

MINUTES OF THE 133RD MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 08TH, 09TH, 10TH, 11TH AND 12TH JULY, 2026.

The 133rd meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 08th, 09th, 10th, 11th and 12th July, 2026 under the Chairmanship of Shri Ashok Kumar Singh, IFS (Retd.) in the Conference Room at SEAC, Ranchi.

The following members were present:

- | | |
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| 1. Shri Ashok Kumar Singh, IFS (Retd.) | - Chairman |
| 2. Shri Niranjana Lal Agarwalla | - Member (Not present on 08 th July, 2026) |
| 3. Dr. Raju Kumar | - Member |
| 4. Shri Ashok Kumar Dubey, IFS (Retd.) | - Member (Joint Virtually on 09 th , 11 th and 12 th) |
| 5. Dr. Ajay Govind Bhatt | - Member |
| 6. Shri Srikant Verma, IFS | - Member Secretary |

The various projects applied in SEAC for the technical appraisal after the last SEAC meeting held on 09th, 10th, 11th, 12th, 13th, 14th and 15th June, 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 : 08th July, 2026 [Wednesday]

A. Matter referred by SEIAA, Jharkhand

- i. Letter no. IA-Z-12011/45/2026-IA-I, dated 17.04.2026 from Ministry of Environment, Forest & Climate Change, Govt. of India regarding PG no. MOEAF/E/2026/0001880, dated 07.04.2026 received in the Ministry from Shri Zameer Ahmad

A complaint regarding violation of EC conditions of Dongodih Stone Deposit of Shri Sharwan Yadav, Village : Dongodih, Tehsil : Jamua, Distt. : Giridih, Jharkhand (0.931 Ha) has been forwarded by OSD, Deptt. of Forest, Environment & Climate Change, Govt. of Jharkhand to SEIAA, Jharkhand.

The same nature of complain also filled in MoEF&CC, Govt. of India by Shri Zameer Ahmad and Md. Khalil Ansari bearing PG no. MOEAF/E/2026/0001880, dated 07.04.2026 and PG no. MOEAF/E/2026/0000630, dated 06.02.2026 respectively.

Subsequently, MoEF &CC, Govt. of India directed the Regional Office, Ranchi, MoEF&CC to furnish a factual status report alongwith conditions wise compliance status report of the Environmental Clearance bearing F.No. IA-Z-12011/22/2026-IA-I(E-comp.no. : 291970), dated 19.02.2026. Further, MoEF&CC, Govt. of India requested to SEIAA to examine the grievance and take necessary action vide F.No. IA-Z-12011/45/2026-IA-I, dated 17.04.2026.

The Regional Office, Ranchi, MoEF&CC, Govt. of India has furnished the CCR report to the Joint Secretary, IA Division, MoEF&CC, Govt. of India vide F.No. 111-31/ROR-2026/314, dated 12.06.2026 and a copy has been sent to SEIAA for information and necessary action through e-mail dated 15.06.2026.

In the CCR some of the conditions are stated to be complied, some are stated to be partially complied and some are stated to be not complied.

Hence, the Project Authorities are provided a copy of the CCR issued vide F.No. 111-31/ROR-2026/314, dated 12.06.2026 and to issue show cause regarding non compliance or partially compliance of the EC conditions within 15 days of receipt of show cause notice.

Member Secretary, SEAC is authorized to issue above show cause notice to Project Authorities.

- ii. **Rajhara North (Central & Eastern) Coal Mine Opencast Project of M/s Fairmine Carbons Pvt. Ltd., Mouza : Rajhara & Pandwa, Thana : Nawa Bazar & Pandwa, Thana no. : 132 & 198, Dist. : Palamu, Jharkhand (116.80 Ha).**

The observation of SEIAA in this matter has been considered by SEAC and outcome of the same is being provided separately.

Further, as desired by SEIAA the review report of the CCR may be obtained from Regional Office, Ranchi, MoEF&CC, Govt. of India, Member Secretary, SEAC may write to Regional Office, Ranchi, MoEF&CC, Govt. of India to provide the review report of compliance of the EC conditions.

It is also further noted that, in the present context the compliance letter of MoEF&CC, Govt. of India vide letter no. IA-L-11011 /33 / 2026-IA-I, dated 23.04.2026, does not mention about obtaining CCR or review report from Regional Office, Ranchi, MoEF&CC, Govt. of India.



- iii. Letter no. 2257, dated 10.06.2026 from Department of Forest, Environment & Climate Change, Govt. of Jharkhand regarding Extensive violations of environment laws, the Jharkhand Minor Mineral Concession Rules, 2004 (as amended), the EIA Notification, 2006 and other statutes in Govindpur, Dhanbad Areas.

Member Secretary, SEAC may send a copy of the complaint letter to Deputy Commissioner, Dhanbad requesting him to carry out an inquiry in to the alleged allegations in the complaint letter and provide his opinion and findings in the matter at earliest. The copy of this letter may also be sent to Deptt. of Forest, Environment & Climate Change, Govt. of Jharkhand.

- iv. A Complain received from Shri Lakhan Kumar, Nawadih, Mccluskiegunj, Ranchi through e-mail dated 11.06.2026.

The complaint pertaining to illegal operation of Brick kiln, illegal coal mining, encroachment and destruction of forest land in Khalari Block, Ranchi.

The allegations made are related to the Deputy Commissioner and the Forest Officials of the concerned District.

This matter is in no way related to SEIAA / SEAC. Accordingly, the matter is referred to SEIAA for information.

- v. A Complain received from mdsabir89@gmail.com vide e-mail dated 05.06.2026.

