MINUTES OF THE 136TH MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 28TH, 29TH, 30TH, 31ST OCTOBER, 01ST AND 02ND NOVEMBER, 2026.

The 136th meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 28th, 29th, 30th, 31st October 01st and 02nd November, 2026 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 (Not present)
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 23rd,24th, 25th,26th ,27th ,28thand 29thSeptember, 2026. 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 :28th October, 2026 [Wednesday]

A. Matter related to :

i. Letter dated 30.09.2026 from Shri Aashutosh Kumar Singh, Director w.r.t.Phuljori Stone Deposit of M/s Koleshwari Minerals Pvt. Ltd. (Partner : Shri Ashutosh Kumar Singh), Mouza: Phuljori, Thana :Jamtara, Distt. :Jamtara, Jharkhand (2.81 Ha).(Proposal no.: SIA/JH/MIN/ 505993 /2024)

This matter was discussed in the 134th meeting of SEAC held on 23rd to 27th August, 2026 under the following agenda :

"Letter no. 487/M, dated 31.07.2026 from Deputy Commissioner,Jamtara regarding re-evaluation and appropriate action w.r.t. Environmental Clearances (ECs) issued under category 'B2' for mining leases in Phuljori Mauza, District Jamtara."

The above letter of DC, Jamtara refers to the EC granted under B2 category to the following 03 mines :

a. Phuljori Stone Deposit of M/s Koleshwari Minerals Pvt. Ltd. (6.95 Acres / 2.81 Ha)
b. Phuljori Stone Deposit of M/s Sri Balajee Mineral Corporation (3.14 Acres / 1.27 Ha)
c. Phuljori Stone Deposit of Shri Azad Ansari (5.21 Acres / 2.10 Ha)

Further, the DC, Jamtara stated that the total cumulative area of this contiguous leases comes to 15.30 Acres (6.18 Ha) and hence, the proposals attract the provision of category B1 for consideration of EC.

In view of the above a show cause notice was issued to Project Authority of Phuljori Stone Deposit of M/s Koleshwari Minerals Pvt. Ltd. (ML area 6.95 Acres / 2.81 Ha)vide SEAC letter no. 98 dated 16.09.2026 to provide the clarification w.r.t. the matter stated in the letter no. 487/M, dated 31.07.2026 of DC, Jamtara.

The clarification has been received from Project Authority vide letter dated 30.09.2026.

The matter has been referred by DC, Jamtara vide letter no. 487/M, dated 31.07.2026on the basis of records available in his office.

Hence, SEAC is of the view that the clarification received from Project Authority vide his letter dated 30.09.2026 may be forwarded to DC, Jamtara for providing final opinion in this matter.

The SEAC is also of the view that the EC granted to the said project vide letter no. EC/SEIAA/ 2024-25/3407/2024/496, dated 09.01.2025 may be kept in abeyance until final decision in this matter.

Hence, it is being recommended to SEIAA with the observation that necessary action may be taken as mentioned above.

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ii. **Letter dated 01.10.2026 from Shri Anant Prasad w.r.t.Phuljori Stone Deposit of M/s Sri Balajee Minerals Corporation (Partners : Shri Anant Prasad & Others), Village :Phuljori, Tehsil :Jamtara, Distt. :Jamtara, Jharkhand (1.27 Ha) (Proposal no.: SIA/JH/MIN/ 514301 /2025)**

This matter was discussed in the 134th meeting of SEAC held on 23rd to 27th August, 2026 under the following agenda :

"Letter no. 487/M, dated 31.07.2026 from Deputy Commissioner,Jamtara regarding re-evaluation and appropriate action w.r.t. Environmental Clearances (ECs) issued under category 'B2' for mining leases in Phuljori Mauza, District Jamtara."

The above letter of DC, Jamtara refers to the EC granted under B2 category to the following 03 mines :

a. Phuljori Stone Deposit of M/s Koleshwari Minerals Pvt. Ltd. (6.95 Acres / 2.81 Ha)

b. Phuljori Stone Deposit of M/s Sri Balajee Mineral Corporation (3.14 Acres / 1.27 Ha)
c. Phuljori Stone Deposit of Shri Azad Ansari (5.21 Acres / 2.10 Ha)

Further, the DC, Jamtara stated that the total cumulative area of this contiguous leases comes to 15.30 Acres (6.18 Ha) and hence, the proposals attract the provision of category B1 for consideration of EC.

In view of the above a show cause notice was issued to Project Authority of Phuljori Stone Deposit of M/s Sri Balajee Mineral Corporation (3.14 Acres / 1.27 Ha)vide SEAC letter no. 100 dated 16.09.2026 to provide the clarification w.r.t. the matter stated in the letter no. 487/M, dated 31.07.2026 of DC, Jamtara.

The clarification has been received from Project Authority vide letter dated 01.10.2026.The matter has been referred by DC, Jamtara vide letter no. 487/M, dated 31.07.2026 on the basis of records available in his office.

Hence, SEAC is of the view that the clarification received from Project Authority vide his letter dated 01.10.2026 may be forwarded to DC, Jamtara for providing final opinion in this matter.

The SEAC is also of the view that the EC granted to the said project vide letter no. EC/SEIAA/2024-25/3455/2024/601, dated 07.02.2025 may be kept in abeyance until final decision in this matter.

Hence, it is being recommended to SEIAA with the observation that necessary action may be taken as mentioned above.

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iii. **Phuljori Stone Deposit of Partner : Mr. Azad Ansari, Village :Phuljori, Tehsil :Jamtara, Distt. :Jamtara, Jharkhand (2.10 Ha) (Proposal no.: SIA/JH/MIN/ 501146 /2025)**

This matter was discussed in the 134th meeting of SEAC held on 23rd to 27th August, 2026 under the following agenda :

"Letter no. 487/M, dated 31.07.2026 from Deputy Commissioner, Jamtara regarding re-evaluation and appropriate action w.r.t. Environmental Clearances (ECs) issued under category 'B2' for mining leases in Phuljori Mauza, District Jamtara."

The above letter of DC, Jamtara refers to the EC granted under B2 category to the following 03 mines :

a. Phuljori Stone Deposit of M/s Koleshwari Minerals Pvt. Ltd. (6.95 Acres / 2.81 Ha)
b. Phuljori Stone Deposit of M/s Sri Balajee Mineral Corporation (3.14 Acres / 1.27 Ha)
c. Phuljori Stone Deposit of Shri Azad Ansari (5.21 Acres / 2.10 Ha)

Further, the DC, Jamtara stated that the total cumulative area of this contiguous leases comes to 15.30 Acres (6.18 Ha) and hence, the proposals attract the provision of category B1 for consideration of EC.

In the light of above a show cause notice was issued to Project Authority of Phuljori Stone Deposit of Partner : Mr. Azad Ansari, Village :Phuljori, Tehsil :Jamtara, Distt. :Jamtara, Jharkhand (2.10 Ha)vide SEAC letter no. 99 dated 16.09.2026 to provide the clarification w.r.t. the matter stated in the letter no. 487/M, dated 31.07.2026 of DC, Jamtara.

As no response has been received in reply to the above show cause from the Project Authority, the Member Secretary, SEAC will issue a final show cause as to why the EC granted vide letter no. EC/SEIAA/2024-25/3450/2024/550, dated 31.01.2025 should not be kept in abeyance. A copy of final show cause letter should also be sent to DC, Jamtara for information and necessary action.

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iv. **Letter no. 1291/M, dated 07.10.2026 from DMO, Latehar regarding District Survey Report of Sand Mining.**

The DMO, Latehar vide letter no. 1291/M, dated 07.10.2026 has requested for certain amendments in the approved District Survey Report (DSR) of Sand mining or river bed mining which was duly approved by SEIAA, Jharkhand in 103rd meeting held on 01st and 02nd April, 2023 based on the recommendation of SEAC and prepared by Sub-Divisional Committee.

In this regard it is to be stated that MoEF&CC, Govt. of India vide OM F.No. IA-L-11011/138/2025-II(NCM) dated 19.06.2026 has prescribed procedure for updating and / or making any changes of the approved DSR.

Hence, it is recommended to SEIAA that the application for required changes is to be submitted in the manner prescribed in the OM F.No. IA-L-11011/138/2025-II(NCM) dated 19.06.2026 issued by MoEF&CC, Govt. of India.

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B. **Examination of six monthly compliance report submitted to SEIAA, Jharkhand :**

i. Khurdih Stone Deposit of M/s Mahalaxmi Minerals (Partners : Shri Sudhanshu Prasad & Shri Sarvjeet Singh Rana), Village :Khurdih, Thana :Topchanchi, Distt. : Dhanbad, Jharkhand (1.129 Ha).

ii. Leba Stone Deposit of M/s Jay Hind Stone Works (Partners : Mr. Wasim Ansari & Md. Nazim Ansari) ,Village : Leba, Anchal :Taljhari, Distt. :Sahibganj, Jharkhand (2.023 Ha).

iii. Jiyapani Stone Deposit of M/s Sri Hariom Stone Works (Prop. : Sri Gurdip Motwani), Village :Jiyapani, Thana :Maheshpur, Dist. :Pakur, Jharkhand (2.83 Ha).

iv. Baghmura Stone Deposit of M/s Tara Stone Works, Village :Baghmura, Thana :Meheshpur, Thana no. : 339, Dist. :Pakur, Jharkhand (2.88 Ha).

v. Kalupara Stone Deposit of M/s Hill Top Stone Works (Partners : (i) Shri Vedant Mandhyan (ii) Shri Vidya Niwas Bharatpuri (iii) Shri Ranjit Kumar Tiwary), Village :Kalupara, Thana :Maheshpur, Distt. :Pakur, Jharkhand (2.428 Ha).

vi. Dhamdhamia Stone Mine at Mouza- Dhamdhamia, P.O.- Bara Durgapur, P.S.- Taljhari, Dist- Sahibganj, Jharkhand (1.611 Ha).

vii. Bekchuri Stone Deposit of M/s Pavika Stone Works (Prop. : Smt. Mala Sinha), Village :Bekchuri, Thana :Taljhari, Distt. :Sahibganj, Jharkhand (2.93 Ha).

viii. Bajkum Sand Ghat of M/s Jharkhand State Mineral Development Corporation Limited (JSMDC Ltd.), Village :Rajhar&Bajkum, P.S. :Latehar, Distt. :Latehar, Jharkhand (2.39 Ha).

ix. Saharpur Stone Mine of M/s Jai Maa Tara Stone Product (Prop. : Sri Binod Prasad Bhagat), Village :Saharpur, Thana :Shikaripara, Thana no. :12,Distt. : Dumka, Jharkhand (2.73 Ha).

x. Chatania Stone Mine of M/s Chatania Stone at Vill – Chatania, P.S. – Bashisthnagar, Dist – Chatra, Jharkhand (2.83 Ha).

The compliance reports were examined. All points of EC conditions are not adequetly addressed, subjective in nature and no proper evidence has been provided.

Following general observations are made after examining 10 number of EC compliance report received :-

i. Details of all applicable statutory clearances and its copies are not given.
ii. Sufficient detail regarding name of training module and number of employees covered under respective programs regarding safety and health aspects not provided.
iii. Name and number of PPEs used and evidence ensuring its use by worker is not quantified.
iv. Number of trees planted including those planted under *"Ek Ped Ma Ke Naam"* are not clearly defined. In many cases no evidence given in form of the photographs.
v. Details about water sprinkling in terms of tanker capacity and number of times water is sprayed is not given.
vi. Details missing about number of vehicle in operation and their maintenance schedule.
vii. Details of location, numbers and dimension of OB dumps not provided.
viii. Sources of Air Pollution and compaitable dust suppression measures not quantified.
ix. Occupational health check up- Summary of findings of health test reports for new joinees and periodical reports for existing workers is not provided. Sample Test report of sample employees is not attached.

x. CTE / CTO - No reference about grant and validity of same described properly. Evidence also not given.

xi. Name of News paper publication etc. and uploading of granted EC on company website - No evidence provided.

xii. Monitoring report- Inadequate description given in text about sampling locations, monitoring findings. No reference in text about monitoring report attached.

xiii. Catch pit/ settling tank and garland drain- Specification w.r.t. their no. location, numbers and dimensions not described. Evidence also not provided.

xiv. Environment management cell – organogram not given.

xv. Submission of 6 monthly compliance report on due dates - No evidence provided.

xvi. Evidence regarding copy of EC letter granted and submitted to concerned panchayat and local NGO's is not provided.

Member Secretary, SEAC will seek clarification and details with evidence from the Project Authorities.

The replies so received will be further examined.

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Day 2 :29th October, 2026 [Thursday]

A. **Letter no. TS/ENV/95/2026, dated 14.10.2026 from Shri Hari Kishore Garikapati, Vice President & Factory Manager, Jojobera Cement Plant w.r.t. Grinding Unit of M/s Nuvoco Vistas Corp. Ltd. (Formerly Lafarge India Ltd.) and 1x30 MW Captive Power Plant located at Village :Jojobera, Rahargora, Jamshedpur, East Singhbhum, Jharkhand.**

The status report of Certified Compliance Report (CCR) of the said project has been forwarded by Regional Office, Ranchi, MoEF&CC, Govt. of India to SEIAA, Jharkhand vide letter F. No. 103-227/09/EPE/271, dated 22.05.2026 receipt via e-mail dated 22.05.2026. Wherein, many of the conditions of EC has been partially complied or not complied.

The Member Secretary, SEAC vide letter no. 108, dated 08.10.2026 has asked the PAs to provide Action Taken Report (ATR) for compliance of the conditions which are stated to be partially complied or not complied as per the CCR issued by Regional Office, Ranchi, MoEF&CC, Govt. of India vide letter F. No. 103-227/09/EPE/271, dated 22.05.2026.

The PAs has submitted the ATR to Regional Office, Ranchi, MoEF&CC, Govt. of India with a copy to SEAC, Jharkhand.

During the meeting the PAs were asked to obtain the Review Report from Regional Office, Ranchi, MoEF&CC, Govt. of India, provided status of the compliance of the conditions of EC after submitting the ATR. The PAs vide ref. no. TS/ENV/95/2026, dated 29.10.2026has provided assurance that Review Report shall be submitted to SEIAA / SEAC within one month.

Hence, the matter will be taken up for consideration after submission of Review Report of Regional Office, Ranchi, MoEF&CC, Govt. of India.

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B. **Consideration of proposals :**

1. **Ordinary Soil Mining of M/s J. Kishan II Bricks (Prop. : Shri Sabir Hussain), Village : Madhupur, Thana : Barharwa, Distt.: Sahibganj, Jharkhand (0.874 Ha).**

   (Proposal no.: SIA/JH/MIN/587681 /2026)

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

   This is a new project which has been taken for appraisal on 29.10.2026.

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

   Application for Environmental Clearance (EC).
   EC Application for: Proposed Capacity-1,200 cum. of soil/Annum
   Project and Location Details:

Sl. NO.	Parameter		Details	
1.	Project Name	:	Ordinary soil Mining	
2.	Lessee:	:	M/S J. KishanIIBricks, Proprietor: Shri Sabir Hussain	
3.	Lessee Address	:	At Mauza- Madhupur, Thana – Barharwa, District- Sahibganj, Jharkhand.	
4.	Mine Lease Area	:	0.874ha	Acres-2.16Acre
5.	Type of Land	:	Non-Forest – Raiyati Land	
6.	Project Cost	:	RS- 23.552Lakh	
7.	EMP Budget	:	Capital: RS –7.472Lakh	Recurring: RS – 3.42Lakh
8.	New or Expansion	:	New	
9.	Mineable	:	14,381 CUM	

	Reserves		
10.	Mine Life	:	10 years only
11.	Man power	:	10
12.	Water Requirement	:	3.392 KLD (Drinking: 0.150 KLD, Dust Suppression:1.520KLD, Plantation:1.722KLD)
13.	Water Source	:	Tube well of nearby Villages
14.	DG Set /power	:	-
15.	Crusher	:	No crusher
16.	Nearest Water Body	:	Nearest ponds is present within a distance of 48 m in the East direction.(EMP Submitted)
17.	Nearest Habitation	:	Few houses ispresent within a distance of 112 m from the lease area in North direction.(EMP Submitted)
18.	Nearest Railway Station	:	Bonidanga Railway Station is Located at an aerial distance of approximately 4.24 km in the south-west (SW) direction from the project site.
19.	Nearest Airport	:	Deoghar airport is located at an aerial distance of 123.63 km in south-western direction.
20.	Nearest Forest	:	Divisional Forest Officer,Sahibganj, vide memo no.-544, Dated-18.03.2026 certified that the distance of reserved Protected/forest is at 662 m from proposed project site.
21.	Road & Highways	:	The distance of approach road is approx. 380 m after that it connects to village road.
22.	Approach road	:	Distance of Approach Road 380 m.
23.	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	Udhwa Bird Sanctuary is located at a distance of approx. 45.46 km in N direction.

CO-ORDINATES

Point No.	**Toposheet:**G45V13	
Sl. No.	**Latitude**	**Longitude**
1	24°50'33.95894172"N	87°50'46.61122536"E
2	24°50'34.63366344"N	87°50'46.62450736"E
3	24°50'34.66906873"N	87°50'46.75167565"E
4	24°50'35.25565106"N	87°50'46.76392734"E
5	24°50'35.47687505"N	87°50'46.87739246"E
6	24°50'35.59007604"N	87°50'47.08286933"E
7	24°50'35.56845437"N	87°50'47.66927053"E

8	24°50'35.43006977"N	87°50'48.41028570"E
9	24°50'35.32532496"N	87°50'49.13481636"E
10	24°50'35.22279740"N	87°50'49.19845518"E
11	24°50'35.10760038"N	87°50'49.48008195"E
12	24°50'35.09313909"N	87°50'49.87936757"E
13	24°50'35.15070044"N	87°50'50.21564772"E
14	24°50'34.98830851"N	87°50'50.61810508"E
15	24°50'34.89755880"N	87°50'51.02522566"E
16	24°50'34.74941527"N	87°50'51.38531480"E
17	24°50'34.17836623 "N	87°50'51.36796482"E
18	24°50'34.10779996"N	87°50'51.55242401"E
19	24°50'33.20865017 "N	87°50'51.54143231"E
20	24°50'32.41929213 "N	87°50'51.49697537"E
21	24°50'32.27415618"N	87°50'50.83147905"E
22	24°50'32.44484471"N	87°50'50.35221416"E
23	24°50'33.10681351"N	87°50'49.36974695"E
24	24°50'33.26631719"N	87°50'48.71838345"E
25	24°50'33.24421961 "N	87°50'48.45682227"E
26	24°50'33.68717117"N	87°50'48.49377910"E
27	24°50'33.71648561"N	87°50'48.15584685"E
28	24°50'33.87860893"N	87°50'47.50549740"E
29	24°50'33.85585592"N	87°50'47.10585271"E
30	24°50'33.94415402"N	87°50'46.88655908"E

LAND DETAILS

Khata no.	Plot no.
22	29

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Lease agreement executed with land owner.

2	CO	:	The CO, Barharwa, Sahibganj vide letter no. 429/Ra., dated 08.05.2026 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan& Register II.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 1152/M, dated 20.08.2026 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 vide letter no. 734, dated 11.04.2026 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. 544, dated 18.03.2026 certified that the distance of notified forest is 662 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 1150/M, dated 20.08.2026 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 195).
7	Gram Sabha	:	Gram Sabha conducted on 27.01.2026.
8	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1070/M, dated 28.07.2026.
9	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	:	Opencast Manual Mining method	
2	Quarry Area	:	0.8323 ha	Life of Mine – 10 Years
3	Waste Generation	:	0.0cum	
4	Stripping Ratio	:	0:0	
5	Working Days	:	200	
6	Benches: size & No	:	--	
7	Elevation of Mine	:	31m AMSL to 30 m AMSL	
8	Ground Level Elevation	:	30 m AMSL	
9	Ultimate Working Depth	:	28 mAMSL	
10	Ground water level	:	Pre monsoon-8 m AMSL/23 mbgl Post monsoon- 13 m AMSL/ 18 mbgl	
11	Topography of Mine	:	Area represents Plain to gently undulating terrain topography	
12	Explosive Requirement	:	--	
13	Diesel/Fuel	:	--	

	requirement		

Production Details

Year	Production of Soil in Cum (Volume)
1st	1,200
2nd	1,200
3rd	1,200
4th	1,200
5th	1,200
Total	**6,000**

Land use:

Sl. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha)	Proposed Land use for current plan period (Ha)	Land at conceptual period. (Ha)	Area to be converted in the conceptual period (Ha)
1	Mining activity	0	0.367	0.8323	Cultivation Land
2	Safety zone	0	0.0417	0.0417	Plantation
3	Unutilized	0.874	0.4653	0	-
Total		**0.874**	**0.874**	**0.874**	-

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.0417	67	1600 Tree per Hectare	1st Year	Arjun, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Mango etc.
Length of Approach Road Area (m.)	380 m	507	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		**574**			

- 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

The top soil of depth 0.2 m and volume 1749 cum. Will be used for plantation purpose in the berm area and along the approach road.

EMP Cost-

Particulars	Capital(Rs.)	Recurring(Rs.)
574Tree Plantation @Rs.300 per Tree for planting & @Rs.100 per tree for maintenance	1, 72, 200	57, 400
Water Tanker @Rs. 500 per Tanker for Drinking (0.150) Dust Suppression (1.520 KLD) & Horticulture (1.722 KLD) Total water requirement- 3.392 KLD 3.392 KLD X 200 Days = 678.4 KL/ year 678.4 KLD / 4 KLD = 170 Tankers	0	85, 000
Environment Monitoring & Compliance	0	50, 000
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 (2% of project cost)	4,25,000	1, 00, 000
To prevent the impact of mining activities on water body, retaining wall will be constructed	1, 50, 000	50,000
Total	**7,47,200**	**3, 42, 000**

Project cost

Sl. No.	Head	Project Cost Rs. in Lakhs	Recurring Cost Rs. In Lakh
1.	Land Expenses & Other	10.00	1.0
2.	Temporary structures	0.75	0.50
3.	Manual Tools	0.33	--
4.	Operational Cost (Wages, Salary etc.)	--	2.00
5.	EMP	7.472	3.42
6.	Miscellaneous	1.00	--
7.	Statutory Clearance	4.00	--

Total	23.552	6.92

Environment MonitoringProgramme:

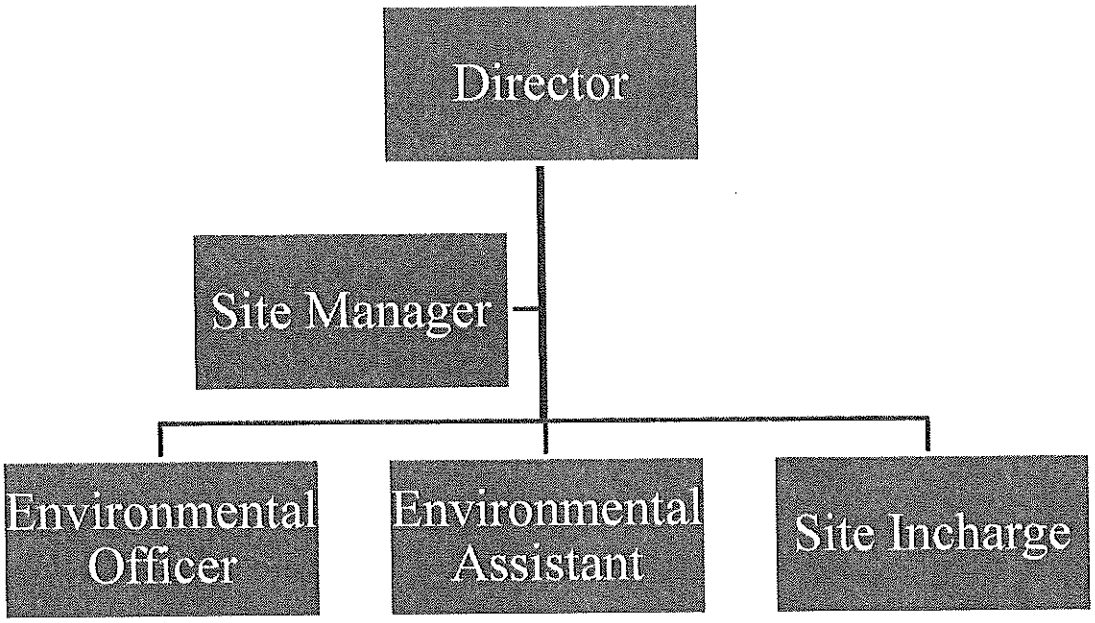
S. No.	Description	No. Monitoring Stations	Duration
1	Air	4 Stations	6 Monthly
2	Soil	2 Stations	6 Monthly
3	Surface Water	2 Stations	6 Monthly
4	Ground Water	2 Stations	6 Monthly
5	Noise	4 Stations	6 Monthly

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The top soil of depth 0.2 m and volume 1749 cum. Will be used for plantation purpose in the berm area and along the approach road.
Air Quality Management	• **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	• **Sewage** from rest shelters will be treated through **septic tank–soak pit systems.**
Noise Quality Management	• **Mining activities** will be restricted to daytime. • **Greenbelt development** around the lease boundary to attenuate noise propagation.
Soil Quality Management	• **Topsoil** will be carefully removed and stored separately for future use in **plantation and reclamation.** • 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	▪ **Accidents due vehicles.** ▪ **Accidents at loading point.**
Health	Health hazards should be interpreted as being harmful dust and noise

Hazards	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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.
Additional EMP for Habitation	▪ Nearest habitation: About 112 m north of the lease area; another habitation is about 160 m southwest, both within 500 m. ▪ Mining Method: Ordinary soil mining; no blasting will be carried out. ▪ Water Protection: Groundwater will not be intersected. Retaining walls, garland drains and settling ponds will control surface runoff. ▪ Noise & Vibration: Mining will be restricted to daytime; plantation, acoustic barriers and well-maintained machinery will minimize noise. ▪ Dust Control: Haul roads will be regularly watered using sprinklers; no crusher or conveyor is proposed within the lease. ▪ Agriculture: Measures will prevent dust deposition, water pollution and damage to agricultural land. ▪ Transportation: Mineral transport will avoid inhabited areas; road maintenance, water sprinkling and speed control will be followed. ▪ Village Infrastructure: No existing footpaths, roads or public utilities will be altered or rerouted. ▪ CSR: Need-based CSR activities will be undertaken; no R&R/resettlement issue arises as no village is within the lease area. ▪ Additional Budget: ₹5.00 lakh allocated for road maintenance, noise-control equipment and allied measures, with 10% as recurring annual cost.
Additional EMP for Water body	▪ Mining Depth: Up to 2 m; groundwater table will not be intersected. ▪ Surface Water: Nearby ponds are present; a 326 m retaining wall

	will control runoff and siltation. ▪ Air Quality: Water sprinkling, wet drilling, controlled blasting, vehicle maintenance and 20 km/h speed limit will control dust and emissions. ▪ Noise: Daytime operation, controlled blasting, equipment maintenance, greenbelt and acoustic barriers will reduce noise. ▪ Soil: Topsoil will be conserved and reused for reclamation and greenbelt development; oil/chemical contamination will be prevented. ▪ Biodiversity: Tree cutting and habitat disturbance will be minimized, with ecological assessment and post-mining restoration. ▪ EMP Budget: ₹1.50 lakh capital + ₹0.50 lakh recurring for retaining-wall/environmental measures.

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 Ordinary Soil Mining of M/s J. Kishan II Bricks (Prop. : Shri Sabir Hussain), Village : Madhupur, Thana :Barharwa, Distt.: Sahibganj, Jharkhand (0.874 Ha)is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I along with following specific conditions :

I. This proposal was forwarded through PARIVESH Portal to Jharkhand State Pollution Control Board (JSPCB) for providing comments / Environmental Safeguards. The proposal was returned to SEAC via same portal without providing comments / Environmental Safeguards. Hence in compliance of OM File No. Q-15012/2/2022-CPW-Part(1)/e-240741, dated 14.01.2025 and File No. Q-15012/2/2022-CPW9Part-I)/e-231973, dated 08.10.2025, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board.
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. **Tintidih Stone Deposit of Shri Vishnu Upadhayay, Village :Tintiidh, Anchal : Rajnagar, Distt. :Saraikela-Kharsawan, Jharkhand (2.55 Ha).**

(Proposal no.: SIA/JH/MIN/588303/2026)

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

This is a new project which has been taken for appraisal on 29.10.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity –2,70,389 Tonnes per Year / 1,00,144 Cum. (MAX.).

Project and Location Details:

Sl. No.	Parameter	:	Details	
1	Project Name	:	Tintidih Stone Deposit	
2	Applicant	:	Proprietor- Shri Vishnu Upadhayay	
3	Lease Address	:	Village – Tintidih, Anchal- Rajnagar, District- Saraikela-Kharsawan, Jharkhand.	
4	Lease Area	:	6.30 Acre	Acres- 2.55 Ha
5	Cluster Details	:	NA	
6	Type of Land	:	Non-Forest Raiyati Land	
7	Project Cost	:	Rs. 121Lakhs	
8	EMP Budget	:	Capital: Rs. 19.916 lakhs	Recurring: Rs. 7.9738 Lakh / year
9	New or Expansion	:	New	
10	Mineable Reserves	:	cum.:9, 54, 608 cum	Tonnes: 25, 77, 440 tones
11	Mine Life	:	10 years	
12	Man power	:	24	
13	Water Requirement	:	10.796 KLD {Manpower (24 nos.)- 0.360 KLD, Plantation (3172 nos.)- 9.516 KLD, Dust Suppression- 0.920 KLD}	
14	Water Source	:	By authorised hired water tankers	
15	DG Set / power	:	60 KVA DG	
16	Crusher	:	No.	
17	Nearest Water Body	:	Nearest water body is Garra Nadi which is present at a distance of 330 m in the E direction. (EMP submitted)	
18	Nearest Habitation	:	Fewhabitation is present at a distance of 637 m in NW direction.	
19	Nearest Rail Station	:	Haludpukur Railway Station is located at an aerial distance of about 11.3 km in the South-Eastern direction.	
20	Nearest Air Port	:	Birsa Munda (Ranchi) Airport is at aerial distance of 104.38 km in NW direction	
21	Nearest Forest	:	Divisional Forest Officer, Saraikela, vide memo no.-1551, Dated- 20.06.2025 certified that the distance of reserved Protected/forest is more than 250 m from proposed project site.	
22	Road & Highways	:	The NH-220 Chaibasa-Hata road is 3.5 km away from the applied lease area in southern side. The applied lease area is easily approachable from village road.	
23	Approach Road	:	The distance of Approach Road is 230 m.	
24	Distance of nearest ESZ of Wildlife		DFO Dalma Elephant project, Jamshedpur, Letter no. - 1435 Dated- 17.08.2026 certified that the proposed project site is outside Eco Sensitive Zone of Sighbhum Elephant Reserves.	

	Sanctuary or National Park		Dalma Wildlife Sanctuary is located at a distance of 27.12 km.

CO-ORDINATES

Point Name	Latitude	Longitude
1	22° 39' 43.343" N	86° 3' 27.450" E
2	22° 39' 42.822" N	86° 3' 28.849" E
3	22° 39' 42.692" N	86° 3' 31.869" E
4	22° 39' 41.713" N	86° 3' 31.750" E
5	22° 39' 40.847" N	86° 3' 33.241" E
6	22° 39' 38.651" N	86° 3' 33.804" E
7	22° 39' 38.121" N	86° 3' 33.081" E
8	22° 39' 38.107" N	86° 3' 30.781" E
9	22° 39' 36.906" N	86° 3' 30.579" E
10	22° 39' 37.077" N	86° 3' 28.852" E
11	22° 39' 39.336" N	86° 3' 28.771" E
12	22° 39' 39.427" N	86° 3' 27.933" E
13	22° 39' 40.172" N	86° 3' 27.949" E
14	22° 39' 40.904" N	86° 3' 25.854" E

LAND DETAILS

Khata no.	Plot no.
111, 51, 18, 1, 116, 120, 19, 132, 47, 82	163, 172, 176, 177, 184, 183, 178, 180, 179, 173, 174, 175, 185, 188, 186, 187, 241 & 171

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Saraikela-Kharsawan vide letter no. 769/M, dated 20.06.2026.
2	CO	:	The CO, Rajnagar vide letter no. 329, dated 27.03.2025 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 KMLthatSeasonal Nala exists at a distance of 330meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Saraikela-Kharsawan vide letter no. 906/M, dated 17.07.2026 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	Deputy Conservator of Forest & Field Director, Elephant Project,

			Jamshedpur vide letter no. 1435, dated 17.08.2026 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Saraikela Forest Division, Saraikela vide letter no. 1062, dated 15.07.2026certified that the distance of notified forest is 03 KM from proposed project site.
6	DSR	:	The DMO, Saraikela-Kharsawan has certified vide memo no. 938/M, dated 25.07.2026 that this project is mentioned in approved DSR of Saraikela-Kharsawan District as a potential area (Page no. 13, Sl. no. 742).
7	Gram Sabha	:	Gram Sabha conducted on 20.09.2025.
8	Mine Plan Approval	:	Approved by DMO, Saraikela-Kharsawan vide Letter No. 903/Mining, dated 17.07.2026.
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	:	1.994 Ha
3	Waste Generation	:	34,365 cum of OB
4	Stripping Ratio	:	1:0.17
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	198 m to 191 m AMSL
8	Ground Level Elevation	:	191 m AMSL
9	Ultimate Working Depth	:	140 m AMSL
10	Water Table	:	132 m AMSL
11	Ground water level	:	Pre- monsoon- 128 m AMSL/ 70mbgl Post- monsoon- 132 m AMSL/ 66mbgl
12	Topography of Mine	:	Area represents a small hillock with highest elevation
13	Explosive Requirement	:	106.31 Kg/day
14	Diesel/Fuel requirement	:	HSD – 356.46 liters / day (106.93 KL/year)

Production Details

Year	Production of Stone		Removal of OB
	In cum	In tones	Cum
1st	81,686	2,20,552	33, 495
2nd	82,926	2,23,899	870

3rd	84,165	2,27,246	0
4th	92,844	2,50,677	0
5th	1,00,144	2,70,389	0
Total	**4,41,764**	**11,92,763**	**34, 365**

Land Use

Land use Category	Existing land use pattern in (Ha.)	At the End of plan period(Ha.)	At conceptual Stage (Ha)
Quarry	Nil	1.256	1.994 (0.110 ha backfilled, 1.404 ha water reservoir, 0.480 ha dead benches)
Waste Dump	Nil	0.439	Nil (merged with quarry area)
Road	Nil	0.005	Nil (merged with quarry area)
Crusher	0.00	0.000	0.000
Safety Barrier	Nil	0.556	0.556
Total Utilized area	**0.00**	**2.256**	**2.550**
Unused Area	2.550	0.294	0.000
Total Lease Area	**2.550**	**2.550**	**2.550**

Green Belt Development

Location	Area to be Covered (Ha)	No. of Plants	Remark	Species of Plant
Approach Road	230 m	307	2m X 2 m spacing in two rows both side	**Gulmohar, Neem, Bargad, Amaltas, Pipal, Teak, Arjuna, Kadam etc.**
Safety Zone	0.556 ha	1390	2500 Tree per Hectare	
Backfill	0.110 ha	275		
Dead Benches	0.480 ha	1200		
Total	**1.146 ha**	**3172**		

Note-3172 trees proposed for plantation, out of which 10% (i.e. 317 trees) plantation will be carried out 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)	25.00	--
2.	Cost of Infrastructure	5.00	0.50
3.	Mining Machineries owned by applicant a. Compressor-01 b. Diesel Pump-01 c. D.G. Set-01	65.00	--
	Mining Machineries on hired basis (Excavator– 02, Water Sprinkler -01, Dumper -03)	--	20.00
4.	Lease Agreement (lump-sum)	5.0	--
5.	Statutory Clearance & Others	10.0	--
6.	Contingency	11.00	--
Total		**121.00**	**20.50**
Budget for Environment Management		**19.916**	**7.9738**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Sl. No.	Particulars	Capital Cost in Rs.	Recurring Cost in Rs. per year
1	Water facility for Dust Suppression, watering plants etc. (Rs. 500 per Tanker) 10.796 x 300 = 3238.8 KL/Year 3238.8/4 = 810 Tankers	--	4, 05,000
2	Plantation 307X 800 = Rs 2,45,600 (Gabion Plantation along approach road) 2865 X 400 = Rs 11,46,000 (Plantation within lease area), (also includes Fertilizer, Pesticides, Maintenance)	13,91,600	1, 39,160
3	Fencing	1,00,000	--

4	EMP cost (Water body)	5,00,000	50,000
5	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		**19,91, 600**	**7, 97, 380**

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

Sl. 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

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management:	• Solid waste management is important from both aesthetic and environmental points of view and will be managed as per the Solid Waste Management Rules, 2016. • The O.B. dump area will accommodate 34, 365 cum of overburden during the working plan period. • After completion of the working plan, the generated O.B. will be backfilled into the stone quarry faces. • Part of the O.B. will be used for haul road and village road maintenance. • The remaining O.B. will be utilized for plantation activities. • No hazardous or other solid waste generation is envisaged from the stone mining activities.
Air Quality Management:	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable

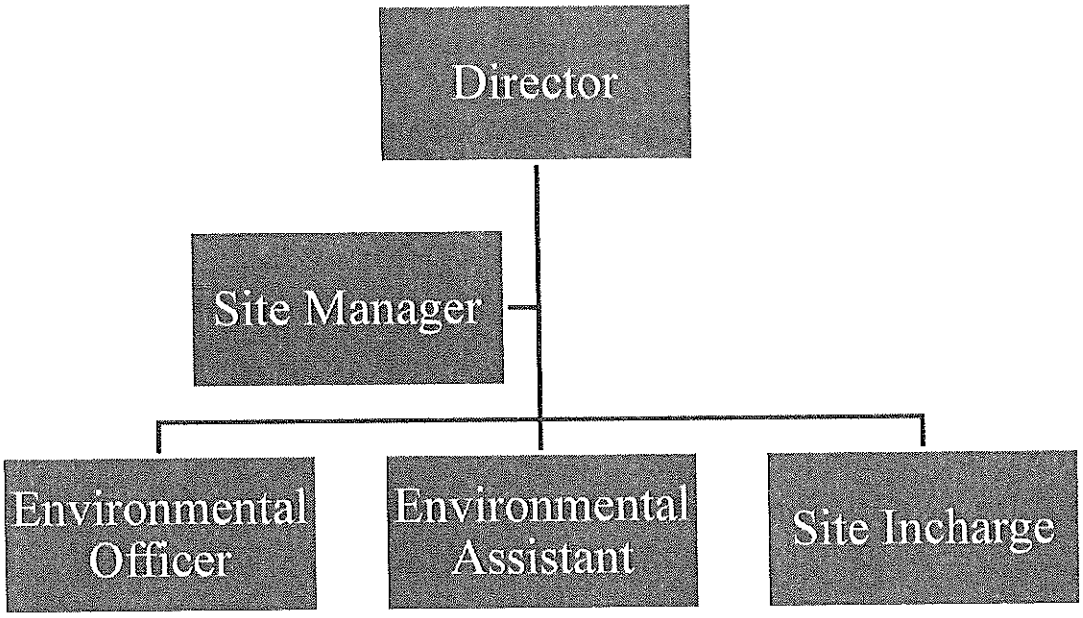
	weather conditions. • Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
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 andoil 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 &	• Periodic monitoring of air, water (ground & surface), noise, and soil

Reporting:	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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.
Additional EMP for Water body	▪ Groundwater: Mining will remain above the groundwater table; groundwater is not expected to be affected. ▪ Surface Water: Garra Nadi is about 330 m east and a pond about 490 m southwest. ▪ Runoff Control: 730 m garland drain, 584 m retaining wall and 60 m^2 desilting pond will control runoff and sediment. ▪ Water Management: Collected water will be reused for dust

	suppression and horticulture, supporting the Zero Liquid Discharge (ZLD) approach. ▪ Air Quality: Water sprinkling, wet drilling, controlled blasting, vehicle maintenance and 20 km/h speed limit will control dust and emissions. ▪ Noise: Daytime mining, controlled blasting, greenbelt, equipment maintenance and acoustic barriers will reduce noise. ▪ Soil: Topsoil will be conserved and reused for reclamation/plantation; soil contamination from oil and grease will be prevented. ▪ Biodiversity: Vegetation clearing will be minimized, sensitive habitats protected, and post-mining restoration undertaken. ▪ EMP Budget: ₹5.00 lakh capital + ₹0.50 lakh recurring.

