EXECUTIVE SUMMARY

OF

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

&

ENVIRONMENTAL MANAGEMENT PLAN

FOR

PUBLIC HEARING

Rawan Jhipan Limestone Mine

(ML Area: 722.834 Ha)

Expansion in Limestone Production Capacity from 7.5 Million TPA to 11.8 Million TPA, Top Soil: 0.41 Million TPA, Over Burden: 2.96 MillionTPA Mineral & Screen Reject: 0.64 Million TPA (Total Excavation: 15.81 Million TPA)

At
Villages: Rawan, Jhipan, Pendri, Kashidih and Phunderdih,
Tehsil: Suhela (Erstwhile: Simga),
District: Balodabazar-Bhatapara, State: Chhattisgarh

PROJECT PROPONENT

M/s. UltraTech Cement Limited

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Executive Summary

1.1 INTRODUCTION

M/s. UltraTech Cement Limited (Unit: Rawan Cement Works) is proposing a Rawan Jhipan Limestone Mine (ML Area: 722.834 Ha) with Expansion in Limestone Production Capacity from 7.5 Million TPA to 11.8 Million TPA, Top Soil: 0.41 Million TPA, Over Burden: 2.96 Million TPA and Mineral & Screen Reject: 0.64 Million TPA (Total Excavation: 15.81 Million TPA) located at Villages: Rawan, Jhipan, Pendri, Kashidih and Phunderdih Tehsil: Suhela (Erstwhile Simga), District: Balodabazar-Bhatapara, State: Chhattisgarh.

As per EIA Notification dated 14th September, 2006 as amended on date, the project falls under Category "A" (>250 ha), Project or Activity 1 (a) (3) for Mining of Mineral and 2 (b) Mineral beneficiation (Crusher with Wobbler).

This report has been prepared as per Term of References (ToRs) issued by MoEF&CC, New Delhi vide letter no. J-11015/17/2009-IA.II (M) dated 09.07.2024 for carrying out Environmental Impact Assessment study.

1.2 MINING LEASE STATUS

- LOI for mining lease was granted by the State Govt. in the favour of M/s. Grasim Industries Limited over an area of 722.834 Ha for a period of 20 years, vide letter no. 3-10/92/12/3/1/5 Bhopal dated 02.08.1993.
- Mine lease was granted by the State Govt. in the favor of M/s. Grasim Industries Limited over an area of 722.834 ha for a period of 20 years, vide letter no. 3-18/92/12/3/1 Bhopal dated 01.11.1993. Same was valid from 04.12.1993 to 03.12.2013.
- Mine Lease was transferred in the name of M/s. UltraTech Cement Ltd. from M/s. Grasim Industries Ltd. by the order of Collector of Ministry of Mineral Resources Department, Chhattisgarh vide letter no F 7-11/11/12, Raipur dated 26.06.2014. Mine Lease deed was transferred on 02.08.2014.
- Lease area of 722.834 for mining was extended for 30 years from 04.12.2013 till 03.12.2043 in favour of M/s. UltraTech Cement Limited as per section 8A of the Mines & Minerals (Development & Regulation) (Amendment) Act, 2015 vide document no. G015896 dated 31.03.2016.

1.3 STATUS OF APPROVAL OF MINING PLAN

Modified Mining Plan along with Progressive Mine Closure Plan has been approved by IBM, Raipur, vide letter no RPR/Baloda_Bazar/LST/1388/MRMP/2023-24 on dated 25.10.2023.

1.4 NEED FOR THE PROJECT

- Rawan Jhipan Limestone mine (ML Area: 722.834 ha) is an operating mine and excavated limestone is being/will be used for cement manufacturing in the interlinked Rawan Cement Plant of the company. UTCL is running an existing Integrated Cement Plant (Unit: Rawan Cement Works) with a clinker production capacity: 6.5 MTPA, Cement: 3.3 MTPA, WHRS: 16 MW and CPP: 80 MW. After

installation of Line-III the production capacity of plant will increase Clinker: 6.5 to 10.0 Million TPA Cement: 7.0 Million TPA, WHRS: 36 MW and CPP: 80 MW. To fulfill the enhance capacity of Cement Plant, UTCL has proposed an expansion in production capacity of limestone from 7.5 to 11.8 Million TPA in Rawan Jhipan Limestone Mine.

