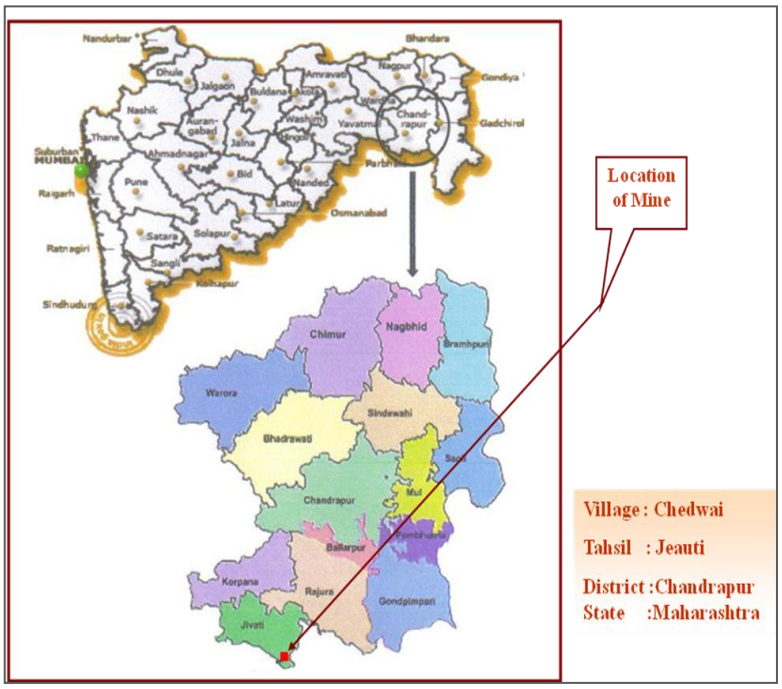
EXECUTIVE SUMMARY

INTRODUCTION : M/s New India Mining Corporation Pvt. Limited (**NIMCO**) is a Private Limited Company. The company has proposed a 2.5 MTPA Cement Plant in Chandrapur District Maharashtra. The plant shall be set up in two phases of **1 MTPA & 1.5 MTPA**. The raw material requirement of the plant shall be met from the proposed **Chedvai Limestone Mine** and balance from the market.

In order to cater the need for limestone the company applied for the mining lease near village Chedvai, Jeauti Taluka, Chandrapur District Maharashtra. The applied mining lease area covers **293.12** hectares consisting of 19.24 Ha Private Agriculture Land and 273.88 Ha Forest Land. The project was appraised by 4th Expert Appraisal Committee - 2 (Mining) during its 4th meeting held on 22nd December 2009.for determining Terms of Reference (TOR) for undertaking EIA study. Expert Appraisal Committee (M) has prescribed Terms of Reference (TOR) vide their letter no. J-11015/329/09-IA.II(M) dated January 13,2010.

Location Details : **Figure** gives the location of proposed **Chedwai Limestone Deposit**, The applied M.L. area over **293.12** hectares is covered within the Survey of India toposheet No. 56 M/3 on a scale of 1:50,000 and is bounded by the latitude 19°27'30" – 19°28'00" N and longitude 79°10'00" – 79°12'00" E.



Accessibility - The area is located in the southernmost part of the Jauti tahsil of Chandrapur district along the border of Andhra Pradesh. The distance of the village Chedvai from Rajura is about 60 Km. The nearest railway station is Wirur which is located on Wardha-Kazipeth broad Gauge section of Delhi-Madras line and is about 55 Km.

Existing Landuse Pattern : As per the administrative records the Landuse of the Mine is as under;

Existing Landuse

Khasra No	Area (Ha.)	Ownership/Occupancy
14 to 22	2.48	Private land
24	0.11	Private land
25	0.17	Private land
34	8.57	Private land
48	2.43	Private land
50/1 to 50/12	198.51	Forest land
51/2	62.17	Forest land
59	4.84	Private land
64	0.64	Private land
79/2	13.20	Private land
Total	**293.12**	

Post Mining Landuse Pattern : The post mining landuse shall be as under :

Post mining landuse

Sr. No.	Description	Area (m^2)		
		Present	End of 5 year Plan period	End of the life of the mine
1	Area under pits	Nil	6.86	6.86 + 65.02 = 71.88
2	Area under roads	Nil	0.81	0.81
3	Area under buildings	Nil	0.72	0.72
4	Area under storage limestone	Nil	Nil	Nil
5	Area under storage of top soil	Nil	0.05	0.20
6	Area under dump	Nil	Nil	Nil
7	Area under plantation (1000 trees per year)	Nil	2.00	2.00 + 26.70 = 28.70
8	Area for magazine	Nil	0.08	0.08

Mining is proposed on forest land during initial phase, accordingly application for forest division has been made to forest department. Agriculture land will be required during the last phase. Appropriate compensation will be paid to the land owner on the prevailing rates at the time of actual acquisition.