The complaint is regarding cancellation of lease in Belbana plot no. 75, khata no. 01, Tisri, Giridih - 815317.

Grant of lease and cancellation of lease is in the purview of Deputy Commissioner, Giridih.

This matter is in no way related to SEIAA / SEAC. Accordingly, the matter is referred to SEIAA for information and replying to the complainant as above.

- vi. A Complain received from Shri Debu Bannerjee, Kusum Vihar, Dhanbad vide e-mail dated 27.05.2026.

The complaint regarding to continuing illegal Damodar river sand mining within PS Sudamdih jurisdiction and near bridge foundation of district Dhanbad.

The matter of illegal mining is in the purview of Deputy Commissioner, Dhanbad.

This matter is in no way related to SEIAA / SEAC. Accordingly, the matter is referred to SEIAA for information and replying to the complainant as above.

- vii. Baddiha Stone Deposit of M/s Mahadeo Stone Mine (Partner : Shri Dhananjay Kumar & Shri Bikash Kumar) at Village : Baddiha, P.S. : Jamua, Distt. : Giridih, Jharkhand (1.459 Ha).

A complaint made by Shri Abhishek Kumar Ray, Village : Gadi, Thana : Deori, Distt. : Giridih, Jharkhand, Mobile No. : 8851796265 against Baddiha Stone Deposit of M/s Mahadeo Stone Mine (Partner : Shri Dhananjay Kumar & Shri Bikash Kumar) at Village : Baddiha, P.S. : Jamua, Distt. : Giridih, Jharkhand (1.459 Ha) received in SEIAA office through e-mail dated 05.07.2026 regarding illegal mining beyond the mining lease area for which EC has been granted.

Member Secretary, SEAC may send a copy of the complaint letter to Deputy Commissioner, Giridih requesting him to carry out an inquiry in to the alleged allegations in the complaint letter and provide his opinion and findings in the matter at earliest.

The Project Authorities may also be asked to provide a status of the compliance of EC conditions alongwith necessary details and evidences.



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

- i. Hathbari Stone Deposit of M/s Limeswood Construction Pvt. Ltd. (Partners : (i) Shri Avinash Kumar (ii) Shri Sanjay Kumar Singh (iii) Om Prakash Sharma), Village : Hathbari, Thana : Shikaripara, Distt. : Dumka, Jharkhand (2.80 Ha)
- ii. Pipaljori Stone Mine of M/s Om Stone Works (Prop. : Shri Gyan Prakash Singh), Village : Pipaljori, Thana : Kotalpokhar, Distt. : Sahibganj, Jharkhand (4.29 Ha)
- iii. Bishunpur Stone Mine of M/s Otan Das & Company (Mining) Pvt. Ltd., Mouza : Bishunpur, Thana No. : 44, P.S. : Pakur, Dist. : Pakur, Jharkhand (2.20 Ha)
- iv. Tundahutu Stone Deposit of M/s Maa Ugratara Construction (Partner : Shri Shailesh Kumar Singh), Village : Tundahutu, Thana : Balumath, Thana no. : 61, Distt. : Latehar, Jharkhand (1.46 Ha)
- v. Tasu Stone & Morrum Deposit of Partner : Shri Sanjay Kumar Singh & Shri Shamshad Ansari, Village : Tasu, Thana : Herhanj, Thana no. : 105, Distt. : Latehar, Jharkhand (1.87 Ha)
- vi. Churchu Stone Mine - II by M/s Jai Hanuman Stone Works, Mouza : Churchu, Thana no. : 166, Anchal : Sadar, Distt. : Hazaribag, Jharkhand (1.618 Ha).
- vii. Demu Stone Deposit of Shri Shatrudhan Prasad, Village : Demu, P.O. + P.S. : Latehar, Distt. : Latehar, Jharkhand (1.44 Ha).
- viii. Tasu Stone Mine of M/S Shristi Works Pvt. Ltd., Village : Tasu, Thana No. :105, Thana- Herhanj, Distt. : Latehar, Jharkhand (1.06 Ha)
- ix. Pirdag Stone Mine of Shri Umesh Kumar Singh, Village : Pirdag, Thana : Chandwa, Thana No. : 291, Distt. : Latehar, Jharkhand (1.07 Ha).
- x. Agardih Mandhaniya Stone Mine of Md. Azad, Mauza : Agardih Mandhaniya, Sub-Division : Manika, Distt. : Latehar, Jharkhand (1.854 Ha).
- xi. Manikdih Stone and Soil Mine of M/s A.K. Construction (Partners : Shri Ashok Kumar Dubey & Shri Ashok Kumar Pandey), Village : Manikdih, Thana no. : 96, P.S. : Manika, Distt.: Latehar, Jharkhand (0.891 Ha).
- xii. Chitragaria Stone Mine of M/s Jay Vishnu Stone Product (Prop. : Shri Birendra Saw), Village : Chitragaria, Thana : Shikaripara, Distt. : Dumka, Jharkhand (2.10 Ha).
- xiii. Stone Deposit of Khaksa - 84 of M/s Tridev Engicon Pvt. Ltd., Village : Khaksa-84, P.O. : Pakuria, Distt.: Pakur, Jharkhand (4.67 Ha).
- xiv. Gangpur Stone Mine of M/s Maa Kunti Enterprises (Prop. : Shri Santosh Kumar Saw), Village : Gangpur, Thana : Gomia, Distt.: Bokaro, Jharkhand (2.051 Ha).
- xv. Pichhri Stone Deposit of Shri Bhagwan Singh, Village : Pichhri, Thana : Peterwar, Distt. : Bokaro, Jharkhand (0.91 Ha).