- In case of Plant shutdown, Excavated limestone will be used in Hirmi Cement Works, Baikunth Cement Works and Kukurdih Cement Works of UTCL as per the availability & requirement.
- The project is/will help the local economy directly & indirectly as the project contributes to the State as well as to National exchequer by way of various taxes & duties. With the proposed additional development in and around the area, there will be increase in supporting facilities/infrastructure eventually leading to the further development of the area. It will also bridge the gap between demand and supply of mineral to the consumers. The project will boost the overall growth of the region and in the State; the local economy will flourish due to increased income expenditure in the local market. Therefore, project is having great importance to the State and national economy.

1.5 PROJECT DETAILS

Table – 1.1
Project Details

S. No.	Particular	Details
A.	**Nature of the Project**	Expansion in Limestone Production Capacity
B.	**Size of the Project**	
1.	Mine Lease Area	722.834 ha (Govt. Land: 181.753 ha + Pvt. Land: 515.869 ha + Grazing Land: 25.212 ha)
2.	Proposal	Limestone Production Capacity: 7.5 to 11.8 Million TPA Top Soil: 0.41 Million TPA OB: 2.96 Million TPA Mineral & Screen Reject: 0.64 Millon TPA Total Excavation: 15.81 Million TPA Existing Crusher: 850 & 1500 TPH Proposed Crusher - 2500 TPH
Note: Apart from two existing crusher of 850 TPH & 1500 TPH, either one new crusher of 2500 TPH capacity will be Installed within the existing mine lease or the capacity of existing crusher (850 TPH & 1500 TPH) will be increased for crushing.		
C.	**Project Location**	
1.	Villages	Rawan, Jhipan, Pendri, Kashidih and Phunderdih
2.	Tehsil	Suhela (Erstwhile Simga)
3.	District	Balodabazar-Bhatapara
4.	State	Chhattisgarh
5.	Latitude & Longitude	Latitude: 21°32' 52.5 N & 21°35'12"N Longitude: 81°58 '22.51"E & 82°00'5.88'E
6.	Toposheet No.	F44P14 (Core Zone) F44P14, F44P15, F44Q2, F44Q3 (Buffer Zone)
D.	**Environmental Setting Details *(with approx. aerial distance & direction from the mining lease boundary)***	
1.	Nearest villages	Rawan (~80m in NE) and Jhipan (~130m in NW)

S. No.	Particular	Details
2.	Nearest Town/City	Balodabazar (~17.0 km in NE direction)
3.	Nearest Highway	➢ SH-10 (~14 km in North direction) ➢ SH-30 (~30 km in East direction) ➢ NH-130 B (~18 km in East direction)
4.	Nearest Railway Station	Bhatapara Railway Station (~17 km in NNW direction)
5.	Nearest Airport	Swami Vivekananda Airport, Raipur (~50 km in SW direction)
6.	National Park, Wild Life Sanctuary, Biosphere Reserves, Tiger Reserves, etc. within 10 km radius of the project site	None within 10 km radius of mining lease boundary
7.	Reserved / Protected Forest within 10km radius study area	Dhabadih RF (~9.8 Km in NE direction)
8.	Water body within 10 km radius of study area	**Nallah and Tanks** ➢ Banjari Nala (~1.5 Km in NNW direction) ➢ Baniari Nala (~4.0 Km in NNE direction) ➢ Chitawar Nala (~4.0 Km in South direction) ➢ Tangna Nala (~5.0 Km in South direction) ➢ Chitawar Nala (~7.0 Km in ENE direction) ➢ Khorsi Nala (~7.0 Km in ESE direction) ➢ Jhorki Nala (~8.5 Km in ESE direction) ➢ Kumhari Tank (~9.0 Km in SW direction) **River (Nadi) and Canal** ➢ Mahanadi Canal (~1.5 Km in SE direction) ➢ Ameri Diversion Canal (~1.6 Km in NW direction) ➢ Jamuniya Nadi (~8.0 Km in NNW direction)
9.	Seismic Zone	Zone – II as per IS: 1893 (Part-I): 2002
D.	**Cost Details**	
1.	Total Project Cost	Existing Cost: Rs. 240 crore, Proposed Cost: 148 Crore, Total Cost: Rs. 388 crore
2.	Cost for Environment Protection Measures	Capital Cost for EMP: Rs. 844.85 Lakh Recurring Cost for EMP: Rs. 61.79 Lakh per Annum