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 Tintidih Stone Deposit of Shri Vishnu Upadhayay, Village :Tintiidh, Anchal : Rajnagar, Distt. :Saraikela-Kharsawan, Jharkhand (2.55 Ha)is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I along with following specific conditions :

I. This proposal was forwarded through PARIVESH Portal to Jharkhand State Pollution Control Board (JSPCB) for providing comments / Environmental Safeguards. The proposal was returned to SEAC via same portal without providing comments / Environmental Safeguards. Hence in compliance of OM File No. Q-15012/2/2022-CPW-Part(1)/e-240741, dated 14.01.2025 and File No. Q-15012/2/2022-CPW9Part-I)/e-231973, dated 08.10.2025, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board.
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 "*EkPed Ma KeNaam*" 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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3. Koltikar Stone Mine of M/s Maa Bhawani Stone Works (Prop. : Shri Sudhanshu Ranjan), Village :Koltikar, Thana :Chatra, Distt. :Chatra, Jharkhand (1.40 Ha).

(Proposal no.: SIA/JH/MIN /591112/2026)

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

This is a new project which has been taken for appraisal on 29.10.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity –40,779 cum/annum or 1, 14, 181 TPA.

Project and Location Details:

Sl. No.	Parameter	:	Details	
1	Project Name	:	KoltikarStone Mine	
2	Applicant	:	M/s Maa Bhawani Stone Works Proprietor: Shri Sudhanshu Ranjan	
3	Lease Address	:	Mouza– Koltikar, Thana- Chatra, Thana no.-255, District- Chatra, State- Jharkhand.	
4	Lease Area	:	3.46 Acre	Acres- 1.40 Ha
5	Cluster Details	:	NA	
6	Type of Land	:	Non-Forest Raiyati Land	
7	Project Cost	:	Rs. 116.00Lakhs	
8	EMP Budget	:	Capital: Rs. 19.352 lakhs	Recurring: Rs. 6.4824 Lakh / year
9	New or Expansion	:	New	
10	Mineable Reserves	:	cum.:3, 80, 760cum	Tonnes: 10, 66, 128 tones
11	Mine Life	:	10 years	
12	Man power	:	22	
13	Water Requirement	:	6.967 KLD {Manpower (22 nos.)- 0.330 KLD, Plantation (1759 nos.)- 5.277 KLD, Dust Suppression- 1.360 KLD}	
14	Water Source	:	By authorised hired water tankers	
15	DG Set / power	:	60 KVA DG	
16	Crusher	:	No.	
17	Nearest Water Body	:	Nearest water body is a canal at a distance of 50 m in the N direction and a distributary of the Heru River is present at a minimum distance of 190 m in the NE direction.(EMP Submitted)	
18	Nearest Habitation	:	Nearest habitation is located at a distance of about 390 m in NE direction. (EMP Submitted)	
+19	Nearest Rail Station	:	Kathautia Railway Station is located at an aerial distance of about 31 km in the Eastern direction.	
20	Nearest Air Port	:	Birsa Munda (Ranchi) Airport is at aerial distance of 101 km in SE direction.	
21	Nearest Forest	:	Divisional Forest Officer, Chatra, vide memo no.-1380, Dated- 05.06.2026 certified that the distance of reserved Protected/forest is at a distance of 515 m from proposed project site.	
22	Road & Highways	:	The approach road length is about 340 m, after which it connects to the village road.	
23	Approach Road	:	The distance of Approach Road is 340 m.	
24	Distance of nearest ESZ of Wildlife Sanctuary or National Park		DFO Wildlife Hazaribagh, Letter no. - 909 Dated- 28.05.2025 certified that the proposed project site is outside Eco Sensitive Zone of Lawalong Wildlife Sanctuary. Lawalong Wildlife Sanctuary is located at a distance of 26.05 km.	

CO-ORDINATES

Point Name	Latitude	Longitude
1	24°9'19.98830"N	84°55'9.70651"E
2	24°9'19.73475"N	84°55'9.57751"E
3	24°9'19.48043"N	84°55'9.63834"E
4	24°9'19.17158"N	84°55'9.54020"E
5	24°9'18.78324"N	84°55'9.44016"E
6	24°9'18.43371"N	84°55'9.40157"E
7	24°9'18.10007"N	84°55'9.36280"E
8	24°9'17.76888"N	84°55'9.22503"E
9	24°9'17.34099"N	84°55'9.01042"E
10	24°9'17.23462"N	84°55'8.76138"E
11	24°9'17.04606"N	84°55'8.52823"E
12	24°9'16.84541"N	84°55'8.21559"E
13	24°9'16.70308"N	84°55'7.89899"E
14	24°9'16.84662"N	84°55'7.24905"E
15	24°9'16.97883"N	84°55'6.86405"E
16	24°9'17.35278"N	84°55'7.03378"E
17	24°9'17.79472"N	84°55'7.18695"E
18	24°9'18.38775"N	84°55'7.38566"E
19	24°9'18.90523"N	84°55'7.58437"E
20	24°9'19.39628"N	84°55'7.77065"E
21	24°9'19.45742"N	84°55'7.50519"E
22	24°9'18.89673"N	84°55'7.25940"E
23	24°9'18.40097"N	84°55'7.05888"E
24	24°9'17.84118"N	84°55'6.81478"E
25	24°9'18.12743"N	84°55'6.11069"E
26	24°9'18.44901"N	84°55'5.32758"E
27	24°9'18.77402"N	84°55'4.39986"E
28	24°9'19.01593"N	84°55'3.58067"E
29	24°9'18.77705"N	84°55'3.47491"E
30	24°9'18.46298"N	84°55'3.39691"E
31	24°9'18.72600"N	84°55'2.72205"E
32	24°9'19.01371"N	84°55'2.06800"E
33	24°9'19.61940"N	84°55'2.29973"E
34	24°9'20.26258"N	84°55'2.49588"E
35	24°9'20.06532"N	84°55'3.24256"E
36	24°9'19.91376"N	84°55'3.86688"E
37	24°9'20.39347"N	84°55'4.28500"E
38	24°9'20.67676"N	84°55'4.36779"E
39	24°9'20.49032"N	84°55'4.88126"E
40	24°9'20.29507"N	84°55'5.42273"E
41	24°9'20.12906"N	84°55'5.88707"E
42	24°9'20.44623"N	84°55'6.05334"E
43	24°9'20.76340"N	84°55'6.21960"E
44	24°9'20.65208"N	84°55'6.72137"E
45	24°9'20.48222"N	84°55'7.50510"E

46	24°9'20.30900"N	84°55'8.28613"E
47	24°9'20.14921"N	84°55'8.99746"E

LAND DETAILS

Khata no.	Plot no.
01	188 (P), 194, 196 & 168 (P)

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office,Chatra vide letter no. 593/Khanan dated 02.07.2026.
2	CO	:	The CO, Chatra vide letter no. 393, dated 06.05.2025 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan& Register II.During the appraisal it was seen from the KMLthatfew houses exist at a distance of 390 meters, Canal exist at a distance of 50 meters and Seasonal Nala exists at a distance of 190 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Chatravide memo no. 758/Khanan, dated 11.08.2026 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	Divisional Forest Officer, Wildlife Division, Hazaribag vide letter no. 909, dated 28.05.2025 certified that the proposed project site is outside Eco Sensitive Zone of Lawalong Wildlife Sanctuary.
5	DFO Territorial	:	DFO, ChatraSouth Forest Division vide letter no. 1380, dated 05.06.2026 certified that the distance of protected / reserved forest is 515 meters from proposed project site.
6	DSR	:	The DMO, Chatra has certified vide memo no. 759/Khanan, dated 11.08.2026 that this project is mentioned in approved DSR of Chatra District as a Potential Area (Page no. 87).
7	Gram Sabha	:	BDO, Chatravide letter no. 852, dated 05.12.2025 informed that Gram Sabha conducted on 31.10.2025.
8	Mine Plan Approval	:	Approved by DMO, Chatra vide Letter No. 743/Khanan, dated 07.08.2026.
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	:	0.834 Ha
3.	Waste Generation	:	33,687 cum of OB
4.	Stripping Ratio	:	1:0.16
5.	Working Days	:	300
6.	Benches: size & No	:	6m x 6m
7.	Elevation of Mine	:	455 m to 451 m AMSL
8.	Ground Level Elevation	:	451m AMSL
9.	Ultimate Working Depth	:	433 m AMSL
10.	Water Table	:	401 m AMSL
11.	Ground water level	:	Pre monsoon- 395 m AMSL/51 mgbl Post monsoon- 401 m AMSL/57 mgbl
12.	Topography of Mine	:	The area represents a gently sloping land
13.	Explosive Requirement	:	44.352 Kg Nitro mix explosives (04 holes)
14.	Diesel/Fuel requirement	:	HSD – 356.46 liters / day (106.93 KL/year)

Production Details

Year	Production of Stone		Removal of OB
	In cum	In tones	Cum
1st	40,779	1,14,181	15,366
2nd	39,597	1,10,872	13,396
3rd	39,794	1,11,423	4,925
4th	39,794	1,11,423	0
5th	39,794	1,11,423	0
Total	**1,99,758**	**5,59,322**	**33,687**

Land Use

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 plan period (Ha.)	Area to be converted in the conceptual period.
1.	Mining Activities	0	0.436	0.834	Water body

2.	Dead Benches	0	0.000	0.000	-
3.	Dumping	0	0.073	0.000	-
4.	Garland drain	0	0.033	0.033	Water body
5.	Settling Tank	0	0.011	0.011	Water body
6.	Safety Zone	0	0.522	0.522	Plantation
7.	Unutilized	1.40	0.325	0	-
Total		**1.40**	**1.40**	**1.40**	-

Green Belt Development

Location	Area to be Covered (Ha)	No. of Plants	Remark	Species of Plant
Approach Road	340 m	454	2m X 2 m spacing in two rows both side	Mixed plants i.e. Mango, Guava, Saguan, Jackfruit, Gulmohar, Teak, Gamhar, etc. as available in the locality
Dead Benches	0.00	000	2500 Tree per Hectare	
Safety Zone	0.522	1305		
Total	**0.522 Ha**	**1759**		

Note-1759 trees proposed for plantation, out of which 10% (i.e. 176 trees) plantation will be carried out 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)	25.00	--
2.	Cost of Infrastructure	5.00	0.50

3.	Mining Machineries owned by applicant a. Wagon Drill -01 b. Compressor-01 c. Diesel Pump-01 d. D.G. Set-01	65.00	--
	Mining Machineries on hired basis (Excavator– 01, Dumpers- 5)	--	8.00
4.	Lease Agreement (lump-sum)	--	0.65
5.	Statutory Clearance & Others	10.0	--
6.	Contingency	11.00	--
Total		**116.00**	**9.15**
Budget for Environment Management		**19.352**	**6.4824**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Sl. No.	Particulars	Capital Cost in Rs.	Recurring Cost in Rs. per year
1.	Water facility for Dust Suppression, watering plants etc. (Rs. 500 per Tanker) 6.967 x 300 = 2090.1 KL/Year 2090.1/4 = 523 Tankers	--	2,61,500
2.	Plantation 454X 800 = Rs 3,63,200 (Gabion Plantation along approach road) 1305 X 400 = Rs 5,22,000 (Plantation within lease area), (also includes Fertilizer, Pesticides, Maintenance)	8,85,200	88,520
3.	Fencing	1,00,000	--
4.	EMP cost (Habitation & water body)	9,50,000	95,000
5.	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		**19,35,200**	**6,48,240**

<u>Environment Monitoring Plan</u>

Monitoring Parameters and Frequency of Monitoring

Sl. 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

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• Solid waste management is important from both aesthetic and environmental points of view and will be managed as per the Solid Waste Management Rules, 2016. • The top soil of volume 19238 cum will be used for plantation purpose in the berm area and along the approach road. • The O.B. dump area will accommodate 33,687 cum of overburden during the working plan period. • After completion of the working plan, the generated O.B. will be backfilled into the stone quarry faces. • Part of the O.B. will be used for haul road and village road maintenance. • The remaining O.B. will be utilized for plantation activities. • No hazardous or other solid waste generation is envisaged from the stone mining activities.
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 andoil 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 (7.5 m 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,

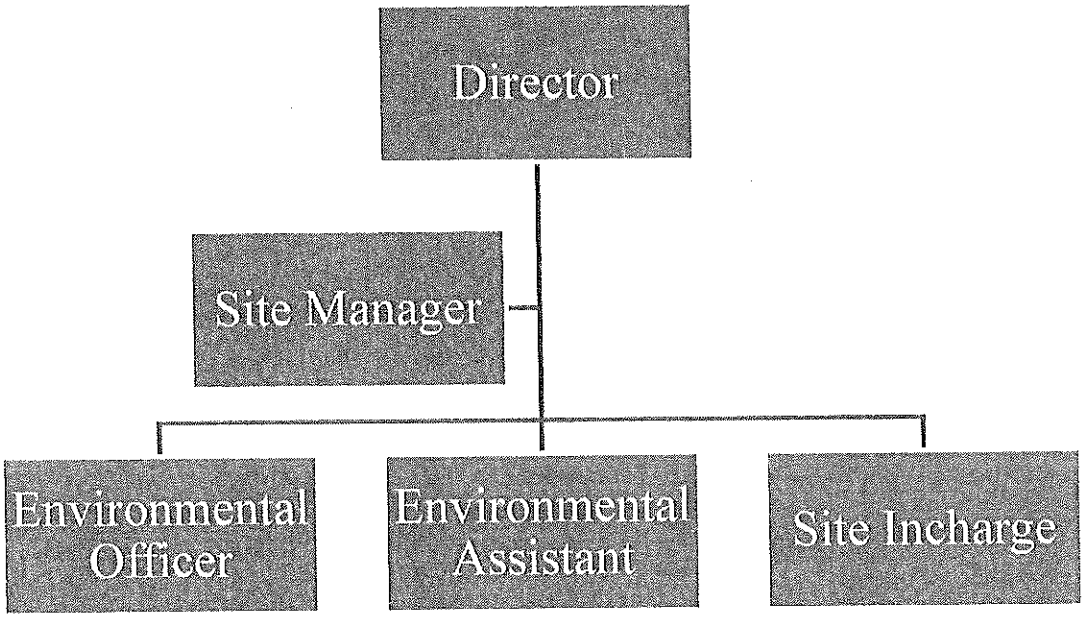
	Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the 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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.
Additional EMP for Habitation	▪ The nearest habitation is located approximately 390 m southeast of the mining lease boundary, with two additional habitations within the 500 m buffer zone. ▪ Best mining practices, garland drains, retaining structures, and sedimentation ponds will be implemented to control runoff and soil erosion.

	▪ Mining will remain above the groundwater table, with groundwater levels monitored half-yearly. Natural water bodies will not be disturbed. ▪ Mining will be restricted to daytime, with appropriate noise, vibration, lighting, and dust-control measures. ▪ Controlled blasting will be carried out as per DGMS guidelines, with necessary precautions to protect nearby habitations. ▪ Haul roads will be regularly watered, and mineral transportation will bypass inhabited areas wherever required. ▪ Agricultural land, grazing areas, and existing village infrastructure will be protected. No resettlement or rehabilitation is anticipated. ▪ CSR activities will be undertaken for the socio-economic development of nearby communities. ▪ The EMP will cover major environmental mitigation measures. An additional budget of ₹5,00,000 has been earmarked, with ₹50,000 per year allocated as recurring expenditure.
Additional EMP for water body	▪ **Groundwater:** The ultimate working depth is 433 m AMSL, remaining at least 23 m above the groundwater table. Therefore, groundwater intersection is not anticipated. ▪ **Surface Water Management:** A canal is located approximately 50 m north of the lease area, and a distributary of the Heru River is about 190 m northeast. Garland drains (718 m), a retaining wall (356 m), and a sedimentation pond (220 m^3 capacity) will be provided to control runoff and sedimentation. Collected water will be reused for dust suppression and plantation, following the Zero Liquid Discharge (ZLD) approach. ▪ **Ambient Air Quality:** Dust emissions will be controlled through water sprinkling, wet drilling, controlled blasting, vehicle speed restrictions of 20 km/h on unpaved roads, and regular maintenance of equipment and vehicles. Greenbelt and avenue plantations will also be developed. ▪ **Noise Management:** Mining operations will be restricted to daytime hours. Controlled blasting, regular equipment maintenance, greenbelt development, speed limits, and acoustic barriers at critical locations will minimize noise and vibration. ▪ **Soil Quality:** Topsoil will be separately stored and conserved for reclamation and plantation. Heavy vehicle movement will be restricted to designated roads and mining areas to prevent soil degradation and contamination. ▪ **Biodiversity Conservation:** Ecologically sensitive areas and tree-covered sites will be avoided wherever possible. Ecological surveys, buffer zones, minimum vegetation clearance, and post-mining habitat restoration will be undertaken. No wildlife corridor has been identified in the project area. ▪ **EMP Budget:** The total capital cost earmarked for environmental

	management is ₹5.00 lakh, with a recurring annual expenditure of ₹0.50 lakh.

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 Koltikar Stone Mine of M/s Maa Bhawani Stone Works (Prop. : Shri Sudhanshu Ranjan), Village :Koltikar, Thana :Chatra, Distt. :Chatra, Jharkhand (1.40 Ha)is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I along with following specific conditions :

I. This proposal was forwarded through PARIVESH Portal to Jharkhand State Pollution Control Board (JSPCB) for providing comments / Environmental Safeguards. The proposal was returned to SEAC via same portal without providing comments / Environmental Safeguards. Hence in compliance of OM File No. Q-15012/2/2022-CPW-Part(1)/e-240741, dated 14.01.2025 and File No. Q-15012/2/2022-CPW9Part-I)/e-231973, dated 08.10.2025, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board.
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 "*EkPed Ma KeNaam*" 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. **Paharpur Stone Deposit of M/s K.B.V. Minerals (Prop. : Shri Vishal Kumar Singh), Village :Paharpur, Tehsil :Giridih, Distt. :Giridih, Jharkhand (2.141 Ha).**

(Proposal no.: SIA/JH/MIN /591205/2026)

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

This is a new project which has been taken for appraisal on 29.10.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity –133950 Cum per year or 361665 Tonnes per year.

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Paharpur Stone Deposit	
2	Lessee:	:	M/S. K.B.V. Minerals Proprietor-Sri Vishal Kumar Singh	
3	Lessee Address	:	At Flat No-7016, Pocket-D-7, Vasant Kunj, South West Delhi	
4	Lease Area	:	2.141 Ha.	5.29 Acre
5	Type of Land	:	Non-Forest Raiyati Land	
6	Project Cost	:	Capital: Rs. 2779080.00	
7	EMP Budget	:	Capital: Rs. 1159700.00	Recurring: Rs 803560.00 per year
8	New or Expansion	:	New	
9	Mineable Reserves	:	1583246 Tonnes	586388 Cum

10	Mine Life	:	5 Years
11	Man power	:	25
12	Water Requirement	:	17.41 KLD
13	Water Source	:	By authorised hired water tankers
14	DG Set / power	:	-
15	Crusher	:	No crusher
16	Nearest Water Body	:	Barakar River (5 km) A seasonal nallah was observed on the KML/satellite map on the eastern side of the proposed project site, at an approximate distance of 146 m from the project site. PP has submitted EMP.
17	Nearest Habitation	:	Based on the KML/satellite imagery, a few houses or civil structures were observed on the southern side of the proposed project site, at an approximate distance of 113 m from the project site. PP has submitted EMP.
18	Nearest Rail Station	:	Jorashank halt Railway Station (6 Km)
19	Nearest Air Port	:	Deoghar Airport (65 Km)
20	Nearest Forest	:	Divisional Forest Officer, Giridih certified that the distance of reserved / protected forest is more than 570 meters from proposed project site.
21	Road & Highways	:	SH-13 Giridih-Jamua (11 Km) & approach is 230m.
22	ESZ/Wildlife Sanctuary/National Park	:	Nearest ESZ/Wildlife Sanctuary/National Park is Parasnath &Topchanchi Wildlife Sanctuary which is situated 27Km away from project site.

CO-ORDINATES

Point	LONGITUDE	LATITUDE
P1	86° 07' 51.7172" E	24° 14' 24.9763" N
P2	86° 07' 52.4352" E	24° 14' 26.4651" N
P3	86° 07' 53.4443" E	24° 14' 25.9619" N
P4	86° 07' 56.0303" E	24° 14' 25.2511" N
P5	86° 07' 55.6167" E	24° 14' 21.5567" N
P6	86° 07' 54.7156" E	24° 14' 21.9317" N
P7	86° 07' 53.1805" E	24° 14' 22.0848" N
P8	86° 07' 52.7624" E	24° 14' 20.6284" N
P9	86° 07' 52.0203" E	24° 14' 20.7256" N
P10	86° 07' 51.8524" E	24° 14' 20.3457" N
P11	86° 07' 50.1011" E	24° 14' 21.6510" N
P12	86° 07' 50.4226" E	24° 14' 22.2487" N
P13	86° 07' 51.6907" E	24° 14' 22.0642" N
P14	86° 07' 51.7187" E	24° 14' 22.0982" N
P15	86° 07' 49.4447" E	24° 14' 23.3061" N
P16	86° 07' 50.6521" E	24° 14' 25.2846" N

LAND DETAILS

Khata no.	Plot no.
31	248, 323 & 324
33	250 (P), 264 & 268
26	261 (P), 262, 263, 267 (P) & 329 (P)
28	325 & 326

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Giridih vide letter no. 487/M dated 20.06.2026.
2	CO	:	The CO, Giridih Sadar vide letter no. 357, dated 19.03.2026 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan& Register II and also mentioned that the 45-50 Habitation and River exists within 500 meter of proposed project site, accordingly PAs has submitted EMP for the same.
3	DMO Cluster	:	DMO, Giridihvide memo no. 538/Khanan, dated 07.07.2026 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	Divisional Forest Officer, Wildlife Division, Hazaribag vide letter no. 2210, dated 08.12.2025 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath &TopchanchiWildlife Sanctuary.
5	DFO Territorial	:	DFO, GiridihEast Forest Division vide letter no. 2993, dated 01.12.2025 certified that the distance of notified forest is 570 meters from proposed project site.
6	DSR	:	The DMO, Giridih has certified vide memo no. 719/Khanan, dated 02.09.2026 that this project is mentioned in approved DSR of Giridih District as a Potential Zone -2.
7	Gram Sabha	:	BDO, Giridih vide letter no. 926, dated 25.03.2026 informed that Gram Sabha conducted on 24.03.2026.
8	Mine Plan Approval	:	Approved by The Assistant Director, Geology, District Geological Office, Bokaro vide Memo No. 144, dated 25.07.2026.
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	:	1.611 Ha.
3	Waste Generation	:	65113 cum
4	Stripping Ratio	:	1:0.04
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m and 10 in numbers
7	Elevation of Mine	:	346 m AMSL to 344 m AMSL
8	Ground Level Elevation	:	344 m AMSL
9	Ultimate Working Depth	:	289 m AMSL
10	Water Table	:	270 m AMSL
11	Topography of Mine	:	Undulating Small hillocks.
12	Explosive Requirement	:	151 kg/day
13	Diesel/Fuel requirement	:	724 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
1st Year	102719	277341	22625	5406	28031
2nd Year	110913	299464	0	5838	5838
3rd Year	116613	314854	2875	6138	9013
4th Year	122194	329923	8750	6431	15181
5th Year	133950	361665	0	7050	7050
Total	**586388**	**1583246**	**34250**	**30863**	**65113**

Land Use Pattern

Land Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At Conceptual period (Ha)
Quarry	NIL	1.611	1.611 (0.151 Ha area shall be backfilled, 0.946 Ha converted in to water reservoir & 0.514 Ha shall be left as dead benches)
Waste Dump	NIL	Nil (comes under quarry)	Nil (comes under quarry)

Road	NIL	Nil (comes under quarry)	Nil (comes under quarry)
Crusher	Nil	0.0	Nil
Safety Zone Plantation	NIL	0.530	0.530
Total	Nil	**2.141**	**2.141**
Unused Area	2.141	0.0	0.0
Total Lease Area	**2.141**		

ENVIRONMENT MANAGEMENT

Green Belt Development

Plantation				
Location	Area (Ha.) or Length (m)	No. of tree	Calculation	Timeline
Safety Zone	0.530	848	1600 tree per hectare & 3 rows	1st Year
Approach Road	230	460	2m X 2m spacing & 2 rows	1st year
Dead Bench	0.514	823	1600 tree per hectare	End of Mine
Backfilled area (level upto surface)	0.151	242	1600 tree per hectare	End of Mine
TOTAL		**2373.00**		
Species: Neem, Peepal, Arjun, Ashoka, Gulmohar, Banyan, Bamboo: - Bombas, Nutans, Toolda, Strictus& other Native Species				

- As per MoEF&CC OM No. F.No. IA3-22/3/2024-IA.III dated 24.07.2024, 10% of the proposed green belt shall be developed under the **"Ek Ped Maa Ke Naam"** plantation campaign.

- 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.
- Plantation on dead benches and on backfilled up area would be done during mine closure phase cost for such plantation is included in budget for mine closure.

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 (in Lakhs) of Project Cost				
Particulars			**Capital**	**Recurring**
Land			0.00	132262.95
Infrastructure			700000.00	0.00
Mining Equipment			0.00	12000000.00
Equipment	***Quantity***	***Rent per year***		
Dumper	4	2000000		
Wagon Drill	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	1	800000		
Excavator	2	800000		
Water Facility for Domestic Purpose "1" KLD (Annual Water Demand "300"KL @4L per Tanker, total number of tankers required ("75") and per tanker cost @Rs. 500)			0.00	37500.00
Statutory Clearances			500000.00	0.00
Mine Closure Cost for Plantation of "1065" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance			309500.00	0.00
Mine Closure Cost for fencing around mine			100000.00	0.00
Environment Management Plan (EMP) Cost			**1159700.00**	**803560.00**
		Total	**2779080.00**	**12973322.95**

Environment Management Budget

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP)		
Particulars	**Capital**	**Recurring**
Plantation of "1308" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	392400.00	65400.00
Water Facility for Horticulture "7.848" KLD & Dust Suppression "8.564" KLD (Annual Water Demand "4923.6"KL @4L per Tanker, total number of tankers required ("1231") and per tanker cost @Rs. 500)	0.00	615500.00
Budgetary provision to prevent impact on Waterbody • Garland Drainage System, Desilting Pond, Retaining Wall, etc. measures to prevent surface-run-off	214100.00	21410.00
Budgetary provision to prevent impact on Habitation • 3m high wall all along project boundary	428200.00	0.00
• Safety Gadgets to manpower engaged in mine	125000.00	1250.00
• HealthCare Camp & Awareness Camp	0.00	50000.00
Environment Monitoring & Compliance	0.00	50000.00
Total	**1159700.00**	**803560.00**

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

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	During plan period, a total of 65113 cum of solid waste will be generated. This solid waste will be stored in internal dump on south side of lease area. At the conceptual stage, all solid waste generated during mining operation will be backfilled.
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

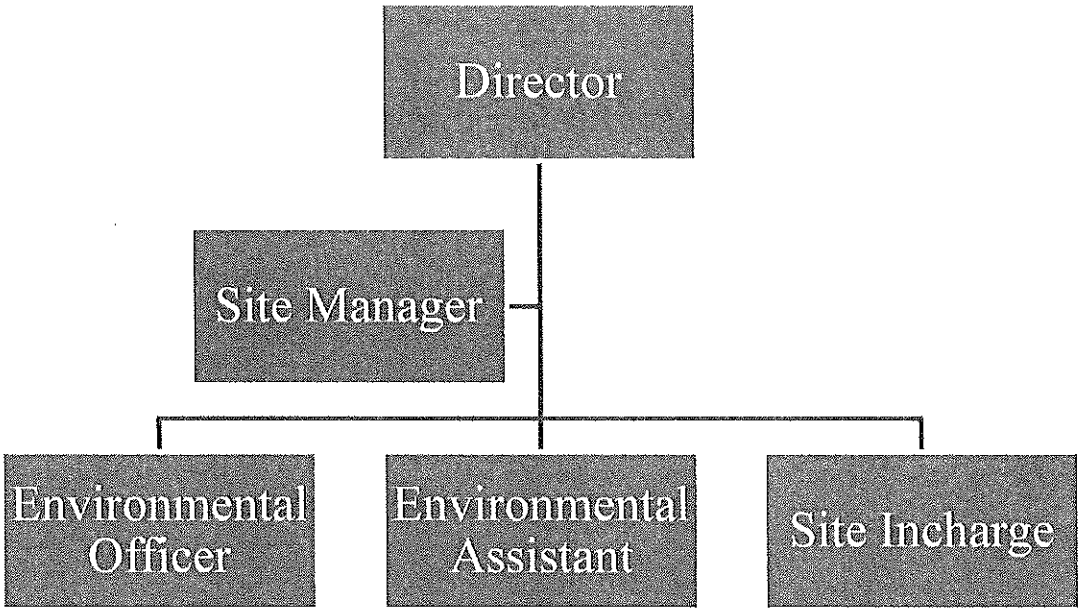
	steps necessary to ensure its safe use. ▪ Proper and safe storage of explosives in approved and Licensed Magazine. ▪ Proper security system to prevent theft/ pilferage, unauthorized entry into Magazine area and checking authorized persons to prevent carrying of match box, lights, mobile phones, cigarette 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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.

1. Waterbody Protection: The EMP submitted by the PP covers measures to prevent adverse impacts on the seasonal nallah located approximately 146 m east of the project site. A garland drain, retaining wall and sedimentation pond shall be provided to collect runoff and settle suspended solids. Regular inspection, cleaning and desilting shall be undertaken, particularly during the monsoon. Plantation along drainage channels and the mine boundary shall help control soil erosion. The collected water shall be reused for dust suppression and

horticulture, avoiding direct discharge into the nallah and supporting the Zero Liquid Discharge (ZLD) approach. The budgetary provision for these measures is Rs. 2,14,100.00/-

2. Habitation Protection: The EMP submitted by the PP covers mitigation measures to prevent adverse impacts on nearby houses/civil structures located approximately 113 m south of the project site. A 3 m high boundary wall shall be constructed along the project boundary to minimize dust dispersion and disturbance. Regular water sprinkling, proper maintenance of mining equipment and controlled mining operations shall be undertaken to minimize dust and noise pollution. Appropriate personal protective equipment (PPE) shall be provided to mine workers, and periodic healthcare and environmental awareness camps shall be organized. Environmental monitoring shall be conducted as required to ensure compliance with prescribed standards. The budgetary provision includes Rs. 4,28,200 for the boundary wall, Rs. 1,25,000 for safety gadgets, and Rs. 50,000 per year for healthcare and awareness camps.

Organizational Structure of Environment Management Cell:



EMP Cell structure

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Undertaking submitted affirming:

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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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5. **Surrender of EC "Modernization cum expansion of Straight Bar & Wire Mill" of M/s Tata Steel Limited, Village : Bara Gamharia, Distt.: Saraikela–Kharsawan, Jharkhand.**

(Proposal no.: SIA/JH/IND1/592550 /2026)

MoEF&CC, Govt. of India vide OM F.No. IA3-22/10/2022-IA.III(E 177258), dated 29.03.2022 has prescribed the procedure to be followed by Project Authority while surrendering the prior Environmental Clearance granted by MoEF&CC / SEIAA.

Accordingly, the Project Authority has been asked to obtain certified closure report from Regional Office, Ranchi, MoEF&CC, Govt. of India.

Hence, this matter will be taken up for consideration after submission of certified closure report from Regional Office, Ranchi, MoEF&CC, Govt. of India.

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A. Consideration of proposals :

1. **ToR for Expansion of the existing 28,692 TPA MS Billets plant for final production of 3,26,700 TPA MS Billets, 3,20,000 TPA Rolled product and 48000 TPA Slag Crusher alongwith allied facilities by M/s VananchalConcast Private Limited, Mauza :Bantara, P.O. + P.S. : Gola, Distt.: Ramgarh, Jharkhand.**

   (Proposal no.: SIA/JH/IND1 /596234 /2026)

   Name of the consultant :VardanEnvironet LLP.

   This is an expansion project which has been taken for appraisal on 30.10.2026.

   Project Category: 3 (a) Metallurgical Industries (Ferrous & Non ferrous), Category :B1 as per EIA Notification, 2006.

   M/s VananchalConcast Pvt Ltd has made ToR Application vide proposal no. SIA/JH/IND1/596234/2026 dated 22.10.2026 along with Form – 1, copy of Pre – Feasibility Report and other required documents for undertaking detailed study as per the EIA Notification, 2006 for the above mentioned project. The proposed project activity is listed as S.No. 3(a) Metallurgical Industry, under Category 'B' of the schedule of the EIA Notification, 2006 and amendments thereof.

   The project of M/s VananchalConcast Pvt Ltd located at Mauza – Bantara, PS- Gola, Dist. – Ramgarh, Jharkhand is for Expansion of the existing 28692 TPA MS Billets & 7188 TPA Slag Crusher plant for final production of 3,26,700 TPA MS Billets; 3,20,000 TPA Rolled product, and 48000 TPA Slag Crusher along with allied facilities.

   Project Requirement Details

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>1.</td><td>The Project</td><td>Expansion of the existing 28692 TPA MS Billets & 7188 TPA Slag Crusher plant for final production of 3,26,700 TPA MS Billets; 3,20,000 TPA Rolled product, and 48000 TPA Slag Crusher along with allied facilities at Mauza – Bantara, PS- Gola, Dist. – Ramgarh, Jharkhand by M/s VananchalConcast Pvt Ltd</td></tr>
<tr><td>2.</td><td>Location of the Project</td><td>Mauza – Bantara, PS- Gola, Dist. – Ramgarh, Jharkhand</td></tr>
<tr><td>3.</td><td>Topo-sheet Nos.</td><td>F45B10</td></tr>
<tr><td>4.</td><td>Latitude & Longitude</td><td>Latitude: 23° 32' 20.473" N to 23° 32' 19.578" N
Longitude: 85° 43' 55.116" E to 85° 43' 56.115" E</td></tr>
<tr><td>5.</td><td>Area of the Plant</td><td>2.95 Ha. (7.29 Acres) out of total area 3.84 ha. (9.49 acres)</td></tr>
<tr><td>6.</td><td>Plot/Survey/Khasra No.</td><td><table><tr><th>Sr.</th><th>Khata No.</th><th>Plot No.</th></tr><tr><td>1</td><td>½, & 33</td><td>165, 166, 160,170</td></tr></table></td></tr>
</table>

S. No.	Particulars		Details
7.	Existing Units	As per CTE dt. 15.08.2022 and valid CTO dated 22.07.2024	**Steel Melting Shop**–4x4T IF, CCM -1x2 Strand (Radius 4/7 m) Producing MS Billet- 2391 TPM (28692 TPA) **Slag Crusher** – 599 TPM (7188 TPA)
8.	Proposed Expansion		**Steel Melting Shop – 3,26,700 TPA**; Replacement of existing Induction Furnace with 5x18T Induction Furnace and 1x3 Strand CCM, Radius 5/9 m) for MS Billets. **Rolling Mill -3,20,000 TPA** ; with 1 × 50 TPH Rolling Mill - Direct Hot Charging. **Slag Crusher - 48000 TPA;** Replacement of existing 1x3TPH by 2x8 TPH for Slag Crushing.
9.	Project Cost		**Existing** – Rs. 4.983 Crores **Total after Expansion**- Rs. 165.449 crores.
10.	Manpower Requirement		**Existing**- 55 **Total after Expansion**: 280
11.	Requirement of Water (Make-up)		**Existing**- 15.0 KLD, **Total after Expansion**: 465.5 KLD **Source**:Surfacewater(Gomati River) & Ground Water
12.	Requirement of Power / Fuel		**Existing**- 15.5 MW **Total after Expansion** -46 MW **Source**: -DVC **DG Set**- Existing- 1x125 KVA & 1x500 KVA Proposed: 1x500 KVA Fuel: 40 KL /year HSD for DG Sets

Land Details :

Khata No.	Plot No.	Area
1/2 & 33	165, 166, 160 & 170	2.95 Ha. / 7.29 Acre

Environmental site settings of the project:

Sl.No.	Particulars	Details	Remarks
1.	Total Land	2.95 Ha. (7.29 Acres)	**Land Use:** Industrial.
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The total land area in possession of unit was 3.84 ha (9.49 acres) out of which 0.89 ha (2.2 acres) has been acquired by concerned authority for construction of NH through it.	Acquired and already in possession

<table>
<tr><th>Sl.No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>Thus 2.95 ha. (7.29 acre) required after proposed expansion is in possession and industrial use by project proponent.</td><td></td></tr>
<tr><td>3.</td><td>Land Details (Khata No. and Khasra No.)</td><td><table><tr><th>Sr.</th><th>Khata No.</th><th>Plot No.</th></tr><tr><td>1</td><td>½, & 33</td><td>165, 166, 160,170</td></tr></table></td><td>DFO (T), DFO (WL) & CO certificates obtained</td></tr>
<tr><td>4.</td><td>Existence of habitation & involvement of R&R, if any</td><td>Project Site: Nil
Study Area:<table><tr><th>Nearest Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Jamuna village</td><td>0.15 km</td><td>West</td></tr></table></td><td>R&R:
Not Involved.</td></tr>
<tr><td>5.</td><td>Latitude and longitude of all corners of the project site</td><td><table><tr><th>S. No.</th><th>Latitude</th><th>Longitude</th></tr><tr><td>A</td><td>23° 32' 20.473" N</td><td>85° 43' 55.116" E</td></tr><tr><td>B</td><td>23° 32' 24.070" N</td><td>85° 43' 57.003" E</td></tr><tr><td>C</td><td>23° 32' 26.449" N</td><td>85° 43' 59.242" E</td></tr><tr><td>D</td><td>23° 32' 26.651" N</td><td>85° 44' 0.369" E</td></tr><tr><td>E</td><td>23° 32' 25.039" N</td><td>85° 44' 2.601" E</td></tr><tr><td>F</td><td>23° 32' 21.555" N</td><td>85° 44' 2.522" E</td></tr><tr><td>G</td><td>23° 32' 20.642" N</td><td>85° 44' 2.788" E</td></tr><tr><td>H</td><td>23° 32' 19.700" N</td><td>85° 44' 6.160" E</td></tr><tr><td>I</td><td>23° 32' 16.625" N</td><td>85° 44' 4.208" E</td></tr><tr><td>J</td><td>23° 32' 17.160" N</td><td>85° 44' 2.990" E</td></tr><tr><td>K</td><td>23° 32' 17.774" N</td><td>85° 44' 3.193" E</td></tr><tr><td>L</td><td>23° 32' 18.812" N</td><td>85° 44' 1.129" E</td></tr><tr><td>M</td><td>23° 32' 18.947" N</td><td>85° 44' 0.135" E</td></tr><tr><td>N</td><td>23° 32' 19.296" N</td><td>85° 43' 58.818" E</td></tr><tr><td>O</td><td>23° 32' 19.711" N</td><td>85° 43' 57.629" E</td></tr><tr><td>P</td><td>23° 32' 19.578" N</td><td>85° 43' 56.115" E</td></tr></table></td><td>Toposheet no. F45B10</td></tr>
<tr><td>6.</td><td>Elevation of the project site</td><td>362 meters above mean sea level</td><td>--</td></tr>
<tr><td>7.</td><td>Involvement of Forest Land, if any</td><td>No Involvement of Forest Land</td><td>--</td></tr>
</table>

<table>
<tr><th>Sl.No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>8.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project Site: Nil

Study Area:
<table><tr><th>Water-body</th><th>Distance (Km)</th><th>Direction</th></tr><tr><td>Gomti River</td><td>0.02</td><td>S-SE</td></tr><tr><td>Singhi Nala</td><td>2.9</td><td>NE</td></tr><tr><td>Bhera River</td><td>3.5</td><td>West</td></tr></table></td><td>Implementation of Management plan for nearby Gomti River.