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



Following general observations are made after examining 15 number of EC compliance report received :-

- i. Details of all applicable statutory clearances and its copies are not given.
- ii. Name and number of PPEs used and evidence ensuring its use by worker is poorly detailed.
- iii. 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.
- iv. Details about water sprinkling in terms of tanker capacity and number of times water is sprayed is not given.
- v. Occupational health check up- Summary of findings of health test reports for new joiners and periodical reports for existing workers is not provided. Sample Test report of selected employees is also not attached.
- vi. CTE / CTO - No reference about grant and validity of same described properly. Evidence also not given.
- vii. Mitigation measures taken are not described and no details are given about status of its implementation.
- viii. Newspaper publication and upload of EC granted on company website - No evidence provided
- ix. Monitoring report- Inadequate description given in text about sampling locations, monitoring findings. No reference in text about monitoring report attached.
- x. Catch pit/ settling tank and garland drain- Specification w.r.t. their no. location and dimensions not described. Evidence also not provided.
- xi. Environment management cell – organogram not given.
- xii. Submission of 6 monthly compliance report in timely manner- No evidence provided.

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

The replies so received will be further examined.



Day 2 : 09th July, 2026 [Thursday]

A. 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 & Commercial Complex Project "The Emporio" of M/s Alokik Infra Build LLP, Village : Saraidhela, Distt. : Dhanbad, Jharkhand.

The project authorities presented the implementation of the Remediation Plan & Natural and Community Resource Augmentation 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.

ii. "The Pride" Commercial Building of M/s Alokik Infra Navnirman Pvt. Ltd., Village : Saraidhela, Distt. : Dhanbad, Jharkhand.

The project authorities presented the implementation of the Remediation Plan & Natural and Community Resource Augmentation 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.

iii. Noamundi Township of M/s Tata Steel Limited, Village : Mahudi, Tehsil : Noamundi, Distt.: West Singhbhum, Jharkhand.

The project authorities presented the implementation of the Remediation Plan & Natural and Community Resource Augmentation 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.



- iv. "Proposed Multistoried Apartment" of M/s Oceanic Buildtech & Construction Pvt. Ltd., Village : Argora, Thana : Argora, Thana no. : 207, Tehsil : Argora, Dist. : Ranchi, Jharkhand.

The Project Authorities have submitted evidence of having completed all the requirements of Remediation Plan and Community Resource Augmentation Plan as per EC letter no. EC/SEIAA /2022-23/2561/2022/257, dated 09.09.2022.

Accordingly, a joint site visit with officer from IRO, MoEF&CC, Govt. of India, Ranchi on a mutually convenient date. The Member Secretary, SEAC shall write a letter to IRO, MoEF&CC, Govt. of India, Ranchi in this regard.

- v. Grain Based Distillery with Cogeneration Plant of M/s Sheonarain Jaiswal Pvt. Ltd., Village : Balsiring, Tehsil : Namkum, Distt. : Ranchi, Jharkhand.

The Project Authorities have submitted evidence of having completed all the requirements of Remediation Plan and Community Resource Augmentation Plan as per EC letter no. EC/SEIAA/ 2022-23/2737/2023/289, dated 06.10.2023.

Accordingly, a joint site visit with officer from IRO, MoEF&CC, Govt. of India, Ranchi on a mutually convenient date. The Member Secretary, SEAC shall write a letter to IRO, MoEF&CC, Govt. of India, Ranchi in this regard.

B. Consideration of proposals :

1. Bhadudih Stone Deposit of Shri Dipal Chandra Mahato, Village : Bhadudih, P.S. : Chandil, Distt.: Saraikela-Kharsawan, Jharkhand (0.708 Ha).

(Proposal no.: SIA/JH/MIN/582931/2026)

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

This is a new project which has been taken for appraisal on 09.07.2026.

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

Application for Environmental Clearance (EC).



Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Bhadudih Stone Deposit
2	Lessee	: Shri Dipal Chandra Mahato S/o Sri Gopal Chandra Mahato
3	Lessee Address	: Village + PO- Bhadudih, P.S. Chandil, District- Saraikela- Kharswan, Jharkhand
4	Lease Area	: 0.708 Ha. 1.75 Acres
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Rs. 46.032 Lakh
7	EMP Budget	: Capital: Rs. 7.032/-Lakh Recurring: Rs. 4.453 /- per year
8	New or Expansion	: New
9	Mineable Reserves	: 300695 tones 111369 Cum
10	Mine Life	: 10 years
11	Man power	: 15
12	Water Requirement	: 6.27~ 6.50 KLD
13	Water Source	: By authorised hired water tankers
14	DG Set / power	: 50 KVA
15	Crusher	: No crusher
16	Nearest Water Body	: Pond approx 160 meter as per KML also water body adjacent to Mine site EMP submitted.
17	Nearest Habitation	: Nearest Habitation 310 meter towards WSW direction as per CO Certificate EMP Submitted.
18	Nearest Rail Station	: Manikui Railway Station, approx. 3.17 km towards NW direction
19	Nearest Air Port	: Birsa Munda Airport, Ranchi approx. 90.65 km towards WNW direction.
20	Road & Highways	: NH – 43, Approx. 2.30 km towards West direction. NH-18, Approx. 1.04km, towards ENE direction.
21	Approach Road	: approx, 120 meters
22	Cluster Certificate	: No other mine exists within 500m radius.
23	Nearest Forest	: The distance of reserved / protected forest is approx. 1.0 Km from proposed project site as per Divisional Forest Officer, Saraikela Forest Division vide letter no.:500, dated 11.03.2026
24	Distance of nearest ESZ of Wildlife Sanctuary	: The project location is at approx. 4.66 KM from the nearest Eco Sensitive Zone of Dalma wildlife Sanctuary.







