

MINUTES OF THE 128TH MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 19TH, 20TH 21ST, 22ND, 23RD AND 24TH DECEMBER, 2025.

The 128th meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 19th, 20th, 21st, 22nd, 23rd and 24th December, 2025 under the Chairmanship of Shri Ashok Kumar Singh, IFS (Retd.) in the Conference Room at SEAC, Ranchi.

The following members were present:

1. Shri Ashok Kumar Singh, IFS (Retd.) - Chairman
2. Shri Niranjan Lal Agarwalla - Member
3. Dr. Raju Kumar - Member
4. Shri Ashok Kumar Dubey, IFS (Retd.) - Member (Virtual mode & absent on 20th)
5. Dr. Ajay Govind Bhatt - Member
6. Shri Srikant Verma, IFS - Member Secretary

The various projects applied in SEAC for the technical appraisal after the last SEAC meeting held on 09th, 10th, 11th, 12th and 13th October, 2025. These projects have been put up for discussions. Besides, these Projects, wherein PP's were asked to provide requisite information / clarifications in the earlier meeting of SEAC, were also considered for appraisal. The Project Proponents have been asked to make technical presentation for the appraisal of their projects before the committee.

The following observations /recommendations were made during the presentation (Project - wise), as under :-

Day 1 : 19th Decemberber, 2025 [Friday]

A. Discussion on matter related to :

i. Complaint letter received from Shri Bhushan Prasad and Others.

A complaint has been received from Shri Bhushan Prasad and Others alleging that the land has been aquired without the permission of the owners of the land.

The Member Secretary, SEAC to write a letter to Deputy Commissioner, Giridih alongwith the copy of the complaint received to verify the authenticity of the contents of the complaints.

Accordingly, the project will be taken up for consideration after getting report of verification from the Deputy Commissioner.

ii. Makandu Stone Mine of M/s Safari Stone Works, Village : Makandu, Thana : Kuru, Distt.: Lohardaga, Jharkhand (1.21 Ha). (Proposal no.: SIA/JH/MIN/ 553902 /2025)

As per the recommendation of 127th meeting of SEAC, Member Secretary, SEIAA was requested to write a letter to Deputy Commissioner, Lohardaga for obtaining the necessary clarification. In the 127th meeting of SEIAA, the following decision was taken :

"The SEIAA considered the opinion of SEAC made in this regard and after proper deliberation and due diligence it has been observed that present proposal have been applied online through PARIVESH Portal 2.0 for grant of EC after issuance of ToR.

Earlier SEIAA has written a letter to Deputy Commissioner, Lohardaga and District Mining Officer, Lohardaga vide memo no. 144, dated 12.07.2024 to take appropriate action against the Project Proponent for submitting the wrong certificates under the relevant Acts and Rules, the action taken report and opinion of Deputy Commissioner, Lohardaga is yet to be submitted. At this stage SEIAA is of the opinion that SEAC may obtain the action taken report and opinion of Deputy Commissioner, Lohardaga directly and based upon the action taken report and opinion received from Deputy Commissioner, Lohardaga, the SEAC will proceed accordingly as per law."

As per the above decision of SEIAA, Member Secretary, SEAC will write a letter to Deputy Commissioner, Lohardaga seeking the necessary clarification.

B. Consideration of proposals :

1. Proposed Residential & Commercial Complex namely "Radiant Luxury Shine" of M/s Melium Estates Private Limited, Village : Hehal, Tehsil : Hehal, Distt.: Ranchi, Jharkhand.

(Proposal no.: SIA/JH/INFRA2 /561002 /2025)

Name of the consultant : Crystal Consultants, Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 19.12.2025.

Project Sector: 8(a) Building and Construction Projects , Category: B2.

Application for Environment Clearance (EC) as per EIA notification, 2006.

Item	Details				
Project Name	Radiant Luxury Shine				
Location	Village : Hehal Tehsil : Hehal District: Ranchi State : Jharkhand				
Co-Ordinates	Si. No.	Latitude	Longitude		
	1.	23°22'2.60"N	85°17'17.62"E		
	2.	23°22'2.15"N	85°17'20.02"E		
	3.	23°22'1.51"N	85°17'20.09"E		
	4.	23°22'1.33"N	85°17'21.37"E		
	5.	23°22'1.16"N	85°17'22.88"E		
	6.	23°21'59.21"N	85°17'22.57"E		
	7.	23°21'58.54"N	85°17'21.20"E		
	8.	23°21'58.62"N	85°17'19.85"E		
	9.	23°22'0.37"N	85°17'19.99"E		
	10.	23°22'0.53"N	85°17'18.16"E		
Plot Area & its break – up (sq.m.)	Total Plot Area				9279.66
	Ground Coverage (31.75%)				2946.57
	Road				2554.83
	Open Parking				166.11
	Paved Path				409.66
	Garden				1021.93
	Tree Cover				1676.43
					(18.06 %)
Total Built-Up Area & its break – up (sq.m.)	Other				504.13
	Floor Name	BLOCK D (MAYRA) Built-up Area (Sq.mt.)	BLOCK C (VINAVADINI) Built-up Area (Sq.mt.)	BLOCK B (VINA BINOD) Built-up Area (Sq.mt.)	BLOCK A (VINAPANI) Built-up Area (Sq.mt.)
	Basement	0	0	5934.56	0
	Ground	291.08	462.58	1068.93	1185.95
	First	291.15	487.68	1053.91	872.98
	Second	291.15	487.68	1053.91	1198.65
	Third	291.15	487.68	1053.91	720.61
	Fourth	291.15	487.68	1053.91	703.23
	Fifth	291.15	487.68	1053.91	703.23
	Sixth	291.15	487.68	1053.91	703.23
	Seventh	291.15	487.68	1053.91	703.23
	Eighth	291.15	487.68	1053.91	703.23
	Ninth	0	487.68	1053.91	703.23
	Tenth	0	487.68	1053.91	703.23
	Eleventh	0	487.68	1053.91	703.23
	Twelfth	0	0	1073.01	723.53

	Thirteen	0	0	1093.14	723.53
	Total	2620.28	5827.06	20762.65	11051.09
	Total Built-up Area	40261.08			
Number of Block	4 ✓ Block (A) ✓ Block (B) ✓ Block (C) ✓ Block (D)				
Population	2058				
Municipal Solid Waste	1054 Kg / Day including Bio-degradable (40% of MSW) : 422 Kg / Day & Non-Biodegradable (60% of MSW) : 632 Kg / Day				
Parking	266 Car Parking for Flat Owners 27 Car Parking for Visitors 398 Two-Wheelers Total Area Parking : 9293.40 Sq.m.				
Power Requirement	Power Requirement	0.72 MVA			
	Energy Saving	21.56%			
	Power Back-up	1000 KVA			
	Renewal Energy	2% of total net energy demand			
RWH Pits	4 Nos of Recharge pit				
Total no. of Dwelling Units	Total 259 units including 244 Residential Units& 15 Commercial Units				
No. of Floors	Block (A) : G + 13 Block (B) : B+G+13 Block (C) : G+11 Block (D) : G+8				
Total Project Cost	Rs. 77.11 Crores.				
EMP Cost (Construction Phase)	Capital Cost: Rs. 34.50 Lakh Recurring Cost: Rs. 5.00 Lakh				
EMP Cost (Operational Phase)	Capital Cost: Rs. 109.50 Lakh Recurring Cost: Rs. 12.15 Lakh				
Disaster Management	Separate Assembly Points will be marked for each section. Residents will be made aware of the safety protocols and escape routes.				

LAND DETAILS

Khata no.	Plot no.
57	1243, 1244 & 1246
49	1253

POPULATION

Residential	DW Units	Population
1BHK	34	136
2BHK	29	145
3BHK	88	528
4BHK	88	616
5BHK	2	14
6BHK	3	21
Floating Population 10%		146
Sub-Total		1606
Commercial	No. of Units	
Office	8	250
Retail Shop	5	177
Community Hall	2	25
Sub-Total		452
TOTAL		2058

WATER & WASTEWATER

Water Demand

Residential Blocks	Potable Fresh Water @70L Per head		Flushing Water @35L per head	
1606	112.42		56.21	
Commercial Blocks	Fix		Floating	
	Domestic @25L per head	Flushing @20L per head	Domestic @5L per head	Flushing @10L per head
452 including 245 fixed & 187 floating	6.12	4.90	1.03	2.07
Water Demand Total (UNIT : KLD)				
Domestic			119.58	
Flushing			63.18	
Dust Suppression			5.00	
Landscaping			5.00	
Car Washing			10.00	
Total Water Demand			202.77	
			i.e. 203	
Total Fresh Water Demand			119.58	
Total Treated Water Demand			83.18	
Discharge to Municipal Drain			43.90	

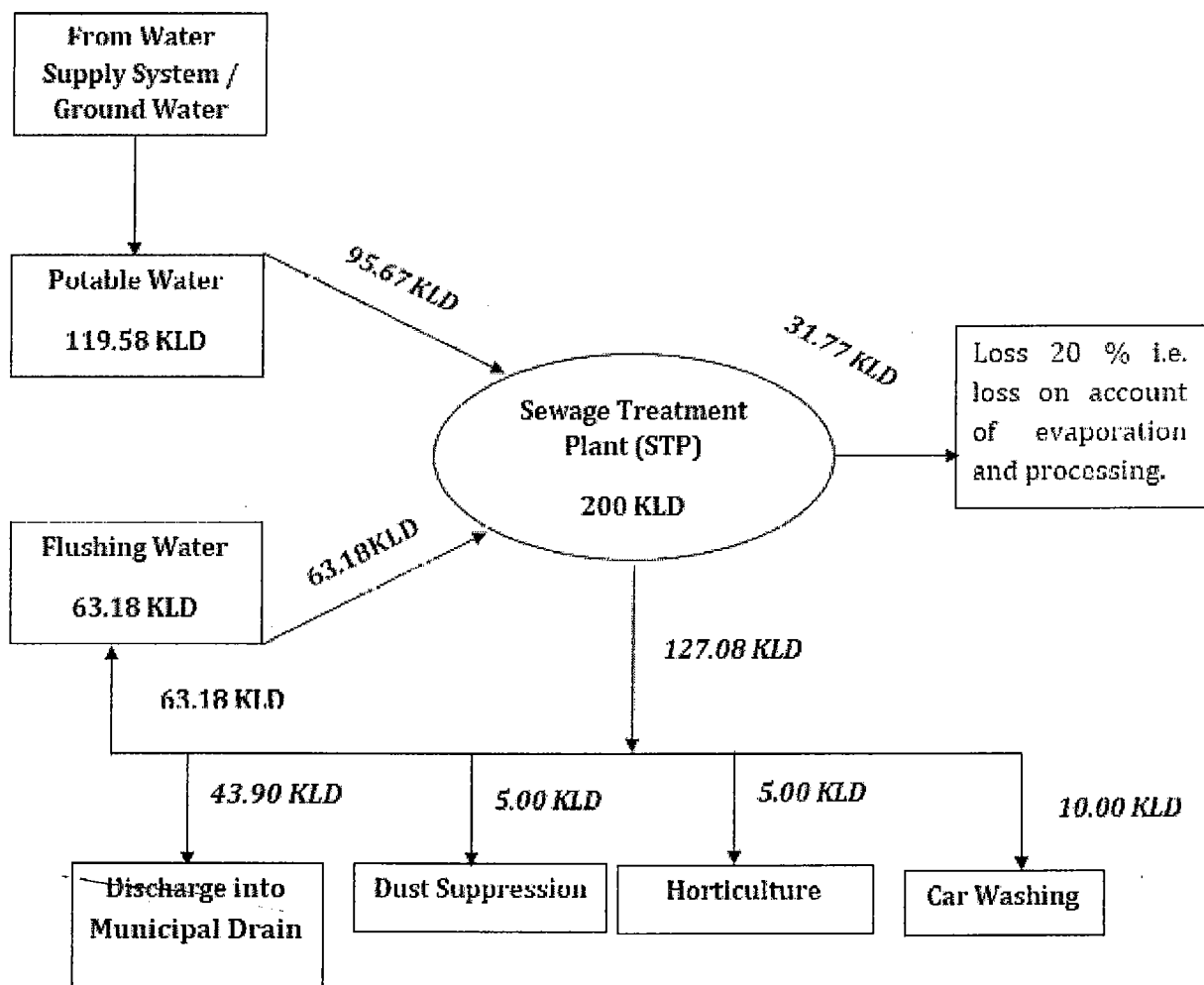
Source: Fresh Water from Municipal Water Supply System & Treated Water from Sewage Treatment Plant (STP)

Waste Water Management

STP Calculation (KLD)

Total Potable Fresh Water	119.58	95.67	80% of Domestic Water is Waste Water
Total Flushing Water	63.18	63.18	100% of Flushing Water is Waste Water
Total Volume of Waste Water		158.85	
STP Capacity		200.00	
Waste Water Management (KLD)			
Volume of Treated Water from STP		127.08	
i.e., 80% of Waste Water			
Loss 20 % loss on account of evaporationand processing.		31.77	
Break-Up			
Flushing		63.18	
Dust Suppression		5.00	
Horticulture		5.00	
Car Washing		10.00	
Discharge to Municipal Drain		43.90	

Water Balance



CONNECTIVITY

Environment Sensitivity Area (Aerial Distance)	
Waterbody	Dhurwa Dam (8.17 Km) Kanke Dam (3.64 Km) Subarnarekha River (8.00 Km)
Forest	Not within 250m
Eco Sensitive Zone	Not within 10 Km
Social Infrastructure	Devkamal Hospital (1.77 Km) Harmu Hospital (1.23 Km) Paras Hospital (1.77 Km) Delhi Public School (DPS) (4.00 Km) Kairali School (5.33 Km)

SOLID WASTE MANAGEMENT

Construction Phase

Building Type	Municipal Solid Waste @0.2 Kg per Person per Day	Bio-degradable (40% of MSW)	Non-Biodegradable (60% of MSW)
Labours @0.1 Kg/Day/Person	15 Kg / Day	6 Kg / Day	9 Kg / Day

Solid Waste generated during construction phase would include top soil, brick bats, pieces of reinforcing roads, pieces of wood boards & waste of other construction material, cans of paints electrical wire, etc.

Top Soil would be separately stored at pre-defined location within the site & preserved for landscaping. Sub – Soil would be stored for reuse in road making, plinth filling, etc.

Brickbats wastes of concrete would also be stored for road construction, etc. Surplus C & D waste would be handed over to Municipal Solid Waste Management Facility. E-Waste & Hazardous waste (cans of paints_ would be collected in separates containers. Recyclable wastes including bags, packing, pcs of steel rods sold to rag pickers.

Operational Phase

Building Type	Municipal Solid Waste	Bio-degradable (40% of MSW)	Non-Biodegradable (60% of MSW)
Residential Building @0.6 Kg per Person per Day	963.60 Kg / Day	385.44 Kg / Day	578.16 Kg / Day
Commercial Building @0.1 Kg per Person per Day	90.45 Kg / Day	36.18 Kg / Day	54.27 Kg / Day
TOTAL	1054.05 Kg / Day	421.62 Kg / Day	632.43 Kg / Day

Estimated quantity of municipal solid waste Community building & residential building.

During operational phase of buildings municipal solid waste would be generated. They would be stored in different colour bins.

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A

- ✓ Recyclable Waste - Blue
- ✓ Non-Biodegradable Waste - Black
- ✓ Bio-Degradable Waste - Green
- ✓ E-Waste - Yellow
- ✓ Hazardous Waste - Red

Recyclable Wastes would be handed to rag pickers.

Bio-Degradable Waste would be treated into Organic Waste Converter (OWC) and the product will be utilized as fertilizer.

E-Waste & Hazardous Wastes would be handed over to authorized recyclers.

Organic Waste Converter – Process & Capacity Details

Particulars	Unit	Quantity / Description
Total Organic Waste Generated	kg/day	421.62
Inert / Reject Material (≈5%)	kg/day	21.08
Net Waste Fed to OWC	kg/day	400.54
Bulking Agent (Sawdust / Dry Leaves)	kg/day	40–60 (10–15%)
Bio-culture / Enzyme Addition	kg/day	1.5–2.0
Total Input to OWC	kg/day	~450
OWC Processing Capacity	kg/day	500 (Selected)
Retention Time in OWC	hours	24
Temperature Maintained	°C	55–65
Moisture Content Maintained	%	55–60
Volume Reduction	%	60–65
Semi-processed Output	kg/day	~160
Curing Period	days	7–14
Final Compost Yield	kg/day	125–145
Compost Utilization	—	On-site landscaping
Rejects Disposal	—	Authorized municipal facility

An Organic Waste Converter of 500 kg/day capacity is proposed to handle 421.62 kg/day of biodegradable waste. The system ensures effective volume reduction, odor-free operation, and generation of nutrient-rich compost for in-house greenbelt development.

ENERGY DEMAND

Category	Conventional Demand (A)	Energy Saving (B)	% of Energy Saving	Net Demand (C = A - B)
Dwelling units (DU)	51,35,112.00	21.75%	11,16,886.86	40,18,225.14
Pumps (60 kW)	3,50,400.00	15.00%	52,560.00	2,97,840.00
STP (200 kld)	4,67,200.00	15.00%	70,080.00	3,97,120.00
OWC (400 kg/day)	7,59,200.00	15.00%	1,13,880.00	6,45,320.00
External/Common Lighting	1,35,526.25	60.00%	81,315.75	54,210.50
Lifts (passenger + stretcher)	4,90,560.00	30.00%	1,47,168.00	3,43,392.00

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TOTAL	73,37,998.25	21.56%	15,81,890.61	57,56,107.64

Energy Conservation Measures

- ✓ Replacing 2 x 13W Down lighter in lift lobby with 17W LED.
- ✓ Replacing T5 Tubelight in staircase with 20W LED.
- ✓ Replacing 70W MHL Street lights with 40W LED.
- ✓ Providing 100% of Street lights & common lighting on **SOLAR**.
- ✓ Replacing normal lighting with LED for Landscape.
- ✓ Using Variable Frequency Drive (VFD) for Lift machines, we can save 10% of consumption.
- ✓ By using Regenerative type lifts, we can save 30% of Consumption.
- ✓ By using Energy efficient motors, we can save 10% of energy.

Total Energy Demand (Conventional)			73,37,998
Total Energy Conservation (21.56 %)			15,81,891
Total Energy Net Required			56,82,728
Total Energy Generation (2% of net energy demand)			1,13,655
EPI (initial)			182.3 kWh/m ² /year
EPI (After applying energy conservation and renewable energy measures)			141.2 kWh/m ² /year
Values in kWh per Year	MWh per Year	MW	MVA Pf : 0.90
73,37,998	7,338.00	0.84	0.93
56,82,728	5,682.73	0.65	0.72

Daily energy generation is 1,13,655 kWh Per Year / 365 Days i.e. 312 kWh per day.

4 kWh Power generation per panel per day & 1 Solar Panel required 20 Sq.ft. area.

Hence 78 Panels required & total area required for solar panel is 1560 Sq.ft.

RAIN WATER RECHARGE PITS

4 Rainwater Recharge pits are proposed. Rain water from roof tops will be drained through rain water vertical down take pipes. These vertical down take pipes shall be located at suitable locations inside the shafts or periphery of the building. The terrace will be sloped. The down take pipes will be connected to the storm water network and then to Rainwater Harvesting Pits.

Catchment Area(m2)	Runoff Coefficient	Intensity of Rainfall in 24 hr. (mm)	Maximum Intensity of Rainfall hourly (mm/hr)	Retention Time - Runoff (m3/15 mins)	Runoff 60 minutes
2527.83	0.85	180	9	4.83	19.34
Volume of desilting Tank (m3)	Volume of Recharge Pit (m3 Per pit)	Total Volume (M3)	Runoff 60 minutes	No. of pits required	No. of pits proposed
1.5	3.44	4.94	19.34	3.91	4

Surface Type	Area (sq.m)	Runoff Co-efficient	Effective Area (sq.m)
Paved / Road Area	3,634.73	0.65	2,362.57
Lawn / Garden / Tree Cover	2,698.36	0.15	404.75
Total Effective Catchment Area			2,767.32 sq.m

Hourly Rainfall = 9mm/hr

Hourly Run-off = 2767.32 * (9/1000)m³ per hour

= 24.90 m³ per hour

This run-off will be drained through a network of open drain & connected to Storm Water Municipal Drain

BUDGETARY PROVISION

Project Cost

Particulars	Amount (INR)
Construction Cost	73,67,22,421.00
EMP	1,44,00,000.00
Statutory Clearance & Other	2,00,00,000.00
Total	77,11,22,421.00
	i.e. Rs. 77.11 Crores

EMP Cost

EMP COST FOR CONSTRUCTION PHASE			
S. No	Description	Capital Cost (Rs. Lakhs)	Recurring Cost (Rs. Lakhs / Annum)
1.	Construction Site to be enclosed with 3m high corrugated sheet	15.00	0.00
2.	Acoustic enclosure for DG Set	2.00	0.50
3.	Air Fogging Gun & Hired Water Tanker for Dust Suppression	0.50	1.50
4.	Shed for storage of building material&Tarpaulin (Tirpal) Sheet	5.00	0.50
5.	Temporary Septic Tank	2.00	0.50
6.	Drinking Water Facility	0.00	0.60

7.	Storm Water Drainage System	3.00	0.20
8.	Arrangement (HDPE Colored bins) for storage of MSW	0.50	0.10
9.	PPE for Worker & Health Care	0.50	0.10
10.	Miscellaneous	6.00	1.00
Sub- Total (A)		34.50	5.00
EMP COST FOR OPERATIONAL PHASE			
S. No	Description	Capital Cost (Rs. Lakhs)	Recurring Cost (Rs. Lakhs / Annum)
1.	300 sapling plantations	1.50	0.15
2.	Development of Lawn /park over 1021.93 sq.m.	4.00	0.50
3.	200 KLD Sewage Treatment Plant (STP)	31.00	3.00
4.	500 Kg/ Day Organic Waste Converter (OWC)	15.00	2.00
5.	4 Rain Water Collection & Recharge Pit	20.00	0.50
6.	Solar Panel	20.00	2.00
7.	Acoustic enclosure& stack for DG Set	3.00	0.50
8.	Solid Waste Management	5.00	0.50
9.	Miscellaneous	10.00	3.00
Sub-Total (B)		109.50	12.15
Total (A+B)		144.00	17.15

STATUTORY CLEARANCES

1	Land Docs	:	Land under development agreement with raiyats.						
			Sl.No.	Land owner Name	Khata No.	Plot No.	Area	Development Agreement	GRN No.
			1	RAHUL KUMAR GUPTA	57	1243, 1244,	63.73	Registered as Document No.	2504779370

				1246		2025/RAN/ 8924/ BK1/8185 dated 10 Oct 2025	
		2	RAHUL KUMAR GUPTA AND SHRI BINOD KUMAR	57	1243	6.54	-do- 2504779370
		3	KISHORE KUNAL	57	1243, 1246	35.50	-do- 2504779370
		4	ROSHAN KUMAR	57	1246	9.75	-do- 2504779370
		5	JYOTSNA KUMARI	57	1246	9.75	-do- 2504779370
		6	SEEMA DEVI	57	1246	2.47	-do- 2504779370
		7	KUMAR RAJIV	57	1243, 1244	28.23	-do- 2504779370
		8	JAGAT PAL SINGH	57	1246	17.53	-do- 2504779370
		9	LAXMI VAIBHAV REALTY PRIVATE LIMITED	49	1253	56	-do- 2504779370
			TOTAL			229.50	
2	DFO Territorial	: DFO, Ranchi Forest Division vide letter no. 1428, dated 23.05.2025 certified that the distance of reserved / protected forest is more than 250 meters from project site.					
3	DFO Wildlife	: DFO, Wildlife Division, Ranchi vide letter no. 299, dated 19.05.2025 certified that proposed project site is out side Eco Sensitive Zone of Palkot Wildlife Sanctuary.					
4	CO certificate	: The CO, Hehal, Ranchi vide memo no. 1173 (ii), dated 03.12.2025 has mentioned the plot no. of the project is not recorded as "Jangle					

			Jhari" in R.S. Khatiyani & Register II.
5	AAI NOC	:	Airport authority of India issued NOC vide NOC ID no. RANC /EAST /B/ 022824/928433, dated 18.03.2024 valid up to 16.03.2032.
6	Building Plan approval	:	Building plan sanctioned by Ranchi Municipal Corporation vide case no. RMC/GH/0050/W34/2025, dated 09.08.2025.
7	Fire Department	:	Fire Advisory has been issued by Fire Department, Jharkhand, Ranchi, vide memo no. 7025/Tech./2025, dated 18.12.2023.
8	Environmental Safeguard from Jharkhand State Pollution Control Board (JSPCB)	:	Environmental Safeguard issued by Jharkhand State Pollution Control Board (JSPCB) vide its Memo No.: 3299 dated : 15/12/2025

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Residential & Commercial Complex namely "Radiant Luxury Shine" of M/s Melium Estates Private Limited, Village : Hehal, Tehsil : Hehal, Distt.: Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure –I alongwith the following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. 3299, dated 15.12.2025 is also included as Annexure – I (A) :

- I. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- II. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.
- III. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- IV. All raw material to be stored only under covered shed.
- V. PAs to offset (up to 20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- VI. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load.
- VII. Trees should be developed & maintained not less than 15% of project area.

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- VIII. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- IX. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- X. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- XI. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XII. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XIII. Sufficient number of EV fast charging points to be installed.
- XIV. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XV. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.

2. Gurgain Stone Deposit of M/s Santosh Mining Enterprises (Prop. : Shri Gopal Kumar Ishwar), Village : Gurgain, Tehsil : Ormanjhi, Distt.: Ranchi, Jharkhand (1.23 Ha).

(Proposal no.: SIA/JH/MIN /556704 /2025)

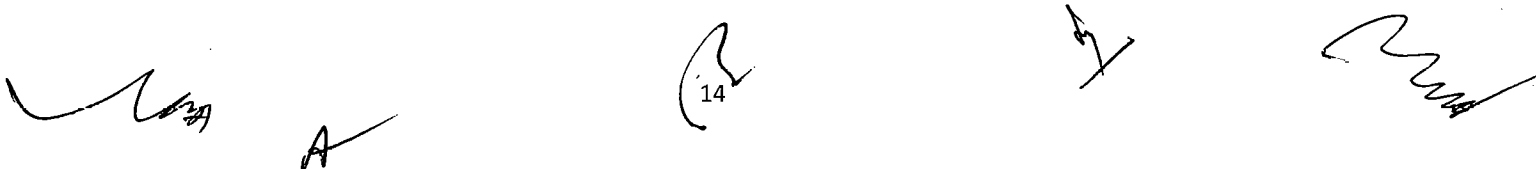
Name of the consultant : Crystal Consultants, Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 19.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity –43384 Cum per year or 121476 Tonnes per year.

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Project and Location Details:

Sl	Parameter	Details
1	Project Name	: GURGAIN STONE DEPOSIT
2	Lessee:	: M/s SANTOSH MINING ENTERPRISES Proprietor: SRI GOPAL KUMAR ISHWAR
3	Lessee Address	: At-2196, Human Nagar, Moharram Toli, Booty More, Bariatu, District-Ranchi, Pin Code -834009, State-Jharkhand
4	Lease Area	: 1.23 Ha. 3.03 Acre
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital: Rs 29,94,461.00
7	EMP Budget	: Capital: Rs. 639600.00 Recurring: Rs. 536400.00 Per Year
8	New or Expansion	: New
9	Mineable Reserves	: 2,16,832 Cum 6,07,129 Tonnes
10	Mine Life	: 5 Years
11	Man power	: 36
12	Water Requirement	: 11.79 KLD
13	Water Source	: By authorised hired water tankers
14	DG Set / power	: -
15	Crusher	: No crusher
16	Nearest Water Body	: In the KML (satellite) image, a Nala is observed at a distance of approximately 240 m on the south side of the project site. Accordingly, a detailed Environmental Management Plan (EMP) has been submitted to prevent any potential impact of mining activities on the waterbody.
17	Nearest Habitation	: In the KML (satellite) image, a few houses are observed approximately 450m away from the project site on the eastern side. In compliance with Office Memorandum No. Z-11013/57/2014-IA.II(M) dated 29.10.2014 issued by the MoEF&CC, a detailed EMP has also been submitted to mitigate the impact of mining activities on these habitations.
18	Nearest Rail Station	: Ramgarh Cantonment Railway Station (11.20 Km)
19	Nearest Air Port	: Birsa Munda Airport, Ranchi (29.97 Km)
20	Nearest Forest	: Divisional Forest Officer, Ranchi certified that the distance of reserved / protected forest is more than 250 meter from proposed project site.
21	Road & Highways	: NH-20 (2.55 Km)
22	Approach Road	: 125 m

CO-ORDINATES :

PILLAR NO	LATITUDE	LONGITUDE
P1	N23°30'59.280"	E85°31'26.668"

P2	N23°31'00.720"	E85°31'27.152"
P3	N23°31'00.523"	E85°31'28.289"
P4	N23°31'00.283"	E85°31'28.464"
P5	N23°30'59.882"	E85°31'30.114"
P6	N23°30'59.485"	E85°31'31.753"
P7	N23°30'59.104"	E85°31'33.323"
P8	N23°30'58.525"	E85°31'32.841"
P9	N23°30'58.206"	E85°31'33.187"
P10	N23°30'57.231"	E85°31'32.001"
P11	N23°30'57.087"	E85°31'31.331"
P12	N23°30'56.558"	E85°31'31.099"
P13	N23°30'56.817"	E85°31'30.330"
P14	N23°30'56.168"	E85°31'30.115"
P15	N23°30'56.304"	E85°31'29.480"
P16	N23°30'57.320"	E85°31'29.804"
P17	N23°30'57.670"	E85°31'29.802"
P18	N23°30'57.621"	E85°31'29.631"
P19	N23°30'57.785"	E85°31'28.756"
P20	N23°30'58.929"	E85°31'28.221"

LAND DETAILS

Khata no.	Plot no.
53	5 & 9 (P)
20	8 (P)
60	12 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Ranchi vide letter no. 888/M, dated 17.07.2025.
2	CO	:	The CO, Ormanjhi (Ranchi) vide letter no. 632 (ii), dated 18.07.2024 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatyan & Register II. During the appraisal it was seen from the KML that habitation at a distance of 450 meters and Nala at at distance of 150 meter from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Ranchi vide memo no. 1253/M, dated 09.10.2025 certified that 01 other mining lease area (6.20 Acre) exists within 500 meters radius from proposed project site and total area is 9.23 Acre.

4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 970, dated 05.12.2024 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Ranchi Forest Division vide letter no. 2555, dated 29.07.2024 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The Lol was granted on 17.07.2025. The DSR for Ranchi was approved by the Sub-Divisional Committee on 22.07.2024 and submitted to SEIAA for approval on 22.07.2024. However, DC-cum-District Magistrate, Ranchi vide letter no. 1223/M, dated 27.09.2025 requested to consider the said project proposal as part of approved District Survey Report & further requested that this project may be taken up for consideration for grant of EC. The Committee accepted the request of the DC-cum-District Magistrate, Ranchi as Lol was Issued after the approval of the DSR.
7	Gram Sabha	:	BDO, Ormanjhi vide letter no. 591 (ii), dated 16.05.2025 informed that Gram Sabha conducted on 30.04.2025.
8	Mine Plan Approval	:	Approved by DMO, Ranchi vide Memo No. 1275/M, dated 15.10.2025.
9	Qualified Person	:	Shri P.K. Sen was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Semi-mechanized "OTFM" Method
2	Quarry Area	:	0.82 Ha.
3	Waste Generation	:	18034 cum
4	Stripping Ratio	:	1:0.01
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m and 4 in numbers
7	Elevation of Mine	:	606 m AMSL to 598 m AMSL
8	Ground Level Elevation	:	598 m AMSL
9	Ultimate Working Depth	:	575 m AM2SL
10	Water Table	:	565 m AMSL (As per approved mining plan)
11	Topography of Mine	:	Hill Land
12	Explosive Requirement	:	50.62 kg/day

13	Diesel/Fuel requirement	:	243 litre/day

Production Details

Year	Removal of Gritty Soil		Intercalated waste	Production of stone	
	In cum	In tonnes	In cum	In cum	In tonnes
1 st	5590	8385	2281	43339	121350
2 nd	000	000	2283	43383	121472
3 rd	1032	1548	2281	43339	121350
4 th	000	000	2284	43384	121476
5 th	000	000	2283	43383	121472
Total	6622	9933	11412	216828	607120

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (in Ha)		
			Public use	Water body	Plantation
Excavation	0.0	0.82 (0.31 ha area shall be Backfilled & the same will be converted in to water reservoir & 0.51ha shall be left as dead benches)	0.0	0.31	0.51
Road	0.034	0.0	0.0	0.0	0.0
Old Existing Dump	0.365	0.0	0.0	0.0	0.0
Safety Zone	0.0	0.41	0.0	0.0	0.41
Waste Dump	0.0	0.0	0.0	0.0	0.0
Total Area in Use	0.399	1.23	0.0	0.31	0.92
Unused Area	0.831	0.0			0.0
Total Applied Area	1.230	1.23			1.23

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area Length /	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.41	656	1600 Tree per Hectare	1st Year	Mango, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Arjun, etc.
Length of Approach Road Area	125	250	2m X 2 m spacing in two rows		

(m.)			both side		
Dead Bench (Ha.)	0.51	816	1600 Tree per Hectare	At the end of life of mine	
Total		1,722			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Cost Estimates

The mining plan for the project has estimated the requirement of equipments needed for mining operations. The capital cost has been estimated on basis of this provision. Estimated capital cost on plants & machineries are given below :

BUDGETARY PROVISION FOR PROJECT COST				
Particulars			Capital	Recurring
Land			1054861	370000
Infrastructure			700000	0
Mining Equipment			0	24400000
<i>Type of Machine</i>	<i>Nos.</i>	<i>Rate</i>		
Wagon Drill	02	2000000	--	--
Hydraulic Excavator	02	1600000	--	--
Compressor	01	1000000	--	--
Jack Hammer	02	1200000	--	--
Tippers	03	3000000	--	--
Rock Breaker	02	1200000	--	--
Water Tank (Sprinklers Attached)	02	1200000	--	--
Water for Domestic @Rs. 500 per Tanker 1.44 KLD X 300 Days =432 KL			0	54000

432 KL / 4 KL = 108 Tankers		
Fencing at the end of mine (mine closure)	100000	
Statutory Clearance & Other	500000	
Environment Management Plan (EMP)	639600	536400
Total	2994461	25360400

Environment Management Budget

BUDGETARY PROVISION FOR ENVIRONMENT MANAGEMENT PLAN (EMP)		
Particulars	Capital	Recurring
906 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	271800	45300
Plantation at the end of mine (mine closure) 816 @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	244800	40800
Water Tanker @Rs. 500 per Tanker for Dust Suppression (4.92 KLD) & Horticulture (5.43 KLD) 4.92 + 5.43 = 10.35 KLD 10.35 KLD X 300 Days = 3105 KL 3105 KL / 4 KL = 776 Tankers	0	388000
Garland Drain & Parapet wall	123000	12300
Environment Monitoring & Compliance	0	50000
Total	639600	536400

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly







4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 station	Six Monthly

Environment Management Practices to be followed:

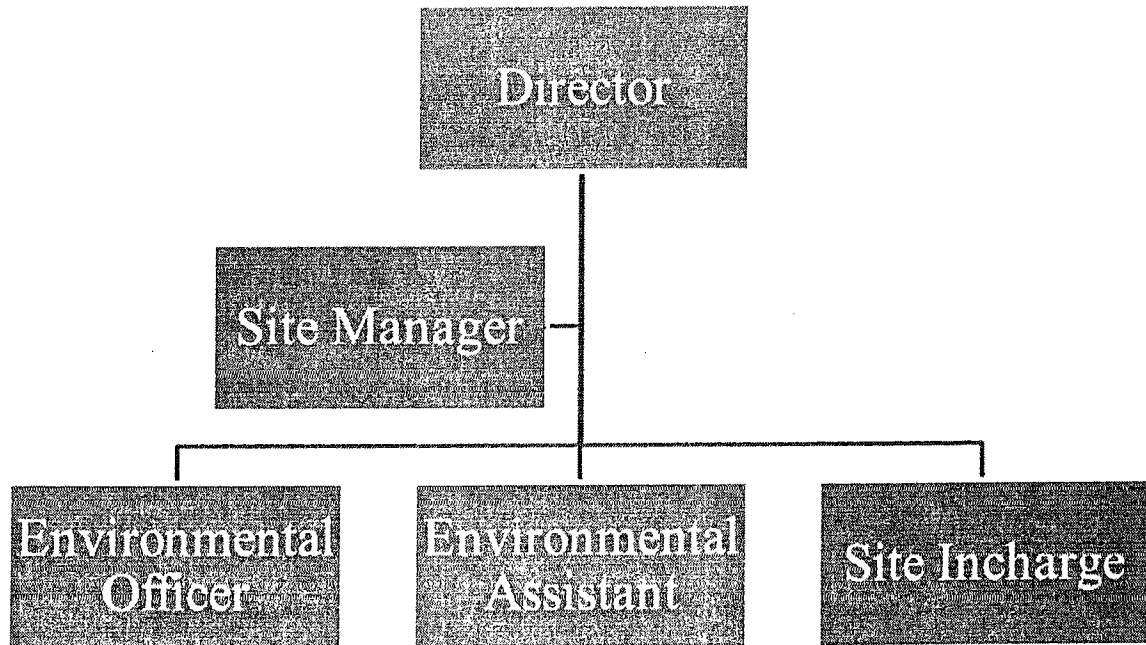
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	During quarry development in 1st year gritty soil and intercalated waste will be removed and this soil, waste & old existing temporary dumped materials will be temporarily dumped [Area - 0.400 Ha, (L x W x H = 87m x 46m x 5m)] within the quarry with suitable precaution like constructing parapet wall, garland drain & in 2nd year intercalated waste will be removed and this waste & existing temporary dumped materials will be temporarily dumped [Area - 0.446 Ha, (L x W x H = 106m x 42m x 5m)] within the quarry & in 3rd year gritty soil & intercalated waste will be removed and this soil, waste & existing temporary dumped materials will be temporarily dumped [Area - 0.370 Ha, (L x W x H = 70m x 53m x 5m) & Area - 0.142 Ha, (L x W x H = 49m x 29m x 5m)] within the quarry & 4th year intercalated waste will be removed and this waste & existing temporary dumped materials will be temporarily dumped [Area - 0.402 Ha, (L x W x H = 86m x 47m x 5m), Area - 0.088 Ha, (L x W x H = 42m x 21m x 5m) & Area - 0.068 Ha, (L x W x H = 27m x 25m x 5m)] within the quarry & in 5th year intercalated waste will be removed and this waste & existing temporary dumped materials will be backfill within the quarry.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems.

	• Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation

	Proposed Preventive measures: - Overall slope angles of benches will be maintained at 45°. - Unmanageable heights are not created. - Loose sides are properly dressed. - No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). - No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) - It will be ensured that the drilling equipment is suitable for the job. - The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. - Provision of portable rail fencing between the drilling operations and the edge of the bench - Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. - Restricted access to the area to all persons except those necessary for the drilling operation. - Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. - In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. - Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	- Blast hole geometry shall be properly designed. - Blast site shall be wetted before and after blasting operations are completed. - Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. - Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. - While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. - The vibrations should be monitored periodically in consultation with

	the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.

- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Gurgain Stone Deposit of M/s Santosh Mining Enterprises (Prop. : Shri Gopal Kumar Ishwar), Village : Gurgain, Tehsil : Ormanjhi, Distt.: Ranchi, Jharkhand (1.23 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.

- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

3. Piska Stone Deposit of M/s Santosh Mining Enterprises (Prop. : Shri Gopal Kumar Ishwar), Village : Piska, Tehsil : Ormanjhi, Distt.: Ranchi, Jharkhand (0.72 Ha).

(Proposal no.: SIA/JH/MIN /556741 /2025)

Name of the consultant : Crystal Consultants, Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 19.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 10831Cum per year or 30324 Tonnes per year

Project and Location Details:

Sl	Parameter		Details
1	Project Name	:	PISKA STONE DEPOSIT
2	Lessee:	:	M/S Santosh Mining Enterprises Proprietor-Sri Gopal Kumar Ishwar
3	Lessee Address	:	At :- 2196, Hanuman Nagar, Moharram Toli, Booty More, Bariatu, Dist.-Ranchi, Pin – 834009, Jharkhand.
4	Lease Area	:	0.72 Ha. 1.79 Acre
5	Type of Land	:	Non-Forest Raiyati Land
6	Project Cost	:	Capital : Rs. 2997800.00
7	EMP Budget	:	Capital : Rs. 1697800.00 Recurring : Rs. 420700.00 per Year
8	New or Expansion	:	New
9	Mineable Reserves	:	54008 Cum 151221 Tonnes
10	Mine Life	:	5 Years
11	Man power	:	26
12	Water	:	6.98 KLD

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	Requirement		
13	Water Source	:	By authorised hired water tankers
14	DG Set / power	:	-
15	Crusher	:	No crusher
16	Nearest Water Body	:	In the KML (satellite) image, a pond is observed at a distance of approximately 225 m on the south side of the project site. Accordingly, a detailed Environmental Management Plan (EMP) has been submitted to prevent any potential impact of mining activities on the waterbody.
17	Nearest Habitation	:	In the KML (satellite) image, a few houses are observed approximately 208 m away from the project site on the eastern side. In compliance with Office Memorandum No. Z-11013/57/2014-IA.II(M) dated 29.10.2014 issued by the MoEF&CC, a detailed EMP has also been submitted to mitigate the impact of mining activities on these habitations.
18	Nearest Rail Station	:	Hehal railway station which are about 5.65 Km
19	Nearest Air Port	:	Birsa Munda Airport Ranchi (29.77 Km)
20	Nearest Forest	:	Divisional Forest Officer, Ranchi certified that the distance of reserved / protected forest is more than 250 meter from proposed project site.
21	Road & Highways	:	NH-20- Road at about 0.65Km
22	Approach Road	:	At a distance of 31m

CO-ORDINATES

PILLAR_NO	LATITUDE	LONGITUDE
P1	N23°32'15.221"	E85°29'35.122"
P2	N23°32'15.543"	E85°29'35.308"
P3	N23°32'16.428"	E85°29'35.546"
P4	N23°32'16.158"	E85°29'36.173"
P5	N23°32'16.215"	E85°29'36.215"
P6	N23°32'15.510"	E85°29'37.187"
P7	N23°32'15.003"	E85°29'36.827"
P8	N23°32'14.581"	E85°29'37.114"
P9	N23°32'14.242"	E85°29'37.707"
P10	N23°32'14.168"	E85°29'38.359"
P11	N23°32'13.855"	E85°29'39.282"
P12	N23°32'12.859"	E85°29'38.701"
P13	N23°32'12.653"	E85°29'38.036"
P14	N23°32'12.916"	E85°29'36.873"
P15	N23°32'12.361"	E85°29'36.354"
P16	N23°32'12.992"	E85°29'35.870"

P17	N23°32'13.955"	E85°29'35.412"

LAND DETAILS

Khata no.	Plot no.
86	171, 172 & 173

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Ranchi vide letter no. 889/M, dated 17.07.2025.
2	CO	:	The CO, Ormanjhi (Ranchi) vide letter no. 646 (ii), dated 20.07.2024 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khaliyan & Register II. During the appraisal it was seen from the KML that habitation at a distance of 200 meters and water bodies at a distance of 225 meter from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Ranchi vide memo no. 1254/M, dated 09.10.2025 certified that 03 LoI (1.22 Acre, 2.60 Acre, 1.60 Acre & 2.34 Acre) exists within 500 meters radius from proposed project site and total area is 9.55 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 1018, dated 16.11.2021 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Ranchi Forest Division vide letter no. 5019, dated 31.10.2019 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The LoI was granted on 17.07.2025. The DSR for Ranchi was approved by the Sub-Divisional Committee on 22.07.2024 and submitted to SEIAA for approval on 22.07.2024. However, DC-cum-District Magistrate, Ranchi vide letter no. 1223/M, dated 27.09.2025 requested to consider the said project proposal as part of approved District Survey Report & further requested that this project may be taken up for consideration for grant of EC. The Committee accepted the request of the DC-cum-District

			Magistrate, Ranchi as Lol was issued after the approval of the DSR.
7	Gram Sabha	:	BDO, Ormanjhi vide letter no. 1193 (ii), dated 08.10.2024 informed that Gram Sabha conducted on 02.10.2024.
8	Mine Plan Approval	:	Approved by DMO, Ranchi vide Memo No. 1274/M, dated 15.10.2025.
9	Qualified Person	:	Shri P.K. Sen was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Semi-mechanized "OTFM" Method
2	Quarry Area	:	0.44 Ha. Life of Mine – 5 years
3	Waste Generation	:	4568 cum
4	Stripping Ratio	:	1:0.03
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m and 5 in numbers
7	Elevation of Mine	:	658 m AMSL to 648 m AMSL
8	Ground Level Elevation	:	648 m AMSL
9	Ultimate Working Depth	:	628 m AMSL
10	Water Table	:	621 m AMSL
11	Topography of Mine	:	Area represents gently sloping land.
12	Explosive Requirement	:	20 kg/day (To be handle by licensed external Agency)
13	Diesel/Fuel requirement	:	61 litre/day

Production Details

Year	Removal of Gritty Soil		Intercalated Waste	Production of Stone	
	In cum	In tonnes	In cum	In cum	In tonnes
1 st	1725	2588	567	10780	30184
2 nd	000	000	568	10794	30224
3 rd	000	000	569	10799	30236
4 th	000	000	568	10794	30224
5 th	000	000	571	10831	30324
Total	1725	2588	2843	53998	151192

Land Use

Type of Land	Present Land Use (in Ha)	At the End of Plan Period (in Ha)	Conceptual Period (in Ha)		
			Public use	Water Body	Plantation
Quarry	0.338	0.44 (including backfill 0.08)	---	0.08	0.36 (Dead bench plantation)
Greenbelt within Safety Barrier	Nil	0.28	---	---	0.28
Road	0.021	Nil	----	---	---
Total Area in Use	0.359	0.72	----	0.08	0.64
Balanced Area unused	0.361	Nil	---	---	---
Total Applied Area	0.720	0.72	0.72		

ENVIRONMENT MANAGEMENT

Green Belt Development

Plantation				
Location	Area (Ha.) or Length (m)	No. of tree	Calculation	Timeline
Safety Zone	0.280	448	1600 tree per hectare	1st Year
Approach Road	31	62	2m X 2m spacing	1st year
Dead Bench	0.360	576	1600 tree per hectare	End of Mine
Backfilled area (level upto surface)	0.000	0	1600 tree per hectare	End of Mine
TOTAL		1086		
Species: Neem, Peepal, Arjun, Ashoka, Gulmohar, Banyan, Bamboo: - Bombas, Nutans, Toolda, Strictus & other Native Species				

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGET :

Budgetary Provision (in Lakhs) of Project Cost		
Particulars	Capital	Recurring
Land	0.00	49697.16
Infrastructure	700000.00	0.00

Mining Equipment			0.00	8800000.00
Equipment	Quantity	Rent per year		
Tippers	2	2000000		
Wagon Drill	1	1000000		
Jack Hammer	1	600000		
Compressor	1	1000000		
Water Tanker	1	600000		
Rock Breaker	1	800000		
Hydraulic Excavator	1	800000		
Water Facility for Domestic Purpose "1.04" KLD (Annual Water Demand "312"KL @4L per Tanker, total number of tanker required ("78") and per tanker cost @Rs. 500)			0.00	39000.00
Statutory Clearances			500000.00	0.00
Mine Closure Cost for fencing around mine			100000.00	0.00
Environment Management Plan (EMP) Cost			1697800.00	420700.00
Total			2997800.00	9309397.00

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP)		
Particulars	Capital	Recurring
Plantation of "510" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	153000.00	25500.00
Mine Closure Cost for Plantation of "576" number of tree @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	172800.00	0.00
Water Facility for Horticulture "3.06" KLD & Dust Suppression "2.88" KLD (Annual Water Demand "1782"KL @4L per Tanker, total number of tanker required ("446") and per tanker cost @Rs. 500)	0.00	223000.00
Garland Drain & Desiltation Pond	72000.00	7200.00
To prevent the impact of mining activities on the Pond	3,00,000.00	15,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC	1000000.00	100000.00
Environment Monitoring & Compliance	0.00	50000.00
Total	1697800.00	420700.00

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly

2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 station	Six Monthly

Environment Management Practices to be followed:

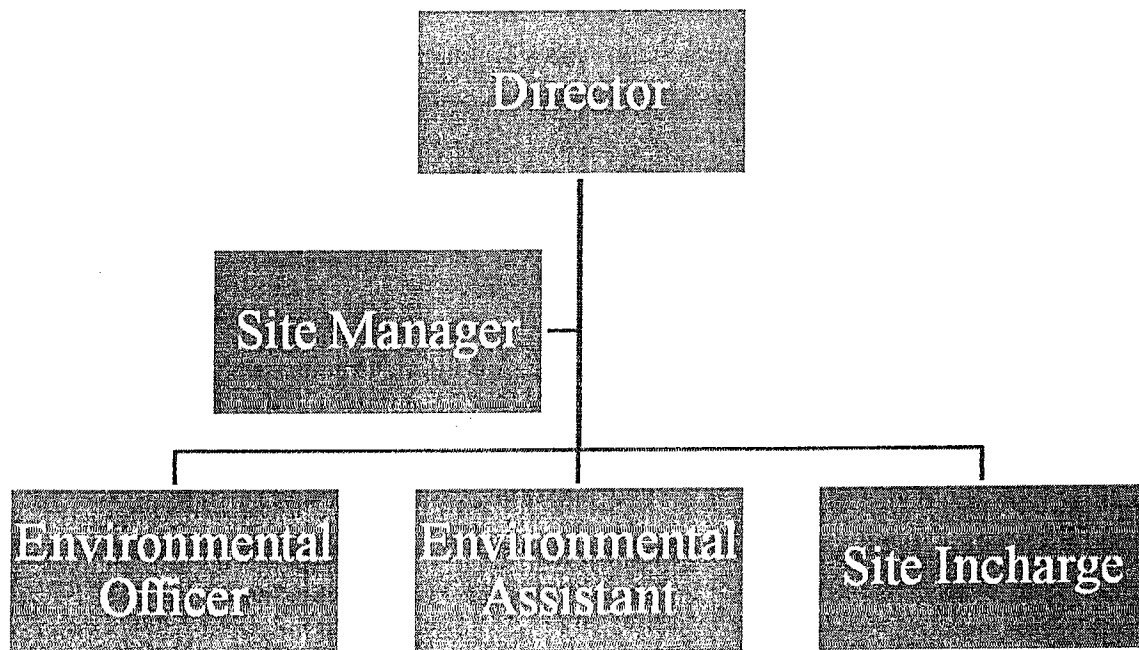
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	During quarry development in 1 year gritty soil and intercalated waste will be removed and this soil & waste will be temporarily dumped [Area - 0.045 Ha, (L x W x H = 27m x 17m x 5m)] within the quarry & in 2 nd , 3 rd & 4 th year little amount intercalated waste will be removed and this will be used in haul road dressing & in 5th year intercalated waste will be removed and this waste & existing temporary dumped materials will be backfill within the quarry.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon.
	• Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.

Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures:

	- Overall slope angles of benches will be maintained at 45°. - Unmanageable heights are not created. - Loose sides are properly dressed. - No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). - No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) - It will be ensured that the drilling equipment is suitable for the job. - The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. - Provision of portable rail fencing between the drilling operations and the edge of the bench - Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. - Restricted access to the area to all persons except those necessary for the drilling operation. - Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. - In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. - Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	- Blast hole geometry shall be properly designed. - Blast site shall be wetted before and after blasting operations are completed. - Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. - Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. - While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. - The vibrations should be monitored periodically in consultation with the local Mining authorities. - Use of explosives is specialist work. Planning for a round of shots is

	necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.

- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Piska Stone Deposit of M/s Santosh Mining Enterprises (Prop. : Shri Gopal Kumar Ishwar), Village : Piska, Tehsil : Ormanjhi, Distt.: Ranchi, Jharkhand (0.72 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests .

Summary findings of same to submitted along with 6 monthly compliance.

- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

4. Banda Stone Deposit of Shri Karan Tirkey, Village : Banda, Tehsil : Namkum, Distt.: Ranchi, Jharkhand (0.94 Ha).

(Proposal no.: SIA/JH/MIN /557919 /2025)

Name of the consultant : Crystal Consultants, Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 19.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity –8402 Cum per year or 23525 Tonnes per year
Project and Location Details:

Sl	Parameter		Details
1	Project Name	:	BANDA STONE DEPOSIT
2	Lessee:	:	Sri Karan Tirkey
3	Lessee Address	:	At-Amba Toli, Garsul, District-Ranchi, State-Jharkhand
4	Lease Area	:	0.94 Ha. 2.33 Acre
5	Type of Land	:	Non-Forest Raiyati Land
6	Project Cost	:	Capital: Rs. 31,26,200.00
7	EMP Budget	:	Capital: Rs. 1826200 Recurring: Rs. 530200 per Year
8	New or Expansion	:	New
9	Mineable Reserves	:	83,067 Cum 2,32,588 Tonnes
10	Mine Life	:	10 Years
11	Man power	:	28

12	Water Requirement	:	10.79 KLD
13	Water Source	:	By authorised hired water tankers
14	DG Set / power	:	-
15	Crusher	:	No crusher
16	Nearest Water Body	:	Kanchi river (3.69 km) In the KML (satellite) image, a seasonal nallah is observed at a distance of approximately 300 m on the north-west side of the project site. Accordingly, a detailed Environmental Management Plan (EMP) has been submitted to prevent any potential impact of mining activities on the waterbody.
17	Nearest Habitation	:	In the KML (satellite) image, a few houses are observed approximately 370 m away from the project site on the north-east side. In compliance with Office Memorandum No. Z-11013/57/2014-IA. II(M) dated 29.10.2014 issued by the MoEF&CC, a detailed EMP has also been submitted to mitigate the impact of mining activities on these habitations.
18	Nearest Rail Station	:	Lodhma Railway Station (5.15 Km)
19	Nearest Air Port	:	Birsa Munda Airport, Ranchi (3.25 Km)
20	Nearest Forest	:	Divisional Forest Officer, Ranchi certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
21	Road & Highways	:	NH-20 (4.06 Km)
22	Approach Road	:	At a distance of 125m

CO-ORDINATES

PILLAR NO	LATITUDE	LONGITUDE
P1	N23°13'13.599"	E85°15'00.109"
P2	N23°13'13.488"	E85°15'00.482"
P3	N23°13'13.351"	E85°15'00.515"
P4	N23°13'13.196"	E85°15'00.796"
P5	N23°13'12.664"	E85°15'01.093"
P6	N23°13'13.214"	E85°15'01.704"
P7	N23°13'13.147"	E85°15'01.855"
P8	N23°13'12.531"	E85°15'02.005"
P9	N23°13'13.466"	E85°15'02.312"
P10	N23°13'13.688"	E85°15'01.827"
P11	N23°13'14.016"	E85°15'02.122"
P12	N23°13'14.321"	E85°15'02.118"
P13	N23°13'15.150"	E85°15'03.111"
P14	N23°13'14.592"	E85°15'04.508"
P15	N23°13'13.691"	E85°15'03.962"
P16	N23°13'12.572"	E85°15'03.469"
P17	N23°13'12.138"	E85°15'04.351"
P18	N23°13'11.631"	E85°15'05.215"
P19	N23°13'10.937"	E85°15'04.740"
P20	N23°13'11.333"	E85°15'03.443"

P21	N23°13'11.139"	E85°15'03.208"
P22	N23°13'11.528"	E85°15'02.089"
P23	N23°13'11.617"	E85°15'00.799"
P24	N23°13'11.644"	E85°14'59.941"
P25	N23°13'11.986"	E85°15'00.000"
P26	N23°13'12.697"	E85°14'59.972"
P27	N23°13'13.391"	E85°14'59.919"
P28	N23°13'13.402"	E85°15'02.514"
P29	N23°13'13.262"	E85°15'02.930"
P30	N23°13'12.810"	E85°15'02.873"
P31	N23°13'12.882"	E85°15'02.595"
P32	N23°13'13.069"	E85°15'02.539"

LAND DETAILS

Khata no.	Plot no.
02	536 & 533
36	534

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Ranchi vide letter no. 1021/M, dated 08.08.2025.
2	CO	:	The CO, Namkum (Ranchi) vide letter no. 1233, dated 16.07.2025 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyani & Register II. During the appraisal it was seen from the KML that habitation at a distance of 400 meters and Nala at a distance of 300 meter from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Ranchi vide memo no. 944/M, dated 26.08.2025 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 480, dated 21.07.2025 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Ranchi Forest Division vide letter no. 2225, dated 24.07.2025 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The LoI was granted on 08.08.2025. The DSR for Ranchi was

		approved by the Sub-Divisional Committee on 22.07.2024 and submitted to SEIAA for approval on 22.07.2024. However, DC-cum-District Magistrate, Ranchi vide letter no. 1223/M, dated 27.09.2025 requested to consider the said project proposal as part of approved District Survey Report & further requested that this project may be taken up for consideration for grant of EC. The Committee accepted the request of the DC-cum-District Magistrate, Ranchi as Lol was issued after the approval of the DSR.
7	Gram Sabha	: BDO, Namkum, Ranchi vide letter no. 833 (ii), dated 14.07.2025 informed that Gram Sabha conducted on 11.07.2025.
8	Mine Plan Approval	: Approved by DMO, Ranchi vide Memo No. 1104/M, dated 08.09.2025.
9	Qualified Person	: Shri P.K. Sen was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	: Semi-mechanized "OTFM" Method
2	Quarry Area	: 0.48
3	Waste Generation	: 7282 cum
4	Stripping Ratio	: 1:0.3
5	Working Days	: 300
6	Bench: size & No	: 6m to 6m and 3 in numbers
7	Elevation of Mine	: 615 m AMSL to 611 m AMSL
8	Ground Level Elevation	: 611 m AMSL
9	Ultimate Working Depth	: 597 m AMSL
10	Water Table	: 590 m RL
11	Topography of Mine	: Hill Land
12	Explosive Requirement	: 9.75 kg/day
13	Diesel/Fuel requirement	: 46.8 litre/day

Production Details

Year	Removal of Gritty Soil		Intercalated waste	Production of stone	
	In cum	In tonnes	In cum	In cum	In tonnes
1 st	990	1485	437	8308	23262

2 nd	1210	1815	440	8360	23408
3 rd	1826	2739	439	8350	23379
4 th	1056	1584	442	8402	23525
5 th	0	0	442	8402	23525
Total	5082	7623	2200	41822	117099

Land Use

Type of Land	Present Land Use (Ha)	At the End of Plan Period (Ha)	At the End of Mine (Ha)	Conceptual Period – Public Use (Ha)	Conceptual Period – Water Body (Ha)	Conceptual Period – Plantation (Ha)
Quarry	Nil	0.48 (Including temporary dumped area 0.107 Ha & 0.029 Ha)	0.48 (Including backfill 0.17 Ha)	—	0.17	0.31 (Dead bench plantation)
Greenbelt within Safety Barrier	Nil	0.46	0.46	—	—	0.46
Haul Road	0.012	Nil (Merged with Quarry & Safety Barrier – 0.02 Ha)	Nil (Merged with Quarry & Safety Barrier – 0.02 Ha)	—	—	—
Total Area in Use	0.012	0.94	0.94	—	0.17	0.77
Balanced Area Unused	0.928	Nil	Nil	—	—	—
Total Applied Area	0.94	0.94	0.94	—	—	0.94

ENVIRONMENT MANAGEMENT Green Belt Development

	Area Length /	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.46	736	1600 Tree per Hectare	1st Year	Mango, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Arjun, etc.
Length of Approach Road Area	125	250	2m X 2 m spacing in two rows		











(m.)			both side		
Dead Bench (Ha.)	0.31	496	1600 Tree per Hectare	At the end of life of mine	
Total		1,482			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Cost Estimates

The mining plan for the project has estimated the requirement of equipments needed for mining operations. The capital cost has been estimated on basis of this provision. Estimated capital cost on plants & machineries are given below:

BUDGETARY PROVISION FOR PROJECT COST				
Particulars			Capital	Recurring
Land			0	100000
Infrastructure			700000	0
Mining Equipment			0	7400000
Type of Machine	Nos.	Rate		
Wagon Drill	01	1000000	--	--
Hydraulic Excavator	02	1600000	--	--
Compressor	01	1000000	--	--
Jack Hammer	01	600000	--	--
Tippers	02	2000000	--	--
Rock Breaker	01	600000	--	--
Water Tank (Sprinklers Attached)	01	600000	--	--
Water for Domestic @Rs. 500 per Tanker 1.12 KLD X 300 Days =336 KL 336 KL / 4 KL = 84 Tankers			0	42000
Fencing at the end of mine (mine closure)			100000	
Statutory Clearance & Other			500000	
Environment Management Plan (EMP)			1826200	530200

Total	3126200	8072200

Environment Management Budget

BUDGETARY PROVISION FOR ENVIRONMENT MANAGEMENT PLAN (EMP)		
Particulars	Capital	Recurring
986 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	295800	49300
Plantation at the end of mine (mine closure) @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	230400	38400
Water Tanker @Rs. 500 per Tanker for Dust Suppression (3.76 KLD) & Horticulture (5.91 KLD) 3.76 + 5.91 =9.67 KLD 9.67 KLD X 300 Days = 2901 KL 2901KL / 4 KL = 725 Tankers	0	362500
To prevent the impact of mining activities on the water body	300000	30000
To prevent the impact of mining activities on these habitations, we will comply with the Office Memorandum No. Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by the Ministry of Environment, Forests and Climate Change (MoEF & CC)	1000000	0
Environment Monitoring & Compliance	0	50000
Total	1826200.00	530200.00

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly

4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 station	Six Monthly

Environment Management Practices to be followed:

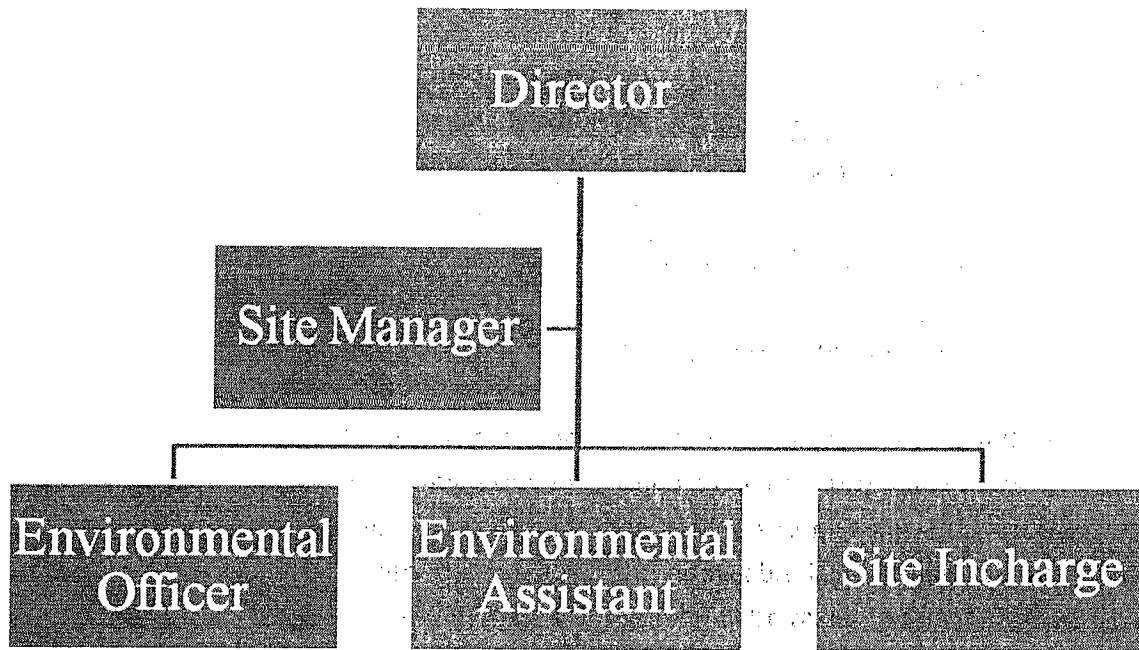
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	During quarry development in the 1st year, gritty soil and intercalated waste will be removed, and this soil and waste will be temporarily dumped [Area – 0.028 Ha, (L × W × H = 28m × 10m × 5m)] at the west part of the area with suitable precautions like constructing a parapet wall and garland drain. In the 2nd year, gritty soil and intercalated waste will be removed, and this soil and waste will be temporarily dumped [Area – 0.030 Ha, (L × W × H = 25m × 12m × 5m)] at the existing dumped yard. In the 3rd year, gritty soil and intercalated waste will be removed, and this soil, waste, and existing temporarily dumped materials will be temporarily dumped [Area – 0.107 Ha, (L × W × H = 41m × 26m × 5m)] within the quarry. In the 4th year, gritty soil and intercalated waste will be removed, and this soil and waste will be temporarily dumped [Area – 0.029 Ha, (L × W × H = 21m × 14m × 5m)] within the quarry. In the 5th year, intercalated waste will be removed and will be used in haul road dressing.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank–soak pit systems. • Foot drain would be provided around the external dump, if any.

Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures:

		▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting Handling Explosives	& of	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities

	▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- The Boundary Pillars of the proposed mine lease area will be maintained properly.
- One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.

- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Banda Stone Deposit of Shri Karan Tirkey, Village : Banda, Tehsil : Namkum, Distt.: Ranchi, Jharkhand (0.94 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests .

Summary findings of same to submitted along with 6 monthly compliance.

- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

5. Kasira Stone Deposit of Shri Rambilash Sahu, Village : Kasira, Anchal : Gumla, Distt.: Gumla, Jharkhand (1.505 Ha).

(Proposal no.: SIA/JH/MIN /556899 /2025)

Name of the consultant : Crystal Consultants, Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 19.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 15219 Cum per year or 41091 Tonnes per year

Project and Location Details:

Si.No.	Parameter		Details
1	Project Name	:	Kasira Stone Deposit
2	Lessee:	:	Sri Rambilash Sahu
3	Lessee Address	:	S/o- SRI PURAN SAHU ADDRESS-KASIRA, PO- PATIA, P.S.+ DISTRICT- GUMLA.
4	Lease Area	:	1.505 Ha. 3.72 Acre
5	Type of Land	:	Non-Forest Raiyati Land
6	Project Cost	:	Capital: Rs. 2621100.00
7	EMP Budget	:	Capital : Rs. 1321100.00 Recurring : Rs. 865850.00 per Year
8	New or Expansion	:	New
9	Mineable Reserves	:	131176 Cum 354175 Tonnes

10	Mine Life	:	10 Years
11	Man power	:	19
12	Water Requirement	:	19 KLD
13	Water Source	:	By authorised hired water tankers
14	DG Set / power	:	-
15	Crusher	:	No crusher
16	Nearest Water Body	:	South Koel river at a distance of 3.5km from lease area on eastern side. In the KML (satellite) image, a Seasonal nala is observed at a distance of approximately 349 m on the West side of the project site. Accordingly, a detailed Environmental Management Plan (EMP) has been submitted to prevent any potential impact of mining activities on the waterbody.
17	Nearest Habitation	:	Kasira Village at a distance of 0.9 Km
18	Nearest Rail Station	:	Akashi railway station which is about 41 Km from the applied lease area.
19	Nearest Air Port	:	Ranchi Airport at a distance of 101 Km in
20	Nearest Forest	:	Divisional Forest Officer, Gumla certified that the distance of reserved / protected forest is more than 250 meter from proposed project site.
21	Road & Highways	:	NH-43- Gumla- Ranchi Road at about 6.5Km on eastern side
22	Approach road	:	At a distance of 510 meters in Eastern direction

CO-ORDINATES

SL. NO	PILLAR ID	LATITUDE	LONGITUDE
1	P1	23°03'25.05010" N	84°40'30.64040" E
2	P2	23°03'25.30447" N	84°40'31.56532" E
3	P3	23°03'25.54366" N	84°40'32.39202" E
4	P4	23°03'25.96813" N	84°40'32.36621" E
5	P5	23°03'26.06281" N	84°40'33.18978" E
6	P6	23°03'26.26412" N	84°40'34.43210" E
7	P7	23°03'26.18903" N	84°40'36.63584" E
8	P8	23°03'25.46482" N	84°40'36.83453" E
9	P9	23°03'24.74093" N	84°40'36.95808" E
10	P10	23°03'24.34255" N	84°40'35.91948" E
11	P11	23°03'23.58821" N	84°40'34.79588" E
12	P12	23°03'24.44807" N	84°40'34.32392" E
13	P13	23°03'24.65323" N	84°40'34.24141" E
14	P14	23°03'24.98209" N	84°40'34.18738" E
15	P15	23°03'24.95675" N	84°40'33.83432" E
16	P16	23°03'24.81772" N	84°40'33.85344" E
17	P17	23°03'24.83003" N	84°40'33.63856" E

18	P18	23°03'24.66259" N	84°40'33.47972" E
19	P19	23°03'24.63851" N	84°40'32.71908" E
20	P20	23°03'24.56431" N	84°40'32.58653" E
21	P21	23°03'24.48047" N	84°40'32.32312" E
22	P22	23°03'24.41372" N	84°40'32.52220" E
23	P23	23°03'24.38413" N	84°40'32.61472" E
24	P24	23°03'24.46963" N	84°40'32.98958" E
25	P25	23°03'24.51208" N	84°40'33.42101" E
26	P26	23°03'24.49501" N	84°40'33.66383" E
27	P27	23°03'23.98824" N	84°40'33.58610" E
28	P28	23°03'23.96466" N	84°40'33.73003" E
29	P29	23°03'24.38762" N	84°40'34.24688" E
30	P30	23°03'23.53201" N	84°40'34.72136" E
31	P31	23°03'23.19527" N	84°40'34.27482" E
32	P32	23°03'22.83599" N	84°40'33.93527" E
33	P33	23°03'22.77659" N	84°40'33.63892" E
34	P34	23°03'22.56667" N	84°40'33.10756" E
35	P35	23°03'22.33710" N	84°40'32.52389" E
36	P36	23°03'22.08640" N	84°40'32.31631" E
37	P37	23°03'21.97609" N	84°40'32.29964" E
38	P38	23°03'21.86467" N	84°40'32.44282" E
39	P39	23°03'21.78961" N	84°40'32.48497" E
40	P40	23°03'21.69076" N	84°40'32.31196" E
41	P41	23°03'21.68147" N	84°40'31.44605" E
42	P42	23°03'21.63488" N	84°40'30.85208" E
43	P43	23°03'21.94394" N	84°40'30.81706" E
44	P44	23°03'22.36763" N	84°40'30.85810" E
45	P45	23°03'22.46350" N	84°40'30.82670" E
46	P46	23°03'22.44722" N	84°40'30.42181" E
47	P47	23°03'23.07596" N	84°40'30.37382" E
48	P48	23°03'23.37527" N	84°40'30.61031" E
49	P49	23°03'23.58583" N	84°40'30.89291" E
50	P50	23°03'23.67536" N	84°40'31.08241" E
51	P51	23°03'23.87275" N	84°40'30.99817" E
52	P52	23°03'24.05027" N	84°40'30.96444" E
53	P53	23°03'24.12605" N	84°40'30.85442" E
54	P54	23°03'24.84734" N	84°40'30.65506" E
55	P55	23°03'23.85893" N	84°40'31.98529" E
56	P56	23°03'23.97888" N	84°40'32.59938" E
57	P57	23°03'23.98993" N	84°40'32.80663" E
58	P58	23°03'23.66327" N	84°40'32.41564" E
59	P59	23°03'23.66903" N	84°40'32.10701" E

LAND DETAILS

Khata no.	Plot no.
122	2107, 2110 & 2115

48	2113 & 2114
160	2177
62	2116

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by Deputy Commissioner, Gumla vide letter no. 900/M, dated 12.08.2025.
2	CO	:	The CO, Gumla Sadar vide letter no. 1865, dated 11.06.2025 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyon & Register II. During the appraisal it was seen from the KML that Nala at a distance of 300 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Gumla vide memo no. 1077/M, dated 13.10.2025 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 665, dated 03.10.2025 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Gumla Forest Division vide letter no. 1919, dated 19.06.2025 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The LoI was granted on 12.08.2025. The DSR for Gumla was approved by the Sub-Divisional Committee on 23.08.2023 and submitted to SEIAA for approval on 23.08.2023. However, DC-cum-District Magistrate, Gumla vide letter no. 1054/M, dated 03.10.2025 requested to consider the said project proposal as part of approved District Survey Report & further requested that this project may be taken up for consideration for grant of EC. The Committee accepted the request of the DC-cum-District Magistrate, Gumla as LoI was issued after the approval of the DSR.
7	Gram Sabha	:	BDO, Gumla Sadar vide letter no. 870 (ii), dated 14.06.2025 informed that Gram Sabha conducted on 12.06.2025.
8	Mine Plan Approval	:	Approved by DMO, Gumla vide Letter No. 1061/M, dated 04.10.2025.