Source: *Site Visit & Pre- Feasibility Report*

1.6 MINING DETAILS

Table – 1.2
Mining Details

S. No.	Particular	Details
1.	Mining Method	Mechanized Opencast Method
2.	Production Capacity	Limestone: 7.5 to 11.8 Million TPA
3.	Total Geological Resources	562.309 Million Tonnes
4.	Total Mineable Reserves	416.682 Million Tonnes
5.	Life of Mine	~36 years
6.	Bench Height	8 to 10 m
7.	Bench Width	25 to 30 m
8.	Present Working Depth	38-40m (Groundwater intersected & permission obtained)

9.	Ultimate Depth of Mining	40-100 (It may increase after detailed exploration in depth in balance area)
10.	Ground Water Table	22-29m bgl
11.	Nos of Benches	5 to 10
12.	Elevation Range	260 m AMSL to 284 m AMSL
13.	Overall Pit Slope	45 Degree
14.	ROM/Waste Ratio (T:T)	1:0.28
15.	Working days	365
16.	Number of Working Shifts	3 Shifts

Source: *Derived from Approved Modified Mining Plan with Progressive Mine Closure Plan*

1.7 METHOD OF MINING

Mining is being/will be carried out by opencast fully mechanized method. All operations of mining is being/will be done by deployment of Heavy Earth Moving Machineries for deep hole drilling, blasting, excavation, loading & transport.

Mined out limestone is being/ will be crushed in existing Crusher capacity of 850 TPH and 1500 TPH. Apart from the two existing crusher of 850 TPH & 1500 TPH, either one new crusher of 2500 TPH capacity will be Installed within the lease area or the capacity of existing crusher will be increased for the crushing of the mineral. Mining activities are being/will be conducted as to ensure maximum mineral conservation and minimum environmental degradation. Same practices will be continued in the future also.

1.8 YEAR WISE PRODUCTION & EXCAVATION

This proposal is for expansion of limestone from 7.5 to 11.8 Million TPA, Top Soil: 0.41 Million TPA, Over Burden: 2.96 Million TPA and Mineral & Screen Reject: 0.64 Million TPA (Total Excavation: 15.81 Million TPA) in Rawan Jhipan Limestone Mine (ML Area: 722.834 Ha) located at Villages: Rawan, Jhipan, Pendri, Kashidih and Phunderdih, Tehsil: Suhela (Erstwhile Simga), District: Balodabazar-Bhatapara, State: Chhattisgarh.

Total life of the mine will be 35.97 years or say 36 years (including the Plan period). However, the life of the Mine may increase by making assessment of reserves after the detailed exploration in depth, accordingly the life of mine may vary time to time.

Table – 1.3
YEAR-WISE PROPOSED EXCAVATION DETAILS

(***In Million Tones***)

Year	Top Soil quantity	Overburden-Quantity	Total Waste Quantity	ROM Quantity Saleable Mineral	ROM Quantity Mineral and Reject	ROM Quantity	Total Handling
1st	0.30	1.70	2.00	7.2	0.43	7.63	9.63
2nd	0.33	1.97	2.31	8.65	0.47	9.12	11.43
3rd	0.34	2.71	3.05	11.8	0.64	12.43	15.48
4th	0.38	2.67	3.05	11.8	0.6	12.4	15.45
5th	0.41	2.96	3.36	11.8	0.5	12.3	15.66
Total	**1.76**	**12.01**	**13.77**	**25.78**	**39.56**	**65.34**	**104.89**

Source: *Approved Modified Mining plan along with Progressive Mine Closure Plan*

1.9 DESCRIPTION OF THE ENVIRONMENT

Baseline data for the environmental studies has been collected during Post Monsoon Season (Oct., to Dec., 2023) to carry out the Environment Impact Assessment study for the expansion Project.

Ambient Air Quality: The concentrations of $PM_{2.5}$ and PM_{10} for all the 10 AAQM stations were found between 20.4 to 45.8 µg/m^3 and 40.4 to 82.0 µg/m^3 respectively. The concentrations of SO_2 and NO_2 were found in range of 5.1 to 14.3 µg/m^3 and 9.1 to 29.8 µg/m^3 respectively.