	or National Park	
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CO-ORDINATES

Pillar ID	Latitude	Longitude
1	22°53'59.382"	86°5'26.798"
2	22°54'0.390"	86°5'23.944"
3	22°53'57.807"	86°5'22.966"
4	22°53'56.790"	86°5'25.497"

LAND DETAILS

Khata no.	Plot no.
74	1478 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Saraikela-Kharsawan vide letter no. 625/M, dated 27.05.2026.
2	CO	:	The CO, Chandil vide letter no. 609, dated 28.06.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyani & Register II and also mentioned that the habitation within 400 meter and pond at as distance of 200 meters of proposed project site, accordingly PAs has submitted EMP for the same.
3	DMO Cluster	:	DMO, Saraikela-Kharsawan vide letter no. 648/M, dated 02.06.2026 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. 751, dated 16.05.2025 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Saraikela Forest Division vide letter no. 500, dated 11.03.2016 certified that the distance of notified forest is 01 KM from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Saraikela-Kharsawan District (Page no. 170, Sl. No. 14).
7	Gram Sabha	:	BDO, Chandil vide letter no. 512, dated 28.04.2026 informed that







			Gram Sabha conducted on 16.04.2026.
8	Mine Plan Approval	:	Approved by DMO, Saraikela-Kharsawan vide Letter No. 719/Mining, dated 11.06.2026.
9	Qualified Person	:	Shri Vidya Bhushan Mishra through letter dated 08.07.2026 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Semi- Mechanized Method
2	Quarry Area	:	0.473 Ha
3	Waste Generation	:	14235 cum
4	Stripping Ratio	:	1:0.086
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	174 m AMSL to 172m AMSL
8	Ground Level Elevation	:	172 m AMSL
9	Ultimate Working Depth	:	142 m AMSL (30 mbgl)
10	Water Table	:	135 -132 m AMSL (37-40 mbgl)
11	Topography of Mine	:	Area represents undulating small 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	10018	27048	10070	527	10597
2nd Year	11101	29972	0	584	584
3rd Year	12184	32896	285	641	926
4th Year	13357	36064	0	703	703
5th Year	14440	38988	665	760	1425
Total	61100	164968	11020	3215	14235

Land Use

Pattern of Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At conceptual period (Ha)
Quarry	NIL	0.390	0.473 (0.071 ha area shall be backfilled, 0.296ha converted into water reservoir & 0.106ha left as

			dead bench)
Waste Dump	Nil	0.066	Nil (comes under quarry)
Road	Nil	0.002	Nil (comes under quarry)
Crusher	Nil	0.0	Nil
Safety zone	Nil	0.235	0.235
Total	0.00	0.693	0.708
Unused area	0.708	0.015	0.0
Total Lease area	0.708		

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.235	376	1600 Tree per Hectare	1st Year	Jackfruit, Babul, Arjuna, Gulmohar, 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	0.071	114	1600 Tree per Hectare	At the end of plan period	
Plantation at Dead bench	0.106	170			
Total		900			

- 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(Rs.)	Recurring(Rs.)																					
Land	17,50,000.00	1,75,000.00																					
Infrastructure	15,00,000.00	1,50,000.00																					
Mining Equipment <table border="1"> <thead> <tr> <th>Equipment</th><th>Quantity</th><th>Rent per year</th></tr> </thead> <tbody> <tr> <td>Rock breaker</td><td>1</td><td>400000</td></tr> <tr> <td>Excavator</td><td>1</td><td>400000</td></tr> <tr> <td>Compressor</td><td>1</td><td>1000000</td></tr> <tr> <td>Water Sprinkler</td><td>1</td><td>600000</td></tr> <tr> <td>Dumper</td><td>1</td><td>200000</td></tr> <tr> <td>Loader</td><td>1</td><td>300000</td></tr> </tbody> </table> @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/-	Equipment	Quantity	Rent per year	Rock breaker	1	400000	Excavator	1	400000	Compressor	1	1000000	Water Sprinkler	1	600000	Dumper	1	200000	Loader	1	300000	0.00	29,00,000.00
Equipment	Quantity	Rent per year																					
Rock breaker	1	400000																					
Excavator	1	400000																					
Compressor	1	1000000																					
Water Sprinkler	1	600000																					
Dumper	1	200000																					
Loader	1	300000																					
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	6000.00																					
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	7,03,200.00	4,45,300.00																					
Total	4,60,3,200.00	36,76,300.00																					

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
900 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	2,70,000.00	45,000.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (0.72 KLD) & Horticulture (5.40 KLD) 0.72 + 5.40 = 6.12 KLD 6.12 KLD X 300 Days = 1836 KLD 1836 KLD / 4 KLD =459 Tankers	0.00	2,29,500.00
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	2,83,200.00	70,800.00

(M) dated 29/10/2014 issued by MoEF & CC		
Garland Drain & Retaining Near Pond & Mine Pit	1,50,000.00	50,000.00
Total	7,03,200.00	4,45,300.00

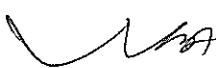
Environment Monitoring Plan

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 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 14235 cum in-situ waste shall be generated during this plan period, out of which 8855 cum (In situ) shall be utilized for approach & haul road maintenance. - The rest waste material 5381 cum in situ 6341.25 cum loose & 5390.06 cum compact waste shall be temporary dumped on south western part of the applied lease area and it will cover about 0.066 ha area. - 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. - Garland drain shall be provided along the OB dump. This drain would collect surface run off from dump body. Water collected in this drain would be stored in a sedimentation tank, the treated water shall be released for natural runoff.
Air Quality Management	Wet drilling and use of sharp drill bits to minimize dust generation. Controlled blasting using optimum explosive charge during favorable weather conditions. - Regular maintenance of diesel equipment and vehicles to reduce emissions.