9	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Semi-mechanized "OTFM" Method
2	Quarry Area	:	0.870 Ha. Life of Mine – 10 years
3	Waste Generation	:	17046 cum
4	Stripping Ratio	:	1:0.09
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m and 4 in numbers
7	Elevation of Mine	:	596 m AMSL to 588 m AMSL
8	Ground Level Elevation	:	588 m AMSL
9	Ultimate Working Depth	:	571 m AMSL
10	Water Table	:	555 m AMSL (Approved mine plan)
11	Topography of Mine	:	Area represents gently sloping land.
12	Explosive Requirement	:	17 kg/day (To be handle by licensed external Agency)
13	Diesel/Fuel requirement	:	82 litre/day

Production Details

Year	Production of Stone in cum	Production of Stone in Tonnes	Overburden in Cum	Intercalated waste in Cum	Total Waste in Cum
1 st Year	11400	30780	6540	600	7140
2 nd Year	12369	33396	7020	651	7671
3 rd Year	13110	35397	0	690	690
4 th Year	14136	38167	0	744	744
5 th Year	15219	41091	0	801	801
Total	66234	178832	13560	3486	17046

Land Use

Land Utilization	Existing Land use (Ha)	At the end of plan Period (Ha)	At Conceptual period (Ha)
Excavation	0.00	0.527	0.870 (0.206ha area shall be Backfilled, 0.329ha converted in to water reservoir & 0.335 ha shall be left as dead benches)
Waste Dump	0.00	0.146	Nil (comes under quarry)
Road	0.00	0.011	Nil (comes under quarry)

Infrastructure (Crusher)	0.00	0.00	0.00
Safety Zone Plantation	0.00	0.635	0.635
Total	1.505	1.319	1.505
Unused Area	0.00	0.186	0.00
Total Lease Area	1.505		

ENVIRONMENT MANAGEMENT
Green Belt Development

Plantation				
Location	Area (Ha.) or Length (m)	No. of tree	Calculation	Timeline
Safety Zone	0.635	1016	1600 tree per hectare	1st Year
Approach Road (M)	510	1020	2m X 2m spacing	1st year
Dead Bench	0.335	536	1600 tree per hectare	End of Mine
Backfilled area (level upto surface)	0.206	330	1600 tree per hectare	End of Mine
TOTAL		2902		
Species: Neem, Peepal, Arjun, Ashoka, Gulmohar, Banyan, Bamboo: - Bombas, Nutans, Toolda, Strictus & other Native Species				

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Project Cost

Budgetary Provision (in Lakhs) of Project Cost				
Particulars			Capital	Recurring
Land			0.00	92973.26
Infrastructure			700000.00	0.00
Mining Equipment			0.00	5800000.00
Equipment	Quantity	Rent per year		
Loader	1	600000		
Dumper	1	2000000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	1	800000		
Excavator	1	800000		
Water Facility for Domestic Purpose "0.76" KLD (Annual Water Demand "228"KL @4L per Tanker, total number			0.00	28500.00

of tanker required ("57") and per tanker cost @Rs. 500)		
Statutory Clearances	500000.00	0.00
Mine Closure Cost for fencing around mine	100000.00	0.00
Environment Management Plan (EMP) Cost	1321100.00	865850.00
Total	2621100.00	6787323.26

Environment Management Budget

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP)		
Particulars	Capital	Recurring
Plantation of "2902" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	610800.00	101800.00
Mine Closure Cost for Plantation of "866" number of tree @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	259800.00	0.00
Water Facility for Horticulture "12.216" KLD & Dust Suppression "6.02" KLD (Annual Water Demand "5470.8"KL @4L per Tanker, total number of tanker required ("1368") and per tanker cost @Rs. 500)	0.00	684000.00
Garland Drain & Desiltation Pond	150500.00	15050.00
To prevent the impact of mining activities on the Seasonal nala	300000.00	15000.00
Environment Monitoring & Compliance	0.00	50000.00
Total	1321100.00	865850.00

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 station	Six Monthly

Environment Management Practices to be followed:

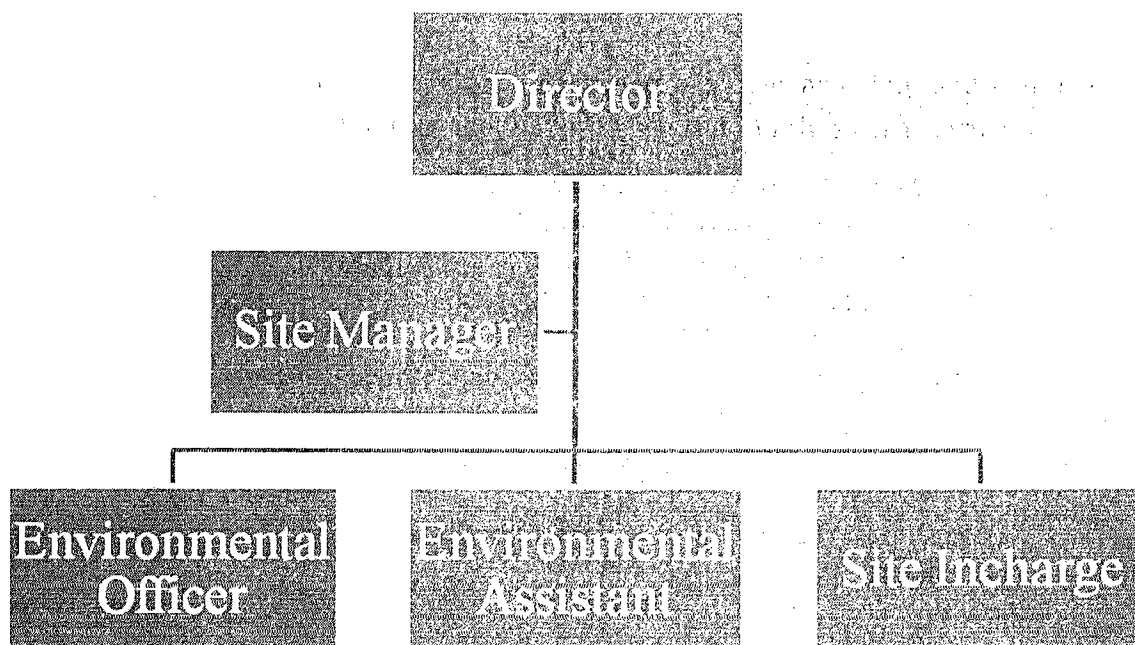
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The stone deposit is covered with 2m layer of intermixed soil which considered as over burden. The recovery of stone is about 95%, thus intercalated waste of only 5% shall be generate from this mine. It has been calculated that total 17046 cum in-situ waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 8523 cum (In situ) shall be utilized for approach & haul road maintenance. The rest waste material (50%) i.e. 8523 cum in situ 10653.75 cum loose & 9055.69 cum compact waste shall be temporary dumped on the southern part of the applied lease area and it will cover about 0.146ha area.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge durling favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank–soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.

Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge.

		▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting Handling Explosives	& of	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.

Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and

responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Kasira Stone Deposit of Shri Rambilash Sahu, Village : Kasira, Anchal : Gumla, Distt.: Gumla, Jharkhand (1.505 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and

the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.

- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to be submitted along with 6 monthly compliance.
- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

6. Ganjebari Stone Mine of Shri Dinbandhu Chatterjee, Village : Ganjebari, Tehsil : Madhupur, Distt.: Deoghar, Jharkhand (1.94 Ha).

(Proposal no.: SIA/JH/MIN /561739 /2025)

The PAs were not present during the consideration of the proposal.

Hence, the project will be taken up for consideration on further request of the PAs.

7. Loadih Stone Deposit of M/s Bijini Enterprises (Partners : (i) Shri Sitaram Munda (ii) Smt. Asha Rani Tete (iii) Shri Sukra Munda), Village : Loadih, Tehsil : Patratu, Distt.: Ramgarh, Jharkhand (1.92 Ha).

(Proposal no.: SIA/JH/MIN /560751 /2025)

Name of the consultant : Crystal Consultants, Ranchi, Jharkhand.

This is a new project which was listed for appraisal on 19.12.2025. On the request of the PAs it was taken up for consideration on 23.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B1.

Application for Terms of Reference (ToR) as per EIA Notification, 2006.

EC Application for: Proposed Capacity –40508 Cum per year or 109371.60 Tonnes per year

Project and Location Details:

Sl	Parameter		Details
1	Project Name	:	LOADIH STONE DEPOSIT
2	Lessee:	:	M/s Bijini Enterprises Partners - Sri Sitaram Munda, -Smt. Asha Rani Tete, -Sri Sukra Munda
3	Lessee Address	:	S/o-Sri Telscore Kido, At-D.T. 1207, Dam Side Dhurwa, Dist.- Ranchi, State-Jharkhand.
4	Lease Area	:	1.92Ha. 4.75 Acre
5	Type of Land	:	Non-Forest Raiyati Land
6	Project Cost	:	Capital : Rs. 17,94,100.00
7	EMP Budget	:	Capital : Rs. 4,94,400.00 Recurring : Rs. 6,34,700.00 per year
8	New or Expansion	:	New
9	Mineable Reserves	:	4,03,389 Cum 1089150.30 Tonnes
10	Mine Life	:	10 Years
11	Man power	:	24
12	Water Requirement	:	14.69 KLD
13	Water Source	:	By authorised hired water tankers
14	DG Set / power	:	-
15	Crusher	:	No crusher
16	Nearest Water Body	:	Naikari Nadi (5 km)
17	Nearest	:	220 meters in North West direction.

	Habitation		
18	Nearest Rail Station	:	Daridag Railway Station (5.70 Km)
19	Nearest Air Port	:	Birsa Munda Airport, Ranchi (30.00 Km)
20	Nearest Forest	:	More than 250m as per DFO certificate
21	Road & Highways	:	Ramgarh-Patratu (SH-2) road (8.00 Km)
22	Approach Road	:	At a distance of 110 meters
23	Railway line	:	Rail line at a distance of 300 meters

CO-ORDINATES

S.No.	LATITUDE	LONGITUDE
1.	23°33'37.24"	85°24'33.11"
2.	23°33'36.85"	85°24'27.61"
3.	23°33'36.39"	85°24'27.66"
4.	23°33'36.11"	85°24'27.74"
5.	23°33'35.73"	85°24'27.93"
6.	23°33'35.4"	85°24'28.26"
7.	23°33'34.94"	85°24'28.9"
8.	23°33'34.42"	85°24'29.44"
9.	23°33'33.96"	85°24'29.83"
10.	23°33'33.89"	85°24'30.06"
11.	23°33'33.87"	85°24'30.23"
12.	23°33'32.69"	85°24'31.1"
13.	23°33'32.51"	85°24'31.35"
14.	23°33'32.44"	85°24'31.74"
15.	23°33'32.25"	85°24'31.99"
16.	23°33'32.46"	85°24'32.19"
17.	23°33'32.69"	85°24'32.22"
18.	23°33'32.98"	85°24'32.15"
19.	23°33'33.07"	85°24'32.24"
20.	23°33'33.41"	85°24'32.28"
21.	23°33'33.339"	85°24'32.439"
22.	23°33'33.2"	85°24'32.388"
23.	23°33'32.481"	85°24'32.412"
24.	23°33'32.27"	85°24'32.632"
25.	23°33'32.193"	85°24'32.639"
26.	23°33'32.151"	85°24'32.576"
27.	23°33'32.062"	85°24'32.383"
28.	23°33'31.711"	85°24'32.359"
29.	23°33'31.618"	85°24'32.487"
30.	23°33'31.587"	85°24'32.499"
31.	23°33'31.388"	85°24'32.487"
32.	23°33'31.354"	85°24'32.509"
33.	23°33'31.031"	85°24'32.991"

34.	23°33'30.839"	85°24'33.298"
35.	23°33'31.202"	85°24'34.001"
36.	23°33'31.56"	85°24'33.972"
37.	23°33'32.52"	85°24'33.713"
38.	23°33'35.01"	85°24'33.43"

LAND DETAILS

Khata no.	Plot no.
3	552 (P) & 573 (P)
9	567 (P), 568 (P), 569 (P) & 571 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Ramgarh vide letter no. 408/Khanan, dated 21.04.2023.
2	CO	:	The CO, Patratu vide letter no. 261, dated 10.02.2023 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatyan & Register II.
3	DMO Cluster	:	DMO, Ramgarh vide memo no. 1248/Khanan, dated 18.11.2025 certified that 02 other mining lease area (5.30 Acre & 6.25 Acre) exists within 500 meters radius from proposed project site and total area is 16.30 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 2289, dated 15.12.2025 certified that the proposed project site is outside Eco Sensitive Zone of Hazaribag Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Ramgarh Forest Division vide letter no. 423, dated 04.03.2023 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Ramgarh District (Page no. 49, Sl. no. 02).
7	Gram Sabha	:	Gram Sabha conducted on 29.09.2023.
8	Mine Plan Approval	:	Approved by DMO, Ramgarh vide Letter No. 1059, dated 14.10.2023.
9	Qualified Person	:	Shri Tapan Kumar Chakravarty through e-mail dated 22.12.2025 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Semi-mechanized "OTFM" Method
2	Quarry Area	:	1.428 Ha.
3	Waste Generation	:	84791 cum
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m and 6 in numbers
7	Elevation of Mine	:	630 m AMSL to 625 m AMSL
8	Ground Level Elevation	:	625 m AMSL
9	Ultimate Working Depth	:	606 m AML
10	Water Table	:	587 m AMSL (As per approved mining plan)
11	Topography of Mine	:	Undulating Topography
12	Explosive Requirement	:	36.457 kg/day
13	Diesel/Fuel requirement	:	218.742 litre/day

Production Details

Year	Production of Stone (Cum)	Production of Stone (Tonnes)	Morrum as Waste in Plan Period (T)	Intercalated Waste (Cum) in Plan Period	Intercalated Waste (Cum) in Ultimate Stage
1st	38,000.00	1,02,600.00	63,560.00	9,947.00	11,284.00
2nd	40,508.00	1,09,371.60	—		
3rd	38,190.00	1,03,113.00	—		
4th	37,240.00	1,00,548.00	—		
5th	35,055.00	94,648.50	—		
Total	1,88,993.00	5,10,281.10	63,560.00	9,947.00	11,284.00

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (in Ha)		
			Public use	Water body	Plantation
Quarry	0.0	1.425	0.0	1.428	0.0
Road	0.006	0.003	0.0	0.0	0.0
Safety Zone	0.0	0.492	0.0	0.0	0.492
Total Area in Use	0.0	1.92	0.0	1.428	0.492

Unused Area	1.914	0.0	0.0
Total Applied Area	1.92	1.92	1.92

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.492	788	1600 Tree per Hectare	1st Year	Mango, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	110	220	2m X 2 m spacing in two rows both side		
Total		1,008			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Cost Estimates

The mining plan for the project has estimated the requirement of equipments needed for mining operations. The capital cost has been estimated on basis of this provision. Estimated capital cost on plants & machineries are given below :

BUDGETARY PROVISION FOR PROJECT COST				
Particulars			Capital	Recurring
Land			0	450000
Infrastructure			700000	0
Mining Equipment			0	7800000
Type of Machine	Nos.	Rate		
Wagon Drill	01	1000000	--	--

Excavator	02	800000	--	--
Dumper	04	1000000	--	--
Rock Breaker	01	600000	--	--
Water Tank (Sprinklers Attached)	01	600000		
Water for Domestic @Rs. 500 per Tanker 0.96 KLD X 300 Days =288 KL 288 KL / 4 KL = 72 Tankers			0	36000
Fencing at the end of mine (mine closure)			100000	
Statutory Clearance & Other			500000	
Environment Management Plan (EMP)			494100	634700
Total			1794100	8920700

Environment Management Budget

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP)		
Particulars	Capital	Recurring
Plantation of "1008" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	302400.00	50400.00
Water Facility for Horticulture "6.048" KLD & Dust Suppression "7.68" KLD (Annual Water Demand "4118.4"KL @4L per Tanker, total number of tankers required ("1030") and per tanker cost @Rs. 500)	0.00	515000.00
Garland Drain & Desiltation Pond	192000.00	19200.00
Environment Monitoring & Compliance	0.00	50000.00
Blasting Safeguards	0.00	1.00
Total	494400.00	634700.00

Monitoring Stations Details

Monitoring Station Code	Latitude	Longitude	Distance	Direction
CA1 / CN1	23°33'36.12"N	85°24'29.17"E	0 km	Core Zone
BA2 / BN2	23°35'20.00"N	85°22'24.07"E	4.76 km	North-west
BA3 / BN3	23°37'27.71"N	85°21'31.22"E	8.97 km	North-west

BA4 / BN4	23°36'17.82"N	85°19'38.73"E	9.71 km	North-west
BA5 / BN5	23°36'53.23"N	85°23'43.32"E	6.25 km	North-west
BA6 / BN6	23°33'4.52"N	85°23'35.64"E	1.67 km	South-west
BA7 / BN7	23°31'23.63"N	85°26'18.68"E	4.82 km	South-east
BA8 / BN8	23°31'50.64"N	85°28'31.15"E	7.46 km	South-East
BA9 / BN9	23°33'21.79"N	85°24'33.45"E	0.26 km	South
S1	23°33'35.43"N	85°24'30.96"E	0 km	Core Zone
S2	23°33'24.46"N	85°25'35.97"E	1.78 km	East
GW1	23°33'18.46"N	85°24'23.91"E	0.44 km	South
GW2	23°33'51.06"N	85°24'34.55"E	0.45 km	North
SW1	23°38'25.47"N	85°25'4.28"E	9.10 km	North
SW2	23°38'18.29"N	85°25'23.04"E	9.06 km	North

Environment Monitoring is going on from October 2025 to December 2025.

The final result of these monitoring locations for the required parameter will be included in final EIA/EMP report.

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 station	Six Monthly

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by

Signature

Signature

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Pit layout has been shown in development plan & section and there is 84791.00 cum waste generated during this Mining Plan period, so there is no requirement of waste dumping Plan for this mining plan but it will be used by villagers free of cost for village road and approach road maintenance.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
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	traps provided near storage areas Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	No tree felling will be undertaken without obtaining permission from the competent authority. Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	- Priority employment to local people in mining and ancillary activities. Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. - Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. - All monitoring reports will be submitted to statutory authorities as per the compliance schedule. Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: - Overall slope angles of benches will be maintained at 45°. - Unmanageable heights are not created. - Loose sides are properly dressed. - No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). - No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961)
	- It will be ensured that the drilling equipment is suitable for the job. - The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. - Provision of portable rail fencing between the drilling operations and the edge of the bench - Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear.

		▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives		▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards		Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only

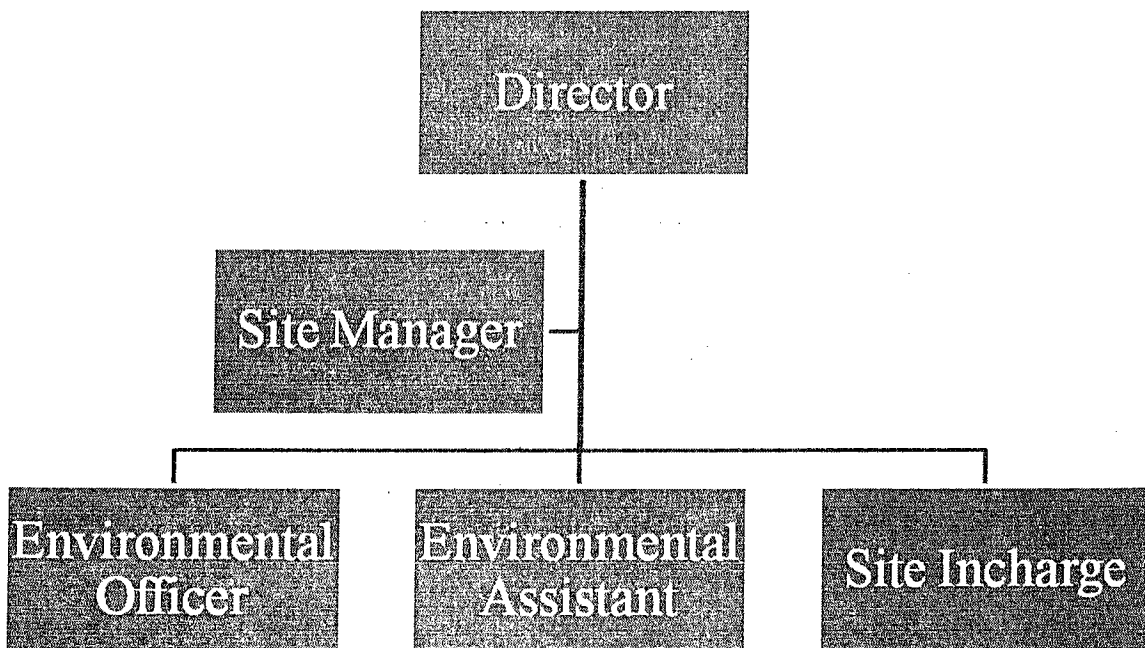






	affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.

- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 19, 20, 21, 22, 23 & 24.12.2025, the Committee recommends in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 for issuing of ToR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure III alongwith following specific condition :-

- I. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nlc.in>). 10% of the total green belt proposed shall be allocated under this clause.

8. New Sawang Coking Coal Washery (1.5 MTPA) of M/s Central Coalfields Limited (CCL), Village : Sawang, Block : Gumia, Distt. : Bokaro, Jharkhand (7.82 Ha).

(Proposal No : SIA/JH/CMIN/ 555751/2025)

Name of the consultant: CMPDI, Kanke Road, Ranchi

This is a new project which has been taken for appraisal on 19.12.2025.

Project Sector: 2(a) Coal washeries, Category: B1.

Application for Environmental Clearance (EC) after ToR of New Sawang Coking Coal Washery with ROM Coal Feed of 1.5 MTY .

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 112th meeting held on 16.05.2024 – 19.05.2024 and SEIAA, Jharkhand has approved the ToRs in 112th meeting held on 23rd & 24th May, 2024. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3124/2024/89, dated 28.05.2024. The final EIA / EMP submitted by PP to SEAC on 10.12.2025.

Project & Location Details:

Sl	Parameter	Details
1	Project Name	: New Sawang Coking Coal Washery
2	Project Proponent	: Shri V Mohan Babu, Project Officer, Sawang Washery
3	Address	: Village: Sawang, Block: Gumia, Distt. : Bokaro, Jharkhand
4	Area	: Ha: 7.82 ha Acres: 19.32 Acres
5	Type of Land	: Non-Forest Land: 7.82 Ha
6	Project Cost	: 338Crore
7	New or Expansion	: New
8	RawCoal Linkage	: Pipradih-Sawang, Jarangdih, Godo
9	Product Linkage	: Steel Plants of SAIL & RNIL (Washed Coal) Thermal Power Plants of NTPC, DVC, BTPS (Washed Power Coal & 3 rd Product)
10	Project Life	: 21 years including construction period being 3 years
11	Man power	: 150
12	Water Requirement	: 657 m ³ /day (make up water)
13	Water Source	: Mine seepage & rain water stored in mine sump of Pipradih OCP
14	DG Set / power	: 5.0 MVA for operation & maintenance of the proposed washery will be provided through Sawang colliery sub-station (voltage-11kV) at a distance of 200 m (approx.) from the proposed washery site.
15	Crusher	: Yes (within washery building)
16	Nearest Water Body	: Konar River (0.5 KM)

Sl	Parameter		Details
17	Nearest Habitation	:	Gomia (4 KM)
18	Nearest Rail Station	:	Gomia (4 KM)
19	Nearest Airport	:	Ranchi (110 KM)
20	Nearest Forest	:	Notified Forest (2 KM)
21	Road & Highways	:	NH320 (29 KM)

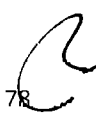
CO-ORDINATES

1	Latitude		From 23° 47' 42.560" N	To 23° 47' 57.396" N
2	Longitude		From 85° 50' 50.12" E	To 85° 51' 8.672" E

LAND DETAILS:

SN	Khata No	Plot No	Area In Ha	SN	Khata No	Plot No	Area In Ha
1	80	1446	0.016	37	19	1575	0.008
2	32	1453	0.036	38	21	1601	0.077
3	33	1454	0.024	39	16	1602	0.065
4	40	1455	0.02	40	19	1603	0.105
5	92	1456	0.008	41	17	1604	0.105
6	43	1457	0.02	42	19	1617	0.142
7	71	1458	0.186	43	16	1618	0.008
8	70	1459	0.049	44	16	1619	0.097
9	71	1460	0.004	45	16	1620	0.032
10	19	1481	0.008	46	16	1621	0.061
11	16	1483	0.008	47	16	1622	0.049
12	27	1484	0.008	48	19	1623	0.109
13	19	1487	0.02	49	16	1625	0.105
14	24	1488	0.02	50	19	1627	0.012
15	21	1489	0.008	51	19	1628	0.073
16	19	1490	0.004	52	16	1629	0.085
17	27	1491	0.024	53	92	1630	0.012
18	71	1494	0.081	54	92	1631	0.004
19	71	1495	0.024	55	16	1632	0.004
20	71	1496	0.02	56	21	1633	0.121
21	19	1497	0.004	57	16	1636	0.016
22	24	1498	0.057	58	92	1637	0.214
23	16	1505	0.024	59	71	1638	0.38
24	24	1506	0.032	60	32	1639	0.15
25	19	1507	0.008	61	32	1640	0.016
26	63	1508	0.024	62	19	1642	0.004
27	32	1509	0.04	63	19	1643	0.085







SN	Khata No	Plot No	Area in Ha	SN	Khata No	Plot No	Area in Ha
28	70	1510	0.069	64	19	1644	0.085
29	71	1511	0.057	65	21	1645	0.004
30	32	1512	0.024	66	21	1646	0.032
31	40	1513	0.008	67	21	1647	0.231
32	40	1514	0.04	68	19	1648	0.065
33	37	1515	0.008	69	19	1649	0.028
34	63	1516	0.069	70	19	1650	0.008
35	27	1541	0.04	71	24	1651	0.065
36	24	1569	0.121	72	19	1652	0.024

SN	Khata No	Plot No	Area in Ha	SN	Khata No	Plot No	Area in Ha
73	21	1653	0.045	109	18	1547 (P)	0.028
74	27	1654	0.045	110	24	1564 (P)	0.036
75	21	1656	0.049	111	24	1566 (P)	0.004
76	27	1657	0.073	112	93	1568 (P)	0.162
77	27	1658	0.085	113	27	1570 (P)	0.02
78	24	1660	0.081	114	19	1572 (P)	0.004
79	24	1661	0.065	115	21	1574 (P)	0.008
80	24	1662	0.125	116	19	1578 (P)	0.016
81	70	1663	0.376	117	27	1580 (P)	0.02
82	40	1669	0.008	118	21	1581 (P)	0.016
83	43	1677	0.194	119	93	1582 (P)	0.085
84	37	1682	0.13	120	92	1583 (P)	0.008
85	27	1684	0.154	121	21	1584 (P)	0.004
86	16	1685	0.194	122	27	1594 (P)	0.028
87	19	1686	0.065	123	24	1595 (P)	0.02
88	16	1687	0.081	124	16	1596 (P)	0.024
89	19	1688	0.036	125	21	1597 (P)	0.024
90	16	1689	0.081	126	16	1598 (P)	0.065
91	27	1690	0.04	127	16	1605 (P)	0.02
92	24	1692	0.081	128	93	1608 (P)	0.02
93	66	1699	0.045	129	16	1613 (P)	0.032
94	80	1700	0.045	130	21	1616 (P)	0.053
95	80	1701	0.016	131	27	1626 (P)	0.166
96	19	1702	0.04	132	93	1664 (P)	0.089
97	63	1127 (P)	0.081	133	37	1676 (P)	0.061
98	69	1403 (P)	0.032	134	69	1678 (P)	0.036
99	54	1404 (P)	0.073	135	24	1681 (P)	0.032
100	80	1448 (P)	0.02	136	27	1691 (P)	0.121
101	37	1449 (P)	0.012	137	43	1695 (P)	0.016
102	66	1452 (P)	0.028	138	43	1696 (P)	0.061

103	19	1492 (P)	0.016	139	66	1704 (P)	0.004
104	24	1493 (P)	0.125	Total (in Ha)			7.82
105	27	1500 (P)	0.004				
106	30	1517 (P)	0.012				
107	66	1539 (P)	0.012				
108	70	1540 (P)	0.065				

Land Type Breakup:

SL	Pattern	Area (in Ha)
1	Non-Forest Land	7.82

Land Use:

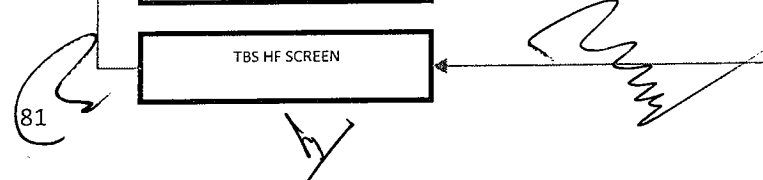
SN	Component	Total Area in Ha
1	Main Plant & Allied infrastructure	3.68
2	Stock pile and loading bunker	0.29
3	Tailing pond	0.26
4	Green Belt (33% of 6.32 Ha)	2.09
Sub Total (a) (in Ha)		6.32
1	Site for 3 rd Product Storage including infrastructure and stockpile	0.98
2	Green Belt (34.67% of 1.50 Ha)	0.52
Sub Total (b) (in Ha)		1.50
Total (a+b)		7.82

Process Details:

The washery has been designed for a throughput capacity of 1.5 Mty of raw coal per annum. The washery will produce three products viz. clean coal for steel plants, washed coal (power) for thermal power stations and 3rd product (Tertiary Product). It has been planned to crush entire coal down to (-) 13mm. Treatment of 13-0.5mm coal in two stage HM cyclone and beneficiation of -0.5mm size fraction by froth flotation have been envisaged. The proposed balance of product is given below:

Product	Wt%	Ash%	Qty (Mty)
Clean coal	40.8	18	0.61
Washed Coal Power	36.2	34	0.54
3 rd Product	23.0	63.2	0.35
Total	100	34.2	1.50

LM A



Receiving of ROM Coal & Dispatch of Products:

ROM Coal from Mine to Washery	Raw coal linkage is proposed from Pipradih-Sawang, Jarangdih & Godo by Road.
Dispatch of Clean Coal & Washed Power Coal	By two numbers Rapid Loading System on railway line of Sawang which is about 500m from washery site.
Dispatch of 3 rd Product	Through MoU/e-auction route in line with prevailing guidelines by Road/ Rail to customer of non-regulated sector, power plants, cement plant, fertilizer plants through tarpaulin cover trucks.

Requirement of Water:

The Washery is based on Closed Water Circuit with zero effluent discharge system. During the initiation of the plant 6,057 m³ of water would be withdrawn from the abandoned mine pit. 5400 m³/day of water would be recycled for plant operation and 657 m³/day make up water would be required. During Rainy season, approx. 10 KLD water generated through rainwater harvesting measures shall be utilized for washery operation purposes as makeup water.

The water requirement of the proposed washery shall be met through abandoned mine sump water of Sawang Pipradih Mine. Water shall be conveyed through pipelines laid entirely within land under possession of Central Coalfields Limited (CCL), and therefore, no right-of-way permission from any external agency shall be required. Necessary permission for utilization of abandoned mine sump water shall be obtained from the Central Ground Water Authority (CGWA)/Water Resources Department, Government of Jharkhand, and/ other competent authority, as applicable.

Status of Baseline Data Generation:

Nature of Study	Name of the Agency
Micro Meteorological Studies	Central Mine Planning and Design Institute (CMPDI), Ranchi.
Seasonal Ambient Air Quality Study	
Ambient Noise Level Study	
Water Quality study	
Soil Quality study	
Socio- Economic Study	Central Mine Planning and Design Institute (CMPDI), Ranchi
Flora & Fauna study	
Geology and Hydro-geology	Central Mine Planning and Design Institute (CMPDI), Ranchi

Cumulative Impact assessment of study area:

1. Cumulative Impact assessment of study area (10km buffer) w.r.t all environmental parameters has been carried out by incorporating all existing and proposed industrial

activities falling within the study area and the impact is minimal due to change in washery process.

2. Impact on ambient air quality has been assessed by carrying out cumulative impact of all industries present in the 10 km buffer zone using AERMOD software, and the results suggest that the predicted ambient air quality is well within the prescribed norms.
3. Furthermore, the impact on flora fauna and socio-economic regimes has been done for the 10 km buffer zone of the project.

SCENARIO:- PM10 Emissions in $\mu\text{g}/\text{m}^3$							
Code	Location	Direction	Distance Project	Baseline	Incremental without Control	Total Predicted without Control	Prescribed Standards
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)+(6)	8
BAS-1	Karmatia Village	Cross Wind	1.28 km	79	4.17	83.17	100
BAS-2	Proposed Swang Washery	Core Zone	-	81	30.53	111.53	300
BAS-3	Swang, Gumia	Cross Wind	0.95 km	78	0.35	78.35	100
BAS-4	Unit Store	Down Wind	0.76 km	82	4.53	86.53	100
BAS-5	LahariaTand	Down Wind	1.81 km	81	3.12	84.12	100
BAS-6	Hazari More	UP Wind	0.96 km	79	3.96	82.96	100
BAS-7	Swang	Down Wind	0.59 km	76	9.89	85.89	100
BAS-8	Kathara Colony	Cross Wind	4.28 km	75	1.25	76.25	100
BAS-9	Bandh Basti	Cross Wind	3.80 km	73	0.71	73.71	100
BAS-10	Garmajurwa Basti	Cross Wind	1.15 km	76	4.17	80.17	100

Impact on Ground Water& Surface Water Regime:

The impact of washery on local ground water regime depends on the mine parameters like depth and rate of expansion, ground water recharge and hydraulic parameters of the aquifers intercepted. In the present project however, the water demand would be fulfilled by the seepage water present in the quarry of adjacent abandoned underground project. Hence, the ground water table would not show any kind of impact due to the concerned washery project.

No diversion of stream or impact on any water body is expected. Konar River flows at a distance of 500 m from proposed site. The drainage of the block is controlled by Konar River flowing almost north to south.

Socio-Economic Study:

- i) The study focused on the project's leasehold boundary and a 10 km radius buffer zone.
- ii) The project will create employment opportunities both for skilled, semi- skilled and unskilled labor both during construction and operational phases of the project in the area. The local areas will be benefited by way of generation of employment Opportunities, increased demand for local products and services. There will be an overall improvement in the income level of the local people.
- iii) New Swang Coking Coal Washery will be a major source of direct and indirect employment for nearby villagers in buffer zone.
- iv) The Public Hearing (PH) Action Plan focuses on Employment Skill training (tailoring, food processing, beautician) and distribution of sports items at a cost of Rs. 30 Lakh, Ambulance with ALS, upgrading dispensary, health camps, telemedicine facilities at a cost of Rs 240 Lakh, Strengthening of school amenities and educational support at a Cost of Rs. 40 Lakh, Strengthening of pipelines to villages/colonies at a cost of Rs. 70 Lakhs, Diversion of PCC Road repairing of approach road at Hazari Panchayat, and construction of Shamshan Ghat at a cost of Rs.100 Lakh, Distribution of saplings , environmental awareness programs, display boards at a cost of Rs. 65 Lakh

Flora and Fauna Study:

- i) A Flora and Fauna study was carried out during November–December 2024 within the core and buffer zones of the project area. The study recorded a total of 82 plant species in the core zone and 263 plant species in the buffer zone, comprising trees, shrubs, climbers, herbs, and grasses.
- ii) The faunal survey documented 136 faunal species in the core zone and 252 faunal species in the buffer zone, including mammals, birds, herpetofauna, fish, butterflies, insects, and other fauna. Avifauna represented the dominant group in both zones, followed by herpetofauna and insects, reflecting the ecological richness of the surrounding landscape. Fish species were recorded only in the buffer zone, indicating the presence of aquatic habitats outside the core operational area.
- iii) There are no National parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves (existing as well as proposed), within 10 km of the project area.
- iv) A total of 49 Schedule-I species (as per the Wildlife Protection Act, 1972) were recorded in the study area, highlighting the ecological sensitivity of the region. Of these, 20 Schedule-I species were observed within the core zone, while 49 Schedule-I species were recorded in the buffer zone.

Solid & Hazardous Waste Handling:

- i) (-) 0.5 mm coal will be treated in Classifying cyclones, Teeter Bed Separator (TBS), Froth Flotation banks and Filter Press to generate dry clean coal (to be mixed with coarse clean coal) and dry tailings (to be mixed with washed coal power/3rd product) as per ash content. As such, all the fines generated in the system shall be recovered and added to the final products.

- ii) Scrap, Metallic waste, Rubber/plastic waste, non-oily (dry jute, paper, garbage etc) waste will be generated from Washery operation. Used oil or burnt oil (approximately 20 KL/Year), Oily waste and soaked cotton (approximately 2000 kg/yr) will be generated from Washery operation. The collected used oil shall be auctioned to authorized vendor of Hazardous waste. Rubber/Plastic/ Magnetite Bags /Non-Oily Waste. This waste shall be disposed off to the recycler

ENVIRONMENT MANAGEMENT PLAN:

a) Green Belt Development Plan:

Green Belt Development Plan proposed. A 33.37% (2.61 Ha) of total project area (7.82 Ha) is proposed for green belt development. For meeting the requirement of about 50-meter width green belt, plantation will also be carried out surrounding the project boundary

Year	Plantation Details		Total Plantation cost. in Lakh (@ Rs. 2,300 per Plant*)
	Area (Ha)	Trees	
Y1	2.088	5220	120
Y2	0.261	652	15
Y3	0.262	653	15
Grand Total	2.61	6525	150

Type of plantation proposed: Avenue with PVC Gabion with a cost of Rs. 2,300 per plant in consultation with State Forest Dept.

Species proposed:Neem (Azadirachta indica), Karanja (Pongamia pinnata), Siris (Albizia lebeck / Albizia procera), Arjun (Terminalia arjuna), Baheda (Terminalia bellirica), Sal (Shorea robusta), Mahua (Madhuca longifolia), Jamun (Syzygiumcumini), Imli (Tamarindus indica), Amla (Emblica officinalis), Amaltas (Cassia fistula), Palash (Butea monosperma), Shisham (Dalbergia sissoo), Teak (Tectona grandis), Bamboo (Dendrocalamusstrictus), etc. and other native species in consultation with State Forest Dept.

b) Water Pollution Control & Water Management Measures:

- Garland drains are to be constructed around the product storage area to intercept and divert surface runoff.
- Sedimentation ponds are to be provided to allow settling of suspended solids from runoff and process water before reuse or discharge.
- ~~Rainwater harvesting structures are to be implemented to collect and utilize runoff, reducing freshwater demand.~~
- A treatment plant is to be installed to treat and recycle wastewater along with Thickeners to enhance solid-liquid separation, enabling recovery and reuse of clarified water in the process. This will also include Filter Press, tailing ponds and other systems.

c) Proposed Air Pollution Control Measures:

- Wind curtains are to be installed along the stockyard and along critical dust receptors areas to reduce wind velocity and limit dispersion of fugitive dust.

- ii) Static and mobile fog cannons, Fixed water sprinkling are to be installed at identified critical locations including loading and unloading point, stockpiles for effective suppression of airborne particulates.
- iii) Impact rollers are to be installed at conveyor transfer points to reduce material free-fall and dust generation.
- iv) Pavement quality concrete roads are to be constructed to reduce dust generation due to vehicular movement.
- v) Avenue plantation along roads and Green Belt will act as a natural barrier for dust and noise attenuation.

Total EIA/EMP Expenditure:

Proposed Water Pollution Control Measures			
Sn	Details	Estimated Capital Cost in Rs. Lakhs	Recurring Cost in Rs Lakh per year
1	Garland drains of approximately 700 m in 3rd Product storage site	100	15
2	Sedimentation ponds	200	
3	Rainwater Harvesting	100	
4	Treatment Plant including classifying cyclone, froth flotation, teeter bed, separator, centrifuges, dosing circuit thickener, Filter Press and Tailing Ponds	1100	15
Sub Total in Rs. Lakhs		1500	30
Proposed Air Pollution Control Measures			
Sn	Details	Estimated Capital Cost in Rs. Lakhs	Recurring Cost in Rs Lakh per year
1	Wind Curtains along Stock Yard	20	31
2	Static Fog Cannon	14	
3	Fixed water spraying	16	
4	Impact roller	20	
5	Fixed sprinkling near hopper	5	
6	Closed crushing and Automated sprinkling system	40	
7	Permanent wind screens	20	
8	Covered shed for mitigation of dust pollution	300	
9	Pavement Quality Concrete Road	300	
10	Mobile Fog Canons	80	
11	Avenue Plantation	50	
Sub Total in Rs. Lakhs		865	31
Cost for Development of Green Belt and Conservation Plan			
Sn	Details	Estimated Capital Cost in Rs. Lakhs	Recurring Cost in Rs Lakh per year
1	Development of Green Belt all along the project boundary and dust emission sources (6525 Plants	150	10

	at a rate of Rs 2300 /Plant)		
2	Wildlife Conservation Plan	47.12	-
Sub Total in Rs. Lakhs		197.12	10

d) Provision of Action Plan of Public Hearing:

- Public consultation including public hearing was conducted 06.06.2025 (Friday) at the designated site, Officers' Club, Kathara Area, CCL, Bokaro, Jharkhand through JSPCB as per the provisions/procedure contained in the EIA notification, 2006.
- A detailed compliance of issues raised in PH along with additional budgetary provision and timeline for Rs. 5.45 Crore has been prepared and submitted as below:

Sl. No.	Issues Raised	Budgetary Provision in Lakh	Timeline
1	Water supply in the nearby village	70 Lakhs	Throughout the project life
2	Plan to provide medical facilities to the nearby villagers	240 Lakhs	Throughout the project life
3	Strengthening of basic amenities in nearby Schools	40 Lakhs	Within 1 st to 5 th year
4	Diversion of PCC Road near Loha Bridge , Construction of Shamshan Shed and repairing of approach road at Hazari Panchayat	100 Lakhs	Within one year
5	Provision for Skill Development training in various trade (Tailoring, Food Processing, Beautician etc) for 10 persons	20 Lakhs	Within 1 st to 5 th year
6	Distribution of Sports Items	10 Lakhs	Within 1 st to 5 th year
6	Other Measures (Distribution of saplings, Env. Awareness activities and display of signboard/hoardings)	65 Lakhs	--
Total Cost		545 Lakhs	

This is a separate budget proposed for meeting the demand of Public Hearing of New Sawang Coking Coal Washery, in addition to the EIA/EMP cost.

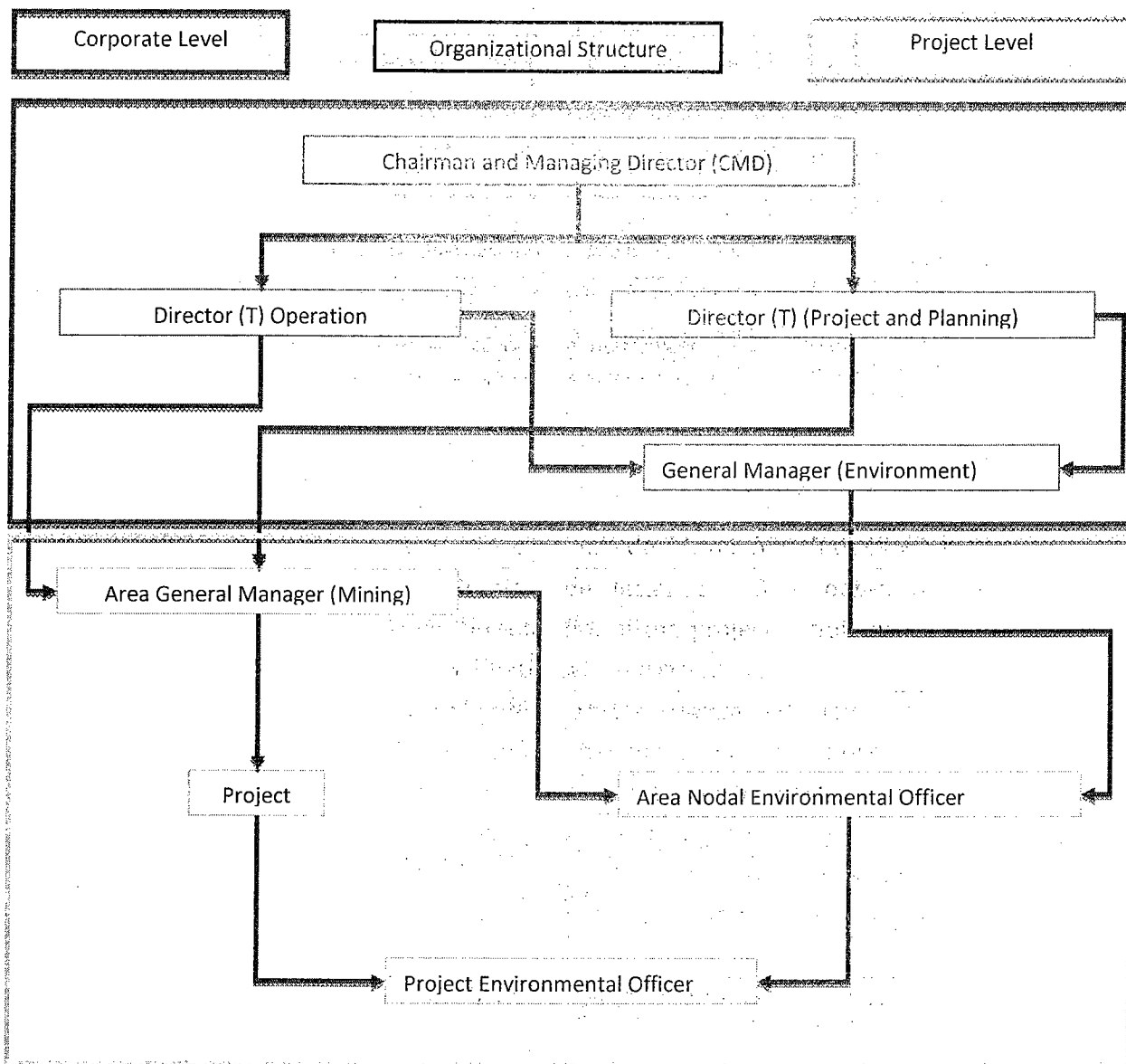
e) Wildlife Management Plan and Budgetary Provision:

- In view of the presence of protected wildlife, a Wildlife Conservation Plan with an estimated cost of ₹47.12 Lakhs has been prepared and submitted to the Divisional Forest Officer (DFO), Bokaro on 25.06.2025 for review and approval.

Environmental Cell & Organization Chart:

The organizational structure for environmental management operates at two levels: Corporate Level (policy formulation and strategic oversight) and Project Level (implementation and compliance). At the corporate level, the CMD, Directors (Tech.), and General Manager (Environment) provide oversight to ensure regulatory adherence. The Project Level, led by the Area General Manager (Mining), includes Project Officers and Environmental Officers responsible for on-site execution. This structure enables effective

coordination, compliance with environmental regulations, and sustainable washery practices. An organization chart showing the hierarchy is submitted below:



STATUTORY CLEARANCES

1	Land docs	:	Land has been acquired vide S.O no. 5222R dt 04.05.1922.
2	CO	:	The CO, Gomia vide letter no. 350, dated 01.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II.
3	DFO Wild Life	:	DFO, Wildlife Division, Hazaribagh vide letter no. 1262, dated 03.07.2023 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Sanctuary.
4	DFO Territorial	:	Divisional Forest Officer, Bokaro Forest Division vide letter no. 73, dated 11.01.2024 certified that the distance of reserved / protected forest land is more than 250 meter from proposed project site.
5	Pre-Feasibility	:	Pre-Feasibility Report approved by Company Secretary of Central

	Report Approval		Coalfields Ltd., Darbhanga House, Ranchi vide Ref. no. C.S./B.M. / 537 / 2024 /67, dated 12.03.2024.
6	Baseline monitoring data	:	October, 2023 to December, 2023.
7	Public Hearing	:	Public Hearing conducted on 06.06.2025.

Based on the presentation made and information provided, the Committee decided that the proposal for New Sawang Coking Coal Washery (1.5 MTPA) of M/s Central Coalfields Limited (CCL), Village : Sawang, Block : Gumia, Distt. : Bokaro, Jharkhand (7.82 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 which ever is earlier.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign “Ek Ped Ma Ke Naam” and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.

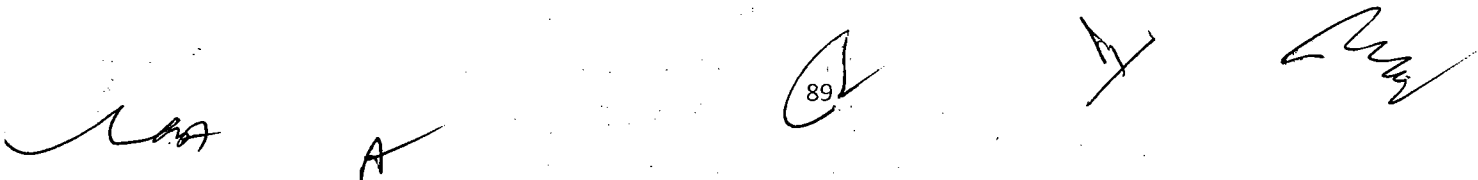
- C. Transfer of EC from Adityapur Auto Cluster (AAC) to Adityapur Waste Management Private Limited (AWMPL) for the project “Inclusion of Common Biomedical Waste Treatment Facility in Common Hazardous Waste Management Facility” at Village : Dugni, Tehsil : Saraikela, Distt. : Saraikela-Kharsawan, Jharkhand. (Proposal no. SIA / JH / INFRA2/524015 /2025)

The PAs have submitted Certified Compliance Report issued by the Ranchi Regional Office of MoEF&CC, Govt. of India vide letter no. 111-13/ROR-2025 / 453, dated 04.08.2025.

It is observed that several conditions are still not complied or partially complied.

Hence, the PAs are required to submit a Certified Compliance Report from Ranchi Regional Office of MoEF&CC, Govt. of India after all the condition are complied.

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Day 2 : 20th December, 2025 [Saturday]

A. Site inspection report to P & M Hi-Tech City Centre Mall of M/s P & M and Hi-Tech Infrastructures LLP at Mauza : Jugsalai, Tehsil : Dhalbhum, Dist. : East Singhbhum, Jharkhand.

The Project Authorities, in the 127th meeting of SEAC, had submitted documents claiming implementation of Remediation Plan and Community Resource Augmentation Plan as per EC letter no. EC/SEIAA/2021-22/2510/2021/33, dated 12.04.2023.

It was decided to have a joint site visit with the representative from RO, MoEF&CC, Govt. of India, Ranchi and SEAC, Jharkhand as per direction of S.O. no. 804 (E), dated 14.03.2017, to evidence the implementation of the Remediation Plan and Community Resource Augmentation Plan as reported.

As per Environmental Clearance letter no. EC/SEIAA/2021-22/2510/2021/33, dated 12.04.2023, the total budgetary provision w.r.t. Remediation Plan and Community Resource Augmentation Plan is Rs. 1,72,56,250/-.

The Project Authorities vide letter dated 06.10.2025 claimed expenditure as follows :

Sl. No.	Component	Action Plan Implemented	Amount (INR)
1.	Natural & Community Resource Augmentation Plan	Construction and operationalization of Xavier's English School at Vinoba Bhawe Ashram, Plot No. 1201(P) & 1259(P), Khata No. 1, Ward No. 13, JNAC, Burmamines, Jamshedpur, for the benefit of children from the leprosy colony.	1,31,65,250.00
2.	Ecological Damage & Remediation Plan	Plantation and Green Belt Development in and around the project site.	40,91,000.00
Total Expenditure Incurred			1,72,56,250.00

During the site visit sufficient evidence and details regarding the implementation as stated above could not be made available by Project Authorities before the inspection Committee.

Hence, this matter will be taken up for the consideration after receipt of sufficient evidence and details of the implementation of Remediation Plan and Community Resource Augmentation Plan with a budget of Rs. 1,72,56,250/-.



Day 3 : 21st December, 2025 [Sunday]

Consideration of proposals :

1. Bhuska Stone Mine of Shri Dinesh Tanwani, Village : Bhuska, Thana : Pakur, Distt.: Pakur, Jharkhand (2.51 Ha).

(Proposal no.: SIA/JH/MIN/550600/2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 21.12.2025.

Project Sector: 1 (a) Mining of Minerals, Category: B1.

Application for Environmental Clearance (EC) after ToR.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 118th meeting held on 22.10.2024 - 26.10.2024 and SEIAA, Jharkhand has approved the ToRs in 118th meeting held on 28th & 29th November, 2024. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3346/2024/347, dated 03.12.2024. The final EIA / EMP submitted by PP to SEAC on 03.11.2025.

EC Application for: Proposed Capacity – 45,453 cum/annum or 1,31,814 TPA.

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Bhuska Stone Mine
2	Lessee	: Proponent: Shri Dinesh Tanwani
3	Lessee Address	: Shri Dinesh Tanwani, S/o Indra Kumar Tanwani, R/o Sindhipara, Pakur.
4	Lease Area	: 2.51 Ha Acres- 6.20 Acres
5	Cluster Details	Total 8 Mines falls in Cluster including the Project Site (Total Cluster Area – 53.38 Acres/21.60 Ha)
6	Type of Land	: Non-Forest Raiyati Land
7	Project Cost	: Rs. 133.48 Lakhs
8	EMP Budget	: Capital: Rs. 20.24 lakhs Recurring: Rs. 23.02 Lakh / year
9	New or Expansion	: New
10	Mineable Reserves	: cum.: 313703 cum Tonnes: 909738.7 tones
11	Mine Life	: 8 years
12	Man power	: 21
13	Water Requirement	: 9.28 KLD (Drinking: 0.31 KLD, Dust Suppression: 3.20 KLD, Plantation: 5.77 KLD)
14	Water Source	: By authorised hired water tankers
15	DG Set / power	: -
16	Crusher	: No crusher
17	Nearest Water	: Pond- 0.30 km. in NW direction of mine site

	Body		
18	Nearest Habitation	:	Bhuska Village (0.382 Km) in SW Direction
19	Nearest Rail Station	:	Pakur Railway station, approx. 4.61 km towards NE direction
20	Nearest Air Port	:	Deoghar Airport, approx. 114.64 km towards SW direction
21	Nearest Forest	:	More Than 250m, as per Division Forest Officer NOC, letter no.-152 Dated-22/01/2022.
22	Road & Highways	:	The distance of Approach Road is 800m, after that this road connects to NH 133A at 3.32 km away.
23	Approach Road	:	The distance of Approach Road is 800m
24	Need Based SE Budget	:	6.2 lakh (As per need based)

CO-ORDINATES

Point Name	Degree, Minute, Second	
	Latitude	Longitude
1	24° 36' 30.01107628" N	087° 49' 04.61564730" E
2	24° 36' 30.05742832" N	087° 49' 04.76604568" E
3	24° 36' 30.25905964" N	087° 49' 05.20194607" E
4	24° 36' 30.37030447" N	087° 49' 05.44411296" E
5	24° 36' 30.46069087" N	087° 49' 05.64294471" E
6	24° 36' 30.22155530" N	087° 49' 05.80123111" E
7	24° 36' 29.96903047" N	087° 49' 05.94649977" E
8	24° 36' 29.85083273" N	087° 49' 06.11219290" E
9	24° 36' 29.84707530" N	087° 49' 06.25661497" E
10	24° 36' 29.61829631" N	087° 49' 06.25243848" E
11	24° 36' 29.38210115" N	087° 49' 06.66788947" E
12	24° 36' 29.11616245" N	087° 49' 07.22376260" E
13	24° 36' 28.69099792" N	087° 49' 07.08519962" E
14	24° 36' 28.54538891" N	087° 49' 07.06075178" E
15	24° 36' 28.49644099" N	087° 49' 07.09174914" E
16	24° 36' 28.32445457" N	087° 49' 07.10276979" E
17	24° 36' 28.26127593" N	087° 49' 07.44840717" E
18	24° 36' 28.02728233" N	087° 49' 07.97001858" E
19	24° 36' 27.89277461" N	087° 49' 08.46685709" E
20	24° 36' 27.69546597" N	087° 49' 08.95109705" E
21	24° 36' 27.61244064" N	087° 49' 08.92225752" E
22	24° 36' 27.43112528" N	087° 49' 08.80009529" E
23	24° 36' 27.42258162" N	087° 49' 08.89824272" E
24	24° 36' 27.29252815" N	087° 49' 09.11019941" E
25	24° 36' 27.07229152" N	087° 49' 09.59258361" E
26	24° 36' 27.25550562" N	087° 49' 09.70534875" E
27	24° 36' 27.53649704" N	087° 49' 09.75024598" E
28	24° 36' 27.66844904" N	087° 49' 09.88493767" E
29	24° 36' 27.79850241" N	087° 49' 09.92879078" E
30	24° 36' 27.94089656" N	087° 49' 10.09689436" E
31	24° 36' 27.88601549" N	087° 49' 10.24900983" E







32	24° 36' 27.67414481" N	087° 49' 10.52707248" E
33	24° 36' 27.47004639" N	087° 49' 10.92801519" E
34	24° 36' 26.95451946" N	087° 49' 10.71560169" E
35	24° 36' 26.97676859" N	087° 49' 10.46435992" E
36	24° 36' 26.66528066" N	087° 49' 10.29305872" E
37	24° 36' 26.32264368" N	087° 49' 10.79880514" E
38	24° 36' 26.04823725" N	087° 49' 10.65360697" E
39	24° 36' 25.72117424" N	087° 49' 11.20258655" E
40	24° 36' 25.40134198" N	087° 49' 11.67162557" E
41	24° 36' 25.51258801" N	087° 49' 11.76084495" E
42	24° 36' 25.44074161" N	087° 49' 11.91634158" E
43	24° 36' 25.42628512" N	087° 49' 12.20034006" E
44	24° 36' 25.31085028" N	087° 49' 12.46295753" F
45	24° 36' 25.14438105" N	087° 49' 12.27384622" E
46	24° 36' 24.95968518" N	087° 49' 12.46696696" E
47	24° 36' 24.84428820" N	087° 49' 12.38874136" E
48	24° 36' 24.67341403" N	087° 49' 12.56415380" E
49	24° 36' 24.55570068" N	087° 49' 12.61635988" E
50	24° 36' 24.52912024" N	087° 49' 12.70511022" E
51	24° 36' 24.39147152" N	087° 49' 12.70824259" E
52	24° 36' 24.20730695" N	087° 49' 12.59338921" E
53	24° 36' 24.10649767" N	087° 49' 12.78795095" E
54	24° 36' 23.78212340" N	087° 49' 12.66127705" E
55	24° 36' 23.52861272" N	087° 49' 12.58927127" E
56	24° 36' 23.30611966" N	087° 49' 13.11184191" E
57	24° 36' 23.29229748" N	087° 49' 13.28511979" E
58	24° 36' 23.13061911" N	087° 49' 13.77618325" E
59	24° 36' 22.76785814" N	087° 49' 13.64576740" E
60	24° 36' 22.44338850" N	087° 49' 13.49536902" E
61	24° 36' 22.20691003" N	087° 49' 13.43257023" E
62	24° 36' 21.99136924" N	087° 49' 13.34080173" E
63	24° 36' 21.88151085" N	087° 49' 13.33680382" E
64	24° 36' 21.69395646" N	087° 49' 13.45442448" E
65	24° 36' 21.42273213" N	087° 49' 13.30924883" E
66	24° 36' 21.70042403" N	087° 49' 12.82201954" E
67	24° 36' 21.87954763" N	087° 49' 12.77858962" E
68	24° 36' 22.13408281" N	087° 49' 12.46698228" E
69	24° 36' 22.34210891" N	087° 49' 12.17213164" E
70	24° 36' 22.51129672" N	087° 49' 11.95800513" E
71	24° 36' 22.71495189" N	087° 49' 12.05509858" E
72	24° 36' 22.79606927" N	087° 49' 11.66763157" E
73	24° 36' 22.88914062" N	087° 49' 11.19136460" E
74	24° 36' 22.91155225" N	087° 49' 10.78841066" E
75	24° 36' 23.17796851" N	087° 49' 10.78688699" E
76	24° 36' 23.44078407" N	087° 49' 10.86684658" E
77	24° 36' 23.63083018" N	087° 49' 10.84390445" E
78	24° 36' 23.66311921" N	087° 49' 10.72590016" F
79	24° 36' 23.76741276" N	087° 49' 10.13705226" E

80	24° 36' 23.92732950" N	087° 49' 09.70370099" E
81	24° 36' 24.13231208" N	087° 49' 09.28143536" E
82	24° 36' 24.40191384" N	087° 49' 08.75102157" E
83	24° 36' 24.56587863" N	087° 49' 08.38782442" E
84	24° 36' 24.55753995" N	087° 49' 08.10203471" E
85	24° 36' 24.45934205" N	087° 49' 08.01110192" E
86	24° 36' 24.68100964" N	087° 49' 07.27073806" E
87	24° 36' 24.79522241" N	087° 49' 06.91018981" E
88	24° 36' 24.98355838" N	087° 49' 06.63537546" E
89	24° 36' 24.99727805" N	087° 49' 06.06949805" E
90	24° 36' 25.27991822" N	087° 49' 06.10671028" E
91	24° 36' 25.55151500" N	087° 49' 06.09874427" E
92	24° 36' 25.68784670" N	087° 49' 05.60611987" E
93	24° 36' 25.96306452" N	087° 49' 04.49486064" E
94	24° 36' 26.49537515" N	087° 49' 04.54313949" E
95	24° 36' 26.97743990" N	087° 49' 04.59534557" E
96	24° 36' 27.14918449" N	087° 49' 04.62987346" E
97	24° 36' 27.42966093" N	087° 49' 04.74712927" E
98	24° 36' 27.77542101" N	087° 49' 04.73172365" E
99	24° 36' 28.19870774" N	087° 49' 04.58760692" E
100	24° 36' 28.48595812" N	087° 49' 04.63051699" E
101	24° 36' 28.67142621" N	087° 49' 04.30325012" E
102	24° 36' 28.76118374" N	087° 49' 04.35597411" E
103	24° 36' 29.07267023" N	087° 49' 04.58927003" E
104	24° 36' 29.32898163" N	087° 49' 04.70834321" E
105	24° 36' 29.53414371" N	087° 49' 04.86799685" E

LAND DETAILS

Khata no.	Plot no.
02	476, 477, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509 (P), 510 (P), 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522 (P), 523, 538, 539, 540 & 541
19	548, 579 & 578

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Pakur vide memo no. 1589/M, dated 24.09.2024.

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2	CO	:	The CO, Pakur vide letter no. 25/Ra., dated 12.01.2021 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyani & Register II also mentioned that the habitation of 16 houses at a distance of 260 meters and Pond at a distance of 300 ft of proposed project site. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Pakur vide memo no. 1613/M, dated 26.09.2024 certified that 03 LOI (5.44 Acre, 5.879 Acre&5.40 Acre) and 05 other mining lease area (4.93 Acre, 6.27 Acre, 5.43 Acre, 6.83 Acre&7.00 Acre) exists within 500 meters radius from proposed project site and total area is 53.38 Acre or 21.60 Ha.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 1932, dated 02.11.2021 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Lake Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Pakur Forest Division vide letter no. 152, dated 22.01.2022 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The DMO, Pakur has been certified vide memo no. 1612/M, dated 26.09.2024 that this project is mentioned in approved DSR of Pakur District as a potential area (Sl. No. 01, Page no. 45).
7	Gram Sabha	:	BDO, Pakur vide letter no. 140/Vi. Dated 20.01.2022 informed that Gram Sabha conducted on 15.01.2022.
8	Mine Plan Approval	:	Approved by District Mining Officer, Pakur vide Memo No. 1762/M, dated 16.10.2024.
9	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Baseline Monitoring period	:	October, 2024 to December, 2024.
11	Public Hearing	:	Public Hearing conducted on 12.06.2025.

Working Details

1	Mining Method	:	Opencast Fully mechanised method
2	Quarry Area	:	1.944 ha.
3	Waste Generation	:	12523 cum.
4	Stripping Ratio	:	1:0.02

5	Working Days	:	300
6	Bench: size & No	:	6m x 6m
7	Elevation of Mine	:	55m AMSL to 47m AMSL
8	Ground Level Elevation	:	47m AMSL
9	Ultimate Working Depth	:	Up to 12m AMSL
10	Water Table	:	5m AMSL (Source: JSAC Ground water Prospect Map)
11	Topography of Mine	:	The area represents an inclined of Basalt trending is East to West
12	Explosive Requirement	:	57.424 kg/day
13	Diesel/Fuel requirement	:	288 litre/day

Production Details

Year	Production of Stone		Removal of O.B.
	in cum	in tons	in cum
1st	45453	131814	7843
2nd	36527	105928	0
3rd	33180	96222	0
4th	22361	64847	0
5th	42222	122444	4680
Total	179743	521255	12523

Land Use

Type of land use	Existing Land Use (Ha)	During Current Plan Period (Ha)	Land to be used in remaining period of the life of Mine (Ha)	During Conceptual Period (Ha)	Area to be converted in the conceptual period
Quarry	Nil	1.327	1.944	1.944	Water body
Offices/Store etc	Nil	0.001	0	0	-
Dumping	Nil	0.17	0	0	-
Garland Drain	Nil	0.03	0.03	0.03	-
Settling Tank	Nil	0.001	0	0	-
Safety Zone	Nil	0.536	0.536	0.536	Plantation
Unutilized	2.51	0.445	0	0	-
Total	2.51	2.51	2.51	2.51	-

Green Belt Development

S. No.	Location		Area/Length	No. Of Trees
1	Safety Zone	:	0.536 Ha	858

2	Along Approach Road	:	800m	1064 Tree both side approach road
	Total			1922

Note- 1922 tree proposed to be planted i.e. 10% plantation will be carried out i.e. (192 trees) as per MoEF&CC, Govt. of India Scheme "Ek Ped Ma Ke Naam".

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Sl. No.	Head	Capital Cost Rs. in Lakhs
1.	Cost of Infrastructure	7.00
2.	Machinery & Equipment	103.00
3.	Miscellaneous	14.48
4.	Contingency	9.00
	Total	133.48

ENVIRONMENT MANAGEMENT PLAN (EMP)

S. No.	EMP Activity	Capital Cost (₹ in Lakhs)	Recurring Cost / Year (₹ in Lakhs)
1	Air Pollution Control (Water sprinkling)	-	5.00
2	Water Pollution Control (Garland drains, settling tank, rainwater harvesting)	4.00	1.00
3	Noise & Vibration Control (acoustic enclosures, monitoring)	1.50	0.50
4	Occupational Health & Safety (PPE, health camps, first aid, training)	1.50	1.00
5	Greenbelt Development (plantation, maintenance)	4.00	2.02
6	Environmental Monitoring (air, water, noise, soil)	1.24	5.00
7	PH Compliance Budget	8.00	8.50
	Total	20.24	23.02

Environment Monitoring Plan**Monitoring Parameters and Frequency of Monitoring**

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	7 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 6 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	7stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	5 stations	Six Monthly

Summary of Baseline Data:

Monitoring season - October 2024 to December 2024 (Post Monsoon Season)

Parameter	No. of Locations	Environmental Baseline Study
Ambient Air Quality Monitoring	7 locations	PM2.5- 57.00 $\mu\text{g}/\text{m}^3$ to 36.00 $\mu\text{g}/\text{m}^3$ PM10- 86 $\mu\text{g}/\text{m}^3$ to 65 $\mu\text{g}/\text{m}^3$ SO2- 11.6 $\mu\text{g}/\text{m}^3$ to 6.4 $\mu\text{g}/\text{m}^3$ NO2- 30.7 $\mu\text{g}/\text{m}^3$ to 15.2 $\mu\text{g}/\text{m}^3$
Noise level monitoring	7 locations	During daytime- 61.0 (N2) to 67.5 (N7) dB(A) During Night time- 38.1 (N2) to 40.2 (N1) dB(A) Results were found within permissible limits
Water samples	Surface water – 2 locations	All parameters pH (8.09 -7.84), Chloride (40.8-42.6 mg/l), SO4 (12.7 to 15.3 mg/l), Ca2 (53.1- 58.9 mg/l), etc. are found within permissible limits
	Ground water- 6 locations	All parameters like TDS (418- 276 mg/l), pH (7.01- 7.88), Chloride (32.2- 45.3 mg/l), Magnesium, Fluoride etc. are found within permissible limits & fit for consumption.
Soil Samples	5 locations	pH- 6.0-6.7 Phosphorus ranges from 6.3 to 7.0 kg/ha. Sodium ranges from 14.9 to 17.2 mg/kg. Total potassium ranges from 53.4 to 61.1 mg/kg. Nitrogen content varies from 374 to 411 mg/kg.
EB	-	No endangered Species found in the study area. *No. of Flora species found in study area – 118 Nos No. of Fauna species found in study area - 30 Nos

Public Hearing (Action Plan) –

Sl. No	Issue Raised	Commitment by Project Proponent (Brief)	Time Frame	Funds to be Spent	
				Capital (in Lakhs)	Recurring (in Lakhs)
1	Arrangement should be made for primary education, medical vehicle, drinking water, and community housing for villagers. Also, water should be sprinkled to control dust pollution.	The project proposer informed that primary education, timely medical vehicle, and drinking water will be arranged. Also, sapling plantation and regular water sprinkling will be done to reduce dust pollution. Along with this, community housing will be constructed under CSR.	1. Primary Education (12 months of project commencement) 2. Medical van (Operational within 6 months) 3. Drinking water (within 6 months) 4. Dust Pollution Control (Water Sprinkling & Plantation) 5. Community Hall Construction- 6 to 9 months (CSR Fund)	8.00	2.00
2	Employment should be provided to rural youth.	Employment will be given to villagers based on qualification and requirement.	Initial Recruitment- Skill Development & Training (During mine development and Construction phase (0-6 months) Continued Employment- Wages & Salary (Throughout the life cycle of the mining project)	-	4.00
3	Medical arrangement should be made at the worksite.	The project proposer informed that First Aid facility will be made available at the worksite.	Along with start of Mines.	-	0.50
4	The work of repairing the hand pumps lying broken in the village should be done.	The project proponent assured that the hand pumps lying broken in the village will be repaired,	Along with start of mines within 12 months.	-	2.00
Total Cost				8.00	8.50

SE Need based Survey detail (included in CSR)

Zone	Coverage & Survey Details	Key Socio-Economic Observations	Workforce Characteristics	Priority Needs (Focused)	Proposed Budget (₹ Lakhs)	Implementation Timeline
0-2 km	Villages: 7 Households surveyed: 22 Population covered: 90 FGDs Conducted: 1	Balanced gender composition with presence of children and vulnerable groups. Proximity to mine increase's sensitivity to dust, traffic and occupational health issues.	Low workforce participation (~28%); dominance of informal and "other" occupations indicating livelihood instability.	- Preventive healthcare & health check-ups - Local skill development linked to mine & allied activities	3.5	Short-term & ongoing (Year 1-2)
2-5 km	Villages: 12 Households surveyed: 24 Population covered: 135 FGDs Conducted: 0	Moderate literacy levels with gender disparity; limited access to secondary education and structured training facilities.	Mixed workforce pattern; dependence on agriculture and daily wage labour.	- Education support (secondary level / scholarships) - Agricultural productivity support (inputs, awareness)	2.7	Medium-term (Year 2-3)
Total (0-5 km)	Villages: 19 Households surveyed: 44 Population covered: 225	Predominantly rural population with notable ST/SC presence; focused needs around health, education and livelihood security.	High informal employment and agriculture dependence.	Targeted SE interventions with zone-specific priorities	6.2	Phased over 3 years
Total Budget (included in CSR)					Rs. 6.2 Lakh	

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 12523 cum of Intercalated Waste will be generated during the plan period which will be used in maintenance of haul road and approach road.
Air Quality	Wet drilling and use of sharp drill bits to minimize dust generation.

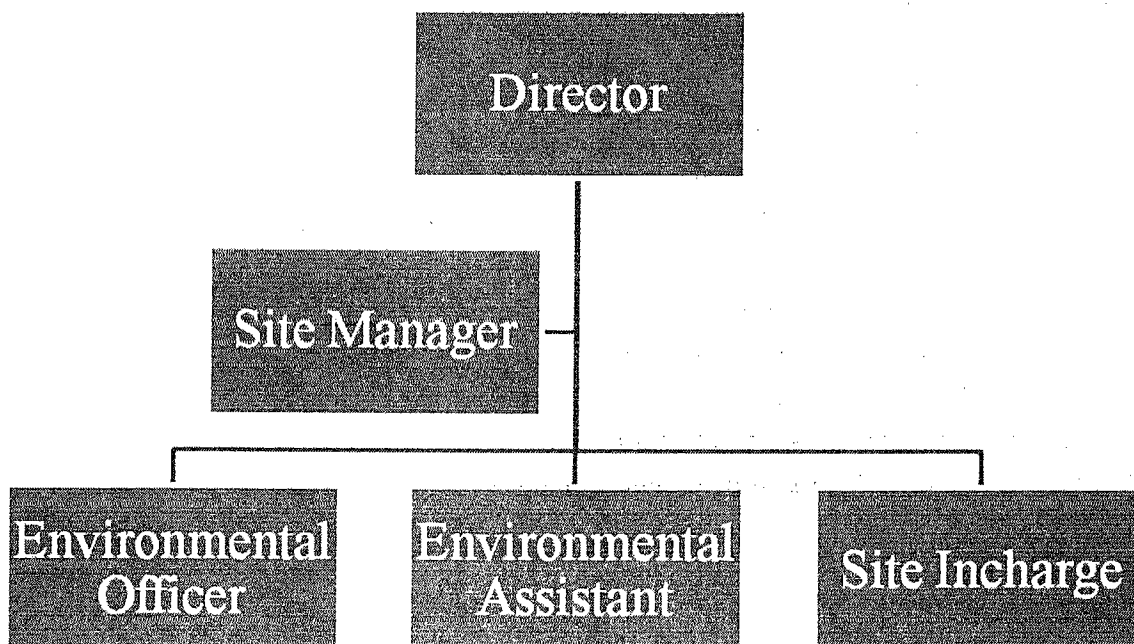
Management	• Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation

Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and

	disposal arrangement.
Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller.

	▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.

- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Bhuska Stone Mine of Shri Dinesh Tanwani, Village : Bhuska, Thana : Pakur, Distt.: Pakur, Jharkhand (2.51 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- ~~II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.~~
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a

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time bound manner.

- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to be submitted along with 6 monthly compliance.
- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

2. Tangidaha Stone Mine of M/s Rishi Stone Works (Partners : (i) Shri Pankaj Bhagat (ii) Shri Suraj Bhagat (iii) Shri Binay Kumar Mandal), Village : Tangidaha, Thana : Maheshpur, Distt.: Pakur, Jharkhand (2.59 Ha).

(Proposal no.: SIA/JH/MIN/556810/2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 21.12.2025.

Project Sector: 1 (a) Mining of Minerals, Category: B1.

Application for Environmental Clearance (EC) after ToR.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 115th meeting held on 23.07.2024 - 27.07.2024 and SEIAA, Jharkhand has approved the ToRs in

115th meeting held on 06th & 07th August, 2024. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3191/2024/212, dated 13.08.2024. The final EIA / EMP submitted by PP to SEAC on 15.12.2025.

EC Application for: Proposed Capacity – 71,258 cum/annum or 2,06,648 TPA.