Geological formations : The area constitutes Precambrian suite of sedimentary rocks consisting of purple shale, sandstone and limestone, known as penganga beds. The earliest reference to the geology of the area is by Hughes (1877) who mapped the penganga beds in the area. Later, king and heron also carried out some mapping of penganga beds. In recent years, the geological survey of India has carried out systematic mapping and mineral investigations in this region. Detailed investigation of a few mineral deposits, particularly those of limestone have also been carried out by the

Government of Maharashtra. In general the penganga beds are overlain by a thin impersistent bed of calcareous to argillaceous sandstone of lameta group and various flows of Deccan trap basalts. The basement is occupied by the Archaean represented by granites with dolerite dyke.

Reserves : As per bore-hole logs of DGM, there are two horizons of cement grade limestone in the area. The applied ML area has been divided in five blocks as stated above. Out of these five blocks, Block-II (115.5 ha.) is potentially rich in cement grade limestone occupying the top of the block without any overburden and hence this Block has been selected for reserve calculation. In this Block, the geological reserve of cement grade limestone are estimated to be **64.70** million tonnes. The mineable reserves are comes to **24.80** million tones.

Mining Method: Considering the scale of operation, geological setting and the nature of deposit, it is proposed to adopt opencast method of mining with single shift basis involving ripping / dozing, drilling- blasting, manual sorting, sizing and stacking as well as mechanized loading and transportation. The waste rock and the intercalated material will be transported and dumped on the 7.5 meter of non-mining zone along the boundary of the ML.The mining shall be carried out by conventional shovel dumper method with drilling and blasting. The mine shall be developed by forming benches having 10 m height and 20 m width. As per the approved mining plant there would not be any removal of top soil in the first five years. The production programme for the first five years shall be as under;

Waste Generation and Management: There will be hardly any waste rock during the mining. If at all any waste material/rock is encountered during mining upto ultimate depth, the quantity the same will be negligible. It will be dumped on the non mineralized area and shall be biologically reclaimed.

Mine Drainage : Mining shall be carried out on hilly portion**.** Surface water will be drained through natural drainage system of hills slopes and seasonal nalas. Since the ground water table of the region will be much below the proposed quarry floor, there will be no problem of seepage/ground water accumulation in the mine requiring pumping and drainage.

Surface water: The study area forms predominantly Pedda Vagu river basin and partly Bapur river basin. The study area being a highly hilly terrain and forest area, there are numerous small streams flowing across the study area. There are no major water tanks (artificial / natural) in the study area except some villages tanks. It is observed that 60% of the drainage basin of the study area is connected to Pedda Vagu directly. Bapur river crosses across the study area from eastern direction of the proposed lease from north to south. The catchment connected to the proposed mine lease area is directly connected partly to the Bapur river and partly to the Pedda Vegu River.

Ground water: Ground water table is expected to be at more than 30 m depth from surface level. The deposit is planned to be operated up to a maximum depth of 24 m from surface level. Hence, the aforesaid depth of working would not affect the ground water table. The water requirement for the proposed mine will be met from the nearby Bapur river.

BASELINE ENVIRONMENTAL SCENARIO

As prescribed in MoEF TOR baseline environmental monitoring was carried out during March-May 2010. Air, water, noise, soil, landuse, flora & fauna and socio economic information was collected from core and buffer zone (10 km).

Micro- Meteorology: The climate of this district is characterized by hot summer, well distributed rainfall during the southwest monsoon and general dryness except in the rainy season. The winter season is from December to February. This is followed by the summer season from March to May. The southwest monsoon season is from June to September. October and November constitute the post-monsoon season.

Air Quality: The monitoring was carried out for 13 continuous weeks beginning from March-May 2010 at six locations as per CPCB norms. The concentration of PM_{10} and $PM_{2.5}$ in the buffer zone ranges between 28.5 to 55.7 $\mu g/m^3$ and 13.9 to 26.6 $\mu g/m^3$ respectively. The details are given in EIA/EMP report (Chapter-3).

Water Quality : 4 surface water samples and 4 ground water samples were collected during summer 2010 for analysis. The analysis results of the water are given in EIA/EMP report (Chapter-3) and are compared with standards for drinking water as per IS: 10500.

Soil Quality : Soil samples were collected from four sampling stations in study area in the month of May, 2010. The analysis results is given in EIA/EMP report (Chapter-3).

Land Use Pattern: The buffer zone area consists of 49.82% forest land, 25.86% agriculture land and remaining 24.33 % is waste and un-cultivate land.

The buffer zone has no national park, wild life sanctuary, major historical places, and archaeological moments point of view.

There is no displacement of any habitation or personnel and hence the rehabilitation and resettlement action plan is not required.

ENVIORNMENT MANGEMENT PLAN

Air Pollution Management

- Wet drilling of blast holes.
- Haulage roads shall be frequently sprinkled with water for which truck mounted water tankers with sprinkler arrangement
- Mineral shall be covered by tarpaulins to prevent spread of dust from it during transportation.
- Regular maintenance of vehicles and machineries shall be carried out in order to control emissions. This proper maintenance will ensure that gaseous exhaust form these ate minimum.
- Cabins for shovel & dumpers and dust respirators to workmen will be provided.