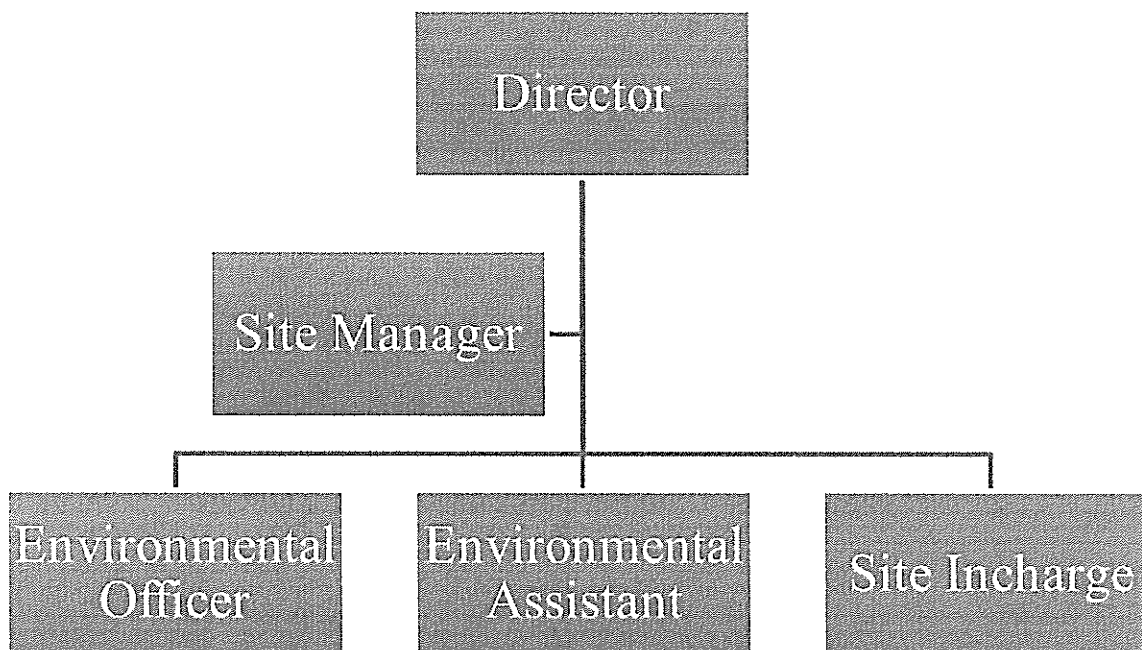


	• Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Mining will be confined only above the Ground Water Table (GWT).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

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

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

Organizational Structure of Environment Management Cell:



EMP Cell Structure

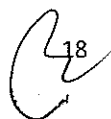
The EMP Cell is committed to ensuring environmental sustainability and compliance with regulatory requirements for the Stone Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Undertaking submitted affirming:

- 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.

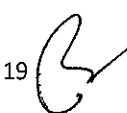
Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Bhadudih Stone Deposit of Shri Dipal Chandra Mahato, Village : Bhadudih, P.S. : Chandil, Distt.: Saraikela-Kharsawan, Jharkhand (0.708 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 on



24.06.2026. 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 "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.

   19  

2. Tentuliya Stone Deposit of M/s Prakash Stone Developer (Prop. : Md. Arman Ansari),
Village : Tentuliya, Anchal : Kaliasol, Distt.: Dhanbad, Jharkhand (2.140 Ha).

(Proposal no.: SIA/JH/MIN/561817/2025)

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

This is a new project which has been taken for appraisal on 09.07.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 38974 cum/annum or 105229 TPA

Project and Location Details:

Sl	Parameter	Details	
1	Project Name	:	Tentuliya Stone Deposit
2	Lessee	:	M/s Prakash Stone Developer Prop. – Md. Arman Ansari
3	Lessee Address	:	Village – Aina Islampur, P.O. – Bhagatdih, P.S. – Jharia, District- Dhanbad, Jharkhand.
4	Lease Area	:	2.140 Ha. 5.29 Acres
5	Type of Land	:	Non-Forest Raiyati Land
6	Project Cost	:	Rs. 89,29,700/-
7	EMP Budget	:	Capital: Rs. 15,19,700/- Recurring: Rs. 8,53,450 /- per year
8	New or Expansion	:	New
9	Mineable Reserves	:	991706 tones 367298.51 Cum
10	Mine Life	:	9.4 or 10.0 years
11	Man power	:	20
12	Water Requirement	:	12.07~12.10 KLD
13	Water Source	:	By authorised hired water tankers
14	DG Set / power	:	50 KVA
15	Crusher	:	No crusher
16	Nearest Water Body	:	Pond approx 440 m as per KML EMP Submitted
17	Nearest Habitation	:	Nearest Habitation (As per Google Earth-290m; EMP Submitted)
18	Nearest Rail Station	:	Chhota Ambana Railway station, approx. 6.78 km toward NW direction
19	Nearest Air Port	:	Deoghar Airport, approx. 79.39 km towards North direction
20	Road & Highways	:	Deuli- Khairpal Rd, approx 8.95km, in West Direction NH-19, Approx. 9.89 km. in South direction.
21	Approach Road	:	approx, 300 meters

22	Cluster Certificate	:	One other mine exists within 500m radius. Total cluster area is 11.93 acre.
23	Nearest Forest	:	The distance of reserved / protected forest is approx 600 meters from proposed project site as per Divisional Forest Officer, Dhanbad vide letter no.:2654, dated 09.10.2024
24	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 37.26 KM from the nearest Eco Sensitive Zone of Topchanchi Wildlife Sanctuary.