The concentration of CO is found was found 0.58 to 0.83 mg/m^3 and at most of the locations below detection limit. It was observed that CO is within the NAAQS standard i.e. 4 mg/m^3. The concentration of PAH was found below detection limit at all locations.

Ambient Noise Levels: Ambient noise levels were measured at 10 locations around the existing mine. Noise levels varied from 50.5 to 64.4 Leq dB (A) during day time and from 40.5 to 53.5 Leq dB (A) during night time.

Surface Water Quality: The quality of surface water was studied by collecting water samples form 05 locations (Banjari Nala, Jamuniya River, Mine Sump, Tanga Nala, Khosri Nala). At the time of baseline study Mahanadi canal, Chitawar Nala, Ameri diversion Canal, Baniari Nala & Kumhari tank were dry. Here, no water samples was collecting for testing.

The pH of the surface water body is found 7.29 -7.56, this indicates that the water is slightly alkaline in nature. The surface water quality were found viz., total hardness (103.5 to 182.7 mg/l), Alkalinity (72 to 155 mg/l), total suspended solids (4.5 to 14.6 mg/l), total dissolved solids (248 to 344 mg/l), BOD (3.5 to 8.5 mg/l), COD (17.7 to 32 mg/l) and dissolved oxygen (6.6 to 7.0 mg/l), Chloride (44.4 to 75.4 mg/l), Sulphate (10.6 to 34.22 mg/l), Mg (5.93 to 10.19mg/l), Ca (31.6 to 56.6 mg/l) fluoride (0.26 to 0.41 mg/l), , respectively. Surface water quality is also analysed for Cyanide, Cadmium, Nitrate Ion, Phenolic Compounds, Anionic detergents, Hexa Chromium, Zinc, Copper, Lead, Selenium, Arsenic and were found below detection limit.

The baseline sampling results for surface water shows that all the samples were observed within the permissible limits.

Ground Water Quality: The ground and drinking water analysis for all the 10 sampling stations shows that pH varied from 7.34 to 7.63, Total Hardness varied from 240.59 to 360.8 mg/l, Alkalinity 185 to 343 mg/l, Total Dissolved Solids varied from 382 to 592 mg/l, Chloride varied from 82.80 to 129.50 mg/l, SO_4 varied from 50.63 to 71.62 mg/l, Nitrate 7.52 to 17.94 mg/l, Ca from 71.3 to 103.12 mg/l, Mg varied from 15.14 to 25.26 mg/l. Thus, can be conclude from the baseline sampling results for groundwater that all the samples, were observed to be within the permissible limits and complies to the drinking water standard (IS: 10500-2012).

Soil Quality: The analysis result for soil sample at 10 locations shows that soil is neutral to slightly alkaline in nature having pH range from 7.21 to 8.04 and soil textures of the soil samples were silt loam at Mine site, Silt Loam, Sandy Loam and loam at other locations.

The concentration of Organic Matter ranges from 0.84% to 1.21%. Available Nitrogen (185.59 to 314.06 kg/ha), Available Phosphorous (13.39 to 40.35 kg/ha), Potassium (167.12 to 400.03 kg/ha), Magnesium

(455.90 to 825.55 mg/kg), Calcium (3068.25 to 5089.38 mg/kg), Copper (14.02 to 26.4 mg/kg), Chloride (84.72 to 119.15 mg/kg), Zinc (16.64 to 31.18 mg/kg) and Manganese (198.35 to 337.57 mg/kg).

1.10 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Air Environment

The key air emissions from the mining activities (drilling, blasting, loading, unloading and transportation) are Particulate Matter, Oxides of Nitrogen (NO_2) and Sulphur dioxide (SO_2).

Proper mitigation measures like controlled blasting, water sprinkling before drilling, blasting & during transport activities, use of rock breaker to avoid secondary blasting, development of greenbelt/plantation etc. is being/will be carried out to control the fugitive emission. Better maintenance of equipment & HEMMs, PUC checking of mining equipment & vehicles helps to reduce emissions. Proper protection measures i.e. use of Bag filters, Regular water spraying on Crusher hopper to arrest dust from becoming air-borne, construction of wind breaking walls especially at charging hopper & crushing place, development of green belt/plantation all around in the vicinity of the crusher to trap fugitive dust is being/will be carried out.