- Dust generated due to traffic on village roads in 10 Km buffer zone from which the mineral will be transported would be reduced by water spraying at regular intervals;
- Green belt development would be taken up all along the haul roads and overburden dumps.
- The dust respirators should be provided to all the workers in dusty atmosphere; and
- A good housekeeping and proper maintenance would be practiced which help in controlling the pollution.

Water Pollution Management: The mining project shall require continuous supply of water for various purposes during mining, vegetation etc. apart from drinking water supply. This will be met from surface water sources like Bapur River. The main source of water pollution in opencast mining is the surface run-off due to rainfall. There will not be any mine discharge during dry weather seasons as the proposed mining will be on the top of the hill. There may be small quantity of mine discharge during monsoon season, which contains fine silt. This will be treated in settling tanks followed by desilting tanks and the treated water will be reused for plantation and dust suppression. Another source of pollution will be from domestic sewage from canteen and toilets which will be treated in septic tanks and soak pits. No overburden or loose sediments will be kept on working benches. Check dam will be constructed around the dump prevent washing off of loose sediments. Samples collected from the northern side nala will be analyzed for their pollutant levels. This will help to decide treatment and the type of treatment needed.

Rainwater Harvesting : Check dams with settling ponds shall be provided to arrest the silt & suspended solids from surface run-offs along the nallahs at selected sites.

Noise & Vibration Management : Noise helmets, protective earmuffs and earplugs shall be provided for those exposed to high noise levels as per statutory requirements; The noise level exposure shall be maintained within the prescribed limits;

- Blasting parameters shall be suitably set to minimize ground vibration within safety limit;
- Provision of insulating caps and aids on the machinery shall be made;
- Shock absorbing techniques shall be adopted to reduce impact energy;

Land Reclamation Measures :

- The land reclamation measures have to consider the following three main objectives :
- To reduce the bad effects on the environment (drainage, erosion, topography, aesthetics);
- To recover land for the beneficial use, as soon as possible; and
- To reclaim land, at least to the previous condition asit was before it's excavation.

- To achieve the above objectives, the following recommendations are made with a particular emphasis on land reclamation measures for mines.

Plantation: Conducting the new plantations is of paramount necessity of the area. In addition to augmenting present vegetation, it will also check soil erosion, make the ecosystem more diverse and functionally more stable, make the climate more conducive and improve water balance. It can also be employed to bring areas with special problems under vegetal cover and prevent further deterioration of land.

Besides providing compensatory afforestation about 600 trees/year will be planted within the lease area as per the table below. Various plantation programs will also be carried out on both sides of the mineral transport route.

Proposed Plantation Programme

Period	Greenbelt on Safety Area and ML Boundary	
	ha	No. Saplings
At the end of 5th year	2	3000
At the end of 10th year	5	7500
At the end of 20th year	10	15000
Total	**17**	**25500**

Socio-Economic Measures : The socio-economic conditions in the study area indicate the quality of life of the people. The important indicators which decide the quality of life and require to be improved for better living conditions are literacy levels, improved occupational structure, industrial development, infrastructural facilities, transportation, communication linkages, land development and improvement in cropping pattern.

The project proponents are envisaging to undertake the following socio-economic measures.

- **Health Care :** These include mobile dispensary, ambulance service, family planning and medical camps and aid to the existing and proposed hospitals.
- **Educational Facilities :** These include adult education facilities, financial assistance for higher studies, sponsorship to vocational / professional training institution, computer education camps, vacation training for students and aid to existing/proposed schools and colleges.
- **Civic Amenities**: These include support to community toilets, drinking water facilities, road repairing, sanitation, playgrounds for children and recreation facilities for all age groups.

Employment : 86 workers will be required for this project. It is proposed to employ the local population wherever possible in the proposed project activities. In this, local people would be given preference including employment and award of contracts for supply of materials and services.

Occupational health : NIMPL has concern and takes responsibility for the protection of the workers against sickness, disease and injury, if any arising out of their employment and have adopted certain principles with regard to occupational health services, like establishing and maintaining a safe and healthy working environment which will facilitate optimal physical and mental health in relation to work.

AN EPILOGUE

In compliance with the environmental procedure the environmental clearance application is made. Necessary scientific studies have been undertaken as per the guidelines set by the Ministry of Environment and Forests (MoEF). The suggestions/recommendations of all the experts, competent authorities, and government officials are being sought for the impacts of the proposed project. Views and guidance of the local residents, community based organizations, social organizations are extremely important in order to devise a full proof Environment Management Plan for the proposed mining project and also mitigate the damages caused due to the project. Allocation of necessary funds, manpower and machinery will be made to for the protection and conservation of all the components of environment. It is ensured that all mandatory clearances will be sought from respective competent authorities before operating the proposed Chedwai Limestone Mine (293.12 Ha). We at New India Mining Corporation Pvt. Limited are committed to implement the suggestions for the improvement of the environment and assure that every attempt will be made for the conservation and protection of the natural resources to the maximum extent.