No industrial activity in 50 m.</td></tr>
<tr><td>9.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td>Study area:
There is no national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve within the study area.
List of Protected Forest
<u>Protected Forest</u>

Few Protected Forest within the 10 km study area –
• Protected forest near KusumdihKalyanpur village is at 2.22 km in North direction.
• Protected forest near Chari, village is at 3.0 km in NW direction
• Protected forest near Raipura village is at 3.9 km in SSW direction.</td><td>--</td></tr>
<tr><td>10.</td><td>Tourist Place</td><td>Kishore Hill is at 3.86 km in NE direction</td><td>--</td></tr>
<tr><td>11.</td><td>Vulnerable Groups around the project</td><td>Schools:
➢ Goodwill Mission School, Tirla, Gola is at 0.58 km in NNW direction
➢ Gokul Public School, Gokul Colony, Gola is at 0.75 km in West direction.
➢ Convent Public School, KusumdihKalyanpur is at 0.96 in WNW direction
Hospitals:
➢ Govt. Hospital, Heramdaga is at 1.63 km in West direction.
➢ Gola nursing home, Heramdaga is at 1.98 km in West direction.</td><td>--</td></tr>
<tr><td>12.</td><td>Religious Places</td><td>➢ Hanuman Mandir, Bantara, Gola is at 1.16</td><td>--</td></tr>
</table>

Sl.No.	Particulars	Details	Remarks
		km in SW direction. ➢ Maa Durga mandir, Hematpur, is at 1.08 in NNE direction.	
13.	National/State Highways	NH-320 is at 0.1 Km in NE direction.	--
14.	Nearest Airport	Birsa Munda Airport, Ranchi is at 48.24 km in SW Direction.	--
15.	Rail Connectivity	➢ Gola Road Railway station is at 2.41 km in WSW direction	--
16.	CPA/SPA	None within 05 km radius	--
17.	Defence Installation	None within 10 km radius	--
18.	Historical Places	None within 10 km radius	--
19.	International/State Boundaries	None within 10 km radius	--

The plant was installed and is operating as per CTE& CTO of JSPCB as the existing and project under installation did not attractprovisions of EC as per EIA Notification, 2006 and amendments thereof. The existing project was accorded with Consent to Establish (CTE) vide ref no. JSPCB/HO/RNC/CTE-6999706/2020/96 dated on 13/02/2020, AnotherConsent to Establish (CTE) vide ref No.: JSPCB/HO/RNC/CTE-13674225/2022/323 dated on 15/08/2022 from Jharkhand State Pollution Control Board (JSPCB) for the production of 28692TPA (2391 TPM) M.S. Billet along with Slag Crusher of 7188 TPA (599 TPM).

Recently the plant has obtainedConsent to Establish (CTE) for expansion vide ref No.: JSPCB/HO/RNC/CTE-25645063/2026/217 dated on 04.07.2026from Jharkhand State Pollution Control Board (JSPCB) for the production of 48000TPA M.S. Billet through 5x4T Induction Furnace with 1x3 Strand CCM (5/9 Radius), 47000 TPA Rolled product through 1x10 TPH Rolling Mill along with Slag Crusher of 7188 TPA through 1x3 TPH Slag Crusher unit, valid till 03/07/2027. Units as per current CTE are under implementation for Billets 48,000 TPA and Rolled products 47000 TPA. It has not been implemented yet.

Consent to Operate (CTO) has been obtained from JSPCB vide ref noJSPCB/HO/RNC/CTO-19049789/2024/1167 dated 22/07/2024 for the production of28692TPA (2391 TPM) M.S. Ingot/Billet along with Slag Crusher of 7188 TPA (599 TPM), valid till 30/06/2029.

Details of CTE & CTO:

CTE/ CTO	Reference Number	Date of Issue	Production Capacity	Validity
CTE	Ref No.: JSPCB/HO/RNC/CTE-6999706/2020/96	13.02.2020	M.S Ingot- 2391 TPM (28,692 TPA)	12.08.2020

			Slag- 599 TPM (7,188 TPA)	
CTE	Ref No.: JSPCB/HO/RNC/CTE-13674225/2022/323	15.08.2022	M.S Billets - 2391 TPM (28,692 TPA) Slag- 599 TPM (7,188 TPA)	14.02.2023
CTE	Ref No.: JSPCB/HO/RNC/CTE-25645063/2026/217	04.07.2026	MS Billets (After Expansion 5x4T IF) - 48000 TPA Rolled Products (Proposed) - 47000 TPA; Slag Crusher (Existing) - 7188 TPA (599 TPM) Not yet implemented.	03.07.2027
CTO	Ref No.: JSPCB/HO/RNC/CTO-9560967/2021/137	28.01.2021	M.S Ingot- 2391 TPM (28,692 TPA) Slag- 599 TPM (7,188 TPA)	31.12.2021
CTO	Ref No.: JSPCB/HO/RNC/CTO-12464078/2022/332	23.03.2022	M.S Ingot- 2391 TPM (28,692 TPA) Slag- 599 TPM (7,188 TPA)	31.12.2023
CTO	Ref No. JSPCB/HO/RNC/CTO-19049789/2024/1167	22.07.2024	M.S Billets - 2391 TPM (28,692 TPA) Slag- 599 TPM (7,188 TPA)	30.06.2029

Theexisting and units under CTE does not come under purview of EIA notification 2006 & amendments thereof. As the production capacity is less than threshold limit and no pickling is involved or proposed in the unit. - ref. S.O. 2215(E), dated 07.06.2024

The unit configuration and capacity of existing and proposed project is given as below:

Plant Equipment/Facility	Existing facilities As per CTE dated 15.08.2022 and valid CTO dated 22.07.2024		Proposed Units		Final	
	Config.	Cap. TPA	Config.	Additional Cap. TPA	Final Config.	Cap. TPA
Steel Melting Shop						

Induction Furnace	4x4T	28,692 TPA MS Billets	Replacement of existing furnaces with 5x18T IF	298,008 TPA MS Billets	5x18T IF	3,26,700 TPA MS Billets
CCM	1x2 Strand (Radius 4/7 m)		Replacement of CCM to 1x3 Strand (Radius 5/9 m)		1x3 Strand CCM (5/9 Radius)	
Rolling Mill	--	--	Modernization Rolling Mill to 1 × 50 TPH	320,000 TPA Rolled Products	1 × 50 TPH	3,20,000 TPA Rolled Products
Slag Crushing Unit	1x3TPH	7188 TPA	Replacement of existing crusher with 2x8TPH Slag Crushers.	40,812 TPA	2x8 TPH	48,000 TPA

Annual Operations/Working days for all the units will be increased from 300 to 330 days.

The details of the raw material requirement for the proposed expansion project along with its source and mode of transportation are given as below:

S. No.	Raw Material	Existing (TPA)	Total after Expansion (TPA)	Source of Raw Material	Distance (km)	Mode of Transport
SMS – Induction Furnace (for Liquid Steel)						
1.	Sponge Iron	27,257	3,10,365	Local market	150 km	By road in covered trucks
2.	Pig Iron	4,304	49,005	Local market	150 km	By road in covered trucks
3.	Scrap	3,443	39,204	Local market	50 km	By road in covered trucks
4.	Ferro-alloys	373	4330	Local market	50 km	By road in covered trucks
Total		**35,377**	**4,02,904**			
SMS – CCM (for Billets)						
1	Liquid Steel	29,880 TPA	3,39,768	In-house	--	ladles
Rolling Mill Section						
1.	Steel Billets	-	**3,26,700**	In-house	--	conveyors
Slag Crusher (for metal recovery)						
1.	IF Slag	3,893	44,324	In-house	0.2 km	By road in covered trucks

Solid waste generation & disposal:

Type of Waste	Quantity in Tons (TPA)	Mode of Disposal

	Existing	After final expansion	
Steel Melting Shop			
IF Slag	3,893	44,324	After metal recovery (approx. 10%), remaining crushed slag shall be will be supplied to vendors - use as aggregates for construction filling.
IF Bag Filter Dust	789	9,810	Will be sent to metal recovery and balance supplied to vendors - use as construction fillings.
Scales	158	1,782	Shall be given to nearby welding electrode manufacturers and foundries
End Cut	421	4,762	Reused in Induction Furnace
Rolling Mill			
Mill Scale	-	3,300	Shall be sold for use in production of Fe-Si or Sinter plant
End cut / Cobbles	-	6,858	Reused in Induction Furnace

Hazardous waste envisaged from the plant used oil of 1.8 kl/year after expansion. Used Oil shall be temporary stored in HDPE/Steel drums on leak proof flooring with catch pit before finally disposing through registered recyclers.

Baseline data collection period: 1st October 2026 to 31th December 2026 as below:

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological parameters	Temp., Relative Humidity, Wind Speed, Wind Direction, Rainfall	1 Location	Hourly sampling for three months	Secondary data from IMD, New Delhi for the nearest IMD station
b. AAQ parameters	PM10, PM2.5, SO2, NOx, CO	8 Locations	24-hourly sampling, twice a week for 12 weeks	Monitoring Network: 1 in the nearby village 2 in Down Wind,2 in Upwind and 2 in Crosswind and 1 in the project site (Covering all sensitive receptors also)
B. Noise	Leq (Day & Night),	8 Locations	24-hourly	Monitoring Network:

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
	Lmax (Day & Night), Lmin (Day & Night)		sampling, twice in a week (working and non-working day) for 3 months	1 at the project site, 1 locations in villages close to project site, 4 near Dense Habitation, 1 near highway and 1 near to PF (All the sensitive receptors covered)
C. Water				
a. Surface water quality parameters	pH, EC, NO3, Na, K, Fe, Al, Ca, Cl, Cr, Mg, TDS, TSS, DO, SO4, F, BOD, COD, Zn, Cu, Mn, Cd, Turbidity, Odour	8 Locations	Once in a day in each month for one season	Sampling from Rivers, Ponds within the 10km Study Area
b. Ground water quality parameters	pH, Ca, Cl, Mg, TDS, SO4, F, NO3, Fe, Al, Zn, Cu, Mn, Cd, Pb, Hg, EC, Turbidity, Odour	8 Locations	Once in a day in each month for one season	One grab sample per location
D. Land				
a. Soil quality	pH, Conductivity, Soil Texture, Water Holding Capacity, Cl, Ca, Na, K, Organic matter, Mg, N, Zn, Mn, Phosphorus, Pb, Cd, Cr, Cu.	8 Locations	Once in a day in each month for one season	One sample from project site and one from Agriculture land, forest area, near water body and nearby villages.
E. Biological				
a. Aquatic	Species of Plants and Avifauna	10 km Radius study area	one season	Secondary data has been collected from Government offices, NGOs, published literature

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
b. Terrestrial	Species of Plants and Animals	10 km Radius study area	one season	Secondary data has been collected from Government offices, NGOs, published literature
F. Socio-economic parameters	Demographic details and Occupational details	10 km Radius study area	One Season	Secondary data from census records, statistical hard books, Topo sheets, health records and relevant official records available with Govt. agencies.

Gomti River is flowing at 0.02 km from the plant boundary. A proper management including - RCC boundary wall with no weep holes, Garland drains and catch pits with pump back facility, noindustrial construction or water polluting operation along the plant boundary within 50 m, open area followed by plantation in the region.Nearest HFL as considered by NHAI (reported) is 357.1 m (1.2 m above riverbed) for the road bridge constructed over the Gomti River near the unit.

PP informed that a court case in the name of Binu Kumar Mahto Vs. JSPCB & other industries is ongoing in the Hon'ble National Green Tribunal, Eastern Zone, Kolkata, bearing No. 204/2024/EZ.The next date of hearing is 17.11.2026. Except for the said case, there is no other court case or litigation pending/ongoing against the Company and the proposed land of the plant.

Name of the EIA consultant: M/s Vardan Environet LLP [S.No.37 in List of ACOs, Certificate no. NABET/EIA/26-29/RA 0493, valid up to 04.05.2029].

STATUTORY CLEARANCES

1	Land docs	:	**Sl. No.**	**Document Details**	**Plot No.**	**Khata No.**	**Area (Acre)**
			1	Sale Deed 129	165, 166, 170	½ & 33	4.3433
			2	Sale Deed 165	165, 166, 170	½	5.1467
			Total Area				**9.4900**

			No additional land will be required for the expansion of this project. The total land area in possession of unit was 3.84 ha (9.49 acres) out of which 0.89 ha (2.2 acres) has been acquired by concerned authority for construction of NH through it. Thus 2.95 ha. (7.29 acre) required for proposed expansion is under the possession of the project proponent.
2	CO	:	The CO, Gola (Ramgarh) vide letter no. 1989, dated 24.09.2026 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, Hazaribagh vide letter no. 1539, dated 11.08.2026 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath &Topchanchi Wildlife Sanctuary.
4	DFO Territorial	:	DFO, Ramgarh vide letter no. 37, dated 06.01.2020 certified that the distance of notified forest is 800 meters from project site.
5	Consent to Establish (CTE)	:	**CTE** issued by JSPCB vide Ref. No. i. JSPCB/HO/RNC/CTE-6999706/2020/96, dated 13.02.2020. ii. JSPCB/HO/RNC/CTE- 13674225 /2022 /323, dated 15.08.2022. iii. JSPCB/HO/RNC/CTE- 25645063 /2026 / 217, dated 04.07.2026.
6	Consent to Operate (CTO)		**CTO** issued by JSPCB vide Ref. No. JSPCB/HO/RNC/CTO-19049789 /2024 /1167, dated 22.07.2024 valid up to 30.06.2029.

PAs informed that a court case in the name of Binu Kumar Mahto vs State of Jharkhand &other industries is ongoing in the Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata bearing OA no. 204/2024/EZ.

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 28, 29, 30, 31 October, 01 & 02.11.2026,the Committee recommends for issuing of ToR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure II 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. A minimum distance of 100 meters shall be maintained from the project activity area to the HFL of the Gomati river which is at a distance of 20 meter from the project boundary. This should be specifically shown in the plant layout and submitted along with the final EIA / EMP report.

III. The EC will be subject to the final order of Hon'ble NGT in the matter of OA no. 204/2024/EZ ,Binu Kumar Mahto vs State of Jharkhand & other industries.

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2. **ToR of Expansion of existing project of Ingot / Billet Production from 16,800 TPA to 6,99,600 TPA (Installation of 4x35 T IF alongwith 2x30 MT EAF) and Rolling Mill capacity from 6000 TPA to 7,26,000 TPA (MS Rebars, MS Round & M.S Light Structures) with brick made from slag (3.30 Crore Bricks / Annum) and 350 TPD Slag Crushing Unit of M/s Sri Langta Baba Steels Pvt. Ltd., Village :Harsingraidih, Tehsil :Giridih, Distt. :Giridih, Jharkhand.**

(Proposal No : SIA/JH/IND2/ 534425/2025)

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

This is an expansion project which has been taken for appraisal on 30.10.2026.

Project Category: 3 (a) Metallurgical Industries (Ferrous & Non ferrous), Category :B1 as per EIA Notification, 2006.

S. No	Parameters	Description
1	Identification of project	Project falls under Metallurgical Industries (secondary metallurgical processing) Item 3(a) of the schedule of EIA notification of Sept 14, 2006 issued by MOEF & CC.
2	Project Proponent	**M/s. Sri Langta Baba Steels Private Limited**
3	Project Cost	**Rs.-207.7 CR**
4	Brief description of nature of the project	Expansion Project for Enhancement of Ingot/Billet Production from 16,800 TPA to 6,99,600 TPA by replacing existing 2x3.5T Induction Furnaces with 4x35T Induction Furnaces (4,62,000 TPA) and Installation of 2x30 MT Electric Arc Furnaces (One Operating + One Standby,

<table>
<tr><th>S. No</th><th>Parameters</th><th>Description</th></tr>
<tr><td></td><td></td><td>2,37,600 TPA); Modernization of Rolling Mill and Reheating Furnace to expand MS Rod production from 6,000 TPA to 7,26,000 TPA Rolled Products (MS Rebars- 3,96,000 TPA, M.S Rounds- 1,65,000 TPA, and M.S Light Structures 1,65,000 TPA and Installation of a 3.30 Cr/Annum slag Brick Plant and 350 TPD Slag Crusher.

Sri Langta Baba Steels Private Limited at Village: Harsingraidih, Tundi Road, Giridih, Jharkhand – 815302</td></tr>
<tr><td>5</td><td colspan="2">Salient Features of the Project</td></tr>
<tr><td>5.1</td><td>Proposed production capacity / Existing Capacity / Capacity after proposed expansion</td><td>
<table>
<tr><th>Particulars</th><th>Existing Capacity / Facilities</th><th>Proposed Capacity / Facilities</th><th>Remarks</th></tr>
<tr><td>Steel Re-Rolling Mill</td><td>Fully automatic Steel Re-Rolling Mill with Hot Charging Facility</td><td>Modernization of existing Steel Re-Rolling Mill</td><td></td></tr>
<tr><td>Induction Furnaces</td><td>2 × 3.5 T Induction Furnaces</td><td>4 × 35 T Induction Furnaces having</td><td>By replacing existing 2x3.5T Induction Furnaces with 4x35T Induction Furnaces (4,62,000 TPA) and Installation of 2x30 MT Electric Arc Furnaces (One Operating + One Standby, 2,37,600 TPA); Modernization of Rolling Mill and Reheating Furnace to expand MS Rod production from 6,000 TPA to 7,26,000 TPA)</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>S. No</th><th>Parameters</th><th>Description</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Electric Arc Furnaces (EAFs)</td><td>Not available</td><td>2 × 30 T EAFs (1 Operating + 1 Standby)</td><td></td></tr>
<tr><td>M.S. Ingot/Billet</td><td>16,800 TPA</td><td>6,99,600 TPA</td><td></td></tr>
<tr><td>Reheating Furnace</td><td></td><td>2,200 TPD</td><td></td></tr>
<tr><td>Total Rolled Products</td><td></td><td>7,26,000 TPA</td><td>MS Rebars- 3,96,000 TPA, M.S Rounds- 1,65,000 TPA, and M.S Light Structures 1,65,000 TPA (M.S.Rod 6000 TPA included in proposed rolled product capacity)</td></tr>
<tr><td>Brick Manufacturing Unit</td><td></td><td>1,00,000 bricks/day</td><td>Installation of 350 TPD Slag Crusher</td></tr>
<tr><td>M.S. Light Structures</td><td></td><td>1,65,000 TPA</td><td></td></tr>
</table>
</td></tr>
<tr><td>5.2</td><td>Total Plot Area and Land Use Break-up</td><td>7.49 Hectares or 18.15 Acres (Existing 2.02 Hectares or 5.0 Acres+ Proposed7.49 Hectares or18.50 Acres)
<table>
<tr><th>Particulars</th><th>Existing Area (in Sqm)</th><th>Area after Proposed Expansion (in Sqm)</th></tr>
<tr><td>Rolling Mill Section</td><td>7284.348</td><td>22877.48</td></tr>
<tr><td>Green Belt area</td><td>2023.43 (10 %)</td><td>24717 (33 %)</td></tr>
<tr><td>Raw Material Storage & Induction Furnace</td><td>10117.15</td><td>9437.51</td></tr>
<tr><td>Office Area</td><td>202.343</td><td>1038.78</td></tr>
<tr><td>Labour Quarter</td><td>607.029</td><td></td></tr>
<tr><td>Electric Arc Furnace & Billet Storage</td><td rowspan="2"></td><td>7882.68</td></tr>
<tr><td>Stack Yard and Storage Area</td><td>8087.56</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>S. No</th><th>Parameters</th><th>Description</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Reheating Furnish</td><td></td><td>500.1</td></tr>
<tr><td>Plc Cabin</td><td></td><td>102.7</td></tr>
<tr><td>Work Shop</td><td></td><td>219.22</td></tr>
<tr><td>QC Office</td><td></td><td>36.97</td></tr>
<tr><td>Total Plot Area</td><td>20234.3</td><td>74900</td></tr>
<tr><td>In Ha</td><td>2.02</td><td>7.49</td></tr>
<tr><td>In Acres</td><td>5</td><td>18.5</td></tr>
</table>
</td></tr>
<tr><td></td><td>Khata no</td><td>Khata No.: 12, 25, 27, 3, 31, 26, 30, 38, 33, 29</td></tr>
<tr><td></td><td>Plot No</td><td>HarsingRaidih, Ajidih – 1023, 177, 189, 178, 103, 168, 173, 170, 181, 165, 182, 164, 186, 187, 166, 146, 147, 152, 135, 149, 167, 140, 148, 150, 86, 87, 88, 76, 91</td></tr>
<tr><td>5.3</td><td>Location</td><td>Village: Harsingraidih, &AgidhiTundi Road, Giridih, Jharkhand – 815302.</td></tr>
<tr><td>5.4</td><td>Geo-Coordinate</td><td>Latitude: 24°9'26.089" N to 24°9'40.889"N, Longitude: 86°20'22.534" E to 86°20'39.906" E</td></tr>
<tr><td>5.5</td><td>Water requirement</td><td>The total water requirement for the existing units is 30 KLD, with a fresh water requirement of 9.0 KLD sourced from borewells. Following the proposed expansion—which includes the installation of the Electric Arc Furnace (EAF), Induction Furnaces (IF), and CCM—the total water requirement will be 715 KLD.</td></tr>
<tr><td>5.6</td><td>Source of water</td><td>Borewell (Ground water NOC obtained vide NOC number CGWA/NOC/IND/ORIG/2023/17758 with validity upto 14/02/2026 and application for renewable vide application number IND/JH/2026/2440/R-1 is under process,further permission for the proposed expansion will be obtained from the concerned authority after Environmental Clearance (EC).)</td></tr>
<tr><td>5.7</td><td>Wastewater</td><td>Domestic wastewater 20 KLD from the service units of plant premises will be collected in and treated in STP having a capacity of 25 KLD, treated waste water from STP will be used for plantation.
<table>
<tr><th>Particulars</th><th>Existing
IF (2 × 3.5 T)</th><th>Proposed SMS
(IF + EAF + CCM)</th></tr>
<tr><td>Gross circulating water requirement (KLD)</td><td>21.00</td><td>570.00</td></tr>
<tr><td>Recirculating water (KLD)</td><td>17.00</td><td>460.00</td></tr>
<tr><td>Fresh makeup water (KLD)</td><td>4.00</td><td>110.00</td></tr>
<tr><td>Evaporation loss (KLD)</td><td>3.20</td><td>88.00</td></tr>
</table>
</td></tr>
</table>

S. No	Parameters	Description		
		Cooling tower blowdown (KLD)	0.80	22.00
		Drift loss (KLD)	Negligible	Negligible
		Total water balance (KLD)	**4.00**	**110.00**
5.8	Man Power	Construction phase: Around 150 persons Operation phase: Around 700 persons		
5.9	Electricity/Power requirement	Existing Power requirement was 1.0 MW. Proposed requirement will be 7.0 MW. Total power requirement after expansion will be 8.0 MW. For emergency power requirement 1x600 KVA DG Set has been installed. Additionally, 1x600 KVA. DG set shall be installed under the proposed expansion.		
5.10	Alternative site	The proposed addition will be established in the existing plant premises only.		
5.11	Land form, Land use and land ownership	Private land, owned by M/s. Sri Langta Baba Steels Private Limited		

Land Details :

Khata no.	Plot no.	Area
12,25,27,3,31,26,30,38,33,29	1023, 177, 189, 178, 103, 168, 173, 170, 181, 165, 182, 164, 186, 187, 166, 146, 147, 152, 135, 149, 167, 140, 148, 150, 86, 87, 88, 76, 91.	7.49 Ha.

Document	Reference Number	Date of issue	Valid upto	Product/ by-product	Capacity	Project Cost
CTE	325	1st February, 2007	1st February, 2008	Iron Rod	20.0 TPD	359.63 lacs

CTE	B-4761	20th August 2012	20th February, 2013	M.S. Rod M.S. Ingot	6000 TPA 16800 TPA	1075.85 Lacs
CTO	JSPCB/HO/RNC/CTO-23656702/2026/175	1st Feb 2026	30th Sep 2028	M.S. Rod M.S. Ingot	6000 TPA 16800 TPA	1075.85 Lacs

Existing and proposed units & production details

S.No.	Unit	Existing Installed Units	Production (TPA)	Proposed Units	Production (TPA)	Final Configuration	Production (TPA)	Final Uses
01	Induction Furnace	2x3.5Ton with 8 heat/day	M.S. Ingot-16800 (considering 300 working days)	4x35Ton (10heat/day)	4,62,000 (considering 330 working days)	4x35Ton	4,62,000 TPA (considering 330 working days)	In-House for M.S Rebars M.S. Round Mill & Light Structural Mill
02	Electric Arc Furnace	---	---	2x30 MT (One Operating + One Standby)	2,37,000 TPA (330 days)	2x30 MT	2,37,000 TPA	
03	Rolling Mill Hot Charging	5TPH	M.S. Rod 6000 TPA	1X50 TPH	MS Rebars, 3,96,000 (considering 330 working days)	1X50 TPH	MS Rebars, 3,96,000 (considering 330 working days)	Saleable
04	M.S. Round Mill	--	--	1x20 T	1,65,000 TPA	MS Round	1,65,000 TPA	Saleable
05	Light Structural Mill	--	--	1x20 T	1,65,000 TPA	Light Structure Mill	1,65,000 TPA	Saleable

06	Brick Plant (Slag)	--	--	--	1 lakh Brick/day or 3.30 Cr/year.	--	1 lakh Brick/day or 3.30 Cr/year.	Saleable
07	Slag Crushing Unit	--	--	350 TPD	--	350 TPD	--	Inhouse in brick plant and IF

Raw material required for Billets

Unit	Quantity TPD	Mode of Transportation	Distance covered	Source
Sponge Iron	1318.4TPD	By road (Truck)	Niranjan Metallic (5 km) Shiv Shankar Sponge Iron Pvt Ltd (W.B) (126 km)	• Niranjan Metallic Limited (Giridih) • Shiv Shankar Sponge Iron Pvt Ltd (W.B)
Silico Manganese	82.4 TPD	By road (Truck)	5 km	• Shivam Iron & Steel Co. Ltd., Giridih
Pig Iron	242.26TPD	By road	Atibir Industries Co. Ltd -Unit II (Giridih)(2.0 km) Oplus Steel & Power Private Limited(3 km)	• Atibir Industries Co. Ltd -Unit II (Giridih) • Oplus Steel And Power Private Limited (Giridih)
M S Scrap	4.94		53 km	• Arbind Enterprises (Deoghar) • Balajee Steel Udyog (Jamshedpur)

Raw material required (Electric Arc Furnace)

Sl No.	Material	Quantity (TPD)	Source
1	Scrap	500 TPD	• Arbind Enterprises (Deoghar)

			• Balajee Steel Udyog (Jamshedpur)
2	DRI/Sponge Iron	200 TPD	• Niranjan Metallic Limited (Giridih) • Shiv Shankar Sponge Iron Pvt Ltd (W.B)
3	Pig Iron	70 TPD	• Atibir Industries Co. Ltd -Unit II (Giridih) • Oplus Steel And Power Private Limited (Giridih)
4	Ferro Alloys	13 TPD	• Open Market
5	Flux	36 TPD	• Open Market

Rolling mill manufacturing process

Sl No	Particular/Product	Quantity (TPD)	Operating Days	Production (TPA)	Source
1	MS Billets Requirement (Raw Material)	2245	330	7,40,850	• In house production
2	Rolling Mill Capacity	2200	330	7,26,000	-
3	MS Rebars Production	1200	330	3,96,000	-
4	MS Rounds Production	500	330	1,65,000	-
5	MS Light Structures (Angles, Channels, Flats)	500	330	1,65,000	-
6	**Total Finished Production**	**2200**		**7,26,000**	-
7	Coal Consumption	17.6	330	5,808	• Open Market

Brick Plant (from Slag)

Raw Material Requirement

S. No.	Description	Percentage %	Source	Mode
1.	Slag	20	In-house+ purchased	Truck
2.	Cement	5	Open market	Truck
3.	Crusher Dust	75	In-house	Truck
4.	Water	20 KLD	In-house	Pipeline

Total Water Requirement for the Proposed expansion Plant (KLD)

Unit	Purpose	Total Water Requirement (KLD)	Recirculating Water (KLD)	Makeup Water (Fresh) (KLD)	Waste Water Generation (KLD)
SMS (EAF, IF & CCM)	Cooling	570	460	110	0
Rolling Mill	Quenching	50	40	10	0
Brick Plant (from Slag)	Process	20	0	20	0
Drinking & Sanitation	Domestic	25	0	25	20
Slag Crusher/Other	Dust Suppression	50	40	10	0
TOTAL		**715**	**540**	**175**	**20**

Air pollution control measures will be taken up for proposed project

S.No.	Unit	Existing APCD	Proposed APCD
1	SMS (EAF/IF/CCM)	Bag Filter	Fume Extraction System (FES): Swivelling Hood, Spark Arrester, Bag Filters (2 Nos.) & Stack (01 No.)
2	Rolling Mill	Stack only	Reheating Furnace: Low NOx Burners & Stack (30m)
3	Slag Crusher	—	Dry Fog System & Water Sprinklers
4	Brick Plant (from Slag)	—	Dust Extraction System & Enclosures

Solid Waste Generation and Management

Description of the Plant	Plant Capacity	By-product/Waste Product	Mode of Disposal	Authorised Persons
Electric Arc Furnace	2x30 MT (One Operating + One Standby	Slag-75 TPD	Brick manufacturing	Inhouse
Induction furnace	4x35 MT	Slag- 231.52 TPD Broken Refractory- 0.23 TPD	Brick manufacturing	Inhouse

Rolling	MS Rebars, 3,96,000 TPA MS Round 1,65,000 TPA M.S Light Structure 1,65,000 TPA	Mill Scale ~ 27 TPD Trimming reject- 33 TPD	The waste has commercial worth and will be sold	Used in Lowling areas
Slag Crusher	350 TPD	Recovered Scrap- 25 TPD	In-house	Inhouse
Domestic	500 Persons	49500kg/annum	As per SWM Rules, 2016	--
Sludge/Salt from cooling towers	--	0.002 TPD	Used as earthing	--
Sludge from Treatment Plant	STP 25 KLD	0.015 TPD	Authorized recycler	--

Green Belt

Total green belt shall be developed in 33% (24717 Sq. meter) area. Out of which 2023.43 Sq. meter green belt shall be developed inside the project premises and 22693.57 Sq. meter will be developed in the area adjacent to the project boundary. The additional area adjacent to the project premises shall solely be used for forestry purpose.

STATUTORY CLEARANCES :

1	Land docs	:	Private land, owned by M/s. Sri Langta Baba Steels Private Limited
2	CO	:	The CO, Giridih vide letter no. 840, dated 16.06.2025 has mentioned the plot no. of the project is recorded as "Jungle Jhari" in R.S. Khatiyan& Register II for which diversion application of Forest land has been submitted vide proposal no. FP/JH/DeReservation/569350/2026 (3.70 ha out of 7.49 ha).
3	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 2007, dated 13.09.2024 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath &Topchanchi Wildlife Sanctuary.
4	DFO Territorial	:	• DFO, Giridih East Division vide letter no. 2992, dated 01.12.2025 certified that the distance of notified forest is 1300 meters from project site.

			• As recorded in Letter No. 2255 dated 29.09.2026 issued by the Divisional Forest Officer, Giridih East Forest Division, the land was historically recorded as GairmazaruaKhas land, with the classification "Jungle" appearing in the survey records. The said letter also refers to documents and proceedings relating to regularisation of the relevant jamabandi, orders concerning removal of the land from the restricted list, and a report of the Circle Officer, Giridih, concerning historical possession and use of the land for non-forest purposes prior to 1980. • The Divisional Forest Officer has observed that the applicability of the Forest (Conservation) Act, 1980, as amended in 2023, to the subject land requires clarification at the competent level.
5	CGWA	:	No Objection Certificate for Ground Water Abstraction issued by CGWA vide NOC no. CGWA/NOC/IND/ORIG/2023/17758, dated 15.02.2023 valid up to 14.02.2026 for existing project.
6	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. No. 325, dated 01.02.2007.
7	No Objection Certificate (NOC) / Consent to Operate (CTO)	:	i. **NOC** issued by JSPCB vide Ref. No. B-4761, dated 20.08.2013 ii. **CTO** issued by JSPCB vide a. Memo No. 712, dated 02.03.2012. b. Memo No. D-5250(C), dated 29.12.2012. c. Ref. No. JSPCB/HO/CTO-1695269/2018/894, dated 11.06.2018 valid up to 30.09.2018. d. Ref. No. JSPCB/HO/CTO-6500790/2019/2409, dated 08.12.2019 valid up to 30.09.2020. e. Ref. No. JSPCB/HO/CTO-7451496/2020/1738, dated 19.10.2020 valid up to 30.09.2025. f. Ref. No. JSPCB/HO/CTO-23656702/2026/175, dated 01.02.2026 valid up to 30.09.2028.

An application for Forest Clearance bearing proposal no. FP/JH/DeReservation/569350/2026 (3.70 ha out of 7.49 ha) has been submitted on 27.03.2026 through the Parivesh portal for Mauza Harsingraydih, Thana No. 281, Khata No. 12, Plot No. 1023, Giridih, Jharkhand.

In this regard, the Divisional Forest Officer, Giridih East Forest Division vide Letter No. 2255 dated 29.09.2026, has examined the documents and records submitted by the Project Proponent, including the relevant revenue records and orders of the competent revenue authorities. The letter records that the subject land was historically recorded as *Gairmazarua Khas* land with the classification "Jungle" in the survey records. It also refers to the

regularisation of the relevant jamabandi, orders concerning removal of the land from the restricted list, and the report of the Circle Officer, Giridih, regarding the historical possession and non-forest use of the land prior to 1980.

However, the Divisional Forest Officer has observed that the applicability of the Forest (Conservation) Act, 1980, as amended in 2023, to the subject land remains a matter requiring clarification at the competent level.

The Project Authority undertakes to submit the Stage-I Forest Clearance and comply with the applicable forest-related requirements, as directed by the competent authorities, before undertaking any activity for which such clearance is legally required.

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 28, 29, 30, 31 October, 01 & 02.11.2026,the Committee recommends for issuing of ToR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure II 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 EC will be considered after obtaining either Stage-I clearance under Forest (Conservation) Act, 1980 or a certificate from the competent authority that the F(C) Act, 1980 not applicable on the project.

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3. **Munkeri Stone Mine of M/s Radharaman Construction and Marketing Pvt. Ltd., Mauza : Munkeri, Thana : Chhatarpur, Distt.:Palamu, Jharkhand (2.44 Ha).**

(Proposal no.: SIA/JH/MIN/596651 /2026)

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

This is a new project which has been taken for appraisal on 30.10.2026.

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

Application for Terms of Reference (ToR).

TOR Application for: Boulder Stone:53781.00 Cum Per Annum /150586.80Tonnes Per Annum.

PROJECT and LOCATION Details:

Sl.	Parameter		Details	
1	Project Name	:	Munkeri Stone Mine Radharaman Construction and Marketing Pvt. Ltd.	
2	Authorized Person	:	Shri Dhananjay Kumar	
3	Lease Address	:	Mauza- Munkeri, Thana No.-339,Thana- Chhattarpur, District-Palamu, Jharkhand.	
4	Lease Area	:	Ha:2.44	Acres:6.04
5	Cluster Details	:	Total area:(7.71+4.16+6.72+6.04)=24.63 Acre or 9.97 ha)	Total no of mine in cluster: 4
6	Type of Land	:	Non-Forest – Rayati Land	
7	Project Cost	:	42.88 Lakhs	
8	EMP Budget	:	Capital: 35.56 Lakhs	Recurring: 9.32 Lakh / year
9	New or Expansion	:	New Project	
10	Mineable Reserves	:	533018.00Cum	1492450.40 Ton
11	Mine Life	:	10 years	
12	Man power	:	27	
13	Water Requirement	:	Total water requirement is 21.0 KLD=1.0 KLD (Drinking & Domestic Uses) + 10.0 (Plantation) KLD + 10.0 KLD (Dust Suppression).	
14	Water Source	:	by Authorised hired water tankers	
15	DG Set / power	:	100 KVA (Temporary setup for Backup)	
16	Crusher	:	Not Proposed	
17	Nearest Water Body	:	Batane River, Approx. 3.30 Km towards North.	
18	Nearest Habitation	:	Approx. 0.40 km few houses towards north direction**(EMP Submitted)**	
19	Nearest Rail Station	:	Japla Railway Station, approx. 29.81 Km towards NW.	
20	Nearest Air Port	:	Birsa Munda Airport, Ranchi, approx. 161.29 Km towards SE.	
21	Nearest Forest	:	Protected Forest, Approx. 1.22 Km towards South. Protected Forest, Approx. 5.58 Km towards North. Chhattarpur East Protected Forest, Approx. 7.78 Km towards SE. Protected Forest, Approx. 9.95 Km towards East.	
22	Road & Highways	:	NH 139 (Aurangabad-Hariharganj Marg), Approx. 3.20 Km towards WNW.	
23	Nearest Approach Road	:	Approach Road is about 250m in West direction	
24	Eco Sensitive	:	Eco Senssitive Zone Betla National Park, Daltonganj 60km in	

	Zone(ESZ)		South direction.

CO-ORDINATES

1	Latitude		From 24° 22' 11.640"N	To 24° 22' 9.302" N
2	Longitude		From 84° 13' 54.522"E	To 84° 13' 56.585" E

LAND DETAILS

Khata no.	Plot no.
78	06 (P), 13 (P), 10 (P), 12 (P) & 1148 (P)

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Palamu, Medininagar vide letter no. 2171/M, dated 12.09.2026.
2	CO	:	The Additional Collector, Palamu vide letter no. 2155/Ra., dated 06.08.2026 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan& Register II.During the appraisal it was seen from the KMLthatfew houses exists at a distance of 400 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Palamu, Medininagarvide memo no. 2476, dated 26.10.2026certified that 02 other mining lease area (7.71 Acre & 4.16 Acre)and 01 other Lol (6.72 Acre) exists within 500 m radius from proposed project site and total area is 24.63 Acre / 9.97 ha.
4	DFO Wild Life	:	Deputy Directory, Palamu Tiger Project, South Division, Medininagar vide letter no. 696, dated 29.09.2026 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Tiger Reserve.
5	DFO Territorial	:	DFO, Medininagar Forest Division vide letter no. 2019, dated 05.09.2026 certified that the distance of protected / reserved forest is 800 meters from proposed project site.
6	DSR	:	The DMO, Palamu, Medininagar has certified vide memo no. 2422/M, dated 15.10.2026 that this project is mentioned in approved DSR of Palamu District as a Potential Village (Page no.