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Tangidaha Stone Mine
2	Lessee	: M/s Rishi Stone Works, (Partner's – (i) Shri Pankaj Bhagat, (ii) Shri Suraj Bhagat, (iii) Binay Kumar Mandal,)
3	Lessee Address	: M/s Rishi Stone Works Partner's: Shri Pankaj Bhagat, Shri Suraj Bhagat and Shri Binay Kumar Mandal R/o - Village- Kushmaha, Thana- Bossi, District – Banka, State – Bihar
4	Lease Area	: 2.59 Ha Acres- 6.41 Acres
5	Cluster Details	: 7 mines include project site having total area 47.47 Acres/ 19.21 Ha.
7	Type of Land	: Non-Forest Raiyati Land
8	Project Cost	: Rs. 145.00 Lakhs
9	EMP Budget	: Capital: Rs. 19.74 lakhs Recurring: Rs. 26.52 Lakh / year
10	New or Expansion	: New
11	Mineable Reserves	: cum.: 5,36,772 cum Tonnes: 15,56,639 tones
11	Mine Life	: 10 years
12	Man power	: 38
13	Water Requirement	: 8.233 KLD (Drinking: 0.570 KLD, Dust Suppression: 1.264 KLD, Plantation: 6.399 KLD)
14	Water Source	: By authorised hired water tankers
15	DG Set / power	: -
16	Crusher	: No crusher
17	Nearest Water Body	: Ranipur river 15Km NW direction of mine site
18	Nearest Habitation	: Tangidaha Village (0. 0.32 Km) in SW Direction
19	Nearest Rail Station	: Nagarnabi Railway station, approx. 15.0 km in NE direction.
20	Nearest Air Port	: Deoghar Airport, approx. 104 km towards SW direction
21	Nearest Forest	: More Than 250m, as per Division Forest Officer NOC, letter no.- 1433 Dated-04/11/2023.
22	Road & Highways	: Nearest Highway is at a distance of 0.57 Km at western direction
23	Approach Road	: The distance of Approach Road is 427m
24	SE Budget	: Rs. 4.5 Lakh (As per Need Based Survey)

CO-ORDINATES

Point Name	Degree, Minutes, Seconds	
	Latitude	Longitude
1	24° 33' 22.61104586" N	087° 43' 24.04932011" E
2	24° 33' 23.32124531" N	087° 43' 25.39570693" E
3	24° 33' 24.09053765" N	087° 43' 26.85412365" E
4	24° 33' 23.59798537" N	087° 43' 27.20987182" E
5	24° 33' 23.14721367" N	087° 43' 27.59726474" E
6	24° 33' 22.56784836" N	087° 43' 28.12807980" E
7	24° 33' 22.50842623" N	087° 43' 28.65072848" E
8	24° 33' 21.72108233" N	087° 43' 30.13701066" E
9	24° 33' 21.29561894" N	087° 43' 30.98108827" E
10	24° 33' 21.10546758" N	087° 43' 31.53509587" E
11	24° 33' 20.76794871" N	087° 43' 32.54380782" E
12	24° 33' 20.52550542" N	087° 43' 32.52290187" E
13	24° 33' 20.10717160" N	087° 43' 32.44450457" E
14	24° 33' 19.40360930" N	087° 43' 32.43405160" E
15	24° 33' 19.28001040" N	087° 43' 33.51070787" E
16	24° 33' 17.67797550" N	087° 43' 33.44276355" E
17	24° 33' 17.57339142" N	087° 43' 32.67969648" E
18	24° 33' 17.51159173" N	087° 43' 32.08910347" E
19	24° 33' 17.51634555" N	087° 43' 31.78596724" E
20	24° 33' 17.40700761" N	087° 43' 31.34171586" E
21	24° 33' 17.44028438" N	087° 43' 31.08039152" E
22	24° 33' 17.89189740" N	087° 43' 29.93056443" E
23	24° 33' 17.02879321" N	087° 43' 29.38491921" E
24	24° 33' 18.24218907" N	087° 43' 27.90211056" E
25	24° 33' 18.46710913" N	087° 43' 27.89223459" E
26	24° 33' 18.99953586" N	087° 43' 27.88178161" E
27	24° 33' 19.61277659" N	087° 43' 27.77202539" E
28	24° 33' 19.91701974" N	087° 43' 27.58387187" E
29	24° 33' 20.50649026" N	087° 43' 27.01418481" E
30	24° 33' 20.99374004" N	087° 43' 26.42363490" E
31	24° 33' 21.24968367" N	087° 43' 26.11342932" E
32	24° 33' 21.23084865" N	087° 43' 25.64549858" E
33	24° 33' 21.23857354" N	087° 43' 25.20582038" E
34	24° 33' 21.30037273" N	087° 43' 24.82428685" E
35	24° 33' 21.42397107" N	087° 43' 24.47933872" E

LAND DETAILS

Khata no.	Plot no.
02	140 (P) & 148
06	147
10	152

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Pakur vide memo no. 360/M, dated 15.03.2024.
2	CO	:	The CO, Maheshpur vide letter no. 102/Ra, dated 06.02.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II and also mentioned that the habitation of 12-13 houses within 500 meters of proposed project site. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Pakur vide memo no. 556/M, dated 30.04.2024 certified that 07 other mining lease area (6.57 Acre, 7.09 Acre, 6.58 Acre, 3.16 Acre, 5.78 Acre, 6.88 Acre & 5.00 Acre) exists within 500 m radius from proposed project site and total area is 47.47 Acre or 19.21 Ha.
4	DFO Wild Life	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. 98, dated 13.01.2024 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Pakur Forest Division vide memo no. 1568 dated 20.12.2023 certified that the distance of reserved / protected forest land is 14/0 meter from proposed project site.
6	DSR	:	The DMO, Pakur has been certified vide memo no. 555/M, dated 30.04.2024 that this project is mentioned in approved DSR of Pakur District as a potential area (Sl. no. 299, Page no. 132).
7	Gram Sabha	:	BDO, Maheshpur (Pakur) vide letter no. 2314/Vi. Dated 06.11.2023 informed that Gram Sabha conducted on 06.11.2023.
8	Mine Plan Approval	:	Approved by District Mining Officer, Pakur vide Memo No. 962/M, dated 01.07.2024.
9	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Baseline Monitoring period	:	March, 2024 to May, 2024.
11	Public Hearing	:	Public Hearing conducted on 22.07.2025.

Working Details

1	Mining Method	:	Opencast mechanized method
2	Quarry Area	:	1.739 ha. Life of Mine – 10 Years
3	Waste Generation	:	30,832 cum.
4	Stripping Ratio	:	01:0.03
5	Working Days	:	300
6	Benches: size & No	:	6m X 6m
7	Elevation of Mine	:	112 to 98 AMSL
8	Ground Level Elevation	:	98 AMSL
9	Ultimate Working Depth	:	66.0 AMSL
10	Water Table	:	55 m AMSL
11	Topography of Mine	:	The area represents a moderately sloping land with rock mass of Basalt.
12	Explosive Requirement	:	32.0kg/day
13	Diesel/Fuel requirement	:	509 litre/day

Production Details

Year	Production of Stone		Removal of O.B.
	in cum	in tons	in cum
1st	71258	206648	30832
2nd	56252	163131	0
3rd	64698	187624	0
4th	48544	140778	0
5th	45018	130552	0
Total	285770	828733	30832

Land Use

Si. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha.)	Proposed Land use for current plan period (Ha.)	Land used at the conceptual stage i.e. end of mine life in (Ha.)	Area to be converted in the conceptual period.
1	Mining Activities	0	1.926	1.739	Water Body
2	Dead Benches	0	0.000	0.187	Plantation
3	Dumping	0	0.121	0.121	Plantation
4	Garland drain	0	0.022	0.022	Plantation
5	Settling	0	0.001	0.001	-

	Tank				
6	Office	0	0.011	0.011	Plantation
7	Safety Zone	0	0.473	0.473	Plantation
8	Unutilized	2.59	0.036	0.036	Plantation
Total		2.59	2.59	2.59	-

Green Belt Development

Year	Location	No. of Plants	Area to be Covered (Ha)
1 st Year	Within 7.5m in Safety Zone Area	1,183	0.473
Conceptual	Dead Benches	468	0.187
Conceptual	Garland drain	55	0.022
1 st Year	Approach Road	427	320 m
Total		2,133	0.682

Note- 2133 tree proposed to be planted i.e. 10% plantation will be carried out i.e. (213 trees) as per MoEF&CC, Govt. of India Scheme "Ek Ped Ma Ke Naam".

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Sl. No.	Particular	Capital Cost (Rs. in Lakhs)
1.	Cost of Infrastructure	8.00
2.	Machinery & Equipment	102.00
3.	Miscellaneous	21.00
4.	Contingency	14.00
Total Project Cost		145.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

S. No.	EMP Activity	Capital Cost (₹ in Lakhs)	Recurring Cost / Year (₹ in Lakhs)
1.	Air Pollution Control (Water sprinkling, greenbelt, dust suppression)	-	5.00
2.	Water Pollution Control (Garland drains, settling tank, rainwater harvesting)	4.00	1.00

3.	Noise & Vibration Control (acoustic enclosures, monitoring)	1.50	0.50
4.	Occupational Health & Safety (PPE, health camps, first aid, training)	1.50	1.00
5.	Greenbelt Development (plantation, maintenance)	10.24	1.02
6.	Environmental Monitoring (air, water, noise, soil)	-	5.00
7.	PH Compliance Budget	2.50	13.00
Total		19.74	26.52

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	4 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Summary of Baseline Data:

Monitoring season – March to May 2024 (Summer Season)

Parameter	No. of Locations	Environmental Baseline Study
Ambient Air Quality Monitoring	8 locations	PM10 = 80 µg/m ³ to 54 µg/m ³ PM2.5 = 53 µg/m ³ to 13 µg/m ³ SO2 = 13.50 µg/m ³ to 5.80 µg/m ³ NOx = 30.1 µg/m ³ to 11.2 µg/m ³
Noise level monitoring	7 locations	Daytime 67.5 to 61 dB(A) Night-time 40.5 to 38.1 dB(A)
Water samples	Surface water – 2 locations	pH – 7.97 to 8.26, TDS – 778 to 893 mg/l Sulphate – 11.2 to 13.5 mg/l Fluoride – 0.40 to 0.46 mg/l Total Hardness – 162 to 170.2 mg/l
	Ground water- 8 locations	Turbidity – 0.88 to 0.52 NTU pH – 6.98 -7.95 Total Hardness – 121.8 to 82.5 mg/l TDS – 447 to 314 mg/l

		Sulphate – 17.5 to 11.8 $\mu\text{S}/\text{cm}$
Soil Samples	5 locations	pH – 6.4 to 5.8 Sand% - 63.3 to 54.5 % Bulk Density – 1.452 to 1.122 gm/cc Moisture% - 30 to 21 % Potassium – 182 to 166 kg/ha Nitrogen – 411 to 374 kg/ha
EB	-	No endangered Species found in the study area. No of Flora Species found in Study area- 118 No of Fauna Species found in Study area-30

Public Hearing (Action Plan) –

Sl. No.	Issue Raised	Commitment by Project Proponent (Brief)	Time Frame	Funds to be Spent	
				Capital (in Lakhs)	Recurring (in Lakhs)
1	Dust pollution should be controlled.	The project proponent assured that regular water sprinkling, and plantation will be carried out to control dust pollution.	Continuous during mining operation.	-	1.50
2	Dust pollution should be controlled. In case blasting causes injury or damage, how will compensation be provided? Arrangements should be made for a coaching centre for children's education.	The project proponent assured that regular water sprinkling will be done to control dust pollution. In case of any incident, proper compensation will be provided, and arrangements for a coaching centre for children's education will be made.	Continuous during operation and annually under CSR.	-	3.00
3	Blasting should ensure that stones do not fall into the nearby fields and compensation should be given if animals fall into the mine.	The project proponent assured that blasting would be done as per the rules so that no damage is caused and for animal protection, the mine would be fenced with wire so that animals do not	Blasting pollution control measures – Immediate and continuous (water sprinkling and plantation). Mine would be fenced with wire (3 to 6 Months)	Already considered in project and EMP cost. 1.50	-

		fall into the mine.			
4	Priority should be given to local villagers for employment.	The project proponent assured that local people will be given employment on a priority basis according to their qualifications and requirements.	Initial Recruitment-Skill Development & Training (During mine development and constructed phase (0-6 months)	-	-
5	The football ground should be levelled, and more trees should be planted.	The project proponent stated that more and more trees will be planted, and the football ground will be levelled.	Within one year under CSR.	1.00	-
6	The dust flying around the mining area should be reduced, and priority in employment should be given to local villagers. Medical facilities should also be provided.	The project proponent assured that local people would be given priority in employment as per their qualification and needs. And to reduce dust particles, regular water sprinkling will be done and medical facilities will also be provided.	Continuous during operation phase.	-	-
7	Money should be provided for washing and cleaning clothes.	The project proponent assured that under CSR, financial assistance will be provided to the villagers.	Annually under CSR	-	1.50
8	Arrangements should be made for school bags for children.	The project proponent assured that under CSR, arrangements for providing school bags for children will be made.	Annually under CSR	-	1.50
9	Assistance should be provided for children's	The project proponent assured that under CSR, assistance will be	Annually under CSR	-	1.50

	education.	given to facilitate children's education.			
10	Financial assistance should be provided during festivals.	The project proponent assured that under CSR, financial assistance will be provided for festivals.	Annually under CSR	-	1.50
11	After the completion of mining, will the pit be filled or left as it is?	The project proponent stated that after completion of mining, the pit will be refilled as per regulations.	Post mining phase	-	-
12	Financial assistance should be provided to elderly people.	The project proponent stated that financial assistance will be provided to elderly people.	Annually	-	1.50
13	Financial assistance should be provided to elderly people.	The project proponent stated that financial assistance will be provided to elderly people.	Annually	-	-
14	Money should be distributed to renters every month.	The project proponent assured that renters will be provided monthly allowance.	Annually	-	1.00
	Total			2.50	13.00

SE Need based Survey detail (included in CSR)

Zone	Coverage & Survey Details	Key Socio-Economic Observations	Workforce Characteristics	Priority Needs (Focused)	Proposed Budget (₹ Lakhs)	Implementation Timeline
0-2 km	Villages: 4 Households surveyed: 16 Population covered: 85 FGDs Conducted: 1	Balanced gender composition with presence of children and vulnerable groups. Proximity to mine increases sensitivity to dust, traffic and	Low workforce participation (~35%); dominance of informal and "other" occupations indicating livelihood	- Preventive healthcare & health check-ups - Local skill development linked to mine & allied activities	2.5	Short-term & ongoing (Year 1-2)

		occupational health issues.	instability.			
2–5 km	Villages: 10 Households surveyed: 28 Population covered: 128 FGDs Conducted: 0	Moderate literacy levels with gender disparity; limited access to secondary education and structured training facilities.	Mixed workforce pattern; dependence on agriculture and daily wage labour.	• Education support (secondary level / scholarships) • Agricultural productivity support (inputs, awareness)	2.0	Medium-term (Year 2–3)
Total (0–5 km)	Villages: 16 Households surveyed: 44 Population covered: 213	Predominantly rural population with very less ST/SC presence; focused needs around health, education and livelihood security.	High informal employment and agriculture dependence.	Targeted SE interventions with zone-specific priorities	4.5	Phased over 3 years
Total Budget (included in CSR)					Rs. 4.5 Lakh	

Environment Management Practices to be followed:

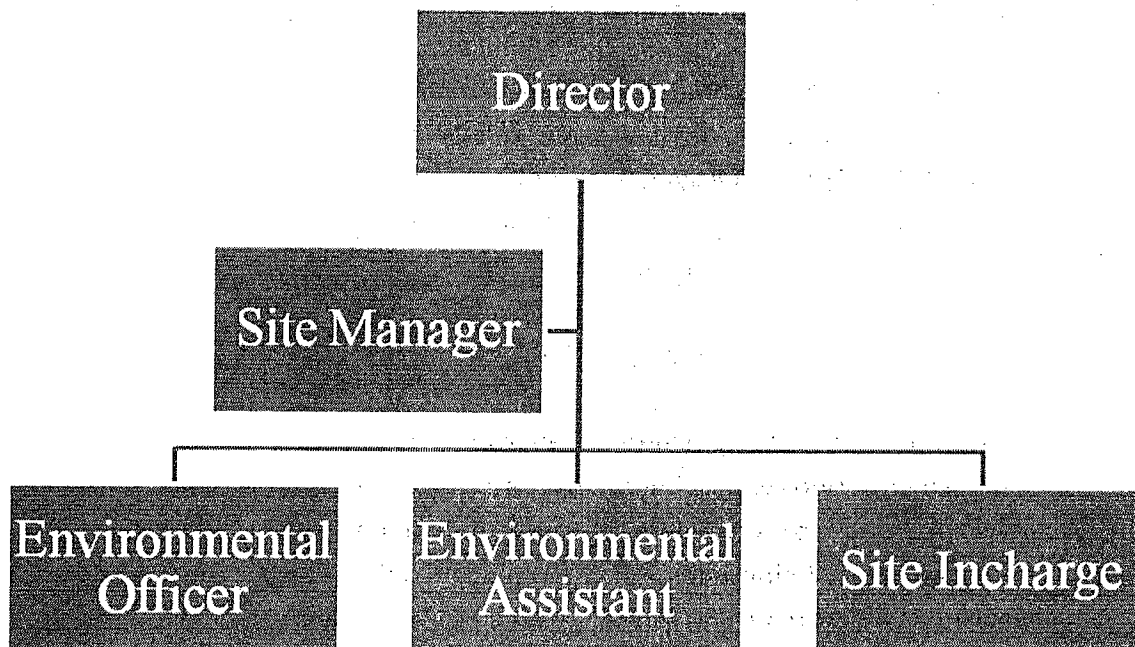
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 30832 cum of Intercalated Waste will be generated during the plan period which will be used in maintenance of haul road and approach road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak

	pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°.

		▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting Handling Explosives	& of	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes

	correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.

- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Tangidaha Stone Mine of M/s Rishi Stone Works (Partners : (i) Shri Pankaj Bhagat (ii) Shri Suraj Bhagat (iii) Shri Binay Kumar Mandal), Village : Tangidaha, Thana : Maheshpur, Distt.: Pakur, Jharkhand (2.59 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.

- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

3. Bhuska Stone Mine of M/s Mandhan Minerals Corporation Ltd., Village : Bhuska, Thana : Pakur, Distt.: Pakur, Jharkhand (2:379 Ha):

(Proposal no.: SIA/JH/MIN/555894/2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

This is a new project which was listed for consideration on 21.12.2025. On the request of PAs this was taken up for consideration on 22.12.2025.

Project Sector: 1 (a) Mining of Minerals, Category: B1.

Application for Environmental Clearance (EC) after ToR.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 118th meeting held on 22.10.2024 - 26.10.2024 and SEIAA, Jharkhand has approved the ToRs in 118th meeting held on 28th & 29th November, 2024. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3291/2024/343, dated 03.12.2024. The final EIA / EMP submitted by PP to SEAC on 15.12.2025.

EC Application for: Proposed Capacity – 50,226 cum/annum or 1,45,655 TPA

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Bhuska Stone Mine
2	Lessee	: M/S Mandhan Minerals Corporation, Partner's - 1. Shri Anil Kumar Tanwani 2. Shri Dinesh Tanwani 3. Shri Suresh Kumar Tanwani 4. Shri Bhavesh Tanwani 5. Shri Piyush Tanwani
3	Lessee Address	: Shri Anil Kumar Tanwani, Shri Dinesh Tanwani, Shri Suresh Kumar Tanwani, Shri Bhavesh Tanwani, Shri Piyush Tanwani, R/o

			Sindhpara, Pakur.	
4	Lease Area	:	2.379 Ha	Acres- 5.88 Acres
5.	Cluster Details	:	6 no. of mines included project site having Total Cluster area 40.66 Acres/16.45 Ha.	
5	Type of Land	:	Non-Forest Raiyati Land	
6	Project Cost	:	Rs. 132.38 Lakhs	
7	EMP Budget	:	Capital: Rs. 29.62 lakhs	Recurring: Rs. 28.73 Lakh / year
8	New or Expansion	:	New	
9	Mineable Reserves	:	cum.: 2,73,192 cum	Tonnes: 7,92,256.8 tones
10	Mine Life	:	8 years	
11	Man power	:	20	
12	Water Requirement	:	13.3 KLD (Drinking: 0.30 KLD, Dust Suppression: 3.20 KLD, Plantation: 9.8 KLD)	
13	Water Source	:	By authorised hired water tankers	
14	DG Set / power	:	-	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Pond- 0.15 km. in SE direction of mine site	
17	Nearest Habitation	:	Bhuska Village (0.25 Km) in South Direction	
18	Nearest Rail Station	:	Pakur Railway station, approx. 4.61 km towards NE direction.	
19	Nearest Air Port	:	Deoghar Airport, approx. 114.64 km towards SW direction	
20	Nearest Forest	:	More Than 250m, as per Division Forest Officer NOC, letter no.- 152 Dated-22/01/2022	
21	Road & Highways	:	The distance of Approach Road is 800m, after that this road connects to NH 133A at 3.32 km away.	
22	Approach Road	:	The distance of Approach Road is 800m	
23	Need Based SE Budget	:	Rs. 6.0 Lakh (Need Based Survey)	
24	Need Based SE Budget	:	6.2 lakh (As per need based)	

CO-ORDINATES

Point Id	Degree, Minute, Second	
	Latitude	Longitude
1	24° 36' 13.18048376" N	087° 49' 19.77101543" E
2	24° 36' 12.70970046" N	087° 49' 20.07179018" E
3	24° 36' 12.40407450" N	087° 49' 19.85493718" E
4	24° 36' 12.00147887" N	087° 49' 19.49896703" E
5	24° 36' 11.67668101" N	087° 49' 20.29208057" E
6	24° 36' 11.28214282" N	087° 49' 20.94279349" E
7	24° 36' 10.94286617" N	087° 49' 21.45205832" E
8	24° 36' 10.67171606" N	087° 49' 21.96443130" E
9	24° 36' 10.59667107" N	087° 49' 22.15036537" E
10	24° 36' 10.39041882" N	087° 49' 22.30491334" E
11	24° 36' 10.20267390" N	087° 49' 22.72551809" E

12	24° 36' 10.10476305" N	087° 49' 22.96680008" E
13	24° 36' 10.02760565" N	087° 49' 23.05144984" E
14	24° 36' 09.39256165" N	087° 49' 22.85484743" E
15	24° 36' 08.90881105" N	087° 49' 22.80365645" E
16	24° 36' 08.68400377" N	087° 49' 22.74247451" E
17	24° 36' 08.60054695" N	087° 49' 22.68894503" E
18	24° 36' 08.23434724" N	087° 49' 22.68129764" E
19	24° 36' 08.23203010" N	087° 49' 22.31422387" E
20	24° 36' 07.90786288" N	087° 49' 22.21230280" E
21	24° 36' 07.72591777" N	087° 49' 22.16673837" E
22	24° 36' 07.60460532" N	087° 49' 22.09165794" E
23	24° 36' 07.64169630" N	087° 49' 21.71183828" E
24	24° 36' 07.62475727" N	087° 49' 21.31338424" E
25	24° 36' 07.83104712" N	087° 49' 21.33632814" E
26	24° 36' 08.05466068" N	087° 49' 20.86041918" E
27	24° 36' 08.08245665" N	087° 49' 20.28941708" E
28	24° 36' 07.73660275" N	087° 49' 20.05677101" E
29	24° 36' 07.45465984" N	087° 49' 19.92648452" E
30	24° 36' 07.27851294" N	087° 49' 19.98001664" E
31	24° 36' 07.07848786" N	087° 49' 20.10766902" E
32	24° 36' 06.93477806" N	087° 49' 20.15100479" E
33	24° 36' 06.77183040" N	087° 49' 20.13319147" E
34	24° 36' 06.38475770" N	087° 49' 19.96494855" E
35	24° 36' 06.24043508" N	087° 49' 19.88240047" E
36	24° 36' 05.89600061" N	087° 49' 19.81245208" E
37	24° 36' 05.72057483" N	087° 49' 20.15654328" E
38	24° 36' 05.70960441" N	087° 49' 20.26029031" E
39	24° 36' 05.68181658" N	087° 49' 20.32401932" E
40	24° 36' 05.13202801" N	087° 49' 20.03602031" E
41	24° 36' 04.74160696" N	087° 49' 19.83794345" E
42	24° 36' 04.09728882" N	087° 49' 19.51165318" E
43	24° 36' 03.54432094" N	087° 49' 19.19850231" E
44	24° 36' 03.57754741" N	087° 49' 18.41854279" E
45	24° 36' 03.65063697" N	087° 49' 18.04265936" E
46	24° 36' 03.69160123" N	087° 49' 17.47088445" E
47	24° 36' 04.40372837" N	087° 49' 17.52523135" E
48	24° 36' 04.44239828" N	087° 49' 17.02825332" E
49	24° 36' 04.49559371" N	087° 49' 17.02703242" E
50	24° 36' 04.55291514" N	087° 49' 17.06209812" E
51	24° 36' 04.94800654" N	087° 49' 17.07775955" E
52	24° 36' 05.53291766" N	087° 49' 16.81014020" E
53	24° 36' 05.70401685" N	087° 49' 16.44825772" E
54	24° 36' 05.81527932" N	087° 49' 16.29777178" E
55	24° 36' 06.07527875" N	087° 49' 16.70200668" E
56	24° 36' 06.52491044" N	087° 49' 16.81555595" E
57	24° 36' 06.99424403" N	087° 49' 16.99464192" E
58	24° 36' 07.01418346" N	087° 49' 17.06431904" E
59	24° 36' 06.97336247" N	087° 49' 17.11547846" E
60	24° 36' 06.95877610" N	087° 49' 17.29213091" E

61	24° 36' 06.71101013" N	087° 49' 17.49991142" E
62	24° 36' 06.50655947" N	087° 49' 17.65222824" E
63	24° 36' 06.69453389" N	087° 49' 17.77856752" E
64	24° 36' 06.83146478" N	087° 49' 17.83948224" E
65	24° 36' 06.90958915" N	087° 49' 18.20290024" E
66	24° 36' 06.82453592" N	087° 49' 18.59056367" E
67	24° 36' 06.91799657" N	087° 49' 18.62808471" E
68	24° 36' 07.45052004" N	087° 49' 18.60687772" E
69	24° 36' 07.60237905" N	087° 49' 18.54770316" E
70	24° 36' 07.69217084" N	087° 49' 18.58432198" E
71	24° 36' 07.69980871" N	087° 49' 18.78719196" E
72	24° 36' 08.28269245" N	087° 49' 18.77788871" E
73	24° 36' 08.27199309" N	087° 49' 19.04042169" E
74	24° 36' 08.25727298" N	087° 49' 19.19977402" E
75	24° 36' 08.40097863" N	087° 49' 19.27624824" E
76	24° 36' 08.41865686" N	087° 49' 19.40272423" E
77	24° 36' 08.44184799" N	087° 49' 19.68057725" E
78	24° 36' 08.60750110" N	087° 49' 19.70901556" E
79	24° 36' 08.70305476" N	087° 49' 19.67879921" E
80	24° 36' 09.14072651" N	087° 49' 19.69619579" E
81	24° 36' 09.31111905" N	087° 49' 19.30928021" E
82	24° 36' 09.50678374" N	087° 49' 19.06918760" E
83	24° 36' 09.74078780" N	087° 49' 18.91685017" E
84	24° 36' 09.75268778" N	087° 49' 18.71427402" E
85	24° 36' 09.63680306" N	087° 49' 17.99032485" E
86	24° 36' 09.58876633" N	087° 49' 17.68974639" E
87	24° 36' 09.59160382" N	087° 49' 17.41410025" E
88	24° 36' 09.65574289" N	087° 49' 17.33181109" E
89	24° 36' 09.76747872" N	087° 49' 17.30313643" E
90	24° 36' 09.95430692" N	087° 49' 17.39526784" E
91	24° 36' 10.71039590" N	087° 49' 17.39481021" E
92	24° 36' 11.09280546" N	087° 49' 17.45854083" E
93	24° 36' 11.43627178" N	087° 49' 17.55104466" E
94	24° 36' 11.80870819" N	087° 49' 17.56567713" E
95	24° 36' 11.85155092" N	087° 49' 17.79931398" E
96	24° 36' 11.86165268" N	087° 49' 18.11070528" E
97	24° 36' 12.14672260" N	087° 49' 18.13874616" E
98	24° 36' 12.14081448" N	087° 49' 18.51225553" E
99	24° 36' 12.41854764" N	087° 49' 18.55021616" E
100	24° 36' 12.79517035" N	087° 49' 19.16160924" E

LAND DETAILS

Khata no.	Plot no.
23	675 & 676
32	801 & 802
12	686 & 687

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Pakur vide memo no. 1349/M, dated 22.08.2024.
2	CO	:	The CO, Pakur vide letter no. 26/Ra., dated 12.01.2021 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II also mentioned that the habitation of 12 houses at a distance of 250 meters and Pond at a distance of 300 fit of proposed project site. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Pakur vide memo no. 1414/M, dated 04.09.2024 certified that 02 LOI (5.75 Acre & 5.40 Acre) and 04 other mining lease area (7.00 Acre, 4.93 Acre, 5.43 Acre & 6.27 Acre) exists within 500 meters radius from proposed project site and total area is 40.66 Acre or 16.45 Ha.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 1934, dated 02.11.2021 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Lake Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Pakur Forest Division vide letter no. 153, dated 22.01.2022 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The DMO, Pakur has been certified vide memo no. 1413/M, dated 04.09.2024 that this project is mentioned in approved DSR of Pakur District as a potential area (Sl. no. 01, Page no. 45).
7	Gram Sabha	:	BDO, Pakur vide letter no. 141/Vi. Dated 20.01.2022 informed that Gram Sabha conducted on 15.01.2022.
8	Mine Plan Approval	:	Approved by District Mining Officer, Pakur vide Memo No. 1605/M, dated 25.09.2024.
9	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Baseline Monitoring period	:	October, 2024 to December, 2024.
11	Public Hearing	:	Public Hearing conducted on 18.08.2025.

Working Details

1	Mining Method	:	Opencast Fully mechanised method
2	Quarry Area	:	1.691 ha
3	Waste Generation	:	24432 cum.
4	Stripping Ratio	:	1:00:04
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	45m AMSL to 41m AMSL
8	Ground Level Elevation	:	41m AMSL
9	Ultimate Working Depth	:	12.5 m AMSL
10	Water Table	:	5 m AMSL (Source: JSAC Ground water Prospect Map)
11	Topography of Mine	:	The area represents an inclined of Basalt trending is East to West.
12	Explosive Requirement	:	51.6 kg/day
13	Diesel/Fuel requirement	:	274 litre/day

Production Details

Year	Production of Stone		Removal of O.B.
	in cum	in tons	in cum
1st	26820	77778	9450
2nd	27630	80127	0
3rd	34380	99702	0
4th	43956	127472	14982
5th	50226	145655	0
Total	183012	530735	24432

Land Use

Si. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha.)	Proposed Land use for current plan period (Ha.)	Land to be used in remaining period of the life of the mine. (Ha.)	Land used at the conceptual stage i.e. end of mine life in (Ha.)	Area to be converted in the conceptual period.
1	Mining Activities	0	1.691	1.691	1.484	Water Body
2	Dead Benches	0	0.000	0.000	0.207	Plantation
3	Garland drain	0	0.040	0.040	0.040	Plantation
4	Settling Tank	0	0.008	0.008	0.008	-

5	Safety Zone	0	0.640	0.640	0.640	Plantation
6	Unutilized	2.379	0.000	0.000	0.000	-
Total		2.379	2.379	2.379	2.379	-

Green Belt Development

Year	Location	No. of Plants	Area to be Covered (Ha)
1 st Year	Within 7.5m in Safety Zone Area	1600	0.640
Conceptual	Dead Benches	518	0.207
Conceptual	Garland drain	100	0.040
1 st Year	Approach Road	1064	800 m
Total		3,282	0.887

Note-3,282 tree proposed to be planted i.e. 10% plantation will be carried out i.e. (328 trees) as per MoEF&CC, Govt. of India Scheme "Ek Ped Ma Ke Naam".

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Sl. No.	Head	Capital Cost Rs. in Lakhs	Recurring Cost Rs. in Lakhs
1.	Government Revenue (Dead Rent & Royalty)	24.00	--
2.	Cost of infrastructure	5.0	0.5
3.	Mining Machineries owned by applicant a. Wagon Drill -01 b. Compressor-01 c. Tippers 25 tons-03 d. Diesel Pump-01 e. D.G. Set-01	84.35	-
	Mining Machineries on hired basis- (Excavator- 01, Tipper-04)		3.25

4.	Lease Agreement(lump-sum)	--	1.50
5.	Statutory Clearance & Others	5.55	-
6.	Contingency	13.48	-
Total		132.38	5.25

ENVIRONMENT MANAGEMENT PLAN (EMP)

S. No.	EMP Activity	Capital Cost (₹ in Lakhs)	Recurring Cost (₹ in Lakhs)
1.	Air Pollution Control (Water Sprinkling)	-	5.00
2.	Water Pollution Control (Garland drains, settling tank, rainwater harvesting)	4.00	1.00
3.	Noise & Vibration Control (acoustic enclosures, monitoring)	1.50	0.50
4.	Occupational Health & Safety (PPE, health camps, first aid, training)	1.50	2.00
5.	Greenbelt Development (plantation, maintenance)	17.38	1.73
6.	Environmental Monitoring (air, water, noise, soil)	1.24	5.00
7.	PH Compliance Budget	4.00	13.50
Total		29.62	28.73

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	7 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 6 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	7stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	5 stations	Six Monthly

Summary of Baseline Data:

Monitoring season - October 2024 to December 2024 (Post Monsoon)

Parameter	No. of Locations	Environmental Baseline Study
Ambient Air	7 locations	PM2.5- 36.00 µg/m ³ to 57.00 µg/m ³

Quality Monitoring		PM10- 63 µg/m ³ to 86 µg/m ³ SO2- 6.4 µg/m ³ to 11.6 µg/m ³ NO2- 15.2 µg/m ³ to 30.7 µg/m ³
Noise level monitoring	7 locations	During daytime- 61.0 to 67.5 dB(A) During Night time- 38.1 to 40.1 dB(A) Results were found within permissible limits
Water samples	Surface water – 2 locations	All parameters pH (7.84 - 8.09), Chloride (40.8 - 42.6 mg/l), Sulphate (12.7 to 15.3 mg/l), Calcium (53.1 – 58.9 mg/l), etc. are found within permissible limits
	Ground water- 6 locations	All parameters like TDS (276 – 418 mg/l), pH (7.01- 7.88), Chloride (32.2- 45.3 mg/l), Fluoride etc. are found within permissible limits & fit for consumption.
Soil Samples	5 locations	pH- 6.0 -6.5 Phosphorus ranges from 6.2 to 7.0 kg/ha. Sodium ranges from 14.9 to 16.8 mg/kg. Total potassium ranges from 53.4 to 61.1 kg/ha. Nitrogen content varies from 374 to 411 kg/ha.
EB	-	No endangered Species found in the study area. *No. Of Flora Species found in Study Area- 118 Nos *No. of Fauna Species found in Study Area - 30 Nos

Public Hearing (Action Plan) –

Sl. No.	Issue Raised	Commitment by Project Proponent	Time Frame	Funds to be Spent	
				Capital (in Lakhs)	Recurring (in Lakhs)
1	Education & health facilities; fencing of Jaher Thana and Majhi Thana	Schools, hospitals, solar facilities will be provided in coordination with concerned departments. Jaher Thana and Majhi Thana will be properly fenced.	Within 12 months of project commencement	2.00	1.50
2	Priority employment to rural youth	Local villagers will be given employment preference as per qualification during mine development and throughout project operation.	0–6 months and throughout project life	-	5.00
3	Financial and medical assistance to villagers	Financial assistance during illness, first-aid facilities, and support for village development works will be provided.	Annually during project operation	-	0.50
4	Support to local and poor people; repair of hand pumps	Employment preference to locals, repair of damaged hand pumps, and financial assistance to poor villagers.	Within 1 year of project commencement	-	2.50
5	Road to health	Road to the health centre will	Within 1 year of	2.00	3.00

	centre / shifting of health centre	be constructed using solar and morrum. If required, the health centre will be shifted to a suitable roadside location in coordination with the concerned department.	project commencement		
6	Plantation around mine and approach road	Plantation will be carried out around the mine area and along the roadside (outside mine lease area).	During project operation	-	1.00
	Total			4.00	13.50

SE Need based Survey detail (included in CSR)

Zone	Coverage & Survey Details	Key Socio-Economic Observations	Workforce Characteristics	Priority Needs (Focused)	Proposed Budget (₹ Lakhs)	Implementation Timeline
0–2 km	Villages: 6 Households surveyed: 20 Population covered: 105 FGDs Conducted: 1	Balanced gender composition with presence of children and vulnerable groups. Proximity to mine increase's sensitivity to dust, traffic and occupational health issues.	Low workforce participation (~28%); dominance of informal and "other" occupations indicating livelihood instability.	- Preventive healthcare & health check-ups - Local skill development linked to mine & allied activities	3.5	Short-term & ongoing (Year 1–2)
2–5 km	Villages: 10 Households surveyed: 25 Population covered: 115 FGDs Conducted: 0	Moderate literacy levels with gender disparity; limited access to secondary education and structured training facilities.	Mixed workforce pattern; dependence on agriculture and daily wage labour.	- Education support (secondary level / scholarships) - Agricultural productivity support (inputs, awareness)	2.5	Medium-term (Year 2–3)
Total (0–5 km)	Villages: 16 Households surveyed: 45 Population covered: 220	Predominantly rural population with notable ST/SC presence; focused needs around health, education and livelihood security.	High informal employment and agriculture dependence.	Targeted SE interventions with zone-specific priorities	6.0	Phased over 3 years

Total Budget (included in CSR)	Rs. 6.0 Lakh

Environment Management Practices to be followed:

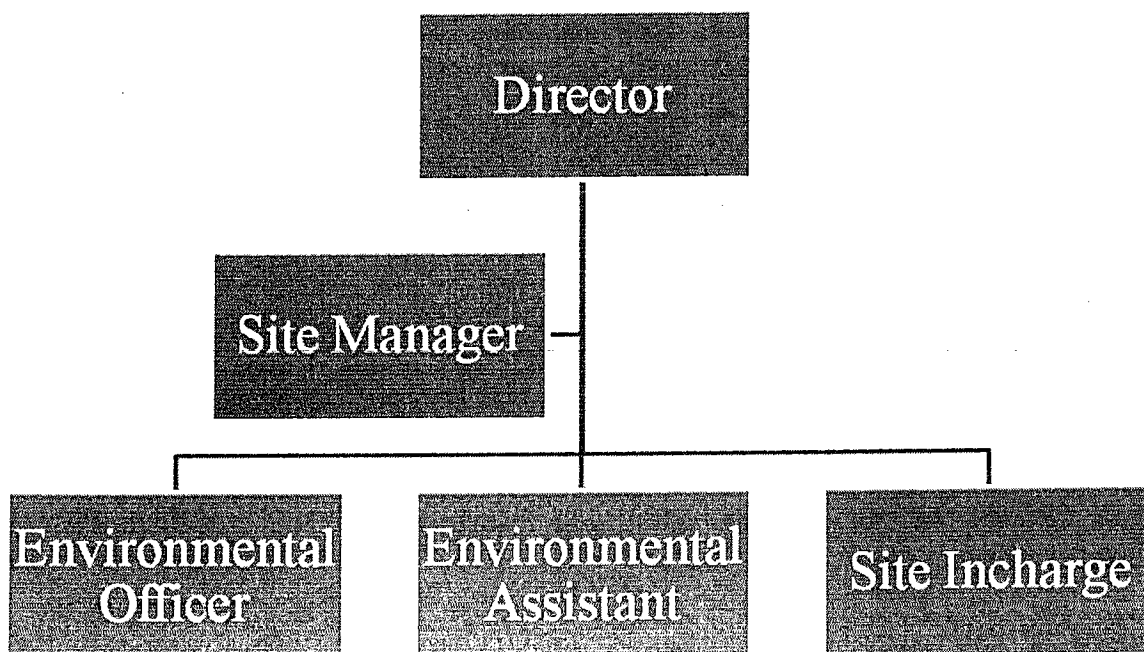
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 24432 cum of Intercalated Waste will be generated during the plan period which will be used in maintenance of haul road and approach road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation.

	- Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas - Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	No tree felling will be undertaken without obtaining permission from the competent authority. Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	- Priority employment to local people in mining and ancillary activities. Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. - Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. - All monitoring reports will be submitted to statutory authorities as per the compliance schedule. Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: - Overall slope angles of benches will be maintained at 45°. - Unmanageable heights are not created. - Loose sides are properly dressed. - No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). - No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) - It will be ensured that the drilling equipment is suitable for the job. - The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. - Provision of portable rail fencing between the drilling operations and the edge of the bench - Provision to attach a safety line to the drilling rig and provide a

		harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting Handling Explosives	& of	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards		Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and

	precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting, operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

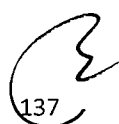
- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Bhuska Stone Mine of M/s Mandhan Minerals Corporation Ltd., Village : Bhuska, Thana : Pakur, Distt.: Pakur, Jharkhand (2.379 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.



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4. **Bhuska Stone Mine of M/s Mandhan Minerals Corporation Ltd., Village : Bhuska, Thana : Pakur, Distt.: Pakur, Jharkhand (2.185 Ha).**

(Proposal no.: SIA/JH/MIN/555924/2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

This is a new project which was listed for consideration on 21.12.2025. On the request of PAs this was taken up for consideration on 22.12.2025.

Project Sector: 1 (a) Mining of Minerals, Category: B1.

Application for Environmental Clearance (EC) after ToR.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 118th meeting held on 22.10.2024 - 26.10.2024 and SEIAA, Jharkhand has approved the ToRs in 118th meeting held on 28th & 29th November, 2024. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3284/2024/409, dated 06.12.2024. The final EIA / EMP submitted by PP to SEAC on 15.12.2025.

EC Application for: Proposed Capacity – 65,016 cum/annum or 1,88,546 TPA.

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Bhuska Stone Mine
2	Lessee	: M/S Mandhan Minerals Corporation, 1. Partner – Shri Anil Kumar Tanwani 2. Shri Dinesh Tanwani 3. Shri Suresh Kumar Tanwani 4. Shri Bhavesh Tanwani 5. Shri Piyush Tanwani
3	Lessee Address	: Shri Dinesh Tanwani, S/o Indra Kumar Tanwani, R/o Sindhipara, Pakur.
4	Lease Area	: 2.185 Ha Acres- 5.40 Acres
5	Cluster Details	: 10 no of mines including project site having total cluster area 61.539 Acres/24.90 Ha.
6	Type of Land	: Non-Forest Raiyati Land
7	Project Cost	: Rs. 129.08 Lakhs
8	EMP Budget	: Capital: Rs. 29.93 lakhs Recurring: Rs. 25.72 Lakh / year
9	New or Expansion	: New
10	Mineable Reserves	: cum.: 3,62,488 cum Tonnes: 10,51,215 tones
11	Mine Life	: 8 years
12	Man power	: 23
13	Water Requirement	: 9.5 KLD (Drinking: 0.345 KLD, Dust Suppression: 3.20 KLD, Plantation: 6 KLD)
14	Water Source	: By authorised hired water tankers

15	DG Set / power	:	-
16	Crusher	:	No crusher
17	Nearest Water Body	:	Turai River- 7 km. in S.W direction of mine site
18	Nearest Habitation	:	Bhuska Village (0. 682 Km) in SW Direction
19	Nearest Rail Station	:	Pakur Railway station, approx. 4.61 km in NE direction.
20	Nearest Air Port	:	Deoghar Airport, approx. 114.64 km towards SW direction
21	Nearest Forest	:	More Than 250m, as per Division Forest Officer NOC, letter no.- 153 Dated-22/01/2022.
22	Road & Highways	:	NH-133A, Approx. 3.32 km in North direction
23	Approach Road	:	The distance of Approach Road is 800m
24	SE Budget	:	Rs. 6.5 Lakh (Need Based Survey)

CO-ORDINATES

Point No.	Degree, Minutes, Seconds	
	Longitude (E)	Latitude (N)
1	087° 49' 27.55858890" E	24° 36' 24.38844562" N
2	087° 49' 27.11449487" E	24° 36' 24.76180148" N
3	087° 49' 26.67238099" E	24° 36' 25.46433228" N
4	087° 49' 26.41847358" E	24° 36' 25.89992097" N
5	087° 49' 26.18638359" E	24° 36' 26.26167650" N
6	087° 49' 25.49077397" E	24° 36' 26.43539628" N
7	087° 49' 24.85315145" E	24° 36' 26.41414335" N
8	087° 49' 24.24136142" E	24° 36' 26.36779093" N
9	087° 49' 24.21188716" E	24° 36' 26.80524167" N
10	087° 49' 24.16807407" E	24° 36' 26.91025875" N
11	087° 49' 24.17824509" E	24° 36' 27.33720437" N
12	087° 49' 24.18002310" E	24° 36' 27.66710528" N
13	087° 49' 24.33569331" E	24° 36' 28.24844983" N
14	087° 49' 24.15457495" E	24° 36' 28.28598282" N
15	087° 49' 24.27123717" E	24° 36' 28.85162477" N
16	087° 49' 24.49069772" E	24° 36' 29.43428267" N
17	087° 49' 24.62689110" E	24° 36' 29.60257605" N
18	087° 49' 24.82803053" E	24° 36' 29.96378075" N
19	087° 49' 25.12598125" E	24° 36' 30.31317654" N
20	087° 49' 25.25440821" E	24° 36' 30.48594715" N
21	087° 49' 25.27933330" E	24° 36' 30.72344868" N
22	087° 49' 25.48644971" E	24° 36' 30.91175352" N
23	087° 49' 25.49553097" E	24° 36' 31.61485412" N

Point No.	Degree, Minutes, Seconds	
	Longitude (E)	Latitude (N)
24	087° 49' 26.04614199" E	24° 36' 31.48970403" N
25	087° 49' 26.54831964" E	24° 36' 31.38772986" N
26	087° 49' 26.91029540" E	24° 36' 31.30661402" N
27	087° 49' 27.37508344" E	24° 36' 31.20812352" N
28	087° 49' 27.97395238" E	24° 36' 30.12767169" N
29	087° 49' 28.38243420" E	24° 36' 29.41430500" N
30	087° 49' 28.86927899" E	24° 36' 28.70741149" N
31	087° 49' 29.29122078" E	24° 36' 28.15189578" N
32	087° 49' 29.40745501" E	24° 36' 27.79114745" N
33	087° 49' 29.61779255" E	24° 36' 26.99255064" N
34	087° 49' 29.82136385" E	24° 36' 26.45464071" N
35	087° 49' 30.04164067" E	24° 36' 25.90139266" N
36	087° 49' 30.15257860" E	24° 36' 25.58842070" N
37	087° 49' 29.39717209" E	24° 36' 25.38110213" N
38	087° 49' 29.22102632" E	24° 36' 25.18348509" N
39	087° 49' 28.67938822" E	24° 36' 25.31095455" N
40	087° 49' 28.10750616" E	24° 36' 24.88297406" N

LAND DETAILS

Khata no.	Plot no.
16	880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895 & 896

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Pakur vide memo no. 1150/M, dated 25.07.2024.
2	CO	:	The CO, Pakur vide letter no. 1299/Ra., dated 11.12.2021 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyani & Register II.
3	DMO Cluster	:	DMO, Pakur vide memo no. 1334/M, dated 21.08.2024 certified that 10 other mining lease area (6.62 Acre, 5.43 Acre, 4.93 Acre, 5.44 Acre, 5.36 Acre, 3.11 Acre, 6.27 Acre, 6.83 Acre, 5.147 Acre & 7.00 Acre) exists within 500 meters radius from proposed project site and total area is 61.539 Acre or 24.90 Ha.

4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 1933, dated 02.11.2021 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Lake Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Pakur Forest Division vide letter no. 151, dated 22.01.2022 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The DMO, Pakur has been certified vide memo no. 1341/M, dated 21.08.2024 that this project is mentioned in approved DSR of Pakur District as a potential area (Sl. no. 01, Page no. 45).
7	Gram Sabha	:	BDO, Pakur vide letter no. 2544/Vi. Dated 28.12.2021 informed that Gram Sabha conducted on 15.12.2021.
8	Mine Plan Approval	:	Approved by District Mining Officer, Pakur vide Memo No. 1611/M, dated 26.09.2024.
9	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Baseline Monitoring period	:	October, 2024 to December, 2024.
11	Public Hearing	:	Public Hearing conducted on 25.07.2025.

Working Details

1	Mining Method	:	Opencast Fully mechanised method
2	Quarry Area	:	1.570 ha.
3	Waste Generation	:	24,934 cum.
4	Stripping Ratio	:	01:0.04
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	63 AMSL to 53 AMSL
8	Ground Level Elevation	:	53 AMSL
9	Ultimate Working Depth	:	16.5 AMSL
10	Water Table	:	5m AMSL (Source: JSAC Ground water Prospect Map)
11	Topography of Mine	:	The area represents a moderately sloping land with rock mass of Basalt
12	Explosive Requirement	:	60.2 kg/day

13	Diesel/Fuel requirement	:	315 litre/day

Production Details

Year	Production of Stone		Removal of O.B.
	in cum	in tons	in cum
1st	65016	188546	24934
2nd	44280	128412	0
3rd	39600	114840	0
4th	37620	109098	0
5th	32940	95526	0
Total	219456	636422	24934

Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Land Use (Ha)	Land to be used in remaining period of the life of mine (Ha.)	Conceptual Land Use (Ha)	Area to be converted in the conceptual period
1	Mining Activities	0	1.57	1.57	1.57	Water body
2	Offices / Store etc.	0	0.001	0.001	0.001	Plantation
3	Dumping	0	0.07	0.07	0.07	Plantation
4	Garland drain	0	0.03	0.03	0.03	-
5	Settling Tank	0	0.01	0.01	0.01	-
6	Safety Zone / Green Belt	0	0.5	0.5	0.5	Plantation
7	Unutilized	2.185	0.004	0.004	0.004	Plantation
	TOTAL	2.185	2.185	2.185	2.185	-

Green Belt Development

S. No.	Location	:	Area/Length	No. Of Trees
1	Safety Zone	:	0.500 ha	800
2	Office	:	0.001	2
3	Dumping	:	0.07	112
4	Unutilized	:	0.004	6
5	Along Approach Road	:	0.800 m	1064 Tree both side approach road (2 rows)
	Total		0.575	1,984

Note- 1984 tree proposed to be planted i.e. 10% plantation will be carried out i.e. (198 trees) as per MoEF&CC, Govt. of India Scheme "Ek Ped Ma Ke Naam".

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Sl. No.	Particular	Capital Cost (Rs. in Lakhs)
1.	Cost of Infrastructure	5.00
2.	Machinery & Equipment	102.00
3.	Miscellaneous	13.08
4.	Contingency	9.00
Total Project Cost		129.08

ENVIRONMENT MANAGEMENT PLAN (EMP)

S. No.	EMP Activity	Capital Cost (₹ in Lakhs)	Recurring Cost / Year (₹ in Lakhs)
1.	Air Pollution Control (Water sprinkling)	-	5.00
2.	Water Pollution Control (Garland drains, settling tank, rainwater harvesting)	4.00	1.00
3.	Noise & Vibration Control (acoustic enclosures, monitoring)	1.50	0.50
4.	Occupational Health & Safety (PPE, health camps, first aid, training)	1.50	1.00
5.	Greenbelt Development (plantation, maintenance)	12.19	1.22
6.	Environmental Monitoring (air, water, noise, soil)	1.24	5.00
7.	PH Compliance Budget	9.50	12.00
Total		29.93	25.72

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of	7 Stations	Six Monthly

	the mine area. In the surrounding area covering project site only.		
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 6 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	7 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	5 stations	Six Monthly

Summary of Baseline Data:

Monitoring season - October 2024 to December 2024 (Post Monsoon)

Parameter	No. of Locations	Environmental Baseline Study
Ambient Air Quality Monitoring	7 locations	PM10 = 86 µg/m ³ to 61 µg/m ³ PM2.5 = 57 µg/m ³ to 36 µg/m ³ SO ₂ = 11.6 µg/m ³ to 6.4 µg/m ³ NO _x = 30.7 µg/m ³ to 15.2 µg/m ³
Noise level monitoring	7 locations	Daytime 67.5 to 61 dB(A) Night-time 40.1 to 38.1 dB(A) Day-Night time 27.4 to 22.9 dB(A)
Water samples	Surface water – 2 locations	pH – 8.09 to 7.84 TDS – 513 to 442 mg/l Sulphate – 15.3 to 12.7 mg/l Fluoride – 0.271 to 0.265 mg/l Total Hardness – 224.3 to 192.5 mg/l
	Ground water- 6 locations	Turbidity – 4.61 to 0.38 NTU pH – 7.88 to 7.01 Total Hardness – 125.6 to 80.2 mg/l TDS – 418 to 306 mg/l Sulphate – 20.8 to 12.3 mg/l
Soil Samples	5 locations	pH – 6.6 to 6 Potassium – 61.1 to 53.4 kg/ha Nitrogen – 411 to 374 kg/ha
EB	-	No endangered Species found in the study area. *No. Of Flora Species found in Study Area- 118 Nos *No. of Fauna Species found in Study Area - 30 Nos

Public Hearing (Action Plan) –

Sl. No.	Issue Raised	Commitment by Project Proponent (Brief)	Time Frame	Funds to be Spent	
				Capital (in Lakhs)	Recurring (in Lakhs)
1	Books, copies, and transport for	Books, copies, pens, and tempo	Within 6 months of project	-	1.50

	children's education	transport for school children will be arranged under CSR.	commencement		
2	Employment for youth; plantation; education support; repair of Manjhi Sthan	Employment to villagers as per capability, roadside plantation, support for children's education, and repair of Manjhi Sthan under CSR.	Within 6-12 months	-	2.00
3	Fencing of Manjhi Sthan & Jaher Thana; road repair; books	Fencing of Manjhi Sthan and Jaher Thana, repair of school road, and supply of books and stationery under CSR.	Within 6 months	1.00	2.50
4	Health facilities and ambulance	Health facilities and one ambulance will be arranged under CSR.	Within 12 months	5.00	-
5	Football ground levelling and club house	Football ground will be levelled and a club house will be developed under CSR.	Within 12 months	-	1.50
6	Support to poor children; club house items; marriage assistance	Books for poor children, club house arrangement, and community marriage support under CSR.	Within 12 months	-	2.00
7	Tuition teacher for children	A tuition teacher will be engaged for children's education under CSR.	Within 3-6 months	-	1.50
8	Community house for women	A community house for women's meetings will be arranged under CSR.	Within 12 months	3.00	-
9	Employment, widow assistance, sports support	Employment to villagers during operation; assistance to widows and jerseys for football players under CSR.	Employment: during operation; others within 12 months	0.50	1.00
	Total			9.50	12.00

SE Need based Survey detail (included in CSR)

Zone	Coverage & Survey Details	Key Socio-Economic Observations	Workforce Characteristics	Priority Needs (Focused)	Proposed Budget (₹ Lakhs)	Implementation Timeline
0–2 km	Villages: 8 Households surveyed: 24 Population covered: 110 FGDs Conducted: 1	Balanced gender composition with presence of children and vulnerable groups. Proximity to mine increase's sensitivity to dust, traffic and occupational health issues.	Low workforce participation (~35%); dominance of informal and "other" occupations indicating livelihood instability.	- Preventive healthcare & health check-ups - Local skill development linked to mine & allied activities	4.0	Short-term & ongoing (Year 1–2)
2–5 km	Villages: 15 Households surveyed: 28 Population covered: 125 FGDs Conducted: 0	Moderate literacy levels with gender disparity; limited access to secondary education and structured training facilities.	Mixed workforce pattern; dependence on agriculture and daily wage labour.	- Education support (secondary level / scholarships) - Agricultural productivity support (inputs, awareness)	2.5	Medium-term (Year 2–3)
Total (0–5 km)	Villages: 23 Households surveyed: 52 Population covered: 235	Predominantly rural population with notable ST/SC presence; focused needs around health, education and livelihood security.	High informal employment and agriculture dependence.	Targeted SE interventions with zone-specific priorities	6.5	Phased over 3 years
Total Budget (included in CSR budget)					Rs 6.5 Lakh	

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 24,934 cum of Intercalated Waste will be generated during the plan period which will used in maintenance of haul road and approach road.
Air Quality Management	Wet drilling and use of sharp drill bits to minimize dust generation. Controlled blasting using optimum explosive charge during favorable weather conditions.

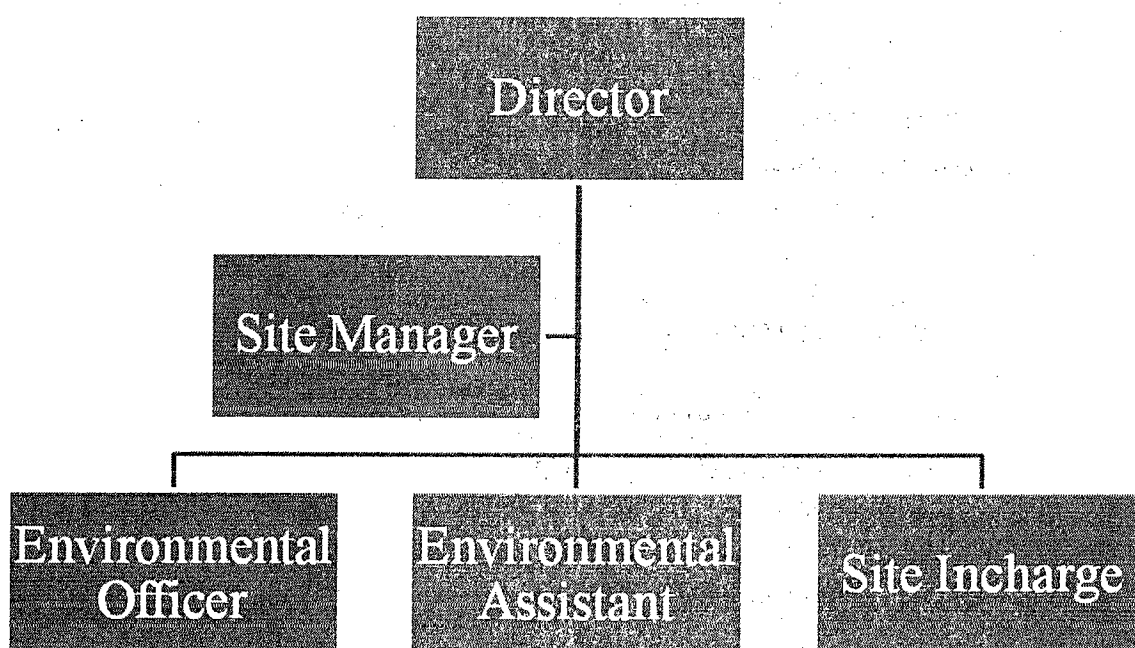
	• Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities.

	• Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.

Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic.

	Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard

- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Bhuska Stone Mine of M/s Mandhan Minerals Corporation Ltd., Village : Bhuska, Thana : Pakur, Distt.: Pakur, Jharkhand (2.185 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged

photographs.

- V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VI. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

5. Narayandih Stone Mine of M/s Rishi Stone Works (Partners : (i) Shri Pankaj Bhagat (ii) Shri Suraj Bhagat (iii) Shri Binay Kumar Mandal), Village : Narayandih, Thana no. : 85, Thana : Hiranpur, Distt.: Pakur, Jharkhand (2.47 Ha).

(Proposal no.: SIA/JH/MIN/556685/2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 21.12.2025.

Project Sector: 1 (a) Mining of Minerals, Category: B1.

Application for Environmental Clearance (EC) after ToR.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 115th meeting held on 23.07.2024 - 27.07.2024 and SEIAA, Jharkhand has approved the ToRs in 115th meeting held on 06th & 07th August, 2024. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3190/2024/222, dated 16.08.2024. The final EIA / EMP submitted by PP to SEAC on 15.12.2025.

EC Application for: Proposed Capacity – 37,440 cum/annum or 1,08,576 TPA.

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Narayandih Stone Mine
2	Lessee	: M/s Rishi Stone Works, (Partner – (i) Shri Pankaj Bhagat, (ii) Shri Suraj Bhagat, (iii) Shri Binay Kumar Mandal)
3	Lessee Address	: M/s Rishi Stone Works Partner's: Shri Pankaj Bhagat, Shri Suraj Bhagat and Shri Binay Kumar Mandal R/o - Village- Kushmaha, Thana- Bossi, District – Banka, State – Bihar
4	Lease Area	: 2.47 Ha Acres- 6.12 Acres
5	Cluster Details	: 2 mines including project site having total area 19.79 Acres/ 8.00 Ha.
7	Type of Land	: Non-Forest Raiyati Land
8	Project Cost	: Rs. 138.00 Lakhs
9	EMP Budget	: Capital: Rs. 28.80 lakhs Recurring: Rs. 24.90 Lakh / year
10	New or Expansion	: New
11	Mineable Reserves	: cum.: 2,42,711 cum Tonnes: 7,03,862 tones
11	Mine Life	: 9 years
12	Man power	: 24
13	Water Requirement	: 10.92 KLD (Drinking: 0.360 KLD, Dust Suppression: 1.52 KLD, Plantation: 9.036 KLD)
14	Water Source	: By authorised hired water tankers
15	DG Set / power	: -
16	Crusher	: No crusher
17	Nearest Water Body	: Pdma River- 34.18 km. in East direction of mine site
18	Nearest Habitation	: Tangidaha Village (0. 24 Km) in SW Direction
19	Nearest Rail Station	: Pakur Railway station, approx. 14.73 km in NE direction.
20	Nearest Air Port	: Deoghar Airport, approx. 104 km towards SW direction
21	Nearest Forest	: More Than 250m, as per Division Forest Officer NOC, letter no.- 153 Dated-22/01/2022.
22	Road & Highways	: Nearest Highway is at a distance of 0.38 Km at western direction.
23	Approach Road	: The distance of Approach Road is 504m
24	SE Budget	: Rs 5.0 Lakh (as per Need Based Survey)

CO-ORDINATES

Point Name	Degree, Minute, Second	
	Latitude	Longitude
1	24° 35' 24.91452755" N	087° 43' 07.61912822" E
2	24° 35' 25.63181742" N	087° 43' 07.90425272" E

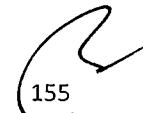
3	24° 35' 26.65856755" N	087° 43' 08.36892759" E
4	24° 35' 26.90481822" N	087° 43' 07.69645012" E
5	24° 35' 27.01298594" N	087° 43' 07.73213715" E
6	24° 35' 27.01298594" N	087° 43' 07.77674593" E
7	24° 35' 27.25906741" N	087° 43' 07.92544189" E
8	24° 35' 27.46458589" N	087° 43' 08.04439866" E
9	24° 35' 27.73230062" N	087° 43' 08.22878165" E
10	24° 35' 27.97567750" N	087° 43' 08.39829504" E
11	24° 35' 28.22803215" N	087° 43' 08.02310540" E
12	24° 35' 28.45648167" N	087° 43' 07.63483051" E
13	24° 35' 28.65897092" N	087° 43' 07.82325803" E
14	24° 35' 28.36237606" N	087° 43' 08.48156478" E
15	24° 35' 28.09195752" N	087° 43' 09.24883593" E
16	24° 35' 27.89996026" N	087° 43' 09.80793274" E
17	24° 35' 28.23527937" N	087° 43' 09.81982841" E
18	24° 35' 29.14658890" N	087° 43' 10.24509886" E
19	24° 35' 29.03301333" N	087° 43' 10.51869942" E
20	24° 35' 29.63874937" N	087° 43' 10.90233500" E
21	24° 35' 29.42511934" N	087° 43' 11.30976193" E
22	24° 35' 29.22490194" N	087° 43' 11.45667353" E
23	24° 35' 29.12106144" N	087° 43' 11.55374226" E
24	24° 35' 28.97222335" N	087° 43' 11.81259218" E
25	24° 35' 28.95491659" N	087° 43' 11.84875504" E
26	24° 35' 28.94799389" N	087° 43' 12.01053624" E
27	24° 35' 29.28893691" N	087° 43' 12.15328436" E
28	24° 35' 29.65410909" N	087° 43' 12.33790527" E
29	24° 35' 30.04004904" N	087° 43' 12.52633279" E
30	24° 35' 30.38445257" N	087° 43' 12.70714707" E
31	24° 35' 30.37752989" N	087° 43' 12.93554407" E
32	24° 35' 30.70808781" N	087° 43' 13.15061790" E
33	24° 35' 31.08018152" N	087° 43' 13.43040422" E
34	24° 35' 31.26536292" N	087° 43' 13.51795640" E
35	24° 35' 31.62534151" N	087° 43' 13.57695896" E
36	24° 35' 32.18088482" N	087° 43' 13.58076557" E
37	24° 35' 32.29164727" N	087° 43' 13.64738136" E
38	24° 35' 32.36779644" N	087° 43' 14.19743746" E
39	24° 35' 32.40587102" N	087° 43' 14.77413986" E
40	24° 35' 32.34529782" N	087° 43' 15.45552423" E
41	24° 35' 32.24145804" N	087° 43' 15.73531055" E
42	24° 35' 31.84513599" N	087° 43' 16.21494423" E
43	24° 35' 31.61322685" N	087° 43' 16.47569747" E
44	24° 35' 30.99018679" N	087° 43' 16.54421656" E
45	24° 35' 30.57309560" N	087° 43' 16.43953461" E
46	24° 35' 29.89986461" N	087° 43' 16.24159055" E
47	24° 35' 29.98488388" N	087° 43' 15.88662355" E
48	24° 35' 30.04707989" N	087° 43' 15.61004907" E
49	24° 35' 30.17147190" N	087° 43' 15.23236133" E
50	24° 35' 29.78564023" N	087° 43' 15.02537656" E
51	24° 35' 29.31489702" N	087° 43' 14.59142227" E

52	24° 35' 29.04145038" N	087° 43' 14.37444513" E
53	24° 35' 28.89339234" N	087° 43' 14.13208941" E
54	24° 35' 28.74550477" N	087° 43' 13.80154933" E
55	24° 35' 28.59666655" N	087° 43' 13.60741189" E
56	24° 35' 28.50840200" N	087° 43' 13.53889279" E
57	24° 35' 28.35610235" N	087° 43' 13.47418031" E
58	24° 35' 28.29898997" N	087° 43' 13.72732031" E
59	24° 35' 28.25572301" N	087° 43' 14.05088272" E
60	24° 35' 28.14669025" N	087° 43' 14.23169701" E
61	24° 35' 27.84901337" N	087° 43' 14.62568182" E
62	24° 35' 27.64652375" N	087° 43' 15.07295926" E
63	24° 35' 27.45614882" N	087° 43' 15.47455731" E
64	24° 35' 27.14116466" N	087° 43' 15.10912212" E
65	24° 35' 26.87463942" N	087° 43' 14.75130017" E
66	24° 35' 27.13424193" N	087° 43' 14.29640949" E
67	24° 35' 27.37826814" N	087° 43' 13.90432798" E
68	24° 35' 27.40422837" N	087° 43' 13.05164587" E
69	24° 35' 27.53576016" N	087° 43' 12.50920301" E
70	24° 35' 27.70017486" N	087° 43' 11.98769654" E
71	24° 35' 27.72959643" N	087° 43' 11.73645985" E
72	24° 35' 27.27788858" N	087° 43' 11.43383384" E
73	24° 35' 26.85560190" N	087° 43' 11.12930451" E
74	24° 35' 26.87290874" N	087° 43' 10.79812887" E
75	24° 35' 26.95944292" N	087° 43' 10.28994556" E
76	24° 35' 26.34851123" N	087° 43' 09.96067323" E
77	24° 35' 26.14775163" N	087° 43' 09.77414902" E
78	24° 35' 25.85699618" N	087° 43' 10.02728902" E
79	24° 35' 25.63200672" N	087° 43' 10.59447488" E
80	24° 35' 25.66984525" N	087° 43' 11.16627033" E
81	24° 35' 25.50945232" N	087° 43' 11.64581479" E
82	24° 35' 25.34990439" N	087° 43' 11.99673726" E
83	24° 35' 24.92534437" N	087° 43' 11.89562401" E
84	24° 35' 24.47374188" N	087° 43' 11.72016277" E
85	24° 35' 23.65559127" N	087° 43' 11.30573238" E
86	24° 35' 24.65999416" N	087° 43' 08.13659016" E

LAND DETAILS

J.B. no.	Plot no.
16	524 (P)
25	525
03	526
06	527
30	528 & 576
27	575
15	577 & 578







STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Pakur vide memo no. 377/M, dated 19.03.2024.
2	CO	:	The CO, Hiranpur vide letter no. 539/Ra, dated 25.10.2023 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II.
3	DMO Cluster	:	DMO, Pakur vide memo no. 549/M, dated 26.04.2024 certified that 02 other mining lease area (7.09 Acre & 6.58 Acre) exists within 500 m radius from proposed project site and total area is 19.79 Acre or 8.00 Ha.
4	DFO Wild Life	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. 96, dated 13.01.2024 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Pakur Forest Division vide memo no. 1569, dated 20.12.2023 certified that the distance of reserved / protected forest land is 295.2 meter from proposed project site.
6	DSR	:	The DMO, Pakur has been certified vide memo no. 550/M, dated 26.04.2024 that this project is mentioned in approved DSR of Pakur District as a potential area (Sl. no. 21/, Page no. 131).
7	Gram Sabha	:	BDO, Hiranpur vide letter no. 1145/Vi. Dated 25.10.2023 informed that Gram Sabha conducted on 25.10.2023.
8	Mine Plan Approval	:	Approved by District Mining Officer, Pakur vide Memo No. 965/M, dated 02.07.2024.
9	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Baseline Monitoring period	:	March, 2024 to May, 2024.
11	Public Hearing	:	Public Hearing conducted on 23.07.2025.

Working Details

1	Mining Method	:	Opencast mechanized method
2	Quarry Area	:	1.721 ha.
3	Waste Generation	:	31,122 cum.
4	Stripping Ratio	:	01:0.08
5	Working Days	:	300

6	Benches: size & No	:	6m X 6m
7	Elevation of Mine	:	129 AMSL to 107 AMSL
8	Ground Level Elevation	:	107 AMSL
9	Ultimate Working Depth	:	81.0 AMSL
10	Water Table	:	73 m AMSL
11	Topography of Mine	:	The area represents a moderately sloping land with rock mass of Basalt.
12	Explosive Requirement	:	25.0 kg/day
13	Diesel/Fuel requirement	:	371 litre/day

Production Details

Year	Production of Stone / Year		Removal of O.B.
	Cum	Tonnes	Cum
1st	28336	82174	6908
2nd	20768	60227	0
3rd	20904	60622	3822
4th	37440	108576	5760
5th	24426	70835	14632
Total	131874	382435	31122

Land Use

Si. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha.)	Proposed Land use for current plan period (Ha.)	Land used at the conceptual stage i.e. end of mine life in (Ha.)	Area to be converted in the conceptual period.
1	Mining Activities	0	1.721	1.345	Water Body
2	Dead Benches	0	0.000	0.376	Plantation
3	Dumping	0	0.089	0.089	Plantation
4	Garland drain	0	0.020	0.020	Plantation
5	Settling Tank	0	0.001	0.001	-
6	Office	0	0.012	0.012	Plantation
7	Safety Zone	0	0.607	0.607	Plantation
8	Unutilized	2.47	0.020	0.020	Plantation
Total		2.47	2.47	2.47	-

Green Belt Development

Year	Location	No. of Plants	Area to be Covered (Ha)
1 st Year	Within 7.5m in Safety Zone Area	1518	0.607
Conceptual	Dead Benches	940	0.376
Conceptual	Garland drain	50	0.020
1 st Year	Approach Road	504	380 m
Total		3,012	1.003

Note- 3,012 tree proposed to be planted i.e. 10% plantation will be carried out i.e. (301 trees) as per MoEF&CC, Govt. of India Scheme "Ek Ped Ma Ke Naam".

