
Total area of Mining lease		995.97	995.97	995.97
B	Outside Mining Lease Area			
1	Crusher & other infrastructure	Nil	13	13
2	Undisturbed Land	13	0	0
Total Land		1008.97	1008.97	1008.97

Source- Approved Mining Plan & Pre-feasibility Report

3.7 Waste Management and Mitigation measures with EMP–

- Total quantity of soil and waste generated up to conceptual stage is about 0.513 Million tonnes and about 9.92 Million tonnes respectively.
- As the entire area is potentially mineralized, hence topsoil will be stacked and dumped temporarily on mineralized area. The temporary topsoil stack will be removed and utilized before the mining is carried out in that location. Topsoil will be used for afforestation in future.
- Overburden generated will be used for bund formation along various safety zones like, Road, Nallah, HT line & village. No backfilling is proposed during the present plan period as well as during conceptual plan period too, since the bottom of limestone is not yet proved at certain places. The company has proposed core drilling to prove the bottom of the limestone/UPL and also in the unexplored areas. Hence, total mined out area is proposed to be converted as water reservoir. The water body will help in improving the water table in the adjoining areas.

3.8 Green Belt Development & Plantation –

- About 198.52 ha land is proposed to be covered under green belt/plantation in phases till conceptual stage. It is estimated about 3,97,040 trees with a density of 2000 trees / ha will be planted.
- About Rs. 25 lakh have been earmarked for nursery. About Rs. 7.94 Crore have been earmarked for greenbelt & plantation till the end of life of mine @ Rs 200/sapling (including plantation and maintenance cost). The budget includes the cost of Saplings, Watering facilities, Labour Charge, Organic manure, Bio-fertilizers, Maintenance, fencing etc., which may vary in due course of time.
- Greenbelt in 7.5m safety barrier along the ML boundary: 11 ha
- Plantation in different safety zones (50 m):
 - Nallah: 25.5 ha
 - Electric lines: 32.0 ha
 - Roads: 19 ha and
 - Village (area falling in ML from 500m from the nearest habitation): 111.02 haLocal and fruit bearing species will be planted after consultation with local forest officer and as per CPCB Guideline.

4.0 POST PROJECT ENVIRONMENTAL MONITORING PROGRAMME

Details of the environmental monitoring schedule / frequency, which will be undertaken for various environmental components, as per conditions of EC / CTE / CFO are given below table no 8

Table 8
Post Project Monitoring

S. No.	DESCRIPTION	FREQUENCY OF MONITORING
1.	Ambient Air Quality	Twice a week (Manually) and Online CAAQMS
2.	Water Quality & Level	Quarterly
3.	Noise Level Monitoring	Quarterly
4.	Vibration Monitoring	On every blast
5.	Stack Monitoring	Monthly
6.	Soil Monitoring	Half Yearly

5.0 ADDITIONAL STUDIES

Risk Assessment & detailed R&R has been prepared and documents being submitted to Public Consultation (Public Hearing). Issues raised during the Public Hearing will be addressed in EMP as per OM dated 30th Sept., 2020 & OM dated 20th Oct., 2020.

Total mining lease area is 995.97 ha, out of which 984.82 ha is Private land and 11.15 Ha is Government land which spreads in 5 villages namely Beeranahalli, Arebammanahalli, Taranahalli, Konkanhalli and Shettihuda (Sedam). Land is being/will be purchased in transparent manner from land holders at mutually agreeable rates and payment terms.

6.0 PROJECT BENEFITS

- Employment: There will be generation of direct employment opportunities in the region. Preference will be given to the local people as per their eligibility. Further, there would be many indirect employment opportunities to many more people due to the proposed project in the form of contractual jobs/works, service facilities, horticulture, housekeeping, building maintenance, rental vehicles and utility stores etc.
- The project activity will help in meeting the growing demand of cement & hence help in the economic growth of the country. The mine shall be contributing around Rs. 46.592 Cr/year to the State & Central Govt. exchequer by way of mining revenue (Royalty, DMF, NMET etc.) after ML is executed & mine is operated at proposed capacity.
- As per OM dated 30th Sept., 2020, & OM dated 20th Oct., 2020 Socio-Economic Developmental activities will be formulated on the basis of the issues raised during Public hearing which will be addressed in EMP & implemented in a time bound manner with the start of the mining activities.

7.0 ENVIRONMENT MANAGEMENT PLAN

The suggested mitigation measures along with Environment Management Plan are elaborated above in section 3 along with impacts.

8.0 CONCLUSION

The EIA/ EMP study was prepared with compliance of ToR issued by MoEF&CC. Baseline data of land, air, water, noise, biological and socio-economic environment was duly assessed by conducting field investigation as well as by having an access to the available secondary

information. The prediction of impacts was identified & evaluated and EMP is suggested to mitigate the environmental concerns arising from the proposed project.

The community has been a key stakeholder in business and environmental issues are a matter utmost priority for the company. The Management believes to being catalyst in the transformation of the communities around its business operations through partnership with local communities, Government, NGO's and other stake holders. Cumulative impacts of the proposed project along with its interlinked projects may add to Gross Domestic Product. With the proposed development in & around the area, there will be supporting facilities/infrastructure eventually leading to the development of the area. The proposed project along with its interlinked cement plant will also generate much needed employment (direct & indirect) to the local people. Economy of the area will get a boost and overall development of the region in terms of education, health, training, transport, automobile, industry is anticipated. Thus, the project will contribute to the Social, Environmental and Economic benefit of the local people and region.