Water Environment

Wastewater generated from the mine office is being/will be disposed off in soak pit via septic tank. Wastewater generated from the workshop is being used in crusher area for dust suppression after oil and grease separation. Mine sump has already been developed to conserve rain water. The capacity of sump is about 40 Lacs m^3. Retaining Wall & Garland drains have been/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 have been/will be constructed within the area to check flow of surface runoff as well as to prevent siltation of natural courses.

Ground Water

About 350 KLD water is required for domestic, workshop, greenbelt/plantation, dust suppression, mine operations and crushing. Water is being/will be sourced from mine sump. It is being/will be further augmented with rain water harvesting and mine sump water.

NOC for dewatering of 6420 KLD for mine & plant has been obtained from CGWA vide NOC No. CGWA/NOC/MIN/REN/3/2024/9192 dated 01.03.2024 and same is valid for 2 years from 07.12.2022 to 06.12.2024.

During Pre-Monsoon Season, water level of core zone ranges from 12 to 29m bgl (246 to 263m AMSL) and during Post-Monsoon Season, water level is 11 to 25m bgl (252 to 265m AMSL). There is 7048 KLD seepage in the current plan's period and at conceptual stage 7795 KLD; dewatered water has been using in mining activities or will allow communities to use water in agricultural fields. The accumulated rainfall in mine sump is being used for mining activities. There is no proposal of mine dewatering in nearby surface water bodies including diversion of existing channels, constructed dam/ barrages/ weir/ canals/ hydro-electric projects. Hence, no impact due to dewatering water from limestone mining can

have on surface water sources, including rivers, streams, lakes and wetlands in the vicinity of the mining site.

The mineral limestone associated rocks do not contain any toxic substances so that there will not be any adverse impact on ground water quality. During monsoon or post monsoon time, excess water needs to be discharged, it will pass through sedimentation pond/check dams/filters for proper sedimentation prior to join natural streams or nallahs. Regular monitoring of ground water quality is being /will be carried out.

Noise & Vibration

Major noise generating sources of the mining activity are drilling, blasting and HEMM deployed for loading & transportation of mineral.

Various measures are/will be undertaken to control noise & vibration. Drilling is being carried out with the help of sharp drill bits. Controlled blasting techniques through proper blast design and explosive selection is being/will be used to reduce the noise & vibrations to a greater extent. Hydraulic rock breaker is being used in place of secondary blasting. DGMS guideline is being followed strictly to reduce the impact of blasting on nearby habitation. HEMMs equipped with acoustic cabins are/will be provided for the operators. Proper maintenance, oiling & greasing of HEMMs is being carried out. PPEs like earplugs/earmuffs have been/will be provided to mine workers. Development of green belt/plantation along the mining boundary help in reducing noise level. Crushing is also generating the noise pollution. Proper mitigation measures i.e. insulators & closed acoustic systems have been/will be provided to control the noise pollution. Plantation is being/will be done around the crusher which also help to control the noise pollution.

Waste Management

Top Soil: Since the mine operation 1863155 CuM has been generated. During plan period 9,75,935 CuM & at conceptual stage 4604822 CuM top soil will be generated. Generated top soil is being/will be used for spreading on dump and over backfilled area for plantation.

Over Burden: Since the mine operation 20.86 Million Tonnes has been generated. During plan period 12.01 Million Tonnes & at conceptual stage 66.164 Million Tonnes of OB will be generated. OB is being/will be used for backfilling of the excavated area and also for the road maintenance.

Screen Reject: Since the mine operation 3.86 Million Tonnes has been generated. During plan period 1.54 Million Tonnes & at conceptual stage 16.13 Million Tonnes of Screen reject will be generated which will be used for backfilling of the excavated area.

Liquid Waste: Domestic waste water generated from the mine office is being/will be disposed in soak pit via sceptic tank. It is estimated about 20 KLD waste water generated from workshop will be passed through oil & water separator and treated waste water (15 KLD) will be used for dust suppression.

Other waste like, Battery waste generated from HEMM, appliances and equipment. E-waste generated from mine office, residential area. Bio-Medical waste generated from first aid room and residential area. These wastes are being/will be discarded as per the CPCB/CECB guideline and norms to authorized vendors/ recyclers.