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Sl. No.	Particular	Capital Cost (Rs. in Lakhs)
1.	Cost of Infrastructure	8.00
2.	Machinery & Equipment	105.00
3.	Miscellaneous	15.00
4.	Contingency	10.00
Total Project Cost		138.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

S. No.	EMP Activity	Capital Cost (₹ in Lakhs)	Recurring Cost / Year (₹ in Lakhs)
1.	Air Pollution Control (Water sprinkling, greenbelt, dust suppression)	-	5.00
2.	Water Pollution Control (Garland drains, settling tank, rainwater harvesting)	4.00	1.00
3.	Noise & Vibration Control (acoustic enclosures, monitoring)	1.50	0.50
4.	Occupational Health & Safety (PPE, health camps, first aid, training)	1.50	1.00

5.	Greenbelt Development (plantation, maintenance)	14.06	1.40
6.	Environmental Monitoring (air, water, noise, soil)	1.24	5.00
7.	PH Compliance Budget	6.50	11.00
Total		28.80	24.90

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO ₂ , NO _x in the vicinity of the mine area. In the surrounding area covering project site only.	8 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 8 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	8 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	8 stations	Six Monthly

Summary of Baseline Data:

Monitoring season – March 2024 to May 2024 (Summer Season)

Parameter	No. of Locations	Environmental Baseline Study
Ambient Air Quality Monitoring	8 locations	PM10 = 80 µg/m ³ to 49 µg/m ³ PM2.5 = 50 µg/m ³ to 22 µg/m ³ SO ₂ = 12.5 µg/m ³ to <5.0 µg/m ³ NO _x = 30.1 µg/m ³ to 15.7 µg/m ³
Noise level monitoring	8 locations	Daytime 60.6 to 67.1 dB(A) Night-time 40.5 to 38.1 dB(A) Day-Night time 22.0 to 27..2 db(A)
Water samples	Surface water – 2 locations	pH – 7.97 to 8.02 TDS – 778 to 893 mg/l Sulphate – 13.5 to 11.2 mg/l Fluoride – 0.4058 to 0.4625 mg/l Total Hardness 162 -170.2 mg/l
	Ground water- 8 locations	Turbidity – 0.52 to 0.75 NTU pH – 7.88 to 7.28 Total Hardness – 95.8 to 121.8 mg/l TDS – 334 to 447 mg/l
Soil Samples	8 locations	pH – 5.4 to 6.3 Sand% - 55.2 to 63.3 % Potassium – 164 to 173 kg/ha

		Nitrogen – 373 to 411 kg/ha
EB	-	No endangered Species found in the study area. No of Flora Species found in Study area- 118 No of Fauna Species found in Study area-30

Public Hearing (Action Plan) –

Sl. No.	Issue Raised	Commitment by Project Proponent (Brief)	Time Frame	Funds to be Spent	
				Capital (in Lakhs)	Recurring (in Lakhs)
1	Arrangement for books and copies for children's education should be made. Also, transportation facilities should be arranged for taking children to school.	The project proponent assured that under CSR, arrangements for books, copies, and pens for children's education will be made. Additionally, transportation (Tempo) facilities for taking children to school will also be arranged.	Within 6 months of project commencement.	-	2.00
2	Employment for unemployed youths of Narayandih village, plantation along roadside, support in children's education, and repair of the Manjhi Sthan should be demanded.	The project proponent assured that, according to the capability and requirement of the villagers, employment will be provided. Also, roadside plantation will be done. Under CSR, support will be provided for children's education and repair of the Manjhi Sthan.	Within 6-12 months of project commencement.	-	2.50
3	Fencing of Manjhi Sthan and Jaher Than; repair the road for children going to school; provide books, notebooks, and pens for children's	The project proponent assured that under CSR, fencing of Manjhi Sthan and Jaher Than will be done. The road for children going to school will be	Within 6 months of project commencement.	2.50	1.00

	education.	repaired, and books, notebooks, and pens will be provided for children's education.			
4	Arrangement for health facilities and one ambulance should be done.	The project proponent assured that under CSR, health facilities and one ambulance will be arranged.	Within 12 months of project commencement.	-	1.50
5	Levelling of the football ground and arrangement for a club house should be done.	The project proponent assured that under CSR, the football ground will be levelled, and a club house will be arranged.	Within 12 months of project commencement.	1.50	0.50
6	Regular water sprinkling should be done to control dust particles.	The project proponent assured that regular water sprinkling will be carried out to control dust pollution.	To be implemented from the commencement of mining operations and continued throughout the project period.	-	-
7	Arrangement for notebooks and books for poor children, arrangement of a club house, and support for community marriage should be done.	The project proponent assured that under CSR, notebooks and books for poor children will be provided, a club house will be arranged, and support will be given for community marriage.	Within 12 months of project commencement.	-	1.50
8	To control dust generated from the roads used for mining traffic, regular water sprinkling should be done. Also, provide employment to	The project proponent assured that regular water sprinkling will be done to control dust, and employment will be provided to villagers as per their skill and	Water sprinkling: From the commencement of mining operations and continued throughout the project period. Employment:	-	-

	villagers.	necessity.	During project operation phase on a regular basis.		
9	Arrange a vehicle for taking children to school. Arrange deep boring for drinking water.	The project proponent assured that, under CSR, a tempo will be arranged for children to go to school, and deep boring will be done at a location identified by villagers.	Vehicle Arrangement: within 3-6 months of project commencement. Deep boring for drinking water: Within 6-12 months of project commencement.	-	1.50
10	Arrange a tuition teacher for children's education.	The project proponent assured that, under CSR, a tuition teacher will be arranged.	Within 3-6 months of project commencement.	-	1.00
11	Need a community house for women's meetings.	The project proponent assured that, under CSR	Within 12 months of project commencement.	2.50	-
	Total			6.50	11.00

SE Need based Survey detail (included in CSR)

one	Coverage & Survey Details	Key Socio-Economic Observations	Workforce Characteristics	Priority Needs (Focused)	Proposed Budget (₹ Lakhs)	Implementation Timeline
-2 km	Villages: 5 Households surveyed: 20 Population covered: 95 FGDs Conducted: 1	Balanced gender composition with presence of children and vulnerable groups. Proximity to mine increases sensitivity to dust, traffic and occupational health issues.	Low workforce participation (~25%); dominance of informal and "other" occupations indicating livelihood instability.	- Preventive healthcare & health check-ups - Local skill development linked to mine & allied activities	3.0	Short-term & ongoing (Year 1-2)
-5 km	Villages: 10 Households surveyed: 25 Population covered: 120 FGDs	Moderate literacy levels with gender disparity; limited access to secondary education and	Mixed workforce pattern; dependence on agriculture and daily wage	- Education support (secondary level scholarships) - Agricultural	2.0	Medium-term (Year 2-3)

	Conducted: 0	structured training facilities.	labour.	productivity support (inputs, awareness)		
Total (0-5 km)	Villages: 15 Households surveyed: 45 Population covered: 215	Predominantly rural population with very less ST/SC presence; focused needs around health, education and livelihood security.	High informal employment and agriculture dependence.	Targeted SE interventions with zone-specific priorities	5.0	Phased over years
Total SE Budget					Rs. 5.0 Lakh	

Environment Management Practices to be followed:

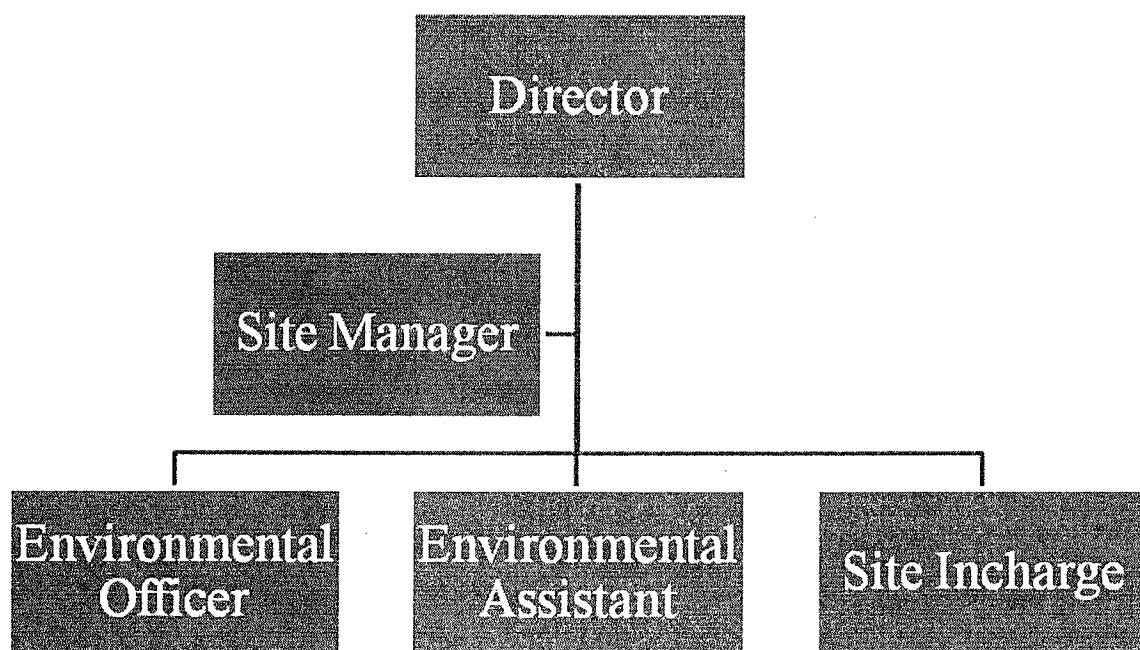
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 31,122 cum of Intercalated Waste will be generated during the plan period which will be used in maintenance of haul road and approach road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation.

	• Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a

		harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives		▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards		Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an

	interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.

- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Narayandih Stone Mine of M/s Rishi Stone Works (Partners : (i) Shri Pankaj Bhagat (ii) Shri Suraj Bhagat (iii) Shri Binay Kumar Mandal), Village : Narayandih, Thana no. : 85, Thana : Hiranpur, Distt.: Pakur, Jharkhand (2.47 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. The Deputy Commissioner through District Mining Officer will ensure that the mines

owner of the respective leases to complete the plantation and maintenance in a time bound manner.

- IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VI. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

6. Stone Deposit of Golpur no. -85 & Khaksa no. - 84 of M/s Tridev Engicon Pvt. Ltd., Village : Golpur no. -85 & Khaksa no. - 84, P.O. : Pakuria, Distt.: Pakur, Jharkhand (3.08 Ha).

(Proposal no.: SIA/JH/MIN/557710 /2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 118th meeting held on 22.10.2024 - 26.10.2024 and SEIAA, Jharkhand has approved the ToRs in 118th meeting held on 28th & 29th November, 2024. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3340/2024/348, dated 03.12.2024. The final EIA / EMP submitted by PP to SEAC on 15.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B1.

Application for EC after Terms of Reference(re-appraisal of Environment Clearance issued by DEIAA, Pakur).

The project has been granted EC by DEIAA, Pakur vide letter no. 205/DEIAA dated 20.11.2017.

As per O.M. dated 28th April 2023 issued by MOEF & CC projects which have been granted EC by DEIAA are to be reappraised by SEIAA / SEAC.

This is re-appraisal of the EC issued by DEIAA, Pakur which has been taken up for consideration on 21.12.2025. As per O.M. dated 12.12.18 issued by MOEF & CC projects fall in category B1.

Existing baseline condition as per monitoring report submitted by PP is as follows PM₁₀ -90 µg/m³ PM_{2.5} -55 µg/m³ SO₂ -21.1 NO₂ - 25.8 µg/m³ All the data are within the permissible limit.

Dust suppression is being carried out on regular basis.

Greenbelt Developed.

Production detail as per memo no. 2322/M, dated 16.10.2023 by DMO, Pakur is within the permissible limit of EC.

The compliance report of previous EC has been certified by Regional Office –cum-Laboratory, Dumka vide ref. no. 2195, dated 14.10.2023.

A certification of the compliance of the conditions of previous EC issued by JSPCB has been submitted to SEAC. The Committee desired to obtain a self certified compliance report along with the supporting details as evidence of execution.

The self certified compliance report has been submitted and also presented before the Committee.

EC Application for: Proposed Capacity- 49,896 cum/annum or 1,34,719 TPA.

Project and Location Details:

Sl. No.	Parameter	Details
1	Project Name	: Golpur & Khaksa Stone Deposit
2	Lessee:	: M/s Tridev Engicon Pvt. Ltd. Director – Shri Ravi Shankar Kumar
3	Lessee Address	: Shri Ravi Shankar Kumar (Director), Krishnapuri Colony, P.O. + Thana : Deoghar, District : Deoghar, Jharkhand.
4	Lease Area	: 3.08Ha Acres- 7.62Acres
5	Cluster Details	Total 2 mines falls in cluster including the project site (total cluster area-15.76 ha)
6	Type of Land	: Non- Forest (Raiyati Land)
7	Project Cost	: Rs. 69.70 Lakhs
8	EMP Budget	: Capital: Rs. 28.72lakhs Recurring: Rs. 16.47 Lakh / year
9	New or Expansion	: Re-appraisal of DEIAA EC
10	Mineable Reserves	: cum.:5,00,020cum Tonnes:13,50,054 tones
11	Mine Life	: Up to the lease period i.e. 07.09.2019 to 06.09.2029.

12	Man power	:	28
13	Water Requirement	:	9.908 KLD (Drinking: 0.42 KLD,Dust Suppression:3.92KLD, Plantation:5.568KLD)
14	Water Source	:	Water will be taken from nearby village
15	DG Set / power	:	60 KVA
16	Crusher	:	No crusher
17	Nearest Water Body	:	BrahmaniRiver- 3.50 km. in South direction of mine site
18	Nearest Habitation	:	Approx. 0.22Km in SouthDirection.
19	Nearest Rail Station	:	Pakdaha Harinsing Railway Station- 8.44 km- SSW
20	Nearest Air Port	:	Deoghar Airport, approx. 96.43 km towards W direction
21	Nearest Forest	:	More Than 250m, as per Division Forest Officer NOC, letter no.- 1736, Dated-01/12/2026.
22	Road & Highways	:	NH 114 A at 8.0 km (aerial distance)
23	Approach Road	:	Distance of approach road is 851m
24	Need Based SE Budget	:	7.3 lakh (As per need based)

CO-ORDINATES

Point ID	Latitude	Longitude
1	24° 17' 06.57115707" N	087° 38' 31.50422173" E
2	24° 17' 07.20156520" N	087° 38' 32.15040568" E
3	24° 17' 08.01061271" N	087° 38' 33.02492349" E
4	24° 17' 08.99818429" N	087° 38' 34.03176916" E
5	24° 17' 09.19390478" N	087° 38' 33.87310315" E
6	24° 17' 09.60465972" N	087° 38' 33.97838675" E
7	24° 17' 10.28612755" N	087° 38' 34.47467283" E
8	24° 17' 10.92076704" N	087° 38' 35.04205132" E
9	24° 17' 10.71085673" N	087° 38' 35.48049692" E
10	24° 17' 10.50984499" N	087° 38' 36.29759867" E
11	24° 17' 09.89233339" N	087° 38' 36.30050294" E
12	24° 17' 08.99372025" N	087° 38' 36.12404707" E
13	24° 17' 08.74683966" N	087° 38' 35.95611471" E
14	24° 17' 08.45397867" N	087° 38' 35.81265334" E
15	24° 17' 07.87099971" N	087° 38' 35.59203426" E
16	24° 17' 08.05331992" N	087° 38' 35.31932829" E
17	24° 17' 06.87772794" N	087° 38' 34.62672109" E
18	24° 17' 05.76905885" N	087° 38' 34.06225792" E
19	24° 17' 05.36618536" N	087° 38' 34.46119145" E
20	24° 17' 05.61936706" N	087° 38' 35.02271947" E
21	24° 17' 05.95462313" N	087° 38' 35.68164046" E
22	24° 17' 05.86940592" N	087° 38' 35.78892728" E
23	24° 17' 05.26208304" N	087° 38' 35.77362302" E
24	24° 17' 04.28870939" N	087° 38' 35.70737186" E
25	24° 17' 04.06183086" N	087° 38' 34.74649276" E
26	24° 17' 04.06181161" N	087° 38' 34.22070518" E
27	24° 17' 03.68108918" N	087° 38' 34.00248830" E
28	24° 17' 03.74968085" N	087° 38' 33.64401327" E
29	24° 17' 02.71009840" N	087° 38' 33.86474682" E

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30	24° 17' 02.33681903" N	087° 38' 33.72398772" E
31	24° 17' 01.02758509" N	087° 38' 33.34865892" E
32	24° 17' 00.36789019" N	087° 38' 33.40842446" E
33	24° 16' 59.64423764" N	087° 38' 32.76908658" E
34	24° 17' 00.12883942" N	087° 38' 32.29554987" E
35	24° 17' 00.56151877" N	087° 38' 31.38280415" E
36	24° 17' 00.99414489" N	087° 38' 30.93653995" E
37	24° 17' 01.17884222" N	087° 38' 30.99346305" E
38	24° 17' 01.54431562" N	087° 38' 29.86462327" E
39	24° 17' 01.64690391" N	087° 38' 28.87678927" E
40	24° 17' 01.84993922" N	087° 38' 28.71795835" E
41	24° 17' 02.57710416" N	087° 38' 28.80350261" E
42	24° 17' 03.12549589" N	087° 38' 29.25422657" E
43	24° 17' 03.38781089" N	087° 38' 29.63292291" E
44	24° 17' 03.71694144" N	087° 38' 29.00251031" E
45	24° 17' 04.19661221" N	087° 38' 29.57336163" E
46	24° 17' 04.69763721" N	087° 38' 30.09188061" E
47	24° 17' 04.82862537" N	087° 38' 30.51760283" E
48	24° 17' 04.96578687" N	087° 38' 30.85187920" E
49	24° 17' 05.44604334" N	087° 38' 31.34518580" E
50	24° 17' 06.17347244" N	087° 38' 32.09909675" E

LAND DETAILS

Village	Khata no.	Plot no.
Golpur no. 85	6, 10, 29 & 34	227, 228, 229 & 230/1277
Khaksa no. 84	41, 147 & 160	6553, 6554, 6555, 6556, 6557 & 6559

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Lease deed : 07.09.2019 to 06.09.2029.
2	CO	:	The CO, Pakuria (Pakur) vide letter no. 784/Ra. dated 16.09.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyon & Register II.
3	DMO Cluster	:	DMO, Pakur vide memo no. 2323/M, dated 16.10.2023 certified that 01 other mining lease area (31.33 Acre) exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide memo no.: 1883, dated 29.09.2023 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	DFO, Pakur Forest Division vide letter no. 1736, dated 01.12.2016 certified that the distance of reserved / protected forest is more







			than 250 meters from proposed project site.
6	DSR	:	The DMO, Pakur has been certified vide memo no. 1736/M, dated 15.10.2024 that this project is mentioned in approved DSR of Pakur District as a potential area (Sl. no. 115 & 108, Page no. 139).
7	Gram Sabha	:	Gram Sabha conducted on 05.08.2016.
8	Mine Plan Approval	:	i. Approved by District Mining Officer, Pakur vide Memo No. 1807/M, dated 18.10.2024. ii. Approved by Deputy Director Mines, Santhal Pargana Circle, Dumka vide Letter No. 433/DDM, dated 19.09.2017.
9	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Production Report	:	Production figure issued by DMO, Pakur vide memo no. 2322/M, dated 16.10.2023.
11	Compliance report of previous EC	:	Compliance report of previous EC has been certified by Regional Office –cum-Laboratory, Dumka vide ref. no. 2195, dated 14.10.2023.
12	Previous Environmental Clearance (EC)	:	Previous EC granted by DEIAA, Pakur vide letter no. 205/DEIAA dated 20.11.2017.
13	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTE-6644736 /2020/22, dated 10.01.2020.
14	Consent to Operate (CTO)	:	CTO issued by JSPCB vide Ref. no. : JSPCB/RO/DMK/CTO-7376108/2020/12, dated 05.02.2020.
15	Baseline Monitoring period	:	October, 2024 to December, 2024.
16	Public Hearing	:	Public Hearing conducted on 11.09.2025.

Working Details

1	Mining Method	:	Opencast Fully mechanised method
2	Quarry Area	:	2.28ha.
			Life of Mine – As per the lease period i.e. 07.09.2019 to 06.09.2029.
3	Waste Generation	:	13,795 cum.
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300

6	Benches: size & No	:	6m width, 6m height
7	Elevation of Mine	:	111 m AMSL to 107 mAMSL
8	Ground Level Elevation.	:	107 mAMSL
9	Ultimate Working Depth	:	78 m AMSL
10	Water Table	:	70 m AMSL
11	Topography of Mine	:	The area represents gently sloping land
12	Explosive Requirement	:	22.24kg/day
13	Diesel/Fuel requirement	:	260 litre/day

Production Details

Year	Per Day Production				Removal of O.B.	
	Cum	Tonnes	Cum	Tonnes	Cum	Production per day cum (O.B.)
Development Year (2024-2025)	48205	130154	161	434	13795	46
Development Year (2025-2026)	49600	133920	165	446	0	0
Development Year (2026-2027)	49135	132665	164	442	0	0
Development Year (2027-2028)	49860	134622	166	449	0	0
Development Year (2028-2029)	49896	134719	166	449	0	0
Total	246696	666079	164	444	13795	46

Land Use

Sl. No.	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area	0.377	2.28	2.28	—
2	Garland Drain	0	0.05	0.05	Plantation
3	Safety Zone	0	0.73	0.73	Plantation
4	Unutilized	2.703	0.02	0.02	Plantation
	TOTAL	3.08	3.08	3.08	—

ENVIRONMENT MANAGEMENT Green Belt Development

S. No.	Location		Area/Length	No. Of Trees
1	Safety Zone	:	0.73 Ha	1168
2	Garland Drain	:	0.05 Ha	80
3	Unutilized	:	0.02 Ha	32
4	Along Approach Road		851 m	576
	Total			1856

Note – 10 % of Total plant i.e.185 plants will be planted as EK Ped Maa K Naam

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Parameter	No. of Locations	Environmental Baseline Study
Ambient Air Quality Monitoring	7 locations	PM10 = 76 µg/m ³ to 42 µg/m ³ PM2.5 = 56 µg/m ³ to 32 µg/m ³ SO ₂ = 11.7 µg/m ³ to 6 µg/m ³ NO _x = 29.4 µg/m ³ to 14.6 µg/m ³
Noise level monitoring	7 locations	Daytime - 68.4 to 64.8 dB(A) Night-time - 42.1 to 38.2 dB(A) Results were found within permissible limits
Water samples	Surface water – 2 locations	pH – 7.23 to 7.02 TDS – 400 to 364 mg/l Sulphate – 27.3 to 21.4 mg/l Fluoride – 0.128 to 0.111 mg/l Total Hardness – 124.4 to 116.1 mg/l
	Ground water- 6 locations	Turbidity – 5.71 to 2.39 NTU pH – 8.12 to 7.51 Total Hardness – 162.3 to 102.1 mg/l TDS – 493 to 361 mg/l Sulphate – 24.5 to 14.5 µS/cm
Soil Samples	5 locations	pH- 6.0-6.5 Phosphorus ranges from 5.8 to 6.6 kg/ha. Sodium ranges from 6.7 to 10.5 mg/kg. Total potassium ranges from 137 to 166kg/ha. Nitrogen content varies from 327 to 397 kg/ha.
EB	-	No endangered Species found in the study area.

Public Hearing (Action Plan) –

Sl. No	Issue Raised	Commitment by Project Proponent	Time Frame	Funds to be Spent	
				Capital	Recurring

		(Brief)		(in Lakhs)	(in Lakhs)
1	Cattle are required for animal husbandry and hand pumps are required for drinking water	The project proponent assured that under CSR, cattle will be provided for animal husbandry and hand pumps for drinking water.	Within one year from project commencement.	-	3.00
2	To prevent dust, regular water sprinkling should be done and trees should be planted and there should also be a hospital.	The project proponent assured that regular sprinkling of water would be done to control dust and dense plantation would be done and vehicle would be arranged for taking the patient to the hospital.	Plantation & Water Sprinkling – Immediate and continuous with the start of the project. Medical van will be available within 6 months of project commencement.	6.00	0.50
3	A deep boring should be done in the village for drinking water.	The project proponent assured that a deep boring would be done at the place identified by the villager for drinking water.	Within one year from project commencement.	-	1.50
4	Hand pumps are needed and arrangement of vehicles should be made for small children to go to school.	The project proponent assured that the hand pump would be repaired under CSR and vehicles would be arranged small	Hand Pump – Under CSR School Vehicle – 6 to 12 months from the start of the project.	4.00	0.50

		children to go to school.			
Total Cost				10.00	5.50

COST PROPOSED FOR EMP

S. No.	EMP Activity	Capital Cost (₹ in Lakhs)	Recurring Cost / Year (₹ in Lakhs)
1	Air Pollution Control (Water sprinkling, greenbelt, dust suppression)	-	5.50
2	Water Pollution Control (Garland drains, settling tank, rainwater harvesting)	4.00	1.00
3	Noise & Vibration Control (acoustic enclosures, monitoring)	1.50	0.50
4	Occupational Health & Safety (PPE, health camps, first aid, training)	2.50	2.00
5	Greenbelt Development (plantation, maintenance)	9.72	0.97
6	Environmental Monitoring (air, water, noise, soil)	1.00	1.00
7	PH Compliance Budget	10.00	5.50
Total		28.72	16.47

Note: No. of Trees to Be Planted in Green Belt Area/safety zone (0.8 Ha.): 1280 Trees
Distance of Approach Road: 851 m
Both side plantation on the village road (where the approach road is joining): 576 Trees
Total No. of Trees: 1856 trees

SE Need based Survey detail

Zone	Coverage & Survey Details	Key Socio-Economic Observations	Workforce Characteristics	Priority Needs (Focused)	Proposed Budget (₹ Lakhs)	Implementation Timeline
0-2 km	Villages: 10 Households surveyed: 24 Population covered: 109 FGDs Conducted: 1	Balanced gender composition with presence of children and vulnerable groups. Proximity to mine increases sensitivity to dust, traffic and occupational health issues.	Very low workforce participation (~22%); dominance of informal and "other" occupations indicating livelihood instability.	- Preventive healthcare & health check-ups - Local skill development linked to mine & allied activities	5.0	Short-term & ongoing (Year 1-2)

2–5 km	Villages: 16 Households surveyed: 30 Population covered: 150 FGDs Conducted: 0	Moderate literacy levels with gender disparity; limited access to secondary education and structured training facilities.	Mixed workforce pattern; dependence on agriculture and daily wage labour.	• Education support (secondary level / scholarships) • Agricultural productivity support (inputs, awareness)	2.3	Medium-term (Year 2–3)
Total (0–5 km)	Villages: 26 Households surveyed: 54 Population covered: 259	Predominantly rural population with notable ST/SC presence; focused needs around health, education and livelihood security.	High Informal employment and agriculture dependence.	Targeted SE interventions with zone-specific priorities	7.3	Phased over 3 years

Environment Monitoring Programme

Sl. No	Description	No. Monitoring Stations	Duration
1	Air	7 Stations	6 Monthly
2	Soil	5 Stations	6 Monthly
3	Surface Water	2 Stations	6 Monthly
4	Ground Water	6 Stations	6 Monthly
5	Noise	7 Stations	6 Monthly

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 13,795 cum of Intercalated Waste will be generated during the plan period. It will use in maintaince of haul road and approach road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out

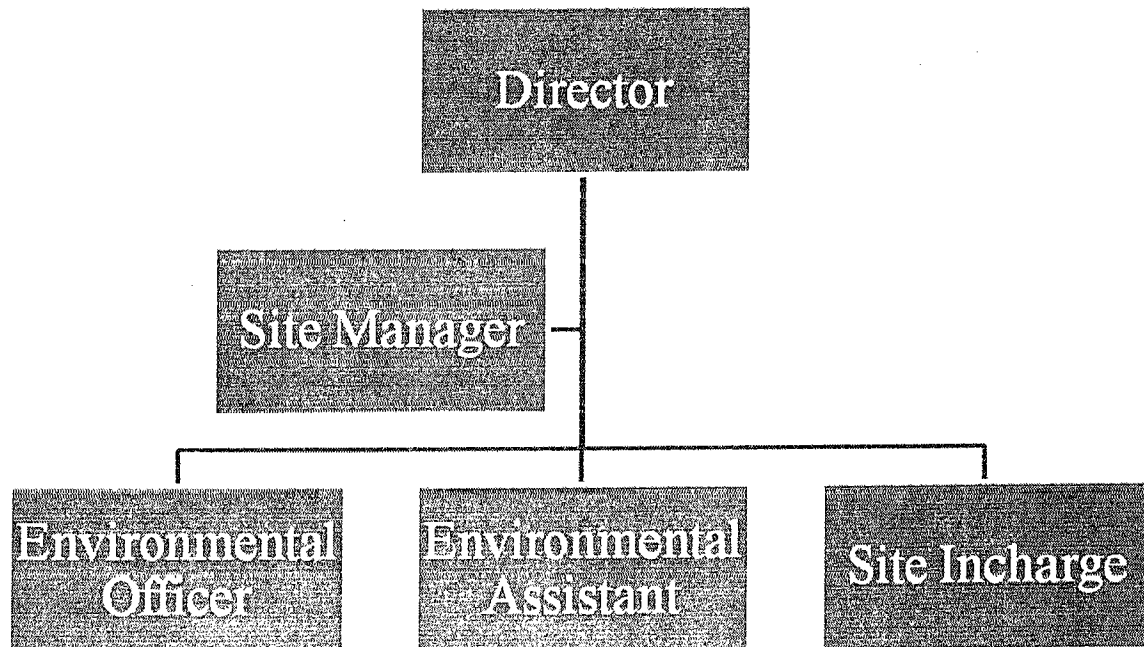
	regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from

		standards is observed.
Risk & Hazard		Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives		▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide

	publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required).

	To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- The Boundary Pillars of the proposed mine lease area will be maintained properly.
- One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.

- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Stone Deposit of Golpur no. -85 & Khaksa no. - 84 of M/s Tridev Engicon Pvt. Ltd., Village : Golpur no. -85 & Khaksa no. - 84, P.O. : Pakuria, Distt.: Pakur, Jharkhand (3.08 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. The production shall be restricted as per approved mining scheme or the approved mine plan at the time of EC, which ever is less.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. During appraisal of the project, it is seen that the project authority have not fully complied the condition of green belt development as per the previous EC. Hence, the project authorities are required to plant twice the number of trees as was required in the previous EC. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VI. Pre employment Occupational health check up for employees to be done and

- thereafter at annual interval for PLFT, Audiometry and other required tests .
Summary findings of same to be submitted along with 6 monthly compliance.
- VII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

7. Demba Stone Mine of M/s Mahaveer Engicons Pvt. Ltd. (Director : Shri Rajkumar Pandey),
Village : Demba, Thana : Jirwabari, Distt. : Sahibganj, Jharkhand (4.84 Ha).

(Proposal no.: SIA/JH/MIN/ 554505 /2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 121st meeting held on 08.03.2025 - 12.03.2025 and SEIAA, Jharkhand has approved the ToRs in 121st meeting held on 19th & 20th March, 2025. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3563/2024/660, dated 20.03.2025. The final EIA / EMP submitted by PP to SEAC on 03.11.2025.

Project Sector: 1(a) Mining of Minerals, Category: B1.

Application for EC after Terms of Reference (ToR) (re-appraisal of Environment Clearance issued by DEIAA, Sahibganj).

The project has been granted EC by DEIAA, Sahibganj vide letter no. EC/DEIAA/2017-18/257, dated 16.10.2017.

As per O.M. dated 28th April 2023 issued by MOEF & CC projects which have been granted EC by DEIAA are to be reappraised by SEIAA / SEAC.

This is re-appraisal of the EC issued by DEIAA, Sahibganj which has been taken up for consideration on 21.12.2025. As per O.M. dated 12.12.18 issued by MOEF & CC projects fall in category B1.

Existing baseline condition as per monitoring report submitted by PP is as follows PM₁₀ -96 µg/m³ PM_{2.5} -567 µg/m³ SO₂ -18.2 NO₂ - 19.0 µg/m³ All the data are within the permissible limit.

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Dust suppression is being carried out on regular basis.

Greenbelt Developed.

As per compliance report of JSPCB regarding previous EC, plantation has been done in safety zone.

Production detail as per memo no. 490/M, dated 26.06.2024 by DMO, Sahibganj is within the permissible limit of EC.

The compliance report of previous EC has been issued by JSPCB, Regional Office, Dumka vide memo no. 2302, dated 18.12.2024.

A certification of the compliance of the conditions of previous EC issued by JSPCB has been submitted to SEAC. The Committee desired to obtain a self certified compliance report along with the supporting details as evidence of execution.

The self certified compliance report has been submitted and also presented before the Committee.

EC Application for: Proposed Capacity- 1,55,588 cum/annum or 4,20,088 TPA.

Project and Location Details:

Sl. No.	Parameter	Details
1	Project Name	: Demba Stone Mine
2	Lessee:	: MAHAVEER ENGICONS PRIVATE LIMITED Proponent: Shri Raj Kumar Pandey.
3	Lessee Address	: Mouza – Demba, Thana: Jirwabari, Distt.: Sahibganj, Jharkhand
4	Lease Area	: 4.84Ha Acres- 11.95Acres
5	Cluster Detail	Total 6 mines falls in cluster along with the project site Total Cluster Area -60.44 Acres/24.4592 Ha
6	Type of Land	: Non- Forest (Raiyati Land)
7	Project Cost	: Rs. 113.04Lakhs
8	EMP Budget	: Capital: Rs. 39.19 lakhs Recurring: Rs. 14.22 Lakh / year
9	New or Expansion	: Re-appraisal of DEIAA EC
10	Mineable Reserves	: cum.:13,32,553cum Tonnes:35,97,895tones
11	Mine Life	: Up to the lease period i.e.18.01.2018 to 17.01.2028
12	Man power	: 26
13	Water Requirement	: 5.84 KLD
14	Water Source	: Water will be taken from nearby village
15	DG Set / power	: 500 KVA
16	Crusher	: No crusher
17	Nearest Water Body	: Ganga River – 7.60 km in NE direction.
18	Nearest Habitation	: Approx. 0.219Km in NWDirection.
19	Nearest Rail Station	: Karamtola Railway station, approx. 3.5 km towards NW direction.
20	Nearest Air Port	: Deoghar Airport, approx. 123.6 km towards SW direction
21	Nearest Forest	: More Than 250m, as per Division Forest Officer NOC, letter no.- 152 Dated-22/01/2022.
22	Road & Highways	: The distance of Approach Road is 800m, after that this road connects to NH 133A at 3.32 km away.
23	Total SE budget	: Rs. 7.0 Lakh(as per Need Based)

CO-ORDINATES

Pillar No.	Latitude	Longitude
P1	25° 13' 46.263" N	87° 34' 24.294" E
P2	25° 13' 46.147" N	87° 34' 26.322" E
P3	25° 13' 45.944" N	87° 34' 28.193" E
P4	25° 13' 46.736" N	87° 34' 28.737" E
P5	25° 13' 47.144" N	87° 34' 27.532" E
P6	25° 13' 48.407" N	87° 34' 28.258" E
P7	25° 13' 49.611" N	87° 34' 29.014" E
P8	25° 13' 49.681" N	87° 34' 28.823" E
P9	25° 13' 51.709" N	87° 34' 29.126" E
P10	25° 13' 53.270" N	87° 34' 29.592" E
P11	25° 13' 53.542" N	87° 34' 31.037" E
P12	25° 13' 53.638" N	87° 34' 32.640" E
P13	25° 13' 51.913" N	87° 34' 32.548" E
P14	25° 13' 50.575" N	87° 34' 32.476" E
P15	25° 13' 49.420" N	87° 34' 32.414" E
P16	25° 13' 47.603" N	87° 34' 32.213" E
P17	25° 13' 47.015" N	87° 34' 31.807" E
P18	25° 13' 46.832" N	87° 34' 33.822" E
P19	25° 13' 46.571" N	87° 34' 35.067" E
P20	25° 13' 45.258" N	87° 34' 34.096" E
P21	25° 13' 44.331" N	87° 34' 33.370" E
P22	25° 13' 44.324" N	87° 34' 32.789" E
P23	25° 13' 43.627" N	87° 34' 32.315" E
P24	25° 13' 42.842" N	87° 34' 31.381" E
P25	25° 13' 42.819" N	87° 34' 29.802" E

P26	25° 13' 42.795" N	87° 34' 28.236" E
P27	25° 13' 41.991" N	87° 34' 27.694" E
P28	25° 13' 43.007" N	87° 34' 26.421" E
P29	25° 13' 43.952" N	87° 34' 25.412" E
P30	25° 13' 45.006" N	87° 34' 24.691" E

LAND DETAILS

Khata no.	Plot no.
18 / K	209 (P)
19	198 (P) & 207 (P)
32	208 (P)
36	206
37	197 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Lease deed 18.01.2018 to 17.01.2028.
2	CO	:	The CO, Mandro vide memo no. 602/Ra., dated 06.09.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyani & Register II.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 399/M, dated 04.03.2025 certified that 06 other mining lease area (7.29 Acre, 11.50 Acre, 10.00 Acre, 9.90 Acre, 11.25 Acre & 10.50 Acre) exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO –cum-Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. 3273, dated 17.12.2024 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide memo no. 1430, dated 15.10.2016 certified that the distance of forest land is more than 250 meter from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Sahibganj District (Sl. No. 07, Page no. 213).
7	Gram Sabha	:	Gram Sabha conducted on 07.06.2024.
8	Scheme / Mine Plan Approval	:	i. Mining plan approved by DDM, Santhal Pargana Circle, Dumka vide letter no. 348/DDM, dated 31.07.2017.

			ii. Mining scheme approved by Additional Director, Geology, Hazaribag vide letter no. 651/G, dated 19.08.2021. iii. Mining plan approved by DMO, Sahibganj vide letter no. 721, dated 03.08.2024.
9	Previous Environmental Clearance (EC)	:	Previous EC granted by DEIAA, Sahibganj vide letter no. EC/DEIAA/2017-18/257, dated 16.10.2017.
10	Compliance report of EC	:	The compliance report of previous EC has been issued by JSPCB, Regional Office, Dumka vide memo no. 2302, dated 18.12.2024.
11	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-2234131/2018/597, dated 01.06.2018.
12	Consent to Operate (CTO)	:	CTO issued by JSPCB vide ref. no. : JSPCB/HO/RNC/CTO-14705600/2023/634, dated 31.03.2023.
13	Production Report	:	Production report issued by DMO, Sahibganj vide memo no. 490/M, dated 26.06.2024
14	Grid certificate	:	DMO, Sahibganj vide memo no. 272/M, dated 13.02.2025 certified that the proposed project site is not under Redzone Grid 1, 3, 4 & 7.
15	Qualified Person	:	Shri Sahadev Singh was present in the meeting and affirmed that the mine plan has been prepared by him.
16	Baseline Monitoring period	:	December, 2024 to February, 2025.
17	Public Hearing	:	Public Hearing conducted on 22.08.2025.

Working Details

1	Mining Method	:	Opencast Fully mechanised method	
2	Quarry Area	:	3.95ha.	Life of Mine – Up to lease period i.e. 18.01.2018 to 17.01.2028
3	Waste Generation	:	1,21,091.98 cum.	
4	Stripping Ratio	:	1:0.096	
5	Working Days	:	300	
6	Benches: size & No	:	6m width, 6m height	
7	Elevation of Mine	:	144m AMSL to 120mAMSL	
8	Ground Level Elevation	:	120mAMSL	

9	Ultimate Working Depth	:	Up to 90m AMSL
10	Water Table	:	75m AMSL
11	Topography of Mine	:	The area represents an inclined of Basalt trending is East to West.
12	Explosive Requirement	:	480kg/day
13	Diesel/Fuel requirement	:	287 litre/day

Production Details

Year	Total Excavation of Stone & Soil (cum)	Total Excavation Stone (cum)	Total Excavation Stone (MT)	Total Excavation of Waste (cum)	Stripping Ratio
2024–25	192,973.84	155,560.01	420,012.00	37,413.83	1 : 0.08
2025–26	235,748.90	155,555.95	420,001.00	80,192.94	1 : 0.19
2026–27	235,748.90	155,588.15	420,088.00	34,885.21	1 : 0.08
Total	664,471.64	466,704.11	1,260,101.00	121,091.98	—

Land Use

Land Use Category	Existing (in Ha)	At the End of Approved Modified Scheme Period (in Ha)	At Ultimate Stage (in Ha)
Excavation	1.83	3.95	3.95 (0.75 ha backfilled, 0.86 ha area shall be left as rainwater harvesting purpose, 2.34 ha area dead bench)
Waste Dump	0.89	0	Comes under excavation
Mine Road	0	0	Comes under excavation
Infrastructure	0	0	Comes under excavation

Plantation – Green Belt along Safety Zone	0	0.89	0.89
Total	2.72	4.84	4.84

Green Belt Development

Sl. No.	Location	Area / Length	No. of Trees
1	Safety Zone	0.894	1430
2	Dead Bench	2.34	3744
3	Backfilled	0.75	1200
4	Along the approach road	0.160 km	213
Total	—	3.984	6588

Note – 6,588 tree proposed to be planted i.e. 10% plantation will be carried out i.e. (6588 trees) as per MoEF&CC, Govt. of India Scheme “Ek Ped Ma Ke Naam”.

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Summary of Baseline Data:

Monitoring season - December 2024 to February 2025

Type	Monitoring Details / Parameters
AAQ Parameters at 7 locations	PM ₁₀ = 48.50 to 79.60 µg/m ³ PM _{2.5} = 18.20 to 49.60 µg/m ³ SO ₂ = 4.80 to 37.80 µg/m ³ NO _x = 6.60 to 29.60 µg/m ³
Noise quality at 7 locations	Daytime: 46.8 to 54.2 dB(A) Nighttime: 38.5 to 42.5 dB(A)
Surface water at 2 locations	pH = 6.91 to 7.18 TDS = 281.7 to 302.5 mg/l Sulphate = 14.2 to 20.1 mg/l Fluoride = 0.37 to 0.41 mg/l
Ground water at 6 locations	Turbidity = <1.00 to 3.4 NTU

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	pH = 6.74 to 7.54 Chloride = 12.23 to 32.78 mg/l Total Hardness = 140.76 to 230.52 mg/l TDS = 337.9 to 481.2 mg/l
Soil at 5 locations	pH = 4.71 to 6.46 Conductivity = 0.13 to 0.41 μS/cm Organic Matter = 0.9 to 5.24 %

Public Hearing (Action Plan) –

Sl. No	Issue Raised	Commitment by Project Proponent (Brief)	Time Frame	Funds to be Spent	
				Capital (in Lakhs)	Recurring (in Lakhs)
1	Agreed in favor of the project; requested arrangement of generator and borewell for water.	The project proponent assured that a generator will be made available and a deep borewell will be installed at a location identified by the villagers.	Within 3 months of commencement of project activities.	4.00	-
2	Requested installation of a hand pump for water and construction of a paved road.	The project proponent assured that a generator will be provided, a deep borewell will be installed at a location identified by the villagers, and a paved road will be constructed.	Within 6 months of commencement of project activities.	-	3.00
3	Compensation requested for 7 mango trees cut and 10 bamboos removed.	The project proponent assured compensation for 7 mango trees at the rate of ₹10,000 per tree (total ₹70,000) and for 10 bamboo clumps at the rate of ₹100 per clump (1 clump = 25 bamboos), i.e., $25 \times 10 \times$	Within 2 months of tree cutting/land clearance activity.	1.05	-

		100 ₹25,000.	=			
Total Cost					4.05	3.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

S. No.	EMP Activity	Capital Cost (₹ in Lakhs)	Recurring Cost / Year (₹ in Lakhs)
1	Air Pollution Control (Water sprinkling, greenbelt, dust suppression)	-	5.00
2	Water Pollution Control (Garland drains, settling tank, rainwater harvesting)	4.00	1.00
3	Noise & Vibration Control (Acoustic enclosures, monitoring)	1.50	0.50
4	Occupational Health & Safety (PPE, health camps, first aid, training)	1.20	1.00
5	Greenbelt Development (Plantation, maintenance)	27.20	2.72
6	Environmental Monitoring (Air, water, noise, soil)	1.24	1.00
7	PH Compliance Budget	4.05	3.00
Total		39.19	14.22

SE Need based Survey detail

Zone	Coverage & Survey Details	Key Socio-Economic Observations	Workforce Characteristics	Priority Needs (Focused)	Proposed Budget (₹ Lakhs)	Implementation Timeline
0-2 km	Villages: 10 Households surveyed: 25 Population covered: 120 FGDs Conducted: 1	Balanced gender composition with presence of children and vulnerable groups. Proximity to mine increase's sensitivity to dust, traffic and	Low workforce participation (~30%); dominance of informal and "other" occupations indicating livelihood instability.	- Preventive healthcare & health check-ups - Local skill development linked to mine & allied activities	4.0	Short-term & ongoing (Year 1-2)

		occupational health issues.				
2-5 km	Villages: 14 Households surveyed: 28 Population covered: 140 FGDs Conducted: 0	Moderate literacy levels with gender disparity; limited access to secondary education and structured training facilities.	Mixed workforce pattern; dependence on agriculture and daily wage labour.	- Education support (secondary level / scholarships) - Agricultural productivity support (inputs, awareness)	3.0	Medium-term (Year 2-3)
Total (0-5 km)	Villages: 24 Households surveyed: 53 Population covered: 260	Predominantly rural population with notable ST/SC presence; focused needs around health, education and livelihood security.	High informal employment and agriculture dependence.	Targeted SE interventions with zone-specific priorities	7.0	Phased over 3 years
Total SE Budget					Rs. 7.0 Lakh	

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	7 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the	2 Surface	Six Monthly

	Project area.	water 6 Ground water	
3	Noise: Day & Night level Noise Monitoring.	7 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	5 stations	Six Monthly

Environment Management Practices to be followed:

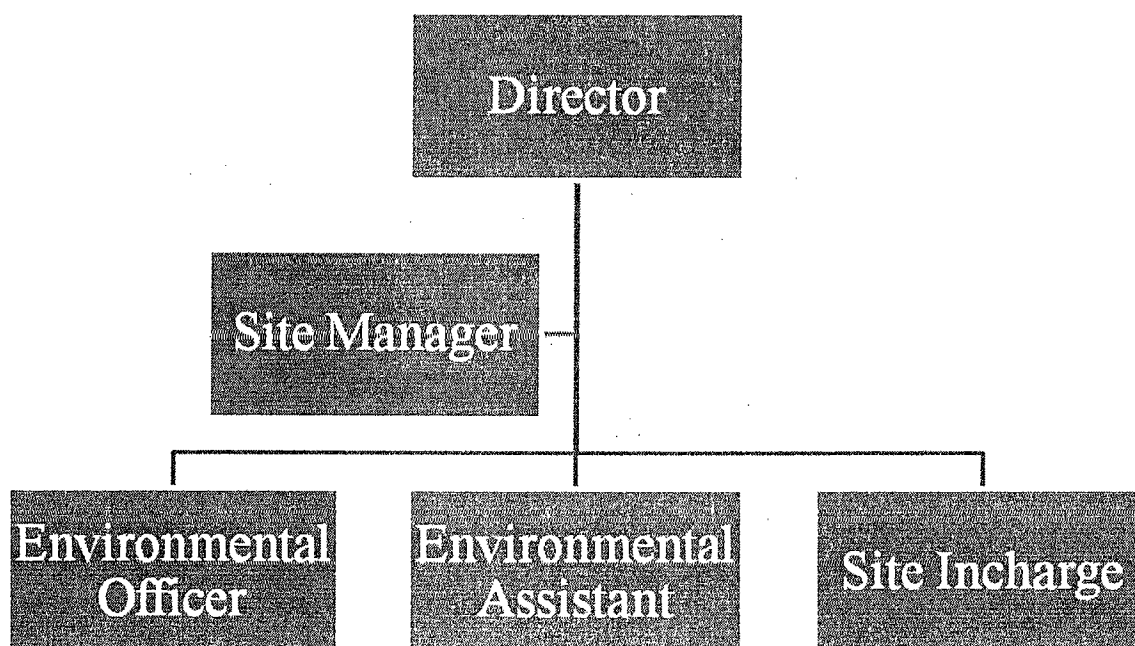
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 121091.98 cum of Intercalated Waste will be generated during the plan period which will be used in maintenance of haul road and approach road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation.

	• Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out

		the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting Handling Explosives	& of	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers.

	- Explosives and detonators shall not be carried in the same container. - The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	- Mine road shall be made smooth regularly with a road roller. - Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. - All transportation within the mine lease area should be carried out directly under the supervision and control of management. - The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. - Navigation signs will be provided at each and every turning point up to the main road (wherever required). - To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Demba Stone Mine of M/s Mahaveer Engicons Pvt. Ltd. (Director : Shri Rajkumar Pandey), Village : Demba, Thana : Jirwabari, Distt. : Sahibganj, Jharkhand (4.84 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. That the Deputy Commissioner, Sahibganj will ensure compliance of the order passed by Hon'ble NGT in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no.

The bottom of the page features several handwritten signatures and initials. From left to right, there is a signature that appears to be 'UMA', a large 'A' with a horizontal line through it, a signature that looks like 'B' with '197' written below it, a signature that looks like 'A' with a diagonal line, and a long, flowing signature on the far right.

373/2019 in the matter of Syed Arshad Nasar Vs Union of India with Ramchandra Chaurasia Vs State of Jharkhand with Pradeep Kumar Singh Vs State of Jharkhand before grant of mining lease.

- II. The production shall be restricted as per approved mining scheme or the approved mine plan at the time of EC, whichever is less.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. During appraisal of the project, it is seen that the project authority have not fully complied the condition of green belt development as per the previous EC. Hence, the project authorities are required to plant twice the number of trees as was required in the previous EC. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests. Summary findings of same to be submitted along with 6 monthly compliance.
- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

8. Hansebari Stone Mine of M/s Nilam Stone (Prop. : Shri Dipak Kumar Swarnkar), Village : Hansebari, Thana : Deori, Distt. : Giridih, Jharkhand (0.907 Ha).

(Proposal no.: SIA/JH/MIN/ 554218 /2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

This is an amendment EC project which has been taken for re-consideration of the appraisal on 21.12.2025 as the PAs have submitted the evidence of the green belt development as was required in the 127th meeting of SEAC.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity:11914 Cum. (Max.) Per Year / 32168 Tons Per Year(max.). Previous EC Capacity 34528 TPA / 12788 Cum per year.

Previous EC granted by SEIAA,Jharkhand- EC Letter No.EC/SEIAA/2020-21/2352/2020/31 dated 14.07.2021.

An affidavit has been submitted by the Project Proponent, Shri Deepak Kumar Swarnkar, Proprietor, M/s Neelam Stone, resident of Village Dhomach, Post Dhomach, Police Station Jamua, District Giridih, who has solemnly affirmed and stated the following:

1. He is a permanent resident of the above-mentioned address and holds Aadhaar Card No. 2644 1807 8413.
2. Stone mining approval has been granted in District Giridih, Circle Deori, under Mauza Hansori, Khata No. 01, Plot No. 39, covering an area of 2.24 acres.
3. As per the conditions of the Environmental Clearance (EC) for the mining lease, plantation was required to be undertaken within the lease area. Accordingly, against the requirement of 1,200 saplings, 1,250 saplings have been planted in compliance with the EC conditions.
4. All the saplings planted have achieved a 100% survival rate.
5. Subsequent to the commencement of stone mining operations in the said mining lease, an Anganbari Centre has been constructed in the vicinity.
6. The remaining plantation work shall be completed within the next six months.
7. The statements made in Points 1 to 6 above are true and correct to the best of his knowledge and belief, and in the event of any statement being found false, he shall be fully responsible and liable for appropriate legal action.

Reason for amendment in EC:

- Amendment to Environmental Clearance is proposed due to identification of a newly constructed Anganbari Centre located ~237 m from the project site, as reported by the Circle Officer, Deori (Giridih), Letter No. 119, Dated- 26-02-2025.
- To safeguard the Anganbari Centre and nearby habitations, the Project Proponent has submitted a comprehensive Environmental Management Plan (EMP) in compliance with the MoEF&CC Office Memorandum dated 29.10.2014, demonstrating that the proposed mining activities will not cause any adverse environmental or social impacts.


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- A Modified Mining Plan has been prepared and approved by the competent authority, vide Letter No. 171/Bokaro dated 19.08.2025.
- The revised plan includes reduced explosive usage, controlled muffled blasting, and revised production parameters.
- Scientific blasting measures such as NONEL delay detonators, controlled burden and spacing, minimized charge per delay, and scheduled blasting have been proposed to limit vibration, noise, and fly rock.
- Additional mitigation measures include reduction of secondary blasting and development of a peripheral green belt.
- These measures ensure protection of nearby sensitive receptors and justify the proposed amendment to the Environmental Clearance.

Subsequently the EC amendment is proposed in the below table.

Parameters	As per Previous Mining Plan	As per Modified Mining Plan	Remarks if any
Blasting (Explosive used)	Previous Explosive - 8-10 Kg	Explosive 5-8 Kg	Source-Approved Modified Mining Plan
Production	12788 Cum per year 34528 Ton Per Year	11914 m3 per year 32168 ton per year	
Blasting Method	Slurry Method	Muffle method	

In order to minimize vibration, the precautions shall be taken:

1. Blast holes shall be initiated by non-electric (NONEL) down-the-hole (DTH) delay detonators.
2. Care shall be taken to ensure that effective burden is not excessive and the face shall be kept sufficiently long. The burden shall be kept at 1.0 m & spacing shall be 1.5 m.
3. Optimum charge per delay shall be kept as low as possible.
4. The depth of sub grade drilling, i.e. about 10% of the depth of the hole. The diameter of the hole shall be kept at 34-38mm.
5. The firing of maximum possible no. of blast holes towards free face.
6. Use of delay detonators between the holes and rows of blasting.
7. Muffle blasting will be used.

The following steps shall be taken to minimize pollution by noise.

1. Blasting shall be well designed & blasted periodically rather than couple of hastily unplanned blast daily. All the explosive and the NONEL detonators shall be put within the blast hole & instead of detonating fuse, NONEL trunk-line-delay-detonator shall be used for trunk line connections.
2. Blasting shall be planned to minimize boulders, so that secondary blasting shall be reduced.
3. Green belt with trees of varying height shall be developed around the quarry to absorb the blast noise & reduce noise.

Project and Location Details:

I	Parameter	Details
1	Project Name	: Hansebari Stone Mine
2	Lessee:	: M/s Nilam Stone Shri Dipak Kumar Swarnkar
3	Lessee Address	: Shri Dipak Kumar Swarnkar, Shri Dipak Kumar Swarnkar, R/o Domchanch, P.O. – Domchanch Bazar, P.S. – Domchanch, Dist. – Koderma, Jharkhand – 825418
4	Mine Lease Area	: 0.907 Ha
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	Capital Cost: Rs.121.44 Lakhs
7	EMP Budget	: Capital Cost: Rs.7.696Lakhs Recurring Cost: Rs.5.649Lakhs/year
8	New or Expansion	: Amendment in EC
9	Mineable Reserves	: Cum.: 53,958 Tonnes: 1,45,687
10	Mine Life	: 5 Years Up to the Lease Period - 26.08.2021- 25.08.2031.
11	Man power	: 24 Person
12	Water Requirement	: 4.19 KLD(Drinking: 0.360 KLD, Dust Suppression: 0.44KLD, Plantation: 3.399 KLD)
13	Water Source	: Will be sourced from authorized vendors
14	DG Set / power	: 20 KVA D.G. Set proposed
15	Crusher	: No
16	Nearest Water Body	: Irga River - 13.00 km -SW.
17	Nearest Habitation	: Minor Habitation within 380m as per KML. As per Circle Officer, Deori (Giridih), Letter No. 119, Dated- 26-02-2025 an Anganbari Centre located at a distance of ~237 m from the project site.
18	Nearest Rail Station	: Rema Railway Station is at areal distance of 10 km in SW direction.
19	Nearest Air Port	: Birsa Munda Airport (Ranchi) is at areal distance of 150 km SW direction.
20	Nearest Forest	: More than 250 m, as per Division Forest Officer, Giridih, vide memo no.-660 Dated- 15.05.2017.
21	Road & Highways	: The distance of Approach Road is 110m, after that this road connects to village road.
22	Approach Road	: The distance of approach road is 110m.

CO-ORDINATES

Point ID	Degree, Minute, Second	
	Latitude	Longitude
1	24° 29' 50.26647941" N	086° 03' 00.51821521" E

2	24° 29' 50.01634711" N	086° 03' 00.87670971" E
3	24° 29' 49.63243838" N	086° 03' 00.94069284" E
4	24° 29' 49.29600734" N	086° 03' 01.15122076" E
5	24° 29' 49.56845705" N	086° 03' 01.47114492" E
6	24° 29' 49.37443749" N	086° 03' 02.22038011" E
7	24° 29' 49.16597727" N	086° 03' 02.60635084" E
8	24° 29' 48.99259593" N	086° 03' 03.23793228" E
9	24° 29' 48.22478637" N	086° 03' 03.00470045" E
10	24° 29' 47.98948780" N	086° 03' 02.46805913" E
11	24° 29' 47.84500974" N	086° 03' 01.84473170" E
12	24° 29' 48.05140986" N	086° 03' 00.71571617" E
13	24° 29' 47.79959918" N	086° 03' 00.58774640" E
14	24° 29' 46.86868614" N	086° 03' 00.27279601" E
15	24° 29' 46.93271649" N	086° 02' 59.72912279" E
16	24° 29' 46.92239891" N	086° 02' 59.13468690" E
17	24° 29' 47.00082682" N	086° 02' 58.96543885" E
18	24° 29' 47.04417256" N	086° 02' 58.69092334" E
19	24° 29' 47.05036502" N	086° 02' 58.31733797" E
20	24° 29' 47.26708889" N	086° 02' 58.10268171" E
21	24° 29' 47.79134519" N	086° 02' 58.51548286" E
22	24° 29' 47.91105759" N	086° 02' 57.98090432" E
23	24° 29' 48.38784292" N	086° 02' 58.08823375" E
24	24° 29' 48.84746331" N	086° 02' 58.28248245" E
25	24° 29' 48.81303011" N	086° 02' 58.67854043" E
26	24° 29' 48.67886640" N	086° 02' 59.13881676" E
27	24° 29' 48.74904655" N	086° 02' 59.36172702" E
28	24° 29' 48.87147934" N	086° 02' 59.55531349" E
29	24° 29' 48.75730079" N	086° 02' 59.80342429" E
30	24° 29' 49.23821252" N	086° 03' 00.15843614" E
31	24° 29' 49.56845552" N	086° 03' 00.03253073" E
32	24° 29' 49.82645760" N	086° 02' 59.65068775" E
33	24° 29' 49.57258486" N	086° 02' 59.18216003" E
34	24° 29' 49.31175767" N	086° 02' 58.74928512" E
35	24° 29' 49.26710982" N	086° 02' 58.20381800" E
36	24° 29' 49.68844786" N	086° 02' 58.05197232" E
37	24° 29' 50.62307687" N	086° 02' 58.18339151" E
38	24° 29' 50.48958563" N	086° 02' 58.31811930" E
39	24° 29' 50.43664417" N	086° 02' 58.55668973" E

LAND DETAILS

Khata no.	Plot no.
01	39 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	i. The Letter of Intent (LoI) has been issued by District Mining Officer, Giridih vide letter no. 912/M, dated 18.11.2020. ii. Lease deed : 26.08.2021 to 25.08.2031.
2	CO	:	The CO, Deori vide letter no. 203, dated 29.03.2017 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in Khatiyon. During the appraisal it was seen from the KML that Aangan Badi has come up within 500 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Giridih vide memo no. 884/M, dated 18.09.2025 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 2154, dated 19.12.2020 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Giridih West Forest Division vide letter no. 660, dated 15.05.2017 certified that the distance of forest land is more than 250 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Giridih District (Page no. 38, Sl. no. 43).
7	Gram Sabha	:	BDO, Deori vide letter no. 1194, dated 13.07.2018 informed that Gram Sabha conducted on 12.06.2018.
8	Mine Plan Approval	:	Modification of Mining Plan approved by The Assistant Director, Geology, District Geological Office, Bokaro vide Memo No. 171, dated 19.08.2025.
9	Previous EC	:	Previous EC granted by SEIAA vide letter no. EC/SEIAA/2020-21/2020/31, dated 14.07.2021.
10	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-12201692 /2022 /93, dated 03.03.2022.
11	Consent to Operate (CTO)	:	CTO issued by JSPCB vide ref. no. : JSPCB/HO/RNC/CTO-21146293 /2025/514, dated 09.03.2025 valid up to 31.12.2025.
12	Production Report	:	Production report issued by DMO, Giridih vide letter no. 885/M, dated 18.09.2025.
13	Qualified Person	:	Shri Malaya Kumar Mukhopadhyay was present in the meeting

		and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Semi-mechanized Method	
2	Quarry Area	:	0.454 Ha	Life of Mine – 5 Years (Up to the Lease Period - 26.08.2021- 25.08.2031)
3	Waste Generation	:	23382cum	
4	Stripping Ratio	:	01:0.01	
5	Working Days	:	300	
6	Benches: size	:	3 m x 3 m	
7	Elevation of Mine	:	349m to 343m AMSL	
8	Ground Level Elevation	:	343m AMSL	
9	Ultimate Working Depth	:	332 m AMSL	
10	Water Table	:	315m AMSL	
11	Topography of Mine	:	Area represents gently sloping land.	
12	Explosive Requirement	:	13.36 kg Nitro mix explosives/day, will be obtained from lessened vendors.	
13	Diesel/Fuel requirement	:	HSD – 231.72 liters / day (46.344 KL/year)	

Production Details

Year	Production of Stone / Year		Removal of O.B.
	Cum	Tonnes	Cum
1st	10804	29171	10952
2nd	11914	32168	0
3rd	10670	28809	12430
4th	10450	28215	0
5th	10120	27324	0
Total	53958	145687	23382

Land Use pattern

Sl. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha)	Proposed Land use for current plan period (Ha)	Land used at the conceptual stage i.e. end of mine life in (Ha)	Area to be converted in the conceptual period.
1	Mining	0.205	0.374	0.454	Water body

	Activities				
2	Dumping	0	0.000	0	-
3	Garland Drain	0	0.02	0.02	Plantation
3	Safety Zone	0	0.433	0.433	Plantation
4	Unutilized	0.702	0.01	0	-
5	Excavated	0.000	0.07	0	
Total		0.907	0.907	0.907	-

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location		Area/Length	No of Trees
1	Green Belt/Safety Zone	:	0.433 Ha	1,083
2	Garland Drain		0.02 Ha	50
3	Along Approach Road	:	110 m	148
TOTAL				1,281

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

- Project Cost

Sl. No.	Head	Capital Cost Rs. in Lakhs	Recurring Cost Rs. in Lakhs
1.	Government Revenue (Dead Rent & Royalty)	26.00	--
2.	Cost of infrastructure	5.0	0.5
3.	Mining Machineries owned by applicant	74.4	
	a. Wagon Drill -01		
	b. Compressor-01		
	c. Tippers 25 tons-01		
	d. Water Tanker- 01		
	e. Diesel Pump-01		
	f. D.G. Set-01		

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	Mining Machineries on hired basis- (Excavator- 01, Tipper-01)		5.5
4.	Lease Agreement(lump-sum)	--	56.00
5.	Statutory Clearance & Others	5.0	-
6.	Contingency	11.04	-
Total		121.44	62
Budget for Environment Management		7.696	5.649

• **Budget for Environmental Management**

Sl. No.	Particulars	Capital Cost in lakhs.	Recurring Cost in lakhs per year
1	Water facility for Dust Suppression, watering plants etc. (Rs. 1000 per Tanker)	--	3
2	Fencing	1.5	--
3	Plantation 148 X 800 = Rs. 1,18,400 Gabion Plantation along approach road) 1133 X 400 = Rs.4,53,200. (Plantation within lease area/Green Belt) (also includes Fertilizer, Pesticides, Maintenance) Plantation along the Anganbari Centre/Habitation (120 x 400) = Rs 48,000	6.196	0.6196
4	Environmental Monitoring (One Day Monitoring) • Ambient Air 24 hrs (3 point) - Rs.27,270 • Ground Water (2 point) - Rs.12,420 • Noise 24 hrs (3 point) - Rs.21,000 • Soil (3 point) - Rs.40,920 Total -Rs. 1,01,610 (Per Season) At least two seasons in a Year -Rs. 1,01,610 x 2 = Rs. 2,03,220 <i>Source: Central Pollution Control Board Notificalion, New Delhi, the 23rd February, 2022</i>	--	2.03
Total		7.696	5.649

Note: EMP budget for the Anganbari Centre /Habitation located within 500 m periphery of the Project site

Environment Monitoring Plan
Monitoring Parameters and Frequency of Monitoring

SL. No.	Description	No. of Monitoring Stations	Duration
1.	Air	3 stations	6 Monthly
2.	Water	2 stations	6 Monthly
3.	Noise	3 stations	6 Monthly
4.	Soil	3 Station	6 Monthly

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 23382 cum of Intercalated Waste will be generated during the plan period which will be used in maintenance of haul road and approach road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise.

	• Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR

		1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting Handling Explosives	& of	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for

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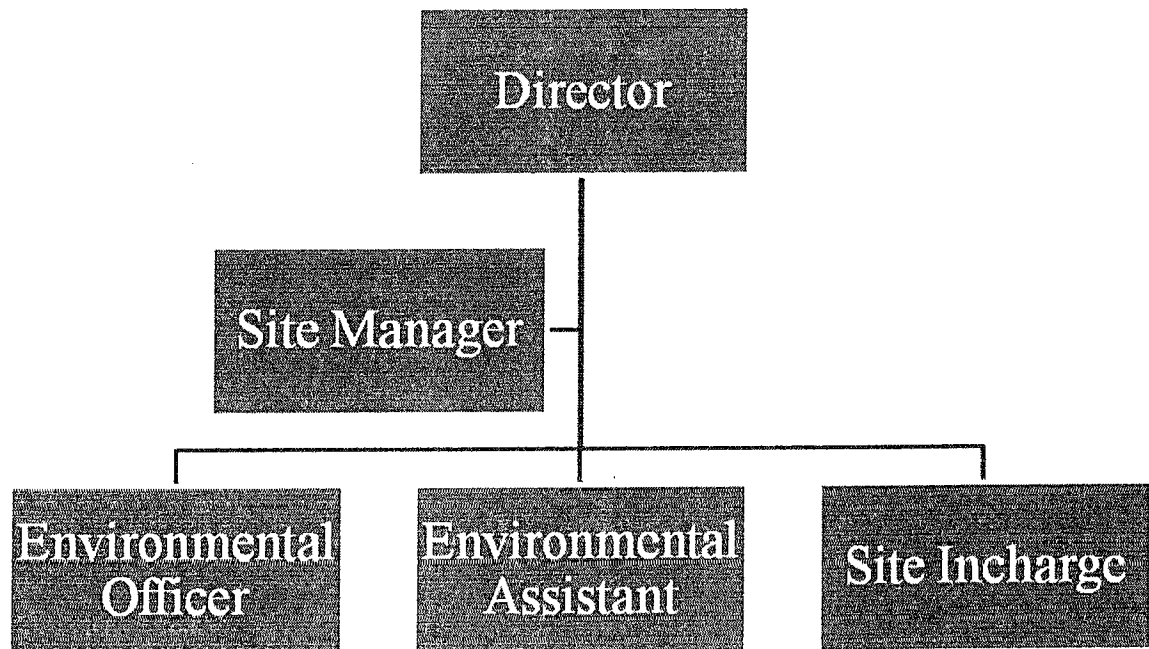
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	good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.

- I. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

As per the tree inventory and photographs submitted by PAs it has been observed that the required 1200 nos. of trees have been planted within mining lease area.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Hansebari Stone Mine of M/s Nilam Stone (Prop. : Shri Dipak Kumar Swarnkar), Village : Hansebari, Thana : Deori, Distt. : Giridih, Jharkhand (0.907 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VI. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VII. Ensure use of Quality PPFs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

9. Demba Stone Mine of M/s Minakshi Stone Works (Partners : Shri Aditya Prakash & Shri Rajeev Ranjan), Village : Demba, Thana : Jirwabari, Thana no. : 08, Distt.: Sahibganj, Jharkhand (2.83 Ha).

(Proposal no.: SIA/JH/MIN /557377 /2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 21.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity: 91020 cum. Per Year (Max) / 254856TonsPer Year(max)

and Location Details:

I	Parameter	Details
1	Project Name	: Demba Stone Mine
2	Lessee:	: M/s Minakshi Stone Works Partners: 1. Shri Aditya Prakash 2. Shri Rajeev Rajan
3	Lessee Address	: M/s Minakshi Stone Works 1. Shri Aditya Prakash, S/o Late Krishnanand Yadav, R/o Vill + P.O. – Mahadevganj, P.S.- Sahibganj (M), Dist – Sahibganj (Jharkhand) 2. Shri Rajeev Rajan, S/o Lal Bahadur Yadav, R/o Vill+ P.O.- Budhchak, Barmasiya, P.S.- Katihar, State- Bihar.
4	Mine Lease Area	: 2.83 Ha
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	Capital Cost: Rs. Rs.180.84 Lakhs
7	EMP Budget	: Capital Cost: Rs. 14.04Lakhs Recurring Cost: Rs. 6.284 Lakhs/year
8	New or Expansion	: New
9	Mineable Reserves	: cum.: 8,32,822 Tonnes: 23,31,902
10	Mine Life	: 10 Years
11	Man power	: 30 Person
12	Water Requirement	: 7 KLD(Drinking: 0.450 KLD, Dust Suppression: 0.68KLD, Plantation: 5.904 KLD)
13	Water Source	: Will be sourced from authorized vendors
14	DG Set / power	: 20 KVA D.G. Set proposed

15	Crusher	:	No
16	Nearest Water Body	:	Ganga River flowing at 7.08 km in N.E Direction.
17	Nearest Habitation	:	Demba-0.58 Km South.
18	Nearest Rail Station	:	Sahibganj Station is at Aerial distance of 5.46 km in NW direction.
19	Nearest Air Port	:	Deoghar Airport is at Aerial distance of 123.94 km SW direction.
20	Nearest Forest	:	More than 250 m, as per Division Forest Officer, Sahibganj, vide Letter no.- 2633 Dated- 14.10.2024.
21	Road & Highways	:	The distance of Approach Road is 170m, after that, this road connects to village road.
22	Approach Road	:	The distance of approach road is 170m.

CO-ORDINATES

Point Name	Latitude	Longitude
1	25° 13' 37.12859067" N	087° 34' 54.82287774" E
2	25° 13' 37.26731305" N	087° 34' 56.12607256" E
3	25° 13' 37.35482250" N	087° 34' 56.33291310" E
4	25° 13' 37.00478467" N	087° 34' 57.38302659" E
5	25° 13' 36.69054617" N	087° 34' 58.45700629" E
6	25° 13' 36.49166104" N	087° 34' 59.44347654" E
7	25° 13' 35.86318402" N	087° 34' 59.14912655" E
8	25° 13' 35.69214281" N	087° 34' 59.40369951" E
9	25° 13' 35.28641714" N	087° 34' 59.27243533" E
10	25° 13' 34.80113742" N	087° 34' 59.00990696" E
11	25° 13' 34.00050544" N	087° 34' 58.52812761" E
12	25° 13' 33.77648123" N	087° 34' 59.22311182" E
13	25° 13' 33.53541717" N	087° 34' 59.87478885" E
14	25° 13' 33.23392259" N	087° 35' 00.29868260" E
15	25° 13' 32.76554811" N	087° 35' 00.70241942" E
16	25° 13' 32.46397809" N	087° 35' 01.96728141" E

17	25° 13' 32.16240806" N	087° 35' 03.23214341" E
18	25° 13' 31.66692805" N	087° 35' 03.71906247" E
19	25° 13' 30.82020293" N	087° 35' 03.98402408" E
20	25° 13' 29.91278952" N	087° 35' 04.15804857" E
21	25° 13' 29.81956211" N	087° 35' 02.89015586" E
22	25° 13' 29.83199243" N	087° 35' 01.86465440" E
23	25° 13' 30.03087756" N	087° 35' 01.57875703" E
24	25° 13' 30.55916619" N	087° 35' 00.90130455" E
25	25° 13' 30.57159651" N	087° 35' 00.58433137" E
26	25° 13' 30.74785846" N	087° 35' 00.18332923" E
27	25° 13' 31.28087061" N	087° 34' 59.03775087" E
28	25° 13' 30.87116724" N	087° 34' 58.50871643" E
29	25° 13' 30.50124090" N	087° 34' 57.89217252" E
30	25° 13' 30.41770914" N	087° 34' 57.58986712" E
31	25° 13' 30.13131455" N	087° 34' 56.90570227" E
32	25° 13' 31.52748817" N	087° 34' 56.19767121" E
33	25° 13' 32.24745235" N	087° 34' 55.87149959" E
34	25° 13' 33.13224257" N	087° 34' 56.17156753" E
35	25° 13' 33.93737184" N	087° 34' 55.90725168" E
36	25° 13' 34.74250112" N	087° 34' 55.64293583" E
37	25° 13' 35.54833199" N	087° 34' 55.37838965" E
38	25° 13' 36.35275966" N	087° 34' 55.11430412" E

LAND DETAILS

Khata no.	Plot no.
01	173
11	236 & 238 (P)
21	235

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STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Sahibganj vide letter no. 1106/M, dated 19.06.2025.
2	CO	:	The CO, Mandro vide memo no. 655/Ra., dated 28.09.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyani & Register II.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 1729/M, dated 15.09.2025 certified that 01 other mining lease area (5.29 Acre) exists within 500 meters radius from proposed project site and total area is 12.29 Acre.
4	DFO Wild Life	:	DFO – cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. 2582, dated 08.10.2024 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide letter no. 2633, dated 14.10.2024 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 1730/M, dated 15.09.2025 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 185).
7	Gram Sabha	:	Gram Sabha conducted on 13.09.2024.
8	Grid certificate	:	DMO, Sahibganj vide memo no. 1533/M, dated 21.08.2025 certified that said project falls under grid no. 03 and production is within the over all permissible production limit. The DMO also stated that this certificate is issued in the light of order passed by Hon'ble NGT on 22.12.2021 in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019. It also states this certificate is issued in compliance of report of Expert Committee.
9	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1856/M, dated 04.11.2025.
10	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Semi-mechanized Method
2	Quarry Area	:	2.134Ha. Life of Mine – 10 Years

3	Waste Generation	:	69945cum
4	Stripping Ratio	:	01:0.05
5	Working Days	:	300
6	Bench: size	:	6 m x 6 m
7	Elevation of Mine	:	240m to 210m AMSL
8	Ground Level Elevation	:	210 m AMSL
9	Ultimate Working Depth	:	186m AMSL
10	Water Table	:	175m AMSL(Source-JSAC Ground Water Prospect Map)
11	Topography of Mine	:	Area represents gently sloping land.
12	Explosive Requirement	:	88.64 kg Nitro mix explosives/day, will be obtained from Licensed vendors.
13	Diesel/Fuel requirement	:	HSD – 328.74 liters / day (108.48 KL/year)

Production Details

Year	Production of Stone / Year		Removal of O.B.
	Cum	Tonnes	Cum
1st	88245	247086	38295
2nd	91020	254856	0
3rd	79735	223258	0
4th	85350	238980	31650
5th	84150	235620	0
Total	428500	1199800	69945

Land Use pattern

Si. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha.)	Proposed Land use for current plan period (Ha.)	Land to be used in remaining period of the life of the mine. (Ha.)	Land used at the conceptual stage i.e. end of mine life in (Ha.)	Area to be converted in the conceptual period.
1	Mining Activities	0	1.548	2.134	1.758	Water Body
2	Dead Benches	0	0.000	0.000	0.376	Plantation
3	Dumping	0	0.119	0.000	0.000	-
4	Garland drain	0	0.044	0.044	0.044	Plantation
5	Settling Tank	0	0.000	0.000	0.000	-

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6	Safety Zone	0	0.652	0.652	0.652	Plantation
7	Unutilized	2.83	0.467	0.000	0.000	Plantation
Total		2.83	2.83	2.83	2.83	-

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location		Area/Length	No of Trees
1	Dead Benches	:	0.376 Ha	940
2	Garland drain		0.044 Ha	110
3	Safety Zone		0.652 Ha	1630
5	Along Approach Road	:	170m	228
TOTAL 1.072Ha				2908

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.
- Project Cost**

Sl. No.	Head	Capital Cost Rs. in Lakhs	Recurring Cost Rs. in Lakhs
1.	Government Revenue (Dead Rent & Royalty)	26.00	--
2.	Cost of infrastructure	5.0	0.5
3.	Mining Machineries owned by applicant - Wagon Drill -02 - Compressor-01 - Tippers 25 tons-03 - Water Tanker- 01 - Diesel Pump-01 - D.G. Set-01	128.4	
	Mining Machineries on hired basis- (Excavator- 01, Tipper-06)		18
4.	Lease Agreement(lump-sum)	--	1.75
5.	Statutory Clearance & Others	5.0	-
6.	Contingency	16.44	-
Total		180.84	20.25
Budget for Environment Management		14.04	6.284

- Budget for Environmental Management**

Sl. No.	Particulars	Capital Cost in lakhs.	Recurring Cost in lakhs per year
1	Water facility for Dust Suppression, watering plants etc. (Rs. 1000 per Tanker)	--	3
2	Fencing	1.5	--
3	Plantation 228 X 800 = Rs.1,82,400 Gabion Plantation along approach road) 2680 X 400 = Rs.1072000 (Plantation within lease area/Green Belt) (also includes Fertilizer, Pesticides, Maintenance)	12.54	1.254
4	Environmental Monitoring (One Day Monitoring) - Ambient Air 24 hrs (3 point) - Rs.27,270 - Ground Water (2 point) - Rs.12,420 - Noise 24 hrs (3 point) - Rs.21,000 - Soil (3 point) -Rs.40,920 Total -Rs. 1,01,610 (Per Season) At least two seasons in a Year -Rs. 1,01,610 x 2 = Rs. 2,03,220 <i>Source: Central Pollution Control Board Notification, New Delhi, the 23rd February, 2022</i>	--	2.03
Total		14.04	6.284

Environment Monitoring Programmed

SL. No.	Description	No. of Monitoring Stations	Duration
1.	Air	3 stations	6 Monthly
2.	Water	2 stations	6 Monthly
3.	Noise	3 stations	6 Monthly
4.	Soil	3 Station	6 Monthly

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures

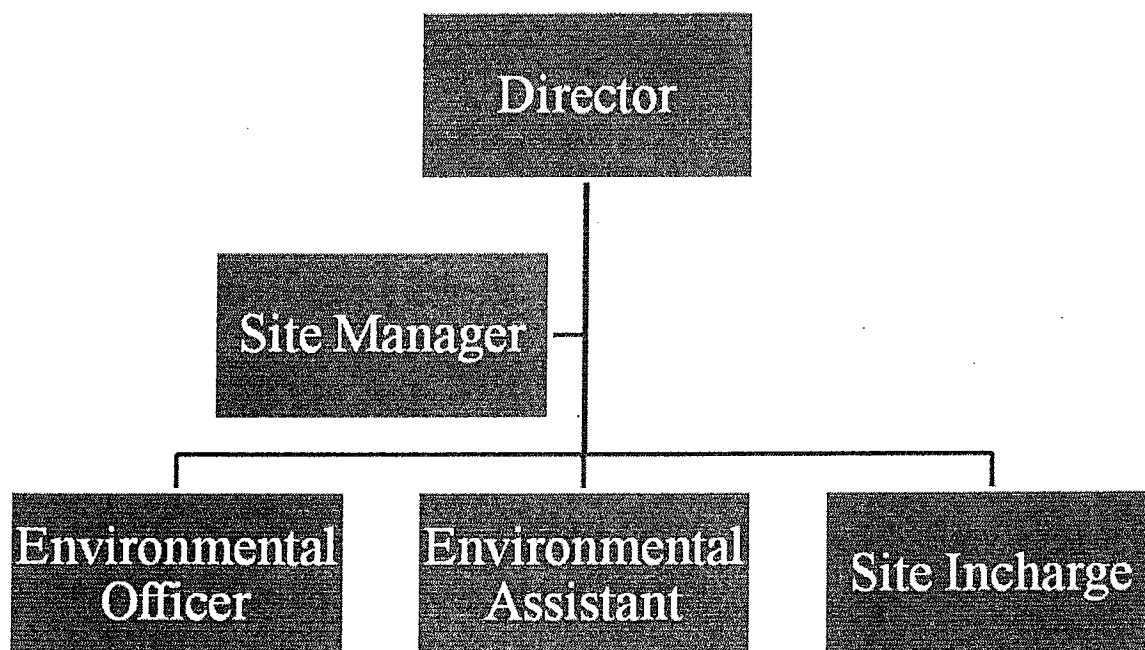
Solid Waste Management	Total 69945cum of Intercalated Waste will be generated during the plan period. It will use in maintainance of haul road and approach road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank–soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species

	along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
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		▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
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	certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
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Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Demba Stone Mine of M/s Minakshi Stone Works (Partners : Shri Aditya Prakash & Shri Rajeev Ranjan), Village : Demba, Thana : Jirwabari, Thana no. : 08, Distt.: Sahibganj, Jharkhand (2.83 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental

Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.