			115).
7	Gram Sabha	:	BDO, Chhatarpur, Palamu vide letter no. 615, dated 24.07.2026 informed that Gram Sabha conducted on 18.07.2026.
8	Mine Plan Approval	:	Approved by Assistant Director, Geology, Palamu vide Memo No. 129, dated 13.10.2026.
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 Method, Mechanized Mine, Wagon Drilling & Control Blasting will be deployed.
2	Quarry Area	:	1.47 ha.
3	Waste Generation	:	5 years–462 cum O.B waste
4	Stripping Ratio	:	1:0.01
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	200mAMSL
8	Ground Level Elevation		194mAMSL
9	Ultimate Working Depth	:	167m AMSL
10	Water Table	:	150m AMSL(44m BGL)
11	Topography of Mine	:	Uuevensurface
12	Explosive Requirement	:	125.244 Kg/Day(External Agency)
13	Diesel/Fuel requirement	:	680Litres/day

Production Details

Year	Production of Stone in Cum	Production of Stone in Tonnes	Generation of Waste/O.B in cum	Grade/Uses
1st	53297.00	149231.60	221.00	Construction & Road
2nd	53310.00	149268.00	65.00	Construction & Road
3rd	53593.00	150060.40	0.00	Construction & Road
4th	53570.00	149996.00	176.00	Construction & Road
5th	53781.00	150586.80	0.00	Construction & Road
Total	**267551.00**	**749142.80**	**462.00**	

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	0.00	0.59	1.47(0.25ha area will be reclaimed and used for planation and 1.22ha area used for rain water harvesting)
Haul Road	0.00	0.02 (area used under quarry)	0.00
Proposed Crusher	0.00	0.00	0.00
Green belt in Safety Zone	0.00	0.97	0.97
Dump with Parapet wall & Garland drain	0.00	0.25 (area used under quarry)	(over burden used for plantation, haul road dressing and reclaimed)
Total area in use	0.00	**1.83**	**2.44**
Balance unused area	2.44	0.61	0.00
Balance used area	0.00	0.00	0.00
Total Applied Lease Area	**2.44**	**2.44**	**2.44**

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	1552	9700	0.97	Kala Shisham, Gulmohar, Gular, Shami, Sagwan, Sakua
	Haul Road	3.0 x 3.0	332	Road Length- 250Mtr 250/3.0=83Plant One Side 83 x 4= 332Plants	---	
	Reclaimed Area	2.5 x 2.5	400	2500	0.25	
2nd	Care & Protection	---	---	---	---	
3rd	Care & Protection	---	---	---	---	
4th	Care & Protection	---	---	---	---	
5th	Care & Protection	---	---	---	---	
Total			**2284**	**12200**	**1.22**	

- 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 2284 trees proposed to be planted in the designated green belt area—both within and outside the lease boundary—10% (approximately 228 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)	Overhead water sprinkling Cost for 300 days for 8.0 KLD @5 KL tanker capacity, Rupees 500/- per tanker	1,00,000	2,40,000
	Green belt Cost for 300 days for 2.0 KLD @5 KL tanker capacity, Rupees 500/- per tanker		60,000
	& One dedicated tanker of 5 KL for Greenbelt Management	10,00,000	50,000
1(b)	Handling of sewage water	0	33,600
2	Prepare & Maintenance of approach road (Max. Road length 953 m, Width 4.0 m) @ 500Rs. /Meter.	1,25,000	20,000
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 609 m x 300 /– meter	1,82,700	20,000
6	Settling tank & Garland drain	2,00,000	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, reclaimed area, Compensatory plantation and along the road (for each plants including hedges and fences and tree guard at approach roads) 2284 No. of plants x 500 Rs.	11,42,000	2,00,000
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
Total EMP Budget		**29,56,200**	**8,32,600**

Additional Blasting EMP Budget

BLASTING			
Particulars		Capital	Recurring
1	Training and Awareness of personnel during Blasting operations	1,00,000	20,000
2	3m high wall toward village side 200m x 1000/-	2,00,000	0.00
3	Provision of safe distance from the Project site for the settlements		
	• Blasting shelters and Sirens	1,00,000	40,000
	• Portable Drop Arm Barrier	2,00,000	40,000
Total cost		**6,00,000**	**1,00,000**

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.

Organization Chart for Environment Management Cell

Environment Monitoring Cell

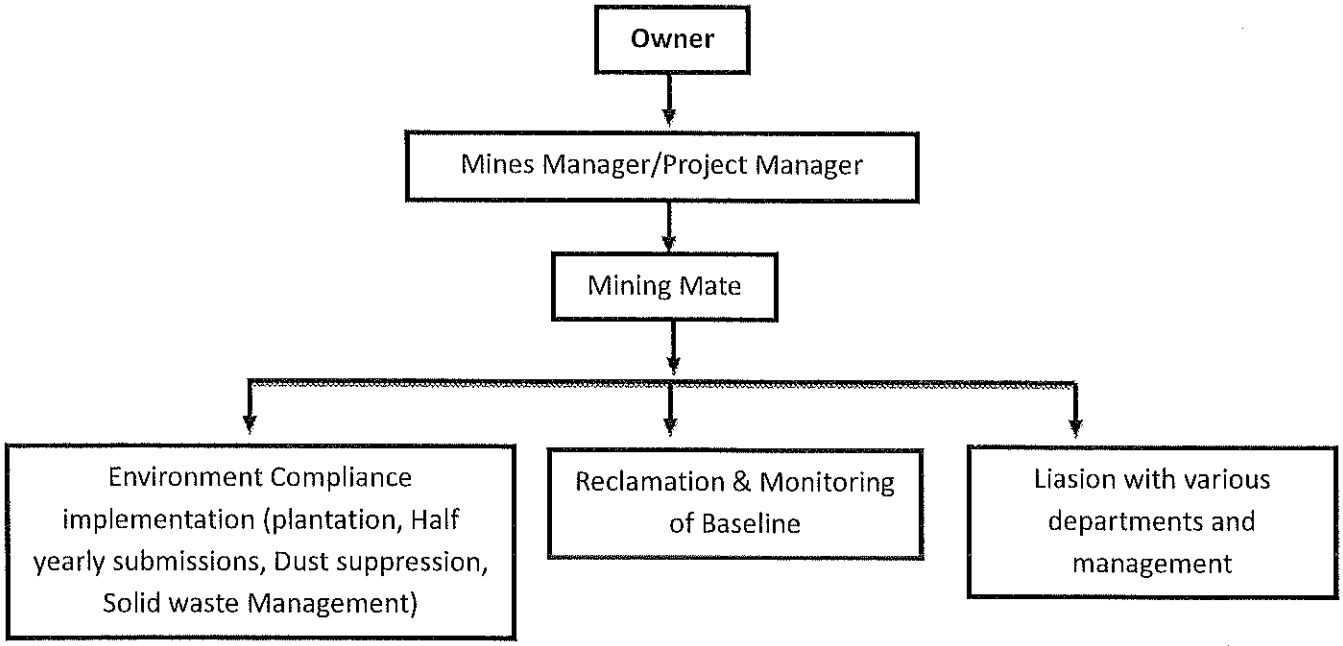


Fig: Organization Chart for Environment Management Cell

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 PM10, PM2.5, SO2, NOx 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.	6 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.	8station	Six Monthly

MONITORING SEASON- 1ST OF OCTOBER 2026 to 31st OF DECEMBER 2026

AIR MONITORING LOCATION MAP			
SL. No.	**Location**	**DISTANCE AND DIRECTION**	**Co-ordinate**
AAQ1	300M D/W	Approx. 0.19 km in WSW direction	24°22'5.26"N 84°13'48.69"E
AAQ2	Project Site	-	24°22'14.30"N 84°13'56.51"E
AAQ3	Majar in Rasool Bagh	Approx. 0.86 km in	24°22'23.10"N

		ENE direction	84°14'27.45"E
AAQ4	Tendudih	Approx. 0.72 km in SW direction	24°21'52.91"N 84°13'35.71"E
AAQ5	Munkeri	Approx. 0.90 km in ESE direction	24°21'58.76"N 84°14'25.31"E
AAQ6	Bagaiya School	Approx. 1.71 km in NW direction	24°22'40.48"N 84°13'2.91"E
AAQ7	Near Sarai-Dih Road, Chhatarpur	Approx. 1.88 km in WSW direction	24°21'40.53"N 84°13'1.28"E
AAQ8	Bagaiya	Approx. 0.60 km in West direction	24°22'19.29"N 84°13'34.94"E

NOISE MONITORING LOCATION MAP			
NQ1	300M D/W	Approx. 0.19 km in WSW direction	24°22'5.26"N 84°13'48.69"E
NQ2	Project Site	-	24°22'14.30"N 84°13'56.51"E
NQ3	Majar in Rasool Bagh	Approx. 0.86 km in ENE direction	24°22'23.10"N 84°14'27.45"E
NQ4	Tendudih	Approx. 0.72 km in SW direction	24°21'52.91"N 84°13'35.71"E
NQ5	Munkeri	Approx. 0.90 km in ESE direction	24°21'58.76"N 84°14'25.31"E
NQ6	Bagaiya School	Approx. 1.71 km in NW direction	24°22'40.48"N 84°13'2.91"E
NQ7	Near Sarai-Dih Road, Chhatarpur	Approx. 1.88 km in WSW direction	24°21'40.53"N 84°13'1.28"E
NQ8	Bagaiya	Approx. 0.60 km in West direction	24°22'19.29"N 84°13'34.94"E

GROUND WATER MONITORING LOCATION MAP			
GW1	300M D/W	Approx. 0.19 km in WSW direction	24°22'5.26"N 84°13'48.69"E
GW2	Project Site	-	24°22'14.30"N 84°13'56.51"E

GW3	Majar in Rasool Bagh	Approx. 0.86 km in ENE direction	24°22'23.10"N 84°14'27.45"E
GW4	Tendudih	Approx. 0.72 km in SW direction	24°21'52.91"N 84°13'35.71"E
GW5	Munkeri	Approx. 0.90 km in ESE direction	24°21'58.76"N 84°14'25.31"E
GW6	Bagaiya School	Approx. 1.71 km in NW direction	24°22'40.48"N 84°13'2.91"E
GW7	Near Sarai-Dih Road, Chhatarpur	Approx. 1.88 km in WSW direction	24°21'40.53"N 84°13'1.28"E
GW8	Bagaiya	Approx. 0.60 km in West direction	24°22'19.29"N 84°13'34.94"E

SOIL MONITORING LOCATION MAP			
SQ1	300M D/W	Approx. 0.19 km in WSW direction	24°22'5.26"N 84°13'48.69"E
SQ2	Project Site	-	24°22'14.30"N 84°13'56.51"E
SQ3	Majar in Rasool Bagh	Approx. 0.86 km in ENE direction	24°22'23.10"N 84°14'27.45"E
SQ4	Tendudih	Approx. 0.72 km in SW direction	24°21'52.91"N 84°13'35.71"E
SQ5	Munkeri	Approx. 0.90 km in ESE direction	24°21'58.76"N 84°14'25.31"E
SQ6	Bagaiya School	Approx. 1.71 km in NW direction	24°22'40.48"N 84°13'2.91"E
SQ7	Near Sarai-Dih Road, Chhatarpur	Approx. 1.88 km in WSW direction	24°21'40.53"N 84°13'1.28"E
SQ8	Bagaiya	Approx. 0.60 km in West direction	24°22'19.29"N 84°13'34.94"E

SURFACE WATER MONITORING LOCATION MAP			
SW1	Sadma Jheel	Approx. 4.62 km in SW direction	24°20'29.53"N 84°11'53.09"E
SW2	Pond in Tendudih	Approx. 0.89 km in WSW direction	24°21'56.75"N 84°13'27.04"E
SW3	Pond-Reclaimed Mine Pit near Project Site, Munkeri	Approx. 0.60 km in East direction	24°22'10.46"N 84°14'16.73"E
SW4	Batane River	Approx. 2.82 km in WNW direction	24°22'28.88"N 84°12'19.91"E
SW5	Batane Dam	Approx. 4.22 km in NNE direction	24°24'14.97"N 84°14'45.59"E

SW6	Pond in Kharwardih	Approx. 2.48 km in NE direction	24°23'7.17"N 84°14'51.68"E

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The waste encountered during the mining operation is mainly 462.00 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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.
Habitation Protection	▪ The EMP submitted by the PP covers mitigation measures to prevent adverse impacts on nearby houses/civil structures located approximately 200 m north of the project site. A 3 m high boundary wall shall be constructed along the project boundary to minimize dust dispersion and disturbance. Regular water sprinkling, proper maintenance of mining equipment and controlled mining operations shall be undertaken to minimize dust and noise pollution. Appropriate personal protective equipment (PPE) shall be provided to mine workers, and periodic healthcare and environmental awareness camps shall be organized. Environmental monitoring shall be conducted as required to ensure compliance with prescribed standards. The budgetary provision includes Rs. 6,00,000 for the boundary wall, Rs. 2,00,000 for safety gadgets, and Rs. 1,00,000 per year for healthcare and awareness camps.

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 28, 29, 30, 31 October, 01 & 02.11.2026,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. The detailed EMP is to be prepared for the few houses existing within an area of 500 meter radius of proposed project boundary. This EMP is to be included in EIA 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.

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4. **Kuchu Stone Mine of M/s Rajendra Construction, Mauza :Kuchu, Thana : Angara, Distt.: Ranchi, Jharkhand (1.25 Ha).**

(Proposal no.: SIA/JH/MIN/594875 /2026)

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

This is a new project which has been taken for appraisal on 30.10.2026.

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

Application for Terms of Reference (ToR).

TOR Application for: Boulder Stone:44786.00 Cum Per Annum /120922.20Tonnes Per Annum.

PROJECT and LOCATION Details:

Sl.	Parameter		Details	
1	Project Name	:	Kuchu Stone Mine Rajendra Construction	
2	Proprietor	:	Shri Rajendra Prasad	
3	Lease Address	:	Mauza- Kuchu, Thana No.-71,Thana- Angara, District- Ranchi, Jharkhand	
4	Lease Area	:	Ha:1.26	Acres:3.11
5	Cluster Details	:	Total area:(5.94+6.13+3.11)= 15.18 Acre or 6.14 ha)	Total no of mine in cluster: 3
6	Type of Land	:	Non-Forest – Rayati Land	
7	Project Cost	:	42.18 Lakhs	
8	EMP Budget	:	Capital: 31.96 Lakhs	Recurring: 10.22 Lakh / year
9	New or Expansion	:	New Project	
10	Mineable Reserves	:	207346.00 Cum	559834.20 Tonnes
11	Mine Life	:	5 years	
12	Man power	:	22	
13	Water Requirement	:	Total water requirement is 11.0 KLD=1.0 KLD (Drinking & Domestic Uses) + 6.0 (Plantation) KLD + 4.0 KLD (Dust Suppression).	
14	Water Source	:	by Authorised hired water tankers	
15	DG Set / power	:	100KVA(Temporary setup for Backup)	
16	Crusher	:	Not Proposed	
17	Nearest Water Body	:	Dora Nala, approx. 0.24 Km towards NW. **(EMP Submitted).** Subarnarekha River, approx. 1.73 Km towards North.	
18	Nearest Habitation	:	Approx. 0.32 km few houses towards south and 0.41 kmfew houses East direction. **(EMP Submitted).**	
19	Nearest Rail Station	:	Mesra Railway Station, approx. 23.94 Km towards West. Ranchi Railway Station, approx. 33.50 Km towards WSW.	
20	Nearest Air Port	:	Birsa Munda Airport Ranchi, approx. 35.60 Km towards WSW.	

21	Nearest Forest	:	Protected Forest, approx. 7.47 Km towards North. Protected Forest, approx. 9.13 Km towards NNW.
22	Road & Highways	:	NH 320, Approx. 5.98 Km towards NW. SH 1 (Ranchi Purulia Road), Approx. 7.60 Km towards South.
23	Approach Road	:	Approx. 400 m towards NW direction.
24	Eco Sensitive Zone(ESZ)	:	Eco Sensitive Zone Palkot, Gumla 65km in S-W direction.

CO-ORDINATES

1	Latitude		From 23° 26' 11.277" N	To 23° 26' 10.463" N
2	Longitude		From 85° 38' 59.766" E	To 85° 38' 59.396" E

LAND DETAILS

Khata no.	Plot no.
139	187, 239 & 244

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Ranchi vide letter no. 926/M, dated 31.07.2026.
2	CO	:	The CO, Angara, Ranchi vide letter no. 581 (ii), dated 08.07.2026 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan& Register II.During the appraisal it was seen from the KMLthatfew houses exists at a distance of 320 meters& 410 meters and River exist at a distance of 240 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Ranchivide memo no. 962/M, dated 07.08.2026certified that 02 other mining lease area (5.94 Acre & 6.13 Acre)exists within 500 m radius from proposed project site and total area is 15.18 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 547, dated 05.08.2026 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Ranchi Forest Division vide memo no. 2069, dated 02.07.2026 certified that the distance of protected / reserved forest is 510 meters from proposed project site.

6	DSR	:	The DMO, Ranchi has certified vide memo no. 1225/M, dated 21.10.2026 that this project is mentioned in approved DSR of Ranchi District as a Chapter-xiii, list for LoI holders in the district (Page no. 64, Sl. No. 06 & Page no. 67, Sl. No. 10).
7	Gram Sabha	:	BDO, Angara, Ranchi vide letter no. 584 (ii), dated 19.06.2026 informed that Gram Sabha conducted on 13.06.2026.
8	Mine Plan Approval	:	Approved by District Mining Officer, Ranchi vide Memo No. 1009/M, dated 21.08.2026.
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 Method, Semi-Mechanized Mine, Wagon Drilling & Control Blasting will be deployed.
2	Quarry Area	:	0.87 ha.
3	Waste Generation	:	5 years–29318 cum O.B waste
4	Stripping Ratio	:	1:0.05
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	506m AMSL
8	Ground Level Elevation		493mAMSL
9	Ultimate Working Depth	:	469m AMSL
10	Water Table	:	438m AMSL(55 BGL)
11	Topography of Mine	:	Uneven Surface
12	Explosive Requirement	:	100.34 Kg/Day(External Agency)
13	Diesel/Fuel requirement	:	280Litres/day

Production Details

Year	Proposed Production of stone in cum	Proposed Production of stone in tonnes	Generation of Waste/O.B in cum	Grade/Uses
1st	38880.00	104976.00	12960.00	Construction & Road
2nd	40000.00	108000.00	3520.00	Construction & Road

3rd	41442.00	111893.40	4704.00	Construction & Road
4th	42238.00	114042.60	8134.00	Construction & Road
5th	44786.00	120922.20	0.00	Construction & Road
Total	**207346.00**	**559834.20**	**29318.00**	

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	0.22	0.85	0.87 (0.17 ha reclaimed and used for plantation & 0.70 converted in to water reservoir)
Haul Road	0.01	0.02 (used under quarry)	0.00
Proposed Crusher	0.00	0.00	0.00
Green belt in Safety Zone	0.00	0.38	0.38
Dump with Parapet wall & garland drain	0.00	0.00	Top soil will be used for plantation and restore safety zone in first year and rest over burden will be used road dressing and backfilling
Total area in use	**0.23**	**1.25**	**1.25**
Balance unused area	1.02	0.00	0.00
Balance used area	0.00	0.00	0.00
Total Applied Lease Area	**1.25**	**1.25**	**1.25**

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	2.5x2.5	608	3800	0.38	Safety Zone Gulmohar, Gular, Sagwan, Sakua Along the Rd. fruit
	Haul Road	3.0x3.0	532	400Meter Approach Rd. Two row both side 400/3=133*4=532Plants	----	
	Reclaimed area	2.5x2.5	272	1700	0.17	
	Feeling trees	11@10=110	110	Plantation will be carried	----	

	1@10 trees (Ten new plants must be planted for every tree cut)			out in consultation with the concerned local Panchayat. *Before cutting the plants/trees, an NOC must be obtained from the DFO		bearing trees Mango, Jack fruit, Guava,
2nd	Care and Protection	----	----	----	----	
3rd	Care and Protection	----	----	----	----	
4th	Care and Protection	----	----	----	----	
5th	Care and Protection	----	----	----	----	
Total			**1522**	**5500**	**0.55**	

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 1522 trees proposed to be planted in the designated green belt area—both within and outside the lease boundary—10% (approximately 152 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)	Overhead water sprinkling Cost for 300 days for 8.0 KLD @5 KL tanker capacity, Rupees 500/- per tanker	1,00,000	2,40,000
	Green belt Cost for 300 days for 2.0 KLD @5 KL tanker capacity, Rupees 500/- per tanker		60,000
	& One dedicated tanker of 5 KL for Greenbelt Management	6,00,000	50,000
1(b)	Handling of sewage water	0	33,600
2	Prepare & Maintenance of approach road (Max. Road length 400 m, Width 4.0 m) @ 500Rs. /Meter.	2,00,000	20,000
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 580 m x 300 /– meter	1,74,000	20,000

6	Settling tank & Garland drain	2,00,000	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, reclaimed area, Compensatory plantation and along the road (for each plants including hedges and fences and tree guard at approach roads) 1522 No. of plants x 500 Rs.	7,61,000	2,00,000
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
Total EMP Budget		**22,41,500**	**8,32,600**

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP) for Habitation.

BLASTING			
Particulars		**Capital**	**Recurring**
1	Training and Awareness of personnel during Blasting operations	1,00,000	20,000
2	3m high wall toward village side 180m x 1000/-	1,80,000	0.00
3	Provision of safe distance from the Project site for the settlements		
	• Blasting shelters and Sirens	80,000	40,000
	• Portable Drop Arm Barrier	50,000	20,000
Total cost		**4,10,000**	**80,000**

BLASTING			
Particulars		**Capital**	**Recurring**
1	Training and Awareness of personnel during Blasting operations	1,00,000	20,000
2	3m high wall toward village side 120m x 1000/-	1,20,000	0.00
3	Provision of safe distance from the Project site for the settlements		
	• Blasting shelters and Sirens	80,000	40,000
	• Portable Drop Arm Barrier	50,000	20,000
Total cost		**3,50,000**	**80,000**

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP) for Water Body

Particulars	**Capital**	**Recurring**
Budgetary provision to prevent impact on Waterbody • Garland Drainage System, Desilting Pond, Retaining Wall, etc. measures to prevent surface-run-off	195000.00	30000.00
Total	**195000.00**	**30000.00**

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.

Organization Chart for Environment Management Cell

Environment Monitoring Cell

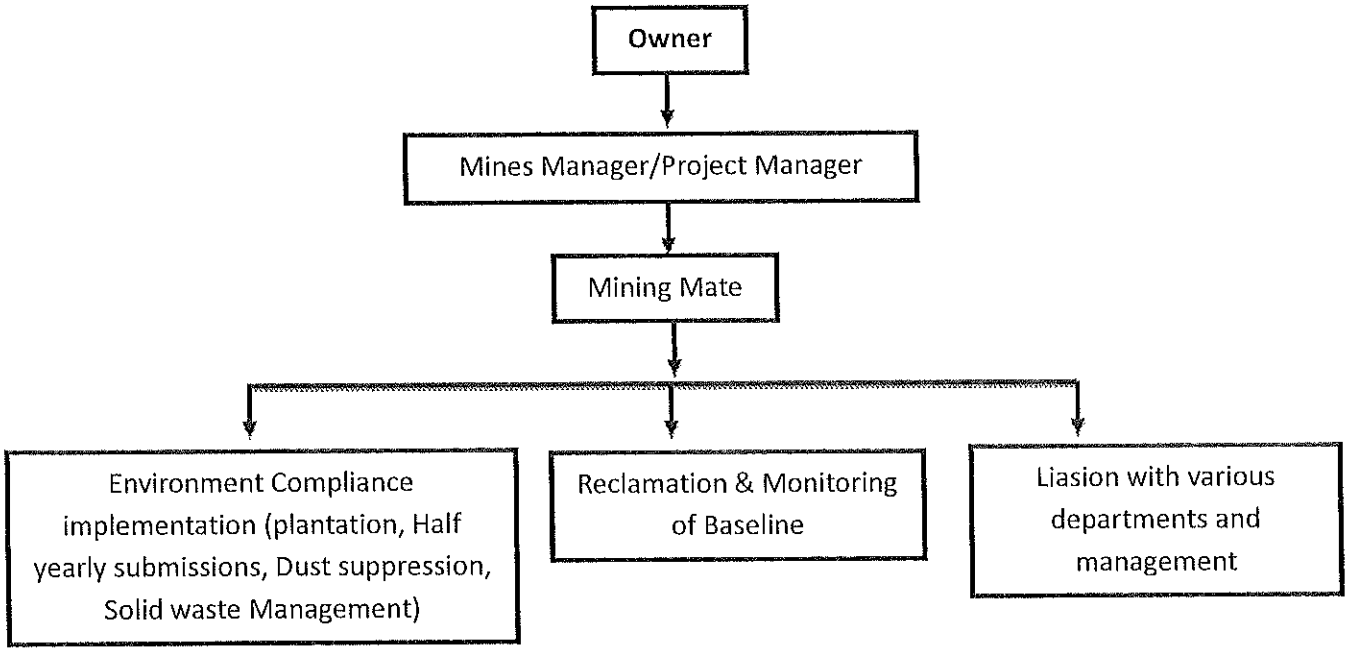


Fig: Organization Chart for Environment Management Cell

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 PM10, PM2.5, SO2, NOx 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.	5 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.	8station	Six Monthly

MONITORING SEASON- 1ST OF OCTOBER 2026 to 31st OF DECEMBER 2026

AIR MONITORING LOCATION MAP			
SL. No.	**Location**	**DISTANCE AND DIRECTION**	**Co-ordinate**
AAQ1	Project Site	-	23°26'10.74"N 85°39'2.73"E
AAQ2	450M D/W	Approx. 0.39 km in SE direction	23°26'4.23"N 85°39'17.30"E
AAQ3	Near KarmuBediya	Approx. 0.70 km in NE direction	23°26'23.82"N 85°39'23.75"E
AAQ4	Badri	Approx. 0.99 km in WSW direction	23°25'54.38"N 85°38'27.53"E
AAQ5	Suraj Bedia Kuchu Village	Approx. 1.17 km in SE direction	23°25'39.47"N 85°39'29.65"E
AAQ6	Hundru	Approx. 2.96 km in East direction	23°26'11.86"N 85°40'47.00"E
AAQ7	Near Maszij-e Rizvi, Kuchu	Approx. 0.76 km in South direction	23°25'43.99"N 85°39'4.91"E
AAQ8	Near Padua Khet	Approx. 0.41 km in NW direction	23°26'19.20"N 85°38'50.39"E

NOISE MONITORING LOCATION MAP			
NQ1	Project Site	-	23°26'10.74"N 85°39'2.73"E
NQ2	450M D/W	Approx. 0.39 km in SE	23°26'4.23"N

		direction	85°39'17.30"E
NQ3	Near KarmuBediya	Approx. 0.70 km in NE direction	23°26'23.82"N 85°39'23.75"E
NQ4	Badri	Approx. 0.99 km in WSW direction	23°25'54.38"N 85°38'27.53"E
NQ5	Suraj Bedia Kuchu Village	Approx. 1.17 km in SE direction	23°25'39.47"N 85°39'29.65"E
NQ6	Hundru	Approx. 2.96 km in East direction	23°26'11.86"N 85°40'47.00"E
NQ7	Near Maszij-e Rizvi, Kuchu	Approx. 0.76 km in South direction	23°25'43.99"N 85°39'4.91"E
NQ8	Near Padua Khet	Approx. 0.41 km in NW direction	23°26'19.20"N 85°38'50.39"E

GROUND WATER MONITORING LOCATION MAP			
GW1	Project Site	-	23°26'10.74"N 85°39'2.73"E
GW2	450M D/W	Approx. 0.39 km in SE direction	23°26'4.23"N 85°39'17.30"E
GW3	Near KarmuBediya	Approx. 0.70 km in NE direction	23°26'23.82"N 85°39'23.75"E
GW4	Badri	Approx. 0.99 km in WSW direction	23°25'54.38"N 85°38'27.53"E
GW5	Suraj Bedia Kuchu Village	Approx. 1.17 km in SE direction	23°25'39.47"N 85°39'29.65"E
GW6	Hundru	Approx. 2.96 km in East direction	23°26'11.86"N 85°40'47.00"E
GW7	Near Maszij-e Rizvi, Kuchu	Approx. 0.76 km in South direction	23°25'43.99"N 85°39'4.91"E
GW8	Near Padua Khet	Approx. 0.41 km in NW direction	23°26'19.20"N 85°38'50.39"E

SOIL MONITORING LOCATION MAP			
SQ1	Project Site	-	23°26'10.74"N 85°39'2.73"E
SQ2	450M D/W	Approx. 0.39 km in SE direction	23°26'4.23"N 85°39'17.30"E
SQ3	Near KarmuBediya	Approx. 0.70 km in NE direction	23°26'23.82"N 85°39'23.75"E
SQ4	Badri	Approx. 0.99 km in WSW direction	23°25'54.38"N 85°38'27.53"E
SQ5	Suraj Bedia Kuchu Village	Approx. 1.17 km in SE	23°25'39.47"N

		direction	85°39'29.65"E
SQ6	Hundru	Approx. 2.96 km in East direction	23°26'11.86"N 85°40'47.00"E
SQ7	Near Maszij-e Rizvi, Kuchu	Approx. 0.76 km in South direction	23°25'43.99"N 85°39'4.91"E
SQ8	Near Padua Khet	Approx. 0.41 km in NW direction	23°26'19.20"N 85°38'50.39"E

SURFACE WATER MONITORING LOCATION MAP			
SW1	Pond near Project Site	Approx. 0.68 km in ESE Direction.	23°26'2.80"N 85°39'23.92"E
SW2	Subarnarekha River	Approx. 1.99 km in North Direction.	23°27'8.77"N 85°38'56.72"E
SW3	Hundru Waterfall	Approx. 2.51 km in NE Direction.	23°27'3.10"N 85°40'1.02"E
SW4	Koiya Dam	Approx. 8.67 km in NNE Direction.	23°30'40.49"N 85°40'10.34"E
SW5	Mahuabeda Waterfall Sursu	Approx. 7.36 km in ESE Direction.	23°25'1.87"N 85°43'8.23"E
SW6	Getlsud Dam	Approx. 10.12 km in WNW Direction.	23°27'42.12"N 85°33'17.76"E

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The waste encountered during the mining operation is mainly 29318.00 Cum during Plan period gritty soil removed will be dumped at eastern 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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.
Habitation Protection	▪ The EMP submitted by the PP covers mitigation measures to prevent adverse impacts on nearby houses/civil structures located approximately 113 m south of the project site. A 3 m high boundary wall shall be constructed along the project boundary to minimize dust dispersion and disturbance. Regular water sprinkling, proper maintenance of mining equipment and controlled mining operations shall be undertaken to minimize dust and noise pollution. Appropriate personal protective equipment (PPE) shall be provided to mine workers, and periodic healthcare and environmental awareness camps shall be organized. Environmental monitoring shall be conducted as required to ensure compliance with prescribed standards. The budgetary provision includes Rs. 7,60,000 for the boundary wall, Rs. 3,00,000 for safety gadgets, and Rs. 1,60,000 per year for healthcare and awareness camps.
Waterbody Protection	▪ The EMP submitted by the PP covers measures to prevent adverse impacts on the seasonal nallah located approximately 240 m north-west of the project site. A garland drain, retaining wall and sedimentation pond shall be provided to collect runoff and settle suspended solids. Regular inspection, cleaning and desilting shall be

	undertaken, particularly during the monsoon. Plantation along drainage channels and the mine boundary shall help control soil erosion. The collected water shall be reused for dust suppression and horticulture, avoiding direct discharge into the nallah and supporting the Zero Liquid Discharge (ZLD) approach. The budgetary provision for these measures is Rs. 1,95,000.00/-

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 28, 29, 30, 31 October, 01 & 02.11.2026, 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 few houses and river existing within an area of 500 meter radius of proposed project boundary. This EMP is to be included in EIA report.

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B. Matter related to inspection and monitoring of Remediation Plan and submit the report to SEIAA for release of Bank Guarantee submitted by Project Proponent to Jharkhand State Pollution Control Board (JSPCB).

i. Residential Complex "Diamond City" of M/s Eastern Estate Construction & Developer Pvt. Ltd., Village : Oyana, Thana :Pithoria, Tehsil : Ranchi, Dist. : Ranchi, Jharkhand.

Project Authority was not present in the meeting without any intimation.

Hence, this matter will be taken up for consideration after obtaining request on the Project Authority.

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ii. Commercial Building of "City Select Developers"of M/s City Select Developers, Village :Hindpiri, Tehsil : Ranchi, Distt. : Ranchi, Jharkhand.

The project authorities presented the implementation of the Remediation Plan & Natural and Community Resource Augmenation Plan. However, sufficient evidence of the implementation were not made available before the SEAC.

Hence, this matter will be taken up after all the details of implementation are provided.

****

C. Consideration of proposals :

1. **Gurgudih Stone Deposit of M/s Sri Ram Stone Works (Partners : (i) Shri Ashok Yadav (ii) Shri Vikash Kumar Yadav (iii) Ravi Kumar Nirala (iv) Shri Gautam Kumar), Mouza :Gurgudih, Thana :Jainagar, Distt.:Koderma, Jharkhand (0.696 Ha).**

   (Proposal no.: SIA/JH/MIN/595561 /2026)

   Name of the consultant :P & M Solution, Noida, U.P.

   This is a new project which has been taken for appraisal on 30.10.2026.

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

   Application for Terms of Reference (ToR).

   ToR Application for: Proposed Capacity –14212 cum/annum or 38372 TPA

   Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Gurgudih Stone Deposit (0.696 Ha. or 1.72 Acres)	
2	Lessee:	:	M/s Sri Ram Stone Works, Partner- 1) Sri Ashok Yadav, S/o- Shri GopalYadav, Village: Indarwa, P.O.: Indarwa, District: Koderma 2) Sri Vikash Kumar Yadav, S/o- Late Shankar Yadav, Village: Shanti Nagar, Srinagar, P.O.: Onkar Nagar, District: North West Delhi, State: Delhi 3) Sri Ravi Kumar Nirala, S/o- Late Chitranjan Yadav, Village: Chatkari, P.O.: Chalkusha, District: Hazaribag 4) Sri Gautam Kumar, S/o- Shri Surendra Prasad, ChhawraGali, Near Samanta Petrol Pump, P.O.: JhumriTelaiya, District: Koderma.	
3	Lease Address	:	Mouza – Gurgudih, Thana- Jainagar, District – Koderma, State- Jharkhand	
4	Lease Area	:	0.696 Ha	1.72 Acres
5	Type of Land	:	Non- Forest (Raiyati Land)	
6	Project Cost	:	Rs. 36.249 Lakhs	
7	EMP Budget	:	Capital: Rs. 6,54,900/-	Recurring: Rs. 5,19,650/-
8	New or Expansion	:	New	
9	Mineable Reserves	:	133157.03cum	Tonnes:359524 tones
10	Mine Life	:	9.4 years or 10 years	
11	Man power	:	15	
12	Water Requirement	:	8.42~8.50KLD (Drinking: 0.15 KLD, Dust Suppression:1.18KLD, Plantation:7.09 KLD)	

<table>
<tr><td>13</td><td>Water Source</td><td>:</td><td>Water will be taken from nearby village</td></tr>
<tr><td>14</td><td>DG Set / power</td><td>:</td><td>200 KVA</td></tr>
<tr><td>15</td><td>Crusher</td><td>:</td><td>No crusher</td></tr>
<tr><td>16</td><td>Nearest Water Body</td><td>:</td><td>Seasonal Nala, Approx. 295 meters towards SSW direction.
(EMP will submit at the time of EC Appraisal)
KesoNadi, Approx. 1.25 km towards East direction.</td></tr>
<tr><td>17</td><td>Nearest Habitation</td><td>:</td><td>Approx, 740meter towards South direction as per Google earth.</td></tr>
<tr><td>18</td><td>Nearest Rail Station</td><td>:</td><td>Yadudih Railway Station, approx.5.62 km toward SW direction.</td></tr>
<tr><td>19</td><td>Nearest Air Port</td><td>:</td><td>Deoghar Airport, approx. 99.52 km towards East direction.</td></tr>
<tr><td>20</td><td>Road & Highways</td><td>:</td><td>SH-13, Approx. 7.79 km. in NNE direction.</td></tr>
<tr><td>21</td><td>Approach road</td><td>:</td><td>Approx. 198 m</td></tr>
<tr><td>21</td><td>Cluster Certificate</td><td>:</td><td>Total Four minelease exists within 500m radius which is total of 6.25 ha or 15.46 Acres.
<table>
<tr><th>S.No.</th><th>Applicant / Leaseholder</th><th>Plot / Applied Area Details</th><th>Area</th></tr>
<tr><td>1.</td><td>M/s Shri Ram Stone Works</td><td>Mauza – Gurgudih, Khata No. – 02, Plot No. – 24 (P)</td><td>1.72 acres</td></tr>
<tr><td>2.</td><td>M/s Ravindra Mining Private Limited</td><td>Mauza – Gurgudih, Khata No. – 01, Plot No. – 26 (P)</td><td>5.17 acres</td></tr>
<tr><td>3.</td><td>M/s Pavitra Quarry Explosives Private Limited</td><td>Mauza – Gurgudih, Khata No. – 03, Plot No. – 25 (P)</td><td>7.11 acres</td></tr>
<tr><td>4.</td><td>Shri Ram Stone Works</td><td>Mauza – Gurgudih, Khata No. – 02,</td><td>1.46 acres</td></tr>
</table></td></tr>
</table>

					Plot No. – 28 (P)	
				Total		**15.46 acres or 6.25 Ha**
22	Nearest Forest	:	The distance of reserved / protected forest is 420m from proposed project site as per Divisional Forest Officer, Koderma, vide letter no.:1962, Dated13.08.2026			
24	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 11.00 KM from the nearest Eco Sensitive Zone of Koderma Wildlife Sanctuary.			

CO-ORDINATES

Point	Latitude	Longitude
1	24° 22' 25.6208" N	85° 43' 44.4597" E
2	24° 22' 25.3647" N	85° 43' 44.4862" E
3	24° 22' 24.6720" N	85° 43' 44.2734" E
4	24° 22' 24.3998" N	85° 43' 44.2527" E
5	24° 22' 22.9284" N	85° 43' 43.9537" E
6	24° 22' 22.2479" N	85° 43' 41.1497" E
7	24° 22' 25.3727" N	85° 43' 41.6620" E
8	24° 22' 25.4354" N	85° 43' 41.6614" E

LAND DETAILS

Khata no.	Plot no.
02	24 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by Distirct Mining

			Officer, Koderma vide memo no. 1314/M, dated 24.07.2024.
2	CO	:	The CO, Jainagar (Koderma) vide letter no. 601, dated 19.08.2023 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 KMLthatSeasonal Nala exists at a distance of 295 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Koderma vide memo no. 879/M, dated 25.09.2026 certified that 03 other LoI (5.17 Acre, 7.11 Acre& 1.46 Acre) exists within 500 meters radius from proposed project site and total area is 15.46 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 1924, dated 26.08.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Koderma Forest Division vide letter no. 1962, dated 13.08.2026 certified that the distance of notified forest is 420 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Koderma District (Page no. 42, Sl. No. 08).
7	Gram Sabha	:	BDO, Jainagar vide letter no. 715, dated 28.06.2024 informed that Gram Sabha conducted on 27.06.2024.
8	Mine Plan Approval	:	Approved by The Assistant Director, Geology, District Geological Office, Koderma vide Memo No. 137, dated 28.07.2025.
9	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Baseline monitoring period	:	March, 2026 to May, 2026.