CO-ORDINATES

Pillar No.	Degree, Minute, Second	
	Latitude	Longitude
1.	23° 42' 48.4806" N	86° 36' 47.0256" E
2.	23° 42' 47.9616" N	86° 36' 46.9571" E
3.	23° 42' 47.9838" N	86° 36' 46.5309" E
4.	23° 42' 48.1039" N	86° 36' 46.0400" E
5.	23° 42' 48.0054" N	86° 36' 45.9029" E
6.	23° 42' 47.9941" N	86° 36' 45.4965" E
7.	23° 42' 47.8524" N	86° 36' 45.6006" E
8.	23° 42' 47.7523" N	86° 36' 45.8308" E
9.	23° 42' 47.5820" N	86° 36' 45.8481" E
10.	23° 42' 47.5198" N	86° 36' 45.7586" E
11.	23° 42' 47.6045" N	86° 36' 45.5705" E
12.	23° 42' 47.6733" N	86° 36' 45.1779" E
13.	23° 42' 47.6265" N	86° 36' 45.0603" E
14.	23° 42' 47.0583" N	86° 36' 44.9190" E
15.	23° 42' 46.9633" N	86° 36' 45.0959" E
16.	23° 42' 46.6470" N	86° 36' 45.5677" E
17.	23° 42' 46.5778" N	86° 36' 45.7586" E
18.	23° 42' 46.0046" N	86° 36' 45.6706" E
19.	23° 42' 45.5402" N	86° 36' 45.6232" E
20.	23° 42' 45.8199" N	86° 36' 45.2902" E
21.	23° 42' 46.0307" N	86° 36' 45.2896" E
22.	23° 42' 46.3395" N	86° 36' 44.9009" E
23.	23° 42' 46.4891" N	86° 36' 44.5501" E
24.	23° 42' 46.2907" N	86° 36' 44.3404" E
25.	23° 42' 46.3842" N	86° 36' 43.8542" E
26.	23° 42' 47.1678" N	86° 36' 44.1435" E
27.	23° 42' 47.3263" N	86° 36' 43.5290" E







28.	23° 42' 47.1014" N	86° 36' 43.3985" E
29.	23° 42' 46.8200" N	86° 36' 43.3825" E
30.	23° 42' 46.4663" N	86° 36' 43.3247" E
31.	23° 42' 46.4293" N	86° 36' 43.0052" E
32.	23° 42' 46.4484" N	86° 36' 42.6454" E
33.	23° 42' 46.4882" N	86° 36' 42.0772" E
34.	23° 42' 46.4304" N	86° 36' 42.0110" E
35.	23° 42' 46.3530" N	86° 36' 42.0000" E
36.	23° 42' 46.2599" N	86° 36' 41.9302" E
37.	23° 42' 46.2361" N	86° 36' 41.7247" E
38.	23° 42' 46.0399" N	86° 36' 41.6748" E
39.	23° 42' 45.9364" N	86° 36' 41.5770" E
40.	23° 42' 45.8322" N	86° 36' 41.2045" E
41.	23° 42' 45.8396" N	86° 36' 41.0559" E
42.	23° 42' 45.9242" N	86° 36' 40.8426" E
43.	23° 42' 45.8175" N	86° 36' 40.5374" E
44.	23° 42' 45.9611" N	86° 36' 40.1389" E
45.	23° 42' 46.0044" N	86° 36' 40.1005" E
46.	23° 42' 45.9189" N	86° 36' 39.9746" E
47.	23° 42' 46.2095" N	86° 36' 39.1262" E
48.	23° 42' 47.4006" N	86° 36' 39.2797" E
49.	23° 42' 48.1583" N	86° 36' 39.5166" E
50.	23° 42' 49.2365" N	86° 36' 39.7915" E
51.	23° 42' 48.8976" N	86° 36' 40.8671" E
52.	23° 42' 48.8417" N	86° 36' 41.2246" E
53.	23° 42' 48.8984" N	86° 36' 41.5281" E
54.	23° 42' 49.1448" N	86° 36' 41.9945" E
55.	23° 42' 49.0809" N	86° 36' 42.2517" E
56.	23° 42' 48.9711" N	86° 36' 42.1936" E
57.	23° 42' 48.6630" N	86° 36' 43.3588" E
58.	23° 42' 49.4995" N	86° 36' 43.6862" E
59.	23° 42' 49.6481" N	86° 36' 43.7862" E
60.	23° 42' 49.6542" N	86° 36' 43.8601" E
61.	23° 42' 49.7962" N	86° 36' 43.8831" E
62.	23° 42' 50.0719" N	86° 36' 44.0154" E
63.	23° 42' 50.0162" N	86° 36' 44.1184" E
64.	23° 42' 50.0441" N	86° 36' 44.4947" E
65.	23° 42' 49.8047" N	86° 36' 45.0934" E
66.	23° 42' 49.7120" N	86° 36' 45.1685" E
67.	23° 42' 49.6493" N	86° 36' 45.3202" E
68.	23° 42' 49.5305" N	86° 36' 45.7458" E
69.	23° 42' 49.8719" N	86° 36' 45.9999" E