- II. That the Deputy Commissioner, Sahibganj will ensure compliance of the order passed by Hon'ble NGT in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019 in the matter of Syed Arshad Nasar Vs Union of India with Ramchandra Chaurasia Vs State of Jharkhand with Pradeep Kumar Singh Vs State of Jharkhand before grant of mining lease.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLTT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

10. Dalabari Stone Mine of M/s B.P.Y. Infra Build Pvt. Ltd. (Director : Shri Bajrangi Prasad Yadav), Village : Dalabari, Thana : Borio, Thana no. : 19, Distt.: Sahibganj, Jharkhand (2.817 Ha).

(Proposal no.: SIA/JH/MIN /558818 /2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 21.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B1.

Application for Terms of Reference (ToR).

ToR Application for: Proposed Capacity: 109538 cum. Per Year (Max) / 306706 Tons Per Year(max)

Project and Location Details:

I	Parameter	Details
1	Project Name	: Dalabari Stone Mine
2	Lessee:	: M/s B. P. Y. Infra Build Pvt. Ltd., Director- Shri Bajrangi Prasad Yadav
3	Lessee Address	: M/s B. P. Y. Infra Build Pvt. Ltd., Director- Shri Bajrangi Prasad Yadav, S/O Late Arjun Yadav, Vill- Bhartiya Colony, Thana + Po + Dist.- Sahibganj, Jharkhand.
4	Mine Lease Area	: 2.817 Ha.
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	Capital Cost: Rs.217.14Lakhs
7	EMP Budget	: Capital Cost: Rs.24.49Lakhs Recurring Cost: Rs. 7.32Lakhs/year
8	New or Expansion	: New
9	Mineable Reserves	: cum.: 987129 Tonnes: 2763961
10	Mine Life	: 10 Years
11	Man power	: 34 Person
12	Water Requirement	: 17.75 KLD(Drinking: 0.510 KLD, Dust Suppression: 1.944 KLD, Plantation: 15.3 KLD)
13	Water Source	: Will be sourced from authorized vendors
14	DG Set / power	: 20 KVA D.G. Set proposed
15	Crusher	: No
16	Nearest Water Body	: Ganga River flowing at 13.17 km in N.E Direction.
17	Nearest Habitation	: Dalabari – 0.64 Km North.

18	Nearest Rail Station	:	Kalian Chak Railway is at Aerial distance of 8 km in East direction.
19	Nearest Air Port	:	Deoghar Airport is at Aerial distance of 118 km SW direction.
20	Nearest Forest	:	More than 250 m, as per Division Forest Officer, Sahibganj, vide Letter no.-1603 Dated- 30.05.2025.
21	Road & Highways	:	The distance of Approach Road is 486m, after that, this road connects to village road.
22	Approach Road	:	The distance of approach road is 486m.

CO-ORDINATES

Point Name	Longitude	Latitude
1	087° 39' 50.53549680" E	25° 02' 52.53423720" N
2	087° 39' 50.55283440" E	25° 02' 53.27137320" N
3	087° 39' 50.63751000" E	25° 02' 54.34530720" N
4	087° 39' 51.38654040" E	25° 02' 55.34843280" N
5	087° 39' 52.26904080" E	25° 02' 56.55477120" N
6	087° 39' 53.56954080" E	25° 02' 56.93997480" N
7	087° 39' 54.55562760" E	25° 02' 57.20978040" N
8	087° 39' 55.65663720" E	25° 02' 57.59941200" N
9	087° 39' 56.75921280" E	25° 02' 57.98959440" N
10	087° 39' 57.84413040" E	25° 02' 56.91605640" N
11	087° 39' 58.82229360" E	25° 02' 55.90944600" N
12	087° 39' 59.87770560" E	25° 02' 54.81458520" N
13	087° 40' 00.58803960" E	25° 02' 54.07770120" N
14	087° 40' 01.22489760" E	25° 02' 53.40008400" N
15	087° 39' 59.78264760" E	25° 02' 53.50652160" N
16	087° 39' 58.38836400" E	25° 02' 53.60942040" N
17	087° 39' 56.98145880" E	25° 02' 53.71324800" N
18	087° 39' 55.57411080" E	25° 02' 53.81711160" N
19	087° 39' 54.45313920" E	25° 02' 53.37674160" N
20	087° 39' 53.14519440" E	25° 02' 52.86291360" N
21	087° 39' 51.99826680" E	25° 02' 52.41234480" N
22	087° 39' 50.55365520" E	25° 02' 51.84483000" N

LAND DETAILS

Khata no.	Plot no.
11, 03, 12, 01 & 06	71 (P), 72 (P), 73 (P), 77 (P) & 78 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Sahibganj vide letter no. 1693/M, dated 08.09.2025.
2	CO	:	The CO, Borio vide letter no. 823/Ra., dated 08.11.2021 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatyan & Register II.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 1782/M, dated 27.09.2025 certified that 01 other mining lease area (7.20 Acre) exists within 500 meters radius from proposed project site and total area is 14.16 Acre.
4	DFO Wild Life	:	DFO – cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. 1227, dated 12.05.2022 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide letter no. 1603, dated 30.05.2025 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 1781/M, dated 27.09.2025 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 181).
7	Gram Sabha	:	Gram Sabha conducted on 30.10.2021.
8	Grid certificate	:	DMO, Sahibganj vide memo no. 1417/M, dated 22.07.2025 certified that said project falls under grid no. 55 and production is within the over all permissible production limit. The DMO also stated that this certificate is issued in the light of order passed by Hon'ble NGT on 22.12.2021 in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019. It also states this certificate is issued in compliance of report of Expert Committee.
9	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1779/M, dated 27.09.2025.
10	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.
11	Baseline monitoring period	:	December, 2025 to February, 2026.

Working Details

1	Mining Method	:	Semi-mechanized Method	
2	Quarry Area	:	2.091Ha	Life of Mine – 10 Years
3	Waste Generation	:	25025cum	
4	Stripping Ratio	:	01:0.04	
5	Working Days	:	300	
6	Benches: size	:	6 m x 6 m	
7	Elevation of Mine	:	220m to 160m AMSL	
8	Ground Level Elevation	:	160m AMSL	
9	Ultimate Working Depth	:	141m AMSL	
10	Water Table	:	120m AMSL (Source -JSAC Ground Water Prospect Map)	
11	Topography of Mine	:	Area represents gently sloping land.	
12	Explosive Requirement	:	99.792 kg Nitro mix explosives/day, will be obtained from lessened vendors.	
13	Diesel/Fuel requirement	:	HSD – 356.46 liters / day (117.63 KL/year)	

Production Details

Year	Production of Stone / Year		Removal of O.B.
	Cum recoverable	Tonnes	Cum
1st	89518	250650	12441
2nd	105820	296296	2574
3rd	109538	306706	4576
4th	106106	297097	2574
5th	105677	295896	2860
Total	516659	1446645	25025

Land Use pattern

Si. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha.)	Proposed Land use for current plan period (Ha.)	Land to be used in remaining period of the end of mine life in. (Ha.)	Land used at the conceptual stage i.e. end of mine life in (Ha.)	Area to be converted in the conceptual period.
1	Mining Quarry	0	1.638	2.091	1.036	Water body
2	Dead Benches	0	0	0	1.055	Plantation
3	Garland drain	0	0.036	0.036	0.036	Plantation

4	Settling Tank	0	0.005	0	0	-
5	Dumping	0	0.123	0.123	0.123	Plantation
6	Safety Zone	0	0.567	0.567	0.567	Plantation
7	Unutilized	2.817	0.448	0	0	-
Total		2.817	2.817	2.817	2.817	-

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location		Area/Length	No of Trees
1	Within 7.5 m Safety Zone (1 st Year)	:	0.567 Ha	1,417
2	Garland Drain		0.036 Ha	90
3	Dead Benches	:	1.055 Ha	2,637
4	Dumping	:	0.123 Ha	308
5	Along Approach Road	:	486 m	648
TOTAL 1.781 Ha.				5100

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Project Cost

Sl. No.	Head	Capital Cost Rs. in Lakhs	Recurring Cost Rs. in Lakhs
1.	Government Revenue (Dead Rent & Royalty)	26.00	--
2.	Cost of infrastructure	5.0	0.5
3.	Mining Machineries owned by applicant - Wagon Drill -04 - Compressor-01 - Tippers 25 tons-04 - Water Tanker- 01 - Diesel Pump-01	161.4	

	• D.G. Set-01		
	Mining Machineries on hired basis- (Excavator- 01, Tipper-07)		20.5
4.	Lease Agreement(lump-sum)	--	0.174
5.	Statutory Clearance & Others	5.0	-
6.	Contingency	19.74	-
Total		217.14	21.17
Budget for Environment Management		24.49	7.32

• **Table: Budget for Environmental Management**

Sl. No.	Particulars	Capital Cost in lakhs.	Recurring Cost in lakhs per year
1	Water facility for Dust Suppression, watering plants etc. (Rs. 1000 per Tanker)	--	3
2	Fencing	1.5	--
3	Plantation 648 X 800 = Rs. 5,18,400 Gabion Plantation along approach road) 4452 X 400 = Rs.17,80,800 (Plantation within lease area/Green Belt) (also includes Fertilizer, Pesticides, Maintenance)	22.992	2.2992
4	Environmental Monitoring (One Day Monitoring) • Ambient Air 24 hrs (3 point) - Rs.27,270 • Ground Water (2 point) - Rs.12,420 • Noise 24 hrs (3 point) - Rs.21,000 • Soil (3 point) -Rs.40,920 Total -Rs. 1,01,610 (Per Season) At least two seasons in a Year -Rs. 1,01,610 x 2 = Rs. 2,03,220 <i>Source: Central Pollution Control Board Notification, New Delhi, the 23rd February, 2022</i>	--	2.03
Total		24.49	7.32

Environment Monitoring Programmed

SL. No.	Description	No. of Monitoring Stations	Duration
1.	Air	3 stations	6 Monthly
2.	Water	2 stations	6 Monthly
3.	Noise	3 stations	6 Monthly
4.	Soil	3 Station	6 Monthly

Environment Management Practices to be followed:

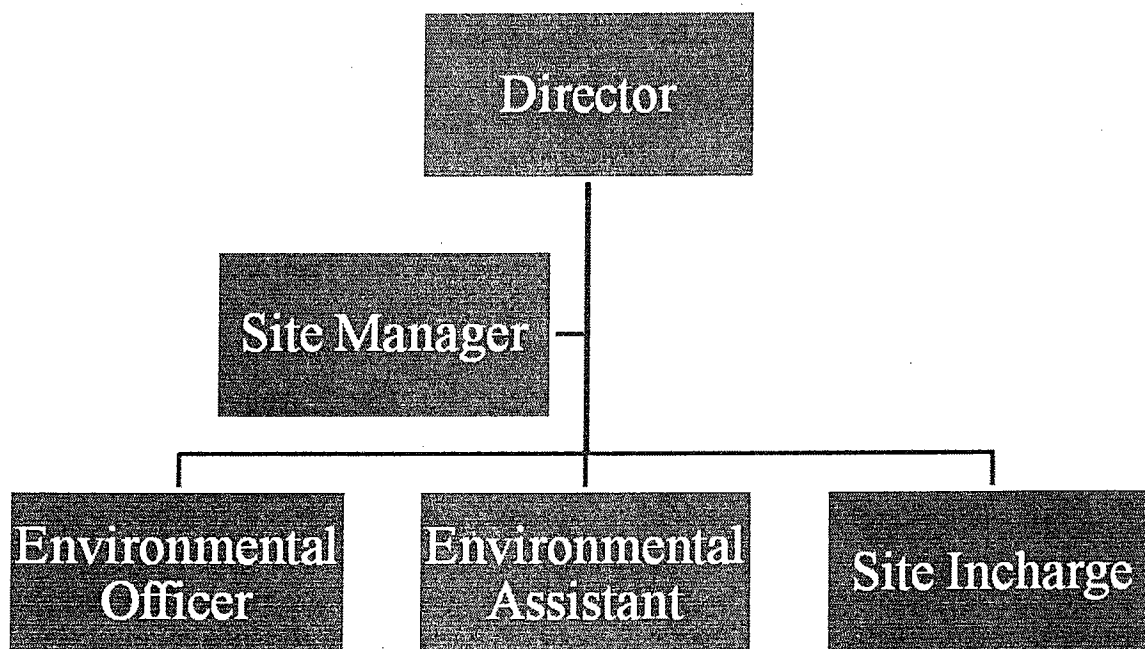
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 25025cum of Intercalated Waste will be generated during the plan period. It will use in maintenance of haul road and approach road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.

Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any

		inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting Handling Explosives	& of	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left

	unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 19, 20, 21, 22, 23 & 24.12.2025, the Committee recommends in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 for issuing of ToR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure III alongwith following specific condition :-

- I. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.

11. Amchua Stone Mine of Shri Rajendra Prasad Agarwal, Village : Amchua, Thana : Shikaripara, Distt.: Dumka, Jharkhand (2.768 Ha).

(Proposal no.: SIA/JH/MIN /558664 /2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 21.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B1.

Application for Terms of Reference (ToR).

TOR Application for: Proposed Capacity: 56,020 cum.(max) per year / 1,51,253 Tons (max) per year

Project and Location Details:

I	Parameter	Details
1	Project Name	: Amchua Stone Mine
2	Lessee:	: Shri Rajendra Prasad Agarwal S/O Late Banwarolal Agarwal,
3	Lessee Address	: R/o Balaji Gangej, Block B 102-A, 105-D, Bidhan Nagar Road, Kolkata – 700067 (West Bengal).
4	Mine Lease Area	: 2.768 Ha
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	Capital Cost: Rs. 152.24 Lakhs
7	EMP Budget	: Capital Cost: Rs. 15.02 Lakhs Recurring Cost: Rs. 6.43 Lakhs/year
8	New or Expansion	: New
9	Mineable Reserves	: cum.: 2,68,308 Tonnes: 7,24,430
10	Mine Life	: 5 Years
11	Man power	: 20 Person
12	Water Requirement	: 11.08 KLD (Drinking: 0.3 KLD, Dust Suppression: 0.16 KLD, Plantation: 10.62 KLD)
13	Water Source	: Will be sourced from authorized vendors
14	DG Set / power	: 20 KVA D.G. Set proposed
15	Crusher	: No
16	Nearest Water Body	: Brahmani River flowing East to West at 10 km North Direction
17	Nearest Habitation	: Minor Habitation within 220m as per KML.
18	Nearest Rail Station	: Pinergaria Railway Station at aerial distance of 5.08 km at NE direction
19	Nearest Air Port	: Deoghar Airport is at Aerial distance of 97.55 km NW direction.
20	Nearest Forest	: More than 250 m, as per Division Forest Officer, Dumka, vide

			memo no.-1601 Dated- 08.7.2024
21	Road & Highways	:	The distance of Approach Road is 40m, after that, this road connects to village road.
22	Approach Road	:	The distance of approach road is 40 m.

CO-ORDINATES

Point Name	Longitude	Latitude
1	087° 37' 09.91666537" E	24° 10' 16.60266288" N
2	087° 37' 10.21924381" E	24° 10' 16.35546642" N
3	087° 37' 10.66461166" E	24° 10' 15.92764178" N
4	087° 37' 11.35656316" E	24° 10' 15.29835791" N
5	087° 37' 11.65597010" E	24° 10' 14.98911655" N
6	087° 37' 12.16822608" E	24° 10' 14.50133117" N
7	087° 37' 12.62894024" E	24° 10' 14.07476544" N
8	087° 37' 12.95640673" E	24° 10' 13.66501484" N
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23	087° 37' 18.20674366" E	24° 10' 05.50850581" N
24	087° 37' 18.57767670" E	24° 10' 05.04627974" N
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26	087° 37' 19.46775487" E	24° 10' 03.84829562" N
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LAND DETAILS

Khata no.	Plot no.
12	902 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Dumka vide letter no. 1091/M, dated 23.09.2024.
2	CO	:	The CO, Shikaripara vide letter no. 725/Ra., dated 13.08.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyar & Register II.
3	DMO Cluster	:	DMO, Dumka vide memo no. 898/M, dated 17.07.2025 certified that 01 other mining lease area (6.99 Acre) and 02 LoI (6.66 Acre & 4.30 Acre) exists within 500 meters radius from proposed project site and total area is 24.79 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 1915, dated 30.08.2024 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Dumka Forest Division vide letter no. 1601, dated 08.07.2024 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Dumka District (Page no. 164, Sl. No. 73).
7	Gram Sabha	:	Gram Sabha conducted on 21.05.2024.
8	Mine Plan Approval	:	Approved by DMO, Dumka vide Letter No. 992/M, dated 18.08.2025.
9	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.
11	Baseline monitoring period	:	December, 2024 to February, 2025.

Working Details

1	Mining Method	:	Semi-mechanized Method	
2	Quarry Area	:	1.406 Ha	Life of Mine – 5 Years
3	Waste Generation	:	39,312 cum	
4	Stripping Ratio	:	01:0.05	
5	Working Days	:	300	
6	Bench: size	:	6 m x 6 m	
7	Elevation of Mine	:	84 m-77 m AMSL	
8	Ground Level Elevation	:	77 m AMSL	
9	Ultimate Working Depth	:	64 m AMSL	
10	Water Table	:	38 m AMSL (Source-JSAC Ground Water Prospect Map)	
11	Topography of Mine	:	Area represents gently sloping land.	
12	Explosive Requirement	:	53.46 kg Nitro mix explosives/day, will be obtained from lessened vendors.	
13	Diesel/Fuel requirement	:	HSD – 273.3 Litres /day (90.189 KL/Year)	

Production Details

Year	Production of Stone / Year		Removal of O.B.
	Cum	Tonnes	Cum
1st	55661	150283	24255
2nd	56020	151253	15057
3rd	52010	140426	0
4th	53985	145759	0
5th	50454	136225	0
Total	268128	723946	39312

Land Use pattern

Si. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha.)	Proposed Land use for current plan period (Ha.)	Land used at the conceptual stage i.e. end of mine life in (Ha.)	Area to be converted in the conceptual period.
1	Mining Activities	-	1.406	1.406	Water body
2	Dumping	-	0.231	0.231	Plantation
3	Garland drain	-	0.054	0.054	Plantation
4	Settling Tank	-	0.000	-	-
5	Safety Zone	-	0.839	0.839	Plantation

6	Unutilized	2.599	0.069	0.069	Plantation
7	Excavated previously	0.169	0.169	0.169	Backfill & Plantation
Total		2.768	2.768	2.768	-

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location		Area/Length	No of Trees
1	Dumping	:	0.231Ha	577
2	Garland drain		0.054 Ha	135
3	Safety Zone		0.839 Ha	2097
4	Unutilized		0.069 Ha	172
5	Excavated previously		0.169 Ha	422
6	Along Approach Road	:	0.04 Km	52
TOTAL				3454

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.
- Project Cost**

Sl. No.	Head	Capital Cost Rs. in Lakhs	Recurring Cost Rs. in Lakhs
1.	Government Revenue (Dead Rent& Royalty)	25.00	--
2.	Cost of infrastructure	5.0	0.5
3.	Mining Machineries owned by applicant - Wagon Drill -01 - Compressor-01 - Tippers 25 tons-02 - Diesel Pump-01 - D.G. Set-01 - Water tanker-01	99.4	--
	Mining Machineries on hired basis- (Excavator- 01, Tipper-03)	--	10.5
4.	Lease Agreement(lump-sum)	--	1.71
5.	Statutory Clearance & Others	9.0	-

6.	Contingency	13.84	-
Total		152.24	12.71
Budget for Environment Management		15.02	6.43

• Budget for Environmental Management

Sl. No.	Particulars	Capital Cost in Rs.	Recurring Cost in Rs. per year
1	Water facility for Dust Suppression, watering plants etc. (Rs. 1000 per Tanker)	--	3,00,000
2	Plantation 52 X 800 = Rs 41,600 (Gabion Plantation along approach road) 3402 X 400 =1360800 (Plantation within lease area/Green Belt) (also includes Fertilizer, Pesticides, Maintenance)	1402400	140240
3	Fencing	1,00,000	-
4	Environmental Monitoring (One Day Monitoring) - Ambient Air 24 hrs (3 point) - Rs.27,270 - Ground Water (2 point) - Rs.12,420 - Noise 24 hrs (3 point) - Rs.21,000 - Soil (3 point) -Rs.40,920 Total -Rs. 1,01,610 (Per Season) At least two seasons in a Year -Rs. 1,01,610 x 2 = Rs. 2,03,220 Source: Central Pollution Control Board Notification, New Delhi, the 23rd February, 2022	--	2,03,220
Total		1502400	643460

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Environment Management Practices to be followed:

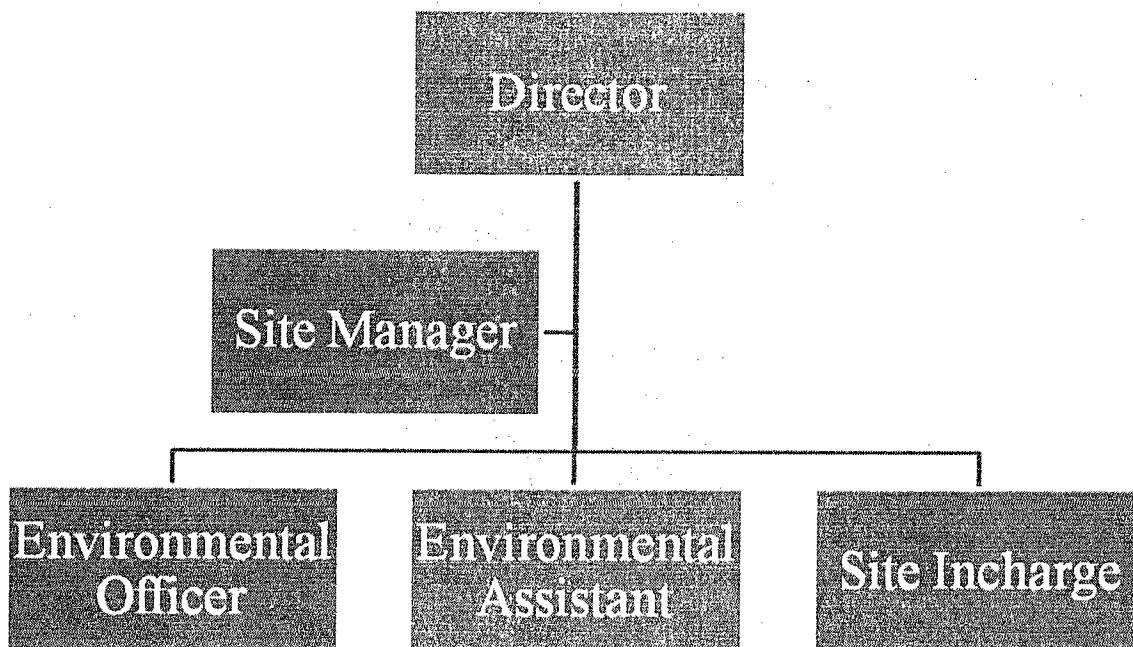
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 39,312 cum of Intercalated Waste will be generated during the plan period. It will use in maintaince of haul road and approach road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems.

	• Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation

		Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting Handling Explosives	& of	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities.

	▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.

- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 19, 20, 21, 22, 23 & 24.12.2025, the Committee recommends in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 for issuing of ToR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure III alongwith following specific condition :-

- I. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.

12. Chanda Nawadih Stone Mine of M/s Anjani Mining Pvt. Ltd. (Partners : Shri Rajesh Kumar Singh & Shri Mukesh Kumar), Village : Chanda Nawadih, Thana : Palojori, Distt.: Deoghar, Jharkhand (2.011 Ha).

(Proposal no.: SIA/JH/MIN /558770 /2025)

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 21.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B1.

Application for Terms of Reference (ToR).

ToR Application for: Proposed Capacity: 4,89,22 Cum. Per year /1,369,82 Tons (max.)Per year

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Chanda Nawadih Stone Mine
2	Lessee:	: M/s Anjani Mining Pvt. Ltd. Shri Rajesh Kumar Singh & Shri Mukesh Kumar
3	Lessee Address	: Partners: 1. Shri Rajesh Kumar Singh, S/o Manikchand Prasad Singh, R/o Vill. – Jhagartari, PO-Katoyaghagri, Thana Hunterganj, Dist.- Chatra (Jharkhand), 2. Shri Mukesh Kumar, S/o Shri Raghuwar Singh, Vill. – Hafua, PO- Hafua, Thana + Dist- Chatra
4	Mine Lease Area	: 2.011 Ha
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	Capital Cost: Rs. 159.94 Lakhs
7	EMP Budget	: Capital Cost: Rs.16.33Lakhs Recurring Cost: 6.56 Lakhs
8	New or Expansion	: New
9	Mineable Reserves	: 228742cum 640478tons
10	Mine Life	: 5years
11	Man power	: 24Person
12	Water Requirement	: 8.16 KLD (Drinking: 0.240 KLD, Dust Suppression: 1.312 KLD , Plantation: 9.915 KLD)
13	Water Source	: From Nearby villages by tankers
14	DG Set / power	: 60 KVA D.G. Set proposed
15	Crusher	: No crusher
16	Nearest Water Body	: Mayurakshi River flowing North to south at 9 km NW Direction
17	Nearest Habitation	: Chanda Nawadih-0.17 km- NE
18	Nearest Rail Station	: Chandanpahari Station is at aerial distance of 21 km NE direction.
19	Nearest Air Port	: Deoghar airport is at aerial distance of 33 km NW direction. Chandanpahari Station is at aerial distance of 21 km NE direction.

20	Nearest Forest	:	More than 250 m, as per Division Forest Officer NOC. vide letter no.-1316, Dated- 05/10/2024
21	Road & Highways	:	An approach road of approximately 198 meters originates from the mine site and connects to a village road
22	Approach Road		The Distance of approach road 198 meters

CO-ORDINATES

Point Name	Longitude	Latitude
1	086° 55' 22.63380487" E	24° 12' 54.30392627" N
2	086° 55' 23.13263978" E	24° 12' 54.17362618" N
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LAND DETAILS

Khata no.	Plot no.
12, 15, 22 & 42	416, 427, 431, 424, 425, 426, 429 (P), 430, 421 & 420

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Deoghar vide letter no. 425/M, dated 29.11.2024.
2	CO	:	The CO, Palojori vide letter no. 833/Ra., dated 28.09.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyon & Register II. During the appraisal it was seen from the KML that habitation at a distance of 200 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Deoghar vide memo no. 539/M, dated 15.05.2025 certified that 03 LoI (6.34 Acre, 4.40 Acre & 6.61 Acre) exists within 500 meters radius from proposed project site and total area is 22.32 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 2132, dated 01.10.2024 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Sanctuary.

5	DFO Territorial	:	Divisional Forest Officer, Deoghar Forest Division vide letter no. 1316, dated 05.10.2024 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Deoghar District (Page no. 62, Sl. No. 10).
7	Gram Sabha	:	BDO, Palojori vide letter no. 1156, dated 05.10.2024 informed that Gram Sabha conducted on 03.10.2024.
8	Mine Plan Approval	:	Approved by The Assistant Director, Geology, District Geological Office, Deoghar vide Memo No. 81/G, dated 15.05.2025.
9	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.
11	Baseline monitoring period	:	December, 2025 to February, 2026.

Working Details

1	Mining Method	:	Opencast Semi-Mechanized Method	
2	Quarry Area	:	1.322Ha	Life of Mine – 05year
3	Waste Generation	:	12,675cum (During Mine Plan Period)	
4	Stripping Ratio	:	1:0.01	
5	Working Days	:	300	
6	Bench: size	:	6 m x 6 m,	
7	Elevation of Mine	:	252- 240 m AMSL	
8	Ground Level Elevation	:	240 AMSL	
9	Ultimate Working Depth	:	214m	
10	Water Table	:	207m AMSL(Source-JSAC Ground Water Prospect Map)	
11	Topography of Mine	:	Area represents gently sloping land.	
12	Explosive Requirement	:	46.2 kg /day nitro mix explosives to be obtained from Licensed Vendors.	
13	Diesel/Fuel requirement	:	HSD – 273.3 liters / day (90.189 KL/year)	

Production Details

Years	Production in Cum/Year	O.B. in Cum/Year	Production in Tons/Year
1 st	45510	10434	127428
2 nd	45621	0	127739
3 rd	43623	0	122144
4 th	45066	0	126185
5 th	48922	2241	136982
Total	228742	12675	640478

Land Use

EXISTING, PROPOSED & CONCEPTUAL LAND USE

Si. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha.)	Proposed Land use for current plan period (Ha.)	Land used at the conceptual stage i.e. end of mine life in (Ha.)	Area to be converted in the conceptual period.
1	Mining Quarry	0	1.322	0.683	Water body
2	Dead Benches	0	0	0.639	Plantation
3	Garland drain	0	0.031	0.031	Plantation
4	Settling Tank	0	0.006	0.006	-
5	Safety Zone	0	0.652	0.652	Green Belt
6	Unutilized	2.011	0	0	-
Total		2.011	2.011	2.011	-

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Dead Benches	0.639	1597
2	Garland drain	0.031	77
3	Safety Zone	0.652	1630
4	Along Approach Road	198 m	264
TOTAL			3,569

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

• **Project Cost**

Sl. No.	Head	Capital Cost Rs. in Lakhs	Recurring Cost Rs. in Lakhs
1.	Government Revenue (Dead Rent & Royalty)	28.00	--
2.	Infrastructure	5.00	0.50
3.	Mining Machineries owned by applicant - Wagon Drill -02 - Compressor-01 - Tippers 25 tons-02 - Diesel Pump-01 - Water Tanker-01 - D.G. Set-01	103.40	--
	Mining Machineries on hired basis (Excavator- 01, Tipper-03)	--	10.5
4.	Lease Agreement (lump-sum)	--	0.50
5.	Statutory Clearance & Others	9.0	
6.	Contingency	14.54	
Total		159.94	11.5
Budget for Environment Management		16.33	6.56

• **Budget for Environmental Management**

Sl. No.	Particulars	Capital Cost in Rs.	Recurring Cost in Rs. per year
1	Water facility for Dust Suppression, watering plants etc. (Rs. 1000 per Tanker)	--	3,00,000
2	Plantation 264 X 800 = Rs 2,11,200 (Gabion	15,33,200	1,53,320

Sl. No.	Particulars	Capital Cost in Rs.	Recurring Cost in Rs. per year
	Plantation along approach road) 3,305 X 400 = 13,22,000 (Plantation within lease area) (also includes Fertilizer, Pesticides, Maintenance)		
3	Fencing	1,00,000	
4	Environmental Monitoring (One Day Monitoring) - Ambient Air 24 hrs (3 point) -Rs.27,270 - Ground Water (2 point) -Rs.12,420 - Noise 24 hrs (3 point) -Rs.21,000 - Soil (3 point) -Rs.40,920 Total - Rs. 1,01,610 (Per Season) At least two seasons in a Year - Rs. 1,01,610 x 2 = Rs. 2,03,220 Source: Central Pollution Control Board Notification, New Delhi, the 23rd February, 2022	--	2,03,220
		16.33	6.56

Environment Monitoring Programme

SL. No.	Description	No. Of Monitoring Stations	Duration
1.	Air	3 stations	6 Monthly
2.	Water	3 stations	6 Monthly
3.	Noise	3 stations	6 Monthly

Environment Management Practices to be followed:

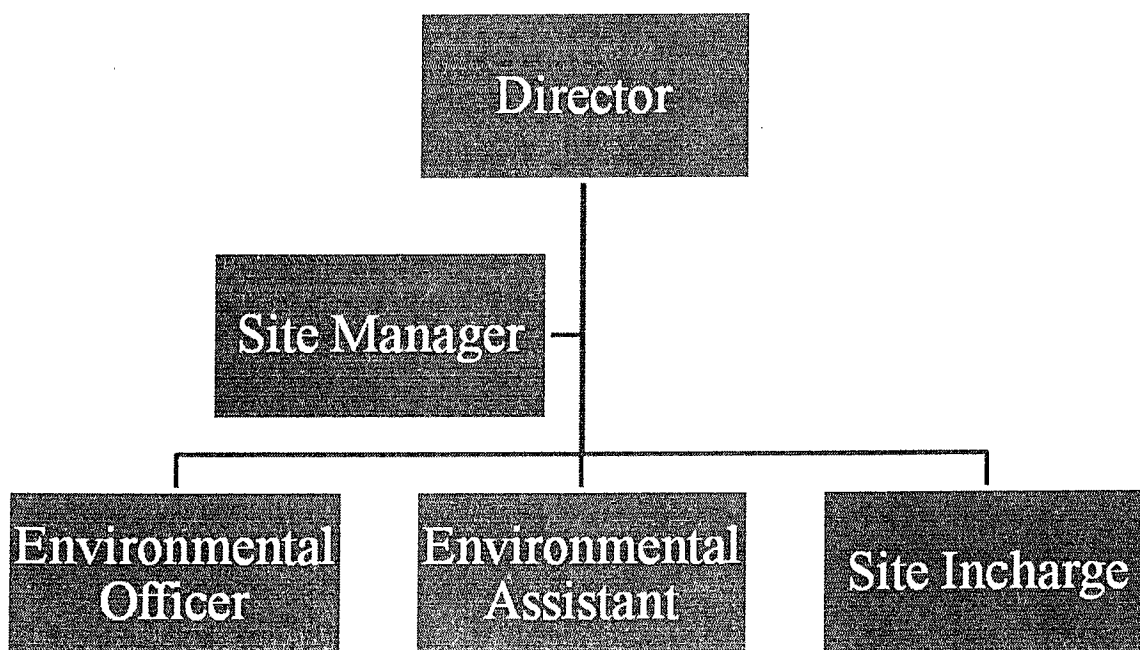
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 12,675 cum of Intercalated Waste will be generated during the plan period. It will use in maintainece of haul road and approach road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank–soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation

Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at

		the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting Handling Explosives	& of	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards		Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only

	affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.

- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 19, 20, 21, 22, 23 & 24.12.2025, the Committee recommends in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 for issuing of ToR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure III alongwith following specific condition :-

- I. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- II. The detailed EMP is to be prepared for the Habitation existing within an area of 500 meter radius of proposed project boundary. This EMP is to be included in EIA report.

13. Amendment in EC from 650 bedded Hospital to 950 Bedded Hospital with Oxygen Plant for M/s Netaji Subhas Medical College and Hospital a unit of Sitwanto Devi Mahila Kalyan Sansthan at Village: Bhatia & Hathiadih, Thana no. : 127 & 60, Tehsil : Adityapur, Distt.: Saraikela Kharsawan, Jharkhand.

(Proposal No : SIA/JH/INFRA2 /556765/2025)

Name of the consultant : Rian Enviro Pvt. Ltd., Patna, Bihar.

This is an amendment project which has been taken for appraisal on 21.12.2025

Project Sector: 8(a) Building and Construction Projects , Category: B2.

Application for Environment Clearance (EC) as per EIA notification, 2006.

Sitwanto Devi Mahila Kalyan Sansthan has proposed for Amendment in Environmental Clearance from 650 Bedded Hospital to 950 Bedded Hospital along with Oxygen Plant for M/s Netaji Subhas Medical College and Hospital a unit of Sitwanto Devi Mahila Kalyan Sansthan at Village-Bhatia & Hathiadih, Thana No. 127 & 60, Thana: Saraikela, Near Phase-7, Adityapur Industrial Area, Dist.-Saraikela-Kharsawan (Jharkhand).

The total Plot area 19243.20 sqm. and Built-up Area is 52184.06 sqm. will remains same as per previous Environment Clearance (EC) vide Lr. No. EC/SEIAA/2024-25/3095/2024 dated 15/05/2024. Consent to Establish (CTE) has been issued by JSPCB vide reference no. JSPCB/HO/RNC/CTE-19323341/2024/259 dated 29/05/2024.

As per NMC norms, we are applying for 250 seats hence we need to increase no. of beds from 650 Beds to 950 Beds within the same building of the premises. As there will not be any change in plot area and built-up area of the project with reference to earlier EC granted, we are hereby applying for amendment in EC as per O.M. no. F. No. IA3-22/10/2022-IA.III [E177258] dated 10/09/2025. The comparison status with reference to earlier EC granted and amendment in EC is mentioned below:

Table 1: Comparison status with reference to earlier EC granted and amendment in EC

Sl. No.	Particulars	As per Existing EC Letter no. EC/SEIAA/2024-25/3095/2024 dated 15/05/2024	Amendment Required in EC	After Amendment in EC
1.	Plot area	19243.20 Sqm	No Change	19243.20 Sqm
2.	Built-up area	52184.91 sqm.	No Change	52184.91 Sqm.
3.	Green Cover area Greenbelt area @15% Green cover @13%	5578.91 Sqm. 2886.48 Sqm. 2692.43 Sqm.	No Change	5578.91 Sqm. 2886.48 Sqm. 2692.43 Sqm.
4.	Open and Paved area	3162.8 Sqm.	No Change	3162.8 Sqm.
5.	Parking area	10,000 Sqm.	No Change	10,000 Sqm.
6.	Proposed Ground Coverage @ 41.87%	8056.49 Sqm.	No Change	8056.49 Sqm.
7.	No. of RWH Pits	6 Nos.	No Change	6 Nos.

Sl. No.	Particulars	As per Existing EC Letter no. EC/SEIAA/2024- 25/3095/2024 dated 15/05/2024	Amendment Required in EC	After Amendment in EC
8.	Total no. of Beds	650	+300	950
9.	Total water requirement*	465 KLD	(-) 40 KLD	425 KLD
10.	Fresh water requirement*	282 KLD	(-) 30 KLD	252 KLD
11.	Treated water requirement*	183 KLD	(-) 10 KLD	173 KLD
12.	Wastewater Generation*	386 KLD	(-) 33 KLD	353 KLD
13.	STP Capacity*	453 KLD	(-) 38 KLD	415 KLD
14.	ETP Capacity*	46 KLD	(-) 4 KLD	42 KLD
15.	Source of water	Ground water	Ground water	No change
16.	Municipal solid waste Generation	779 Kg/day	+ 260 Kg/day	1039 Kg/day
	Bio-degradable	312 Kg/day	+ 104 Kg/day	416 Kg/day
	Non-biodegradable	467 Kg/day	+ 156 Kg/day	623 Kg/day
17.	Bio-Medical waste generation	715 Kg/day	+330 Kg/day	1045 Kg/day
18.	Power requirement	3 MVA (JBVNL)	No Change	3 MVA (JBVNL)
19.	Power back up	750 KVA 2 x125 KVA +2 x 250 KVA	No Change	750 KVA 2 x125 KVA +2 x 250 KVA
20.	Total cost of the project	135 Crores	+2 Crores	137 Crores
21.	Oxygen Plant Capacity	650 LPM	No Change	650 LPM
*Note: We are planning to achieve 30% reduction in water w.r.t NBC-2016 guidelines and less actual use of water as per norms.				

Details of Site Surroundings and Connectivity

S. No.	Description		Distance and Direction
1.	Nearest Junction Nearest Railway Station	Gamharia Junction Adityapur Railway Station	Approx.3.71Km,towards west Approx.2.86 Km towardsSE.
2.	Nearest Airport	Birsa Munda Airport	Approx. 100 km,North West
3.	NearestVillage	AdityapurShri dungri Kadma	Approx.3.27km,towards ESE Approx. 0.66 km, towards WNW Approx.1.06km,towardsEast
4.	Nearest	NH-118	Approx.0.27km,towards SSE

S. No.	Description		Distance and Direction
	Highway/Roads	SH-5	Approx.0.60km,towards SW
5.	Nearest School & College	Kerala Public School Adarsh Vikash Vidyalaya Adityapur Govt. Polytechnic College Shree Ran Public School Adityapur	Approx.4.85 km, towards WNW Approx.3.60km,towards West Approx.1.70 km,towards SE Approx.0.40km,towards SE
6.	Nearest Hospital	ESI Hospital TMHHospital Govt, Hospital Gamharia	Approx. 1.70 km, towards ESE. Approx. 4.36 km, towards East. Approx.2.89km, towardsWNW
7.	Places of worship	Shri Shrisaraswati Mandir Shiv Mandir Hatyadih Maa Mansa Mandir	Approx. 0.99 km, towardsWNW Approx. 1.15 km, towards North. Approx.1.55 km, towards South
8.	Water Bodies	Sitampur Reservoir Kharkai River Subarnarekha River	Approx.3.73km,towards WSW. Approx.0.92km,towards East. Approx.3.57km,towards North
9.	Nearest Town	Adityapur	Approx.2.86km,towardsSE.
10.	Sanctuary	Dalma Wildlife Sanctuary	Approx. 12.53 km, towardsNNE
11.	Reserve Forest/Zoo	Ukam Hill Forest	Approx.11.54 km, towardsSSE
Source:Google Earth & Sitevisit			

Land Details:

1	Village- Bhatia & Hathiadih Tehsil-Adityapur Thana No. 60 Dist.- Saraikela-Kharsawan State- Jharkhand		Khata no. 81	Plot No. 301 (P)

Coordinates of the Project Boundary

S.NO.	Latitude	Longitude
1	22°48'7.90"N	86°8'13.30"E
2	22°48'8.50"N	86°8'20.86"E
3	22°48'5.73"N	86°8'20.83"E
4	22°48'5.12"N	86°8'13.24"E
5	22°48'5.48"N	86°8'12.88"E

Detailed Area Statement

S.No.	Details	Area (Sqm.)
1	Total Plot area	19243.20
2	Total Ground Coverage @ 41.87%	8056.49
3	Permissible FAR @2.25	43297.20
4	Proposed FAR @2.24	43106.04
5	Proposed Built-up Area Block A	17394.69
6	Proposed Built-up Area Block B	17394.69
7	Proposed Built-up Area Block C	17394.69
9	Total Built-up Area	52184.06
10	Green Cover area @28.99 Greenbelt area @15% Green Cover @13.99%	5578.91 Sqm. 2886.48 Sqm. 2692.43 Sqm.

Details of Building Blocks

Building Block	No. Stories	No. of Floors	Height of the Building
Block A	B+G+5	6	Approx.18m.
Block B	B+G+5	6	Approx.18m.
Block C	B+G+5	6	Approx.18m.

Calculation of Population

Sl. No.	Hospital Block	Total Population
1	Hospital Bed	950
2	Attendant with patient (24 hours)	950
3	OPD Visitors	2500
4	All Staffs (Doctors, Nurses, Paramedical & non Paramedical staff, Security guard & other staffs)	1425
5	Kitchen & Pantry	50
	Total	5875

Parking Details

Block A Basement	2485Sqm
Block B Basement	2485Sqm
Block C Basement	2485Sqm
Open Space Basement	2545Sqm
Total Parking Area	10,000 Sqm.

Calculation of Green belt

Total Plot Area	19243.0Sqm.
Land scape area provided	5578.91Sqm.
Total No. of Trees to be planted @1600 trees per Ha.	893Nos.
Currently total trees planted	195 Nos.

Remediation Plan

S. No.	Environmental Component	Description	Location	Cost in Rs.	Timelines for completion
1.	Environmental Activities	For environmental and allied activities in Jamshedpur area in consultation with DFO, Jamshedpur	Territorial division of Jamshedpur	4,00,000	31/03/2026
2.	Community augmentation	Installation of Street lights with consultation of local authorities	Bhatia & Hatiadih Villages	4,50,000	31/03/2026
Total			--	8,50,000	--

Details of Water Requirement

	Hospital Block	Total Population	LPCD	Domestic	Flushing	Total Domestic water	Total Flushing water	Total Water requirement	Total waste water
1	Hospital Bed	950	315	205	110	194750	104500	299250	260300
2	OPD Visitors	2000	15	10	5	20000	10000	30000	26000
3	All Staffs (Doctors, Nurses, Paramedical & non Paramedical staff, Security guard & other staffs)	1425	45	20	25	28500	35625	64125	58425
4	Kitchen & Pantry	50	45	25	20	1250	1000	2250	2000
5	Laundry					7000		7000	5600
						251500	151125	402625	352325
ETP & STP Requirement									
	Effluent generation @10% of total wastewater	35 KLD	Capacity of ETP (20% higher than total Effluent generation)						42 KLD
	Sewage generation @90% of	346 KLD	Capacity of STP (20% higher than total Sewage generation)						415 KLD

	total wastewater +Treated water from ETP								
	Total treated water generation			304 KLD (@ 80% of total waste water)					
	Irrigation water 5578.91 Sqm @4 l/sqm.			22315				22315	
	Total water requirement (One Time)							424940	

- Water calculation was earlier calculated on NBC-2016 guidelines which was maximum
- Earlier we have also added water consumption for per attendant whereas it should be included in per bed total water consumption.
- We have installed low-flow devices with high pressure and there is actual use of less water as per norms.

Details of Wastewater Generation and STP Capacity

Waste water generated is ~353 KLD, which will be treated in the onsite STP of capacity 20% more than the waste water generated i.e. 415 KLD. The treated water available is 277 KLD (which is of 80 % total waste water enter in the STP) and it will be recycled and re-used 151KLD for flushing and 22KLD for irrigation of landscape area.

Details	Water (KLD)
Water requirement for domestic purpose	225
Wastewater to be generated from domestic use (@ 80% of domestic water requirement)	202
Water requirement for Flushing Purpose	151
Wastewater to be generated from Flushing & (@ 100% of flushing requirement)	151
Total Wastewater generated	353
ETP capacity 20% higher than total waste water	42
STP capacity 20% higher than total waste water	415

Solid waste Generation details

Sl. No.	Hospital Block	Total Population (Nos.)	Kg per capita waste generation (Kg/day)	Total waste generation (kg/day)	Bio-degradable waste (Kg/day)	Non-bio degradable waste (Kg/day)
1	Hospital Bed	950				
2	Attendant with patient (24 hours)	950	0.45 Kg/day	427.5	171	256.5
	Staff day and night					
3	All Staffs (Doctors, Nurses, Paramedical & non Paramedical staff)	1425	0.15 Kg/day	213.75	85.5	128.25
4	Kitchen & Pantry	50	0.45 Kg/day	22.5	9	13.5
5	OPD Patient @ 3 of total no. of Beds	2500	0.15 Kg/day	375	150	225
	Total (Kg/day)			1039	416	623
	Bio medical waste generation		@1 Kg/day	950		
	OPD BMW			95		
	Total (Kg/day)			1045		

Energy Conservation Measures

S. No.	Net Energy saved (weighted Average Calculation)	
1.	Solar Based lighting will be done in the common areas, Signages, entry gates and boundary walls etc. @ 5%	150 KVA
2.	LED Based lighting will be done in the dwelling units	25.86 KVA
3.	Usage of energy efficient Lift (VVVF non gear lifts)	36 KVA
	Total Energy saved	211.86 KVA
	Total Energy consumption	3000 KVA
	Total Energy saving	7.06 %

Environmental Management Cost – Operation Phase

Sr. No.	Component	Particulars	Capital Investment (Lakhs)	Recurring Expenditure per Annum (Lakhs)
1.	Air	Stack emission control	5.0	3.00
2.	Water	Sewage Treatment Plant (STP)	100	10.0
		Effluent Treatment Plant (ETP)	40	5.0
3.	Rain Water Harvesting	Installation of RWH System & Annual Cleaning of RWH tank	30.00	5.0

4.	Solid Waste Area and its Management	Purchase of Containers for Storage of MSW	10.00	2.0
		Purchase of OWC of capacity 450 Kg/day	35.0	5.0
5.	Bio Medical waste Management	Preparation of Shed for storage of BMW, Purchase of Containers and Chlorinated bags, BMW Authorization etc.	7.5	5
6.	Environment Monitoring & Management	Environment Monitoring as per monitoring plan	0.00	4.0
7.	Green Belt	Development and maintenance of green belt (Plantation of total 830 Nos. of Trees considering cost of 1 Tree 1200 including cost of Labour)	10	4.0
8.	Others	Energy saving devices Solar & LED	50	5.0
Total (Rs.)			287.5	48

Organization Structure

Introduction

The Environmental Management Plan (EMP) Cell has been established to ensure environmental sustainability and compliance with regulatory requirements for the building construction project. This project aims to minimize environmental harm, promote sustainable practices, ensure compliance with regulations, and foster community engagement and transparency. The EMP Cell will provide a framework for identifying, assessing, and mitigating potential environmental impacts associated with the Construction activities.

Environmental Policy

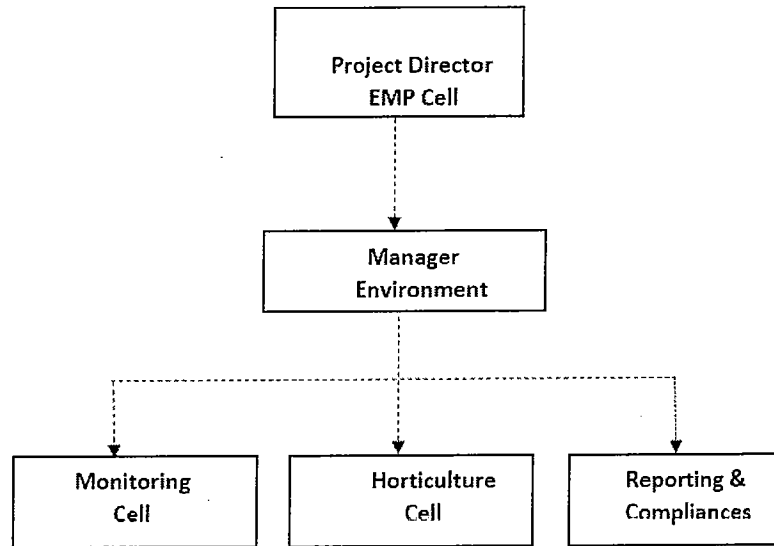
Our company is committed to:

- Minimizing environmental harm through responsible Construction practices
- Promoting sustainable practices to conserve natural resources
- Ensuring compliance with regulatory requirements and industry standards
- Fostering community engagement and transparency through open communication

EMP Cell Objectives

The EMP Cell objectives are:

- Minimize environmental impacts on air, water, soil, and biodiversity
- Ensure compliance with regulatory requirements and industry standards
- Promote sustainable practices through efficient resource utilization
- Enhance community engagement and transparency through regular updates



Monitoring Period:

Operation Phase:

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air Quality Monitoring	As per requirement	SO ₂ , NO ₂ , PM ₁₀ , PM _{2.5} and CO	Once in a Six month.
2.	Ambient Noise Monitoring	As per requirement	Noise level L _{eq} both during day time and night time	Once in a Six month.
3.	Water Quality Testing (Potability testing)	(i) Any operational borewell (ii) One of the Drinking Water Point	Drinking water parameters as per IS 10500:2012.	Once in a Six month.
4.	Treated Wastewater Quality	Inlet and outlet of the STP	Parameters for assessing compliance with standards for recycling and horticulture use	Once in a Six month.

Statutory Clearances:

1	Land Allotment Letter	The land has been allotted by JIADA vide Allotment order no. LA/AD/SW/00860/200 dated 10.03.2022.
2	DFO Certificate	Divisional Forest Officer (DFO), Seraikela Forest Division vide letter no. 32, dated 07.01.2023 certified that the distance of forest boundary from proposed project is less than 250 m as the applied area is notified forest land, which has been transferred to AIADA, Adityapur for non – forestry work vide notification no. वनभूमि-47/2006-1910 वनपत्र, dated 01.07.2009 of Department of Forest & Environment, Govt. of Jharkhand.

3	DFO wildlife	DFO, Dalma Elephat Project vide letter no. 83, dated 07.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
4	CO certificate	The CO, Gamharia Seraikela vide letter no. 1153 dated 30.12.2022 has certified that proposed project site belongs to forest land, for which Department of Forest & Environment, Govt. of Jharkhand has been transferred the said land to AIADA, Adityapur for non – forestry work vide notification no. वनभूमि-47/2006-1910 व०प०, dated 01.07.2009. CO has also informed that proposed project site has been transferred to M/s Nataji Subhas Hospital vide allotment order no. LA/AD/SW/00860/2022, dated 10.03.2022 for the period of 30 years.
5	Previous Environmental Clearance (EC)	i. Previous EC granted by SEIAA under violation category vide letter no. EC/SEIAA/2022-23/2763/2023/42, dated 28.04.2023. ii. EC granted by SEIAA, Jharkhand vide letter no. EC / SEIAA/2024-25/3095/2024/38, dated 09.05.2024.
6	Consent to Establish (CTE)	CTE granted by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-19323341/2024/259, dated 29.05.2024 for 650 beds.
7	Consent to Operate (CTO)	CTO granted by JSPCB vide Ref. no. JSPCB/HO/RNC/CTO-19483595/2024/1180, dated 23.07.2024 for 650 beds.
8	Building Plan	Building plan approved by JIADA vide memo no. JIADA/BP/0043/2022, dated 02.06.2023.
9	CGWA	NOC No.- CGWA/NOC/INF/ORIG/2023/19491, Dated- 28.10.2023 valid up to 27.10.2028.

Based on the presentation made and information provided, the Committee decided that the proposal for Amendment in EC from 650 bedded Hospital to 950 Bedded Hospital with Oxygen Plant for M/s Netaji Subhas Medical College and Hospital a unit of Sitwanto Devi Mahila Kalyan Sansthan at Village: Bhatia & Hathiadih, Thana no. : 127 & 60, Tehsil : Adityapur, Distt.: Saraikela Kharsawan, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure –I alongwith the following specific conditions :

- I. The PAs must complete the implementation of Remediation Plan and Natural & Community Resource Augmentation Plan as specified in EC letter no. EC/SEIAA/2022-23/2763/2023/42, dated 28.04.2023 within 31st March, 2026.
- II. The proposed oxygen plant shall be set up after obtaining all applicable clearances / permissions.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the

earmarked green belt area as the part of tree plantation campaign “Ek Ped Ma Ke Naam” and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.

- IV. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.
- V. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- VI. All raw material to be stored only under covered shed.
- VII. PAs to offset (up to 20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- VIII. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load.
- IX. Trees should be developed & maintained not less than 15% of project area.
- X. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- XI. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- XII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- XIII. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XIV. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XV. Sufficient number of EV fast charging points to be installed.
- XVI. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XVII. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.



14. Proposed construction of Patient Accommodation Building with utility Blocks in the existing campus of "Ranchi Cancer Hospital and Research Centre" by M/s Ranchi Cancer Care Foundation at Mauza : Kadma, Thana no. : 155, Distt.: Ranchi, Jharkhand.

(Proposal No : SIA/JH/INFRA2 /548568/2025)

Name of the consultant : Rian Enviro Pvt. Ltd., Patna, Bihar.

This is a new project which has been taken for appraisal on 21.12.2025.

Project Sector: 8(a) Building and Construction Projects , Category: B2.

Application for Environment Clearance (EC) as per EIA notification, 2006.

The Project built up area is greater than 20,000 sqm and less than 1,50,000 sqm therefore designated under Category "B" and falls under Item 8(a) (Building & Construction Project) of the Environmental Impact Assessment (EIA) Notification of September 14, 2006 and its subsequent amendments.

Ranchi Cancer Care Foundation has Proposed construction of Patient Accommodation Building with utility Blocks in the existing campus of "Ranchi Cancer Hospital and Research Centre" at Mauza- Kadma, Dist. – Ranchi, Jharkhand on the **total land area** measuring **94744.81 Sqm**. The proposed **built-up area** is **22122.23 Sqm** (Existing Built-up Area= 13821.69 Sqm. + Proposed Built-up area= 8300.54 Sqm.).

Salient Features of the Project

Particulars	
Latitude	23°26'14.7"N
Longitude	85°18'04.13" E
Total Plot area	94744.81 Sqm.
Plot area used in current development	41452.25 Sqm
Plot area used in future development	53292.56 Sqm
Permissible FAR @2.25	213977.54 Sqm
Total FAR Achieved @0.23	22122.23 Sqm
Existing Built-up area	13821.69 Sqm
Proposed Built-up area (PA Building& Other Utility)	8300.54 Sqm
Total Built-up area	22122.23Sqm.
Total No. of Car Parking required	179 ECS
Total No. of two wheeler Parking required	547 Nos.
Total No. of Car Parking Proposed	210 ECS
Proposed parking for two wheeler	550 Nos.
Proposed Ground Coverage	8014.73 Sqm.

Green Area Provided in current development plot @ 21.61 %	8955.95 Sqm.
Green cover area @ 5.61 % of current development plot area	2328.15 Sqm.
Greenbelt area @ 16.0 % of current development plot area	6627.80 Sqm.
Road Area	3101.32 Sqm.
Open & Paved Area	7236.42 Sqm
Oxygen Plant Capacity	6438 Kg
Rain Water Harvesting Pits (with size)	4 Nos. (capacity 21.21 cum)
STP Capacity	115 KLD Existing Hospital Block STP Capacity= 80 KLD Proposed Patient Accommodation block STP Capacity = 35 KLD
ETP Capacity	12 KLD
Maximum Height of the Building (m)	Approx. 21.15 meter
Power Requirement	1420 KVA
Power Backup	DG capacity: 2780 KVA (2 x 1010 KVA, 2 x 380 KVA) All DG Sets shall be outdoor type with hospital type silencer, acoustic enclosure as per CPCB, and other relevant norms & with provision of DG sets proper shading
Total Water Requirement	~144 KLD
Fresh/Domestic Water Requirement	~70 KLD
Reuse of Recycled Water	~74 KLD
Waste water Generated	~92 KLD
Solid Waste Generated (Operational)	~291 Kg/day
Biodegradable Waste (Operational)	~116 Kg/day
Non-Biodegradable Waste (Operational)	~175 Kg/day
Bio-medical waste generated	~115.5 Kg/day
Types of Buildings	Proposed Block: Patient Accommodation Building, Laundry Block, MGPS Block (G), Gas Bank Block (G), 3 Nos. Security Blocks (G). Existing Block: Hospital, Utility Block
Basement	No
Stories	Max. (G+4)
Total Cost of the project	212 Crores

2275

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EMP Budget		During Construction: Capital: 31 Lakhs Recurring: 15 Lakhs
		Operational Cost: Capital: 101 Lakhs Recurring: 20.5 Lakhs
Construction Phase:	Water Requirement & Source	Fresh water – 9 KLD Treated wastewater-12 KLD Source: Existing STP (In house)

Details of Site Surroundings and Connectivity

Connectivity & Site Surroundings Ranchi Cancer hospital			
S. No.	Description		Distance and Direction
1.	Nearest Railway Station	Ranchi Junction Argora Railway station Hundur Halt	Approx. 10.35 Km towards SSE Approx. 10.10 Km towards SSE Approx. 10.40 Km towards ENE
2.	Nearest Airport	Birsa Munda Airport, Ranchi	Approx. 13.5 km towards SSE
3.	Nearest Village	Kadma, kanke Sukurhutu Garu	Approx. 0.40 Km towards NE Approx. 1.50 Km towards WNW Approx. 1.25 Km towards SSW
4.	Nearest Highway/Roads	Sukurhutu Rd SH 2	Adjacent to the project site Approx. 1.10 Km towards East
5.	Nearest School & College	Government Middle School Sukurhutu Ranchi Agriculture College Kanke Ranchi High School Kanke Government teacher's Training College Kanke Ranchi	Approx. 0.90 Km towards WNW Approx. 1.40 Km towards ENE Approx. 1.85 Km towards East Approx. 1.94 Km towards East
6.	Nearest Hospital	Government Health Centre Kanke, Main Sukurhutu Ranchi Central Institute of Psychiatry Patratoli Kanke	Approx. 1.5 Km towards NW Approx. 2.35 Km towards East
7.	Places of worship	Durga Temple Rinpas colony Kanke Shri Mahavir Mandir Kanke	Approx. 1.11 Km towards East Approx. 1.25 Km towards East
8.	Water Bodies	Jumar river Potpoto river	Approx. 1.75 Km towards NNE Approx. 1.75 Km towards SE
9.	Reservoir	Kanke Dam Karamtoli Taalaab	Approx. 3.6 Km towards South Approx. 6.25 Km towards SSE
10.	Nearest Town	Ranchi	Approx. 10.30 Km towards South

LAND DETAILS

Khata no.	Plot no.
55	580 (P)

Detailed Area Statement

Sr. No.	Particulars	
1.	Total Plot area	94744.81 Sqm.
2.	Plot area used in current development	41452.25 Sqm
3.	Plot area used in future development	53292.56 Sqm
4.	Permissible FAR @2.25	213977.54 Sqm
5.	Total FAR Achieved @0.23	22122.23 Sqm
6.	Existing Built-up area	13821.69 Sqm
7.	Proposed Built-up area (PA Building& Other Utility)	8300.54 Sqm
8.	Total Built-up area	22122.23Sqm.
9.	Total No. of Car Parking required	179 ECS
10.	Total No. of two wheeler Parking required	547 Nos.
11.	Total No. of Car Parking Proposed	210 ECS
12.	Proposed parking for two wheeler	550 Nos.
13.	Proposed Ground Coverage	8014.73 Sqm.
14.	Green Area Provided in current development plot	8955.95 Sqm.
15.	Road Area	3101.32 Sqm.
16.	Open & Paved Area	7236.42 Sqm

Existing Block Built-up area details

S. No.	Details - Existing Buildings	Built-up Area (Sqm.)
1	Main Hospital Building (G+2)	12292.83
2	Utility Block (G+1)	1528.86
	Total	13821.69

Proposed Block Built-up area details

S. No.	Details - Proposed (PA & utility Block)	Built-up Area
1	Ground Floor	1637
	First Floor	1548
	Second Floor	1414
	Third floor	1545
	Fourth floor	1549
	Subtotal -I	7693
2	Laundry Block (G)	384.74
3	MGPS Block (G)	156.06

4	Gas Bank Block (G)	11.96
5	3 No of security Block	54.78
	Subtotal-II	607.54
	Total (I+II)	8300.54

Latitude and Longitude :

Sl. no.	Latitude	Longitude
1	23°26'14.7"	85°18'4.13"
2	23°26'22.52"	85°18'3.82"
3	23°26'26.51"	85°18'3.68"
4	23°26'26.47"	85°18'7.75"
5	23°26'26.51"	85°18'7.95"
6	23°26'26.38"	85°18'10.22"
7	23°26'22.7"	85°18'10.38"
8	23°26'21.29"	85°18'10.57"
9	23°26'16.34"	85°18'10.92"
10	23°26'16.32"	85°18'14.44"
11	23°26'16.4"	85°18'14.44"
12	23°26'16.32"	85°18'16.9"
13	23°26'15"	85°18'16.55"
14	23°26'14.99"	85°18'16.64"
15	23°26'11.5"	85°18'15.98"

Calculation of Population

Sl. No.	Description	Total Capacity / Bed
1	Beds in Hospital Building	105
2	Attendant with patient	105
3	OPD	1250
4	Hospital Staff	125
5	Patient Accommodation Building (Patient + Staff)	188
6	Attendant (Relative / visitors)	154
	Total	1927

Parking Details

Type	Building Name	Car			Two wheeler			Ambulance	
		Reqd./ Unit	Reqd.	Prop.	Reqd. /Unit	Reqd.	Prop.	Reqd	Prop.
Medical	Existing Block I (hospital building)	1	64		1	198	-	-	6
Utility	existing Block II (utility building)	1	5		1	14	-	-	-
Institutional	Proposed patient Accommodation	-	100			311		-	1

	building								
Institutional	. Laundry block		6			16			
Institutional	MGPS block		3			7			
Institutional	. gas bank		1			1			
2025	Total:	-	179	210	-	547	550	-	7

Calculation of Green belt

Total Plot Area	94744.18 Sqm.
Plot area used in current development	41452.25 Sqm.
Greenbelt area Provided in current development plot @ 21.61%	8955.95 Sqm
Green cover area @ 5.61 %of current development plot area	2328.15 Sqm
Greenbelt area @ 16.0 % of current development plot area	6627.80 Sqm
Total No. of Trees will be Planted @ 1600 trees per Ha.	560 Nos.
No. Of Trees already planted at Site	488 Nos.
Total no of trees to be planted	72 Nos.

Detailsof Trees already planted at Site

Sr.No.	Tree/Plan	Number	Sr.No.	Tree/Plan	Number
1	America Palm	106	21	Harre	2
2	Mango	30	22	Bahera	2
3	Neem	10	23	Bael	4
4	Guava	4	24	Golden Jhau	16
5	Lemon	1	25	Gulachi	7
6	Ashoka Tree	4	26	Molshree	2
7	Harsingar	3	27	Jarul	8
8	Pomegranate	5	28	Terminalia India	4
9	Arjun tree	7	29	Gulmohor	1
10	Jamun	8	30	Sita Tree	5
11	Herbal Tree	12	31	Foxtel-Palm	16
12	Sindoori Plant	7	32	Seena Tree	29
13	Lychee	3	33	Oak	6
14	Amla	7	34	Mehogany	1

15	Sisam	19	35	Putranjiva	5
16	Kadam	7	36	Bakul	7
17	Bargad/ Banyan Tree	7	37	Golden Shower Tree	10
18	Peepal	7	38	Moringa	24
19	Nariyal	1	39	Hibiscus	88
20	Chiku	3	Total		488

Details of Water Requirement existing hospital building

WATER BALANCE FOR EXISTING HOSPITAL BUILDING						
Description	Total Population	Water Requirement	Fresh/ Domestic	Flushing	Total water Requirement	Total wastewater
		LPCD	LPD	LPD	LPD	LPD
Hospital Unit						
Hospital Bed	105	350	21000	15750	36750	32550
Attendant with patient	105	45	2625	2100	4725	4200
OPD- current	1250	15	12500	6250	18750	16250
Kitchen Water			7500	0	7500	6000
Clinical Water			5,000	0	5,000	4000
Hospital Staff	125	45	3,125	2500	5,625	5,000.0
Landscape area (7655.95Sqm)		4.3 liter/sqm of Landscape area			33000	
Say			52 KLD	27 KLD	111 KLD	68 KLD

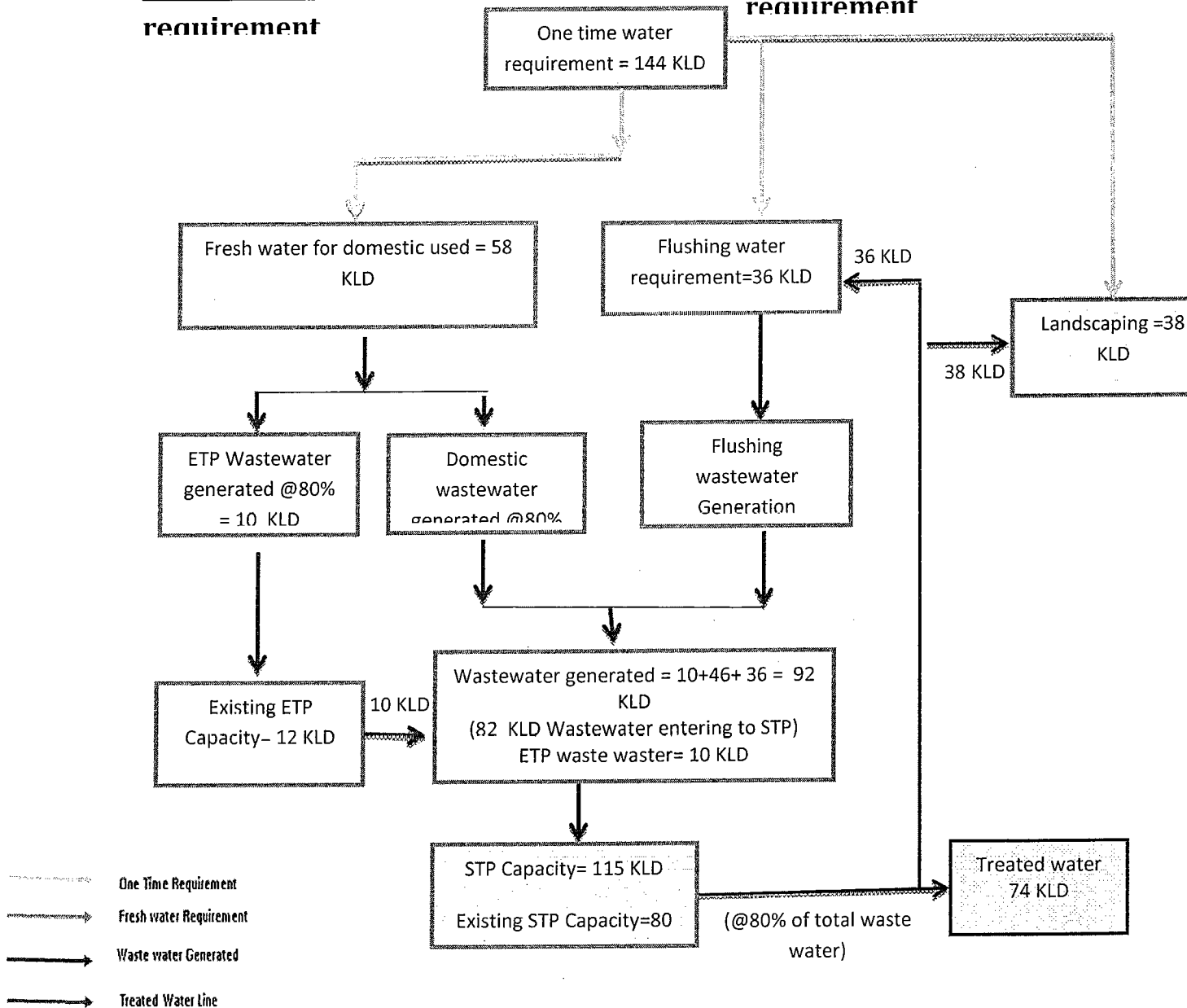
Details of Water Requirement for Patient Accommodation Building

Description	Total Population	Water Requirement	Fresh/ Domestic	Flushing	Total water Requirement	Total wastewater
		LPCD	LPD	LPD	LPD	LPD
Patient Accommodation Unit						
Patient	188	135	16,920	8460	25,380	21996
Patient attendant & relatives	154	15	1,540	770	2,310	2002
Landscape area 1300		4.3 liter/sqm of Landscape area			5400	
Say			18 KLD	9 KLD	33 KLD	24 KLD

Water Balance

Potable water requirement

Non-Potable water requirement



Details of Wastewater Generation and STP Capacity

Details	Water (KLD)
Water requirement for domestic purpose	58
Wastewater to be generated from domestic use (@ 80% of domestic water requirement)	46
Water requirement for Lab	12
Waste water generated from Lab	10
ETP capacity 20% higher than total waste water	12
Water requirement for Flushing Purpose	36
Wastewater to be generated from Flushing (@ 100% of flushing requirement)	36

Total Wastewater generated	92
STP capacity 20% higher than total waste water	115
Treated water from STP	74

STP: Waste water generated is ~92 KLD, which will be treated in the onsite STP of capacity 20% more than the waste water generated i.e. 115 KLD of MBR technology. The treated water available is 74 KLD (which is of 80 % total waste water entering in the STP) and it will be recycled and re-used 36 KLD for flushing, 38 KLD for irrigation of landscape area. It fully complies with ZLD requirements. This results in a total dry sludge generation of 9.18 kg/day.