Working Details

1	Mining Method	:	Opencast Semi Mechanized Method	
2	Quarry Area	:	0.471ha.	Life of Mine – 9.4 years or 10 years
3	Waste Generation	:	Total 11930 cum waste shall be generated during the plan period.	
4	Stripping Ratio	:	1: 0.22	

5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	384 AMSL to 380 AMSL
8	Ground Level Elevation	:	375 AMSL
9	Ultimate Working Depth	:	Up to 351 AMSL (24mbgl)
10	Water Table	:	300-297 AMSL (75 –78mbgl)
11	Topography of Mine	:	The applied lease area represents a small hillock.
12	Explosive Requirement	:	100 kg/day
13	Diesel/Fuel requirement	:	110 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
1st Year	10013	27035	5440	527	5967
2nd Year	11063	29869	1360	582	1942
3rd Year	12274	33140	1955	646	2601
4th Year	12759	34448	0	672	672
5th Year	14212	38372	0	748	748
Total	**60320**	**162865**	**8755**	**3175**	**11930**

Land Use

Land Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	At conceptual period (Ha)
Excavation	0.026	0.327	0.471 (0.084 ha area shall be backfilled, 0.205 ha converted into water reservoir & 0.182 ha Shall be left as dead benches)
Waste Dump	0.0	0.123	Nil (waste dump to be removed and backfilled)
Road	0.0	0.002	0.0
Infrastructure	0.0	0.0	0.0
Safety zone	0.0	0.225	0.225

		(Plantation)	(Plantation)
Total	**0.026**	**0.677**	**0.696**
unused Area	**0.670**	**0.019**	**0.00**
Total Lease Area	**0.696**		

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.225	360	1600 Tree per Hectare	1st Year	Babul, Neem, Mango, Jamun Jackfruits, , Gulmohar, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	198	396	2m X 2 m spacing in two rows both side		
Plantation in Dead Bench	0.182	292	1600 Tree per Hectare	At the end of plan Period	
Plantation in Backfilling	0.084	135			
Total		**1183**			

- 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 RS)

PROJECT COST

Particulars	Capital	Recurring
Land	17,20,000.00	1,72,000.00
Infrastructure	6,00,000.00	1,20,000.00

<table>
<tr><td>Mining Equipment
<table><tr><th>Equipment</th><th>Quantity</th><th>Rent per year</th></tr><tr><td>Excavator</td><td>1</td><td>4,00,000</td></tr><tr><td>Rock Breaker</td><td>1</td><td>2,00,000</td></tr><tr><td>Compressor /Wagon Drill</td><td>1</td><td>10,00,000</td></tr><tr><td>Loader</td><td>1</td><td>3,00,000</td></tr><tr><td>Dumper</td><td>1</td><td>2,00,000</td></tr><tr><td>Water Sprinkler</td><td>1</td><td>6,00,000</td></tr></table>
@Per Excavator-4,00,000/-
@Rock Breaker- 2,00,000/-
@Per Compressor-10,00,000/-
@Per Dumper- 2,00,000/-
@Per Loader-3,00,000/-
@Per Water Sprinkler -6,00,000/-
@DG set -15,00,000/-</td><td>0.00</td><td>27,00,000.00</td></tr>
<tr><td>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)</td><td>0.00</td><td>6,000.00</td></tr>
<tr><td>Statutory Clearances</td><td>5,00,000.00</td><td>0.00</td></tr>
<tr><td>Mine Closure Cost for fencing around mine</td><td>1,50,000.00</td><td>0.00</td></tr>
<tr><td>Environment Management Plan (EMP) Cost</td><td>6,54,900.00</td><td>5,19,650.00</td></tr>
<tr><td>Total</td><td>36,24,900.00</td><td>35,17,650.00</td></tr>
</table>

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	**Capital**	**Recurring**
1183Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	3,54,900	59,150
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.18 KLD) & Horticulture (7.09 KLD) 1.18 +7.09 = 8.27 KLD 8.27 KLD X 300 Days =2481 KLD	0	3,10,500

2481 KLD / 4 KLD = 621 Tankers		
Environment Monitoring & Compliance	0	50,000
Garland Drain & Retaining wall	3,00,000	1,00,000
Total	**6,54,900**	**5,19,650**

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 ofintermixed 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 11930 cum in-situ waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 6465 cum (In situ) shall be utilized for approach & haul road maintenance. • The rest waste material (50%) i.e. 6465 cum in situ 8081.72 cum loose & 6869.46 cum compact waste shall be utilized for backfilling and dumping. During the first year 620 cum waste shall be utilized for backfilling of excavated part of safety zone in south eastern part and 3484 cum waste and generated waste from 2nd year to 5th year shall be temporarily dumped in the southern part of the applied lease area and it will cover 0.123ha.
Air Quality Management	• **Wet drilling** and use of **sharp drill bits** to minimize dust generation. • **Controlled blasting** using optimum explosive charge during favorable

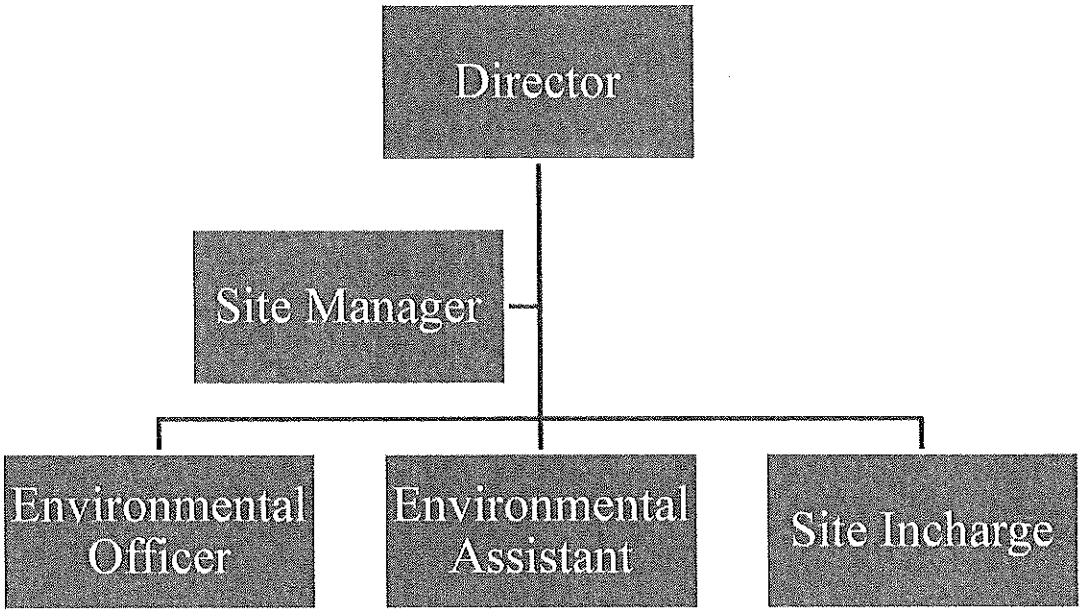
	weather conditions. • Regular **maintenance of diesel equipment and vehicles** to reduce emissions. • **Water sprinkling** on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid **PUC certificates**. • **Greenbelt and roadside plantation** to act as dust 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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked

	thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, 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 28, 29, 30, 31 October, 01 & 02.11.2026,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 Seasonal Nala existing within an area of 500 meter radius of proposed project boundary. This EMP is to be included in EIA report.

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2. **Gurgudih Stone Deposit of M/s Sri Ram Stone Works (Partners : Shri Vinod Kumar & Shri Nilesh Kumar), Mouza :Gurgudih, Thana :Jainagar, Distt.: Koderma, Jharkhand (0.590 Ha).**

(Proposal no.: SIA/JH/MIN/596707 /2026)

The PA vide letter dated 30.10.2026 requested deferment of the project proposal.

Hence, the proposal is being deferred for next meeting of SEAC.

****

3. **Gurgudih Stone Deposit of M/s Pavitra Quarry Explosive Pvt. Ltd., Mouza :Gurgudih, Thana :Jainagar, Distt.:Koderma, Jharkhand (2.877 Ha).**

(Proposal no.: SIA/JH/MIN/ 595708 /2026)

Name of the consultant :P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 30.10.2026.

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

Application for Terms of Reference (ToR).

ToRApplication for: Proposed Capacity –106060 cum/annum or 286362 TPA

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Gurgudih Stone Deposit (2.877 Ha. or 7.11 Acres)	
2	Lessee:	:	M/s Pavitra Quarry Explosive Pvt. Ltd. Partner – 1. Romus Anal 2. Sri Sujit Mehta, 3. Sri Ravi kumarNirala, 4. Sri Ashok Yadav& 5. Sri Gautam Kumar At- 204, Sonali Apartment, Hanuman Nagar Buti More, Bariyatu, Ranchi, Jharkhand.	
3	Lease Address	:	Mouza – Gurgudih, Thana- Jainagar, District – Koderma, State- Jharkhand	
4	Lease Area	:	2.877 Ha	7.11 Acres
5	Type of Land	:	Non- Forest (Raiyati Land)	
6	Project Cost	:	Rs. 100.703 Lakhs	
7	EMP Budget	:	Capital: Rs. 11,10,300/-	Recurring: Rs. 9,51,050/-
8	New or Expansion	:	New	
9	Mineable Reserves	:	1038836.29cum	Tonnes:2804858tones
10	Mine Life	:	9.8 years or 10 years	

11	Man power	:	24
12	Water Requirement	:	18.00KLD (Drinking: 0.24 KLD, Dust Suppression:1.56KLD, Plantation:16.20KLD)
13	Water Source	:	Water will be taken from nearby village
14	DG Set / power	:	500 KVA
15	Crusher	:	No
16	Nearest Water Body	:	Seasonal Nala, Approx. 105 meters towards South direction. (EMP will submit at the time of EC Appraisal). KesoNadi, Approx.1.22 km towards East direction.
17	Nearest Habitation	:	Approx, 530meter towards SW direction as per Google earth.
18	Nearest Rail Station	:	Yadudih Railway Station, approx.5.41 km toward SW direction.
19	Nearest Air Port	:	Deoghar Airport, approx. 99.82 km towards East direction.
20	Road & Highways	:	SH-13, Approx. 7.79 km. in NNE direction.
21	Approach road	:	Approx. 260m
22	Cluster Certificate	:	Total Four minelease exists within 500m radius which is total of 6.25 ha or 15.46 Acres.

S.No.	Applicant / Leaseholder	Plot / Applied Area Details	Area
1.	M/s Pavitra Quarry Explosives Private Limited	Mauza – Gurgudih, Khata No. – 03, Plot No. – 25 (P)	7.11 acres
2.	M/s Ravindra Mining Private Limited	Mauza – Gurgudih, Khata No. – 01, Plot No. – 26 (P)	5.17 acres
3.	Shri Ram Stone Works	Mauza – Gurgudih, Khata No. – 02, Plot No. – 28 (P)	1.46 acres

			4.	M/s Shri Ram Stone Works	Mauza – Gurgudih, Khata No. – 02, Plot No. – 24 (P)	1.72 acres
				Total		**15.46 acres or 6.25 Ha**
23	Nearest Forest	:	The distance of reserved / protected forest is 498 m from proposed project site as per Divisional Forest Officer, Koderma, vide letter no.: 2202, Dated 29.08.2026.			
24	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 10.80 KM from the nearest Eco Sensitive Zone of KodermaWildlife Sanctuary.			

CO-ORDINATES

BP. NO	LATITUDE	LONGITUDE
P1	24°22'28.034" N	85°43'34.175"E
P2	24°22'27.545"N	85°43'36.851"E
P3	24°22'27.056"N	85°43'39.526"E
P4	24°22'24.890"N	85°43'39.326"E
P5	24°22'22.110"N	85°43'39.067"E
P6	24°22'22.234"N	85°43'37.573"E
P7	24°22'22.546"N	85°43'36.496"E
P8	24°22'21.740"N	85°43'35.440"E
P9	24°22'20.460"N	85°43'32.970"E
P10	24°22'22.443"N	85°43'33.297"E
P11	24°22'24.210"N	85°43'33.566"E

P12	24°22'26.572" N	85°43'33.925"E
P13	24°22'20.211" N	85°43'33.671"E

LAND DETAILS

Khata no.	Plot no.
03	25 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by Distirct Mining Officer, Koderma vide memo no. 1185/M, dated 11.07.2024.
2	CO	:	The CO, Jainagar (Koderma) vide letter no. 202, dated 18.03.2024 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 KMLthatSeasonal Nala exists at a distance of 105 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Kodermavide memo no. 848/M, dated 08.09.2026 certified that 03 other LoI (5.17 Acre,1.46 Acre & 1.72 Acre) exists within 500 meters radius from proposed project site and total area is 15.46 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 1277, dated 29.06.2024 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Koderma Forest Division vide letter no. 2202, dated 29.08.2026 certified that the distance of reserved / protected forest is 498 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Koderma District (Page no. 42, Sl. No. 06).
7	Gram Sabha	:	BDO, Jainagar (Koderma) vide letter no. 241, dated 16.02.2024 informed that Gram Sabha conducted on 06.02.2024.
8	Mine Plan Approval	:	Approved by The Assistant Director, Geology, District Geological Office, Koderma vide Memo No. 202, dated 28.11.2025.
9	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and

			affirmed that the mine plan has been prepared by him.
10	Baseline monitoring period	:	March, 2026 to May, 2026.

Working Details

1	Mining Method	:	Opencast Semi Mechanized Method	
2	Quarry Area	:	2.343ha.	Life of Mine – 9.8 years or 10 years
3	Waste Generation	:	Total 61631cum waste shall be generated during the plan period.	
4	Stripping Ratio	:	1: 0.14	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	382AMSL to 373AMSL	
8	Ground Level Elevation	:	375 AMSL	
9	Ultimate Working Depth	:	Up to 310 AMSL (65mbgl)	
10	Water Table	:	300-297 AMSL (75 – 78mbgl)	
11	Topography of Mine	:	The applied lease area represents a small hillock.	
12	Explosive Requirement	:	100 kg/day	
13	Diesel/Fuel requirement	:	110 litre/day	

Production Details

Year	Production ofstone in Cum	Production ofstone in tonnes	Overburden in cum	Intercalated waste in cum	Total waste in cum
1st Year	102258	276097	34224	5382	39606
2nd Year	102914	277866	0	5417	5417
3rd Year	104356	281760	0	5492	5492
4th Year	105142	283884	0	5534	5534
5th Year	106060	286362	0	5582	5582
Total	**520729**	**1405969**	**34224**	**27407**	**61631**

Land Use

Pattern of Utilization	Present Land Use (Ha)	At the end of the Plan period (Ha)	At The End of mine (Ha)
Excavation	0.129	1.638	2.343 (0.327ha area shall be backfilled, 1.515ha converted into water reservoir & 0.501ha Shall be left as dead benches)
Waste Dump	0.0	0.327	Nil (Comes under Quarry)
Road	0.0	0.009	Nil (Comes under Quarry)
Crusher	0.0	Nil	Nil
Safety zone	0.0	0.534 (0.050 ha excavated part shall be backfilled & restored as S.Z.) (Plantation)	0.534 (Plantation)
Total	**0.129**	**2.508**	**2.877**
Balanced Area unused	**2.748**	**0.369**	**0.00**
Total Applied Area	**2.877**		

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.534	855	1600 Tree per Hectare	1st Year	Babul,Neem,Mango, Jamun Jackfruits, , Gulmohar, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	260	520	2m X 2 m spacing in two rows both side		
Plantation in Dead Bench	0.501	802	1600 Tree per Hectare	At the end of	

Plantation in Backfilling	0.327	524		plan Period	
Total		2701			

- 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 RS)

PROJECT COST

Particulars	Capital	Recurring
Land	71,10,000.00	7,11,000.00
Infrastructure	12,00,000.00	1,20,000.00
Mining Equipment	0.00	37,00,000.00

Equipment	*Quantity*	*Rent per year*
Excavator	2	8,00,000
Rock Breaker	1	2,00,000
Compressor/ Wagon Drill	1	10,00,000
Dumper	4	8,00,000
Loader	1	3,00,000
Water Sprinkler	1	6,00,000

@Per Excavator-4,00,000/-
@Rock Breaker- 2,00,000/-
@Per Compressor-10,00,000/-
@Per Dumper- 2,00,000/-
@Per Loader-3,00,000/-
@Per Water Sprinkler -6,00,000/-
@DG set -15,00,000/-

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	9,000.00
Statutory Clearances	5,00,000.00	0.00
Mine Closure Cost for fencing around mine	1,50,000.00	0.00

Environment Management Plan (EMP) Cost	11,10,300.00	9,51,050.00
Total	**1,00,70,300.00**	**54,91,050.00**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
2701 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	8,10,300	1,35,050
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.56 KLD) & Horticulture (16.20 KLD) 1.56 +16.20 = 17.76 KLD 17.76 KLD X 300 Days = 5328 KLD 5328 KLD / 4 KLD = 1332 Tankers	0	6,66,000
Environment Monitoring & Compliance	0	50,000
Garland Drain & Retaining wall	3,00,000	1,00,000
Total	**11,10,300**	**9,51,050**

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:

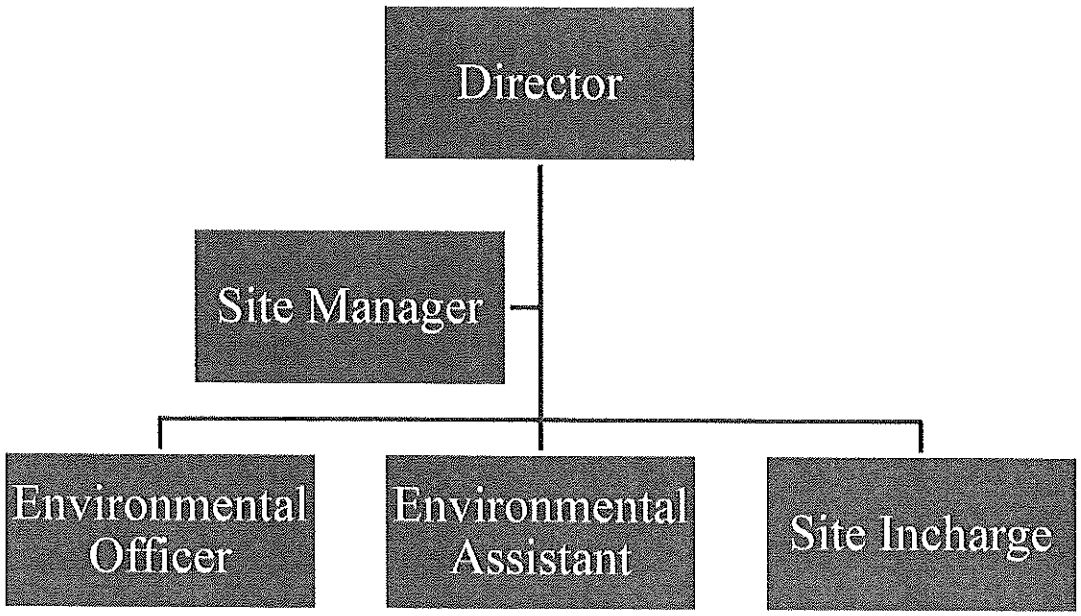
Aspect	Mitigation Measures / Control Measures

Solid Waste Management	• In this applied lease area, the stone deposit is covered with 2m layer of 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 61631 cum in-situ waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 30815 cum (In situ) shall be utilized for approach & haul road maintenance. • The rest waste material (50%) i.e. 30815 cum in situ 38519.25 cum loose & 32741.36 cum compact waste shall be utilized for backfilling and dumping. During the first year 5136 cum waste shall be utilized for backfilling of excavated part of safety zone in southern part and 14667 cum waste and generated waste from 2nd year to 5th year shall be temporarily dumped in the southern part of the applied lease area and it will cover 0.327ha.
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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, 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 28, 29, 30, 31 October, 01 & 02.11.2026,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 Seasonal Nala existing within an area of 500 meter radius of proposed project boundary. This EMP is to be included in EIA report.

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4. **Gurgudih Stone Deposit of M/s Ravindra Mining Pvt. Ltd., Mouza :Gurgudih, Thana :Jainagar, Distt.:Koderma, Jharkhand (2.092 Ha).**

(Proposal no.: SIA/JH/MIN/595702 /2026)

Name of the consultant :P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 30.10.2026.

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

Application for Terms of Reference (ToR).

ToR Application for: Proposed Capacity –72952 cum/annum or 196971 TPA

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Gurgudih Stone Deposit (2.092 Ha. or 5.17 Acres)	
2	Lessee:	:	M/s Ravindra Mining Pvt. Ltd. Director- Romus Anal At- 204, Sonali Apartment, Hanuman Nagar Buti More, Bariyatu, Ranchi, Jharkhand.	
3	Lease Address	:	Mouza – Gurgudih, Thana- Jainagar, District – Koderma, State- Jharkhand	
4	Lease Area	:	2.092 Ha	5.17Acres
5	Type of Land	:	Non- Forest (Raiyati Land)	
6	Project Cost	:	Rs. 89.613 Lakhs	
7	EMP Budget	:	Capital: Rs. 16,41,300/-	Recurring: Rs. 9,68,300/-
8	New or Expansion	:	New	
9	Mineable Reserves	:	575832.96 cum	Tonnes:1554749 tones
10	Mine Life	:	7.9 years or 8 years	
11	Man power	:	17	
12	Water Requirement	:	14.82 ~15.00 KLD (Drinking: 0.17 KLD, Dust Suppression: 1.57 KLD, Plantation: 13.08 KLD)	
13	Water Source	:	Water will be taken from nearby village	
14	DG Set / power	:	500 KVA	
15	Crusher	:	Yes	
16	Nearest Water Body	:	Seasonal Nala, Approx. 84 meters towards South direction. (EMP will submit at the time of EC Appraisal). Keso Nadi, Approx. 1.39 km towards East direction.	
17	Nearest Habitation	:	Approx, 477 meter towards SW direction as per Google earth. (EMP will submit at the time of EC Appraisal).	
18	Nearest Rail Station	:	Yadudih Railway Station, approx.5.43 km toward SW direction.	
19	Nearest Air Port	:	Deoghar Airport, approx. 99.95 km towards East direction.	
20	Road & Highways	:	SH-13, Approx. 7.82 km. in NNE direction.	
21	Approach road	:	Approx. 263 m	
22	Cluster Certificate	:	Total Four mine lease exists within 500m radius which is total of 6.25 ha or 15.46 Acres.	
23	Nearest Forest	:	The distance of reserved / protected forest is 583m from proposed project site as per Divisional Forest Officer, Koderma, vide letter no.:2201, dated 29.08.2026	
24	Distance of nearest	:	The project location is at approx. 10.80 KM from the nearest Eco	

	ESZ of Wildlife Sanctuary or National Park		Sensitive Zone of Koderma Wildlife Sanctuary.

CO-ORDINATES

BP. NO	LATITUDE	LONGITUDE
P1	24°22'28.624" N	85°43'32.110"E
P2	24°22'27.963"N	85°43'34.126"E
P3	24°22'26.095"N	85°43'33.853"E
P4	24°22'24.317"N	85°43'33.583"E
P5	24°22'22.361"N	85°43'33.286"E
P6	24°22'20.460"N	85°43'32.970"E
P7	24°22'19.851"N	85°43'32.490"E
P8	24°22'19.894"N	85°43'30.957"E
P9	24°22'20.744"N	85°43'29.418"E
P10	24°22'23.226"N	85°43'30.266"E
P11	24°22'27.132"N	85°43'31.600"E

LAND DETAILS

Khata no.	Plot no.
01	26 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by Distirct Mining Officer, Koderma vide memo no. 1269/M, dated 18.07.2024.
2	CO	:	The CO, Jainagar (Koderma) vide letter no. 311, dated 10.05.2024 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 KMLthatSeasonal Nala exists at a distance of 84

			meters and few houses exist at a distance of 477 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Koderma vide memo no. 847/M, dated 08.09.2026 certified that 03 other LoI (7.11 Acre, 1.46 Acre & 1.72 Acre) exists within 500 meters radius from proposed project site and total area is 15.46 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 975, dated 25.05.2024 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Koderma Forest Division vide letter no. 2201, dated 29.08.2026 certified that the distance of reserved / protected forest is 583 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Koderma District (Page no. 42, Sl. No. 07).
7	Gram Sabha	:	BDO, Jainagar (Koderma) vide letter no. 242, dated 16.02.2024 informed that Gram Sabha conducted on 06.02.2024.
8	Mine Plan Approval	:	Approved by The Assistant Director, Geology, District Geological Office, Koderma vide Memo No. 201, dated 28.11.2025.
9	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Baseline monitoring period	:	March, 2026 to May, 2026.

Working Details

1	Mining Method	:	Opencast Semi Mechanized Method	
2	Quarry Area	:	1.624 ha.	Life of Mine – 7.9 years or 8 years.
3	Waste Generation	:	Total 61028 cum waste shall be generated during the plan period.	
4	Stripping Ratio	:	1: 0.17	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	382 AMSL to 373 AMSL	
8	Ground Level Elevation	:	373 AMSL	
9	Ultimate Working Depth	:	Up to 330 AMSL (43mbgl)	
10	Water Table	:	300-297 AMSL (73 – 76 mbgl)	

11	Topography of Mine	:	The applied lease area represents a small hillock.
12	Explosive Requirement	:	100 kg/day
13	Diesel/Fuel requirement	:	110 litre/day

Production Details

Year	Production ofstone in Cum	Production ofstone in tonnes	Overburden in cum	Intercalated waste in cum	Total waste in cum
1st Year	67773	182987	28304	3567	31871
2nd Year	68875	185963	14268	3625	17893
3rd Year	69977	188938	0	3683	3683
4th Year	71079	191913	0	3741	3741
5th Year	72952	196971	0	3840	3840
Total	**350656**	**946772**	**42572**	**18456**	**61028**

Land Use

Pattern of Utilization	Present Land Use (Ha)	At the end of the Plan period (Ha)	At The End of mine (Ha)
Excavation	0.134	1.043	1.624 (0.320 ha area shall be backfilled, 1.059ha converted in to water reservoir & 0.246ha shall be left as dead benches)
Waste Dump	Nil	0.281	Nil (comes under quarry)
Road	0.00	0.011	Nil (comes under quarry)
Crusher	0.0	0.195	Nil (comes under quarry)
Safety zone	0.0	0.468 (0.012ha excavated part shall be backfilled	0.468 (Plantation)

		&restored as S.Z) (Plantation)	
Total	0.134	1.998	2.092
Balanced Area unused	1.958	0.094	0.00
Total Applied Area	**2.092**		

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.468	749	1600 Tree per Hectare	1st Year	Babul,Neem,Mango, Jamun Jackfruits, , Gulmohar, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	263	526	2m X 2 m spacing in two rows both side		
Plantation in Dead Bench	0.246	394	1600 Tree per Hectare	At the end of plan Period	
Plantation in Backfilling	0.320	512			
Total		**2181**			

- 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 RS)

PROJECT COST

Particulars	Capital	Recurring
Land	51,70,000.00	5,17,000.00

Infrastructure	15,00,000.00	1,50,000.00
Mining Equipment	0.00	31,00,000.00

Equipment	*Quantity*	*Rent per year*
Excavator	1	4,00,000
Rock Breaker	1	2,00,000
Compressor/ Wagon Drill	1	10,00,000
Dumper	3	6,00,000
Loader	1	3,00,000
Water Sprinkler	1	6,00,000

@Per Excavator-4,00,000/-
@Rock Breaker- 2,00,000/-
@Per Compressor-10,00,000/-
@Per Dumper- 2,00,000/-
@Per Loader-3,00,000/-
@Per Water Sprinkler -6,00,000/-
@DG set -15,00,000/-

Water Facility for Domestic Purpose "0.17" KLD (Annual Water Demand "51"KL @4L per Tanker, total number of tanker required ("13") and per tanker cost @Rs. 500)	0.00	6,500.00
Statutory Clearances	5,00,000.00	0.00
Mine Closure Cost for fencing around mine	1,50,000.00	0.00
Environment Management Plan (EMP) Cost	16,41,300.00	9,68,300.00
Total	**89,61,300.00**	**47,41,800.00**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
2181Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	6,54,300	1,09,050
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.57 KLD) & Horticulture (13.08KLD) 1.57 +13.08 = 14.65 KLD	0	5,50,000

14.65KLD X 300 Days =4395 KLD 4395 KLD / 4 KLD = 1100 Tankers		
Environment Monitoring & Compliance	0	50,000
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	8,37,000	2,09,250
Garland Drain & Retaining wall	1,50,000	50,000
Total	**16,41,300**	**9,68,300**

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:

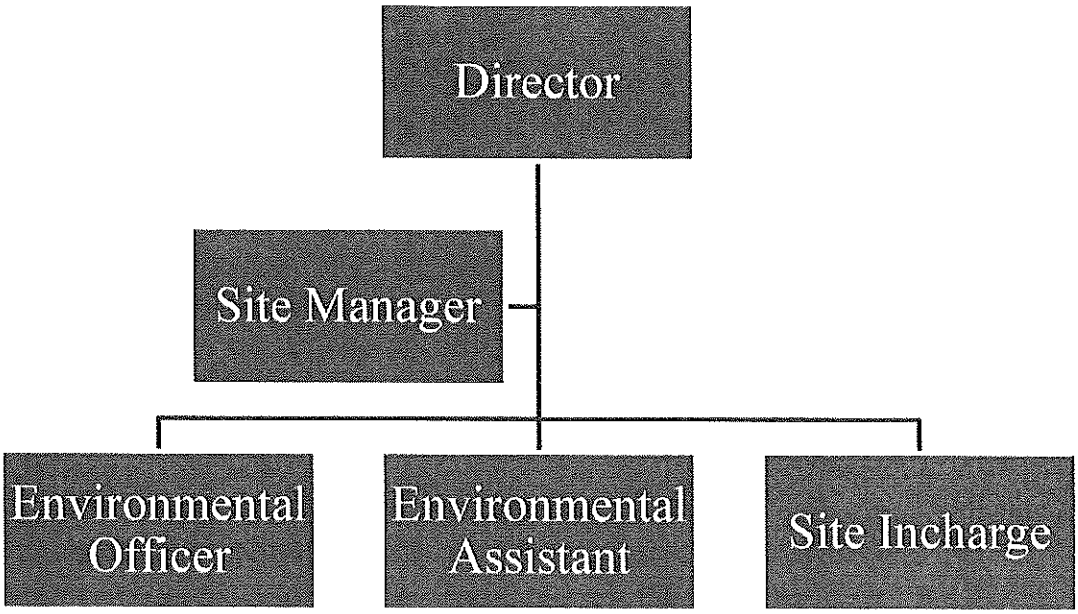
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• In this applied lease area, the stone deposit is covered with 2m layer of intermixed soil which considered as over burden. The recovery of stone is about 95%, thus intercalated waste of only 5% shall be generate from this mine. • It has been calculated that total 61028 cum in-situ waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 30513 cum (In situ) shall be utilized for approach & haul road maintenance. • The rest waste material (50%) i.e. 30513 cum in situ 38141.63 cum loose & 32420.38 cum compact waste shall be utilized for backfilling and dumping. During the first year 5372 cum waste shall be utilize for back filling of

	excavated part of safety zone & old quarry in south eastern part and 10563 cum waste and generated waste from 2nd year to 5th year shall be temporarily dumped in the southern part of the applied lease area and it will cover 0.281ha.
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	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are

Explosives	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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, 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 28, 29, 30, 31 October, 01 & 02.11.2026,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 Seasonal Nala and few houses existing within an area of 500 meter radius of proposed project boundary. This EMP is to be included in EIA report.

****

5. **Kurchudih Stone Deposit of M/s Jai Mata Di Construction (Partners : Shri Pradeep Kumar Mahato and Shri Dilip Kumar Gupta, Mouza :Kurchudih, Thana : Tamar, Distt.: Ranchi, Jharkhand (2.954 Ha).**

(Proposal no.: SIA/JH/MIN/594648 /2026)

Name of the consultant :P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 30.10.2026.

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

Application for Terms of Reference (ToR).

ToRApplication for: Proposed Capacity –174648 CUM/ANNUM OR 471550 TPA

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Kurchudih Stone Deposit (2.954 Ha. or 7.30 Acres.)	
2	Lessee:	:	M/s Jai Mata Di Construction, Partner- 1) Sri Pradeep Kumar Mahato S/o Late PraphullchandraMahto, Sant Enclave, 3C HB Road, Lalpur, District Ranchi; 2) Sri Dilip Kumar Gupta, S/o Ganesh Prasad Sahu, BirgaonSarjomdih, District Ranchi.	
3	Lease Address	:	Mouza – Kurchudih, Anchal- Tamar , Thana- Tamar, District – Ranchi, State- Jharkhand	
4	Lease Area	:	2.954 Ha	Acres-7.30Acres
5	Type of Land	:	Non- Forest (Raiyati Land)	
6	Project Cost	:	Rs. 105.523 Lakhs	
7	EMP Budget	:	Capital: Rs. 20,02,300/-	Recurring: Rs. 10,16,650/-
8	New or Expansion	:	New	
9	Mineable Reserves	:	857717cum	Tonnes:2315836tones
10	Mine Life	:	5 years	
11	Man power	:	26	
12	Water Requirement	:	15.41~15.50 KLD (Drinking: 0.26 KLD, Dust Suppression:1.77KLD, Plantation:13.38KLD)	
13	Water Source	:	Water will be taken from nearby village	
14	DG Set / power	:	500 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Karkari River Approx. 4.52 km towards SSE direction of mine site.	
17	Nearest Habitation	:	As per CO Letter, 18 houses are situated within 300 meters and 6 houses within 400 meters of the mine site. (EMP will be Submitted at the time of EC appraisal)	
18	Nearest Rail Station	:	Tiruldih Railway Station , approx.14.77 km toward NE direction.	
19	Nearest Air Port	:	BirsaMunda Airport, approx. 55.65 km towards WNW direction.	
20	Road & Highways	:	NH-43, Approx. 8.03 km in SSW direction.	
21	Approach road	:	Approx. 296 m	
22	Cluster Certificate	:	Total Fiveminelease exists within 500m radius which is total of (12.58 ha. or 31.10 Acres).	
23	Nearest Forest	:	The distance of reserved / protected forest is 910 m fromproposed project site as per Divisional Forest Officer, Khunti, vide letter no.:977, 26.05.2026	
24	Distance of nearest ESZ of Wildlife Sanctuary or National	:	Nearest Wildlife Sanctuary: Dalma Wildlife Sanctuary, located approximately 29 km from the proposed project site and lies outside its Eco-Sensitive Zone (ESZ), as per the information	

	Park		provided by the Divisional Forest Officer, Wildlife Division, Ranchi.

CO-ORDINATES

POINT	LATITUDE	LONGITUDE
1	23° 4' 20.294" N	85° 48' 6.401" E
2	23° 4' 20.022" N	85° 48' 3.338" E
3	23° 4' 19.262" N	85° 48' 3.366" E
4	23° 4' 19.360" N	85° 48' 0.170" E
5	23° 4' 21.606" N	85° 47' 59.912" E
6	23° 4' 24.978" N	85° 47' 59.505" E
7	23° 4' 24.771" N	85° 48' 1.886" E
8	23° 4' 22.842" N	85° 48' 6.207" E
9	23° 4' 24.562" N	85° 48' 6.075" E
10	23° 4' 25.455" N	85° 48' 1.964" E
11	23° 4' 25.087" N	85° 48' 4.040" E

LAND DETAILS

Khata no.	Plot no.
39	486 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Ranchi vide letter no. 855/M, dated 10.07.2026.
2	CO	:	The CO, Tamar (Ranchi) vide letter no. 184 (ii), dated 16.04.2026 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 24 houses exists within 500 meter of proposed project site, accordingly PAs has submitted EMP for the same.
3	DMO Cluster	:	DMO, Ranchi vide memo no. 1055/M, dated 03.09.2026certified that 04 other mining area (6.15 Acre, 6.15 Acre, 6.50 Acre & 5.00 Acre) exists within 500 meters radius from proposed project site and total area is 31.10 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 740, dated 26.10.2026 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, khuntiForest Division vide memo no. 977, dated 26.05.2026 certified that the distance of reserved / protected forest is 910 meters from proposed project site.

6	DSR	:	The DMO, Ranchi has certified vide memo no. 1068/M, dated 09.09.2026 that this project is mentioned in approved DSR of Ranchi District as a Chapter-11, other potential resource area in the district (Page no. 57, Sl. No. 1).
7	Gram Sabha	:	BDO, Tamar, Ranchi vide letter no. 370 (ii), dated 27.05.2026 informed that Gram Sabha conducted on 23.05.2026.
8	Mine Plan Approval	:	Approved by District Mining Officer, Ranchi vide Memo No. 952/M, dated 05.08.2026.
9	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Baseline monitoring period	:	March, 2026 to May, 2026.

Working Details

1	Mining Method	:	Opencast Semi Mechanized Method	
2	Quarry Area	:	2.443 ha.	Life of Mine – 5 years
3	Waste Generation	:	Total 95663 cum	
4	Stripping Ratio	:	1: 0.07	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	275AMSL to269AMSL	
8	Ground Level Elevation	:	269 AMSL	
9	Ultimate Working Depth	:	Up to 213AMSL (29 mbgl)	
10	Water Table	:	206-201 AMSL (63-68mbgl)	
11	Topography of Mine	:	The applied lease area represents a small hillock.	
12	Explosive Requirement	:	100 kg/day	
13	Diesel/Fuel requirement	:	110 litre/day	

Production Details

Year	Production ofstone in Cum	Production ofstone in tonnes	Overburden in cum	Intercalated waste in cum	Total waste in cum
1st Year	169461	457545	21150	8919	30069
2nd Year	170544	460469	19920	8976	28896
3rd Year	170867	461341	0	8993	8993

4th Year	172197	464932	9450	9063	18513
5th Year	174648	471550	0	9192	9192
Total	**857717**	**2315836**	**50520**	**45143**	**95663**

Land Use

Land Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	At conceptual period (Ha)
Excavation	0.0	2.443	2.443 (0.143 ha area shall be backfilled, 1.930 ha converted into water reservoir & 0.370 ha shall be left as dead benches)
Safety zone	0.0	0.511 (Plantation)	0.511 (Plantation)
Total	**0.0**	**2.954**	**2.954**
unused Area	**2.954**	**0.00**	**0.00**
Total Lease Area	**2.954**		

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.511	818	1600 Tree per Hectare	1st Year	Babul,Neem,Mango, JamunJackfruits, , Gulmohar, Pipal, Arjun, etc.
Length of Approach Road Area (m.)	296	592	2m X 2 m spacing in two rows both side		
Plantation in Dead Bench	0.370	592	1600 Tree per Hectare	At the end of plan Period	
Plantation in Backfilling	0.143	229			
Total		**2231**			

- 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 RS)

PROJECT COST

<table>
<tr><th>Particulars</th><th>Capital</th><th>Recurring</th></tr>
<tr><td>Land</td><td>73,00,000.00</td><td>7,30,000.00</td></tr>
<tr><td>Infrastructure</td><td>6,00,000.00</td><td>1,20,000.00</td></tr>
<tr><td>Mining Equipment
<table>
<tr><th>Equipment</th><th>Quantity</th><th>Rent per year</th></tr>
<tr><td>Excavator</td><td>3</td><td>12,00,000</td></tr>
<tr><td>Rock Breaker</td><td>1</td><td>2,00,000</td></tr>
<tr><td>Compressor/ Wagon Drill</td><td>1</td><td>10,00,000</td></tr>
<tr><td>Loader</td><td>1</td><td>3,00,000</td></tr>
<tr><td>Dumper</td><td>5</td><td>10,00,000</td></tr>
<tr><td>Water Sprinkler</td><td>1</td><td>6,00,000</td></tr>
</table>
@Per Excavator-4,00,000/-
@Rock Breaker- 2,00,000/-
@Per Compressor-10,00,000/-
@Per Dumper- 2,00,000/-
@Per Loader-3,00,000/-
@Per Water Sprinkler -6,00,000/-
@DG set -15,00,000/-</td><td>0.00</td><td>43,00,000.00</td></tr>
<tr><td>Water Facility for Domestic Purpose "0.26" KLD (Annual Water Demand "78"KL @4L per Tanker, total number of tanker required ("20") and per tanker cost @Rs. 500)</td><td>0.00</td><td>10,000.00</td></tr>
<tr><td>Statutory Clearances</td><td>5,00,000.00</td><td>0.00</td></tr>
<tr><td>Mine Closure Cost for fencing around mine</td><td>1,50,000.00</td><td>0.00</td></tr>
<tr><td>Environment Management Plan (EMP) Cost</td><td>20,02,300</td><td>10,16,650</td></tr>
<tr><td>Total</td><td>1,05,52,300</td><td>61,76,650</td></tr>
</table>

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring

2231 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	6,69,300	1,11,550
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.77 KLD) & Horticulture (13.38 KLD) 1.77 + 13.38= 15.15 KLD 15.15 KLD X 300 Days = 4545 KLD 4545 KLD / 4 KLD =1137 Tankers	0	5,68,500
Environment Monitoring & Compliance	0	50,000
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	11,83,000	2,36,600
Garland Drain & Retaining wall	1,50,000	50,000
Total	**20,02,300**	**10,16,650**

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
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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 gritty 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 95663 cum in-situ waste shall be generated during this plan period. Out of this, 14832 cum shall be utilized for approach & haul road maintenance. The rest waste material (remaining

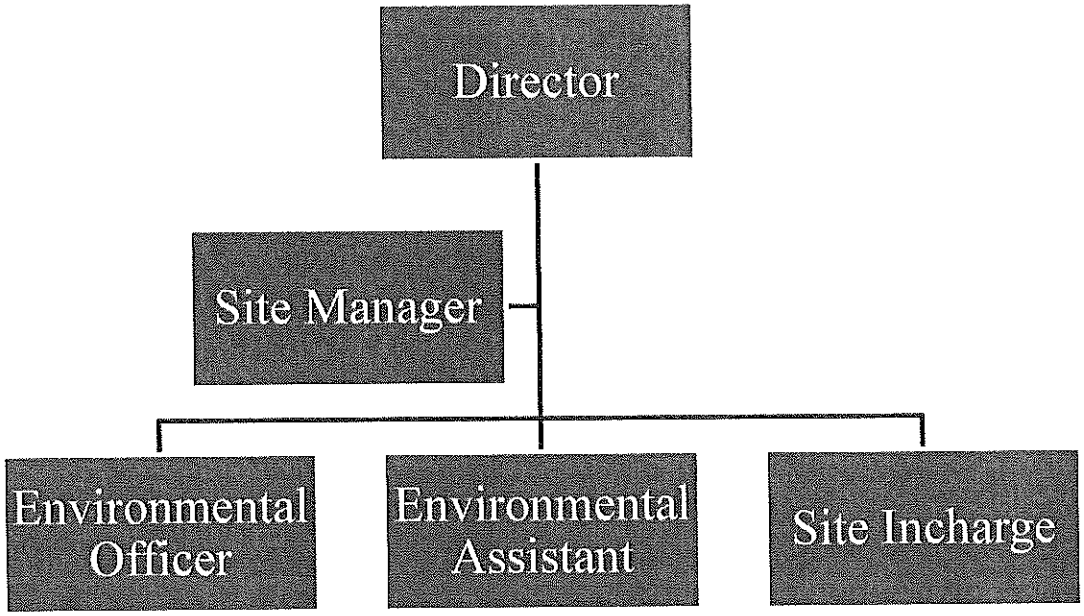
	quantity) i.e. 80831 cum in situ, 101038.38 cum loose & 85882.62 cum compact waste shall be temporarily dumped in the northern part of the applied lease area up to third year and during fourth & fifth year the generated waste and waste material of past dumping shall be utilized for backfilling of exhausted part of quarry at southern part and it will cover about 0.143 ha 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.
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Flora & Fauna	• **No tree felling** will be undertaken without obtaining permission from the

management	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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, 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 28, 29, 30, 31 October, 01 & 02.11.2026, 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.