70.	23° 42' 49.5559" N	86° 36' 46.6147" E
71.	23° 42' 49.6286" N	86° 36' 46.7883" E
72.	23° 42' 49.4957" N	86° 36' 47.3101" E
73.	23° 42' 49.3331" N	86° 36' 47.2937" E
74.	23° 42' 49.0154" N	86° 36' 47.1994" E
75.	23° 42' 48.8887" N	86° 36' 47.1044" E
76.	23° 42' 48.8160" N	86° 36' 46.9533" E
77.	23° 42' 48.5509" N	86° 36' 46.9045" E

LAND DETAILS

Khata no.	Plot no.
148, 147, 99, 103, 56, 38 & 169	14 (P), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 69, 70, 79, 91, 92, 93, 96, 97

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Dhanbad vide letter no. 1333/M, dated 23.08.2025.
2	CO	:	The CO, Kaliasol, Dhanbad vide letter no. 354, dated 14.10.2024 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyani & Register II and also mentioned that the pond within 500 meters of proposed project site. During the appraisal it was seen from the KML that few houses at a distance of 290 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Dhanbad vide memo no. 1708/M, dated 14.11.2025 certified that 01 other mining lease area (6.64 Acre) exists within 500 meters radius from proposed project site and total area is 11.93 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 2321, dated 19.11.2024 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Dhanbad Forest Division vide letter no. 2654, dated 09.10.2024 certified that the distance of reserved / protected forest is 600 meters from proposed project site.







6	DSR	:	This project is mentioned in approved DSR of Dhanbad District (Page no. 64, Sl. No. 32).
7	Gram Sabha	:	Gram Sabha conducted on 14.12.2024.
8	Mine Plan Approval	:	Approved by DMO, Dhanbad vide Memo No. 1614/M, dated 18.10.2025.
9	Qualified Person	:	Shri Vidya Bhushan Mishra through letter dated 08.07.2026 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast semi- mechanized Method
2	Quarry Area	:	1.466 Ha
3	Waste Generation	:	33518 cum in-situ waste shall be generated for plan period.
4	Stripping Ratio	:	1:0.067
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m
7	Elevation of Mine	:	199 m AMSL to 191 m AMSL
8	Ground Level Elevation	:	191 m AMSL
9	Ultimate Working Depth	:	155 m AMSL (36mbgl)
10	Water Table	:	137- 140m AMSL (54-51mbgl)
11	Topography of Mine	:	Area represents a small hillock.
12	Explosive Requirement	:	31 kg/day
13	Diesel/Fuel requirement	:	128 litre/day

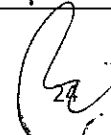
Production Details

Year	Production of Stone		Overburden in cum	Intercalated Waste in cum	Total Waste In cum
	(cum)	(tons)			
1 st	35554	95995	17700	1871	19571
2 nd	36124	97534	1875	1901	3776
3 rd	36694	99073	4200	1931	6131
4 th	37763	101959	0	1988	1988
5 th	38974	105229	0	2051	2051
Total	185108	499790	23775	9743	33518

Land Use

Land Utilization	Existing Land use (Ha.)	At the end of plan period (Ha)	At Conceptual period (Ha)
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Excavation	0.0	0.862	1.466 (0.137 ha. area shall be backfilled & 0.733 ha. converted into water reservoir & 0.596 ha shall be left as dead benches)
Waste Dump	0.0	0.260	Nil (comes under quarry)
Road	0.0	0.006	Nil (comes under quarry)
Infrastructure	0.0		
Safety Zone	0.0	0.674 (Plantation)	0.674 (Plantation)
Total	0.0	1.802	2.140
Unused Land	2.140	0.338	0.00
Total Lease Area	2.140		

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.674	1079	1600 Tree per Hectare	1st Year	Pipal, Gulmohar Jackfruits, Mango, Jamun, Babul, Neem, Arjun, etc.
Length of Approach Road Area (m.)	300	600	2m X 2 m spacing in two rows both side		
Plantation in Backfilled area	0.137	220	1600 Tree per Hectare	10 th Year	
Plantation In Dead bench area	0.596	954			
Total		2853			

- 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.

Note: Out of the total 2853 plants, the daily water consumption is estimated based on 1679 plants (safety zone and approach road) the remaining plants 1174 designated for the dead bench and backfilling areas are excluded, as they do not require water suppression during the current operational phase.

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BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars			Capital(Rs.)	Recurring(Rs.)
Land			52,90,000.00	5,29,000.00
Infrastructure			15,00,000.00	1,50,000.00
Mining Equipment			0.00	25,00,000
<i>Equipment</i>	<i>Quantity</i>	<i>Rent per year</i>		
Excavator	1	4,00,000		
Rock breaker	1	2,00,000		
Compressor	1	10,00,000		
Wagon	1	2,00,000		
Dumper	2	4,00,000		
Loader	1	3,00,000		
@Per Excavator-4,00,000/- @Per Rock Breaker-2,00,000/- @Rock Breaker- 2,00,000/- @Per Compressor-10,00,000/- @Wagon-2,00,000/- @Per Dumper-2,00,000/- @Per Loader-3,00,000/-				
Water Facility for Domestic Purpose "0.20" KLD (Annual Water Demand "60"KL @4L per Tanker, total number of tanker required ("24") and per tanker cost @Rs. 500)			0.00	12,000
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			15,19,700.00	8,53,450.00
Total			89,29,700.00	40,44,450.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
1679 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	5,03,700.00	83,950.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.80 KLD) & Horticulture (10.07 KLD) 1.80 + 10.07 = 11.87 KLD 11.87 KLD X 300 Days = 3561 KLD 3561 KLD / 4 KLD = 891 Tankers	0	4,45,500.00
2.140Environment Monitoring & Compliance	0	50,000.00
To prevent the impact of mining activities on these	8,56,000.00	2,14,000.00

habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC		
Garland Drain & Retaining wall for Pond	1,60,000.00	60,000.00
Total	15,19,700.00	8,53,450.00

Additionally, a separate budget of EMP i.e. Rs. 8,56,000/- has been provided to mitigate adverse impact on pond and habitation (few houses) exist within 500 meters of project boundary.