ETP: ETP treated water will be sent to STP for further treatment. ETP sludge generation is approx. 2-3 kg/month, will be disposed as per HWM rules, 2016.

During Monsoon (Rainy day) of 38 KLD extra treated water will be used in house ramp, floor cleaning and peripheral plantation of vacant land (future Expansion).

Solid waste Generation details

Sl. No.	Description	Total Population	Unit rate Waste Generation (Kg/day)	Solid Waste (Kg/day)	Bio-degradable (Kg/day)	Non-biodegradable (Kg/day)
1	Hospital Bed	105	1Kg/day	105		
2	Attendant with patient (24 hours)	105	0.45Kg/day	47.25	18.9	28.35
3	OPD	1250	0.1Kg/day	125	50	75
4	Hospital staff	125	0.15 Kg/day	18.75	7.5	11.25
5	Patient Accommodation Building	188	0.45Kg/day	84.6	33.84	50.76
6	Attendant (Relative/ visitors)	154	0.1Kg/day	15.4	6.16	9.24
A	Total solid Waste	1927		291	116.4	174.6
7	Biomedical Waste Generation - IPD			105 kg/day		
8	OPD Bio Medical Waste			10.5 Kg/day		
B	Total BMW			115.5 Kg/day		

Radio Active Waste Management: Radio-active waste will be managed as per Atomic Energy (Safe disposal of radioactive wastes) Rules, 1987 Disposal of Solid Radioactive Waste — An AERB certified, trained and authorized Agency, License and NOCs are already obtained.

Energy Conservation Measures

S. No.	Net Energy saved (weighted Average Calculation)	
1.	Solar Based lighting will be done in the common areas, Signages, entry gates and boundary walls etc. @ 7.04 % (Existing- 23 KVA + Proposed-77	100 KVA

	KVA)	
2.	LED Based lighting will be done in the dwelling units	13.27 KVA
3.	Usage of energy efficient Lift (VVVF non gear lifts)	30 KVA
	Total Energy saved	96.27 KVA
	Total Energy consumption	1420 KVA
	Total Energy saving	10.08 %

Environmental Management Cost – Construction Phase

Sr. No.	Component	Particulars	Capital Investment (Lakhs)	Recurring Expenditure per Annum (Lakhs)
1.	Air	Anti-Smog Gun	8.0	2.0
2.	Solid and C&D Waste and its Management	Stack yard and its management	3.0	2.5
3.	Environment Monitoring & Management	Environment Monitoring as per monitoring plan 1. Green Curtain on under construction building 2. Wind breaking wall of 3-meter height	10.0	5.0
4.	Green Belt	Development and maintenance of green belt	10.0	3.0
Total (Rs.)			31.0	12.5

Environmental Management Cost – Operation Phase

Sr. No.	Component	Particulars	Capital Investment (Lakhs)	Recurring Expenditure per Annum (Lakhs)
1	Air	Stack emission control	5.0	0.50
2	Water	Sewage Treatment Plant (STP)	25.0	5.0
3	Rain Water Harvesting	Installation of RWH System & Annual Cleaning of RWH tank	8.0	3.00
4	Solid waste Area and its Management	Purchase of Containers for Storage of Waste	3.0	5.00
		Installation of OWC for Bio-degradable waste of 120 Kg/day	10.0	0.0
5	Environment Monitoring & Management	Environment Monitoring as per monitoring plan	0.00	3.0
6	Green Belt	Development and maintenance of green belt	10.0	1.5
7	Others	Energy saving devices, miscellaneous, i.e.- LED Solar	40.0	2.5

		Panels, EV Charging Points		
Total (Rs.)			101	20.5

Organization Structure

Organizational Structure:

Introduction

The Environmental Management Plan (EMP) Cell has been established to ensure environmental sustainability and compliance with regulatory requirements for the building construction project. This project aims to minimize environmental harm, promote sustainable practices, ensure compliance with regulations, and foster community engagement and transparency. The EMP Cell will provide a framework for identifying, assessing, and mitigating potential environmental impacts associated with the Construction activities.

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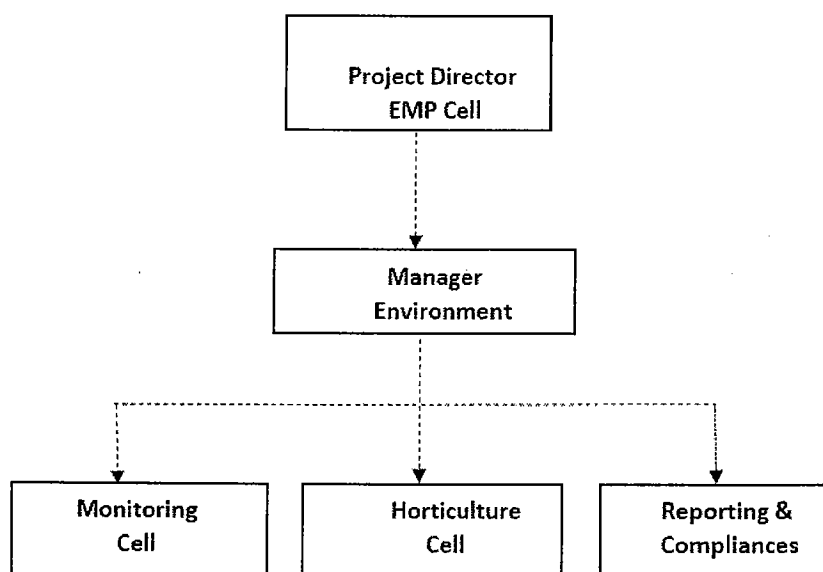
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The EMP Cell objectives are:

- Minimize environmental impacts on air, water, soil, and biodiversity
- Ensure compliance with regulatory requirements and industry standards
- Promote sustainable practices through efficient resource utilization
- Enhance community engagement and transparency through regular updates



Monitoring Period

Construction Phase:

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air Quality Monitoring	As per requirement	SO ₂ , NO ₂ , PM ₁₀ , PM _{2.5} and CO	Once in a Six month.
2.	Ambient Noise Monitoring	As per requirement	Noise level L _{eq} both during day time and night time	Once in a Six month.
3.	Water Quality Testing (Portability testing)	(i) Any operational bore well (ii) One of the Drinking Water Point	Drinking water parameters as per IS 10500:2005.	Once in a Six month.
4.	Treated Wastewater Quality	Inlet and outlet of the STP	Parameters for assessing compliance with standards for recycling and horticulture use	Once in a Six month.

Operation Phase:

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air Quality Monitoring	As per requirement	SO ₂ , NO ₂ , PM ₁₀ , PM _{2.5} and CO	Once in a Six month.
2.	Ambient Noise Monitoring	As per requirement	Noise level L _{eq} both during day time and night time	Once in a Six month.
3.	Water Quality Testing (Potability testing)	(i)Any operational borewell (ii)One of the Drinking Water Point	Drinking water parameters as per IS 10500:2012.	Once in a Six month.
4.	Treated Wastewater Quality	Inlet and outlet of the STP	Parameters for assessing compliance with standards for recycling and horticulture use	Once in a Six month.

STATUTORY CLEARANCES

1	Land Docs	:	Land has been allotted by State Government of Jharkhand dated 11.12.2023 for the lease period of 30 years.

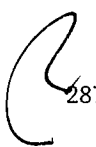
2	DFO Territorial	:	DFO, Ranchi Forest Division vide letter no. 1862, dated 28.06.2025 certified that the distance of reserved / protected forest is more than 250 meters from project site.
3	DFO Wildlife	:	DFO, Wildlife Division, Ranchi vide letter no. 465, dated 11.07.2025 certified that proposed project site is out side Eco Sensitive Zone of Palkot Wildlife Sanctuary.
4	CO certificate	:	The CO, Kanke (Ranchi) vide letter no. 1227 (ii), dated 13.10.2025 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
5	CGWA	:	No Objection Certificate (NOC) for Ground Water Abstraction issued by CGWA vide NOC No. CGWA/NOC/INF/ORIG /2023/18094, dated 06.04.2023 valid up to 05.04.2028.
6	Building Plan approval	:	Building plan sanctioned by Ranchi Regional Development Authority (RRDA) vide case no. RRDA/BP/0249/2019/ALT4, dated 22.01.2021.
7	Fire Department	:	Fire Advisory has been issued by Fire Department, Jharkhand, Ranchi, vide memo no. 1843/Tech./2025, dated 11.03.2025.
8	Consent to Establish (CTE)	:	CTE issued by JSPCB vide ref. no. JSPCB/HO/RNC/CTE-6907878/2020/32, Dated- 13.01.2020 for existing capacity .
9	Consent to Operate (CTO)	:	CTO issued by JSPCB vide ref. no. JSPCB/HO/RNC/CTO 18030291/2024/432, Dated- 18.03.2024 Valid till 31.03.2027 for existing capacity.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed construction of Patient Accommodation Building with utility Blocks in the existing campus of "Ranchi Cancer Hospital and Research Centre" by M/s Ranchi Cancer Care Foundation at Mauza : Kadma, Thana no. : 155, Distt.: Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure –I alongwith the following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 which ever is earlier.
- II. The proposed oxygen plant shall be set up after obtaining all applicable clearances / permissions.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke

Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.

- IV. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.
- V. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- VI. All raw material to be stored only under covered shed.
- VII. PAs to offset (up to 20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- VIII. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load.
- IX. Trees should be developed & maintained not less than 15% of project area.
- X. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- XI. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- XII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- XIII. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XIV. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XV. Sufficient number of EV fast charging points to be installed.
- XVI. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XVII. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.

Consideration of proposals :

1. Dumri Brick Soil Mining of M/s Ganga Bricks (Prop. : Shri Dilip Kumar Gupta), Village : Dumri, Thana : Chainpur / Dumri, Distt. : Gumla, Jharkhand (0.53 Ha).

(Proposal No : SIA/JH/MIN/ 558160/2025)

Name of the consultant : Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar, Odisha.

This is a new project which has been taken for appraisal on 22.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

Proposed Capacity – 1200 cum per year (600000 Bricks per year)

Project and Location Details:

#	Parameter	Details
1	Project Name	: Dumri Brick Soil Mining
2	Lessee:	: M/s Ganga Bricks Proprietor - Shri Dilip Kumar Gupta
3	Lessee Address	: Village- Dumri, Thana- Dumri, District- Gumla, Jharkhand
4	Lease Area	: 1.30 acres 0.53 ha
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Rs. 12.60 Lakhs
7	EMP Budget	: Capital: Rs. 0.86 lakhs Recurring : Rs. 1.95 Lakhs
8	New or Expansion	: New
9	Total Reserves	: 10,600 cum
10	Mineable Reserves	: 7,312 cum
11	Mine Life	: 6 Years (5 years plan period + 1 year for balance reserve)
12	Man power	: 10
13	Water Requirement	: 2.12 KLD
14	Water Source	: By authorised water tankers
15	DG Set / power	: No
16	Crusher	: No crusher
17	Nearest Water Body	: Laphari river – 0.15 km; SW – EMP Submitted
18	Nearest Habitation	: Dumri Village – 1.10 km, S
19	Road & Highways	: Village Road – 0.65 km; NE NH 143 B – 1.15 km; E
20	Nearest Rail Station	: Lohardaga Railway Station – 67.05 km; NE
21	Nearest Air Port	: Birsa Munda Airport – 124.37 Km; NE
22	Forest (PF/RF/Open Jungle)	: Divisional Forest Officer, Gumla certified that the distance of reserved / protected forest is more than 250 meter from

		proposed project site.

CO-ORDINATES:

Sl. No.	LATITUDE	LONGITUDE
1	23°10'36.81" N	84°07'10.60" E
2	23°10'36.97" N	84°07'10.06" E
3	23°10'37.04" N	84°07'09.41" E
4	23°10'37.32" N	84°07'07.67" E
5	23°10'39.65" N	84°07'08.15" E
6	23°10'39.29" N	84°07'09.43" E
7	23°10'38.44" N	84°07'10.37" E
8	23°10'37.72" N	84°07'11.03" E
9	23°10'37.22" N	84°07'10.74" E

LAND DETAILS

Khata no.	Plot no.
Old – 119	Old – 651
New - 258	New - 729

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Land agreement made.
2	CO	:	The CO, Dumri vide letter no. 384/Ra., dated 28.09.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that river at a distance of 150 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Gumla vide memo no. 931/M, dated 20.11.2024 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 687, dated 16.10.2025 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Gumla Forest Division vide letter no. 1948, dated 02.07.2024 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.

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6	DSR	:	The DSR for Gumla was approved by the Sub-Divisional Committee on 23.08.2023 and submitted to SEIAA for approval on 23.08.2023. However, DC-cum-District Magistrate, Gumla vide letter no. 1054/M, dated 03.10.2025 requested to consider the said project proposal as part of approved District Survey Report & further requested that this project may be taken up for consideration for grant of EC. The Committee accepted the request of the DC-cum-District Magistrate, Gumla as permission was granted after the approval of DSR.
7	Gram Sabha	:	Gram Sabha conducted on 04.07.2025.
8	Mine Plan Approval	:	Approved by DMO, Gumla vide Letter No. 888/M, dated 28.10.2024.
9	Qualified Person	:	Md. Tauseef Warsi was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details:

1	Mining Method	:	Opencast manual method of mining
2	Quarry Area	:	0.42 ha. Life of Mine – 6 years
3	Waste Generation	:	No Waste Generation
4	Stripping Ratio	:	01:01
5	Working Days	:	200
6	Benches: size & No	:	No Benches
7	Site Elevation	:	734 to 740 m amsl
8	Working Depth	:	732 to 738 m amsl
9	Water Table	:	725 to 733 m amsl
10	Topography of Mine	:	Area is gentle slope
11	Explosive Requirement	:	NA
12	Diesel/Fuel requirement	:	NA

Production Details:

Year	Production of Recoverable Soil (volume in Cum)	Topsoil Removal (volume in Cum)	Production of Bricks Block in Nos.
1 st Year	1,200	137	6,00,000
2 nd Year	1,200	137	6,00,000
3 rd Year	1,200	137	6,00,000
4 th Year	1,200	137	6,00,000

5 th Year	1,200	137	6,00,000
Total	6,000	685	30,00,000

Land Use Pattern:

Category	Existing Land Use (ha)	Proposed Land Use (ha)	Land Used at Conceptual Stage (ha)
Mining Activities	0.00	0.34	0.42 Grass Cultivation
Safety Zone/ Berm Area	0.00	0.06	0.06 Berm Area
Road/Topsoil	0.00	0.02	0.00
Balance/Unutilized Area	0.53	0.11	0.05 Plantation
Total Applied Area	0.53	0.53	0.53

Green Belt Development:

Sl. No.	Area /Length covered	No. of sapling planted	Expected survival rate	Tree/Shrubs survives	Budget proposed for greenbelt (in INR Rs.)
1.	In Safety Zone 0.056 ha	140	85%	119 Shrubs	20,000
2.	On Transport Road 0.25 km	167	85%	142 Trees	30,000
3.	Post Mining 0.42 ha	27,720	90%	24,948 Grass	10,000
4.	Balance Area 0.05 ha	125	85%	106 Trees	26,000
Total					86,000

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Solid Waste Management

- Topsoil Generation will be 685 Cum. during the plan period. The topsoil shall be used for progressive backfilling during mining operation.

Water Pollution Control Measures:

- Mining operation will be restricted to the depth of 2m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

Air and Noise Pollution Control Measures:

- Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
- Overloading of the truck / tractor trolleys will not be done.
- Tractors-trolleys will be well maintained and PUC certified.
- Timely maintenance of vehicles and their silencers to minimize vibration and sound.
- Minimum use of horns in the village area and silence zone (if any) as applicable.

Project Cost:

Sl. No.	Head	Capital Cost (INR in Lakhs)
1	Land Compensation	0.60
2	Temporary Structures	-
3	Tools & Moulds	10.00
4	Miscellaneous (EMP)	2.00
Total		12.60

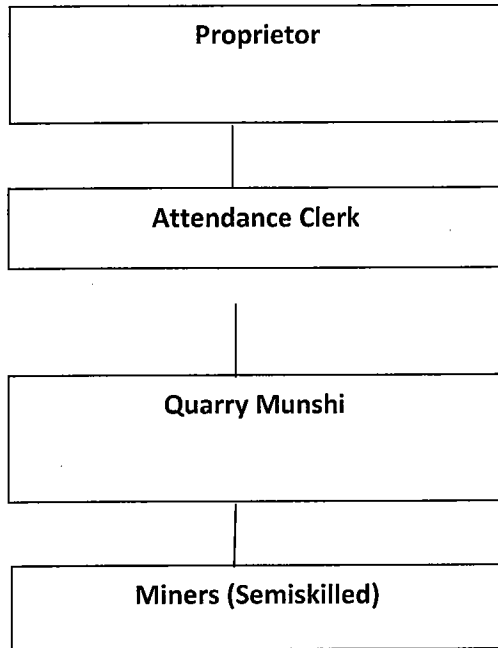
Environment Management Budget:

Sl. No.	Item Description	For Mines & Allied activities	
		Capital Investment (INR in Lakhs)	Recurring Cost/Yr. (INR in Lakhs)
1	Water Sprinkling & Dust Suppression	-	1.50
2	Berm & Other Plantation	0.86	0.25
4	Occupational Health & Safety	-	0.20
TOTAL		0.86	1.95
5. Environmental Monitoring			
5.A	Air Quality Monitoring – at 2 locations for PM, SO _x & NO _x twice a year	0.12	
5.B	Water Quality Monitoring – for 10 parameters, 2 locations; twice a year	0.10	
5.C	Noise level Monitoring – at 2 locations; twice a year	0.08	
TOTAL		0.30	

Environment Management Plan

Mining Activity	
Particular	Mitigation Measures
Removal of Topsoil	Topsoil will be stored temporarily and will later be used for making bund walls and spreading over the excavation plot.
Pit formation - excavation	• Mining operations will be carried out as per mining rules systematically and scientifically. • Mining operation will be carried making terraces/benches. The heights and width of each bench will be 1 m x 1 m. • Stabilization of slope will be done by planting species having extensive root system, so as to bind the soil. • Species will be planted across the slope so as to arrest the soil movement, due to wind and water erosion.
Siltation of fertile soil from adjoining farms into the pit	• Loss of fertile topsoil from adjoining farms will be arrested by the bund wall/berm. • Plantation of bio vegetative species along the berm to act as a fence/barrier • Stabilization of slope by planting soil binding species.
Change of land use from agricultural to mining	• It is temporary (for a period of 5 years) • Mining will be done only up to a depth of 2 m only and leveled flat to make it fit for cultivation. • Agricultural practices will be resumed after mining
Air Environment	• Sprinkling of water as and when required on the transport road for dust suppression. • Plantation is carried out on along the transport roads. • Proper maintenance of vehicles will be done to minimize the pollutants
Noise Environment	• Timely maintenance of vehicles to minimize vibration and sound. • Noise will be controlled by selecting well-maintained vehicles wherever possible. • Minimum use of horns and speed limit of 10 km/h.
• Impact on flora-fauna & nearby population	• Sprinkling of water as and when required on the transport road for dust suppression. • Plantation is carried out on along the transport roads.

Organizational Structure of Environment Management Cell:



The EMP cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Soil mining project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped with to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.

- I. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Dumri Brick Soil Mining of M/s Ganga Bricks (Prop. : Shri Dilip Kumar Gupta), Village : Dumri, Thana : Chainpur / Dumri, Distt. : Gumla, Jharkhand (0.53 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VI. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

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2. **Brick Soil Mining of M/s Aman Bricks (Prop. : Shri Ekramul Haque), Village : Toto, Thana : Gumla, Distt. : Gumla, Jharkhand (1.40 Ha).**

(Proposal No : SIA/JH/MIN/ 558387/2025)

Name of the consultant : Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar, Odisha.

This is a new project which has been taken for appraisal on 22.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 1200 cum per year (600000 Bricks per year)

Project and Location Details:

#	Parameter	Details	
1	Project Name	: M/s Aman bricks	
2	Lessee:	: Proprietor - Ekramul Haque	
3	Lessee Address	: Village – Bajartar Toto, Thana- Gumla, District- Gumla, Jharkhand	
4	Lease Area	: 3.46 acres	1.40 ha
5	Type of Land	: Non-Forest Raiyati Land	
6	Project Cost	: Rs. 14.40 Lakhs	
7	EMP Budget	: Capital: Rs. 0.40 lakhs	Recurring : Rs. 1.98 Lakhs
8	New or Expansion	: New	
9	Total Reserves	: 25,204 cum	
10	Mineable Reserves	23,661 cum	
11	Mine Life	: 20 years (5 years plan period & 15 years for balance reserve)	
12	Man power	: 10	
13	Water Requirement	: 1.69 KLD	
14	Water Source	: By authorised water tankers	
15	DG Set / power	: No	
16	Crusher	: No crusher	
17	Nearest Water Body	: Khatwa Nadi – 2.24 km SW	
18	Nearest Habitation	: Toto village – 300 m, NW – EMP Submitted	
19	Road & Highways	: Kudu-Gumla Rd (NH 143/A) – 0.55 km, NE	
20	Nearest Rail Station	: Lohardaga Railway Station – 39.48 km, NE	
21	Nearest Air Port	: Birsa Munda Airport – 80 Km; NE	
22	Forest (PF/RF/Open Jungle)	: Divisional Forest Officer, Gumla certified that the distance of reserved / protected forest is more than 250 meter from proposed project site.	

CO-ORDINATES:

Sl. No.	LATITUDE	LONGITUDE
1	23°07'43.49"N	84°31'41.12"E
2	23°07'43.17"N	84°31'42.39"E
3	23°07'42.94"N	84°31'43.69"E
4	23°07'42.73"N	84°31'44.89"E
5	23°07'41.98"N	84°31'44.93"E
6	23°07'40.51"N	84°31'45.13"E
7	23°07'39.68"N	84°31'44.95"E
8	23°07'38.80"N	84°31'44.85"E
9	23°07'39.12"N	84°31'43.64"E
10	23°07'39.43"N	84°31'41.89"E
11	23°07'39.72"N	84°31'40.49"E
12	23°07'41.37"N	84°31'40.83"E
13	23°07'43.04"N	84°31'40.99"E

LAND DETAILS

Khata no.	Plot no.
05	1070 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Land agreement made.
2	CO	:	The CO, Gumla (Sadar) vide letter no. 745, dated 18.10.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyani & Register II. During the appraisal it was seen from the KML that habitation at a distance of 300 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Gumla vide memo no. 851/M, dated 22.10.2024 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 705, dated 16.08.2024 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Gumla Forest Division vide letter no. 2742, dated 13.09.2024 certified that the distance of reserved /

			protected forest is more than 250 meters from proposed project site.
6	DSR	:	The DSR for Gumla was approved by the Sub-Divisional Committee on 23.08.2023 and submitted to SEIAA for approval on 23.08.2023. However, DC-cum-District Magistrate, Gumla vide letter no. 1054/M, dated 03.10.2025 requested to consider the said project proposal as part of approved District Survey Report & further requested that this project may be taken up for consideration for grant of EC. The Committee accepted the request of the DC-cum-District Magistrate, Gumla as permission was granted after the approval of DSR.
7	Gram Sabha	:	Gram Sabha conducted on 24.09.2024.
8	Mine Plan Approval	:	Approved by DMO, Gumla vide Letter No. 838/M, dated 19.10.2024.
9	Qualified Person	:	Shri P.K. Sen was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details:

1	Mining Method	:	Opencast manual method of mining
2	Quarry Area	:	1.353 Ha.
3	Waste Generation	:	No Waste Generation
4	Stripping Ratio	:	01:01
5	Working Days	:	200
6	Benches: size & No	:	No Benches
7	Site Elevation	:	658 to 660 m amsl
8	Working Depth	:	656 to 658 m amsl
9	Water Table	:	641 to 650 m amsl
10	Topography of Mine	:	The land is almost flat
11	Explosive Requirement	:	NA
12	Diesel/Fuel requirement	:	NA

Production Details:

Year	Production of Recoverable Soil (volume in Cum)	Topsoil Removal (volume in Cum)	Production of Bricks Block in Nos.
1 st Year	1,200	137	6,00,000
2 nd Year	1,200	137	6,00,000

3 rd Year	1,200	137	6,00,000
4 th Year	1,200	137	6,00,000
5 th Year	1,200	137	6,00,000
Total	6,000	685	30,00,000

Land Use Pattern:

Category	Existing Land Use (ha)	Proposed Land Use (ha)	Land Used at Conceptual Stage (ha)
Mining Activities	Nil	0.375	1.353 Backfill
Safety Zone/ Berm Area	Nil	0.047	0.047 Plantation
Road/Topsoil	0.039	0.039	Nil
Balance/Unutilized Area	1.361	0.939	Nil
Total Applied Area	1.40	1.40	1.40

Green Belt Development:

Sl. No.	Area /Length covered	No. of sapling planted	Expected survival rate	Tree/Shrubs survives	Budget proposed for greenbelt (in INR Rs.)
1.	In Safety Zone 0.047 ha	118	85%	100 Shrubs	21,000
2.	On Transport Road 0.08 km	53	85%	45 Trees	19,000
Total					70,000

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Solid Waste Management

- Topsoil Generation will be 685 Cum. during the plan period. The topsoil shall be used for progressive backfilling during mining operation.

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Water Pollution Control Measures:

- Mining operation will be restricted to the depth of 2m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

Air and Noise Pollution Control Measures:

- Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
- Overloading of the truck / tractor trolleys will not be done.
- Tractors-trolleys will be well maintained and PUC certified.
- Timely maintenance of vehicles and their silencers to minimize vibration and sound.
- Minimum use of horns in the village area and silence zone (if any) as applicable.

Project Cost:

Sl. No.	Head	Capital Cost (INR in Lakhs)
1	Land Compensation	2.50
2	Temporary Structures	-
3	Tools & Moulds	10.00
4	Miscellaneous	1.90
Total		14.40

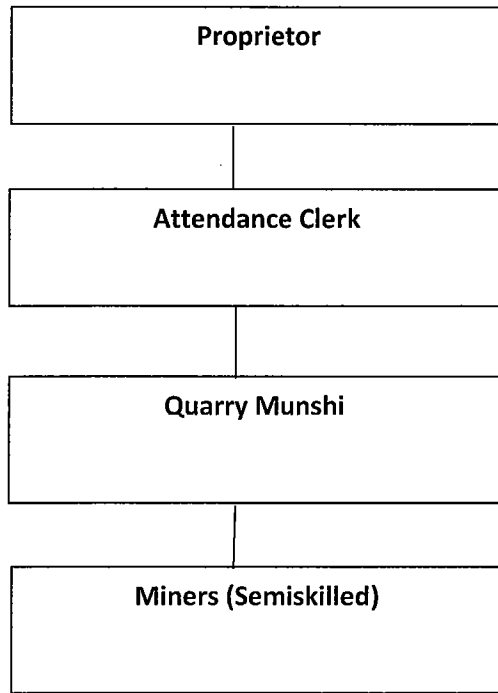
Environment Management Budget:

Sl. No.	Item Description	For Mines & Allied activities	
		Capital Investment (INR in Lakhs)	Recurring Cost/Yr. (INR in Lakhs)
1	Water Sprinkling & Dust Suppression	-	1.60
2	Berm & Other Plantation	0.40	0.08
3	Occupational Health & Safety	-	0.30
TOTAL		0.40	1.98
4. Environmental Monitoring			
4.A	Air Quality Monitoring – at 2 locations for PM, SO _x & NO _x twice a year	0.12	
4.B	Water Quality Monitoring – for 10 parameters, 2 locations; twice a year	0.10	
4.C	Noise level Monitoring – at 2 locations; twice a year	0.08	
TOTAL		0.30	

Environment Management Plan

Mining Activity	
Particular	Mitigation Measures
Removal of Topsoil	Topsoil will be stored temporarily and will later be used for making bund walls and spreading over the excavation plot.
Pit formation - excavation	• Mining operations will be carried out as per mining rules systematically and scientifically. • Mining operation will be carried making terraces/benches. The heights and width of each bench will be 1 m x 1 m. • Stabilization of slope will be done by planting species having extensive root system, so as to bind the soil. • Species will be planted across the slope so as to arrest the soil movement, due to wind and water erosion.
Siltation of fertile soil from adjoining farms into the pit	• Loss of fertile topsoil from adjoining farms will be arrested by the bund wall/berm. • Plantation of bio vegetative species along the berm to act as a fence/barrier • Stabilization of slope by planting soil binding species.
Change of land use from agricultural to mining	• It is temporary (for a period of 5 years) • Mining will be done only up to a depth of 2 m only and leveled flat to make it fit for cultivation. • Agricultural practices will be resumed after mining
Air Environment	• Sprinkling of water as and when required on the transport road for dust suppression. • Plantation is carried out on along the transport roads. • Proper maintenance of vehicles will be done to minimize the pollutants
Noise Environment	• Timely maintenance of vehicles to minimize vibration and sound. • Noise will be controlled by selecting well-maintained vehicles wherever possible. • Minimum use of horns and speed limit of 10 km/h.
• Impact on flora-fauna & nearby population	• Sprinkling of water as and when required on the transport road for dust suppression. • Plantation is carried out on along the transport roads.

Organizational Structure of Environment Management Cell:



The EMP cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Soil mining project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped with to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.

- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Brick Soil Mining of M/s Aman Bricks (Prop. : Shri Ekramul Haque), Village : Toto, Thana : Gumla, Distt. : Gumla, Jharkhand (1.40 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VI. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be

maintained and submitted with 6 monthly compliance report.

- IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

3. Bangru Brick Soil Mining of M/s A-One Bricks (Prop. : Shri Ritesh Kumar Lal), Village : Bangru, Thana : Gumla, Distt. : Gumla, Jharkhand (0.99 Ha).

(Proposal No : SIA/JH/MIN/ 558310/2025)

Name of the consultant : Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar, Odisha.

This is a new project which has been taken for appraisal on 22.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 1200 cum per year (600000 Bricks per year)

Project and Location Details:

#	Parameter		Details
1	Project Name	:	Bangru Brick Soil Mining
2	Lessee:	:	M/s A-One Bricks Proprietor - Shri Ritesh Kumar Lal
3	Lessee Address	:	Village - Urmi, Post – Dumardih, Thana- Gumla, District- Gumla, Jharkhand.
4	Lease Area	:	2.45 acres 0.99 ha
5	Type of Land	:	Non-Forest Raiyati Land
6	Project Cost	:	Rs. 13.20 Lakhs
7	EMP Budget	:	Capital: Rs. 0.70 lakhs Recurring : Rs. 1.90 Lakhs
8	New or Expansion	:	New
9	Total Reserves	:	19,800 cum
10	Mineable Reserves	:	11,634 cum
11	Mine Life	:	10 years (5 years plan period & 5 years for balance reserve)
12	Man power	:	10
13	Water Requirement	:	2.22 KLD

14	Water Source	:	By authorised water tankers
15	DG Set / power	:	No
16	Crusher	:	No crusher
17	Nearest Water Body	:	Bagdega Nadi – 4.86 km; S
18	Nearest Habitation	:	Bangru Village – 300 m, N – EMP Submitted
19	Road & Highways	:	NH 143 – 0.76 km; SW
20	Nearest Rail Station		Lohardaga Railway Station – 67.05 km; NE
21	Nearest Air Port	:	Birsa Munda Airport – 80 Km; NE
22	Forest (PF/RF/Open Jungle)	:	Divisional Forest Officer, Gumla certified that the distance of reserved / protected forest is more than 250 meter from proposed project site.

CO-ORDINATES:

Sl. No.	LATITUDE	LONGITUDE
1	23°01'30.49" N	84°36'20.35" E
2	23°01'30.81" N	84°36'18.89" E
3	23°01'33.12" N	84°36'19.52" E
4	23°01'33.45" N	84°36'18.11" E
5	23°01'35.87" N	84°36'18.74" E
6	23°01'35.64" N	84°36'20.38" E
7	23°01'35.26" N	84°36'21.76" E
8	23°01'34.55" N	84°36'21.63" E
9	23°01'34.09" N	84°36'21.21" E
10	23°01'32.41" N	84°36'20.83" E

LAND DETAILS

Khata no.	Plot no.
01	113 (P) & 114 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Land agreement made.
2	CO	:	The CO, Gumla (Sadar) vide letter no. 674, dated 23.09.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II.
3	DMO Cluster	:	DMO, Gumla vide memo no. 1073/M, dated 10.10.2025 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 44, dated 11.01.2024 certified that the proposed project site is outside Eco Sensitive

			Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Gumla Forest Division vide letter no. 3028, dated 09.10.2024 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Gumla District (Page no. 69, Sl. no. 09).
7	Gram Sabha	:	Gram Sabha conducted on 10.07.2024.
8	Mine Plan Approval	:	Approved by DMO, Gumla vide Letter No. 1072/M, dated 10.10.2025.
9	Qualified Person	:	Md. Tauseef Warsi was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details:

1	Mining Method	:	Opencast manual method of mining
2	Quarry Area	:	0.68 Ha.
3	Waste Generation	:	No Waste Generation
4	Stripping Ratio	:	01:01
5	Working Days	:	200
6	Benches: size & No	:	No Benches
7	Site Elevation	:	621 to 630 m amsl
8	Working Depth	:	619 to 628 m amsl
9	Water Table	:	610 to 615 m amsl
10	Topography of Mine	:	Area is gentle slope
11	Explosive Requirement	:	NA
12	Diesel/Fuel requirement	:	NA

Production Details:

Year	Production of Recoverable Soil (volume in Cum)	Topsoil Removal (volume in Cum)	Production of Bricks Block in Nos.
1 st Year	1,200	137	6,00,000
2 nd Year	1,200	137	6,00,000
3 rd Year	1,200	137	6,00,000
4 th Year	1,200	137	6,00,000
5 th Year	1,200	137	6,00,000
Total	6,000	685	30,00,000

Land Use Pattern:

Category	Existing Land Use (ha)	Proposed Land Use (ha)	Land Used at Conceptual Stage (ha)
Mining Activities	0.00	0.34	0.68 Backfilling
Safety Zone/ Berm Area	0.00	0.10	0.10 Berm Area
Road/Topsoil	0.00	0.21	0.21 Plantation
Balance/Unutilized Area	0.99	0.34	-
Total Applied Area	0.99	0.99	0.99

Green Belt Development:

Sl. No.	Area /Length covered	No. of sapling planted	Expected survival rate	Tree/Shrubs survives	Budget proposed for greenbelt (in INR Rs.)
1.	In Safety Zone 0.10 ha	250	85%	213 Shrubs	57,500
2.	On Transport Road 0.05 km	35	85%	30 Trees	12,500
Total					70,000

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

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- Mining operation will be restricted to the depth of 2m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

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- Minimum use of horns in the village area and silence zone (if any) as applicable.

Project Cost:

Sl. No.	Head	Capital Cost (INR in Lakhs)
1	Land Compensation	1.00
2	Temporary Structures	-
3	Tools & Moulds	10.00
4	Miscellaneous	2.20
Total		13.20

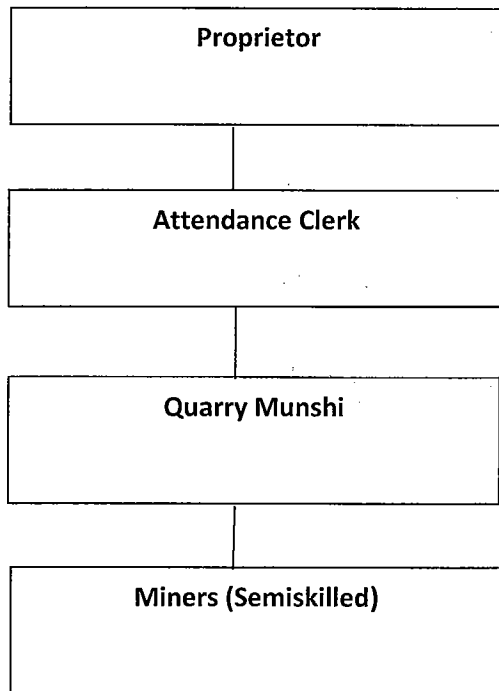
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Sl. No.	Item Description	For Mines & Allied activities	
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1	Water Sprinkling & Dust Suppression	-	1.50
2	Berm & Other Plantation	0.70	0.20
4	Occupational Health & Safety	-	0.20
TOTAL		0.70	1.90
4. Environmental Monitoring			
4.A	Air Quality Monitoring – at 2 locations for PM, SO _x & NO _x twice a year	0.12	
4.B	Water Quality Monitoring – for 10 parameters, 2 locations; twice a year	0.10	
4.C	Noise level Monitoring – at 2 locations; twice a year	0.08	
TOTAL		0.30	

Environment Management Plan

Mining Activity	
Particular	Mitigation Measures
Removal of Topsoil	Topsoil will be stored temporarily and will later be used for making bund walls and spreading over the excavation plot.
Pit formation - excavation	• Mining operations will be carried out as per mining rules systematically and scientifically. • Mining operation will be carried making terraces/benches. The heights and width of each bench will be 1 m x 1 m. • Stabilization of slope will be done by planting species having extensive root system, so as to bind the soil. • Species will be planted across the slope so as to arrest the soil movement, due to wind and water erosion.
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- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
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- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.

- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Bangru Brick Soil Mining of M/s A-One Bricks (Prop. : Shri Ritesh Kumar Lal), Village : Bangru, Thana : Gumla, Distt. : Gumla, Jharkhand (0.99 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241591) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VI. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to be submitted along with 6 monthly compliance.
- VII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.

- VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

4. Dhowadangal Stone Mine of Mr. Iyasin Shekh, Village : Dhowadangal, Thana no. : 05, Thana : Maheshpur, Distt.: Pakur, Jharkhand (1.65 Ha).

(Proposal no.: SIA/JH/MIN /544922 /2025)

Name of the consultant : Oceao-Enviro Management Solutions (India) Pvt. Ltd., Ghaziabad, U.P.

This is a new project which has been taken for appraisal on 22.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B1.

Application for Environmental Clearance (EC) after ToR.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 117th meeting held on 27.09.2024 - 01.10.2024 and SEIAA, Jharkhand has approved the ToRs in 117th meeting held on 15th & 16th October, 2024. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3253/2024/310, dated 18.10.2024. The final EIA / EMP submitted by PP to SEAC on 18.07.2025.

EC Application for: Proposed Capacity: 25,056 Cum Per Annum/67,651.20 Ton Per Annum

Project and Location Details:

S. No	Parameter	Details
1	Project Name	: Dhowadangal Stone Mine
2	Proprietor	: Sri Iyasin Shekh
3	Lessee Address	: Gram- Singadda, Thana- Malpahari (Op), District- Pakur, Jharkhand.
4	Lease Area	: 1.65 Ha 4.086 Acres
5	Cluster Details	Total Area: (6.50 Acre + 7.40 Acre+ 4.086Acre= 17.986 Acre) or 7.28 ha. Total number in Cluster = 02
6	Type of Land	: Raiyati Land
7	Project Cost	: 30 Lakhs

8	EMP Budget	:	Capital: 35.79 Lakhs	Recurring: 9.53 Lakhs/year	
9	New or Expansion	:	New		
10	Mineable Reserves	:	2,45,494 Cum	6,62,833.80 Ton	
11	Method of Mining	:	Open Cast, Semi-Mechanised		
12	Mine Life	:	10 Years		
13	Manpower	:	17 persons		
14	Water Requirement	:	The total water requirement is about 7.51 KLD=0.51 KLD (Drinking & Domestic Uses) + 4.0 (Plantation) KLD + 3.0 KLD (Dust Suppression).		
15	Water Source	:	By Authorised hired water tankers		
16	DG Set/power	:	25 KVA (Temporary setup for Backup)		
17	Crusher	:	Not Proposed		
18	Nearest Water Body	:	Sahargaon Village Pond is about 0.92 km in WSW direction.		
19	Nearest Habitation	:	Dhowadangal Village is about 0.31 km in N-W direction		
20	Nearest Rail Station	:	Nagarnabi Railway station is about 14.55 km in E direction.		
21	Nearest Airport	:	Deoghar Airport is about 104.3 km in W direction.		
22	Nearest Forest	:	Forest Name	Distance (Km)	Direction
			Kumharbil PF	1.73	WNW
			Dharni Pahar PF	2.51	ENE
			Piarsola PF	4.31	NNE
			Kalajhor PF	5.41	NW
			Belpahari PF	4.79	SSW
			Bastadih PF	1.78	NNE
			Parra PF	4.3	S
23	Nearest State Highway/ National highway	:	NH-133A is about 12.19 km in ENE direction. SH – 18 is about 13.74 km in WNW direction.		
24	Seismic zone	:	Zone III as per the seismic zone map of India		
25	Approach Road	:	Approach Road is about 500m in south-east direction		

CO-ORDINATES

S. No.	Latitude	Longitude	S. No.	Latitude	Longitude
1	24°34'22.168"N	87°43'21.747"E	11	24°34'21.018"N	87°43'17.312"E
2	24°34'21.280"N	87°43'21.486"E	12	24°34'21.275"N	87°43'16.400"E
3	24°34'19.985"N	87°43'21.376"E	13	24°34'21.362"N	87°43'15.492"E
4	24°34'19.863"N	87°43'20.402"E	14	24°34'22.359"N	87°43'15.590"E
5	24°34'19.215"N	87°43'19.791"E	15	24°34'22.755"N	87°43'16.483"E
6	24°34'18.995"N	87°43'19.145"E	16	24°34'22.880"N	87°43'18.493"E
7	24°34'18.506"N	87°43'17.613"E	17	24°34'22.944"N	87°43'17.272"E
8	24°34'18.962"N	87°43'17.074"E	18	24°34'23.066"N	87°43'19.602"E
9	24°34'19.324"N	87°43'16.435"E	19	24°34'23.197"N	87°43'21.310"E
10	24°34'20.174"N	87°43'16.899"E	20	24°34'22.560"N	87°43'21.326"E

LAND DETAILS

Khata no.	Plot no.
04	798, 799, 846 (P), 847 & 851
24	842 (P) & 800

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Pakur vide memo no. 1432/M, dated 05.09.2024.
2	CO	:	The CO, Maheshpur vide letter no. 709/Ra., dated 07.07.2023 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II and also mentioned that the habitation of 25-26 houses at a distance of 310 meters of proposed project site, accordingly PAs has submitted EMP for the same.
3	DMO Cluster	:	DMO, Pakur vide memo no. 1542/M, dated 19.09.2024 certified that 02 other mining lease area (6.50 Acre & 7.40 Acre) exists within 500 meters radius from proposed project site and total area is 17.986 Acre or 7.28 Ha.
4	DFO Wild Life	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. 537, dated 18.04.2023 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Pakur Forest Division vide memo no. 563, dated 03.04.2023 certified that the distance of notified forest is 1274.61 meters from proposed project site.
6	DSR	:	The DMO, Pakur has been certified vide memo no. 1543/M, dated 19.09.2024 that this project is mentioned in approved DSR of Pakur District as a potential area (Sl. no. 93, Page no. 130).
7	Gram Sabha	:	BDO, Maheshpur vide letter no. 65/Vi., dated 06.01.2023 informed that Gram Sabha conducted on 03.01.2023.
8	Mine Plan Approval	:	Revised mining plan approved by District Mining Officer, Pakur vide Memo No. 1343/M, dated 23.09.2025.
9	Baseline Study Period	:	15 th October, 2024 to 15 th January, 2025.
10	Public Hearing	:	Public Hearing conducted on 13.06.2025.

11	Qualified Person	:	Md. Tauseef Warsi was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	OCM & Semi-Mechanised
2	Lease Area	:	4.086 ACRES / 1.65 HA Life of Mine – 10 years
3	Waste Generation	:	5 years– 36504.00 CUM
4	Stripping Ratio(t/m3)	:	1:0.11
5	Working Days	:	300
6	Bench: size & No	:	6m x 6m
7	Highest Elevation of lease Area	:	126mAMSL
8	Lowest Elevation of lease Area	:	123mAMSL
9	Ultimate Working Depth	:	95mAMSL (30 m)
10	Water Table	:	78m AMSL (45m BGL)
11	Topography of Mine	:	almost flat land with hillocks
12	Explosive Requirement	:	56.55Kg (external agency)
13	Diesel/Fuel requirement	:	420 Litres per day

Year Wise Production Details

Year	Production of Stone in Cum	Production of Stone in Tonnes	Generation of Waste /O. B (cum)	Grade/Uses
1st	23328.00	62985.60	12816.00	Construction & Road
2nd	24048.00	64929.60	13536.00	Construction & Road
3rd	24984.00	67456.80	00	Construction & Road
4th	24984.00	67456.80	10152.00	Construction & Road
5th	25056.00	67651.20	00	Construction & Road
Total	122400.00	330480.00	36504.00	

Land Use

LAND USE PATTERN			
	Existing	First to Fifth Years	After Life of Mine
Category	Area in Hectares	Area in Hectares	Area in Hectares
Quarry	0.200	0.857	1.225(0.26ha reclaimed and proposed for plantation,0.965ha converted into water reservoir)
Haul Road	0.00	0.030 (area used under quarry)	0.00
Proposed Crusher	0.00	0.00	0.00
Green belt in Safety Barrier	0.00	0.425	0.425(Plantation)

Dump with Parapet wall & Garland drain	0.00	0.230 (area used under quarry)	Top soil will be used for plantation in first year and rest OB will be used for road dressing and Backfilling
Total area in use	0.200	1.542	1.650
Balance unused area	1.450	0.108	0.00
Balance used area	0.00	0.00	0.00
Total Applied Lease Area	1.65	1.65	1.65

ENVIRONMENT MANAGEMENT

Green Belt Development

Year	Place of Plantation	Spacing b/w plants	Total No. of Plants	Area Cover in Square Meters	Total Area in Ha.	Species
1st	Safety Zone	2.5 x 2.5	688	4300	0.43	Safety Zone Gulmohar, Gular, Along the Rd. fruit bearing trees Mango, Jackfruit, Guava,
	Haul Road	3.0 x 3.0	668	500 Meter Approach Rd. Two row both side $500/3=167 \times 4=668$ Plants		
	Reclaimed area	2.5 x 2.5	416	2600	0.26	
2nd	Care & Protection	---	---	---	---	
3rd	Care & Protection	---	---	---	---	
4th	Care & Protection	---	---	---	---	
5th	Care & Protection	---	---	---	---	
Total			1772	6900	0.69	

In accordance with Office Memorandum No. F.No. IA3-22/3/2024-IA.III (E-241594), dated 24.07.2024, issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC), out of the total 1772 trees proposed to be planted in the designated green belt area—both within and outside the lease boundary—10% (approximately 136 saplings) shall be earmarked under the national tree plantation campaign "Ek Ped Ma Ke Naam."

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Environment Management Budget

S .NO.	Particulars	Budget Provisions (Rs)	
		Capital	Recurring
Site Facilities			
1(a)	Fixed Overhead water sprinkling system with solar pump for	1,00,000	2,10,000

	outgoing and incoming transportation vehicles for haul road and green belt		
	Cost for 300 days for 7 KLD @5 KL tanker capacity, Rupees 500/- per tanker		
	& One dedicated tanker of 5 KL for Greenbelt Management	10,00,000	50,000
1(b)	Discharge of waste water 300 days for 0.41 KLD @5 KL tanker capacity, Rupees 2000/per tanker	0	49,200
2	Prepare & Maintenance of approach road (Max. Road length 500m, Width 4.0 m) @ 500Rs. /Meter.	2,50,000	25,000
3	Monitoring (Air, Water, Soil & Noise)	0	1,00,000
4	Settling tank 2 in no's (LBH 12 m* 7 m* 4 m) & Garland drains	2,00,000	30,000
5	Wire Fence 572 m x 300 /- meter	1,71,600	17,160
Plantation Scheme			
Plantation in consultation with DFO & Gram Panchayat and conversion to Grazing land as far as possible.			
6	Green belt development safety zone 7.5mtr, along the road & reclaimed area (for each plant including hedges and fences) 1772 No. of plants x 500 Rs.	8,86,000	67,800
Solid Waste Management			
7	Bins 2 Nos.	1,500	4,000
8	Transport of Dry Waste	5,000	
9	Vehicle Maintenance +PUC Certification	0	25,000
10	The issues raised in the public hearing and the commitment of the project proponent on them, along with a time-bound action plan with budgetary provisions	5,40,000	1,50,000
11	Need-based Socio-Economic	4,25,000	2,25,000
Total EMP Budget		35,79,100	9,53,160

Additional Blasting EMP Budget

Blasting			
1	Training and Awareness of personnel during blasting operations	50,000	0
2	Provision of safe distance from the Project site for the settlements		
	• Blasting shelters and Sirens	50,000	5,000
	• Portable Drop Arm Barrier	2,00,000	10,000
Total cost		3,00,000	15,000

Endangered species of flora, fauna & Schedule-I

Based on the preliminary study conducted during the baseline data generation phase, along with consultations with local residents and relevant authorities, no endangered species of flora or fauna, including those listed under Schedule-I of the Wildlife (Protection) Act, 1972, were observed within the designated 10 km study area.

Action plan with time bound plan

S. No.	Key Issue / Demand	Proposed Action Plan	Timeline	Tentative Budget (INR)	
				Capital (Lakhs)	Recurring (Lakhs)
1	Boring for drinking	Borewell installation at identified locations by	3-6 months	₹1,00,000 per unit (2)	0.2

	water	villagers		₹ 2.0	
2	Repair of rural road	Maintenance and levelling of access road from pucca road to village	3 months	3.0	0.8
3	Repair of broken handpumps	Identification & repair of damaged handpumps in the village	2 months	0.40	0.5
Total				5.40	1.5

Need based Socio-Economic

Corporate Environmental Responsibility (CER) Plan and Budget							
S. No	Activities	Estimated Cost in Rs. (in Lakhs)	Time Bound				
			1 st year	2 nd year	3 rd year	4 th year	5 th year
1	Donation to the villagers under supervision of Gram Panchayat to support for marriage or death feast.	2	0.4	0.4	0.4	0.4	0.4
2	Sports Kits (cricket, football, nets, etc)	0.5	0.2	0.2	0.1	-	-
3	Aesthetic enhancement of Playground	0.5	0.5	-	-	-	-
4	Repairs of Hand pumps	1.5	1.5	-	-	-	-
5	Saree distribution during festivals	3.75	0.75	0.75	0.75	0.75	0.75
6	Financial help during marriage/festivals	2	0.4	0.4	0.4	0.4	0.4
7	First aid facility in village	2.5	0.5	0.5	0.5	0.5	0.5
Total		12.75	4.25	2.25	2.15	2.05	2.05

Environment Monitoring Plan (post operation)

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

BASELINE Findings:**Study period: 15th Oct 2024 to 15th Jan 2025**

Parameter	No. of locations	Baseline Findings
AAQM	8	PM₁₀ ranged from 48.59 µg/m³ to 87.30 µg/m³ , while PM_{2.5} concentrations varied between 19.21 µg/m³ and 49.38 µg/m³ . The levels of SO₂ were found to be in the range of 6.82 µg/m³ to 13.45 µg/m³ , whereas NO₂ concentrations ranged from 9.89 µg/m³ to 18.63 µg/m³ .
ANQM	5	Noise Level during Day Time – 38.2 dB (A) to 59.3 dB (A) Noise Level during Night Time – 28.6 dB(A) to 47.5 dB (A)
SQM	5	In the study area, variations in the pH of the soil were found to be neutral (7.56 to 7.82). Electrical conductivity (EC) is a measure of the soluble salts and ionic activity in the soil. In the collected soil samples, the conductivity ranged from 19.9-23.5 µmhos/cm.
WQM	GWQM (3) SWQM (2)	Groundwater and surface water quality in the study area was assessed against IS:10500 standards. The pH of groundwater (7.18–7.31) and surface water (7.61–7.66) remained within acceptable limits. TDS levels in groundwater (346.5–458.9 mg/l) and surface water (448.3–455.4 mg/l) were within desirable limits. Chlorides, hardness, and fluoride in both water sources were found within prescribed standards. Heavy metals were below detectable limits. Overall, groundwater is fit for consumption, while surface water complies with CPCB Category-C standards and is suitable for drinking after conventional treatment and disinfection.

Ecological biodiversity

The ecological study was conducted within a 10 km radius of the proposed stone mining project in Pakur District, Jharkhand.

No Wildlife Sanctuary, National Park, Eco-Sensitive Zone, Ramsar site, Tiger or Elephant Reserve, or wildlife corridor exists within the study area.

The surrounding land use comprises forest patches, agricultural land, seasonal water bodies, rivers, and scattered settlements.

Seven Protected Forests are located within the buffer zone, the nearest being Kumharbil PF at about 1.73 km from the project site.

The core zone is barren stony land with sparse natural vegetation and no ecologically sensitive plant species.

A total of 97 floral species were recorded in the buffer zone, dominated by tree species typical of the Sal-dominated forest ecosystem.

Agricultural crops and common forest produce such as Mahua, Jamun and Kendu leaf are prevalent in the surrounding area.

Faunal diversity in the buffer zone is limited and mainly includes common mammals, reptiles, amphibians, and avifauna of Least Concern status.

No Schedule-I species or significant wildlife movement was observed during the survey period.

Overall, the study area exhibits low to moderate ecological sensitivity, with no critical biodiversity or habitat constraints for the proposed project.

ORGANIZATION CHART FOR ENVIRONMENT MANAGEMENT CELL

Environment Monitoring Cell

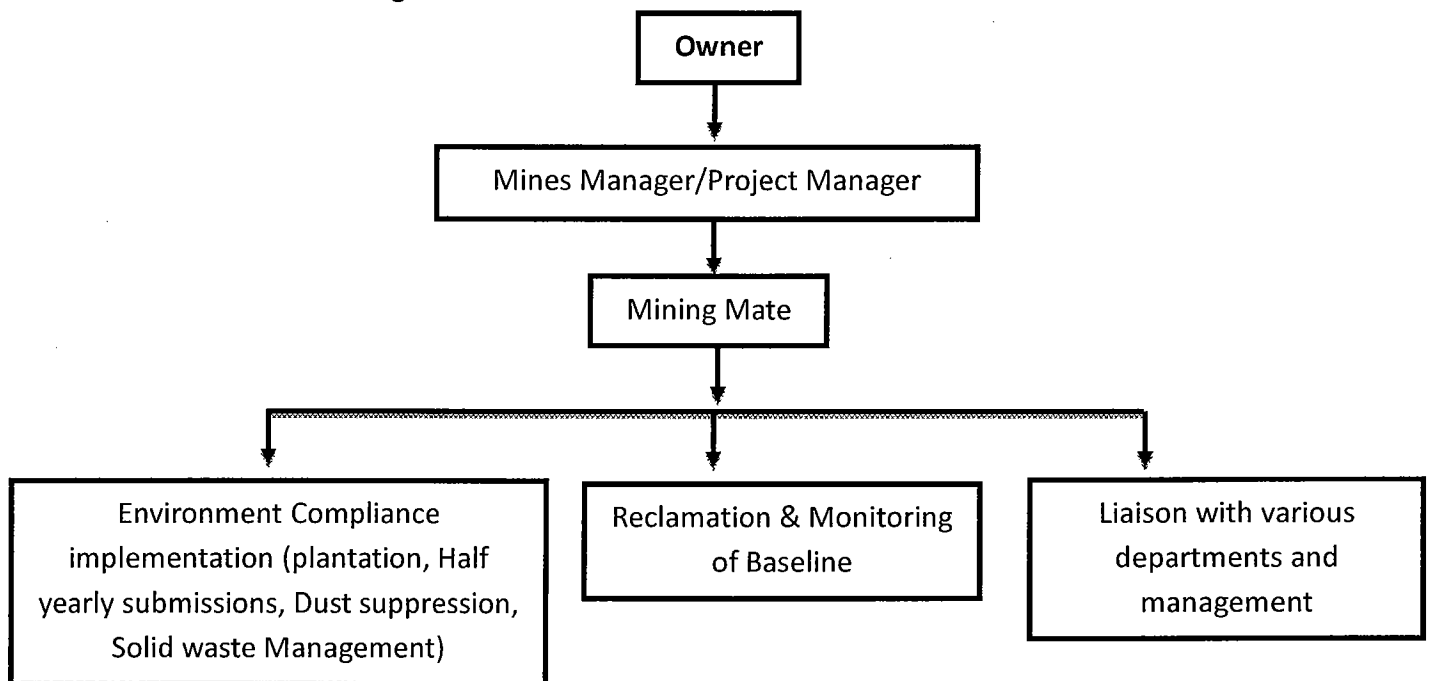


Fig: Organization Chart for Environment Management Cell

FUNCTIONS OF ENVIRONMENT MONITORING CELL

Supervision: Managed by Mines Manager with a qualified technical team.

Personnel: Includes skilled, semi-skilled, unskilled, and other third parties.

Responsibilities:

- ❖ Implement environmental control measures.
- ❖ Oversee reclamation planning and management.
- ❖ Manage air and water pollution control.
- ❖ Liaise with state and central statutory agencies.
- ❖ Develop greenbelt areas.

Performance Review: Assess corporate environmental performance and report non-compliances.

Remedial Actions: Suggest and implement actions for exceeding pollution limits.

Coordination:

Collect health statistics for workers and local population.

Act as a bridge for project implementation and Project Authorities

Facilitate afforestation efforts.

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The waste encountered during the mining operation is mainly 36,504.00 cum. During Plan period gritty soil removed will be dumped at south-west side with suitable precaution. Some quantity of the removed gritty soil would also be used for road dressing and plantation. After conceptual period mined out area of quarry will be reclaimed to the extent possible.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas

	Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	No tree felling will be undertaken without obtaining permission from the competent authority. Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	- Priority employment to local people in mining and ancillary activities. Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. - Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. - All monitoring reports will be submitted to statutory authorities as per the compliance schedule. Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: - Overall slope angles of benches will be maintained at 45°. - Unmanageable heights are not created. - Loose sides are properly dressed. - No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). - No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) - It will be ensured that the drilling equipment is suitable for the job. - The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. - Provision of portable rail fencing between the drilling operations and the edge of the bench - Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. - Restricted access to the area to all persons except those necessary for the drilling operation. - Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation.

	▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level

Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Dhowadangal Stone Mine of Mr. Iyasin Shekh, Village : Dhowadangal, Thana no. : 05, Thana : Maheshpur, Distt.: Pakur, Jharkhand (1.65 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to be submitted along with 6 monthly compliance.
- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

5. Salbona Pahar Stone Mine by M/s Jyoti Construction and Engineering Pvt. Ltd. (Director : Shri Ranjit Kumar and Shri Surjeet Kumar), Village : Salbona Pahar, Thana : Shikaripara, Thana no. : 07, Distt. : Dumka, Jharkhand (2.05 Ha).

(Proposal no.: SIA/JH/MIN/ 556425 /2025)

Name of the consultant : Oceao-Enviro Management Solutions (India) Pvt. Ltd., Ghaziabad, U.P.

This is a new project which has been taken for appraisal on 22.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B1.

Application for Environmental Clearance (EC) after ToR.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 123rd meeting held on 07.05.2025 - 11.05.2025 and SEIAA, Jharkhand has approved the ToRs in 123rd meeting held on 09th & 10th June, 2025. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2025-26/3668/2025/199, dated 20.06.2025. The final EIA / EMP submitted by PP to SEAC on 04.12.2025.

EC Application for: Proposed Capacity:52,944 Cum per Year/1,42,949 tonnes per Year .

Project and Location Details:

S. No	Parameter	Details
1	Project Name	: Salbonapahar Stone Mine with Crusher Jyoti Construction and Engineering Pvt. Ltd.
2	Director	: Shri Ranjit Kumar & Shri Surjeet Kumar
3	Lessee Address	: A/3 Vivekanand Park Lane A, S.E. Patliputra Colony, Boring Road, Patna- Bihar 800013.
4	Lease Area	: Acres: 5.06 Acres: 2.05 Acres
5	Cluster Details	: Total area: 7.34+4.01+7.39+1.98+6.94+4.66+2.81+ 7.0+4.62+5.10+3.80+ 4.01+5.06 = 64.72 Acre or 26.20 Ha. Total no of mine in cluster: 12
6	Type of Land	: Raiyati Land
7	Project Cost	: 46.0 Lakhs
8	EMP Budget	: Capital: 43.28Lakhs Recurring: 13.60Lakhs / year
9	New or Expansion	: New
10	Mineable Reserves	: 2,63,838 Cum 7,12,363Tonnes
11	Mine Life	: 5.0 Years
12	Man power	: 20 persons
13	Water Requirement	: Total water requirement is about 7.60 KLD=0.60 KLD (Drinking & Domestic Uses) + 4.0 (Plantation) KLD + 3.0 KLD (Dust Suppression).

14	Water Source	:	by Authorised hired water tankers		
15	DG Set / power	:	125 KVA (Temporary setup for Backup)		
16	Crusher	:	Yes(Proposed inside the mine)		
17	Nearest Water Body	:	Saharpur Pond is about 1.48 km in ESE direction. Matiyazuri Village Pond is about 1.46km in W direction.		
18	Nearest Habitation	:	Saharpur is about 1.07 km in E direction.		
19	Nearest Rail Station	:	Pakdaha Harinsing Railway station is about 6.03 km in N direction.		
20	Nearest Airport	:	Gaya International Airport is about 142.81 km in N direction .		
21	Nearest Forest	:	Shikaripara Forest	6.96	NW
			Purpahar PF	4.84	WSW
			Litia Pahar	5.79	SSW
22	Road & Highways	:	NH-114A is about 3.51 km in N direction.		
23	Nearest Approach Road	:	Approach Road is about 480m in S direction		

CO-ORDINATES

S.No.	Latitude	Longitude	S.No.	Latitude	Longitude
1	24° 11' 5.593" N	87° 34' 12.267" E	11	24° 11' 0.949" N	87° 34' 21.013" E
2	24° 11' 5.556" N	87° 34' 13.535" E	12	24° 11' 0.350" N	87° 34' 22.557" E
3	24° 11' 5.414" N	87° 34' 14.502" E	13	24° 10' 59.883" N	87° 34' 22.150" E
4	24° 11' 5.963" N	87° 34' 15.275" E	14	24° 11' 0.550" N	87° 34' 20.563" E
5	24° 11' 5.370" N	87° 34' 16.389" E	15	24° 11' 1.427" N	87° 34' 18.316" E
6	24° 11' 5.522" N	87° 34' 15.677" E	16	24° 11' 1.936" N	87° 34' 15.859" E
7	24° 11' 4.421" N	87° 34' 15.998" E	17	24° 11' 2.399" N	87° 34' 13.480" E
8	24° 11' 3.768" N	87° 34' 17.552" E	18	24° 11' 3.570" N	87° 34' 11.073" E
9	24° 11' 3.082" N	87° 34' 19.163" E	19	24° 11' 4.478" N	87° 34' 11.655" E
10	24° 11' 2.170" N	87° 34' 19.353" E			

LAND DETAILS

Khata no.	Plot no.
34, 08 & 27	159 (P), 160, 161 (P) & 162

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Dumka vide letter no. 825/M, dated 15.07.2024.
2	CO	:	The CO, Shikaripara vide letter no. 1131/Ra., dated 11.09.2023 has mentioned the plot no. of the project is not recorded as "Jungle-

		Jhari" in R.S. Khatiyan & Register II.
3	DMO Cluster	: DMO, Dumka vide memo no. 331/M, dated 10.02.2025 certified that 04 Lol (1.98 Acre, 6.94 Acre, 4.66 Acre & 4.01 Acre) 08 other mining lease area (7.34 Acre, 4.01 Acre, 7.39 Acre, 2.81 Acre, 7.00 Acre, 4.62 Acre, 5.10 Acre & 3.80 Acre) exists within 500 meters radius from proposed project site and total area is 64.72 Acre.
4	DFO Wild Life	: DFO, Wildlife Division, Hazaribag vide letter no. 2045, dated 06.09.2023 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	: Divisional Forest Officer, Dumka Forest Division vide letter no. 2839, dated 29.08.2023 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	: This project is mentioned in approved DSR of Dumka District (Sl. no. 12, Page no. 284).
7	Gram Sabha	: Gram Sabha conducted on 06.08.2023.
8	Mine Plan Approval	: Approved by District Mining Officer, Dumka vide Letter No. 1418/M, dated 20.12.2024.
9	Qualified Person	: Md. Tauseef Warsi was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Baseline Study Period	: March, 2025 to May, 2025.
11	Public Hearing	: Public Hearing conducted on 14.10.2025.

Working Details

1	Mining Method	:	OCM &Semi-Mechanised	
2	Lease Area	:	5.06 ACRES / 2.05 HA	Life of Mine – 5.0 years
3	Waste Generation	:	5 years– 36,526.00 cum	
4	Stripping Ratio(t/m ³)	:	1:0.05	
5	Working Days	:	300	
6	Benches: size & No	:	6m x 6m	
7	Highest Elevation of lease Area	:	214m AMSL	
8	Lowest Elevation of lease Area	:	211m AMSL	
9	Ultimate Working Depth	:	184m AMSL	
10	Water Table	:	140m AMSL (71mBGL)	
11	Topography of Mine	:	almost flat land with two hillocks	
12	Explosive Requirement	:	119.05 (External Agency)	

13	Diesel/Fuel requirement	492 Litres per day

Year Wise Production Details

Year	Production of Stone in Cum	Production of Stone in Tonnes	Generation of Waste/O. B in cum	Grade/Uses
1st	52506	141766	20654	Construction & Road
2nd	52679	142233	0	Construction & Road
3rd	52744	142409	8492	Construction & Road
4th	52914	142868	0	Construction & Road
5th	52944	142949	7380	Construction & Road
	263787	712225	36526	

Land Use

LAND USE PATTERN			
	Existing	First to Fifth Years	After Life of Mine
Category	Area in Hectares	Area in Hectares	Area in Hectares
Quarry	0.29	1.39	1.46ha (0.11ha area will be reclaimed and used for plantation, 1.35Haarea will be converted as water reservoir)
Haul Road	0.00	0.02 (used in quarry)	0.00
Proposed Mobile Crusher	0.00	0.05 (used in quarry)	Remove from lease area
Green belt in Safety Zone	0.00	0.59	0.59
Dump with Parapet wall & Garland drain	0.00	0.00	First Year top soil will be used for plantation and rest overburden shall use for haul road dressing and backfilling.
Total area in use	0.29	2.05	2.05
Balance unused area	1.76	0.00	0.00
Balance used area	0.00	0.00	0.00
Total Applied Lease Area	2.05	2.05	2.05

ENVIRONMENT MANAGEMENT

Green Belt Development

Year	Place of Plantation	Spacing b/w plants	Total No. of Plants	Area Cover in Square Meters	Total Area in Ha.	Species
1st	Safety Zone	2.5 x 2.5	944	5900	0.59	Pipal

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	Haul Road	3 x 3	640	480M Approach Road 480/3 = 160Plants 160 x 4= 640Plant		Bargad Palash Fruit Bearing Trees Mango, Jackfruit, Guava, Jamun
	Reclaimed area	2.5 x 2.5	176	1100	0.11	
2nd	Care & Protection	---	---	---	---	
3rd	Care & Protection	---	---	---	---	
4th	Care & Protection	---	---	---	---	
5th	Care & Protection	---	---	---	---	
Total			1760	7000	0.70	

In accordance with Office Memorandum No. F.No. IA3-22/3/2024-IA.III (E-241594), dated 24.07.2024, issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC), out of the total 1760 trees proposed to be planted in the designated green belt area—both within and outside the lease boundary—10% (approximately 158 saplings) shall be earmarked under the national tree plantation campaign "Ek Ped Ma Ke Naam."

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Environment Management Budget

S .NO.	Particulars	Budget Provisions (Rs)	
		Capital	Recurring
Water Demand			
1(a)	Fixed Overhead water sprinkling system with solar pump for outgoing and incoming transportation vehicles for haul road and green belt, Cost for 300 days for 7 KLD @5 KL tanker capacity, Rupees 500/- per tanker	1,00,000	2,10,000
	& One dedicated tanker of 5 KL for Greenbelt Management	10,00,000	50,000
1(b)	Handling of sewage water	0	57,600
2	Prepare & Maintenance of approach road (Max. Road length 480 m, Width 4.0 m) @ 500Rs. /Meter.	2,40,000	24,000
3	Monitoring (Air, Water, Soil & Noise)	Nil	1,00,000
4	Settling tank 2 in no's (LBH 12 m* 7 m* 4 m) & Garland drains	2,00,000	30,000
5	Wire Fence 1840 m x 300 /- meter	5,52,000	50,000
Plantation Scheme			
Plantation in consultation with DFO & Gram Panchayat and conversion to Grazing land as far as possible.			

6	Green belt development safety zone 7.5mtr, along the road & reclaimed area (for each plant including hedges and fences and tree guard at approach roads) 1760 No. of plants x 500 Rs.	8,80,000	3,00,000
Solid Waste Management			
7	Bins 2 Nos.	1,500	4,000
8	Transport of Dry Waste	5,000	
9	Vehicle Maintenance +PUC Certification	Nil	25,000
10	Action Plan for Addressing Public Hearing Concerns with Implementation Schedule and Budgetary Allocation	9,00,000	4,50,000
11	Budget allocation based on Socio-Economic findings	4,50,000	60,000
Total EMP Budget		43,28,500	13,60,600

Additional Blasting EMP Budget

Blasting			
1	Training and Awareness of personnel during Blasting operations	50,000	0
2	Provision of safe distance from the Project site for the settlements		
	• Blasting shelters and Sirens	50,000	5,000
	• Portable Drop Arm Barrier	2,00,000	10,000
Total cost		3,00,000	15,000

Endangered species of flora, fauna & Schedule-I

Based on the preliminary study conducted during the baseline data generation phase, along with consultations with local residents and relevant authorities, no endangered species of flora or fauna, including those listed under Schedule-I of the Wildlife (Protection) Act, 1972, were observed within the designated 10 km study area.

Action plan with time bound plan

S. No.	Issues / Suggestions	Action / Commitment by Project Proponent	Time-Bound Action Plan	Capital Cost (₹ Lakhs)	Recurring Cost (₹ Lakhs)
1	Drinking water, road repair, health facilities	Deep boring for drinking water; rural road repair; periodic medical camps & first aid	Within 6 months	2.5	1.0
2	Unemployment, education, Anganwadi, Education, housing, pension, employment, Water problem, road, health, Power	Priority employment to locals; proposal to concerned dept. for Anganwadi, Drinking water arrangement, proposal under Abua Housing Scheme, Request to electricity	Employment: ongoing; 1-2 years	6.5	3.5

	problem	dept., road repair; primary health care support			
Total				9.0	4.5

Budget allocation based on Socio-Economic needs

S. No	Activities	Estimated Cost in Rs. (in Lakhs)	2nd Year	3rd Year	4th Year	5th Year
1	Provision of financial assistance for girl child education (scholarships/school kits)	2.00	0.4	0.4	0.4	0.4
2	Distribution of sports equipment to youth clubs and village schools	0.50	0.2	0.1	-	-
3	Beautification of village playground with fencing, seating, and tree plantation	0.50	-	-	-	-
4	Repair and maintenance of community drinking water hand pumps	1.50	-	-	-	-
Total		4.50	0.6	0.5	0.4	0.4

Organization Chart for Environment Management Cell

Environment Monitoring Cell

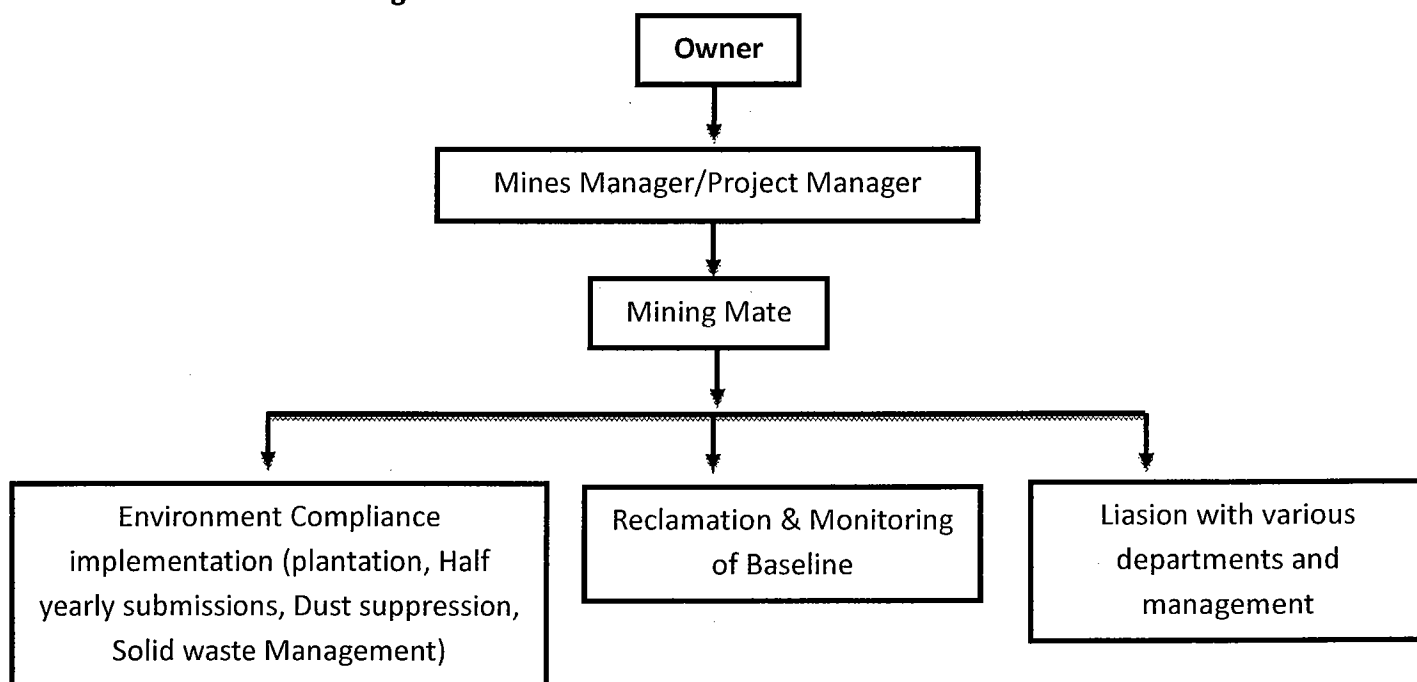


Fig: Organization Chart for Environment Management Cell

FUNCTIONS OF ENVIRONMENT MONITORING CELL

- Supervision: Managed by Mines Manager with a qualified technical team.
- Personnel: Includes skilled, semi-skilled, unskilled, and other third parties.
- Responsibilities:
 - ✓ Implement environmental control measures.
 - ✓ Oversee reclamation planning and management.