****

Day 4 : 31st October, 2026 [Saturday]

Consideration of proposals

1. **Proposed Commercial mixed used building project of M/s Manikaran Excel Panchwati LLP, Village : Kalyanpur & Kanchnartoli, Tehsil : Namkum, Distt. : Ranchi, Jharkhand.**

   (Proposal no.: SIA/JH/INFRA2/588514 /2026)

   During the appraisal of the project on 31.10.2026it was seen from the KML file that some intervention has been done on the land after taking possession from Ranchi Smart City Corporation Ltd.

   Accordingly, the Committee is of the view that site visit should be done to ascertain the nature of intervention.

   The PAs present at the time of appraisal agreed that the site visit will be carried out during the next meeting of SEAC.

   The PAs further requested to appraise the project on 01.11.2026 as their Architect was not available on 31.10.2026.

   Accordingly, the project was taken up for appraisal on 01.11.2026. During appraisal in the presence of PAs and their Architect, the following observations were made by the SEAC :

   i. The Form-I is to be revised as discussed and uploaded on the portal.
   ii. The Form-IA is to be revised as discussed and uploaded on the portal.
   iii. Site layout plan is to be revised incorporating the following :
      a. 15% green belt is to be developed all along the project boundary and to provide its back calculation.
      b. Solid waste segregation and handling area is to be clearly indicated on the ground floor of the site layout plan.
      c. OWC is to be clearly indicated on the ground floor of the site layout plan.
      d. Provision for emergency exit to be made.
      e. Provision for parking on the ground floor is to be clearly marked.
      f. All the assembly point are to be clearly marked.
   iv. Dual plumbing Plan is to be provided.
   v. The back calculation for solar panel installationalongwith its location to be provided.
   vi. The quantity of execavated soil to be generated alongwith top soil and management of the same to be provided.
   vii. Fire safety plan to be provided.

   Hence, the site visit will be taken up in the next meeting and Member Secretary, SEAC will issue a letter for the same to the project authority.

   The proposal will be taken up for consideration after submission of the above required clarification / documents and out come of the site visit.

****

2. **Chhota Gutibera Stone Deposit - 1 of M/s Sri Vaishno Stone Works (Partner : Shri Vijay Bharti & Others), Village : Chhota Gutibera, Thana :Mirzachowki, Distt.:Sahibganj, Jharkhand (2.833 Ha).**

(Proposal no.: SIA/JH/MIN/591586 /2026)

Name of the consultant :P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 31.10.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity –93005 cum/annum or 251114 TPA

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Chhota Gutibera Stone Deposit- I	
2	Lessee	:	M/s Sri Vaishno Stone Works, Partner Shri Vijay Kumar Bharti & Others,	
3	Lessee Address	:	Village + PO- Bhagaiya, District -Godda, State – Jharkhand	
4	Lease Area	:	2.833 Ha.	7.0 Acres
5	Type of Land	:	Non-Forest Raiyati Land	
6	Project Cost	:	Rs. 114.35/- Lakh	
7	EMP Budget	:	Capital: Rs. 22.858/-Lakh	Recurring: Rs. 10.95 /- Lakh per year
8	New or Expansion	:	New	
9	Mineable Reserves	:	2394386 tones	886810 Cum
10	Mine Life	:	9.5 or say 10years	
11	Man power	:	24	
12	Water Requirement	:	15.13~15.20 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 approx, 12.01km towards ENE direction of mine site	
17	Nearest Habitation	:	Nearest Habitation 151m towards WSW direction as per Google Earth. (EMP submitted.)	
18	Nearest Railway Station	:	Karamtola Railway Station, approx. 4.42 km towards NNE direction.	
19	Nearest Airport	:	Deoghar Airport, approx. 118.85 km towards SW direction	
20	Road & Highways	:	NH – 33, Approx 5.10 km towards North direction.	
21	Approach Road	:	approx, 550 meters	

22	Cluster Certificate	:	No other mine exists within 500m radius.
23	Nearest Forest	:	The distance of reserved / protected forest is 460m from the proposed project site as per the Divisional Forest Officer, Sahibganj, vide letter no.: 911, dated 09.05.2017.
24	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 37.0 km in SE direction from the nearest Eco Sensitive Zone of Udhwa wildlife Sanctuary.

CO-ORDINATES

Point	Latitude	Longitude
P1	25°13'17.913"N	87°31'37.729"E
P2	25°13'17.920"N	87°31'38.708"E
P3	25°13'18.054"N	87°31'39.542"E
P4	25°13'17.608"N	87°31'40.497"E
P5	25°13'17.214"N	87°31'41.240"E
P6	25°13'17.419"N	87°31'41.861"E
P7	25°13'17.672"N	87°31'42.364"E
P8	25°13'17.241"N	87°31'42.776"E
P9	25°13'17.228"N	87°31'42.905"E
P10	25°13'16.733"N	87°31'42.880"E
P11	25°13'16.774"N	87°31'43.376"E
P12	25°13'16.100"N	87°31'42.936"E
P13	25°13'15.653"N	87°31'42.997"E
P14	25°13'15.050"N	87°31'43.375"E
P15	25°13'13.539"N	87°31'43.141"E
P16	25°13'13.025"N	87°31'43.088"E
P17	25°13'13.023"N	87°31'42.339"E
P18	25°13'13.296"N	87°31'41.522"E
P19	25°13'12.758"N	87°31'41.185"E
P20	25°13'11.989"N	87°31'40.694"E
P21	25°13'11.232"N	87°31'40.160"E
P22	25°13'11.113"N	87°31'39.873"E
P23	25°13'10.465"N	87°31'39.128"E
P24	25°13'10.559"N	87°31'38.396"E
P25	25°13'11.408"N	87°31'38.252"E
P26	25°13'11.375"N	87°31'37.981"E
P27	25°13'11.687"N	87°31'37.905"E
P28	25°13'11.926"N	87°31'37.453"E
P29	25°13'11.942"N	87°31'37.071"E
P30	25°13'14.129"N	87°31'37.344"E
P31	25°13'16.164"N	87°31'37.594"E
P32	25°13'16.701"N	87°31'37.632"E

LAND DETAILS

Khata no.	Plot no.
14	102 (P), 103 (P) & 104

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Sahibganj vide letter no. 1189/M, dated 31.08.2026.
2	CO	:	The CO, Mandro vide memo no. 515/Ra., dated 22.08.2025 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 KMLthatfew houses exists at a distance of 151 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 999/M, dated 04.07.2026 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. 940, dated 11.05.2026 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. 911, dated 09.05.2017 certified that the distance of notified forest is 460 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 1202/M, dated 02.09.2026 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 25.02.2018.
8	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1201/M, dated 02.09.2026.
9	Grid certificate	:	DMO, Sahibganj vide memo no. 1315/M, dated 02.10.2026 certified that said project falls under grid no. 12 and production is within the overall 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.
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	:	2.300 Ha
3	Waste Generation	:	59010cum
4	Stripping Ratio	:	1:0.11
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	236 m AMSL to 196 m AMSL
8	Ground Level Elevation	:	196m AMSL
9	Ultimate Working Depth	:	157 m AMSL (39mbgl)
10	Water Table	:	105 -102 m AMSL (91-94mbgl)
11	Topography of Mine	:	Area represents undulating hillock
12	Explosive Requirement	:	50 kg/day
13	Diesel/Fuel requirement	:	150 litre/day

Production Details

Year	Production of stone		Overburden cum	Intercalated waste in cum	Total Waste in cum
	Cum	MT			
1st Year	85586	231081	21340	4505	25845
2nd Year	86631	233902	5720	4560	10280
3rd Year	87780	27006	8690	4620	13310
4th Year	88930	240110	0	4681	4681
5th Year	93005	251114	0	4895	4895
Total	**441931**	**1193212**	**35750**	**23260**	**59010**

Land Use

Pattern of Utilization	Present Land use (Ha)	At the end of plan period (Ha)	At the end of mine in ha
Quarry	Nil	1.393	2.300(0.227ha area shall be backfilled,1.121ha area shall be converted into water reservoir and 0.953ha left as dead benches)
Waste Dump	Nil	0.375	Nil
Road	Nil	0.006	Nil
Safety Zone	Nil	0.533 (Plantation)	0.533 (Plantation)
Total area in use	**0.00**	**2.307**	**2.833**
Unused area	2.833	0.526	0.0
Total Lease Area	**2.833**		

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.533	853	1600 Tree per Hectare	1st Year	**Sal, Arjuna, Jackfruit, Neem, Pipal, Mango, Etc.**
Length of Approach Road Area (m.)	550	1100	2m X 2 m spacing in two rows both side		
Plantation at Backfilling	0.227	364	1600 Tree per Hectare	**At the end of plan period**	
Plantation At Dead Bench	0.953	1525			
Total		**3842**			

- 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 RS)

PROJECT COST

<table>
<tr><th>Particulars</th><th>Capital</th><th>Recurring</th></tr>
<tr><td>Land</td><td>70,00,000.00</td><td>7,00,000.00</td></tr>
<tr><td>Infrastructure</td><td>15,00,000.00</td><td>1,50,000.00</td></tr>
<tr><td>Mining Equipment
<table>
<tr><th>Equipment</th><th>Quantity</th><th>Rent per year</th></tr>
<tr><td>Excavator</td><td>02</td><td>8,00,000</td></tr>
<tr><td>Rock Breakers</td><td>01</td><td>2,00,000</td></tr>
<tr><td>Compressor/Wagon Drill</td><td>01</td><td>10,00,000</td></tr>
<tr><td>Dumper</td><td>03</td><td>6,00,000</td></tr>
<tr><td>Loader</td><td>01</td><td>2,00,000</td></tr>
<tr><td>Water Sprinkler</td><td>01</td><td>6,00,000</td></tr>
</table>
@Per Rock Breaker-2,00,000/-
@Per Excavator-4,00,000/-
@Per Compressor-10,00,000/-
@Per Water Sprinkler -6,00,000/-
@Per Dumper-2,00,000/-
@Loader -2,00,000/-</td><td>0.00</td><td>34,00,000.00</td></tr>
<tr><td>Water Facility for Domestic Purpose "0.11" KLD (Annual Water Demand "33"KL @4L per person , total number of tanker required ("9") and per tanker cost @Rs. 500)</td><td>0.00</td><td>4500.00</td></tr>
<tr><td>Statutory Clearances.</td><td>5,00,000.00</td><td>0.00</td></tr>
<tr><td>Mine Closure Cost for fencing around mine.</td><td>1,50,000.00</td><td>0.00</td></tr>
<tr><td>Environment Management Plan (EMP) Cost</td><td>22,85,800.00</td><td>10,95,600.00</td></tr>
<tr><td>Total</td><td>114,35,800.00</td><td>53,50,100.00</td></tr>
</table>

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
3842 Tree Plantation @Rs.300 per Tree for planting & @ Rs.50 per tree for maintenance	11,52,600	1,92,100
Water Tanker @Rs. 500 per Tanker for Dust Suppression (3.3 KLD) & Horticulture (11.72KLD) 3.3+ 11.72 = 15.02 KLD 15.02 KLD X 300 Days = 4506 KLD 4506KLD / 4 KLD = 1127Tankers	0	5,63,500
Environment Monitoring & Compliance	0	50,000
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	11,33,200	2,90,000
Total	**22,85,800**	**10,95,600**

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:

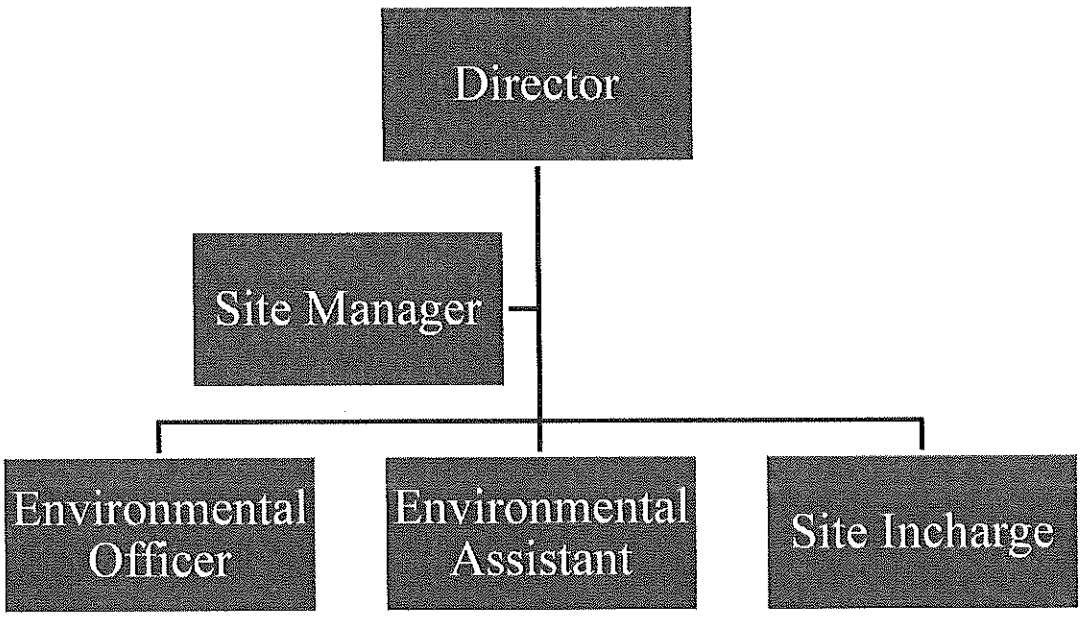
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• In this applied lease area, the stone deposit is covered with 2m layer of intermixed soil which considered as over burden. The recovery of stone is about 95%, thus intercalated waste of only 5% shall be generate from this mine. It has been calculated that total 59010 cum in-situ waste shall be generated during this plan period, out of which 33885 cum (In situ) shall be utilized for approach & haul road maintenance. The rest waste material 25125 cum in situ 29790.68 cum loose & 25322.08 cum compact waste shall be temporary dumped in southern part and it will cover 0.375 ha 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. While excavation of insitu waste, its volume shall be increase, as it becomes loose (insitu cum X 1.25), during the dumping/backfilling these loose materials shall be compacted with the use of dozer and volume will be decreased up to 85% of loose waste.
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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, 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 Gutibera Stone Deposit - 1 of M/s Sri Vaishno Stone Works (Partner : Shri Vijay Bharti & Others), Village : Chhota Gutibera, 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 – I along with following specific conditions :

I. This proposal was forwarded through PARIVESH Portal to Jharkhand State Pollution Control Board (JSPCB) for providing comments / Environmental Safeguards. The proposal was returned to SEAC via same portal without providing comments / Environmental Safeguards. Hence in compliance of OM File No. Q-15012/2/2022-CPW-Part(1)/e-240741, dated 14.01.2025 and File No. Q-15012/2/2022-CPW9Part-I)/e-231973, dated 08.10.2025, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board.

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. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.

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 *"EkPed Ma KeNaam"* 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.

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3. **Pandeni Mako Stone Deposit of M/s Chhotanagpur Engineering (Prop. : Shri Arshe Alam), Mouza :Pandeni Mako, Thana : Borio, Distt.: Sahibganj, Jharkhand (2.125 Ha).**

(Proposal no.: SIA/JH/MIN/589663 /2026)

Name of the consultant :P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 31.10.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity 71144 cum/annum or 192088 TPA

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	**Pandeni Mako Stone Deposit**	
2	Lessee	:	M/s Chhotnagpur Engineering Proprietor- Sri Arshe Alam	
3	Lessee Address	:	Village- + P.O. + P.S. – Hindpiri, District, Ranchi	
4	Lease Area	:	2.125 Ha.	5.25 Acres
5	Type of Land	:	Non-Forest Raiyati Land	
6	Project Cost	:	Rs 92.601/- Lakh.	
7	EMP Budget	:	Capital: Rs. 18.601 /- Lakh	Recurring: Rs. 10.1535 /- Lakh per year
8	New or Expansion	:	New	
9	Mineable Reserves	:	1800999 Tonnes	667037cum
10	Mine Life	:	9.4 or say 10 year	
11	Man power	:	21	
12	Water Requirement	:	15.79~ 16.0KLD	
13	Water Source	:	By authorised hired water tankers	
14	DG Set / power	:	50 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Nearest Water Body: Approx, 17.50 km, towards NE direction.	
17	Nearest Habitation	:	Nearest Habitation: 470 meters towards North West Direction.(EMP has been Submitted)	
18	Nearest Rail Station	:	Tinpahar Junction Railway Station, approx. 09.09 km towards East direction.	
19	Nearest Air Port	:	Deoghar Airport approx. 112.34 km towards SW direction.	
20	Road & Highways	:	SH-18, approx, 5.68 km towards West Direction.	

21	Approach Road	:	approx, 610 meters
22	Cluster Certificate	:	The Cluster Certificate has been issued by the DMO, Sahebganj, vide Letter No. 1143/M dated 20.08.2026, certifying that no mine exists within a 500 m radius of the proposed mining lease area.
23	Nearest Forest	:	The distance of the nearest notified forest land from the proposed project site is 543 m, as per the Inspection Report issued by the Divisional Forest Officer, Sahibganj Forest Division, Sahibganj, vide Letter No. 2922 dated 11.10.2025.
24	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	Nearest Wildlife Sanctuary: Udwa Lake WLS Jharkhand : 12 km From the Project Site The proposed project site does not fall within the notified Eco-Sensitive Zone (ESZ). The proposed site is also reported to be outside the 10 km distance from the nearest National Park or Sanctuary, as per the Inspection Report issued by the Divisional Forest Officer, Sahibganj Forest Division, Sahibganj, vide Letter No. 2923 dated 11.10.2025.

CO-ORDINATES

Point	Latitude	Longitude	Northing	Easting
P1	24° 59' 58.589" N	87° 39' 10.372" E	2765062.976	565883.1719
P2	24° 59' 59.314" N	87° 39' 10.814" E	2765085.355	565895.4614
P3	24° 59' 58.971" N	87° 39' 13.698" E	2765075.176	565976.3407
P4	24° 59' 58.215" N	87° 39' 13.348" E	2765051.892	565966.641
P5	24° 59' 56.208" N	87° 39' 12.449" E	2764990.037	565941.7371
P6	24° 59' 55.852" N	87° 39' 11.977" E	2764979.029	565928.5714
P7	24° 59' 55.338" N	87° 39' 11.585" E	2764963.154	565917.6573
P8	24° 59' 54.753" N	87° 39' 10.836" E	2764945.056	565896.7552
P9	24° 59' 54.447" N	87° 39' 10.030" E	2764935.531	565874.2126
P10	24° 59' 53.506" N	87° 39' 8.379" E	2764906.361	565828.056
P11	24° 59' 53.066" N	87° 39' 7.915" E	2764892.784	565815.117
P12	24° 59' 52.423" N	87° 39' 7.198" E	2764872.887	565795.1144
P13	24° 59' 54.263" N	87° 39' 5.384" E	2764929.251	565743.9871
P14	24° 59' 54.800" N	87° 39' 6.011" E	2764945.84	565761.4858
P15	24° 59' 55.058" N	87° 39' 6.684" E	2764953.882	565780.3043
P16	24° 59' 56.528" N	87° 39' 7.817" E	2764999.241	565811.8549
P17	24° 59' 57.486" N	87° 39' 8.564" E	2765028.808	565832.6688

P18	24° 59' 58.070" N	87° 39' 9.504" E	2765046.919	565858.9243

LAND DETAILS

Khata no.	Plot no.
36 & 37	245 (P), 246 & 255 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Sahibganj vide letter no. 837/M, dated 06.06.2026.
2	CO	:	The CO, Borio, Sahibganj vide letter no. 96/Ra., dated 07.02.2026 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 KMLthatfew houses exists at a distance of 470metersfrom mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 1143/M, dated 20.08.2026 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. 2923, dated 11.10.2025 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 letter no. 2922, dated 11.10.2025 certified that the distance of notified forest is 543 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 1144/M, dated 20.08.2026 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 182).
7	Gram Sabha	:	Gram Sabha conducted on 22.01.2026.
8	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1107/M, dated 07.08.2026.
9	Grid certificate	:	DMO, Sahibganj vide memo no. 397/M, dated 21.02.2026 certified that said project falls under grid no. 75and Hon'ble NGT does not decided the production capacity of that Grid.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.
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	:	1.646 Ha
3	Waste Generation	:	53608 cum
4	Stripping Ratio	:	1:0.07
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	302 m AMSL to 268 m AMSL
8	Ground Level Elevation	:	268 m AMSL
9	Ultimate Working Depth	:	244 m AMSL
10	Water Table	:	180 -177 m AMSL (88-91 mbgl)
11	Topography of Mine	:	Area represents Undulating Small hillocks.
12	Explosive Requirement	:	50 kg/day
13	Diesel/Fuel requirement	:	150 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
1st Year	63365	171086	16376	3335	19711
2nd Year	64414	173917	7912	3390	11302
3rd Year	65900	177929	8740	3468	12208
4th Year	66774	180289	3128	3514	6642
5th Year	71144	192088	0	3744	3744
Total	**331596**	**895308**	**36156**	**17452**	**53608**

Land Use

Pattern of Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At conceptual period (Ha)
Quarry	Nil	1.279	1.646 (0.183 ha area shall be backfilled, 0.784ha

			area shall be converted into water reservoir and 0.679 ha left as dead bench)
Waste dump	Nil	0.255	Nil
Road	Nil	0.004	Nil
Safety zone	Nil	0.479 (Plantation)	0.479 (Plantation)
Total	**0.0**	**2.017**	**2.125**
Unused Area	**2.125**	**0.108**	**0.0**
Total Lease Area	**2.125**		

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.479	768	1600 Tree per Hectare	1st Year	**Sal, Arjuna, Jackfruit, Neem, Pipal, Mango, Etc.**
Length of Approach Road Area (m.)	610	1220	2m X 2 m spacing in two rows both side		
Plantation at Backfilling	0.183	293	1600 Tree per Hectare	**At the end of plan period**	
Plantation At Dead Bench	0.679	1086			
Total		**3367**			

- 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 RS)

PROJECT COST

Particulars	Capital	Recurring
Land	52,50,000.00	5,25,000.00
Infrastructure	15,00,000.00	1,50,000.00

Mining Equipment *Equipment* / *Quantity* / *Rent per year* Excavator 01 4,00,000 Rock Breakers 01 2,00,000 Compressor/Wagon Drill 01 10,00,000 Dumper 02 4,00,000 Water Sprinkler 01 6,00,000 @Per Rock Breaker-2,00,000/- @Per Excavator-4,00,000/- @Per Compressor-10,00,000/- @Per Water Sprinkler -6,00,000/- @Per Dumper-2,00,000/-	0.00	26,00,000.00
Water Facility for Domestic Purpose "0.21" KLD (Annual Water Demand "63"KL @4L per person , total number of tanker required ("16") and per tanker cost @Rs. 500)	0.00	8,000.00
Statutory Clearances.	5,00,000.00	0.00
Mine Closure Cost for fencing around mine.	1,50,000.00	0.00
Environment Management Plan (EMP) Cost	18,60,100.00	10,15,350.00
Total	**92,60,100.00**	**42,98,350.00**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
3367 Tree Plantation @Rs.300 per Tree for planting & @ Rs.50 per tree for maintenance	10,10,100	1,68,350
Water Tanker @Rs. 500 per Tanker for Dust Suppression (3.66 KLD) & Horticulture (11.92 KLD) 3.66 + 11.92= 15.58 KLD 15.58 KLD X 300 Days = 4674 KLD 4674KLD / 4 KLD = 1169Tankers	0	5,84,500
Environment Monitoring & Compliance	0	50,000
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	8,50,000	2,12,500
Garland Drain & Retaining wall	0	0
Total	**18,60,100**	**10,15,350**

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:

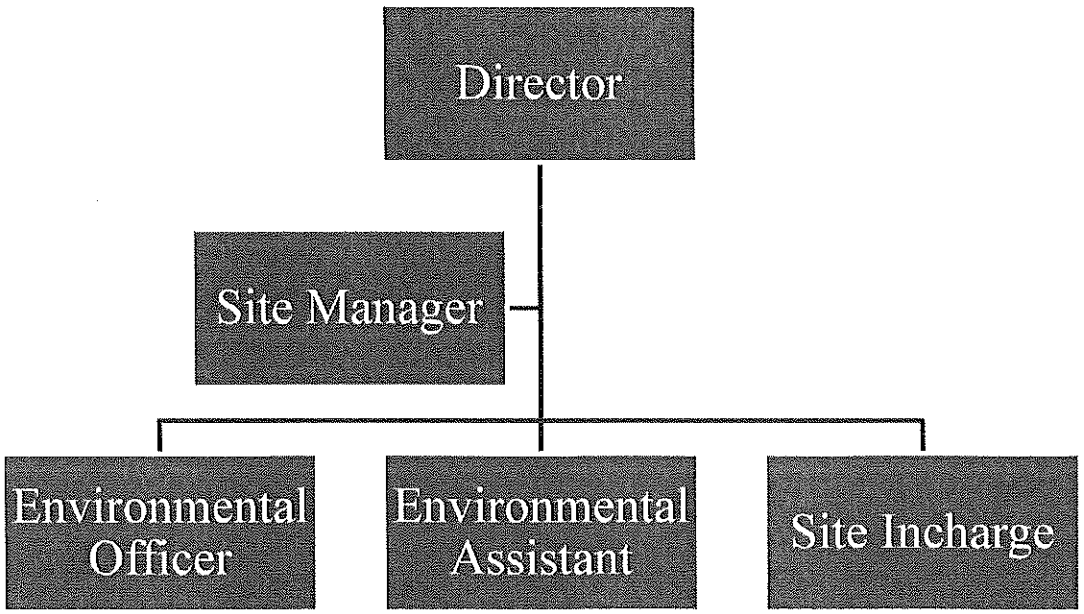
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• In this applied lease area, the stone deposit is covered with a 2 m layer of intermixed gritty soil, which is considered overburden. The recovery of stone is about 95%; thus, intercalated waste of only 5% shall be generated from this mine. • It has been calculated that a total of 53,608 cum (in-situ) waste shall be generated during this plan period. • The total generated waste, i.e., 53,608 cum (in-situ), out of which 30,181 cum (in-situ) waste shall be utilized for approach and haul road maintenance, and the remaining 23,427 cum (in-situ), 29,284.18 cum (loose), and 24,891.55 cum (compact) waste shall be temporarily dumped in the southern part of the applied lease area, covering an area of 0.255 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.

	• **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.
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	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.
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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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, 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.
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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.

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 Pandeni Mako Stone Deposit of M/s Chhotanagpur Engineering (Prop. : Shri Arshe Alam), Mouza :Pandeni Mako, Thana : Borio, Distt.: Sahibganj, Jharkhand (2.125 Ha)is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I along with following specific conditions :

I. This proposal was forwarded through PARIVESH Portal to Jharkhand State Pollution Control Board (JSPCB) for providing comments / Environmental Safeguards. The proposal was returned to SEAC via same portal without providing comments /

Environmental Safeguards. Hence in compliance of OM File No. Q-15012/2/2022-CPW-Part(1)/e-240741, dated 14.01.2025 and File No. Q-15012/2/2022-CPW9Part-I)/e-231973, dated 08.10.2025, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board.

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.

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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.

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4. **Stone Mine of M/s Krishna Stone Mines (Partners : Shri Samrat Singh & Shri Ashok Kumar Yadav), Mouza : Tham, Thana &Block :Chandwara, Distt.: Koderma, Jharkhand (0.396 Ha).**

(Proposal no.: SIA/JH/MIN/587334 /2026)

Name of the consultant :P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 31.10.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity –3555.56 cum/annum or 9600 TPA

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Stone Mine of M/s Krishna Stone Mines	
2	Lessee	:	M/s Krishna Stone Mines (Partner- Shri Samrat Singh & Shri Ashok Kumar Yadav)	
3	Lessee Address	:	Ward No -09, Village - Tham, PO - Dhab Tham, JhumriTelaiya, PS – Chandwara, District - Koderma, State- Jharkhand.	
4	Lease Area	:	0.396 Ha.	0.98 Acres
5	Type of Land	:	PrivateRaiyati Land	
6	Project Cost	:	Rs.35.546 Lakh	
7	EMP Budget	:	Capital: Rs. 4.246 Lakh	Recurring: Rs. 2.241 Lakh per year
8	New or Expansion	:	New	
9	Mineable Reserves	:	95904 tones	35520Cum
10	Mine Life	:	9.99 or say 10 year	
11	Man power	:	10	
12	Water Requirement	:	2.57 ~ 3.00 KLD	
13	Water Source	:	By authorised hired water tankers	
14	DG Set / power	:	20 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Amended Mine Pit is adjacent to project site, towards South direction as per Google earth EMP Submitted.	
17	Nearest Habitation	:	Nearest Habitation 394 m towards NW direction as per Google Earth. (EMP submitted.)	
18	Nearest Railway Station	:	Koderma Junction Railway Station, approx. 13.16 km towards ENE direction.	
19	Nearest Air Port	:	Gaya International Airport, Ranchi approx. 61.96 km towards NW direction.	
20	Road & Highways	:	NH – 20, Approx. 7.55 km towards East direction.	

21	Approach Road	:	approx, 30 meters
22	Cluster Certificate	:	Cluster certificate has been issued by DMO, Koderma vide letter no. 712/M, Dated 18.07.2026, certified that 3 mines exist within 500m radius, total cluster area is 3.35 Acres.
23	Nearest Forest	:	The distance of reserved / protected forest is 950m from the proposed project site as per the Divisional Forest Officer (DFO), Koderma Forest Division, Koderma, vide letter no.: 2948, dated 17.06.2025.
24	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 10.8 Km in SE direction from the nearest Eco Sensitive Zone of Gautam Buddha Vanyaprani.

CO-ORDINATES

Point	Latitude	Longitude
P1	24° 23' 01.20" N	85° 24' 41.07" E
P2	24° 23' 02.66" N	85° 24' 36.50" E
P3	24° 23' 02.96" N	85° 24' 36.65" E
P4	24° 23' 02.91" N	85° 24' 36.86" E
P5	24° 23' 03.26" N	85° 24' 37.03" E
P6	24° 23' 03.36" N	85° 24' 36.77" E
P7	24° 23' 03.65" N	85° 24' 36.85" E
P8	24° 23' 02.14" N	85° 24' 41.24" E

LAND DETAILS

Khata no.	Plot no.
65, 05, 87 & 60	4612/5236, 4612/5237, 4612/5238 & 4612/5239 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by Distirct Mining Officer, Koderma vide memo no. 79/M, dated 24.01.2026.
2	CO	:	The CO, Chandwara vide letter no. 776, dated 27.11.2024 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 KMLthatfew houses exists at a distance of 394metersand canal exists within 500 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Koderma vide memo no. 712/M, dated 18.07.2026 certified that 01 LoI (0.66 Acre) and 01 other mining lease area (1.71 Acre)

			exists within 500 metersradius from proposed project site and total area is 3.35 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 405, dated 08.03.2025 certified that the proposed project site is outside Eco Sensitive Zone of Gautam Buddha Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Hazaribag West Forest Division vide letter no. 2948, dated 17.06.2025 certified that the distance of notified forest is 950 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Koderma District (Page no. 44, Sl. No. 19).
7	Gram Sabha	:	BDO, Chandwara (Koderma) vide letter no. 1505, dated 20.11.2025 informed that Gram Sabha conducted on 18.11.2025.
8	Mine Plan Approval	:	Approved by The Assistant Director, Geology, District Geological Office, Koderma vide Memo No. 99, dated 05.06.2026.
9	Environmental Safeguard from Jharkhand State Pollution Control Board (JSPCB)	:	Environmental Safeguard issued by Environmental Engineer –cum – Nodal Officer, PARIVESH, Jharkhand State Pollution Control Board (JSPCB) vide its Memo No.: PC/SEIAA/EC-CTE/113/2026 /3457, dated : 25.09.2026.
10	Qualified Person	:	Dr. Amarjeet Kumar Singh through e-mail dated 30.10.2026 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Other Than Fully Mechanized Method (O.T.F.M.)
2	Quarry Area	:	0.195 Ha
3	Waste Generation	:	Small amount of waste will be generated from the mine which shall be used for construction.
4	Stripping Ratio	:	1:0.0
5	Working Days	:	300
6	Benches: size & No	:	3m to 3m
7	Elevation of Mine	:	364 m AMSL to 370 m AMSL
8	Ground Level Elevation	:	364 m AMSL
9	Ultimate Working	:	361 m AMSL (9 mbgl)

	Depth		
10	Water Table	:	345- 350 m AMSL (11-16mbgl)
11	Topography of Mine	:	Area represents Undulating Small hillocks.
12	Explosive Requirement	:	6 kg/day
13	Diesel/Fuel requirement	:	100 litre/day

Production Details

Year	Production of stone	
	Cum	Tonnes
1st Year	3444.44	9300
2nd Year	3444.44	9300
3rd Year	3444.44	9300
4th Year	3555.56	9600
5th Year	3555.56	9600
Total	**17444.44**	**47100**

Land Use

Pattern of Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At conceptual period (Ha)
Barren Land	0.396	Nil	Nil
Quarry	Nil	0.192	0.195 (Converted as water body)
Infrastructure	Nil	0.001	Nil
Garland drain	Nil	0.001	Nil
Safety Zone	Nil	0.201 (Plantation)	0.201 (Plantation)
Settling Tank	Nil	0.001	Nil
Total	**0.0**	0.396	0.396
Unused Area	**0.396**	0.0	0.0
Total Lease Area	0.396		

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.201	322	1600 Tree per Hectare	1st Year	Sal, Arjuna, Jackfruit, Neem, Pipal, Mango, Etc.
Length of	30	60	2m X 2 m		

Approach Road Area (m.)			spacing in two rows both side		
Total		**382**			

- 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 RS)

PROJECT COST

Particulars	**Capital**	**Recurring**
Land	9,80,000.00	98,000.00
Infrastructure	15,00,000.00	1,50,000.00
Mining Equipment *Equipment* / *Quantity* / *Rent per year* Excavator / 1 / 4,00,000 Compressor / 1 / 10,00,000 Dumper / 1 / 2,00,000 Water Sprinkler / 1 / 6,00,000 @Per Excavator-4,00,000/- @Per Compressor-10,00,000/- @Per Water Sprinkler -6,00,000/- @Per Dumper-2,00,000/-	0.00	22,00,000.00
Water Facility for Domestic Purpose "0.10" KLD (Annual Water Demand "30"KL @4L per person , total number of tanker required ("8") and per tanker cost @Rs. 500)	0.00	4,000.00
Statutory Clearances.	5,00,000.00	0.00
Mine Closure Cost for fencing around mine.	1,50,000.00	0.00
Environment Management Plan (EMP) Cost	4,24,600.00	2,24,100.00
Total	**35,54,600.00**	**26,76,100.00**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	**Capital**	**Recurring**
382 Tree Plantation @Rs.300 per Tree for planting & @ Rs.50 per tree for maintenance	1,14,600	19,100
Water Tanker @Rs. 500 per Tanker for Dust Suppression (0.18 KLD) & Horticulture (2.29 KLD)	0	93,000

0.18 + 2.29 = 2.47 KLD 2.47 KLD X 300 Days = 741 KLD 741 KLD / 4 KLD = 186 Tankers		
Environment Monitoring & Compliance	0	50,000
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	1,60,000	32,000
Garland Drain & Retaining wall	1,50,000	30,000
Total	**4,24,600**	**2,24,100**

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:

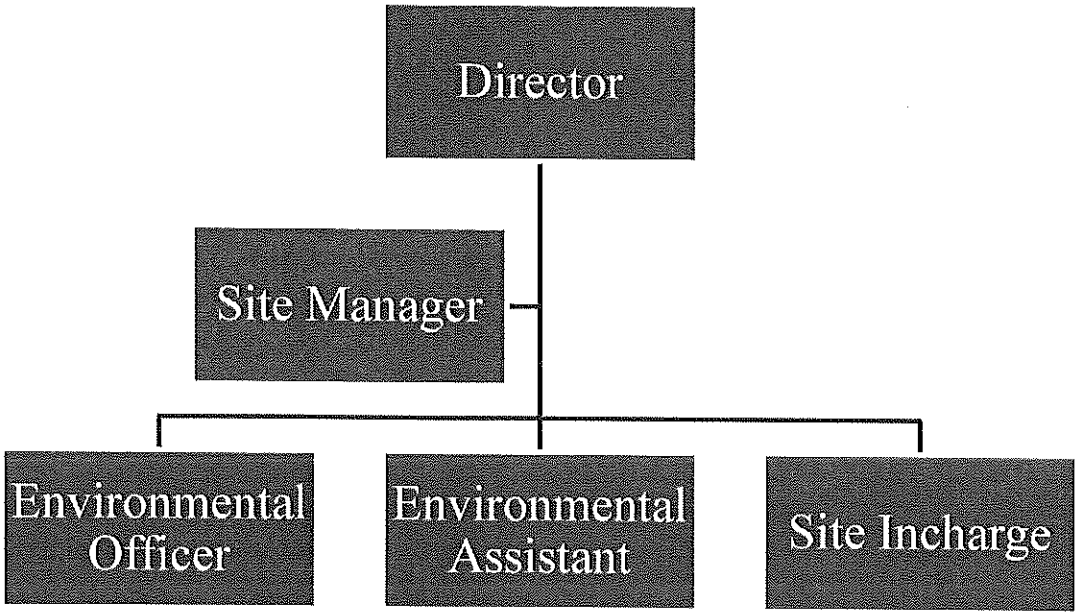
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• In this applied lease area, the stone deposit is covered with 2m layer of gritty intermixed soil which considered as over burden. The recovery of stone is about 99%, thus intercalated waste of only 1% shall be generate from this mine. • Small amount of waste will be generated from the mine which shall be used for construction.
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.
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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.
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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 Mine of M/s Krishna Stone Mines (Partners : Shri Samrat Singh & Shri Ashok Kumar Yadav), Mouza : Tham, Thana &Block :Chandwara, Distt.: Koderma, Jharkhand (0.396 Ha)is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I along with following specific conditionsand Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, PARIVESH at JSPCB vide memo no. PC/SEIAA/EC-CTE/113/2026 /3457, dated : 25.09.2026 is also included as Annexure – I (A) :

I. Special protecting measures has to be taken to prevent any effect of mining on the nearby canal.
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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5. **Stone Mine of M/s Rashtriya Stone Chips (Prop. : Shri Samrat Singh), Mouza : Tham, Thana &Block :Chandwara, Distt.: Koderma, Jharkhand (0.267 Ha).**

(Proposal no.: SIA/JH/MIN/587372 /2026)

Name of the consultant :P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 31.10.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity –1555.55 cum/annum or 4200 TPA