Land Environment

At conceptual stage, total excavated area 657.618 ha out of which 535.60 ha area converted into water reservoir and 122.02 ha area will be backfilled (Rehabilitated by plantation & re-grassing).

At conceptual Stage, total 187.23 ha will be covered under greenbelt/plantation (greenbelt along 7.5 m mine periphery: 17.20 ha, plantation & re-grassing on backfilled area: 122.02 ha, plantation on OB dump: 48.01 ha). Local and fruit bearing species is being/will be planted in consultation with local forest officer and as per CPCB Guideline. Density of plantation is 2500 sapling/ha and survival rate will be maintained more than 90%.

1.11 POST PROJECT ENVIRONMENTAL MONITORING PROGRAMME

Table – 1.4
Post Project Monitoring Programme

S. No.	Description	Frequency of Monitoring
1.	Micro-Meteorological Data	Hourly
2.	Ambient Air Quality Monitoring	Online CAAQMS & Manual as per CPCB Guideline
3.	Ground Water Quality & Level Monitoring	Pre-monsoon /Quarterly
4.	Surface Water Quality & Level Monitoring	Seasonal
5.	Noise Level Monitoring	Monthly/Quarterly
6.	Ground Vibration Monitoring	On every blast
7.	Crusher Stack Monitoring	Monthly
8.	Medical Checkup of employees	3 to 5 Year Interval ➢ Age of workers <45 years: After every 5 years ➢ Age of workers >45 years: After every 3 years
9.	Digital Mapping/ Drone survey of Mine Area	Every year / as per IBM Guidelines

Source: *Standard EC Conditions & M/s. UltraTech Cement Ltd.*

1.12 ADDITIONAL STUDIES

Additional Studies i.e. Hydro-Geological Study, Biological Study, Resettlement & Rehabilitation Plan and Risk Assessment & Disaster Management Plan are covered in EIA/EMP Report as per the ToR issued by MoEF&CC, New Delhi vide letter no. J-11015/17/2009-IA.II (M) dated 09.07.2024.

1.12.1 HYDRO-GEOLOGICAL STUDY

About 350 KLD water is required for domestic, workshop, greenbelt/plantation, dust suppression, mine operations and crushing. Water is being/will be sourced from mine sump. It is being/will be further augmented with rain water harvesting and mine sump water.

NOC for dewatering of 6420 KLD for mine & plant has been obtained from CGWA vide NOC No. CGWA/NOC/MIN/REN/3/2024/9192 dated 01.03.2024 valid for 2 years from 07.12.2022 to 06.12.2024.

During Pre-Monsoon Season, water level of core zone ranges from 12 to 29m bgl (246 to 263m AMSL) and during Post-Monsoon Season, water level is 11 to 25m bgl (252 to 265m AMSL). There is 7048 KLD seepage in the current plan's period and at conceptual stage 7795 KLD; dewatered water has been using in mining activities or will allow communities to use water in agricultural fields.

The accumulated rainfall in mine sump is being used for mining activities. There is no proposal of mine dewatering in nearby surface water bodies including diversion of existing channels, constructed dam/ barrages/ weir/ canals/ hydro-electric projects. Hence, no impact due to dewatering water from limestone mining can have on surface water sources, including rivers, streams, lakes and wetlands in the vicinity of the mining site.

The mineral limestone associated rocks do not contain any toxic substances so that there will not be any adverse impact on ground water quality. During monsoon or post monsoon time, excess water needs to be discharged, it will pass through sedimentation pond/check dams/filters for proper sedimentation prior to join natural streams or nallahs.

1.12.2 BIOLOGICAL ENVIRONMENT

A primary field survey was carried out within 10 km radius impact zone of the mine site to study the floral & faunal diversity.

According to the field survey of the 10 km study area, according to (IWPA) Indian Wildlife Protection Act, 1972 as amended on 20.12.2022; total 21 nos. of Schedule I species i.e. are recorded.

There is no National Park, Wildlife Sanctuary, Biosphere Reserve, Wildlife Corridors, Tiger/Elephant Reserves etc. within 10 km radius of the mine site except the Dhabadih RF in ~9.8 km in NE direction.