- ✓ Manage air and water pollution control.
- ✓ Liaise with state and central statutory agencies.
- ✓ Develop greenbelt areas.
- Performance Review: Assess corporate environmental performance and report non-compliances.
- Remedial Actions: Suggest and implement actions for exceeding pollution limits.
- Coordination:

Collect health statistics for workers and local population.

Act as a bridge for project implementation and Project Authorities

Facilitate afforestation efforts.

Environment Monitoring Plan (post operation)

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM ₁₀ , PM _{2.5} , SO ₂ , NO _x in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 station	Six Monthly

BASELINE Findings:

Study period: March 2025-May 2025

Parameter	No. of locations	Baseline Findings
AAQM	8	PM ₁₀ ranged from 40.6 µg/m ³ to 52.0 µg/m ³ , while PM _{2.5} concentrations varied between 30.0 µg/m ³ and 36.4 µg/m ³ . The levels of SO ₂ were found to be in the range of 5.2 µg/m ³ to 14.5 µg/m ³ , whereas NO ₂ concentrations ranged from 7.1 µg/m ³ to 19.1 µg/m ³ .
ANQM	5	Noise Level during Day Time – 38.7 dB (A) to 57.9 dB (A) Noise Level during Night Time – 29.2 dB(A) to 43.5 dB (A)
SQM	5	In the study area, variations in the pH of the soil were found to be neutral (7.57 to 7.81). Electrical conductivity (EC) is a measure of the soluble salts and

		ionic activity in the soil. In the collected soil samples, the conductivity ranged from 19.3-23.8 μ mhos/cm.
WQM	GWQM (3) SWQM (2)	Groundwater and surface water quality in the study area was assessed against IS:10500 standards. The pH of groundwater (7.52–7.64) and surface water (7.06–7.26) remained within acceptable limits. TDS levels in groundwater (346.5–458.9 mg/l) and surface water (334.8–465.7 mg/l) were within desirable limits. Chlorides, hardness, and fluoride in both water sources were found within prescribed standards. Heavy metals were below detectable limits. Overall, groundwater is fit for consumption, while surface water complies with CPCB Category-C standards and is suitable for drinking after conventional treatment and disinfection.

Ecological biodiversity

The ecological study was conducted within a 10 km radius of the proposed stone mining project in Pakur District, Jharkhand.

No Wildlife Sanctuary, National Park, Eco-Sensitive Zone, Ramsar site, Tiger or Elephant Reserve, or wildlife corridor exists within the study area.

The surrounding land use comprises forest patches, agricultural land, seasonal water bodies, rivers, and scattered settlements.

Seven Protected Forests are located within the buffer zone, the nearest being Purpahar PF at about 4.84 km from the project site.

The core zone is barren stony land with sparse natural vegetation and no ecologically sensitive plant species.

A total of 98 floral species were recorded in the buffer zone, dominated by tree species typical of the Sal-dominated forest ecosystem.

Agricultural crops and common forest produce such as Kathal, Jamun and Kendu leaf are prevalent in the surrounding area.

Faunal diversity in the buffer zone is limited and mainly includes common mammals, reptiles, amphibians, and avifauna of Least Concern status.

No Schedule-I species or significant wildlife movement was observed during the survey period.

Overall, the study area exhibits low to moderate ecological sensitivity, with no critical biodiversity or habitat constraints for the proposed project.

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The waste encountered during the mining operation is mainly 36,526 cum. During Plan period gritty soil removed will be dumped at south-west side with suitable precaution. Some quantity of the removed gritty soil would also be used for road dressing and plantation. After conceptual period mined out area of quarry will be reclaimed to the extent possible.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions.

	• Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank–soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities.

	• Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.

Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way

	traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated

12.12.18 decided that the proposal for Salbona Pahar Stone Mine by M/s Jyoti Construction and Engineering Pvt. Ltd. (Director : Shri Ranjit Kumar and Shri Surjeet Kumar), Village : Salbona Pahar, Thana : Shikaripara, Thana no. : 07, Distt. : Dumka, Jharkhand (2.05 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign “Ek Ped Ma Ke Naam” and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VI. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

6. Chalpahar Stone Mine Project of M/s Vivaan Enterprises, Village : Chalpahar, P.S. : Talpahari, Distt.: Sahibganj, Jharkhand (12.36 Ha).

(Proposal no.: SIA/JH/MIN/516371/2025)

Name of the consultant : Grass Roots Research & Creation India (P) Ltd., Noida, U.P.

This is an existing project (fresh EC) which has been taken for appraisal on 22.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B1.

Application for Terms of Reference (ToR) as per EIA Notification, 2006.

EC Application for: Proposed Capacity – 8,46,210.60 tonnes per annum (2,82,070.20 cum)

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Chalpahar Stone Mine Project
2	Lessee	: M/s Vivaan Enterprises Proprietor-Shri Ishan
3	Lessee Address	: Shop no. 4, R.N. Complex, Upper Bazar, Ranchi- 834001
4	Lease Area	: 12.36 Ha. 30.56 Acre
5	Type of Land	: Non-Forest Govt. Waste land
6	Project Cost	: Capital: Rs. 150.5 lakhs
7	EMP Budget	: Capital: Rs. 7,00,000 Recurring: Rs. 2,78,000 per year
8	New or Expansion	: New
9	Mineable Reserves	: 8462163.00 Tonnes (2,82,070.20 cum)
10	Mine Life	: 10 Years
11	Man power	: 34
12	Water Requirement	: 10 KLD
13	Water Source	: Ground water
14	DG Set / power	: -
15	Crusher	: Yes
16	Nearest Water Body	: Janumtola Dam Janumtola Bakudi (0.2 km)
17	Nearest Habitation	: Near Village Chalpahar (0.2 Km)
18	Nearest Rail Station	: Bakudi Railway Station which are about 1.4 Km
19	Nearest Air Port	: Malda Airport, West Bengal (34.1 Km)
20	Nearest Forest	: Divisional Forest Officer, Sahibganj certified that the proposed site is outside the notified forest land.
21	Road & Highways	: The project site is connected to nearby Road which is approx. 0.02 km towards SW direction and Jonka-Bakudi-Barharwa Road

		is at 1.1 km towards West direction. NH-33 which is approx. 1.3 km towards ESE direction and NH-133A approx. 5 km towards SSW from the project site.
22	Approach Road	: NH 33 which is at 1.3 km towards ESE direction

CO-ORDINATES

Pillar No.	Degree, Minute, Second	
	Latitude	Longitude
1	24° 56' 5.584" N	87° 47' 33.474" E
2	24° 56' 5.448" N	87° 47' 37.183" E
3	24° 56' 4.764" N	87° 47' 38.893" E
4	24° 56' 3.739" N	87° 47' 41.149" E
5	24° 56' 3.360" N	87° 47' 41.981" E
6	24° 56' 1.397" N	87° 47' 41.276" E
7	24° 56' 1.522" N	87° 47' 40.622" E
8	24° 56' 2.639" N	87° 47' 40.837" E
9	24° 56' 2.703" N	87° 47' 40.623" E
10	24° 56' 0.969" N	87° 47' 40.313" E
11	24° 56' 2.081" N	87° 47' 38.087" E
12	24° 56' 2.892" N	87° 47' 38.413" E
13	24° 56' 3.287" N	87° 47' 37.346" E
14	24° 56' 2.639" N	87° 47' 37.092" E
15	24° 56' 1.049" N	87° 47' 34.609" E
16	24° 56' 0.242" N	87° 47' 34.550" E
17	24° 55' 59.082" N	87° 47' 36.439" E
18	24° 55' 58.911" N	87° 47' 38.629" E
19	24° 55' 59.961" N	87° 47' 39.375" E
20	24° 55' 59.400" N	87° 47' 40.851" E
21	24° 55' 59.018" N	87° 47' 40.490" E
22	24° 55' 58.068" N	87° 47' 43.847" E
23	24° 55' 58.379" N	87° 47' 44.050" E
24	24° 55' 57.128" N	87° 47' 45.668" E
25	24° 55' 56.578" N	87° 47' 45.717" E
26	24° 55' 56.697" N	87° 47' 46.705" E
27	24° 55' 57.286" N	87° 47' 47.134" E
28	24° 55' 57.159" N	87° 47' 49.639" E
29	24° 55' 56.557" N	87° 47' 49.451" E
30	24° 55' 56.590" N	87° 47' 49.087" E
31	24° 55' 55.064" N	87° 47' 49.166" E
32	24° 55' 54.930" N	87° 47' 49.914" E
33	24° 55' 54.214" N	87° 47' 50.194" E
34	24° 55' 52.314" N	87° 47' 49.476" E
35	24° 55' 54.038" N	87° 47' 45.775" E
36	24° 55' 52.794" N	87° 47' 45.200" E
37	24° 55' 53.758" N	87° 47' 41.526" E
38	24° 55' 53.424" N	87° 47' 41.314" E
39	24° 55' 53.846" N	87° 47' 40.283" E
40	24° 55' 51.776" N	87° 47' 39.443" E

41	24°55' 52.369" N	87° 47' 35.835" E
42	24° 55' 57.431" N	87° 47' 32.067" E
43	24° 55' 59.330" N	87° 47' 29.548" E
44	24° 56' 4.175" N	87 ° 47' 28.397" E
45	24° 56' 3.925" N	87° 47' 33.571" E

LAND DETAILS

Khata No.	Plot No.
4	4, 23, 30
6	5, 6, 21
8	26
9	39
10	24
11	28, 29
12	3, 15P, 16P, 18P, 25, 27, 31
13	32
15	17, 20, 38

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by Director, Mines, Deptt. of Mines & Geology, Govt. of Jharkhand vide letter no. Kha. Ni (Nilami)-49/2022 / 853/M, dated 24.04.2013.
2	CO	:	The CO, Taljhari vide letter no. 782, dated 14.10.2023 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatyan & Register II and also mentioned that the habitation (18 houses) at a distance of 300 meters of proposed project site. During the appraisal it was seen from the KML that water body at a distance of 200 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 1307/M, dated 06.12.2024 certified that 03 other mining lease area (22.44 Acre, 1.56 Acre & 6.89 Acre) exists within 500 meters radius from proposed project site and total area is 61.45 Acre.
4	DFO Wild Life	:	DFO – cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide memo no. 618, dated 23.03.2024 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.

5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide letter no. 275, dated 01.02.2025 certified that the distance of reserved / protected forest is Zero (0) meters from proposed project site. As this mine is in operation since 26.12.2009 and later obtained EC from SEIAA vide letter no. EC/SEIAA/2015-16/1032/2015/1624, dated 30.09.2015 in favour of Shri Vikram Pratap, M/s Swastik Mineral Agency. Hence, siting criteria is not applicable and considered on the "As is where is basis".
6	DSR	:	This project is mentioned in approved DSR of Sahibganj District (Page no. 35, Sl. No. 167).
7	Gram Sabha	:	Gram Sabha conducted on 03.10.2023.
8	Grid certificate	:	DMO, Sahibganj vide memo no. 1872/M, dated 12.11.2025 certified that said project falls under grid no. 99 and production is within the over all permissible production limit. The DMO also stated that this certificate is issued in the light of order passed by Hon'ble NGT on 22.12.2021 in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019. It also states this certificate is issued in compliance of report of Expert Committee.
9	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 331/M, dated 02.05.2024.
10	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Mechanized Method
2	Quarry Area	:	10.975 Ha.
3	Waste Generation	:	110817.2 cum
4	Stripping Ratio	:	1:0.04
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m and 5 in numbers
7	Elevation of Mine	:	140 m AMSL to 169 m AMSL
8	Ground Level Elevation	:	107 m AMSL
9	Ultimate Working Depth	:	78 m AMSL
10	Water Table	:	55 m AMSL Source: https://cqwb.gov.in/old_website/District_Profile/Jharkhand/Sahebganj.pdf
11	Topography of Mine	:	Undulating Small hillocks

12	Explosive Requirement	:	15-20 kg/day
13	Diesel/Fuel requirement	:	50 litre/day (in absence of grid light)

Production Details

Year	Production of stone in CUM	Production of stone in tonnes	OB in CUM	Intercalated waste in Cum	Total waste in cum
1 st Year	271157.55	813472.65	18898.00	14271.45	33169.45
2 nd Year	274425.55	823276.65	6453.00	14443.45	20896.45
3 rd Year	276040.55	828121.65	5622.00	14528.45	20150.45
4 th Year	279452.95	838358.85	5445.00	14708.05	20153.05
5 th Year	282070.20	846210.60	1602.00	14845.80	16447.80
Total	1383146.8	4149440.4	38020	72797.2	110817.2

Land Use

Land Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At Conceptual period (Ha)
Excavation	1.913	7.023	10.795 (0.751ha area shall be backfilled. 3.64 ha area shall be left as water reservoir and 6.704ha shall be dead benches).
Waste Dump	0.0	0.956	Nil (waste dump to be removed and backfilled)
Road	0.024	0.101	0.0
Infrastructure (Crusher)	0.0	0.683	Nil (to be shifted in quarry bottom)
Safety Zone Plantation	0.0	1.565	1.565
Total	1.937	10.328	12.360
Unused Area	10.423	2.032	0.0
Total Lease Area	12.360	12.360	

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location		Area/Length	No. of Trees
1	Safety Zone	:	1.565 ha	4000
2	Backfilled area	:	0.751	1877
3	Dead benches		6.704	16,760
Total				22,637

Note – 10 % of Total plant i.e. 2264 plants will be planted as EK Ped Maa K Naam.

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars	Capital	Recurring
Land	40,00,000	0.00
Infrastructure	10,00,000	0.00
Mining Equipment	80,00,000	10,00,000
Statutory Clearances	10,50,000	0.00
Mine closure cost for fencing around	10,00,000	0.00
Total	15,050,000	10,00,000

ENVIRONMENT MANAGEMENT PLAN (EMP)

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP)		
Particulars	Capital	Recurring
22,637 tree plantation @Rs.50 per Tree for planting & @Rs.25 per tree for maintenance	11,31,850	5,65,925
Water Sprinkling	0.00	1,00,000
Garland Drain, Retaining Wall & Desiltation Pond	2,00,000	62,500
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC	1,50,000	37,500
Environment Monitoring & Compliance	0.00	30,000
Total	14,81,850	7,95,925

Environment Monitoring Plan (post operation)

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of	Frequency

		Locations	of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	4 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	1 Surface water 1 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	1 station	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	1 station	Six Monthly

Environment Management Practices to be followed:

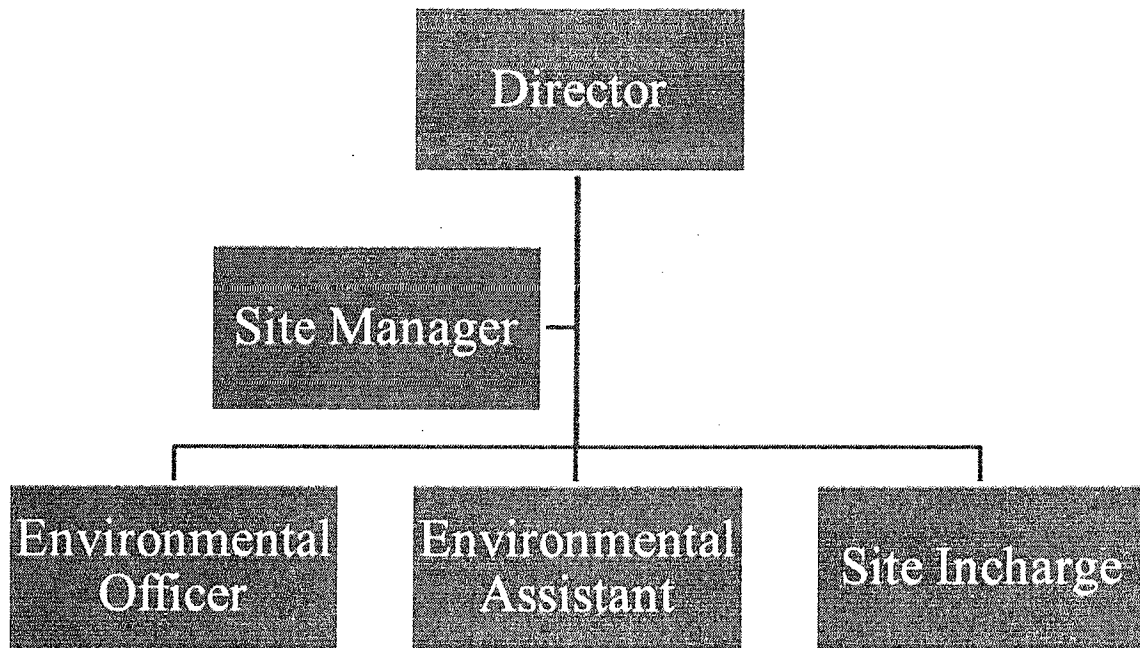
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	It has been calculated that total 110817.20 cum in-situ. waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 55408.60 cum (In situ) shall be utilized for approach & haul road maintenance. The rest waste material (50%) 55408.60 cum (In situ). 69260.75 cum (loose) & 58871.64 cum (compact) waste shall be temporarily dumped in north western part of the lease area, the maximum height of dump shall be 7.01m and it will cover 0.956ha area.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry

	to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives,

	Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: - Overall slope angles of benches will be maintained at 45°. - Unmanageable heights are not created. - Loose sides are properly dressed. - No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). - No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) - It will be ensured that the drilling equipment is suitable for the job. - The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. - Provision of portable rail fencing between the drilling operations and the edge of the bench - Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. - Restricted access to the area to all persons except those necessary for the drilling operation. - Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. - In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. - Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	- Blast hole geometry shall be properly designed. - Blast site shall be wetted before and after blasting operations are completed. - Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. - Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. - While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions.

	▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.

- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 19, 20, 21, 22, 23 & 24.12.2025, the Committee recommends in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 for issuing of ToR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure III alongwith following specific condition :-

- I. An additional safety barrier of 7.5 meters width will be maintained in the area adjoining to the forest land with 3 tier plantations. Accordingly, revised land use plan and maps to be included in the final EIA / EMP report.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. The detailed EMP is to be prepared for the Habitation & water body existing within an area of 500 meter radius of proposed project boundary. This EMP is to be included in EIA report.

7. Development of "Smart City Project" of M/s Ranchi Smart City Corporation Limited, Village : Latma, Jaganathpur, Kalyanpur, Kachnartoli, Hatia, Tehsil : Namkum, Distt. : Ranchi, Jharkhand.

(Proposal no.: SIA/JH/ INFRA2 /556846 /2025)

During the course of appraisal, it was found that there is no clarity in the proposal submitted w.r.t. existing land schedule and proposed land schedule.

Hence, this proposal will be taken up for consideration after complete and clear details of the existing and proposed land schedule alongwith changes in the project area is provided.

Consideration of proposals :

1. Khantdih Stone Deposit of M/s Ganpati Minerals (Partner : (i) Shri Ramchandra Mehta (ii) Shri Lalan Kumar Singh (iii) Shri Arvind Kumar), Village : Khantdih, Anchal : Topchanchi, Distt. : Dhanbad, Jharkhand (2.161 Ha).

(Proposal no.: SIA/JH/MIN/ 555870 /2025)

Name of the consultant : P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 23.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity- 46168 cum/annum or 124654 TPA

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Khantdih Stone Deposit
2	Lessee	: M/S Ganpati Minerals Partner- 1) Sri Ramchandra Mehta 2) Sri Lalan Kumar Singh 3) Sri Arvind Kumar
3	Lessee Address	: Partner- 1) Sri Ramchandra Mehta S/o Shri Chhotelal Mehta Village-Vigha, Post-Phulwaria, Thana-Nawalshahi, District-Koderma, 2) Sri Lalan Kumar Singh S/o -Ramraj Singh, Village + Post-Bhusai, Thana -Ichak, District-Hazaribagh 3) Sri Arvind Kumar S/o -Bateshwar Prasad Mehta, Village-Chanda, Post + Thana -Ichak, District-Hazaribagh, Jharkhand
4	Lease Area	: 2.161 Ha. 5.34 Acre
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital: Rs. 56,59,200.00
7	EMP Budget	: Capital: Rs. 13,39,200.00 Recurring: Rs. 745200 per year
8	New or Expansion	: New
9	Mineable Reserves	: 1180207 Tonnes 437113.70 Cum
10	Mine Life	: 9.5 or say 10 years

11	Man power	:	20
12	Water Requirement	:	9.38 KLD
13	Water Source	:	By authorised hired water tankers
14	DG Set / power	:	50 KVA
15	Crusher	:	No crusher
16	Nearest Water Body	:	Jamunia River (3.54 km)
17	Nearest Habitation	:	Nearest Habitation 350 meter towards SW direction, EMP Submitted.
18	Nearest Rail Station	:	Bholidih Railway station which are about 3.10 km
19	Nearest Air Port	:	Deoghar Airport (82.03 km)
20	Nearest Forest	:	Divisional Forest Officer, Dhanbad certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
21	Road & Highways	:	NH-19, Approx. 0.65 km. in North direction..
22	Approach Road	:	100 m

CO-ORDINATES

POINTS	LATITUDE	LONGITUDE
P1	23° 54' 45.9132" N	86° 08' 38.5510" E
P2	23° 54' 45.9210" N	86° 08' 39.9867" E
P3	23° 54' 46.0644" N	86° 08' 40.1230" E
P4	23° 54' 45.9423" N	86° 08' 40.4382" E
P5	23° 54' 45.9050" N	86° 08' 40.7080" E
P6	23° 54' 46.1719" N	86° 08' 40.8159" E
P7	23° 54' 46.3249" N	86° 08' 40.9328" E
P8	23° 54' 45.8359" N	86° 08' 41.6519" E
P9	23° 54' 45.4156" N	86° 08' 41.2447" E
P10	23° 54' 45.2499" N	86° 08' 41.1588" E
P11	23° 54' 45.3891" N	86° 08' 41.0631" E
P12	23° 54' 45.1449" N	86° 08' 40.8945" E
P13	23° 54' 44.8843" N	86° 08' 40.9004" E
P14	23° 54' 44.8954" N	86° 08' 41.0407" E
P15	23° 54' 44.8522" N	86° 08' 41.1645" E
P16	23° 54' 44.7852" N	86° 08' 41.1874" E
P17	23° 54' 44.6014" N	86° 08' 41.0819" E

P18	23° 54' 44.5058" N	86° 08' 41.0657" E
P19	23° 54' 44.3666" N	86° 08' 41.0919" E
P20	23° 54' 44.1814" N	86° 08' 41.1970" E
P21	23° 54' 44.0681" N	86° 08' 41.0767" E
P22	23° 54' 43.8420" N	86° 08' 41.2662" E
P23	23° 54' 44.0173" N	86° 08' 41.6157" E
P24	23° 54' 44.0215" N	86° 08' 41.7467" E
P25	23° 54' 44.0907" N	86° 08' 41.7951" E
P26	23° 54' 44.1974" N	86° 08' 41.9460" E
P27	23° 54' 44.0355" N	86° 08' 42.0446" E
P28	23° 54' 44.0416" N	86° 08' 42.2734" E
P29	23° 54' 43.9846" N	86° 08' 42.6270" E
P30	23° 54' 44.2901" N	86° 08' 42.6483" E
P31	23° 54' 43.7492" N	86° 08' 43.6158" E
P32	23° 54' 43.2307" N	86° 08' 44.7514" E
P33	23° 54' 42.8419" N	86° 08' 45.2266" E
P34	23° 54' 42.7381" N	86° 08' 45.1112" E
P35	23° 54' 42.7402" N	86° 08' 44.5477" E
P36	23° 54' 42.8587" N	86° 08' 44.0144" E
P37	23° 54' 42.7490" N	86° 08' 43.7630" E
P38	23° 54' 42.4880" N	86° 08' 43.5439" E
P39	23° 54' 42.3597" N	86° 08' 43.3726" E
P40	23° 54' 42.0285" N	86° 08' 43.2194" E
P41	23° 54' 42.0102" N	86° 08' 42.7105" E
P42	23° 54' 41.8516" N	86° 08' 42.6573" E
P43	23° 54' 41.5413" N	86° 08' 42.8502" E
P44	23° 54' 41.4900" N	86° 08' 42.9285" E

P45	23° 54' 41.1840" N	86° 08' 42.6814" E
P46	23° 54' 41.0835" N	86° 08' 42.5534" E
P47	23° 54' 40.9648" N	86° 08' 42.3324" E
P48	23° 54' 40.7208" N	86° 08' 42.0729" E
P49	23° 54' 40.6424" N	86° 08' 41.9050" E
P50	23° 54' 40.8435" N	86° 08' 41.8616" E
P51	23° 54' 41.0556" N	86° 08' 41.7198" E
P52	23° 54' 41.2581" N	86° 08' 41.6932" E
P53	23° 54' 41.5445" N	86° 08' 41.3408" E
P54	23° 54' 41.4084" N	86° 08' 40.6267" E
P55	23° 54' 41.2807" N	86° 08' 40.1035" E
P56	23° 54' 41.1425" N	86° 08' 39.8251" E
P57	23° 54' 41.0225" N	86° 08' 39.9073" E
P58	23° 54' 40.9365" N	86° 08' 39.9153" E
P59	23° 54' 40.8498" N	86° 08' 39.7999" E
P60	23° 54' 40.7635" N	86° 08' 39.7518" E
P61	23° 54' 40.6947" N	86° 08' 39.7447" E
P62	23° 54' 40.7627" N	86° 08' 39.5946" E
P63	23° 54' 40.8225" N	86° 08' 39.2236" E
P64	23° 54' 40.8170" N	86° 08' 38.6856" E
P65	23° 54' 40.6898" N	86° 08' 38.2560" E
P66	23° 54' 40.8525" N	86° 08' 38.1098" E
P67	23° 54' 40.9626" N	86° 08' 37.8050" E
P68	23° 54' 41.0510" N	86° 08' 37.4535" E
P69	23° 54' 41.2835" N	86° 08' 37.5081" E
P70	23° 54' 41.3920" N	86° 08' 37.6805" E
P71	23° 54' 41.4916" N	86° 08' 37.7921" E
P72	23° 54' 41.6160" N	86° 08' 37.8151" E
P73	23° 54' 41.6355" N	86° 08' 37.6073" E
P74	23° 54' 41.8678" N	86° 08' 37.6170" E
P75	23° 54' 42.0611" N	86° 08' 37.7336" E

P76	23° 54' 42.0193" N	86° 08' 37.9416" E
P77	23° 54' 42.2666" N	86° 08' 37.9574" E
P78	23° 54' 42.2608" N	86° 08' 37.8368" E
P79	23° 54' 42.3901" N	86° 08' 37.4148" E
P80	23° 54' 42.4594" N	86° 08' 37.2761" E
P81	23° 54' 42.8478" N	86° 08' 37.3538" E
P82	23° 54' 43.2338" N	86° 08' 37.4998" E
P83	23° 54' 43.6484" N	86° 08' 37.8280" E
P84	23° 54' 44.2006" N	86° 08' 38.1051" E
P85	23° 54' 44.3512" N	86° 08' 38.1229" E
P86	23° 54' 44.5710" N	86° 08' 38.2056" E
P87	23° 54' 44.6332" N	86° 08' 38.1487" E
P88	23° 54' 45.2340" N	86° 08' 38.4203" E
P89	23° 54' 45.6306" N	86° 08' 38.5749" E
P90	23° 54' 45.7401" N	86° 08' 38.4694" E

LAND DETAILS

Khata no.	Plot no.
11, 31, 153, 56, 92, 97, 89, 155, 158, 186	2258, 2263, 2259, 2195, 2203, 2257, 2264, 2766, 2204, 2217 (P), 2218, 2265, 2202, 2274 (P), 2261, 2262, 2191, 2267, 2192, 2219, 2205 (P) & 2765

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Dhanbad vide letter no. 630/M, dated 29.04.2025.
2	CO	:	The CO, Topchanchi (Dhanbad) vide letter no. 271, dated 15.04.2025 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyani & Register II. During the appraisal it was seen from the KML that habitation exists within 500 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Dhanbad vide memo no. 1851/M, dated 09.12.2025 certified that 01 other mining lease area (7.00 Acre) exists within 500 meters radius from proposed project site and total area is 12.34 Acre.

4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 268, dated 24.02.2025 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Dhanbad Forest Division vide letter no. 2253, dated 30.08.2024 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Dhanbad District (Page no. 63, Sl. no. 27).
7	Gram Sabha	:	Gram Sabha conducted on 31.01.2025.
8	Mine Plan Approval	:	Approved by DMO, Dhanbad vide Memo No. 1425/M, dated 09.09.2025.
9	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Semi- Mechanized Method
2	Quarry Area	:	0.950 Ha
3	Waste Generation	:	40011 cum
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	285 m AMSL to 280 m AMSL
8	Ground Level Elevation	:	280 m AMSL
9	Ultimate Working Depth	:	245 m AMSL
10	Water Table	:	230-227 m AMSL
11	Topography of Mine	:	Area represents Small Hillock.
12	Explosive Requirement	:	110 kg/day
13	Diesel/Fuel requirement	:	120 litre/day

Production Details

Year	Production of stone in Cum	Production of stone in Tonnes	Overburden in cum	Intercalated waste in Cum	Total Waste in Cum
1 st Year	41792	112839	23312	2200	25512
2 nd Year	42239	114045	5264	2223	7487

3 ^d Year	42775	115492	0	2251	2251
4 ^h Year	44293	119591	0	2331	2331
5 th Year	46168	124654	0	2430	2430
Total	217267	586621	28576	11435	40011

Land Use

Land Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At Conceptual period (Ha)
Excavation	Nil	0.950	1.591 (0.220ha area shall be Backfilled, 0.867ha converted in to water reservoir & 0.504ha shall be left as dead benches)
Waste Dump	0.0	0.452	0.0
Road	Nil	0.003	Nil (within quarry)
Infrastructure (Crusher)	0.0	0.00	0.0
safety zone	Nil	0.570 (Plantation)	0.570 (Plantation)
Total	0.0	1.957	2.161
Unused area	2.161	0.186	0
Total Lease Area	2.161		

Green Belt Development

	Area Length /	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.570	912	1600 Tree per Hectare	1st Year	Mango, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	100	200	2m X 2 m spacing in two rows both side		
Dead Bench (Ha.)	-	-	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	0.220	352			
Total		1464			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars			Capital	Recurring
Land			2500000	200000
Infrastructure			1000000	100000
Mining Equipment			0.00	86,00,000.00
<i>Equipment</i>	<i>Quantity</i>	<i>Rent per year</i>	-	8600000.00
Dumper	5	200000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	4	600000		
Excavator	3	800000		
Loader	2	600000		
Water Facility for Domestic Purpose "0.2" KLD (Annual Water Demand "60"KL @4L per Tanker, total number of tanker required ("15") and per tanker cost @Rs. 500)			0.00	7,500.00
Statutory Clearances			6,00,000.00	0.00
Mine Closure Cost for Plantation of "400" number of trees @Rs. 300 per tree for plant & @Rs. 50 per tree for maintenance			1,20,000.00	20,000.00
Mine Closure Cost for fencing around mine			1,00,000.00	0.00
Environment Management Plan (EMP) Cost			13,39,200.00	4,45,200.00
Total			56,59,200.00	93,72,700.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
1464 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	4,39,200	73,200.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (0.6KLD) & Horticulture (8.78KLD) 0.6 + 8.78 = 9.38 KLD 9.38 KLD X 300 Days = 2814 KLD 2814 KLD / 4 KLD = 704 Tankers	0	3,52,000.00
Environment Monitoring & Compliance	0	50,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC	9,00,000.00	2,70,000.00
Total	13,39,200.00	7,45,200.00

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Environment Management Practices to be followed:

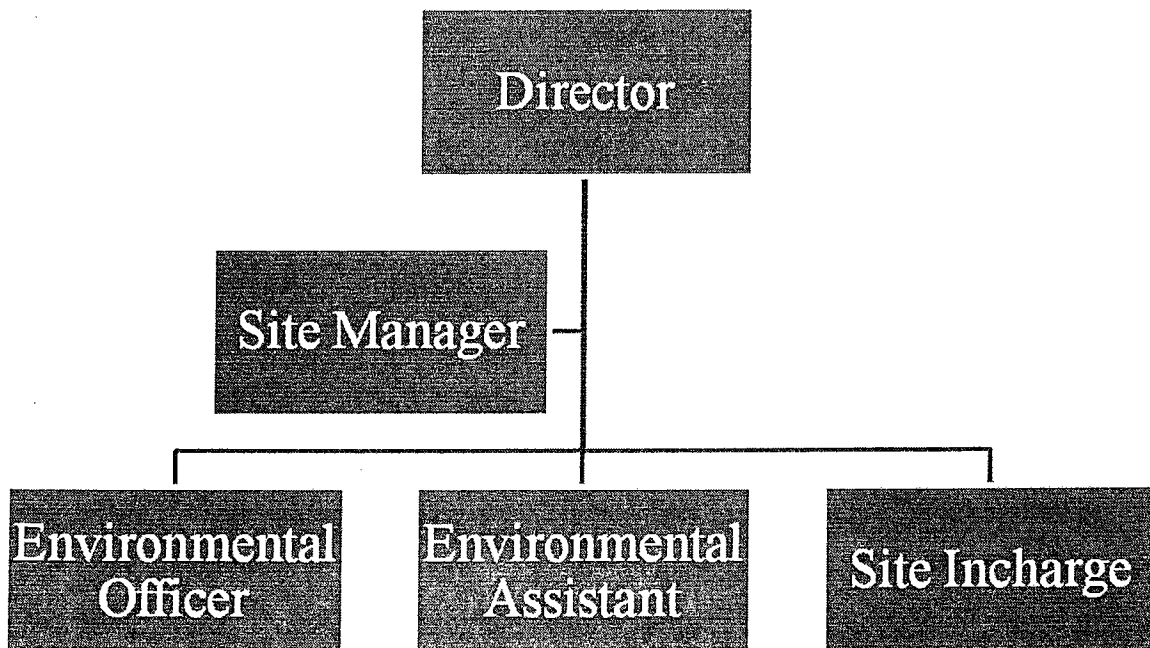
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The total 40011 cum in-situ waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 20006 cum (Insitu) shall be utilized for approach & haul road maintenance. The rest waste material (50%) i.e. 20006 cum insitu 25006.94 cum loose & 21255.90 cum compact waste shall be temporary dumped on eastern part of applied lease area and it will cover about 0.452ha area.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak

	pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause

	any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left

	unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Khantdih Stone Deposit of M/s Ganpati Minerals (Partner : (i) Shri Ramchandra Mehta (ii) Shri Lalan Kumar Singh (iii) Shri Arvind Kumar), Village : Khantdih, Anchal : Topchanchi, Distt. : Dhanbad, Jharkhand (2.161 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

2. Bunda Bedo Stone Deposit of M/s Maa Ambika Developer Pvt. Ltd. (Director : Shri Subrata Paul), Village : Bunda Bedo, Thana : Patna, Distt. : Sahibganj, Jharkhand (1.619 Ha).

(Proposal no.: SIA/JH/MIN/ 555945 /2025)

Name of the consultant : P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 23.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 48384 cum/annum or 130635 Tonnes per year

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Bunda Bedo Stone Deposit
2	Lessee	: M/S Maa Ambika Developer Pvt. Ltd Director: Sri Subrata Paul,
3	Lessee Address	: Near Main Road Ratanpur, P.O. + P.S – Barharwa, Dist- Sahibganj, Jharkhand.
4	Lease Area	: 1.619 Ha. 4.00 Acre
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital: Rs 43,06,900.00
7	EMP Budget	: Capital: Rs 5,06,400.00 Recurring: Rs. 6,87,400.00 per year
8	New or Expansion	: New
9	Mineable Reserves	: 1265161 Tonnes 468578 Cum
10	Mine Life	: 9.7or 10.0 years
11	Man power	: 21
12	Water Requirement	: 14.74 KLD
13	Water Source	: By authorised hired water tankers
14	DG Set / power	: 50 KVA
15	Crusher	: No crusher
16	Nearest Water Body	: Ganga river (14.66km)
17	Nearest Habitation	: Nearest Habitation 750 meter towards west direction
18	Nearest Rail Station	: Barharwa Junction railway station which are about 5.54 Km
19	Nearest Air Port	: Deoghar Airport (114.90 Km)
20	Nearest Forest	: Divisional Forest Officer, Ranchi certified that the distance of reserved / protected forest is more than 254 meters from proposed project site.
21	Road & Highways	: NH-133A (Barharwa – Rajmahal Road) is about 4.23 Km from the

			project site. NH-33 (Rasulpur, Tetulia Road) is about 4.57 Km from Project site.
22	Approach Road	:	approx, 428meter

CO-ORDINATES

Pillar No.	Degree, Minute, Second	
	Latitude	Longitude
1	24°53' 28.670"	87°43'52.332"
2	24°53' 29.112"	87°43'53.541"
3	24°53' 28.859"	87°43'54.045"
4	24°53' 27.579"	87°43'54.557"
5	24°53' 27.714"	87°43'57.254"
6	24°53' 27.434"	87°43'57.025"
7	24°53' 27.429"	87°43'58.631"
8	24°53' 28.659"	87°43'59.401"
9	24°53' 29.605"	87°43'59.494"
10	24°53' 29.967"	87°43'59.708"
11	24°53' 31.261"	87°43'58.387"
12	24°53' 31.823"	87°43'57.669"
13	24°53' 31.406"	87°43'57.617"
14	24°53' 31.392"	87°43'57.321"
15	24°53' 31.735"	87°43'57.247"
16	24°53' 31.710"	87°43'56.589"
17	24°53' 30.707"	87°43'55.542"
18	24°53' 29.670"	87°43'53.681"
19	24°53' 29.221"	87°43'52.184"

LAND DETAILS

Khata no.	Plot no.
56	13 & 14 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Sahibganj vide letter no. 1590/M, dated 30.08.2025.
2	CO	:	The CO, Patna (Sahibganj) vide letter no. 238/Ra., dated 23.04.2025 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in Khatiyon.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 1808/M, dated 10.10.2025 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO – cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. 2017, dated 11.07.2025 certified that the proposed

			project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide letter no. 2016, dated 11.07.2025 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 1809/M, dated 10.10.2025 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 189).
7	Gram Sabha	:	Gram Sabha conducted on 03.04.2025.
8	Grid certificate	:	DMO, Sahibganj vide memo no. 1351/M, dated 15.07.2025 certified that said project falls under grid no. 107 and production is within the over all permissible production limit. The DMO also stated that this certificate is issued in the light of order passed by Hon'ble NGT on 22.12.2021 in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019. It also states this certificate is issued in compliance of report of Expert Committee.
9	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1713/M, dated 19.09.2025.
10	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast semi- mechanized Method
2	Quarry Area	:	1.207 Ha
3	Waste Generation	:	12260 cum
4	Stripping Ratio	:	1:0.01
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m and 5 in numbers
7	Elevation of Mine	:	143 m AMSL to 150 m AMSL
8	Ground Level Elevation	:	143 m AMSL
9	Ultimate Working Depth	:	95 m AMSL
10	Water Table	:	67-70 m AMSL
11	Topography of Mine	:	Area represents hillock.
12	Explosive Requirement	:	26 kg/day
13	Diesel/Fuel requirement	:	126 litre/day

Production Details

Year	Production of stone in cum	Production of stone in Tonnes	Overburden in cum	Intercalated waste in cum	Total Waste in cum
1 st	45040	121607	23650	2371	26021
2 nd	45562	123017	0	2398	2398
3 rd	46712	126121	0	2459	2459
4 th	47234	127532	0	2486	2486
5 th	48384	130635	0	2547	2547
Total	232931	628912	23650	12260	35910

Land Use

Category	Present Land Use(in Ha)	At the End of Scheme Period (in Ha.)	At the End of mine (in Ha.)
Quarry	NIL	0.821	1.207 (0.107 ha area shall be backfilled & 0.896 ha area shall be left as water reservoir and 0.203ha left as dead benches)
Waste Dump	NIL	0.346	Nil (comes under Quarry)
Road	NIL	0.003	0.00
Crusher	NIL	0.0	NIL
Safety Zone Plantation	NIL	0.412 (Plantation)	0.412 (Plantation)
Total	0.000	1.582	1.619
Unused Area	1.619	0.037	0.0
Total Lease area	1.619		

Green Belt Development

	Area Length /	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.412	660	1600 Tree per Hectare	1st Year	Mango, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	428	856	2m X 2 m spacing in two rows both side		
Dead Bench (Ha.)	-	-	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	0.107	172			
Total		1688			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars			Capital	Recurring
Land			20,00,000	2,00,000.00
Infrastructure			10,00,000	1,00,000.00
Mining Equipment			0.00	86,00,000.00
<i>Equipment</i>	<i>Quantity</i>	<i>Rent per year</i>		
Dumper	5	200000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	4	600000		
Excavator	3	800000		
Loader	2	600000		
Water Facility for Domestic Purpose "0.2" KLD (Annual Water Demand "60"KL @4L per Tanker, total number of tanker required ("15") and per tanker cost @Rs. 500)			0.00	7,500.00
Statutory Clearances			6,00,000.00	0.00
Mine Closure Cost for Plantation of "335" number of trees @Rs. 300 per tree for plant & @Rs. 50 per tree for maintenance			1,00,500.00	16,750.00
Mine Closure Cost for fencing around mine			1,00,000.00	0.00
Environment Management Plan (EMP) Cost			5,06,400.00	6,87,400.00
Total			43,06,900.00	96,11,650.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
1688 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	5,06,400.00	84,400.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (4.62 KLD) & Horticulture (10.12 KLD) 4.62 + 10.12 = 14.74KLD 14.76 KLD X 300 Days = 4422KLD 4422 KLD / 4 KLD = 1106 Tankers	0	5,53,000.00

Environment Monitoring & Compliance	0	50,000.00
Total	5,06,400	6,87,400

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	In this applied lease area, the stone deposit is covered with 2m layer of inter mixed soil which considered as over burden. The recovery of stone is about 95%, thus intercalated waste of only 5% shall be generate from this mine. It has been calculated that total 35910 cum in-situ waste- shall be- generated during this plan period. The 50% or waste generated during. The plan period i.e. 17955 cum (in situ) shall be utilized for approach & haul road maintenance. The rest waste material (50%) i.e. 17955 cum in situ 22443.44 cum loose & 19076.92 cum compact waste shall be temporary dumped in western part it will cover 0.346ha area. Garland drain shall be provided along the OB dump. This drain would collect surface run off from dump body. Water collected in this drain would be stored in a sedimentation tank, the treated water shall be released for natural runoff.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions.

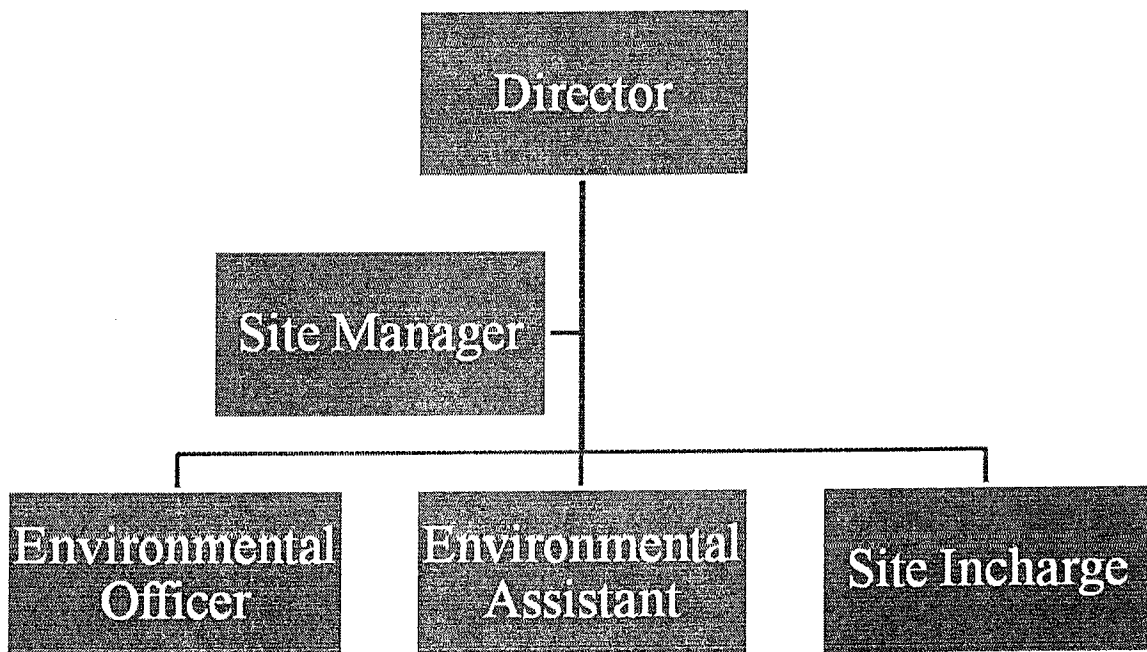
	• Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank–soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support.

	Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. - All monitoring reports will be submitted to statutory authorities as per the compliance schedule. Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: - Overall slope angles of benches will be maintained at 45°. - Unmanageable heights are not created. - Loose sides are properly dressed. - No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). - No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) - It will be ensured that the drilling equipment is suitable for the job. - The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. - Provision of portable rail fencing between the drilling operations and the edge of the bench - Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. - Restricted access to the area to all persons except those necessary for the drilling operation. - Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. - In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. - Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	- Blast hole geometry shall be properly designed. - Blast site shall be wetted before and after blasting operations are

	completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust.

	▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.

Signature

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Signature
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Signature

Signature

- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Bunda Bedo Stone Deposit of M/s Maa Ambika Developer Pvt. Ltd. (Director : Shri Subrata Paul), Village : Bunda Bedo, Thana : Patna, Distt. : Sahibganj, Jharkhand (1.619 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. That the Deputy Commissioner, Sahibganj will ensure compliance of the order passed by Hon'ble NGT in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019 in the matter of Syed Arshad Nasar Vs Union of India with Ramchandra Chaurasia Vs State of Jharkhand with Pradeep Kumar Singh Vs State of Jharkhand before grant of mining lease.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated

under this clause.

- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to be submitted along with 6 monthly compliance.
- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

3. Chhota Guttibera Stone Deposit of M/s Sri Vaishno Stone Works (Partner : Shri Vijay Bharti & Others), Village : Chhota Guttibera, Thana : Mirzachowki, Distt. : Sahibganj, Jharkhand (2.833 Ha).

(Proposal no.: SIA/JH/MIN/ 558399 /2025)

Name of the consultant : P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 23.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

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EC Application for: Proposed Capacity – 101017 cum/annum or 272747 TPA Tonnes per year

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Chhota Gutibera Stone Deposit
2	Lessee	: M/s Sri Vaishno Stone Works Partner- Sri Vijay Bharti & Others
3	Lessee Address	: Village + P.O. – Bhagaiya, District- Godda, Jharkhand
4	Lease Area	: 2.833 Ha. 7.0 Acre
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital: Rs. 68,41,700.00
7	EMP Budget	: Capital: Rs. 24,56,700.00 Recurring: Rs. 18,07,950.00 per year
8	New or Expansion	: New
9	Mineable Reserves	: 2,61,1965 Tonnes 9,67,395 Cum
10	Mine Life	: 9.60 year or 10 year
11	Man power	: 24
12	Water Requirement	: 31.69 KLD
13	Water Source	: By authorised hired water tankers
14	DG Set / power	: 50 KVA
15	Crusher	: No crusher
16	Nearest Water Body	: Ganga river (11.95 km)
17	Nearest Habitation	: Nearest Habitation 280 meter towards west direction, EMP Submitted.
18	Nearest Rail Station	: Karamtola railway station which are about 4.42Km
19	Nearest Air Port	: Deoghar Airport (118.85 Km)
20	Nearest Forest	: Divisional Forest Officer, Ranchi certified that the distance of reserved / protected forest is more than 270 meters from proposed project site.
21	Road & Highways	: NH-33 (Bhawanichauki- Jharkhand Road) is about 4.65 Km from the project site.
22	Approach Road	: approx 616 meter

CO-ORDINATES

Pillar No.	Degree, Minute, Second	
	Latitude	Longitude
1	25° 13' 16.229" N	87° 31' 44.148" E
2	25° 13' 16.269" N	87° 31' 45.112" E
3	25° 13' 15.773" N	87° 31' 46.251" E
4	25° 13' 15.751" N	87° 31' 47.730" E
5	25° 13' 15.729" N	87° 31' 49.238" E

6	25° 13' 15.568" N	87° 31' 50.183" E
7	25° 13' 14.882" N	87° 31' 51.726" E
8	25° 13' 13.736" N	87° 31' 50.374" E
9	25° 13' 12.281" N	87° 31' 48.658" E
10	25° 13' 10.796" N	87° 31' 47.965" E
11	25° 13' 9.256" N	87° 31' 47.244" E
12	25° 13' 9.707" N	87° 31' 46.089" E
13	25° 13' 10.165" N	87° 31' 44.919" E
14	25° 13' 10.626" N	87° 31' 44.732" E
15	25° 13' 10.503" N	87° 31' 44.532" E
16	25° 13' 10.693" N	87° 31' 44.312" E
17	25° 13' 10.558" N	87° 31' 43.949" E
18	25° 13' 11.084" N	87° 31' 42.619" E
19	25° 13' 11.209" N	87° 31' 42.960" E
20	25° 13' 11.892" N	87° 31' 43.322" E
21	25° 13' 12.466" N	87° 31' 43.495" E
22	25° 13' 12.461" N	87° 31' 44.556" E
23	25° 13' 12.982" N	87° 31' 44.658" E
24	25° 13' 14.258" N	87° 31' 44.223" E
25	25° 13' 15.261" N	87° 31' 43.936" E

LAND DETAILS

Khata no.	Plot no.
17, 21 & 34	111 (P), 112 (P), 113 (P), 114 (P) & 122 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Sahibganj vide letter no. 1574/M, dated 14.10.2017 for the area 11.93 Acre. Later on, the area has been revised up to 7.00 Acre vide letter no. 1803/M, dated 09.10.2025.
2	CO	:	The CO, Mandro vide memo no. 560/Ra., dated 02.09.2025 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that habitation at a distance of 280 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 1727/M, dated 20.09.2025 certified that no other mining lease area exists within 500 meters radius from proposed project site.

4	DFO Wild Life	:	DFO – cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide memo no. 1475, dated 04.06.2022 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide memo no. 910, dated 09.05.2017 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 1885/M, dated 13.11.2025 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 186).
7	Gram Sabha	:	Gram Sabha conducted on 06.06.2017.
8	Grid certificate	:	DMO, Sahibganj vide memo no. 1726/M, dated 20.09.2025 certified that said project falls under grid no. 12 and production is within the over all permissible production limit. The DMO also stated that this certificate is issued in the light of order passed by Hon'ble NGT on 22.12.2021 in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019. It also states this certificate is issued in compliance of report of Expert Committee.
9	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1813/M, dated 13.10.2025.
10	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Semi-Mechanized Method
2	Quarry Area	:	2.262 Ha.
3	Waste Generation	:	78961 cum
4	Stripping Ratio	:	1:0.01
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m
7	Elevation of Mine	:	225 m AMSL to 185 m AMSL
8	Ground Level Elevation	:	185 m AMSL
9	Ultimate Working Depth	:	149 m AMSL
10	Water Table	:	142-137m AMSL
11	Topography of Mine	:	Area represents hillock.
12	Explosive Requirement	:	26 kg/day

13	Diesel/Fuel requirement	:	126 litre/day

Production Details

Year	Production of Stone in Cum	Production of Stone in Tonnes	Removal of gritty soil in cum	Intercalated waste in Cum	Total Waste in Cum
1 st	91111	245999	30178	4795	34973
2 nd	92312	249241	14062	4859	18921
3 rd	93963	253699	9796	4945	14741
4 th	95163	256941	0	5009	5009
5 th	101017	272747	0	5317	5317
Total	473566	1278627	54036	24925	78961

Land Use

Pattern of Utilization	Present Land use (Ha)	At the end of plan period (Ha)	At the end of mine in (Ha)
Quarry	0.0	1.397	2.262 (0.283 ha area shall be backfilled , 0.724 ha converted in to water reservoir & 1.255 ha shall be left as dead benches)
Waste Dump	0.0	0.310	Nil (comes under quarry)
Road	0.0	0.006	Nil (comes under quarry)
Crusher	0.0	0.247	Nil (comes under quarry)
Safety Zone	0.0	0.571 (Plantation)	0.571 (Plantation)
Total area in use	0.0	2.532	2.833
Unused area	0.0	0.301	0.0
Total Lease Area	2.833	2.833	2.833

Green Belt Development

	Area Length /	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.31	496	1600 Tree per Hectare	1st Year	Jackfruits, Neem, Mango, Jamun, Babul, Gulmohar, Pipal, Arjun, etc
Length of Approach Road Area (m.)	616	1232	2m X 2 m spacing in two rows both side		

Dead Bench (Ha.)	1.255	2008	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	0.283	453			
Total		4189			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars			Capital	Recurring
Land			35,00,000.00	3,50,000.00
Infrastructure			10,00,000.00	1,00,000.00
Mining Equipment			0.00	94,00,000.00
<i>Equipment</i>	<i>Quantity</i>	<i>Rent per year</i>		
Dumper	6	200000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	5	600000		
Excavator	3	800000		
Loader	2	600000		
Water Facility for Domestic Purpose "0.25" KLD (Annual Water Demand "75"KL @4L per Tanker, total number of tanker required ("19") and per tanker cost @Rs. 500)			0.00	9,500.00
Statutory Clearances			6,00,000.00	0.00
Mine Closure Cost for Plantation of "450" number of trees @Rs. 300 per tree for plant & @Rs. 50 per tree for maintenance			1,35,000.00	22,500.00
Mine Closure Cost for fencing around mine			1,50,000.00	0.00
Environment Management Plan (EMP) Cost			24,56,700.00	18,07,950.00

Particulars	Capital	Recurring
Total	68,41,700.00	1,16,89,950.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
4189 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	12,56,700.00	2,09,450.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (6.56KLD) & Horticulture (25.13 KLD) 6.56 + 25.13 = 31.69 KLD 31.69 KLD X 300 Days = 9507 KLD 9507 KLD / 4 KLD = 2377 Tankers	0	11,88,500.00
Environment Monitoring & Compliance	0	50,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 Issued by MoEF & CC	12,00,000.00	3,60,000.00
Total	24,56,700.00	18,07,950.00

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	There is generation of 78961 cum waste during the plan period, which shall be used in making and maintenance of haul road and village road,

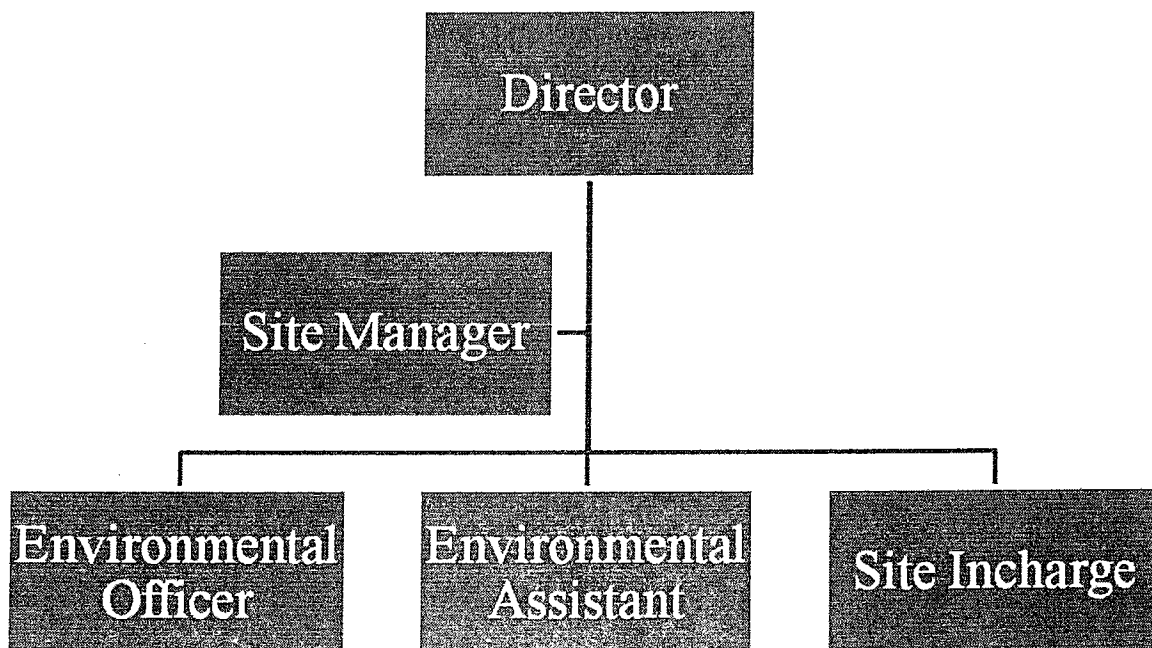
	so there is no requirement of waste dumping Plan for this mining plan period.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank–soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation.

	• Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and

	the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.

Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Chhota Guttibera Stone Deposit of M/s Sri Vaishno Stone Works (Partner : Shri Vijay Bharti & Others), Village : Chhota Guttibera, Thana : Mirzachowki, Distt. : Sahibganj, Jharkhand (2.833 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. That the Deputy Commissioner, Sahibganj will ensure compliance of the order passed by Hon'ble NGT in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019 in the matter of Syed Arshad Nasar Vs Union of India with Ramchandra Chaurasia Vs State of Jharkhand with Pradeep Kumar Singh Vs State of Jharkhand before grant of mining lease.
- IV. In compliance of OM no. F.No. IA3 22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- V. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- VI. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VII. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VIII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- IX. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- X. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- XI. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

4. Sirkot Stone Deposit of M/s Prasad Stone Crusher & Mines (Partner : Shri Shatrudhan Prasad & Shri Kanhaiya Prasad Singh), Village : Sirkot, Thana : Ghaghra, Distt. : Gumla, Jharkhand (2.92 Ha).

(Proposal no.: SIA/JH/MIN/ 554566 /2025)

Name of the consultant : P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 23.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 77977.90 Cum per year or 218338.12 Tonnes per year

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Sirkot Stone Deposit
2	Lessee	: M/s Prasad Stone Crusher & Mines Partner 1 – Sri Shatrudhan Prasad Partner 2- Sri Kanhaiya Prasad Singh
3	Lessee Address	: Partner 1 – Sri Shatrudhan Prasad Village + PO- Zalim Khurd, PS + District- Latehar, State- Jharkhand Partner 2- Sri Kanhaiya Prasad Singh Near- N H Baariyatu, P.O. + P.S. – Baariyatu, District- Latehar, State- Jharkhand
4	Lease Area	: 2.92 Ha. 7.22 Acre
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital: Rs. 51,15,200.00
7	EMP Budget	: Capital: Rs. 7,45,200 Recurring: Rs. 8,36,500 per year
8	New or Expansion	: New
9	Mineable Reserves	: 21,77,646.24 Tonnes 7,77,730.8 Cum
10	Mine Life	: 10 Years
11	Man power	: 23
12	Water Requirement	: 19.02 KLD
13	Water Source	: By authorised hired water tankers
14	DG Set / power	: 50 KVA
15	Crusher	: No crusher
16	Nearest Water Body	: South Koel River (6.42 km) Masaria Dam Reservoir (3.04 km)
17	Nearest Habitation	: Nearest Habitation 850 meter.

18	Nearest Rail Station	:	Lohardaga Railway station which are about 27.77 km
19	Nearest Air Port	:	Birsa Munda Airport (76.10 km)
20	Nearest Forest	:	Divisional Forest Officer, Gumla certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
21	Road & Highways	:	NH-143A is about 5.0 Km from the project site.
22	Approach Road	:	

CO-ORDINATES

Pillar No.	Degree, Minute, Second	
	Latitude	Longitude
1	23°13'11.183"N	84°35'28.269"E
2	23°13'10.591"N	84°35'28.296"E
3	23°13'9.227"N	84°35'30.454"E
4	23°13'9.369"N	84°35'31.169"E
5	23°13'8.267"N	84°35'32.314"E
6	23°13'6.117"N	84°35'300.254"E
7	23°13'5.478"N	84°35'30.066"E
8	23°13'4.861"N	84°35'28.627"E
9	23°13'5.704"N	84°35'27.555"E
10	23°13'5.252"N	84°35'27.243"E
11	23°13'5.854"N	84°35'25.438"E
12	23°13'6.500"N	84°35'24.056"E
13	23°13'5.875"N	84°35'23.097"E
14	23°13'4.164"N	84°35'22.248"E
15	23°13'4.402"N	84°35'21.411"E
16	23°13'5.621"N	84°35'21.935"E
17	23°13'7.362"N	84°35'23.141"E
18	23°13'7.187"N	84°35'23.624"E
19	23°13'08.901"N	84°35'25.376"E
20	23°13'11.018"N	84°35'27.134"E
21	23°13'10.215"N	84°35'26.630"E

LAND DETAILS

Khata no.	Plot no.
79, 68, 89 & 30	904, 905, 906, 915 (P) & 916

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by Deputy Commissioner, Gumla vide letter no. 779/M, dated 10.07.2025.
2	CO	:	The CO, Ghaghra (Gumla) vide letter no. 368 (ii)/Ra., dated

		06.05.2025 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan & Register II.
3	DMO Cluster	: DMO, Gumla vide memo no. 783/M, dated 11.07.2025 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	: DFO, Wildlife Division, Ranchi vide letter no. 231 & 232, dated 17.04.2025 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	: Divisional Forest Officer, Gumla Forest Division vide letter no. 1378, dated 03.05.2025 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	: The Lol was granted on 10.07.2025. The DSR for Gumla was approved by the Sub-Divisional Committee on 23.08.2023 and submitted to SEIAA for approval on 23.08.2023. However, DC-cum-District Magistrate, Gumla vide letter no. 1054/M, dated 03.10.2025 requested to consider the said project proposal as part of approved District Survey Report & further requested that this project may be taken up for consideration for grant of EC. The Committee accepted the request of the DC-cum-District Magistrate, Gumla as Lol is granted after the approval of DSR.
7	Gram Sabha	: BDO, Ghaghra (Gumla) vide letter no. 603 (ii), dated 06.05.2025 informed that Gram Sabha conducted on 06.05.2025.
8	Mine Plan Approval	: Approved by DMO, Gumla vide Letter No. 803/M, dated 16.07.2025.
9	Qualified Person	: Shri Sahadev Singh through e-mail dated 23.12.2025 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	: Opencast Mechanized Method
2	Quarry Area	: 1.59 Ha.
3	Waste Generation	: 25718.00 cum
4	Stripping Ratio	: 1:0.06
5	Working Days	: 300
6	Bench: size & No	: 6m to 6m
7	Elevation of Mine	: 662 m AMSL to 659 m AMSL

8	Ground Level Elevation	:	659 m AMSL
9	Ultimate Working Depth	:	602 m AMSL
10	Water Table	:	584590 m AMSL
11	Topography of Mine	:	Undulating Topography.
12	Explosive Requirement	:	50 kg/day
13	Diesel/Fuel requirement	:	120 litre/day

Production Details

Year	Production		Generation of waste in cum	O/B waste in Cum	Total waste in Cum
	Cum	MT			
Ist Year	77831.60	217928.48	4096.40	2926.00	7022.40
IIInd Year	77685.30	217518.84	4088.70	924.00	5012.70
IIIrd Year	77685.30	217518.84	4088.70	616.00	4704.70
IVth Year	77977.90	218338.12	4104.10	462.00	4566.10
Vth Year	77977.90	218338.12	4104.10	308.00	4412.10
Total	389158.00	1089642.4	20482.0	5236.00	25718.00

Land Use

Pattern of Utilization	Existing (Ha)	During Plan Period (ha)	After Life of Mine (ha)
Excavation	Nil	1.59	2.27 (2.27ha area left as water reservoir for rain water harvesting)
Road	Nil	Nil (within quarry)	Nil (within quarry)
Plantation	Nil	0.65 (within safety zone)	0.65 (within safety zone)
Unused area	Nil	0.68	0
Total	Nil	2.92	2.92

Green Belt Development

	Area Length	/	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.65		1040	1600 Tree per Hectare	1st Year	Mango, Jackfruits, Jamun, Babul,

Length of Approach Road Area (m.)	710	1420	2m X 2 m spacing in two rows both side		Gulmohar, Neem, Pipal, Arjun, etc.
Dead Bench (Ha.)	-	-	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	-	-			
Total		2460			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars			Capital	Recurring
Land			35,00,000.00	3,50,000.00
Infrastructure			10,00,000.00	1,00,000.00
Mining Equipment			0.00	94,00,000.00
<i>Equipment</i>	<i>Quantity</i>	<i>Rent per year</i>		
Dumper	6	200000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	5	600000		
Excavator	3	800000		
Loader	2	600000		
Water Facility for Domestic Purpose "0.24" KLD (Annual Water Demand "72"KL @4L per Tanker, total number of tanker required ("18") and per tanker cost @Rs. 500)			0.00	9000.00
Statutory Clearances			6,00,000.00	0.00
Mine Closure Cost for Plantation of "450" number of trees @Rs. 300 per tree for plant & @Rs. 50 per tree for maintenance			1,20,000.00	20,000.00
Mine Closure Cost for fencing around mine			1,50,000.00	0.00
Environment Management Plan (EMP) Cost			7,45,200.00	8,36,500.00

Particulars	Capital	Recurring
Total	51,15,200.00	1,07,15,500.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
2460 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	7,38,000	1,23,000
Water Tanker @Rs. 500 per Tanker for Dust Suppression (4.26 KLD) & Horticulture (14.76 KLD) 4.26 + 14.76 = 19.02 KLD 19.02 KLD X 300 Days = 5706 KLD 5706 KLD / 4 KLD = 1427 Tankers	0	7,13,500
Environment Monitoring & Compliance	0	50,000.00
Total	7,45,200	8,36,500

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
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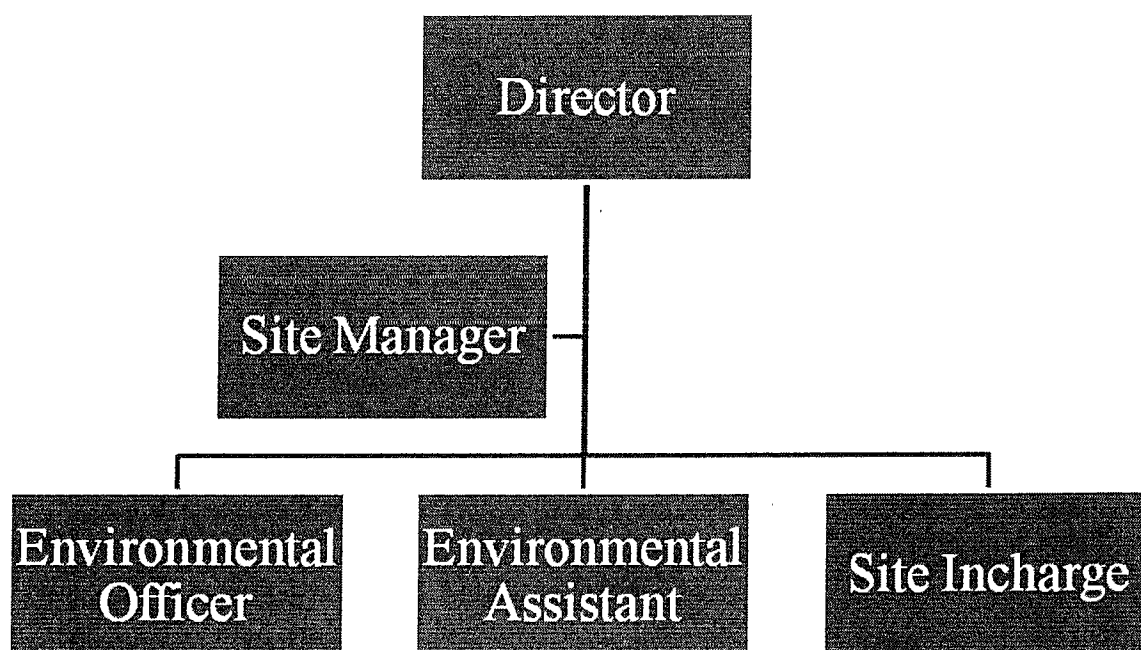
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The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

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Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Sirkot Stone Deposit of M/s Prasad Stone Crusher & Mines (Partner : Shri Shatrudhan Prasad & Shri Kanhaiya Prasad Singh), Village : Sirkot, Thana : Ghaghra, Distt. : Gumla, Jharkhand (2.92 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a

time bound manner.

- IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
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- VII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

5. Jhalakdiha Stone Deposit of M/s M.P. Minerals (Partner : (i) Shri Raj Kishore Hansda (ii) Shri Virulal Chaudhary (iii) Shri Manohar Pathak), Village : Jhalakdiha, Anchal : Giridih Sadar, Distt. : Giridih, Jharkhand (1.94 Ha).