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Stone Mine of M/s Rashtriya Stone Chips	
2	Lessee	:	M/s Rashtriya Stone Chips (Partner- Shri Samrat Singh)	
3	Lessee Address	:	Ward No -09, Village - Tham, PO - Dhab Tham, JhumriTelaiya, PS – Chandwara, District - Koderma, State- Jharkhand.	
4	Lease Area	:	0.267 Ha.	0.66 Acres
5	Type of Land	:	PrivateRaiyati Land	
6	Project Cost	:	Rs.32.35 Lakh	
7	EMP Budget	:	Capital: Rs. 4.25 Lakh	Recurring: Rs. 2.825 Lakh per year
8	New or Expansion	:	New	
9	Mineable Reserves	:	42120 tones	15600Cum
10	Mine Life	:	10.02 or say 10 year	
11	Man power	:	7	
12	Water Requirement	:	4.15 ~ 4.50 KLD	
13	Water Source	:	By authorised hired water tankers	
14	DG Set / power	:	20 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Amended Mine Pit is adjacent to project site, towards North direction as per Google earth EMP Submitted.	
17	Nearest Habitation	:	Nearest Habitation 442 m towards NW direction as per Google Earth. (EMP submitted.)	
18	Nearest Railway Station	:	Koderma Junction Railway Station, approx. 13.16 km towards ENE direction.	
19	Nearest Air Port	:	Gaya International Airport, Ranchi approx. 61.96 km towards NW direction.	
20	Road & Highways	:	NH – 20, Approx. 7.55 km towards East direction.	
21	Approach Road	:	approx, 120 meters	
22	Cluster Certificate	:	Cluster certificate has been issued by DMO, Koderma vide letter no. 711/M, Dated 18.07.2026, certified that 3 mines exist within 500m radius, total cluster area is 3.35 Acres.	
23	Nearest Forest	:	The distance of reserved / protected forest is 950m from the proposed project site as per the Divisional Forest Officer (DFO), Koderma Forest Division, Koderma, vide letter no.: 2947, dated 17.06.2025.	
24	Distance of nearest ESZ of Wildlife Sanctuary	:	The project location is at approx. 10.6 Km in NW direction from the nearest Eco Sensitive Zone of Gautam Buddha Vanyaprani.	

	or National Park		

CO-ORDINATES

Point	Latitude	Longitude
P1	24° 23' 00.36" N	85° 24' 38.40" E
P2	24° 22' 59.52" N	85° 24' 38.00" E
P3	24° 23' 00.00" N	85° 24' 36.60" E
P4	24° 23' 00.53" N	85° 24' 36.59" E
P5	24° 23' 00.92" N	85° 24' 36.80" E
P6	24° 23' 01.35" N	85° 24' 35.64" E
P7	24° 23' 01.58" N	85° 24' 35.69" E
P8	24° 22' 59.64" N	85° 24' 40.87" E
P9	24° 22' 59.48" N	85° 24' 40.74" E

LAND DETAILS

Khata no.	Plot no.
11 & 32	4612/5230 & 5229

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by Distirct Mining Officer, Koderma vide memo no. 69/M, dated 21.01.2026.
2	CO	:	The CO, Chandwara vide letter no. 775, dated 27.11.2024 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 KMLthatfew houses exists within at a distance of 442 metersand canal exists within 500 metersfrom mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Koderma vide memo no. 711/M, dated 18.07.2026certified that 01 Lol (0.98 Acre) and 01 other mining lease area (1.71 Acre) exists within 500 meters radius from proposed project site and total area is 3.35 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 408, dated 08.03.2025 certified that the proposed project site is outside Eco Sensitive Zone of Gautam Buddha Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Hazaribag West Forest Division vide letter no. 2947, dated 17.06.2025 certified that the distance of

			notifiedforest is 950 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Koderma District (Page no. 44, Sl. No. 20).
7	Gram Sabha	:	BDO, Chandwara (Koderma) vide letter no. 1506, dated 20.11.2025 informed that Gram Sabha conducted on 18.11.2025.
8	Mine Plan Approval	:	Approved by The Assistant Director, Geology, District Geological Office, Koderma vide Memo No. 89, dated 01.06.2026.
9	Environmental Safeguard from Jharkhand State Pollution Control Board (JSPCB)	:	Environmental Safeguard issued by Environmental Engineer –cum – Nodal Officer, PARIVESH atJharkhand State Pollution Control Board (JSPCB) vide its Memo No.: PC/SEIAA/EC-CTE/112/2026/3456, dated :25.09.2026.
10	Qualified Person	:	Dr. Amarjeet Kumar Singh through e-mail dated 30.10.2026 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Other Than Fully Mechanized Method (O.T.F.M.)
2	Quarry Area	:	0.067 Ha
3	Waste Generation	:	Small amount of waste will be generated from the mine which shall be used for construction.
4	Stripping Ratio	:	1:0.0
5	Working Days	:	300
6	Benches: size & No	:	3m to 3m
7	Elevation of Mine	:	367 m AMSL to 370 m AMSL
8	Ground Level Elevation	:	367 m AMSL
9	Ultimate Working Depth	:	358 m AMSL (12 mbgl)
10	Water Table	:	345- 350 m AMSL (8-13mbgl)
11	Topography of Mine	:	Area represents Undulating Small hillocks.
12	Explosive Requirement	:	6 kg/day
13	Diesel/Fuel requirement	:	100 litre/day

Production Details

Year	Production of stone	
	Cum	Tonnes

1st Year	1444.44	3900
2nd Year	1444.44	3900
3rd Year	1444.44	3900
4th Year	1555.55	4200
5th Year	1555.55	4200
Total	**7444.44**	**20100**

Land Use

Pattern of Utilization	**Existing Land use (Ha)**	**At the end of plan period (Ha)**	**At conceptual period (Ha)**
Barren Land	0.267	Nil	Nil
Quarry	Nil	0.064	0.067 (Converted as water body)
Infrastructure	Nil	0.001	Nil
Garland drain	Nil	0.001	Nil
Safety Zone	Nil	0.200 (Plantation)	0.200 (Plantation)
Settling Tank	Nil	0.001	Nil
Total	**0.0**	0.267	0.267
Unused Area	**0.267**	0.0	0.0
Total Lease Area	**0.267**		

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.200	320	1600 Tree per Hectare	1st Year	Sal, Arjuna, Jackfruit, Neem, Pipal, Mango, Etc.
Length of Approach Road Area (m.)	120	240	2m X 2 m spacing in two rows both side		
Plantation at Backfilling	--	--	1600 Tree per Hectare	At the end of plan period	
Plantation At Dead Bench	--	--			
Total		**560**			

- 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 RS)

PROJECT COST

<table>
<tr><th>Particulars</th><th>Capital</th><th>Recurring</th></tr>
<tr><td>Land</td><td>6,60,000.00</td><td>66,000.00</td></tr>
<tr><td>Infrastructure</td><td>15,00,000.00</td><td>1,50,000.00</td></tr>
<tr><td>Mining Equipment
<table><tr><th>Equipment</th><th>Quantity</th><th>Rent per year</th></tr><tr><td>Excavator</td><td>1</td><td>4,00,000</td></tr><tr><td>Compressor</td><td>1</td><td>10,00,000</td></tr><tr><td>Dumper</td><td>1</td><td>2,00,000</td></tr><tr><td>Water Sprinkler</td><td>1</td><td>6,00,000</td></tr></table>@Per Excavator-4,00,000/-
@Per Compressor-10,00,000/-
@Per Water Sprinkler -6,00,000/-
@Per Dumper-2,00,000/-</td><td>0.00</td><td>22,00,000.00</td></tr>
<tr><td>Water Facility for Domestic Purpose "0.07" KLD (Annual Water Demand "21"KL @4L per person , total number of tanker required ("6") and per tanker cost @Rs. 500)</td><td>0.00</td><td>3,000.00</td></tr>
<tr><td>Statutory Clearances.</td><td>5,00,000.00</td><td>0.00</td></tr>
<tr><td>Mine Closure Cost for fencing around mine.</td><td>1,50,000.00</td><td>0.00</td></tr>
<tr><td>Environment Management Plan (EMP) Cost</td><td>4,25,000.00</td><td>2,82,500.00</td></tr>
<tr><td>Total</td><td>32,35,000.00</td><td>27,01,500.00</td></tr>
</table>

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
560 Tree Plantation @Rs.300 per Tree for planting & @ Rs.50 per tree for	1,68,000	28,000

maintenance		
Water Tanker @Rs. 500 per Tanker for Dust Suppression (0.72 KLD) & Horticulture (3.36 KLD) 0.72 + 3.36= 4.08 KLD 4.08 KLD X 300 Days = 1224 KLD 1224 KLD / 4 KLD = 306 Tankers	0	1,53,000
Environment Monitoring & Compliance	0	50,000
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	1,07,000	21,500
Garland Drain & Retaining wall	1,50,000	30,000
Total	4,25,000	2,82,500

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:

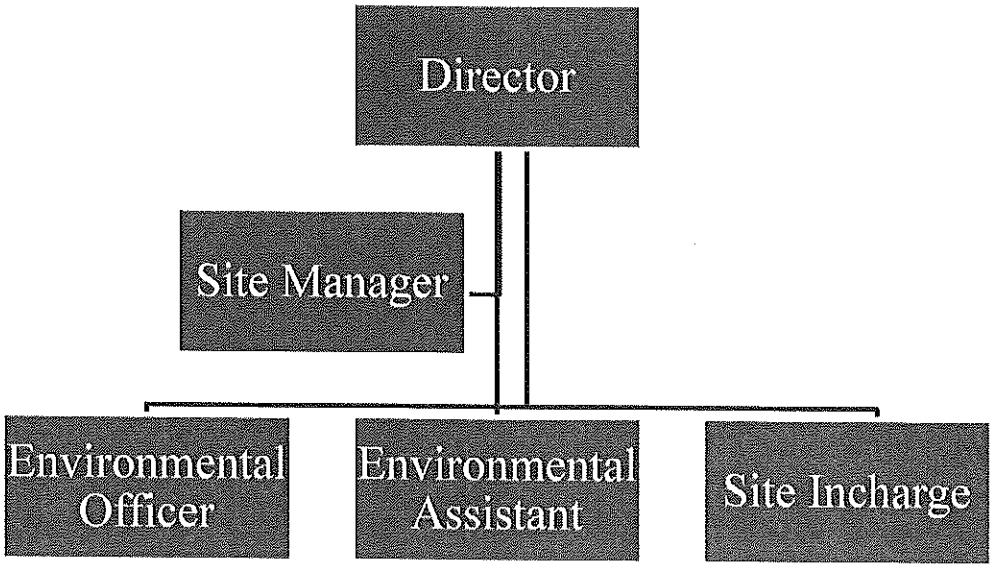
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• In this applied lease area, the stone deposit is covered with 2m layer of gritty intermixed soil which considered as over burden. The recovery of stone is about 99%, thus intercalated waste of only 1% shall be generate from this mine. • Small amount of waste will be generated from the mine which shall be used for construction.
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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, 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 Stone Mine of M/s Rashtriya Stone Chips (Prop. : Shri Samrat Singh), Mouza : Tham, Thana &Block :Chandwara, Distt.: Koderma, Jharkhand (0.267 Ha)is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I along with following specific conditionsand Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, PARIVESH at JSPCB vide memo no. PC/SEIAA/EC-CTE/112/2026/3456, dated : 25.09.2026 is also included as Annexure – I (B) :

I. Special protecting measures has to be taken to prevent any effect of mining on the nearby canal.

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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6. **Baddiha Stone Deposit of M/s Mahadeo Stone Mine (Partner : Shri Bikash Kumar & Shri Dhananjay Kumar), Village :Baddiha, Thana :Jamua, Distt.: Giridih, Jharkhand (1.214 Ha).**

(Proposal no.: SIA/JH/MIN/589408 /2026)

Name of the consultant :P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 31.10.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity –29978 cum/annum or 80941 TPA

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Baddiha Stone Deposit	
2	Lessee	:	M/s Mahadeo Stone Mine Partner-Shri Bikash Kumar & Shri Dhananjay Kumar	
3	Lessee Address	:	Gram-Baddiha, P.O.- Mirzaganj, Thana-Jamua, District -Giridih, Jharkhand.	
4	Lease Area	:	1.214 Ha.	3.0 Acres
5	Type of Land	:	Raiyati Land	
6	Project Cost	:	Rs.63.11 Lakh	
7	EMP Budget	:	Capital: Rs. 13.11 Lakh	Recurring: Rs. 7.89 Lakh per year
8	New or Expansion	:	New	
9	Mineable Reserves	:	759641 tones	282394.42 Cum
10	Mine Life	:	9.4 or say 10years	

11	Man power	:	15
12	Water Requirement	:	13.05~13.50 KLD
13	Water Source	:	By authorised hired water tankers
14	DG Set / power	:	40 KVA
15	Crusher	:	No crusher
16	Nearest Water Body	:	Water Body is about 290 m from project site, towards SW direction as per Google earth EMP Submitted.
17	Nearest Habitation	:	Nearest Habitation 148 m towards South direction as per Google Earth. (EMP submitted.)
18	Nearest Railway Station	:	Jamua Railway Station, approx. 6.24 km towards SW direction.
19	Nearest Airport	:	Deoghar Airport, Ranchi approx. 52.89 km towards East direction.
20	Road & Highways	:	SH – 13, Approx 5.80 km towards WSW direction.
21	Approach Road	:	approx, 300 meters
22	Cluster Certificate	:	Cluster certificate has been issued by DMO, Giridih vide letter no. 661/Mining Giridih, Dated 12.08.2026, certified that 2 mines exist within 500m radius, total cluster area is less than 5.0 Ha.
23	Nearest Forest	:	The distance of reserved / protected forest is 1000m from the proposed project site as per the Divisional Forest Officer, Giridih, vide letter no.: 103, dated 20.01.2026.
24	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 42.7 km in South direction from the nearest Eco Sensitive Zone of Parasnath Topchanchi WLS.

CO-ORDINATES

Point	Latitude	Longitude
P1	24° 24' 22.761" N	86° 11' 15.853" E
P2	24° 24' 22.180" N	86° 11' 16.896" E
P3	24° 24' 21.031" N	86° 11' 18.978" E
P4	24° 24' 19.287" N	86° 11' 17.594" E
P5	24° 24' 19.097" N	86° 11' 17.841" E
P6	24° 24'18.789" N	86° 11' 17.530" E
P7	24° 24'18.204" N	86° 11' 17.141" E
P8	24° 24' 17.648" N	86° 11' 16.806" E
P9	24° 24' 17.702" N	86° 11' 16.538" E
P10	24° 24' 17.878" N	86° 11' 16.201" E
P11	24° 24' 18.480" N	86° 11' 14.916" E
P12	24° 24' 19.070" N	86° 11' 13.622" E
P13	24° 24' 19.646" N	86° 11' 13.846" E

P14	24° 24' 20.083" N	86° 11' 14.078" E
P15	24° 24' 20.030" N	86° 11' 14.253" E
P16	24° 24' 20.217" N	86° 11' 14.529" E
P17	24° 24' 20.033" N	86° 11' 14.756" E
P18	24° 24' 20.097" N	86° 11' 14.855" E
P19	24° 24' 20.302" N	86° 11' 14.872" E
P20	24° 24' 20.537" N	86° 11' 14.801" E
P21	24° 24' 20.648" N	86° 11' 14.726" E
P22	24° 24' 21.056" N	86° 11' 14.996" E
P23	24° 24' 22.036" N	86° 11' 15.526" E

LAND DETAILS

Khata no.	Plot no.
200	65 (P), 66 (P) & 93 (P)

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Giridih vide letter no. 425/M dated 30.05.2026.
2	CO	:	The CO, Jamua, Giridih vide letter no. 1270, dated 13.11.2025 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan.During the appraisal it was seen from the KMLthatfew houses existsat a distance of 148 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Giridihvide memo no. 661/Khanan, dated 12.08.2026 certified that 01 other mining lease area (3.60 Acre) and 01 other LoI (1.8750 Acre)exists within 500 m radius from proposed project site and total area is 8.475 Acre.
4	DFO Wild Life	:	Divisional Forest Officer, Wildlife Division, Hazaribag vide letter no. 2293, dated 15.12.2025 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath &Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	DFO, GiridihWest Forest Division vide letter no. 103, dated 20.01.2026 certified that the distance of reserved / protected forest is 1000 meters from proposed project site.
6	DSR	:	The DMO, Giridih has certified vide memo no. 660/Khanan, dated 12.08.2026 that this project is mentioned in approved

			DSR of Giridih District as a Potential Zone.
7	Gram Sabha	:	BDO, Jamua vide letter no. 548, dated 18.05.2026 informed that Gram Sabha conducted on 14.05.2026.
8	Mine Plan Approval	:	Approved by DMO –cum- DDM, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide Memo No. 185/DDM, dated 20.06.2026.
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	:	0.868 Ha
3	Waste Generation	:	25698 cum
4	Stripping Ratio	:	1:0.09
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	389 m AMSL to 365 m AMSL
8	Ground Level Elevation	:	365 m AMSL
9	Ultimate Working Depth	:	347 m AMSL (18mbgl)
10	Water Table	:	333 -327 m AMSL (32-38mbgl)
11	Topography of Mine	:	Area represents undulating hillock
12	Explosive Requirement	:	50 kg/day
13	Diesel/Fuel requirement	:	150 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
1st Year	25509	68875	18620	1343	19963
2nd Year	26720	72143	0	1406	1406
3rd Year	27744	74908	0	1460	1460
4th Year	28861	77925	0	1519	1519
5th Year	29978	80941	0	1350	1350
Total	**138812**	**374793**	**18620**	**7078**	**25698**

Land Use

Pattern of Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At conceptual period (Ha)
Quarry	NIL	0.604	0.868 (0.110 ha area shall be backfilled, 0.435 ha area shall be developed as water reservoir and 0.323 ha left as dead bench)
Waste Dump	NIL	0.191	Nil (waste dump to removed and backfilled)
Road	NIL	0.002	0.000
Safety zone	NIL	0.346 (Plantation)	0.346 (Plantation)
Total	0.000	1.143	1.214
Unused area	1.214	0.071	0.0
Total Lease area	**1.214**		

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.346	555	1600 Tree per Hectare	1st Year	**Jackfruit, Babul, Arjuna, Gulmohar, Neem, Pipal, Mango, Etc.**
Length of Approach Road Area (m.)	300	600	2m X 2 m spacing in two rows both side		
Plantation at backfilling	0.110	177	1600 Tree per Hectare	At the end of plan period	
Plantation at Dead bench	0.323	518			
Total		**1850**			

- 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 RS)

PROJECT COST

Particulars	Capital	Recurring
Land	30,00,000.00	3,00,000.00
Infrastructure	15,00,000.00	1,50,000.00
Mining Equipment *Equipment* / *Quantity* / *Rent per year* Rock breaker / 1 / 400000 Excavator / 1 / 400000 Compressor / 1 / 1000000 Water Sprinkler / 1 / 600000 Dumper / 2 / 400000 Loader / 1 / 300000 @Per Rock breaker - 4,00,000/- @Per Excavator-4,00,000/- @Per Compressor-10,00,000/- @Per Water Sprinkler -6,00,000/- @Per Dumper-2,00,000/- @Per Loader-3,00,000/-	0.00	31,00,000.00
Water Facility for Domestic Purpose "0.15" KLD (Annual Water Demand "45"KL @4L per person , total number of tanker required ("12") and per tanker cost @Rs. 500)	0.00	6,000.00
Statutory Clearances.	5,00,000.00	0.00
Mine Closure Cost for fencing around mine.	1,50,000.00	0.00
Environment Management Plan (EMP) Cost	13,11,000.00	7,89,000.00
Total	**64,61,000.00**	**43,45,000.00**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
1850 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	5,55,000.00	55,000.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.80 KLD) & Horticulture (11.10 KLD) 1.80 + 11.10 = 12.90 KLD 12.90 KLD X 300 Days = 3870 KLD 3870 KLD / 4 KLD = 968 Tankers	0.00	4,84,000.00
Environment Monitoring & Compliance	0.00	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	4,86,000.00	1,00,000
Garland Drain & Retaining wall	2,70,000.00	1,00,000.00
Total	**13,11,000.00**	**7,89,000.00**

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:

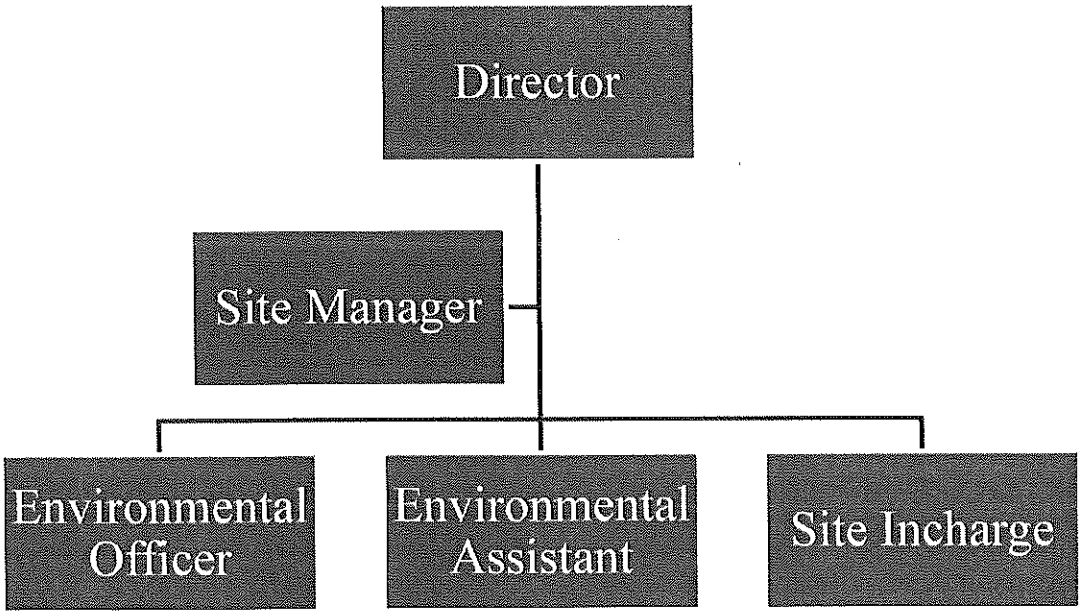
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• In this applied lease area, the stone deposit is covered with 2m layer of intermixed soil which considered as over burden. The recovery of stone is about 95%, thus intercalated waste of only 5% shall be generate from this mine. It has been calculated that total 25698 cum in-situ waste shall be generated during this plan period, out of which 13549 cum (In situ) shall be utilized for approach & haul road maintenance. The rest waste material 12149 cum in situ 15186.36 cum loose & 12908.40 cum compact waste shall be temporary dumped in southern part and it will cover 0.191 ha 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. While excavation of insitu waste, its volume shall be increase, as it becomes loose (insitu cum X 1.25), during the dumping/backfilling these loose materials shall be compacted with the use of dozer and volume will be decreased up to 85% of loose waste.
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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, 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 Baddiha Stone Deposit of M/s Mahadeo Stone Mine (Partner : Shri Bikash Kumar & Shri Dhananjay Kumar), Village :Baddiha, Thana :Jamua, Distt.: Giridih, Jharkhand (1.214 Ha)is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I along with following specific conditions :

I. This proposal was forwarded through PARIVESH Portal to Jharkhand State Pollution Control Board (JSPCB) for providing comments / Environmental Safeguards. The proposal was returned to SEAC via same portal without providing comments / Environmental Safeguards. Hence in compliance of OM File No. Q-15012/2/2022-CPW-Part(1)/e-240741, dated 14.01.2025 and File No. Q-15012/2/2022-CPW9Part-I)/e-231973, dated 08.10.2025, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board.

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 *"EkPed Ma KeNaam"* 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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7. **Kumharia Stone Mine of Shri Sakaldip Singh, Mouza :Kumharia, Thana :Gumla, Distt.: Gumla, Jharkhand (2.00 Ha).**
(Proposal no.: SIA/JH/MIN/596725 /2026)

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

Application for Environmental Clearance (EC) (re-appraisal of Environment Clearance issued by DEIAA, Gumla).

The project has been granted EC by DEIAA, Gumlavide letter no. EC/DEIAA/ 2017-18/44/ 2017 /40/GML, dated 14.09.2017having production capacity of **40700 Cum/annum or 109890 TPA.**

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,Gumlawhich has been taken up for consideration on 31.10.2026. As per O.M. dated 12.12.18 issued by MOEF & CC projects fall in category B2.

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. 929/M dated 10.09.2026by DMO, Gumlais within the permissible limit of EC.

The compliance report of previous EC has been issued by Member Secretary, JSPCB, Ranchi vide Ref. no. 2444, dated 31.07.2026.

The SEAC has found that the certification of the compliance of the conditions of previous EC is not appropriate regarding status of execution of compliance as no details have been provided. Hence, the Committee decided 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 –40700 Cum/annum or 109890 TPA.

Project and Location Details:

Sl	Parameter		Details
1	Project Name	:	Kumharia Stone Mine
2	Lessee	:	Sri Sakaldip Singh S/o - Sri Kashinath Singh At-Domandih, P.O. -Armai, P.S. - Gumla District - Gumla, State – Jharkhand
3	Lessee Address	:	Mouza – Kumharia, Thana - Gumla, District – Gumla, State- Jharkhand.

4	Lease Area	:	2.00 ha	4.95 Acres
5	Type of Land	:	Non-Forest Raiyati Land	
6	Project Cost	:	Rs. 85.09/-lakh	
7	EMP Budget	:	Capital: Rs.14,39,000/-	Recurring: Rs. 8,54,000 /-
8	New or Expansion	:	New (Re-appraisal of DEIAA EC)	
9	Mineable Reserves	:	257037.03 Cum	694000 Tonnes
10	Mine Life	:	Up to the lease period i.e .03.01.2018 ot 02.01.2028.	
11	Man power	:	20	
12	Water Requirement	:	11.90 ~ 12.00 KLD(Drinking: 0.20 KLD, Dust Suppression: 3.90 KLD, Plantation:7.80 KLD)	
13	Water Source	:	water will be taken from nearby village	
14	DG Set / power	:	500 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Dhangao Dam, approx. 393 meters towards NE direction of mine site. As per CO Letter EMP Submitted.	
17	Nearest Habitation	:	Approx. 274 meter towards direction as per Google Earth EMP submitted.	
18	Nearest Rail Station	:	Bakaspur Railway station, approx. 34.67 km towards East direction.	
19	Nearest Air Port	:	Birsa Munda Airport Ranchi, approx. 78.97 km towards ENE direction.	
21	Road & Highways	:	NH-143, Approx. 2.50 km. in WSW direction.	
22	Approach Road	:	Approx. 650m.	
23	Cluster Certificate	:	No other mine exists within 500 m radius.	
24	Nearest Forest	:	Gumla Forest Division, Gumla vide letter no. 1907, dated 10.06.2026 certified that the distance of notified forest is 3.6km from proposed project site.	
25	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 1.10 KM from the nearest Eco Sensitive Zone of Palkot Wildlife Sanctuary.	

CO-ORDINATES

POINT	LATITUDE	LONGITUDE
1	23° 01' 43.73" N	84° 37' 13.13" E
2	23° 01' 42.14" N	84° 37' 11.42" E
3	23° 01' 44.64" N	84° 37' 13.99" E
4	23° 01' 47.47" N	84° 37' 16.34" E

5	23° 01' 50.36" N	84° 37' 18.05" E
6	23° 01' 52.12" N	84° 37' 19.85" E
7	23° 01' 52.05" N	84° 37' 21.82" E
8	23° 01' 50.05" N	84° 37' 22.95" E
9	23° 01' 50.08" N	84° 37' 21.04" E
10	23° 01' 44.84" N	84° 37' 21.04" E

LAND DETAILS

Khata no.	Plot no.
169	2356 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Lease deed : 03.01.2018 ot 02.01.2028.
2	CO	:	The CO, Gumla (Sadar) vide letter no. 519, dated 25.06.2026 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan& Register IIand also mentioned that the Aanganbadi Kendra exists within 500 meter of proposed project site, accordingly PAs has submitted EMP for the same.During the appraisal it was seen from the KMLthatfew houses exists at a distance of 274 meters and water body exists at a distance of 393 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO	:	DMO, Gumla vide memo no. 947/M, dated 12.09.2026 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. 790, dated 24.11.2025 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	Division Forest Officer, Gumla Forest Division vide letter no. 1907, dated 10.06.2026 certified that the distance of notified forest land is 3.6Kilometers from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Gumla District (Sl. no. 07, Page no. 41).

7	Gram Sabha	:	Gram Sabha conducted on 03.12.2016.
8	Mining Scheme / Mine Plan Approval	:	Mining scheme approved by Additional Director, Geology, Hazaribag vide letter no. 345/G, dated 28.10.2022.
9	Previous EC	:	Previous EC granted by DEIAA, Gumla vide letter no. EC/DEIAA/ 2017-18/44/2017/40/GML, dated 14.09.2017.
10	Compliance report of EC	:	The compliance report of previous EC has been issued byMember Secretary, JSPCB, Ranchi vide Ref. no. 2444, dated 31.07.2026.
11	Production Report	:	Production report issued by DMO, Gumla vide memo no. 929/M dated 10.09.2026.
12	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-2148006 /2020 /41, dated 21.01.2020.
13	Consent to Operate (CTO)	:	CTO issued by JSPCB vide ref. no.JSPCB/RO/RNC/CTO-20933786 /2025/429, dated 21.02.2025.
14	Qualified Person	:	Shri Tapan Kumar Chakravartythrough e-mail dated 30.10.2026 affirmed that the mining scheme has been prepared by him.

Working Details

1	Mining Method	:	Opencast Mechanized Method	
2	Quarry Area	:	1.270 ha.	Life of Mine –6.31 or say 7 years
3	Waste Generation	:	There is no waste generated during this Mining scheme period.	
4	Stripping Ratio	:	1:0.00	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	627 AMSL to 603 AMSL	
8	Ground Level Elevation	:	603 AMSL	
9	Ultimate Working Depth	:	590 AMSL (13 mbgl)	
10	Water Table	:	562-560AMSL (41-43 mbgl)	
11	Topography of Mine	:	Area represents undulating topography.	
12	Explosive Requirement	:	70 kg/day	
13	Diesel/Fuel requirement	:	90 litre/day	

Production Details

Year	Production of Stone in Cum (As per EC)	Production of Stone in Tonnes (As per EC)	Production of Stone in Cum	Production of Stone in Tonnes
1st	37935.00	102424.50	37935.00	102424.50
2nd	40410.00	109107.00	40410.00	109107.00
3rd	39125.00	105637.50	39125.00	105637.50
4th	38250.00	103275.00	38250.00	103275.00
5th	40700.00	109890.00	40700.00	109890.00
Total	**196420.00**	**530334.00**	**196420.00**	**530334.00**

As per approved mine plan production: - 40700 Cum/annum or 109890 TPA.

As per EC letter production: - 40700 Cum/annum or 109890 TPA.

Land Use

Category	Existing Land Use (in Ha)	During Scheme period (in Ha)	During Conceptual Period (in Ha)
Quarry	0.10	0.751	1.270 (entire area will be converted into water reservoir)
Road	0.010	comes under quarry	comes under quarry
Safety Zone	0.730 (Plantation)	0.730 (Plantation)	0.730 (Plantation)
Total area in use	**0.84**	**1.481**	**2.00**
Balanced Area	1.16	0.519	-
Total Lease area	**2.00**	**2.00**	**2.00**

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.730	1168	1600 Tree per Hectare	planted during previous year of mining	Pipal, Gulmohar Jackfruits, Mango, Jamun, Babul, Neem, Arjun, etc..
Length of Approach Road Area (m.)	650	1300	2m X 2 m spacing in two rows both side	1st Year	
Total		**2468**			

Note: A total of 2468 saplings were proposed to be planted. Out of which 1168 plant in Safety Zone area have been planted during previous year of mining.
(1300 plant along approach road will be done in the first year of operation. (Total 1300 Plants).

- 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	49,50,000.00	4,95,000.00
Infrastructure	15,00,000.00	1,50,000.00
Mining Equipment	0.00	24,00,000.00

Equipment	*Quantity*	*Rent per year*
Excavator	1	4,00,000
Rock Breaker	1	2,00,000
Compressor/ Jack Hammers	1	10,00,000

Dumper	2	2,00,000		
Water Sprinkler	1	6,00,000		
@Per Excavator-4,00,000/- @Per wagon drill- 4,00,000/- @Rock Breaker -2,00,000/- @Per Compressor-10,00,000/- @Per Water Sprinkler -6,00,000/- @Per Dumper-2,00,000/- @Per Loader-3,00,000/- @DG set -15,00,000/-				
Water Facility for Domestic Purpose "0.20" 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.			5,00,000.00	0.00
Mine Closure Cost for fencing around mine.			1,20,000.00	0.00
Environment Management Plan (EMP) Cost			14,39,000.00	8,54,000.00
Total			**85,09,000.00**	**39,06,500.00**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital(Rs.)	Recurring(Rs.)
1300 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	3,39,000	65,000
Water Tanker @Rs. 500 per Tanker for Dust Suppression (3.90KLD) & Horticulture (7.80 KLD) 3.90 + 7.80 = 11.70 KLD 11.70 KLD X 300 Days = 3510 KLD 3510KLD / 4 KLD = 878 Tankers	0	4,39,000
Environment Monitoring & Compliance	0	50,000
To prevent the impact of mining activities on	8,00,000	2,00,000

these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF& CC		
Garland Drain & Retaining wall	3,00,000	1,00,000
Total	**14,39,000**	**8,54,000**

Note: A total of 2468 saplings were proposed to be planted. Out of which 1168 plant in Safety Zone area have been planted during previous year of mining.
(1300 plant along approach road will be done in the first year of operation. (Total 1300 Plants).

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 no waste generated during this Mining scheme period, so there is no requirement of waste dumping Plan for this mining scheme but it will be used 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.

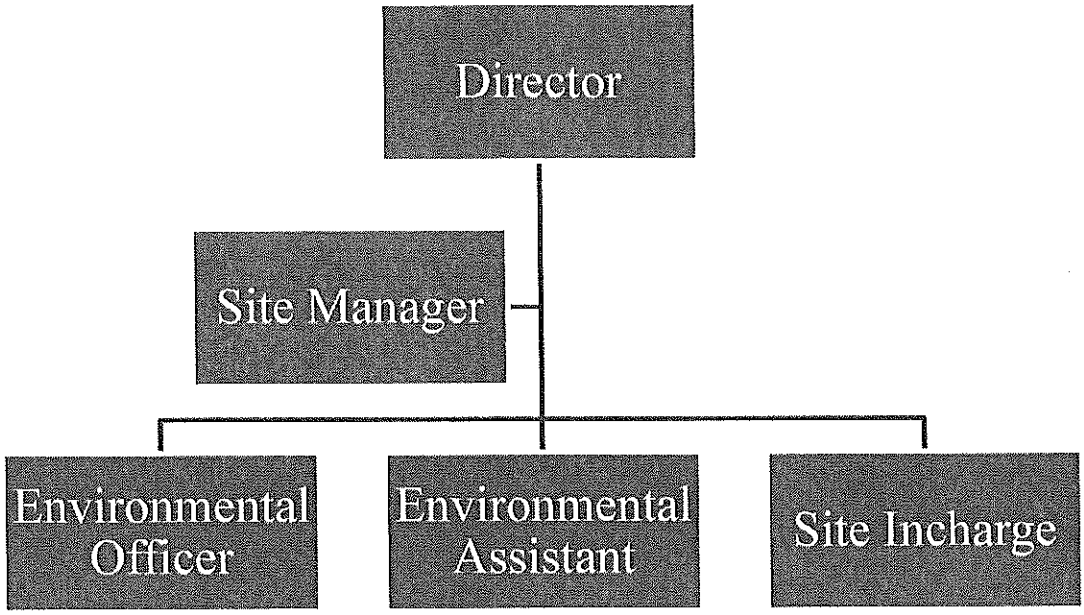
	• All transport vehicles will have valid **PUC certificates.** • **Greenbelt and roadside plantation** to act as dust and noise barriers.
Water Quality Management	• Mining will be confined **only above the Ground Water Table (GWT).** • **Rainwater** accumulated in the pit will be collected and pumped 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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management.

	▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, 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 Kumharia Stone Mine of Shri Sakaldip Singh, Mouza :Kumharia, Thana :Gumla, Distt.: Gumla, Jharkhand (2.00 Ha)is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I along with following specific conditions :

I. The mine will come in operation only after obtaining permission from DGMS for controlled and delayed blasting.
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. 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 "*EkPed Ma KeNaam*" 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 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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8. Laiyo Sand Deposit (in the river bed of Damodar) of M/s Gurudev Jee Trading Company (Prop. : Shri Birendra Kumar), Village :Laiyo, Block : Mandu, Distt.: Ramgarh, Jharkhand (0.08 Ha).

(Proposal no.: SIA/JH/MIN/564935 /2026)

Name of the consultant :P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 31.10.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity- 590 Cum/Annum or 897 TPA (Dry basis)

Project and Location Details:

S.no.	Parameter		Details
1	Project Name	:	Laiyo Sand Deposit

2	Lessee:	:	M/s Gurudev Jee Trading Company Proprietor- Sri Birendra Kumar,	
3	Lessee Address	:	Ward No-16, Mohania, Kaimur, Bihar, Pin 821109	
4	Lease Area	:	0.08 ha.	
5	Type of Land	:	Govt. non forest (river) land	
6	Project Cost	:	Rs. 60 lakh	
7	EMP Budget	:	Capital: 7.00 Lakhs	Recurring: 4.87 Lakhs / year
8	New or Expansion	:	New	
9	Total Resource	:	984 cum or 1496 tones	
10	Mineable Reserves/Production for 1st year & subsequent year 60% of replenished quantity.		590 cum or 897 Tonnes(Dry basis)	
11	Mine Life	:	Co-terminus with lease period.	
12	Man power	:	9	
13	Water Requirement	:	5.5~ 6.0 KLD	
14	Water Source	:	From Nearby villages by tankers	
15	DG Set / power	:	NA	
16	Crusher	:	NA	
17	Nearest Water Body	:	Project lies on BokaroRiver.	
18	Nearest Habitation	:	Gosi village, Approx, 65m in NE direction from project site. (EMP submitted)	
19	Nearest Railway Station	:	Jogeshwar Bihar Railway Station approx 3.42 Km in SSE direction.	
20	Nearest Airport	:	Birsa Munda Ranchi Airport approx.57.61 km towards SSW direction	
21	Road & Highways	:	NH-33 Bypass Road Approx. 3.49 Km in SSE direction from mining lease. NH-20Approx- 11.09 km, in WSW direction	
22	Approach Road	:	approx, 450 meters	
23	Cluster Certificate	:	No other mine exists within 500m radius.	
24	Nearest Forest	:	The distance of reserved/protected forest is 250m from the proposed project site as per the Divisional Forest Officer, Ramgarh, vide letter no.: 983, Dated 24.05.2024.	
25	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 38.70 Km from the nearest Eco Sensitive Zone of Hazaribagh Wildlife Sanctuary.	