Considering above, for conservation of the schedule I species, Site Specific Wildlife Conservation Plan has been prepared and a request letter regarding authentication of location map along with certification or approval has been submitted to the Principal Chief Conservator of Forest, Raipur, Chhattisgarh, vide letter no. UTCL: RJLM:MS:41, dated 18.07.2024.

1.12.3 REHABILITATION & RESETTLEMENT ACTION PLAN

Total mine lease area is 722.834 ha, out of which 181.753 ha is Government land and 541.081 ha is Private land. Out of the Govt. Land of 181.753 ha, 25.212 ha is grazing land. No forest land is involved in the mine lease. Bhu-pravesh have been granted by the State Govt. for carrying out mining activities and most of the area of grazing land has been covered under mining. At present, entire land is under possession of the UTCL. Regarding this land possession certificate has been obtained from Revenue Officer, Tehsil Suhela on 14.08.2024.

1.12.4 RISK ASSESSMENT & DISASTER MANAGEMENT PLAN

A Hazard Identification and Risk analysis is a systematic way to identify and analyze hazards to determine their scope, impact and the vulnerability of the built environment to such hazards and its purpose is to ensure that there is a formal process for hazard identification, risk assessment and control to effectively manage hazards that may occur within the workplaces.

Excessive dust, noise and vibration are the chief health hazards for the miners besides physical hazards.

The objective of disaster management plan for the existing mine is in a state of perpetual readiness through training and development to immediately control and arrest any emergency situation so as to avert a full-fledged disaster and consequence of human & property damage and in the event of a disaster still occurring, to manage the same so that the risk of the damage to life and property is minimized.

1.13 ENVIRONMENT MANAGEMENT PLAN

UTCL have a full-fledged Environmental Management Cell (EMC) for environmental monitoring, implementation of mitigative measures and control. A group of qualified and efficient engineers with technicians will be deputed for maintenance, up keeping and monitoring the pollution control equipment, to keep them in working mode at the best of their efficiencies. The EMC shall oversee and implement the various functions to ensure that environmental status of the area remains will within the statutory standard of MoEF&CC and SPCB. The Capital Cost for EMP is Rs. 844.85 Lakh and Recurring Cost for EMP is Rs. 61.79 Lakh per Annum.

1.14 POST MINING LAND USE DETAILS/RECLAMATION PLAN

Table – 1.5
Post-Mining Land Use of Core Zone

S. No.	Description	Land Use (In Ha)		
		Plantation/Re-grassing	Water Body	Total
1	Water Reservoir	-	535.60	535.60
	Backfilled (Rehabilitated by Plantation & Re-grassing)	122.02	-	122.02
	Total Excavation	**-**	**-**	**657.618**
2	OB Waste Dump	48.01	-	48.01
3	Green Belt along 7.5 m Mine Periphery	17.20	-	17.20
Total		**187.23**	**535.60**	**722.83**

Source: *Approved Modified Mining Plan along with Progressive Mine Closure Plan*

1.15 PROJECT BENEFITS

The project activity will help in meeting the growing demand Cement help in the economic growth of the country. The mine will contribute around Rs. 151.158 crore/year to the State & Central Govt. exchequers by way of mining revenue (Royalty, DMF, NMET, Cess) with the execution of the expansion project.

With the development in and around the area, there will be supporting facilities/infrastructure eventually leading to the development of the area. The beneficial aspects of the project on the socio-economic environment of the area are in the fields of employment, service, trade, commerce, public utility, literacy, social awareness, health care facilities, recreation etc.

The locals of the area will be benefited for the employment directly & indirectly. Locals are/will be preferred in employment as per their eligibility & requirement. Further, there would be a lot of indirect employment opportunities arising due to the execution of this project like transportation, workshops establishment, petty contracts; commercial establishments (shops), truck owners, drivers etc. This will upgrade the economic status of the region and people living therein.

Based on the Public Hearing issues various community developmental activities in the form of medical facilities, education and creation of self-help groups will be proposed for the betterment of the locals. The project will help in the overall growth of the region.

1.16 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 due to the project.

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. With the development in & around the area, there is/will be supporting facilities/infrastructure eventually leading to the development of the area. Employment (direct & indirect) will be generated with the execution of the expansion project. Economy of the area is/will get boost and overall development of the region in terms of education, health, training, transport, automobile, industry is anticipated. Thus, the project contributes to the Social, Environmental and Economic benefit of the local people and region.