(Proposal no.: SIA/JH/MIN/ 534991 /2025)

Name of the consultant : P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 23.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 98154 cum per year or 265015.80 Tonnes per year

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Jhalakdiha Stone Deposit
2	Lessee	: M/s M.P. MINERALS Partner – (i) Sri Raj Kishore Hansda (ii) Sri Virulal Chaude (iii) Sri Manohar Pathak
3	Lessee Address	: At- Jhalakdiha, Udanabad, District- Giridih
4	Lease Area	: 1.943 Ha. 4.80 Acre
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital: Rs. 50,55,000.00
7	EMP Budget	: Capital: Rs. 12,33,500.00 Recurring: Rs. ,9,29,250.00 per year
8	New or Expansion	: New
9	Mineable Reserves	: 1309919.85 Tonnes 485155.5 Cum
10	Mine Life	: 5 Years
11	Man power	: 19
12	Water Requirement	: 15.12 KLD
13	Water Source	: By authorised hired water tankers
14	DG Set / power	: 50 KVA
15	Crusher	: No crusher
16	Nearest Water Body	: Usri River (1.60km)
17	Nearest Habitation	: Nearest Habitation 450 meter towards East direction, EMP Submitted
18	Nearest Rail Station	: Giridih Railway station which are about 6.35 Km
19	Nearest Air Port	: Deoghar Airport (48.40 Km)
20	Nearest Forest	: Divisional Forest Officer, Giridih East certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
21	Road & Highways	: SH-13 (Tundi Road) is about 0.62 Km from the project site.
22	Approach Road	: approx, 380m

CO-ORDINATES

Pillar No.	Degree, Minute, Second	
	Latitude	Longitude
1	24° 8' 20.589" N	86° 21' 29.822" E
2	24° 8' 20.589" N	86° 21' 29.106" E
3	24° 8' 20.589" N	86° 21' 27.697" E
4	24° 8' 20.589" N	86° 21' 26.384" E
5	24° 8' 20.589" N	86° 21' 25.315" E

6	24° 8' 20.589" N	86° 21' 23.749" E
7	24° 8' 20.589" N	86° 21' 23.354" E
8	24° 8' 20.589" N	86° 21' 23.707" E
9	24° 8' 20.589" N	86° 21' 24.682" E
10	24° 8' 20.589" N	86° 21' 25.932" E
11	24° 8' 20.589" N	86° 21' 27.279" E
12	24° 8' 20.589" N	86° 21' 28.166" E

LAND DETAILS

Plot no.
06, 07, 08, 09 & 11

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Giridih vide letter no. 908/M, dated 15.10.2024.
2	CO	:	The CO, Giridih Sadar vide letter no. 956, dated 06.09.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in Khatian.
3	DMO Cluster	:	DMO, Giridih vide memo no. 986/M, dated 03.12.2024 certified that 01 other mining lease area (2.00 Acre) exists within 500 meters radius from proposed project site and total area is 6.80 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 2163, dated 09.10.2024 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Giridih East Forest Division vide letter no. 3322, dated 09.10.2024 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Giridih District (Page no. 79, Sl. no. 01).
7	Gram Sabha	:	BDO, Giridih vide letter no. 3293, dated 07.10.2024 informed that Gram Sabha conducted on 19.08.2024.
8	Mine Plan Approval	:	Approved by The Assistant Director, Geology, District Geological Office, Koderma vide Letter No. 233, dated 14.12.2024.
9	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and

		affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Semi-mechanized "OTFM" Method
2	Quarry Area	:	1.515 Ha.
3	Waste Generation	:	42889.00 cum
4	Stripping Ratio	:	1:0.08
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	281 m AMSL to 287 m AMSL
8	Ground Level Elevation	:	281 m AMSL
9	Ultimate Working Depth	:	250 m AMSL
10	Water Table	:	240-237 m AMSL
11	Topography of Mine	:	Area represents hillock.
12	Explosive Requirement	:	26 kg/day
13	Diesel/Fuel requirement	:	126 litre/day

Production Details

Year	Production of stone in cum	Production of stone in Tonnes	Overburden in cum	Intercalated waste in cum	Total Waste in cum
1 st	96292	259988.40	11620	5068	16688
2 nd	96558	260706.60	0.00	5082	5082
3 rd	96957	261783.90	5740	5103	10843
4 th	98154	265015.80	0.00	5166	5166
5 th	97090	262143.00	0.00	5110	5110
Total	485051.00	1309637.70	17360	25529	42889.00

Land Use

Land Utilization	Existing Land use (Ha.)	At the end of plan period (Ha)	At Conceptual period (Ha)
Excavation	0.181	1.515	1.515 (Entire area shall be left as water reservoir for rain water harvesting)
Waste dump	0.126	Nil	Nil

Road	0.072	0.0	0.0
Infrastructure	0.0	0.0	0.0
Safety Zone	0.0	0.428 (Plantation)	0.428 (Plantation)
Total	0.379	1.943	1.943
Unused Area	1.604	0.00	0.00
Total Lease Area	1.943		

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area In Safety Zone (Ha.)	0.428	685	1600 Tree per Hectare	1st Year	Mango, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	380	760	2m X 2 m spacing in two rows both side		
Dead Bench (Ha.)	-	-	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	-	-			
Total		1445			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars			Capital	Recurring
Land			20,00,000.00	2,00,000.00
Infrastructure			10,00,000.00	1,00,000.00
Mining Equipment			0.00	76,00,000.00
Equipment	Quantity	Rent per year		

Particulars			Capital	Recurring
Dumper	4	200000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	4	600000		
Excavator	2	800000		
Loader	2	600000		
Water Facility for Domestic Purpose "0.3" KLD (Annual Water Demand "90"KL @4L per Tanker, total number of tanker required ("23") and per tanker cost @Rs. 500)			0.00	11,500.00
Statutory Clearances			6,00,000.00	0.00
Mine Closure Cost for Plantation of "400" number of trees @Rs. 300 per tree for plant & @Rs. 50 per tree for maintenance			1,20,000.00	20,000.00
Mine Closure Cost for fencing around mine			1,00,000.00	0.00
Environment Management Plan (EMP) Cost			12,33,500.00.00	9,29,250.00
Total			50,55,000.00	88,60,750.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
1445Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	4,33,500.00	72,250.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (6.45KLD) & Horticulture (8.67KLD) 6.45 + 8.67 = 15.12 KLD 15.12 KLD X 300 Days = 4536 KLD 4536 KLD / 4 KLD = 1134 Tankers	0	5,67,000.00
Environment Monitoring & Compliance	0	50,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC	8,00,000.00	2,40,000.00
Total	12,33,500.00	9,29,250.00

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate	3 Stations	Six Monthly

	location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.		
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	It has been calculated that total 42889.00 cum in-situ waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 21444.50 cum (In situ) shall be utilized for approach & haul road maintenance. The rest waste material (50%) i.e. 21444.50 cum insitu 26805.63 cum loose & 22784.78 cum compact waste shall be temporary dumped in south western part during first & second years, and during third, fourth & fifth year the generated waste and waste materials of temporary dump shall be removed and used for backfilling of exhausted part of quarry in south western part and it will cover 0.120 ha.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff.

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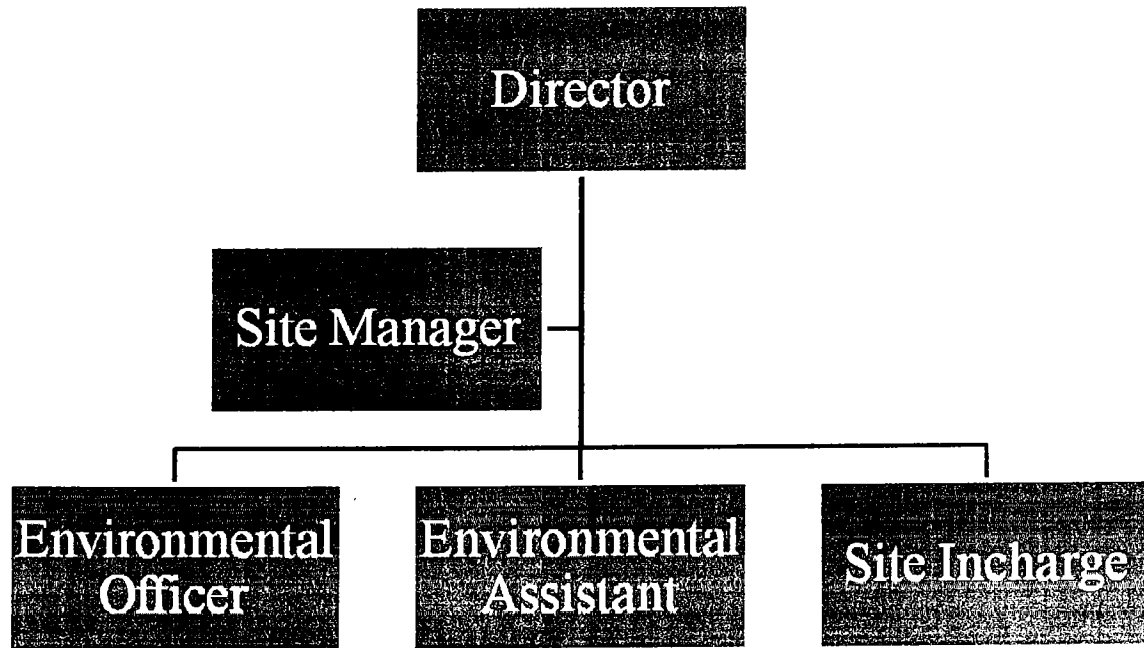
	• Sewage from rest shelters will be treated through septic tank–soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures:

	▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is

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Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- The Boundary Pillars of the proposed mine lease area will be maintained properly.
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- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

During appraisal it was seen that a reply has been received from the Deputy Commissioner, Giridih bearing letter no. 3838/GO., dated 25.11.2025 providing clarification to the complaint received vide e-mail dated 08.05.2025 from Sanojhar123@yahoo.com alleging that there are various irregularities w.r.t. siting criteria of the mine lease and the Gram Sabha conducted.

The Deputy Commissioner, Giridih has clarified that there is no habitation within 200 meter of mining lease area and that the nearest habitation is at a distance of 450 meters from the ML area . Giridih Central Jail situated at a distance of 1400 meters from the ML area.

Accordingly, this project has been taken up for consideration as all the points in the complaint letter received vide e-mail dated 08.05.2025 from Sanojhar123@yahoo.com are nullified.

The PAs have submitted a detailed and specific Environment Management plan to safeguard the habitation existing at a distance of 450 meters.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Jhalakdiha Stone Deposit of M/s M.P. Minerals (Partner : (i) Shri Raj Kishore Hansda (ii) Shri Virulal Chaudhary (iii) Shri Manohar Pathak), Village : Jhalakdiha, Anchal : Giridih Sadar, Distt. : Giridih, Jharkhand (1.94 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal

(<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.

- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
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- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

6. Sri Sai Ram Minerals Stone Mines of M/s Sri Sai Ram Minerals (Prop. : Shri Vivek Kumar Agarwal), Village : Jaipur, Thana : Nirsa, Distt. : Dhanbad, Jharkhand (1.69 Ha).

(Proposal no.: SIA/JH/MIN/ 554111 /2025)

Name of the consultant : P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 23.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 33316.50 cum/annum or 89954.55 TPA Tonnes per year

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Sri Sai Ram Minerals Stone Mines & Crusher
2	Lessee	: Sri Sai Ram Minerals (Stone mines & Crusher) Proprietor: Sri Vivek Kumar Agarwal S/o Bimal Kumar Agarwal
3	Lessee Address	: Village, PO & PS – Baliapur, District - Dhanbad, State- Jharkhand
4	Lease Area	: 1.69 Ha. 4.18 Acre
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital: Rs. 52,59,600.00.00
7	EMP Budget	: Capital: Rs. 13,69,600.00 Recurring: Rs. 10,84,100.00 per year
8	New or Expansion	: New
9	Mineable Reserves	: 833137.65 Tonnes 308569.5 Cum
10	Mine Life	: 10 Years
11	Man power	: 15
12	Water Requirement	: 18.99 KLD
13	Water Source	: By authorised hired water tankers
14	DG Set / power	: 250 KVA
15	Crusher	: Yes
16	Nearest Water Body	: Panchet Reservoir (3.86 km)
17	Nearest Habitation	: Nearest habitation 420 meter in ENE direction as per kml EMP Submitted
18	Nearest Rail Station	: Kalubathan railway station which are about 3.30 Km
19	Nearest Air Port	: Deoghar Airport (79.08 Km)
20	Nearest Forest	: Divisional Forest Officer, Dhanbad certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
21	Road & Highways	: NH-19 (Delhi – Kolkata Highway) is about 7.23 Km from the project site.
22	Approach Road	:

CO-ORDINATES

Pillar No.	Degree, Minute, Second	
	Latitude	Longitude
1	23° 43' 54.142" N	86° 38' 56.057" E
2	23° 43' 53.098" N	86° 38' 56.112" E
3	23° 43' 52.386" N	86° 38' 56.711" E

4	23° 43' 52.906" N	86° 38' 58.274" E
5	23° 43' 50.795" N	86° 38' 58.359" E
6	23° 43' 50.383" N	86° 38' 57.146" E
7	23° 43' 49.429" N	86° 38' 57.028" E
8	23° 43' 49.417" N	86° 38' 56.012" E
9	23° 43' 49.984" N	86° 38' 55.753" E
10	23° 43' 50.132" N	86° 38' 55.058" E
11	23° 43' 50.424" N	86° 38' 54.804" E
12	23° 43' 50.227" N	86° 38' 54.528" E
13	23° 43' 50.363" N	86° 38' 54.084" E
14	23° 43' 49.544" N	86° 38' 53.878" E
15	23° 43' 49.705" N	86° 38' 53.611" E
16	23° 43' 49.799" N	86° 38' 53.077" E
17	23° 43' 49.824" N	86° 38' 52.489" E
18	23° 43' 50.272" N	86° 38' 52.433" E
19	23° 43' 51.781" N	86° 38' 52.423" E
20	23° 43' 52.382" N	86° 38' 52.768" E
21	23° 43' 52.916" N	86° 38' 52.799" E
22	23° 43' 53.509" N	86° 38' 52.847" E
23	23° 43' 53.709" N	86° 38' 52.904" E
24	23° 43' 53.980" N	86° 38' 53.621" E
25	23° 43' 53.959" N	86° 38' 54.612" E
26	23° 43' 53.016" N	86° 38' 54.500" E
27	23° 43' 52.236" N	86° 38' 54.400" E
28	23° 43' 52.193" N	86° 38' 54.526" E
29	23° 43' 51.979" N	86° 38' 54.516" E
30	23° 43' 51.959" N	86° 38' 54.978" E
31	23° 43' 52.149" N	86° 38' 54.993" E
32	23° 43' 52.189" N	86° 38' 54.618" E
33	23° 43' 52.351" N	86° 38' 54.524" E
34	23° 43' 53.055" N	86° 38' 54.602" E
35	23° 43' 53.963" N	86° 38' 54.702" E
36	23° 43' 54.051" N	86° 38' 55.371" E

LAND DETAILS

Khata no.	Plot no.
83, 39, 230, 164, 145 & 2	2170, 71 (P), 72 (P), 73, 74, 75 (P), 76 (P), 78 & 79

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Dhanbad vide letter no. 1217/M, dated 08.08.2025.
2	CO	:	The CO, Kaliasol (Dhanbad) vide letter no. 208, dated 28.05.2025 has mentioned the plot no. of the project is not recorded as

			"Jungle- Jhari" in R.S. Khatiyani & Register II also mentioned that the Pond within 500 meters of proposed project site. During the appraisal it was seen from the KML that habitation exists within 500 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Dhanbad vide memo no. 1421/M, dated 09.09.2025 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 1027, dated 10.06.2025 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Dhanbad Forest Division vide letter no. 1320, dated 04.06.2025 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Dhanbad District (Page no. 62, Sl. no. 19).
7	Gram Sabha	:	Gram Sabha conducted on 25.05.2025.
8	Mine Plan Approval	:	Approved by District Mining Officer, Dhanbad vide Memo No. 1420/M, dated 09.09.2025.
9	Qualified Person	:	Dr. Amarjeet Kumar Singh through e-mail dated 22.12.2025 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Mechanized Method
2	Quarry Area	:	1.17 Ha.
3	Waste Generation	:	10112.99 cum
4	Stripping Ratio	:	1:0.06
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m
7	Elevation of Mine	:	158 m AMSL to 155 m AMSL
8	Ground Level Elevation	:	155 m AMSL
9	Ultimate Working Depth	:	125 m AMSL
10	Water Table	:	102-100 m AMSL
11	Topography of Mine	:	Undulating topography.
12	Explosive	:	26 kg/day

	Requirement		
13	Diesel/Fuel requirement	:	126 litre/day

Production Details

Year	Production of Stone in Cum	Production of Stone in Tonnes	Intercalated waste in Cum	Overburdwen	Total Waste in Cum
1 st	31920.00	86184.00	1680.00	546.00	2226.00
2 nd	33316.50	89954.55	1754.39	563.00	2317.39
3 rd	32376.00	87415.20	1704.00	403.00	2107.00
4 th	32894.70	88815.69	1731.30	-	1731.30
5 th	33016.30	89144.01	1737.70	-	1731.30
Total	163523.5	441513.45	8607.39	1512.00	10,112.99

Land Use

Pattern of Utilization	Existing (Ha)	During Plan period (Ha)	During Conceptual Period/after closure of Mines (ha)
Barren Land	1.59	0.15	Nil
Quarry	Nil	0.90	1.17
Infrastructure	Nil	0.02	Nil
Approach Roads	0.10	0.01	Nil
Garland drain	Nil	0.06	Nil
Safety Zone	Nil	0.52 (Plantation)	0.52 (Plantation)
Settling tank	Nil	Nil	Nil
Proposed crusher	Nil	0.03	Nil
Total	1.69		

Green Belt Development

	Area Length /	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.52	832	1600 Tree per Hectare	1st Year	Gulmohar, Jamun, Mango,

Length of Approach Road Area (m.)	700	1400	2m X 2 m spacing in two rows both side		Jackfruits, Babul, Neem, Pipal, Arjun, etc.
Dead Bench (Ha.)	--	--	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	--	--			
Total		2232			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars			Capital	Recurring
Land			20,00,000.00	2,00,000.00
Infrastructure			10,00,000.00	1,00,000.00
Mining Equipment			0.00	86,00,000.00
<i>Equipment</i>	<i>Quantity</i>	<i>Rent per year</i>		
Dumper	5	200000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	4	600000		
Excavator	3	800000		
Loader	2	600000		
Water Facility for Domestic Purpose "0.2" KLD (Annual Water Demand "60"KL @4L per Tanker, total number of tanker required ("15") and per tanker cost @Rs. 500)			0.00	7,500.00
Statutory Clearances			6,00,000.00	0.00
Mine Closure Cost for Plantation of "350" number of trees @Rs. 300 per tree for plant & @Rs. 50 per tree for maintenance			90,000.00	15,000.00
Mine Closure Cost for fencing around mine			1,00,000.00	0.00
Environment Management Plan (EMP) Cost			13,69,600.00	10,84,100.00

Particulars	Capital	Recurring
Total	52,59,600.00	1,00,06,600.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
2232 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	6,69,600.00	1,11,600.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (5.60KLD) & Horticulture (13.39 KLD) 5.60 + 13.39 = 18.99 KLD 18.99 KLD X 300 Days = 5697 KLD 5697 KLD / 4 KLD = 1425 Tankers	0	7,12,500.00
Environment Monitoring & Compliance	0	50,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC	7,00,000.00	2,10,000.00
Total	13,69,600.00	10,84,100.00

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Environment Management Practices to be followed:

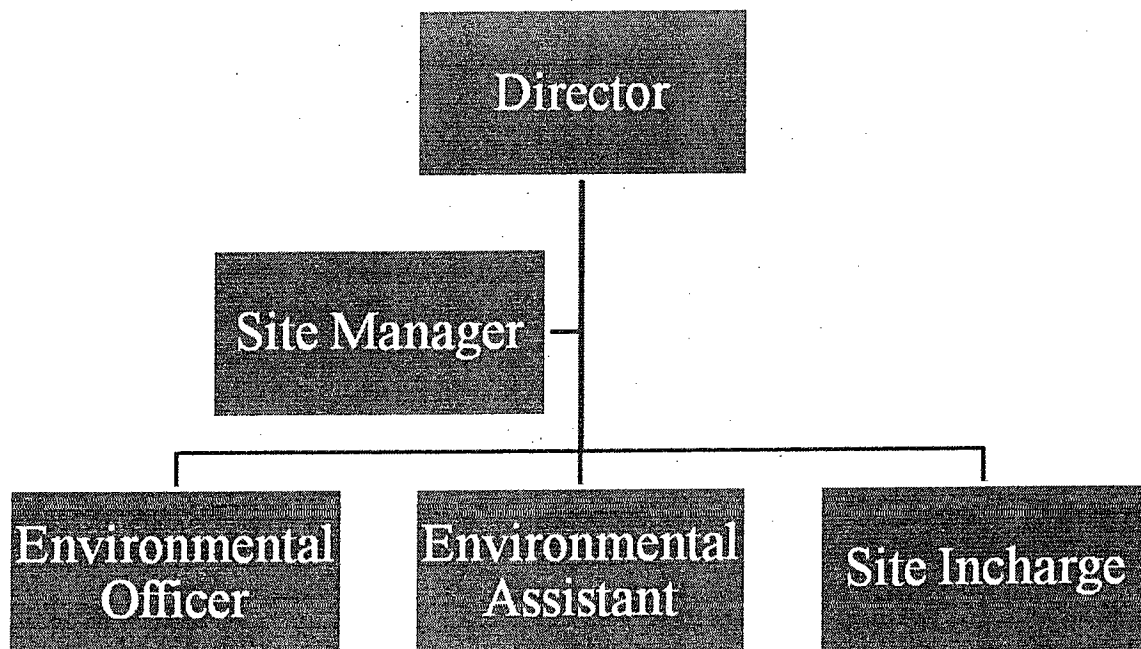
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	It has been calculated that total 10119.39 cum Intercalated waste generated during this plan period. Which are used for construction of approach road and also road fillings.

Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental

	protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and

	other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.

- I. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Sri Sai Ram Minerals Stone Mines of M/s Sri Sai Ram Minerals (Prop. : Shri Vivek Kumar Agarwal), Village : Jaipur, Thana : Nirsa, Distt. : Dhanbad, Jharkhand (1.69 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- IX. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- X. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

7. Amjharia Stone Deposit of M/s Barbrik Project Limited, Village : Amjharia, Thana : Chandwa, Distt. : Latehar, Jharkhand (0.708 Ha).

(Proposal no.: SIA/JH/MIN/ 554061 /2025)

Name of the consultant : P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 23.12.2025.

Project Sector: 1(a) Mining of Minerals, Category: B2.

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 28500.00 Cum per year or 76950.00 Tonnes per year

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Amjharia Stone Deposit
2	Lessee	: Barbrik Project Limited Authorized Signatory- Shri Vinay Kumar Pandey
3	Lessee Address	: Barbrik Project Limited Authorized Signatory- Shri Vinay Kumar Pandey Address: A-24, Ashok Milenium, Ring Road No-1 Near Rajendra nagrar, Raipur, Chhatisgarh- 492001 Current Address: Barbrik Project Limited in House of Santosh Kumar behind Gayatri Mandir, Near Thana Road Chandwa, State- Jharkhand
4	Lease Area	: 0.708 Ha. 1.75 Acres
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital: Rs. 40,09,500.00
7	EMP Budget	: Capital: Rs. 7,49,500 Recurring: Rs. 5,58,250 per year
8	New or Expansion	: New
9	Mineable Reserves	: 230388.30 Tonnes 85,329 Cum
10	Mine Life	: 10 years
11	Man power	: 18
12	Water Requirement	: 8.79 KLD
13	Water Source	: By authorised hired water tankers
14	DG Set / power	: 50 KVA
15	Crusher	: No crusher
16	Nearest Water Body	: Dhudki Nala (1.73 km)
17	Nearest Habitation	: Nearest Habitation is 260 meter towards North direction EMP Submitted.
18	Nearest Rail	: Mahuamilan Railway Station which are about 6.31 km

	Station		
19	Nearest Air Port	:	Birsa Munda Airport (63.02 km)
20	Nearest Forest	:	DFO, Latehar Forest Division vide letter no. 1523, dated 28.09.2024 certified that the distance of notified forest is more than 250m from proposed project site.
21	Road & Highways	:	NH-39, Approx. 0.24 km in SW direction.
22	Approach Road	:	300m

CO-ORDINATES

SL. NO.	LATITUDE	LONGITUDE
1	23°36'48.30"N	84°46'41.22"E
2	23°36'46.10"N	84°46'45.10"E
3	23°36'45.23"N	84°46'46.86"E
4	23°36'44.55"N	84°46'46.12"E
5	23°36'43.19"N	84°46'45.39"E
6	23°36'46.31"N	84°46'43.16"E
7	23°36'47.92"N	84°46'40.81"E

LAND DETAILS

Khata no.	Plot no.
28 & 9	300 (P), 299 (P), 293, 296 (P) & 294 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Latehar vide letter no. 110/M, dated 28.01.2025.
2	CO	:	The CO, Chandwa (Latehar) vide letter no. 804, dated 28.09.2024 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatyan and also mentioned that the Water Body within 200 meters of proposed project site. During the appraisal it was seen from the KML that habitation exists within 500 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Latehar vide memo no. 427/M, dated 11.04.2025 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	Deputy Director, Palamau Tiger Project, South Division, Medininagar vide letter no. 226, dated 25.03.2025 certified that

			the proposed project site is outside Eco Sensitive Zone of Palamau Tiger Reserve.
5	DFO Territorial	:	Divisional Forest Officer, Latehar Forest Division vide letter no. 1523, dated 28.09.2024 certified that the distance of reserved / protected forest is more than 250 meter from proposed project site.
6	DSR	:	This project is mentioned in approved District Survey Report (DSR) of Latehar District (Sl. no. 03, Page no. 56).
7	Gram Sabha	:	BDO, Chandwa vide letter no. 928, Dated 30.09.2024 informed that Gram Sabha conducted on 28.09.2024.
8	Mine Plan Approval	:	Approved by AMO –cum- Incharge DMO, Latehar vide memo no. 519/M, dated 05.05.2025.
9	Qualified Person	:	Shri Sahadev Singh through e-mail dated 23.12.2025 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Mechanized Method
2	Quarry Area	:	0.702Ha
3	Waste Generation	:	16551 cum
4	Stripping Ratio	:	1:0.03
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m
7	Elevation of Mine	:	620 AMSL to 618 AMSL
8	Ground Level Elevation	:	618 AMSL
9	Ultimate Working Depth	:	601 AMSL
10	Water Table	:	580-578 AMSL
11	Topography of Mine	:	Area represents Undulating Small Hillock.
12	Explosive Requirement	:	80 kg/day
13	Diesel/Fuel requirement	:	130 litre/day

Production Details

Year	Production of Stone		Generation of waste in cum	O/B waste in Cum	Total waste in cum
	Cum	MT			
1st	28386.00	76642.20	1494.00	3480.00	4974

2nd	28500.00	76950.00	1500.00	3480.00	4980
3rd	28443.00	76796.10	1497.00	5100.00	6597
Total	85329.00	230388.30	4491.00	12060.00	16551

Land Use

Land Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At Conceptual period (Ha)
Excavation	Nil	0.355 ha (0.46 ha area Shall be Backfilled, 0.143 ha will be converted in to water reservoir 0.166ha shall be left as dead benches)	0.355 ha (0.46 ha area Shall be Backfilled, 0.143 ha will be converted in to water reservoir 0.166ha shall be left as dead benches)
Waste Dump	Nil	Comes under mining	Comes under mining
Road	Nil	Comes under mining	Comes under mining
Crusher	Nil	0.00	0.00
safety zone	Nil	0.353 (Plantation)	0.353 (Plantation)
Total	Nil	0.708	0.708
Unused area	0.708	0.0	0.0
Total Lease Area	0.708		

Green Belt Development

	Area Length	/ Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.353	565	1600 Tree per Hectare	1st Year	Mango, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	300	600	2m X 2 m spacing in two rows both side		
Dead Bench (Ha.)	-	-	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	-	-			
Total		1165			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same

to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars			Capital	Recurring
Land			15,00,000.00	1,50,000.00
Infrastructure			10,00,000.00	1,00,000.00
Mining Equipment			0.00	56,00,000.00
<i>Equipment</i>	<i>Quantity</i>	<i>Rent per year</i>		
Dumper	1	200000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	1	600000		
Excavator	1	800000		
Loader	1	600000		
Water Facility for Domestic Purpose "0.15" KLD (Annual Water Demand "45"KL @4L per Tanker, total number of tanker required ("12") and per tanker cost @Rs. 500)			0.00	6,000.00
Statutory Clearances			6,00,000.00	0.00
Mine Closure Cost for Plantation of "200" number of trees @Rs. 300 per tree for plant & @Rs. 50 per tree for maintenance			60,000.00	10,000.00
Mine Closure Cost for fencing around mine			1,00,000.00	0.00
Environment Management Plan (EMP) Cost			7,49,500.00	5,58,250.00
Total			40,09,500.00	64,24,250.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
1165Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	3,49,500	58,250
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.8 KLD) & Horticulture (6.99KLD) 1.8 + 6.99 = 8.79 KLD 8.79 KLD X 300 Days = 2,637KLD 2,637KLD / 4 KLD = 660 Tankers	0	3,30,000
Environment Monitoring & Compliance	0	50,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC	4,00,000.00	1,20,000.00
Total	7,49,500	5,58,250

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Environment Management Practices to be followed:

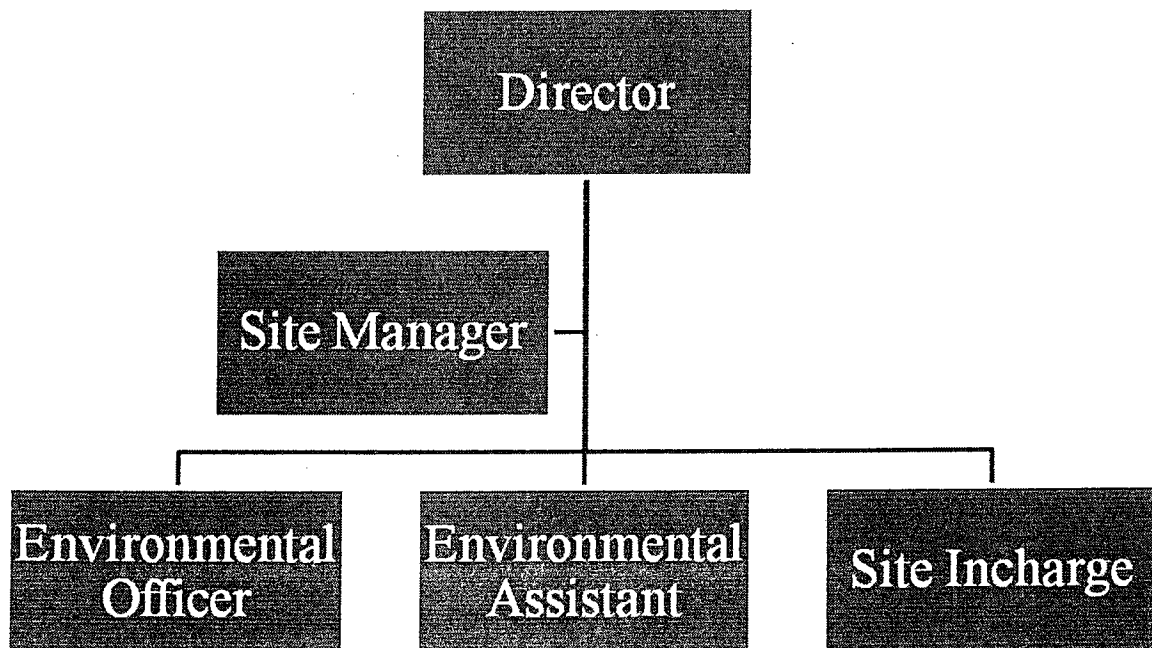
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	It has been calculated that total 16551 cum waste shall be generated during the plan period. The 50% of waste shall be temporary dumped in the North side of the applied lease area and in 3rd year accumulated waste shall be backfill at base of exhausted quarry and 50% of waste shall be use for maintenance of haul road and village road.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems.

	• Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any

	overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left

	unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Amjharia Stone Deposit of M/s Barbrik Project Limited, Village : Amjharia, Thana : Chandwa, Distt. : Latehar, Jharkhand (0.708 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. In compliance of Office Memorandum no. IA-J-11013/20/2025-IA-P, dated 25.11.2025 of MoEF&CC, Govt. of India, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board within 30 days of issuance of EC or 31.01.2026 whichever is earlier.
- II. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
- III. This EC is valid for a period of 03 year or up to the validity of lease.
- IV. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- V. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- VI. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation In safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VII. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VIII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to submitted along with 6 monthly compliance.
- IX. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- X. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- XI. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

8. **Damin Bhita Stone Mine of M/s Vaishno Stone Works (Prop. : Shri Awadh Kishor Singh),
Mouza : Damin Bhita, Thana : Mirzachowki, Distt. : Sahibganj, Jharkhand (4.34 Ha).**

(Proposal no.: SIA/JH/MIN/ 512629 /2025)

Name of the consultant : P & M Solution, Noida, U.P.

Application for EC (re-appraisal of Environment Clearance issued by DEIAA, Sahibganj).

The project has been granted EC by DEIAA, Sahibganj vide letter no EC/DEIAA/2016-17/46, dated 27.09.2016.

As per O.M. dated 28th April 2023 issued by MOEF & CC projects which have been granted EC by DEIAA are to be re-appraised by SEIAA / SEAC.

This is re-appraisal of the EC issued by DEIAA, Sahibganj which has been taken up for consideration on 23.12.2025. As per O.M. dated 12.12.18 issued by MOEF & CC projects fall in category B2.

Existing baseline condition as per monitoring report submitted by PP is as follows PM₁₀ -96 µg/m³ PM_{2.5} -567 µg/m³ SO₂ -18.2 NO₂ - 19.0 µg/m³ All the data are within the permissible limit.

Dust suppression is being carried out on regular basis.

Greenbelt Developed.

As per compliance report of JSPCB regarding previous EC, plantation has been done in safety zone.

Production detail as per memo no. 2050/M, dated 16.12.2025 by DMO, Sahibganj is within the permissible limit of EC.

The compliance report of previous EC has been issued by JSPCB, Ranchi vide letter no. 3244, dated 08.12.2025.

A certification of the compliance of the conditions of previous EC issued by JSPCB has been submitted to SEAC. The Committee desired to obtain a self certified compliance report along with the supporting details as evidence of execution.

The self certified compliance report has been submitted and also presented before the Committee.

EC Application for: Proposed Capacity – 100143.33 Cum per year or 270387 Tonnes per year
Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Damin Bhita Stone Mine
2	Lessee	: M/s Vaishno Stone Works Proprietor - Sri Awadh Kishor Singh
3	Lessee Address	: Proprietor - Sri Awadh Kishor Singh Address At Village + Post + Thana , Mirzachowki, District - Sahebganj, State - Jharkhand

4	Lease Area	:	4.34 ha.	10.73 Acres
5	Type of Land	:	Non-Forest Raiyati Land	
6	Project Cost	:	Capital: Rs. 1,09,38,400.00	
7	EMP Budget	:	Capital: Rs. 23,44,000	Recurring: Rs. 1342500 per year
8	New or Expansion	:	New (Re-appraisal of DEIAA EC)	
9	Mineable Reserves	:	2106570 Tonnes	780211.11 Cum
10	Mine Life	:	Up to the lease period i.e. 10.10.2017 to 09.10.2027.	
11	Man power	:	40	
12	Water Requirement	:	17.82 KLD	
13	Water Source	:	By authorised hired water tankers	
14	DG Set / power	:	50 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Ganga River (2.46 km)	
17	Nearest Habitation	:	Nearest Habitation 750 meter towards west direction	
18	Nearest Rail Station	:	Karamtola Railway station which are about 1.76 km	
19	Nearest Air Port	:	Deoghar Airport (122.02 km)	
20	Nearest Forest	:	DFO, Sahebganj vide letter no. 321, dated 04.03.2016 certified that the distance of notified forest is 15 m from proposed project site.	
21	Road & Highways	:	NH-33, Approx. 1.62 km. in ENE direction.	
22	Approach Road	:	990m	

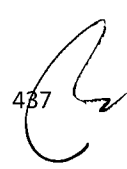
CO-ORDINATES

POINTS	LATITUDE	LONGITUDE
BP-1	25°15 '0.50" N	87° 32' 2.32" E
BP-2	25°15 '8.64" N	87° 32' 7.08" E
BP-3	25°15 '6.32" N	87° 32' 10.79" E
BP-4	25°15 30.95" N	87° 32' 6.00" E
BP-5	25°14 '58.33" N	87° 32' 4.88" E
BP-6	25°14 '59.69" N	87° 32' 1.65" E
BP-7	25°14 '59.13" N	87° 32'0.08" E
BP-8	25°15 '4.64" N	87° 32' 1.66" E

LAND DETAILS

Khata no.	Plot no.
46, 62, 17, 25, 32, 49, 15, 30 & 20	3, 4, 5, 6 (P), 9 (P), 13 (P), 14, 15, 16, 17, 19 (P), 20, 21, 22 (P), 23 (P) & 24 (P)







STATUTORY CLEARANCES

1	LOI / Lease docs	:	i. 1 st Lease deed 10.10.2010 to 09.10.2017. ii. 2 nd Lease deed 10.10.2017 to 09.10.2027.
2	CO	:	The CO, Mandro vide memo no. 40/Ra., dated 14.10.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyon & Register II.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 2052/M, dated 16.12.2025 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO –cum-Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. 2959, dated 17.10.2025 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide memo no. 321, dated 04.03.2016 certified that the distance of forest land is 15 meter from proposed project site. As this mine is in operation since 10.10.2010 and later obtained EC from DEIAA, Sahibganj vide letter no. EC/DEIAA/2016-17/46, dated 27.09.2016. Hence, siting criteria is not applicable and considered on the of "As is where is basis".
6	DSR	:	This project is mentioned in approved DSR of Sahibganj District (Sl. No. 132, Page no. 144).
7	Gram Sabha	:	Gram Sabha conducted on 13.09.2010 & 10.10.2017.
8	Scheme / Mine Plan Approval	:	i. Mining plan approved by DMO, Sahibganj vide memo no. 4017/M, dated 07.11.2015. ii. Mining scheme approved by District Mining Office, Sahibganj vide letter no. 1213/M, dated 06.11.2020. iii. Mining scheme approved by District Mining Office, Sahibganj vide letter no. 2079/M, dated 22.12.2025
9	Previous Environmental Clearance (EC)	:	Previous EC granted by DEIAA, Sahibganj vide letter no. EC/DEIAA/2016-17/46, dated 27.09.2016.
10	Compliance report of EC	:	The compliance report of previous EC has been issued by JSPCB, Ranchi vide letter no. 3244, dated 08.12.2025.

11	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-1108850 /2017/276, dated 09.06.2017.
12	Consent to Operate (CTO)	:	CTO issued by JSPCB vide ref. no. : JSPCB/RO/DMK/CTO-12959845 /2022/104, dated 17.05.2022 valid up to 30.06.2026.
13	Production Report	:	Production report issued by DMO, Sahibganj vide memo no. 2050/M, dated 16.12.2025.
14	Grid certificate	:	DMO, Sahibganj vide memo no. 2051/M, dated 16.12.2025 certified that said project falls under grid no. 02 and production is within the over all permissible production limit. The DMO also stated that this certificate is issued in the light of order passed by Hon'ble NGT on 22.12.2021 in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019. It also states this certificate is issued in compliance of report of Expert Committee.
15	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast mechanized mining method
2	Quarry Area	:	2.80 Ha
3	Waste Generation	:	33721 cum
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300
6	Benchs: size & No	:	6m to 6m
7	Elevation of Mine	:	174 m AMSL to 165 m AMSL
8	Ground Level Elevation	:	165 m AMSL
9	Ultimate Working Depth	:	140 m AMSL
10	Water Table	:	130-135 m AMSL
11	Topography of Mine	:	Area represents undulating topography.
12	Explosive Requirement	:	80 kg/day
13	Diesel/Fuel requirement	:	120 litre/day

Production Details

Year	Production of Stone in Tons as per DEIAA EC Letter	Production of Stone in Tons	Production of Stone in Cum
1 st	270156	100040.7	270110

2 nd	270387	100045.2	270122
3 rd	270144	100047.8	270129
4 th	270018	100035.9	270097
5 th	270003	100027	270073
Total	1350708	500196.6667	1350531

As per approved mine plan production: - 100047.8 cum/annum or 270129 TPA.

As per EC letter production: - 100143.33 cum/annum or 270387 TPA

Land Use

Category	Existing Land Use (in Ha)	After End of Scheme period (in Ha)	At the End of Conceptual Period (in Ha)
Quarry	0.958	2.80	3.00 (entire area shall be left as water reservoir)
Safety Barrier / Green Belt	0.851 (Plantation)	0.851 (Plantation)	0.851 (Plantation)
Road	0.100	0.200	0.050
OB Dump	-	0.375	0.375
Total area in use	1.909	4.226	4.276
Balanced Area	2.431	0.114	0.064
Total Lease area	4.340	4.340	4.340

Green Belt Development

	Area Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.851	1362 (Already done during previous year of mining)	1600 Tree per Hectare	1st Year	Mango, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	990	1980	2m X 2 m spacing in two rows		
	Total	1980	both side		

Note: A total of 3342 saplings were proposed to be planted. Out of which 1362 plant in Safety Zone area have been planted during previous year of mining.

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation.

Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars			Capital	Recurring
Land			55,00,000.00	5,00,000.00
Infrastructure			20,00,000.00	2,00,000.00
Mining Equipment			0.00	1,24,00,000.00
<i>Equipment</i>	<i>Quantity</i>	<i>Rent per year</i>		
Dumper	8	200000		
Compressor	1	1000000		
Water Sprinkler	2	600000		
Rock Breaker	6	600000		
Excavator	4	800000		
Loader	3	600000		
Water Facility for Domestic Purpose "0.8" KLD (Annual Water Demand "240"KL @4L per Tanker, total number of tanker required ("60") and per tanker cost @Rs. 500)			0.00	30,000.00
Statutory Clearances			7,00,000.00	0.00
Mine Closure Cost for Plantation of "648" number of trees @Rs. 300 per tree for plant & @Rs. 50 per tree for maintenance			1,94,400.00	32,400.00
Mine Closure Cost for fencing around mine			2,00,000.00	0.00
Environment Management Plan (EMP) Cost			23,44,000.00	13,42,500.00
Total			1,09,38,400.00	1,45,04,900.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
1980 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	5,94,000	99,000
Water Tanker @Rs. 500 per Tanker for Dust Suppression (5.94KLD) & Horticulture (11.88KLD) 5.94 + 11.88 = 17.82 KLD 17.82 KLD X 300 Days = 5346KLD 5346KLD / 4 KLD = 1337 Tankers	0	6,68,500
Environment Monitoring & Compliance	0	50,000.00

To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC	17,50,000.00	5,25,000
Total	23,44,000	13,42,500

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	▪ The overburden (soil) materials with varying thickness covering the stone deposit from some area of the mining lease area have been removed earlier. These have been partly used for plantation and stacked. More than fifty percent of the leasehold needs to be cleared off overburden cover. It is estimated that around 33721m³ of overburden materials lying within 174m to 172m level need to be removed. - To dispose the overburden materials, one of the worked out part covering north-east corner will be used. This will serve twin purpose. One as overburden dump area and the other partial reclamation of worked out quarry.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and

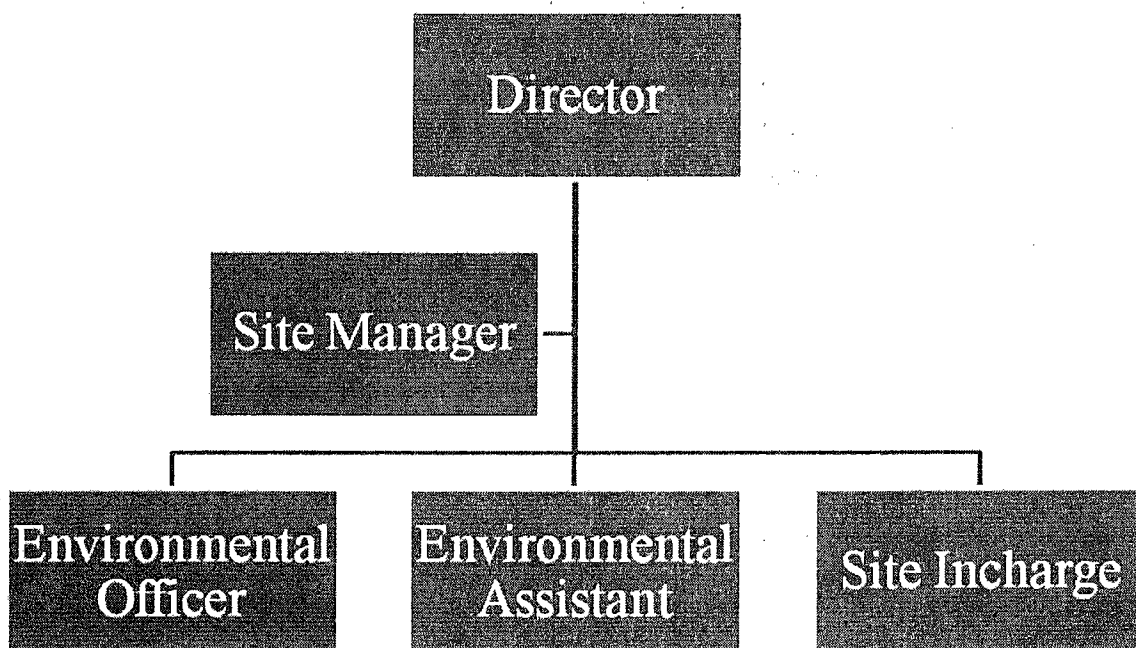
	working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection

Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that

	the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. ▪ Explosives shall be conveyed in special containers. ▪ Explosives and detonators shall not be carried in the same container. ▪ The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	▪ Mine road shall be made smooth regularly with a road roller. ▪ Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust. ▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management.

	▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- The Boundary Pillars of the proposed mine lease area will be maintained properly.

- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Damin Bhita Stone Mine of M/s Vaishno Stone Works (Prop. : Shri Awadh Kishor Singh), Mouza : Damin Bhita, Thana : Mirzachowki, Distt. : Sahibganj, Jharkhand (4.34 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. An additional safety barrier of 7.5 meters width will be maintained in the area adjoining to the forest land with 3 tier plantations.
- II. The production shall be restricted as per approved mining scheme or the approved mine plan at the time of EC, which ever is less.
- III. That the Deputy Commissioner, Sahibganj will ensure compliance of the order passed by Hon'ble NGT in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019 in the matter of Syed Arshad Nasar Vs Union of India with Ramchandra Chaurasia Vs State of Jharkhand with Pradeep Kumar Singh Vs State of Jharkhand before grant of mining lease.
- IV. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- V. During appraisal of the project, it is seen that the project authority have not fully complied the condition of green belt development as per the previous EC. Hence, the project authorities are required to plant twice the number of trees as was

required in the previous EC. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.

- VI. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
- VII. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VIII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to be submitted along with 6 monthly compliance.
- IX. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- X. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- XI. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

9. Ghoradhua Gravel Mine of Chunna Ali, Village : Ghoradhua, Thana : Ghatshila, Distt. : East Singhbhum, Jharkhand (0.809 Ha).

(Proposal no.: SIA/JH/MIN/ 530665 /2025)

Name of the consultant : P & M Solution, Noida, U.P.

Application for Environmental Clearance (EC) (re-appraisal of Environment Clearance issued by DEIAA, East Singhbhum).

The project has been granted EC by DEIAA, East Singhbhum, Jamshedpur vide letter no. 426, dated 09.05.2017.

As per O.M. dated 28th April 2023 issued by MOEF & CC projects which have been granted EC by DEIAA are to be reappraised by SEIAA / SEAC.

This is re-appraisal of the EC issued by DEIAA, East Singhbhum which has been taken up for consideration on 23.12.2025. As per O.M. dated 12.12.18 issued by MOEF & CC projects fall in category B2.

Existing baseline condition as per monitoring report submitted by PP is as follows PM₁₀ -96 µg/m³ PM_{2.5} -567 µg/m³ SO₂ -18.2 NO₂ - 19.0 µg/m³. All the data are within the permissible limit.

Dust suppression is being carried out on regular basis.

Greenbelt Developed.

As per compliance report of JSPCB regarding previous EC, plantation has been done in safety zone.

Production detail as per memo no. 918/Khanan, dated 04.11.2024 by DMO, East Singhbhum, Jamshedpur is within the permissible limit of EC.

The compliance report of previous EC has been issued by Member Secretary, JSPCB, Ranchi vide memo no. Ghoradhua Gravel / 16/ 1281, dated 08.05.2025.

A certification of the compliance of the conditions of previous EC issued by JSPCB has been submitted to SEAC. The Committee desired to obtain a self certified compliance report along with the supporting details as evidence of execution.

The self certified compliance report has been submitted and also presented before the Committee.

EC Application for: Proposed Capacity – 11000 cum/annum or 28600 TPA Tonnes per year
Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Ghoradhua Gravel Mine
2	Lessee	: Chunna Ali
3	Lessee Address	: Village- Narasinghgarh, P.O. + P.S. – Dhalbhumgarh, Dist- East Singhbhumgarh, Jharkhand
4	Lease Area	: 0.809 Ha. 2.00 Acre
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital: Rs. 34,85,000.00.00
7	EMP Budget	: Capital: Rs. 6,17,500.00 Recurring: Rs. 3,17,500.00 per year
8	New or Expansion	: New (Re-appraisal of DEIAA EC)
9	Mineable Reserves	: 154779.17 Tonnes 59530.45 Cum
10	Mine Life	: Up to the lease period i.e. 26.09.2017 to 25.09.2027.
11	Man power	: 17
12	Water Requirement	: 3.40 KLD
13	Water Source	: By authorised hired water tankers
14	DG Set / power	: 30 KVA

15	Crusher	:	No crusher
16	Nearest Water Body	:	Subarnarekha river (3.90km)
17	Nearest Habitation	:	At a distance 220m west north west direction, EMP Submitted
18	Nearest Rail Station	:	Dhalbhumgarh railway station which are about 3.0 Km
19	Nearest Air Port	:	Birsa Munda Airport (151.90 Km)
20	Nearest Forest	:	Divisional Forest Officer, Jamshedpur Division certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
21	Road & Highways	:	SH-18 is about 0.75 Km from the project site.
22	Approach Road	:	approx 200m

CO-ORDINATES

Pillar No.	Degree, Minute, Second	
	Latitude	Longitude
1	22°31' 38.280" N	86°32' 21.460" E
2	22°31' 37.335" N	86°32' 21.862" E
3	22°31' 36.268" N	86°32' 22.343" E
4	22°31' 34.997" N	86°32' 22.410" E
5	22°31' 33.444" N	86°32' 22.303" E
6	22°31' 32.890" N	86°32' 21.340" E
7	22°31' 32.390" N	86°32' 20.511" E
8	22°31' 33.495" N	86°32' 17.858" E
9	22°31' 32.843" N	86°32' 19.433" E
10	22°31' 34.600" N	86°32' 16.255" E
11	22°31' 34.621" N	86°32' 16.758" E

LAND DETAILS

Khata no.	Plot no.
172	152 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Lease deed : 26.09.2017 to 25.09.2027.
2	CO	:	The CO, Dhalbhum vide letter no. 518, dated 18.06.2025 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyani. During the appraisal it was seen from the KML that habitation exists within 500 meters from mining lease area. For which detailed & specific Environmental Management Plan has been prepared and submitted.

3	DMO Cluster	:	DMO, East Singhbhum, Jamshedpur vide memo no. 123/Khanan, dated 08.02.2025 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Dalma Elephant Project vide letter no. 488, dated 27.03.2025 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Jamshedpur Forest Division vide letter no. 4205, dated 11.12.2015 certified that the distance of forest land is 250 meter from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of East Singhbhum District (Sl. no. 61, Page no. 36).
7	Gram Sabha	:	Gram Sabha conducted on 02.01.2015.
8	Scheme / Mine Plan Approval	:	i. Mining plan approved by District Mining Officer, East Singhbhum, Jamshedpur vide Letter No. 9655, dated 10.12.2015. ii. Mining scheme approved by Additional Director, Geology, Hazaribagh vide Memo No. 71/G, dated 06.06.2022.
9	Previous Environmental Clearance (EC)	:	Previous EC granted by DEIAA, East Singhbhum, Jamshedpur vide letter no. 426, dated 09.05.2017.
10	Compliance report of EC	:	The compliance report of previous EC has been issued by Member Secretary, JSPCB, Ranchi vide memo no. Ghoradhua Gravel / 16/1281, dated 08.05.2025.
11	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-2009944 /2018 /385, dated 17.04.2018.
12	Consent to Operate (CTO)	:	CTO issued by JSPCB vide ref. no. : JSPCB/RO/JSR/CTO-15044152 /2023/13, dated 22.02.2023.
13	Production Report	:	Production report issued by DMO, East Singhbhum, Jamshedpur vide memo no. 918/Khanan, dated 04.11.2024.
15	Qualified Person	:	Shri Surendra Sai was present in the meeting and affirmed that the mining scheme has been prepared by him.

Working Details

1	Mining Method	:	Opencast manual mining method
2	Quarry Area	:	0.606 Ha.

3	Waste Generation	:	21359.03 cum
4	Stripping Ratio	:	1:0.16
5	Working Days	:	300
6	Benches: size & No	:	3m to 5m
7	Elevation of Mine	:	100 m AMSL to 110 m AMSL
8	Ground Level Elevation	:	100 m AMSL
9	Ultimate Working Depth	:	95 m AMSL
10	Water Table	:	85-80 m AMSL
11	Topography of Mine	:	Area represents flat topography
12	Explosive Requirement	:	26 kg/day
13	Diesel/Fuel requirement	:	126 litre/day

Production Details

Year	Production of Stone in Tons as per DEIAA EC Letter	Production of Stone in Tons	Production of Stone in Cum	Total waste in Cum
1 st	28600	28599.94	10999.98	4714.27
2 nd	28600	28598.57	10999.45	4714.05
3 rd	28600	28599.93	10999.97	4714.27
4 th	28600	28599.12	10999.66	4714.14
5 th	28600	15180.62	5838.7	2502.30
Total	143000	129578.18	49837.76	21359.03

As per approved mine plan production: - 10999.98 cum/annum or 28599.94 TPA

As per EC letter production: - 11000 cum/annum or 28600 TPA.

Land Use

Category	Present Land Use (in Ha)	At the end of plan period (in Ha)	At the end of Mine (in Ha)
Quarry	0.223	0.606	0.606 (entire area will converted as water reservoir)
Road	0.050	0.00	0.00

Safety Zone	0.203 (Plantation)	0.203 (Plantation)	0.203 (Plantation)
Total area in use	0.476	0.809	0.809
Balanced Unused Area	0.333	0.00	0.00
Total Lease area	0.809		

Green Belt Development

	Area Length	/ Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.203	508	1600 Tree per Hectare	1st Year	Mango, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	200	400	2m X 2 m spacing in two rows both side		
Total		400			

Note: A total of 908 saplings were proposed to be planted. Out of which 508 plant in Safety Zone area have been planted during previous year of mining.

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars			Capital	Recurring
Land			1500000.00	1,50,000.00
Infrastructure			7,00,000.00	1,00,000.00
Mining Equipment			0.00	56,00,000.00
Equipment	Quantity	Rent per year		
Dumper	1	200000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	1	600000		

Particulars			Capital	Recurring
Excavator	1	800000		
Loader	1	600000		
Water Facility for Domestic Purpose "0.1" KLD (Annual Water Demand "30"KL @4L per Tanker, total number of tanker required ("8") and per tanker cost @Rs. 500)			0.00	4000.00
Statutory Clearances			5,00,000.00	0.00
Mine Closure Cost for Plantation of "225" number of trees @Rs. 300 per tree for plant & @Rs. 50 per tree for maintenance			67500.00	11,250.00
Mine Closure Cost for fencing around mine			1,00,000.00	0.00
Environment Management Plan (EMP) Cost			6,17,500.00	3,17,500.00
Total			34,85,000.00	61,82,750.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
400 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	1,20,000.00	20,000.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.00 KLD) & Horticulture (2.40KLD) 1.00+ 2.40 = 3.40KLD 3.40 KLD X 300 Days = 1020KLD 1020 KLD / 4 KLD = 255 Tankers	0	1,27,500.00
Environment Monitoring & Compliance	0	50,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z- 11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC	4,00,000.00	1,20,000.00
Total	6,17,500.00	3,17,500.00

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.	3 Stations	Six Monthly
2	Water: Surface water sample in the vicinity of the	2 Surface	Six Monthly

	Project area.	water 2 Ground water	
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Environment Management Practices to be followed:

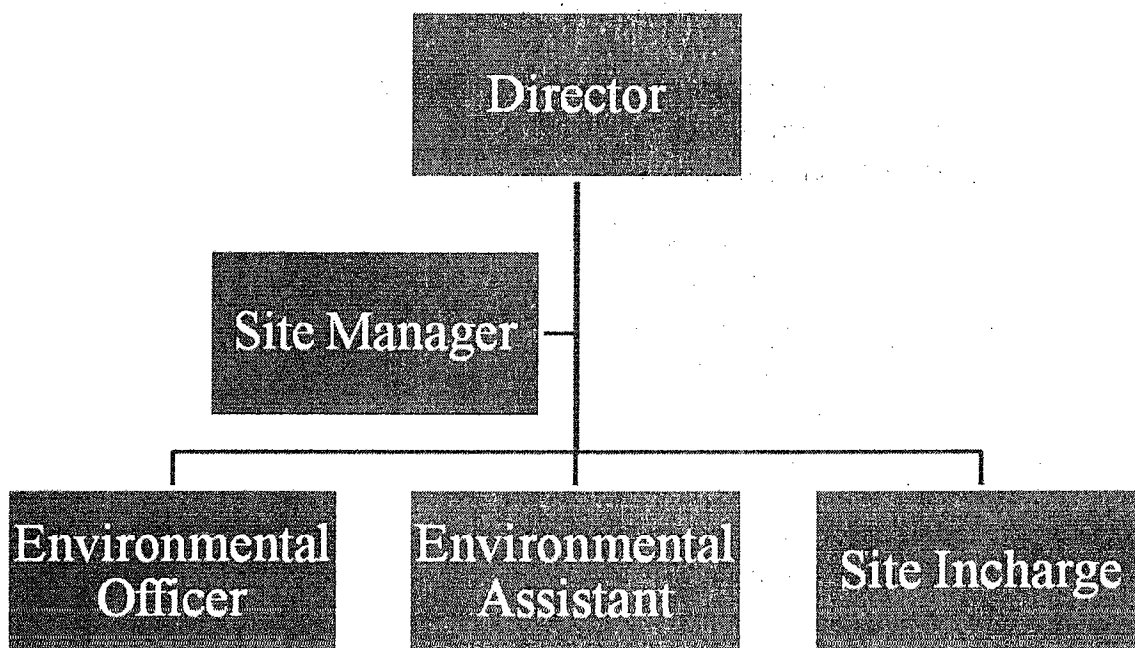
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	Total 21359.03 cum of waste will be generated during this scheme period. It is proposed that all waste to be generated during this scheme period, shall be utilized for making and maintaining the approach road, haul road, village road etc.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT). • Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. • Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • Garland and foot drains will be constructed around the quarry to control surface runoff. • Sewage from rest shelters will be treated through septic tank-soak pit systems. • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• Mining activities will be restricted to daytime and carried out with controlled blasting techniques. • Acoustic enclosures and mufflers will be provided for drilling and DG set operations. • Regular maintenance of mining machinery to minimize vibration and noise. • Greenbelt development around the lease boundary to attenuate noise propagation. • Use of delayed blasting technique to minimize the adverse impact of vibration.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Garland drains and retaining walls will prevent soil erosion and

	siltation. • Spillage of oil or fuel will be avoided; impervious flooring and oil traps provided near storage areas • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-

	availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	- Blast hole geometry shall be properly designed. - Blast site shall be wetted before and after blasting operations are completed. - Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. - Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. - While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. - The vibrations should be monitored periodically in consultation with the local Mining authorities. - Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use. - Proper and safe storage of explosives in approved and Licensed Magazine. - Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette or Bidi etc. will be put in place. - Explosives shall be conveyed in special containers. - Explosives and detonators shall not be carried in the same container. - The holes which have been charged with explosives will not be left unattended till blasting is completed.
Health Hazards	Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept. The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level
Accident Prevention	- Mine road shall be made smooth regularly with a road roller. - Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoid suspension of dust.

	▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughly at least once a month by the competent person authorized for the purpose by the management. ▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loading points, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- The Boundary Pillars of the proposed mine lease area will be maintained properly.

- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Ghoradhua Gravel Mine of Chunna Ali, Village : Ghoradhua, Thana : Ghatshila, Distt. : East Singhbhum, Jharkhand (0.809 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II along with following specific conditions :

- I. The production shall be restricted as per approved mining scheme or the approved mine plan at the time of EC, which ever is less.
- II. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- III. During appraisal of the project, it is seen that the project authority have not fully complied the condition of green belt development as per the previous EC. Hence, the project authorities are required to plant twice the number of trees as was required in the previous EC. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
- IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety

zone. Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.

- V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only. Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.
- VI. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests . Summary findings of same to be submitted along with 6 monthly compliance.
- VII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.
- VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted with 6 monthly compliance report.
- IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

10. Chota Tangrani Stone Mine of M/s Mata Enterprises (Prop. : Shri Tarun Kumar Dey), Village : Chota Tangrani, Thana : Saraikela, Distt. : Saraikela-Kharsawan, Jharkhand (1.82 Ha).

(Proposal no.: SIA/JH/MIN/ 526226 /2025)

The PAs vide letter dated 23.12.2025 requested for deferment of the project.

Hence, the proposal will be taken up for consideration after request by the PAs.



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The meeting concluded with thanks to all present.

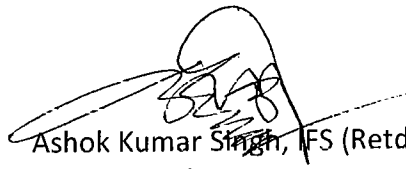
Ashok Kumar Dubey, IFS (Retd.)
Member


Dr. Ajay Govind Bhatt
Member


Niranjan Lal Agarwalla
Member


Srikant Verma, IFS
Member Secretary


Dr. Raju Kumar
Member


Ashok Kumar Singh, IFS (Retd.)
Chairman

I. Statutory Compliance

- i. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- ii. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc as per National Building Code including protection measures from lightening etc.
- iii. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- iv. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to ".
- v. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- vi. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- vii. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- viii. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- ix. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
- x. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- xi. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.
- xii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel (kerosene/gas) for cooking,

safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after completion of the project.

- xiii. Provision of drinking water, waste water disposal, solid wastes management and primary health facilities shall be ensured for labour force. Proper sanitation facilities shall be provided at the construction site to prevent health related problems. Domestic as well as sanitary wastes from construction camps shall be cleared regularly.
- xiv. All the labourers to be engaged for construction works shall be screened for health and adequately treated before issue of work permits. The contractor shall ensure periodic health check-up of construction workers.
- xv. All vehicles/equipment deployed during construction phase shall be ensured in good working condition and shall conform to applicable air and noise emission standards. These shall be operated only during non-peak hours.
- xvi. Accumulation/stagnation of water shall be avoided ensuring vector control.
- xvii. Water during construction phase should be preferred from Municipal supply.
- xviii. Unskilled construction labourers shall be recruited from the local areas.
- xix. Monitoring of ground water table and quality once in three months shall be carried out. Construction of tube wells, bore wells shall be strictly regulated.
- xx. Adequate provision shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be adopted.
- xxi. Rest room facilities shall be provided for service population.
- xxii. Water body falling within premises (if any) shall not be lined or no embankment shall be cemented. The water bodies, if any, shall be kept in natural conditions without disturbing the ecological habitat.
- xxiii. Construction shall conform to the requirements of local seismic regulations. The project proponent shall obtain permission for the plans and designs including structural design, standards and specifications of all construction work from concerned authority.

II. Air quality monitoring and preservation

- i. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
- ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- iii. The project proponent shall install system to carry out Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants

released (e.g. PM10 and PM25) covering upwind and downwind directions during the construction period.

- iv. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- v. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- vi. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- vii. Wet jet shall be provided for grinding and stone cutting.
- viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- ix. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
- x. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- xi. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- xii. For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation

- i. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.

- ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- iv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- v. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- vi. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- vii. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- viii. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- ix. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- xi. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- xii. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

- xiii. All recharge should be limited to shallow aquifer.
- xiv. No ground water shall be used during construction phase of the project.
- xv. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
- xvi. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- xvii. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
- xviii. No sewage or untreated effluent water would be discharged through storm water drains.
- xix. Onsite sewage treatment of capacity of treating 100% waste water to be installed based on the MBBR/MBR/SBR technology. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
- xx. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- xxi. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

IV. Noise monitoring and prevention

- i. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- ii. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

- iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

- i. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
- ii. Outdoor and common area lighting shall be LED.
- iii. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- iv. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
- v. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
- vi. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

- i. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
- ii. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- iii. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
- iv. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.

- v. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
- vi. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- vii. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
- viii. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016., Ready mixed concrete must be used in building construction.
- ix. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- x. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

- i. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
- ii. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
- iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
- iv. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VIII. Transport

- i. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - b. Traffic calming measures.
 - c. Proper design of entry and exit points.
 - d. Parking norms as per local regulation
- ii. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- iii. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human Health Issues

- i. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- ii. For indoor air quality the ventilation provisions as per National Building Code of India.
- iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- iv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- v. Occupational health surveillance of the workers shall be done on a regular basis.
- vi. A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

XI. Miscellaneous

- i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as

- prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
 - vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 - viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
 - ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
 - x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - xi. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - xii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 - xiii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.
 - xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
 - xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.
 - xvi. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.

Environmental Safeguard provided by JSPCB

A. Safeguards for control of Water Pollution:

1. That, the occupier shall provide provisions for treatment of Sewage through a Sewage Treatment Plant (STP) of adequate capacity as required, to meet the discharge norms prescribed under the Environment (Protection) Act, 1986 and the Rules made there under.
2. That, the occupier shall ensure that no untreated waste water or effluent is discharged outside the premises under any circumstances, and all wastewater shall be treated to meet prescribed standards before reuse or disposal.
3. That, the occupier shall provide proper drainage channels across the premises to prevent waterlogging and avoid contamination of surrounding areas.
4. That, the occupier shall install silt traps and sedimentation tanks to control construction run-off and prevent the discharge of silt-laden water outside the premises.
5. That, the occupier shall ensure that, water during construction phase should be preferred from Treated Waste Water of the existing Hospital premises.
6. That, the occupier shall ensure that, total fresh water use shall not exceed the proposed requirement as provided in the project details.
7. That, the occupier shall ensure that, installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape, irrigation, car washing, thermal cooling, conditioning etc. shall be done.
8. That, the occupier shall ensure that, use of water saving devices/ fixtures (viz. low flowflushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan
9. That, the occupier shall ensure that, water demand during construction should be reduced by use of premixed concrete, curing agents and other best practices referred.
10. That, the occupier shall ensure that, rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms approval from the Competent Authority.
11. That the occupier shall ensure that, the ground water shall not be withdrawn without approval from the Competent Authority.
12. That, the occupier shall ensure that, no ground water shall be used during construction phase of the project for the construction purposes.

B. Safeguards for control of Air Pollution:

1. That, the occupier shall ensure that, acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and conform to rules made under the Environment (Protection) Act, 1986. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Low sulphur diesel

- shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
2. That, the occupier shall install Retrofit Emission Control Devices (RECDs) to the DG sets as per CPCB norms from the manufacturers certified by CPCB for same.
 3. That, the occupier shall use only low-sulphur fuel for DG sets and shall ensure periodic monitoring of emissions to meet prescribed standards.
 4. That, the occupier shall use only PUC-certified vehicles and DG sets complying with established emission norms of CPCB.
 5. That, the occupier shall ensure regular maintenance of all construction machinery and equipment to minimize emissions and ensure efficient operation.
 6. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 6 meter height).
 7. That, the occupier shall ensure that, plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
 8. That, the occupier shall store fine construction materials such as sand, cement and aggregates in enclosed spaces to prevent their dispersion due to wind or site activity.
 9. That, the occupier shall construct pucca internal road or pave the approach road so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.
 10. That the occupier shall ensure that, all construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. Moreover, all construction and demolition waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.
 11. That the occupier shall ensure that, unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
 12. That, the occupier shall ensure that for indoor air quality the ventilation provisions as per National Building Code of India.

C. General Safeguards:

1. That the occupier shall construct pucca (i) minimum ten feet high boundary wall and (ii) approach road and internal roads and shall keep the premises neat, clean and tidy.
2. That, the occupier shall submit the ambient air quality, noise level and the effluent analysis reports to the Board before and after commissioning of the project.
3. That, the occupier shall ensure that, use of environment friendly materials such as Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks shall be used for at least 50% of the construction material quantity.
4. That, the occupier shall ensure that, adequate provisions shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be complied with.

5. That, the occupier shall ensure that separate bins for dry and wet solid waste must be provided in each unit for facilitating segregation of waste.
6. That, the occupier shall install organic waste compost/Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg/person/day
7. That, the occupier shall ensure that, all non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recycler.
8. That, the occupier shall ensure that any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
9. That, the occupier shall ensure that, used CFLs and TFLs should be properly collected and disposed off / sent for recycling to authorized TSDFs to avoid mercury contamination.
10. That, the occupier shall ensure that the provisions of the Solid Waste Management Rules, 2016. The e-Waste (Management) Rules, 2022, the Plastic Waste Management Rules, 2016, the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and The Noise Pollution (Regulation and Control) Rules, 2000 shall be followed and complied with.
11. That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and rules there under.
12. That, this Comments & Environmental Safeguards is issued from the environmental angle only and does not absolve the occupier from other statutory obligation prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions rests with the occupier.
13. That, this Comments & Environmental Safeguards shall not in any way adversely affect or jeopardize legal proceedings, if any, instituted in the past or that may be instituted against the occupier by the State Board for violation of the Act or Rules made there under.

I. Statutory compliance

- i. This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
- ii. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpadvs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to ".
- iii. The Project proponent complies with all the statutory requirements and judgement of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- iv. The Hon'ble Supreme Court vide order dated 08.01.2020 in W.P. (Civil) No.114/2014 in the matter of Common Cause vs. Union of India has directed that the area which has been mined should be restored so that grass and other vegetation including trees can grow in the mining area for the benefit of animals.

"The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
- v. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgement of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
- vi. This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- vii. This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- viii. Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.

- ix. The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
- x. The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
- xi. The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-11013/57/2014-IAJI (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- xii. The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- xiii. A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- xiv. State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- xv. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change ([www. Environment clearance.nic.in](http://www.Environmentclearance.nic.in)). A copy of the advertisement may be forwarded to the concerned MoEF& CC Regional Office for compliance and record.
- xvi. The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation

- i. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical

parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2; CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCUI, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

- ii. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance: Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

III. Water quality monitoring and preservation

- i. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- ii. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- iii. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be

submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

- iv. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
- v. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IAJI (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
- vi. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC annually.
- vii. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

- viii. The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

IV. Noise and vibration monitoring and prevention

- i. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- ii. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
- iii. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining Plan

- i. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
- ii. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.

- iii. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.

VI. Land reclamation

- i. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
- ii. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
- iii. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
- iv. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
- v. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
- vi. Catch drains, settling tanks and ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

- vii. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
- viii. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

VII. Transportation

- i. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP In consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
- ii. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.



VIII. Green Belt

- i. The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
- ii. The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
- iii. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
- iv. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation, if any found or reported by the competent authority. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
- v. If any Wild Life Conservation Plan is prepared as per above clause no. iv, it shall be implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

IX. Public hearing and human health issues

- i. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which

are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.

- ii. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
- iii. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).
- iv. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be

presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.

- v. The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- vi. Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
- vii. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

X. Corporate Environment Responsibility (CER)

- i. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.
- ii. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.

XI. Miscellaneous

- i. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.

- ii. The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- iii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF& CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.
- iv. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
- v. The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
- vi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- vii. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- viii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- ix. The Environmental Clearance accorded shall be valid for the period of lease of the mine. The PP shall not increase production rate and alter lease area during the validity of Environmental Clearance
- x. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.

The TORs prescribed for undertaking detailed EIA study are as follows:

- i. Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- ii. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- iii. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- iv. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- v. Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- vi. Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- vii. It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
- viii. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- ix. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.

- x. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- xi. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- xii. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- xiii. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- xiv. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- xv. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- xvi. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- xvii. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- xviii. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and

buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

- xix. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- xx. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- xxi. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- xxii. One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- xxiii. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be

shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

- xxiv. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- xxv. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- xxvi. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- xxvii. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- xxviii. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- xxix. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- xxx. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- xxxi. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- xxxii. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving

the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

- xxxiii. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- xxxiv. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- xxxv. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- xxxvi. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- xxxvii. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- xxxviii. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- xxxix. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- xl. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- xli. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- xlii. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- xlili. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- xliv. Besides the above, the below mentioned general points are also to be followed :-
 - a) Executive Summary of the EIA/EMP Report

- b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF & CC / NABL accredited laboratories. All the original analysis / testing reports should be available during appraisal of the Project.
 - e) Where the documents provided are in a language other than English, an English translation should be provided.
 - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
 - h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF & CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
 - i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
 - j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.
- xliv. After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
- xlvi. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022 of MoEF&CC, Govt. of India.

1. Statutory compliance:

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- vi. Solid waste/hazardous waste generated in the washery needs to be addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016.
- vii. Coal beneficiation practices shall be carried out under strict adherence to provisions of the Factories Act, 1957 and subordinate legislations made there under.

2. Air quality monitoring and preservation

- i. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16th November, 2009 shall be complied with.
- ii. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.
- iii. Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement

and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.

- iv. Transportation of coal by road shall be carried out by covered trucks/conveyors. The transportation of clean coal and rejects shall be by rail with wagon loading through silo. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulates such as roads, belt conveyors, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled at source. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board
- v. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.
- vi. Covered trucks shall be engaged for mineral transportation outside the washery upto the railway siding, shall be optimally loaded to avoid spillage en-route. Trucks shall be adequately maintained and emissions shall be below notified limits.
- vii. Facilities for parking of trucks carrying raw material from linked mine shall be created within the unit.
- viii. Vehicular emissions shall be kept under control and regularly monitored. The vehicles having 'PUC' certificate from authorized pollution testing centres shall be deployed for washery operations.
- ix. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.
- x. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.
- xi. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

3. Water quality monitoring and preservation

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.I1 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for compliance.
- iii. Industrial waste water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time.

- iv. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side stabilised with plantation so as to withstand the peak water pressure preventing any chance of inundation.
- v. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.
- vi. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run off from reject dumping sites.
- vii. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake etc. with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.
- viii. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.
- ix. Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resources in consultation with Central Ground Water Board.
- x. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m³/tonne of raw coal.
- xi. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- xii. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
- xiii. The project proponent shall take all precautionary measures to ensure riverine/ riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

4. Noise and Vibration Monitoring and Prevention

- i. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises,

and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

- ii. Adequate measures shall be taken for control of noise levels as per noise pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

5. Coal beneficiation

- i. Coal stacking plan shall be prepared separately for raw coal, clean coal, middling and rejects.
- ii. Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

6. Green Belt

- i. Three tier greenbelt comprising of a mix of native species, of minimum 30 m width shall be developed all along the washery area to check fugitive dust emissions and to render aesthetic to neighbouring stakeholders. A 3-tier green belt comprising of a mix of native species or tree species with thick leaves shall be developed along vacant areas, storage yards, loading/transfer points and also along internal roads/main approach roads.
- ii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

7. Public Hearing and Human Health issues

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six- monthly basis.
- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any. as amended time to time.
- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

- v. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

8. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental/forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry / Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

9. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels) or critical sectoral parameters, indicated for the projects

and display the same at a convenient location for disclosure to the public and put on the website of the company.

- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIAJEMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made.
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- xvii. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.



Handwritten signatures and initials at the bottom of the page, including a large signature on the left, the letter 'A' in the center, a signature with '497' below it, and two more signatures on the right.

Regarding approval of 128th MOM of SEAC held from 19 - 24.12.2025.

ashok dubey <ashokrndubey@rediffmail.com>

Tue, Dec 30, 2025 at 3:24 PM

To: Member Secretary SEAC <seac.jhk@gmail.com>

Sir,

Acknowledge receipt of the Minutes of the 128th meeting of SEAC held from 19th December, 2025 to 24th December, 2025 in which i have joined the meeting in virtual mode on 19th to 24th December, 2025 (absent on 20.12.2025).

I have reviewed the document in detail and find it to be an accurate record of the proceedings and decisions taken.

Accordingly, I hereby convey my approval of the Minutes without any modifications.

Please place this communication on record and circulate the approved Minutes to the concerned at your earliest convenience.

Regards

Ashok Kumar Dubey (IFS Retd.)
Member SEAC, Jharkhand.

ashok kumar dubey

[Quoted text hidden]