26	Replenishment Study	:	Post Monsoon study for year 2025 has been carried out by Rian Enviro Private Limited.

CO-ORDINATES

As per Approved DSR		
S.no.	**Latitude**	**Longitude**
1	23.77135819	85.607255
2	23.77146587	85.607394
3	23.77151801	85.607559
4	23.7715106	85.607763
5	23.7714778	85.60791
6	23.77134917	85.608126
7	23.77139815	85.60811
8	23.77147189	85.608008
9	23.77157658	85.607817
10	23.77162034	85.607669
11	23.77160527	85.607528
12	23.77155647	85.607388
13	23.77146117	85.60726
14	23.77134834	85.607216
15	23.77135819	85.607255

LAND DETAILS

Khata no.	Plot no.
129	3421

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining

			Officer, Ramgarh vide letter no. 1156/Khanan, dated 13.10.2025.
2	CO	:	The CO, Mandu (Ramgarh) vide letter no. 956, dated 12.09.2024 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan.
3	DMO Cluster	:	DMO, Ramgarh vide memo no. 1394/Khanan, dated 16.12.2025 certified that no other Balu Ghat exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 307, dated 13.02.2026 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. 983, dated 24.05.2024 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 Ramgarh District (Sl. no. 10).
7	Gram Sabha	:	BDO, Mandu (Ramgarh) vide letter no. 1002, dated 05.06.2024 informed that Gram Sabha conducted on 01.06.2024.
8	Mine Plan Approval	:	Approved by DMO, Ramgarh vide Letter No. 1388/Mining, dated 16.12.2025.
9	Environmental Safeguard from Jharkhand State Pollution Control Board (JSPCB)	:	Environmental Safeguard issued by Environmental Engineer –cum – Nodal Officer, PARIVESH at Jharkhand State Pollution Control Board (JSPCB) vide its Memo No.: PC/SEIAA/EC-CTE/39/2026/ 3716, dated : 22.10.2026.
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 Manual Method
2	Quarry Area	:	0.08 Ha.
3	Waste Generation	:	NA, as it is sand mining project.
4	Stripping Ratio	:	0:0
5	Working Days	:	200 Days

6	Benches: size & No	:	Bench height – 1.23m & Bench width - 20.0 m.
7	Elevation of Mine	:	300 AMSL to 297 AMSL
8	Ground Level Elevation	:	297 AMSL
9	Ultimate Working Depth	:	295.77 AMSL (up to depth of 1.23m)
10	Water Table	:	NA
11	Topography of Mine	:	Area lying in river plain.
12	Explosive Requirement	:	NA
13	Diesel/Fuel requirement	:	NA

Production Details

Year	Tonnage Factor	Volume (cum)	Quantity in tonne
1st Year	1.52	590(Dry basis)	897(Dry basis)

Land Use

Type of Land	Area in (ha)
Mineable Area	0.048
Safety Zone	0.032
Residential area	0
Company land	0
Private Land	0
Total	**0.08**

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location		Area/Length	No. of Trees
1	Plantation along both sides of approach road	:	450 m	900

2	No. of Plants distributed with consultation local authorities/ village Panchayat	:	--	50

- 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 Plan

Sl. No	Description	Capital Cost (Rs.)	Recurring Cost (Rs.)
1	Pollution Control & Dust Suppression	Nil	2,00,000
2	Baseline Monitoring i) Air ii) Water iii) Soil iv) Noise	--	 14,000 8,000 8,000 7,000
3	Plantation	4,75,000	1,00,000
4	Construction and maintenance of haul road	2,25,000	1,50,000
Total		**7,00,000**	**4,87,000**

Note: *950 plants * 500 Rs (for each plants including hedges and fences) = 4.75 lakh

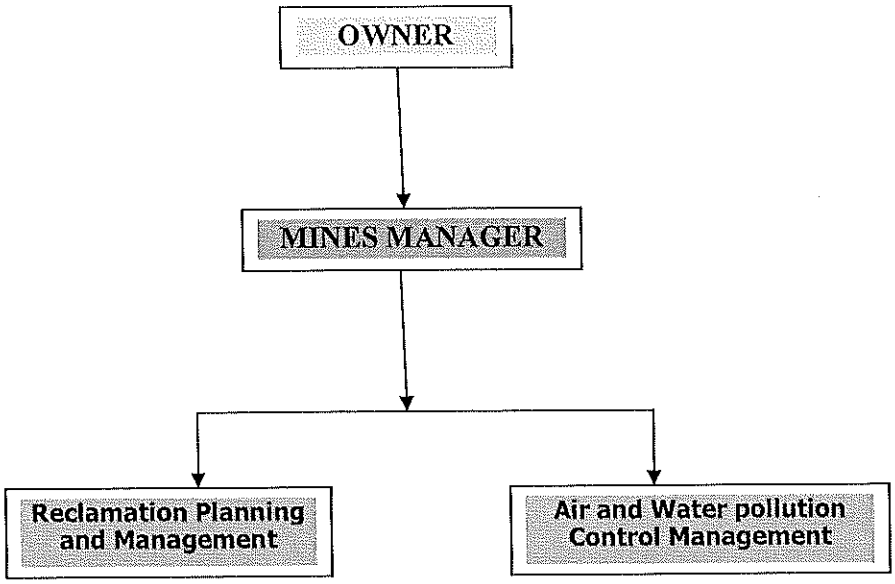
*Salary of Labor for haul road maintenance 1 labor*300 = 300 per day*

300 300 = 90,000/~1,50,000 including maintenance*

** 5.0 lakh per kilometer (500000 * 0.45 km haul road = 2, 25,000/-)*

Environment Monitoring Programme

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



Organization Structure

Solid Waste Management

No solid waste is generated during the course of mining.

Water Quality Management

A. Mining will be confined to above Ground Water Table (GWT). No mining will be done below GWT.

B. Sewage from rest shelter would be treated in Septic Tank soak pit.

C. There is no other source for generation or discharge of trade effluent.

Air Quality Management

Sand will be mined manually. No mining equipment would be needed. However, diesel operated tippers/tractors would be used for transportation of sand from mine to stockyard.

I. **Operation of Diesel Equipment's** – They generate Noxious gases. It will be ensured that all transport vehicles would be repaired & maintained regularly.

II. **Loading of Product on tippers** – Water will be sprinkled on blasted Sand mass before they are loaded to trucks for transport.

III. **Movement of tippers on Road** – Movement of tippers on road generate dust. For mitigationof this pollution following measures will be taken

- Regular water sprinkling on Haul road by using water tankers.
- Regular repair of Haul road
- All Trucks carrying Sand outside lease area will have PUC certificate.
- Transport tippers/traders moving on public road will be covered with tarpaulin.

RISK ASSOCIATED WITH PROJECT ACTIVITIES AND THEIR MITIGATION MEASURES ARE DICUSSED BELOW:

Road accidents

Transportation of sand along the public road may cause accident which may cause injury.

Preventive Measures;

1. Ensure speed limit for the haulage vehicle for 40 KMPH.
2. Regular maintenance of haulage road

3. Appropriate navigational signs informing sensitive area like school and habitation
4. Regular maintenance of the vehicles.

Dust generation

- No drilling involved
- Dust mass would be supplied to workers.
- Regular sprinkling of water on road

Noise Generation

Source of noise pollution in the project would be movement of tippers / tractors transporting sand from mine to stock yard. In general tippers / tractors produce a noise level of 75 – 90 (A) measured at distance of 3m from the source.

Preventive measures

- Transportation activities would be confined during day time only.
- There would be a speed limit of 40 kmph for tippers. Higher is speed higher is noise.
- Regular repair and maintenance of tippers/tractors.
- Plantation on both sides of haulage road.
- Tippers having PUC certified will be allowed to be used for sand transportation.

Health Hazards

During digging and handling of sand i.e. loading, transportation and unloading of sand, workmen would be exposed to inhalation of fine dust particles. This poses a health hazard.

Measures

Following mitigation measures would be taken to minimize this impact on health

- Regular water sprinkling on haulage roads
- Tree plantation on both sides of haulage road
- Tippers / Tractors carrying sand would be covered
- Mask would be provided to workmen employed for digging, loading, transportation and unloading activities

Accident at Site

This is a project with only source of accident at site would be movement of tippers /tractors within mine site for transportation of sand.

Preventive measures

Following mitigation measures would be taken to minimize risk of road accident:

- Separate alignment for movement of loaded vehicles coming out of mine site
- Ensure speed restriction of 10 KMPH within mine site for incoming and outgoing tippers
- Regular maintenance and repair of haulage vehicles employed for sand transportation
- No overtaking of transportation vehicles within mine site
- Proper maintenance of haulage roads

Transportation

The usual method of transporting minerals from the working face is by tractor. Large earth moving equipment's are not used for loading /transporting large quantity of mineral from a mine. During transportation of minerals in the mining area, utmost care will be taken by the

vehicle operator to avoid any accident with any incoming vehicle by keeping sufficient gap between the two vehicles, keep safe distance from the edge of the mine face, avoid any accident to a worker crossing the haul road and shall maintain low speed. The vehicle operator shall not try to overtake another vehicle.

- Mine road/approach road shall be made smooth regularly with a road roller.
- Mine road/approach road will be cleaned daily for smooth transportation.
- Mine road/approach road will be made sufficiently wide to keep two-way traffic.
- Mine roads will be designed as per the specifications given under MMR 1961.
- 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.
- Only trained drivers will be hired.

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.
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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 transport vehicles like tractor 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 equipment such as safety jacket, helmet & goggles to protect from injury will be provided to working personnel.
m. Transportation from the river bed to the SH-1 will be done using the existing road.
n. The Mining Plan has been prepared and approved in consonance with Enforcement & Monitoring Guidelines for Sand Mining, 2020.
o. Wet sand will not be transported.

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 Laiyo Sand Deposit (in the river bed of Damodar) of M/s Gurudev Jee Trading Company (Prop. : Shri Birendra Kumar), Village :Laiyo, Block : Mandu, Distt.: Ramgarh, Jharkhand (0.08 Ha)is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I along with following specific conditions and Environmental Engineer –cum – Nodal Officer, PARIVESH at JSPCB vide memo no. PC/SEIAA/EC-CTE/39/2026/ 3716, dated : 22.10.2026 is also included as Annexure – I (C):

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 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.
III. Replenishment study shall be conducted during pre-monsoon and post monsoon every year and study report have to be submitted to SEIAA / SEAC, Jharkhand. The production shall be restricted to 60% of the replenished quantity or the proposed quantity in the mine plan, which ever is less.
IV. Suitable plant species of not less than 2 M height to be planted in area 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 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 checkup 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 within 6 monthly compliance report with Geo-Tagged photographs.

VIII. Keep vulnerable areas unmanned. Ensure rotation of duties. Records to be maintained and submitted within 6 monthly compliance report.

IX. Failing of any of terms & conditions mentioned in EC can lead to revocation / cancellation of EC.

X. Project Authority will ensure that personal protective equipments such as protective clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel's.

XI. River Sand Mining shall not be done in rainy Season (mid June to mid October of each calendar year).

XII. Dept. of Mines & Geology, Govt. of Jharkhand shall keep a strict vigil in the compliance of relevant provisions of applicable Jharkhand Minerals (Prevention of illegal mining, Transportation and Storage) Rule 2017 and its amendment especially scientific execution of mining plan (as approved by they themselves) and report violations if any is found as well as action taken for the same.

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XIV. The project proponent before starting any activity / preparation of ground, on the leased area shall demarcate his lease hold by RCC pillars erected at the cost of lease holder after certification of the mining officer. On each pillar Geo-Coordinate and fore bearing / back bearing shall be written with permanent paint mark as described in the mining plan. All the pillars should remain intact at same geo-coordinate. Establishment / labeling of Benchmark at each pillars or ground control points.

XV. Extraction of sand beyond annual production capacity is not permitted.

XVI. The Project Proponent should undertake the sand mining limited to 03 meter (three meter) depth by exclusively manual method.

XVII. The stacking area of mined-out sand which shall be situated near the mining site within a fenced area from all sides to avoid being spread in the nearby areas by high winds and the height of stacking should not exceed 2 meter. Transportation shall be confined to day time only that is from sunrise to sunset, to avoid inconvenience to local population in any manner.

XVIII. Mining activity shall not be done for mine lease where mining can cause danger to site of flood protection works, places of cultural, religious, historical and archaeological importance.

XIX. Project Proponent shall submit the annual replenishment report certified by an authorized agency.

XX. No labour camp shall be allowed in riverbed.

XXI. Provision shall be made for housing labour with all necessary infrastructure and facilities (outside mining Block and river-bed) such as fuel for cooking, toilets / mobile toilets, safe drinking water, First-Aid facilities, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

XXII. Labour & Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and

health aspects. Occupational health surveillance program of the workers shall be undertaken periodically to observe any adverse health impact due to exposure to dust and take corrective measures, if needed.

XXIII. The Project Proponent shall make arrangements for safe drinking water, first aid facility along with anti-venom injection, in case of emergency for the workers.

XXIV. Sand and gravel may be extracted across the entire active channel during the dry season.

XXV. Abandoned stream channels on the terrace and inactive floodplains be preferred rather than active channels and their deltas and flood plains. The stream should not be diverted to form the inactive channel.

XXVI. Layers of sand and gravel which could be removed from the river bed shall depend on the width of the river and replenishment rate of the river.

XXVII. Sand and gravel shall not be allowed to be extracted where erosion may occur, such as at the concave bank.

XXVIII. Sand and gravel shall not be extracted up to a distance of 1 kilo meter (1 km.) from major bridges and highways on both sides, of five times (5x) of the span (x) of a bridge / public civil structure (including water intake points) on up-stream side and ten times (10x) the span of such bridge on down-stream side, subjected to a minimum of 250 meters on the upstream side and 500 meters on the downstream side.

XXIX. Sand and gravel could be extracted from the downstream of the sand bar at river bends.

XXX. Mining depth should be restricted to 3 meters and distance from the band should be $1/4^{th}$ of river width and should not be less than 7.5 meters.

XXXI. A buffer distance / unmined block of 50 meters after every block of 1000 meters over which mining is undertaken or at such distance as may be the directed / prescribed by the regulatory authority shall be maintained.

XXXII. River bed sand mining shall be restricted within the central $3/4^{th}$ width of the river/rivulet of 7.5 meters (inward) from river banks but up to 10% of the width of the river, as the case may be. Regulating authority while regulating the zone of river bed mining shall ensure that the objective to minimize the effects of riverbank erosion and consequential channel migration are achieved to the extent possible. In general, the area for removal of minerals shall not exceed 60% of the mine lease area, and any deviation of relaxation in this regard shall be adequately supported by the scientific report.

****

9. **Hesapora Sand Deposit (in the river bed of Damodar) of M/s Gurudev Jee Trading Company (Prop. : Shri Birendra Kumar), Village :Hesapora, Block : Gola, Distt.: Ramgarh, Jharkhand (1.82 Ha).**

(Proposal no.: SIA/JH/MIN/565064 /2026)

Name of the consultant :P & M Solution, Noida, U.P.

This is a new project which has been taken for appraisal on 31.10.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity- 14652 Cum/Annum or 22564 TPA(Dry basis)

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Hesapora Sand Deposit	
2	Lessee:	:	M/s Gurudev Jee Trading Company Proprietor- Sri Birendra Kumar,	
3	Lessee Address	:	Proprietor- Sri Birendra Kumar,Ward No-16, Mohania, Kaimur, Bihar	
4	Lease Area	:	1.82 ha.	
5	Type of Land	:	Govt. non forest (river) land	
6	Project Cost	:	Rs. 70 lakh	
7	EMP Budget	:	Capital: 12.40 Lakhs	Recurring: 5.87 Lakhs / year
8	New or Expansion	:	New	
9	Total Resource	:	32760 cum or 50450 tones	
10	Mineable Reserves/Production for 1st year & subsequent year 60% of replenished quantity.		14652 cum or 22561 Tonnes	
11	Mine Life	:	Co-terminus with lease period.	
12	Man power	:	22	
13	Water Requirement	:	8.42 ~ 8.50 KLD	
14	Water Source	:	From Nearby villages by tankers	
15	DG Set / power	:	NA	
16	Crusher	:	NA	
17	Nearest Water Body	:	Project lies on Damodar River.	
18	Nearest Habitation	:	Gandhaunia village, Approx, 0.58 km in ESE direction.	
19	Nearest Railway Station	:	Jogeshwar Bihar Railway Station approx 18.85 Km in WNW	

			direction.
20	Nearest Air Port	:	Birsa Munda Ranchi Airport approx 58.86km towards SW direction.
21	Road & Highways	:	NH-20, Approx. 9.80 Km in SSW direction.
22	Approach Road	:	approx, 810 meters
23	Cluster Certificate		No other mine exists within 500m radius.
24	Nearest Forest	:	The distance of reserved/protected forest is 250m from the proposed project site as per the Divisional Forest Officer, Ramgarh, vide letter no.: 983, Dated 24.05.2024.
25	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 45.26 Km from the nearest Eco Sensitive Zone of Parasnath and Topchanchi Wildlife Sanctuary.
26	Replenishment Study	:	Post Monsoon study for year 2025 has been carried out by Rian Enviro Private Limited.

CO-ORDINATES

Corner Point Coordinates (in Degree Decimal) – Approved DSR		
Point	**Latitude**	**Longitude**
1	23.672136	85.75859093
2	23.672152	85.75923288
3	23.669612	85.75907739
4	23.668814	85.75884979
5	23.668884	85.75839767
6	23.669674	85.75870833
7	23.672136	85.75859093

LAND DETAILS

Khata no.	Plot no.
95	01 & 118

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Ramgarh vide letter no. 1156/Khanan, dated 13.10.2025.
2	CO	:	The CO, Gola (Ramgarh) vide letter no. 1043, dated 06.07.2024 has mentioned the plot no. of the project is not recorded as

			"Jungle- Jhari" in R.S. Khatiyan& Register II.
3	DMO Cluster	:	DMO, Ramgarh vide memo no. 1396/Khanan, dated 16.12.2025certified that no other Balu Ghat exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 306, dated 13.02.2026 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath &Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Ramgarh Forest Division vide letter no. 983, dated 24.05.2024 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 Ramgarh District (Sl. no. 01).
7	Gram Sabha	:	BDO, Gola (Ramgarh) vide letter no. 1654, dated 05.06.2024 informed that Gram Sabha conducted on 01.06.2024.
8	Mine Plan Approval	:	Approved by DMO, Ramgarh vide Letter No. 1386/Mining, dated 16.12.2025.
9	Environmental Safeguard from Jharkhand State Pollution Control Board (JSPCB)	:	Environmental Safeguard issued by Environmental Engineer –cum – Nodal Officer, PARIVESH atJharkhand State Pollution Control Board (JSPCB) vide its Memo No.: PC/SEIAA/EC-CTE/40/2026/ 3717, dated :22.10.2026.
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 Manual Method
2	Quarry Area	:	1.82 Ha.
3	Waste Generation	:	NA, as it is sand mining project.
4	Stripping Ratio	:	0:0
5	Working Days	:	200 Days
6	Benches: size & No	:	Bench height – 1.8m & Bench width - 20.0 m.
7	Elevation of Mine	:	263 AMSL to 262 AMSL
8	Ground Level Elevation	:	262 AMSL
9	Ultimate Working Depth	:	260.2 AMSL (up to depth of 1.8m)
10	Water Table	:	NA

11	Topography of Mine	:	Area lying in river plain.
12	Explosive Requirement	:	NA
13	Diesel/Fuel requirement	:	NA

Production Details

Year	Tonnage Factor	Volume (cum)	Quantity in tonne
1st Year	1.54	14652 (Dry basis)	22564 (Dry basis)

Land Use

Type of Land	Area in (ha)
Mineable Area	0.814
Safety Zone	1.006
Residential area	0
Company land	0
Private Land	0
Total	**1.82**

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No. of Trees
1	Plantation along both sides of approach road	810 m	1620
2	No. of Plants distributed with consultation local authorities/ village Panchayat	--	50

- 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.

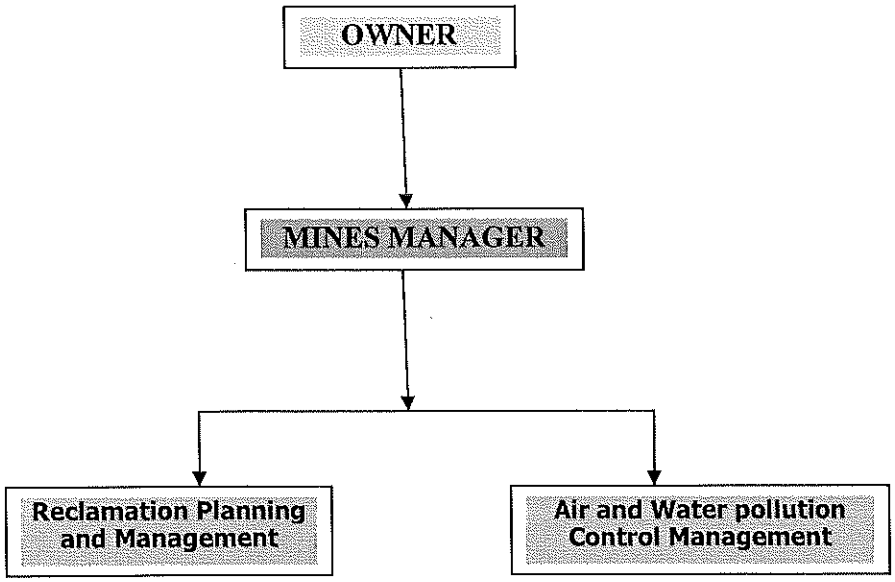
Environment Management Plan

Sl. No	Description	Capital Cost (Rs.)	Recurring Cost (Rs.)
1	Pollution Control & Dust Suppression	Nil	2,00,000
2	Baseline Monitoring i) Air ii) Water iii) Soil iv) Noise	--	 14,000 8,000 8,000 7,000
3	Plantation	8,35,000	2,00,000
4	Construction and maintenance of haul road	4,05,000	1,50,000
Total		**12,40,000**	**5,87,000**

Note: *1670 plants * 500 Rs (for each plants including hedges and fences) = 8.35lakh
Salary of Labor for haul road maintenance 1 labor*300 = 300 per day
300* 300 = 90,000/~ 1,50,000 including maintenance
**** 5.0 lakh per kilometer (500000 * 0.81 km haul road = 4,05,000/-)***

Environment Monitoring Programme

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



Organization Structure

Solid Waste Management

No solid waste is generated during the course of mining.

Water Quality Management

A. Mining will be confined to above Ground Water Table (GWT). No mining will be done below GWT.

B. Sewage from rest shelter would be treated in Septic Tank soak pit.

C. There is no other source for generation or discharge of trade effluent.

Air Quality Management

Sand will be mined manually. No mining equipment would be needed. However, diesel operated tippers/tractors would be used for transportation of sand from mine to stockyard.

I. **Operation of Diesel Equipment's** – They generate Noxious gases. It will be ensured that all transport vehicles would be repaired & maintained regularly.

II. **Loading of Product on tippers** – Water will be sprinkled on blasted Sand mass before they are loaded to trucks for transport.

III. **Movement of tippers on Road** – Movement of tippers on road generate dust. For mitigationof this pollution following measures will be taken

- Regular water sprinkling on Haul road by using water tankers.
- Regular repair of Haul road
- All Trucks carrying Sand outside lease area will have PUC certificate.
- Transport tippers/traders moving on public road will be covered with tarpaulin.

RISK ASSOCIATED WITH PROJECT ACTIVITIES AND THEIR MITIGATION MEASURES ARE DICUSSED BELOW:

Road accidents

Transportation of sand along the public road may cause accident which may cause injury.

Preventive Measures;

1. Ensure speed limit for the haulage vehicle for 40 KMPH.
2. Regular maintenance of haulage road
3. Appropriate navigational signs informing sensitive area like school and habitation
4. Regular maintenance of the vehicles.

Dust generation

- No drilling involved
- Dust mass would be supplied to workers.
- Regular sprinkling of water on road

Noise Generation

Source of noise pollution in the project would be movement of tippers / tractors transporting sand from mine to stock yard. In general tippers / tractors produce a noise level of 75 – 90 (A) measured at distance of 3m from the source.

Preventive measures

- Transportation activities would be confined during day time only.
- There would be a speed limit of 40 kmph for tippers. Higher is speed higher is noise.
- Regular repair and maintenance of tippers/tractors.
- Plantation on both sides of haulage road.
- Tippers having PUC certified will be allowed to be used for sand transportation.

Health Hazards

During digging and handling of sand i.e. loading, transportation and unloading of sand, workmen would be exposed to inhalation of fine dust particles. This poses a health hazard.

Measures

Following mitigation measures would be taken to minimize this impact on health

- Regular water sprinkling on haulage roads
- Tree plantation on both sides of haulage road
- Tippers / Tractors carrying sand would be covered
- Mask would be provided to workmen employed for digging, loading, transportation and unloading activities

Accident at Site

This is a project with only source of accident at site would be movement of tippers /tractors within mine site for transportation of sand.

Preventive measures

Following mitigation measures would be taken to minimize risk of road accident:

- Separate alignment for movement of loaded vehicles coming out of mine site
- Ensure speed restriction of 10 KMPH within mine site for incoming and outgoing tippers
- Regular maintenance and repair of haulage vehicles employed for sand transportation
- No overtaking of transportation vehicles within mine site
- Proper maintenance of haulage roads

Transportation

The usual method of transporting minerals from the working face is by tractor. Large earth moving equipment's are not used for loading /transporting large quantity of mineral from a mine. During transportation of minerals in the mining area, utmost care will be taken by the vehicle operator to avoid any accident with any incoming vehicle by keeping sufficient gap between the two vehicles, keep safe distance from the edge of the mine face, avoid any accident to a worker crossing the haul road and shall maintain low speed. The vehicle operator shall not try to overtake another vehicle.

- Mine road/approach road shall be made smooth regularly with a road roller.
- Mine road/approach road will be cleaned daily for smooth transportation.
- Mine road/approach road will be made sufficiently wide to keep two-way traffic.
- Mine roads will be designed as per the specifications given under MMR 1961.
- 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.
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XXVI. Layers of sand and gravel which could be removed from the river bed shall depend on the width of the river and replenishment rate of the river.

XXVII. Sand and gravel shall not be allowed to be extracted where erosion may occur, such as at the concave bank.

XXVIII. Sand and gravel shall not be extracted up to a distance of 1 kilo meter (1 km.) from major bridges and highways on both sides, of five times (5x) of the span (x) of a bridge / public civil structure (including water intake points) on up-stream side and ten times (10x) the span of such bridge on down-stream side, subjected to a minimum of 250 meters on the upstream side and 500 meters on the downstream side.

XXIX. Sand and gravel could be extracted from the downstream of the sand bar at river bends.

XXX. Mining depth should be restricted to 3 meters and distance from the band should be $1/4^{th}$ of river width and should not be less than 7.5 meters.

XXXI. A buffer distance / unmined block of 50 meters after every block of 1000 meters over which mining is undertaken or at such distance as may be the directed / prescribed by the regulatory authority shall be maintained.

XXXII. River bed sand mining shall be restricted within the central $3/4^{th}$ width of the river/rivulet of 7.5 meters (inward) from river banks but up to 10% of the width of the river, as the case may be. Regulating authority while regulating the zone of river bed mining shall ensure that the objective to minimize the effects of riverbank erosion and consequential channel migration are achieved to the extent possible. In general, the area for removal of minerals shall not exceed 60% of the mine lease area, and any deviation of relaxation in this regard shall be adequately supported by the scientific report.

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10. **Misir Patra Sand Deposit (in the river bed of Amanat) of Shri Amit Kumar Sinha, Village : Misir Patra, Distt.: Palamu, Jharkhand (29.64 Ha).**

(Proposal no.: SIA/JH/MIN/596804 /2026)

The above mentioned project proposal was considered for transferability of Terms of Reference. The Terms of Reference was granted by **SEIAA, Jharkhand** vide letter no.: **EC/SEIAA/2024-25/3467/2024/568**, dated: **03.02.2025** in the favor of **"Misir Patra Sand Deposit (in the Riverbed of Amanat) of M/s Jharkhand State Mineral Development Corporation Ltd.** at Plot No.- 190 & 191 at Village – Misir Patra in River- Amanat, Block-Lesliganj, District- Palamu, State – Jharkhand (29.64 Ha)." (Proposal No. SIA/JH/MIN/518023/2025)".

The applicant vide online application no.**SIA/JH/MIN/596804/2026**has submitted that ***"Misir Patra Sand Deposit (River Bed of Amanat) of Sri Amit Kumar Sinha"*** has been selected successful bidders of **"Misir Patra Sand Deposit (River Bed of Amanat) at Plot No.- 190 & 191 at Village – Misir Patra in River- Amanat, Block-Lesliganj, District- Palamu, State – Jharkhand (29.64 Ha)**"under The Jharkhand Sand Mining Rules, 2025 and requested to transfer (transfer of ownership) of Terms of Reference in favour of ***"Misir Patra Sand Deposit (River Bed of Amanat) of Sri Amit Kumar Sinha"*** for which he has submitted "No Objection Certificate" of **M/s Jharkhand State Mineral Development Corporation Limited**issued by its **Letter Number : 1271**, dated : **29.10.2026**affirming that the Terms of Reference will be transferred in favour of ***"Misir Patra Sand Deposit (River Bed of Amanat) of Sri Amit Kumar Sinha"*** and they do not have any objections regarding the transfer of Terms of Reference and all the terms and conditions of Terms of Reference dated **03.02.2025** shall be complied by ***"Misir Patra Sand Deposit (River Bed of Amanat) of Sri Amit Kumar Sinha"*** and **Shri Amit Kumar Sinha** also undertaken that all the stipulated terms and conditions of ToR letter no. : **EC/SEIAA/2024-25/3467/2024/568, dated: 03.02.2025** shall be complied by him.

The Deputy Commissioner, **Palamu** vide Letter No. : **2429/M**, Dated :**15.10.2026**has issued Letter of Intent (LOI) in favour of ***"Misir Patra Sand Deposit (River Bed of Amanat) of Sri Amit Kumar Sinha"***.

The District Survey Report of sand or River Bed Mining of **Palamu** District has been prepared by Sub-Divisional Committee and submitted by Deputy Commissioner, **Palamu** and same has been Appraised and Approved by SEIAA and SEAC, Jharkhand in the light of Environment & Monitoring Guidelines for Sand Mining 2020 / Hon'ble Apex Court order in Civil Appeal No. 3661-3662/2020, Pawan Kumar Vs State of Bihar & Hon'ble NGT Order in OA No. 54/2022/EZ, Bhumi AdhigrahanVisthapanAvamPunarvas Kisan Samiti Vs State of Jharkhand & Ors. The projectproposal namely ***"Misir Patra Sand Deposit (River Bed of Amanat) at Plot No.- 190 & 191 at Village – Misir Patra in River- Amanat, Block-Lesliganj, District- Palamu, State – Jharkhand (29.64 Ha)"***is also a part of Approved District Survey Report.

The PAs has also undertaken through affidavit that Sand Mining Operation will be done as per para 5.0 of Enforcement & Monitoring Guidelines for Sand Mining, 2020 regarding Replenishment study.

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 Misir Patra Sand Deposit (River Bed of Amanat) of Shri Amit Kumar Sinha at Plot No.- 190 & 191 at Village – Misir Patra in River- Amanat, Block- Lesliganj, District- Palamu, State – Jharkhand (29.64 Ha)is recommended for Transfer of ToR. Rest other terms and conditions of the earlier ToR letter no. EC/SEIAA/2024-25/3467/2024/568, dated:03.02.2025 shall remain the same along with following specific conditions :

I. One month additional baseline monitoring study to be carried out and same should be incorporated with 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.

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Day 5 : 01st November, 2026 [Sunday]

A. Any other matter :

i. Letter no. 1481 & 1483, dated 12.09.2026 from Superintendent of Police, Pakur.

This letter was sent to SEAC by Member Secretary, SEIAA to provide their view on the draft reply prepared.

The view of SEAC is being sent separately.

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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

Dr. Raju Kumar
Member

Srikant Verma, IFS
Member Secretary

Ashok Kumar Singh, IFS (Retd.)
Chairman

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. GodavermanThirumulpadvs union of India and ors. TheHon'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 proscribed 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). 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 ail 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 PPshall 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 0.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.

Environmental Safeguard provided by JSPCB

Environmental Safeguards: -

1) That, the occupier must provide a display board of adequate size (preferably not less than 1 m × 1 m) near the entrance of mines, mentioning the following details: -
    a. Name of the Mines with Capacity.
    b. Address and exact location of area with latitude and longitude of all corner points.
    c. Name of the Proprietor with contact no.
    d. Status of regulatory compliance status with Validity (CTE, CTO, HWA etc.).
    e. Status of Electricity Power Supply.

2) That, the occupier shall construct proper Haul roads and make arrangements to maintain the same. Moreover, sufficient numbers of sprinklers should be provided along the haul road to suppress the dust emission. The concerned unit shall be responsible for installation and O & M.

3) That, the occupier shall do plantation in both side of the haul / approach road.

4) That, the occupier shall do mining activities only if, the mining lease is valid.

5) That, the occupier shall Submit Production figure of the Boulder duly certified by D.M.O, within consent period.

6) That, the occupier shall supply Stone Boulder only to those stone crusher units which have valid Consent to Operate from the Board and shall maintain record of it and show the record to the Inspecting Officer at the time of inspection.

7) That, the occupier shall make necessary arrangements to preserve live soil of the mine(s) and shall reclaim mined out areas by filling it (them) with over burden and live soil and shall do tree plantation over it (them). In no case soil shall be stored out of mine lease area and report to J.S.P.C. Board.

8) That, the occupier shall do plantation in 3 rows in the safety barrier & enhance the density of the plantation by practicing the continued plantation.

9) That, the occupier shall install fixed type water sprinklers to cover all dusty places in the premises to impart water spraying intermittently and during loading, unloading of raw materials / products and wastes.

10) That, the occupier shall keep their annual production within the capacity mentioned in the Environmental Clearance accorded to the Unit.

11) That, the occupier shall not use any sort of explosives for mining activities without obtaining explosive license / proper permission from the Competent Authority.

12) That, the occupier shall make a provision for Water Wetting / Surface active agents / Covering at the product storage area and OB / Waste Storage area.

13) That, the occupier shall carry out mining activity at a minimum distance of 100 meter from any river / nallah etc.

14) That, the occupier shall install USEPA approved technology PM_{10} analyser as per CPCB guideline with onsite display and shall provide connectivity to JSPCB server.

15) That, the occupier shall submit Ambient Air Quality Report & Noise Level Monitoring Report prior to start of operation of the mines from the Laboratory portal of the Board.

16) That, the occupier shall provide information to JSPCB regarding temporary discontinuation / under suspension / closure / any incident of accident or other unforeseen act or event of the unit.

17) That, the occupier shall install mist fog cannon dust suppression system at dust prone areas to arrest dust particles.

18) That, the occupier shall ensure that haul roads / roads within the mines / industry premises used for the transportation of the products from the stone crushers or mines shall be paved and sufficient number of sprinklers be in operation. The concerned mines shall be responsible for installation and O&M.

19) That, the occupier shall abide by the conditions & shall confine to the production as per the year wise production capacity mentioned in the Environmental Clearance accorded to the Unit.

20) That, the occupier shall ensure that the stone dusts from the stone crushing / mines are not dumped in the nearby areas and may be utilized for construction activities of the highway and Bridges in the area and filling up the ponds / mine voids which were created during the stone mining or reclamation of the stone mines.

21) That, the occupier shall mandatorily obtain Consent to Operate (CTO) and Hazardous Waste Authorization (as applicable) from the Board before start of operation of the Unit.

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11) That, the measures shall be taken to prevent emission by covering of sand during transportation.

12) That the sand excavation activity shall not alter the natural drainage pattern of the area.

13) That, the occupier shall do sand mining in such a way that there shall not be any obstruction in flow of the river stream and minimum flow as per the guideline of concerned authority must be maintained at any point of time.

14) That, the appropriate fencing all around the mining area shall be made to demarcate the Mining lease area and prevent any mishap.

15) That, the occupier shall abide by the conditions & shall confine to the production as per the year wise production capacity mentioned in the Environmental Clearance accorded to the Unit.

16) That, the occupier shall take proper mitigative measure to prevent pollution of river particularly from oily discharge from machinery & transport vehicles.

17) That, the occupier shall transport the material in fully covered vehicle and an agreement shall be made with transporter to this effect with the condition that if found transporting the material uncovered, transport contract shall be terminated with immediate effect.

18) That, the occupier shall make the sand mining in such a way that the bed-creature system of the river should not get changed within 100 m of the lease hold area either side in its longitudinal section and 10m of its lateral section.

19) That, the occupier shall not carry out river sand mining during monsoon season (mid-June to mid-October of each calendar year) generally from 10th June to 15th October of each year.

20) That, the occupier shall do mining activity after clear cut demarcation by competent authority of concerned mine lease hold area.

21) That, the occupier shall comply all the conditions of EC and submit half-yearly compliance report to the Board.

22) That, the occupier shall comply with all the conditions of this Comments and Environmental Safeguards and shall submit its compliance report at the time of application made for CTO.

23) That, the Mining depth should be restricted to 3 meters or as per the Approved Mining Plan and distance from the bank should be 1/5th of river width and should not be less than 7.5 meters.

24) That, the occupier shall ensure sand and gravel shall not be extracted up to a distance of 500 meters from major bridges and highways on both sides, of five times (5x) of the span (x) of a bridge / public civil structure (including water intake points) on up-stream side and ten times (10x) the span of such bridge on down-stream side, subjected to a minimum of 250 meters on the upstream side and 500 meters on the downstream side.

25) That, the occupier shall comply with all the applicable provisions of the Sustainable Sand Mining Management Guidelines, 2016 issued by the MoEF&CC, GOI.

26) That, the occupier shall comply with all the applicable provisions of the Enforcement & Monitoring Guidelines for Sand Mining, 2020 issued by the MoEF&CC, GOI.

27) That, the occupier shall mandatorily obtain Consent to Operate (CTO) and Hazardous Waste Authorization from the Board before start of operation of the Unit.

28) That, this Comments & Environmental Safeguards shall not absolve the occupier from making compliance of other statutory prescribed under any law or direction of courts or any other instrument for the time being in force.

29) That, this Comments & Environmental Safeguards is being issued on the basis of information / documents / certificate submitted by the Unit. This Comments & Environmental Safeguards will be revoked if any of the information / documents / certificates / undertaking given by the occupier is found false / fictitious / forged in future.

30) That, this Comments & Environmental Safeguards shall be valid subject to compliance of all other legal requirements applicable to the Unit.

31) That, the State Board reserves the right to revoke, withdraw or make any reasonable variation / change / alteration in condition of this Comments & Environmental Safeguards.

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Annexure - II

The TORs prescribed for undertaking detailed EIA study are as follows:

A. Standard Terms of Reference

1. Executive Summary

2. Introduction

i. Details of the EIA Consultant including NABET accreditation.
ii. Information about the project proponent
iii. Importance and benefits of the project

3. Project Description

i. Cost of project and time of completion.
ii. Products with capacities for the proposed project.
iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
iv. List of raw materials required and their source along with mode of transportation.
v. Other chemicals and materials required with quantities and storage capacities
vi. Details of Emission, effluents, hazardous waste generation and their management.
vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided
ix. Hazard identification and details of proposed safety systems.
x. Expansion/modernization proposals:

a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per OM no. F.no. IA3-22/10/2022-IA.III [E 177258], dated 08th June, 2022 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing / existing operation of the project from SPCB shall be attached with the EIA-EMP report.
b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification, 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. **Site Details**

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)

iii. Details w.r.t. option analysis for selection of site

iv. Co-ordinates (lat-long) of all four corners of the site. .

v. Google map-Earth downloaded of the project site.

vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.

vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.

viii. Landuse break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)

ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area

x. Geological features and Geo-hydrological status of the study area shall be included.

xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)

xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.

xiii. R&R details in respect of land in line with state Government policy

5. **Forest and wildlife related issues (if applicable):**

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)

ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)

iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.

iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon

v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area

vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. Environmental Status

i. Determination of atmospheric inversion level at the project site and site-specific micro- meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.

vi. Ground water monitoring at minimum at 8 locations shall be included.

vii. Noise levels monitoring at 8 locations within the study area.

viii. Soil Characteristic as per CPCB guidelines.

ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

xi. Socio-economic status of the study area.

7. Impact and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality modelling - in case of discharge in water body
iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
v. Details of stack emission and action plan for control of emissions to meet standards.
vi. Measures for fugitive emission control.
vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 2500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
xii. Action plan for post-project environmental monitoring shall be submitted.
xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.

iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

iv. Annual report of heath status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have 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? This reporting mechanism shall be detailed in the EIA report

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. PublicHearingpointsraisedandcommitmentoftheProjectProponentonthesamealongwithtime boundActionPlanwithbudgetaryprovisionstoimplementthesameshouldbeprovidedand also incorporatedinthefinalEIA/EMPReportoftheProject.

12. Enterprise Social Commitment (ESC)

i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

13. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

14. A tabular chart with index for point wise compliance of above TOR.

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR METALLURGICAL INDUSTRIES (FERROUS &NON FERROUS)

1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
2. Details on blast furnace/ open hearth furnace/ basic oxygen furnace/ladle refining, casting and rolling plants etc.
3. Details on installation/activation of opacity meters with recording with proper calibration system
4. Details on toxic metals including mercury, arsenic and fluoride emissions
5. Details on stack height requirement for integrated steel
6. Details on ash disposal and management -Non-ferrous metal
7. Complete process flow diagram describing production of lead/zinc/copper/ aluminium, etc.
8. Raw materials substitution or elimination
9. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
10. Details on Holding and de-gassing of molten metal from primary and secondary aluminum, materials pre-treatment, and from melting and smelting of secondary aluminium
11. Details on solvent recycling
12. Details on precious metals recovery
13. Details on composition, generation and utilization of waste/fuel gases from coke oven plant and their utilization.
14. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
15. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
16. Trace metals in waste material especially slag.
17. Plan for trace metal recovery
18. Trace metals in water

C. Other

1. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
2. 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.

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.

xliii. 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.

xlv. 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.