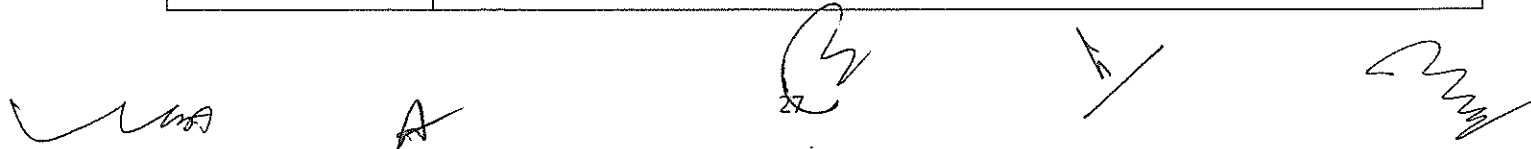
Environment Monitoring Plan

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 33518 cum in-situ waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 16759 cum (In situ) shall be utilized for approach & haul road maintenance. - The rest waste material (50%) i.e. 16759 cum in situ 20948.44 cum loose & 17806.17 cum compact waste shall be temporary dumped on the north eastern part of the applied lease area and it will cover about 0.260ha area. Garland drain shall be provided along the OB dump. - This drain would collect surface run off from dump body. Water collected in this drain would be stored in a sedimentation tank, the treated water



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

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



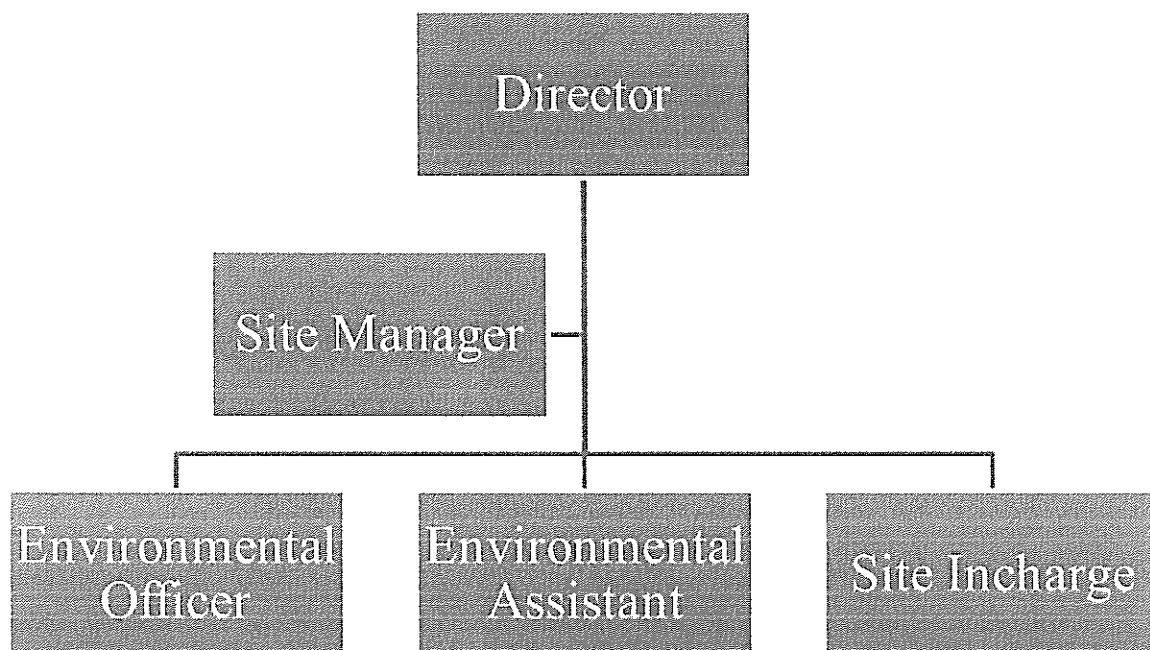




Explosives	completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time 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 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.
Additional EMP	Additionally, a separate budget of EMP i.e. Rs. 8,56,000/- has been provided to mitigate adverse impact on pond and habitation (few houses) exist within 500 meters of project boundary.

Organizational Structure of Environment Management Cell:



EMP Cell structure

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

Undertaking submitted affirming:

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

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- 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 Tentuliya Stone Deposit of M/s Prakash Stone Developer (Prop. : Md. Arman Ansari), Village : Tentuliya, Anchal : Kaliasol, Distt.: Dhanbad, Jharkhand (2.140 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 on 01.07.2026. 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 "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.



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

3. Chakarbarai Stone Deposit of M/s Ganpati Minerals (Partners : (i) Shri Ramchandra Mehta (ii) Shri Lalan Kumar Singh (iii) Shri Arvind Kumar), Village : Chakarbarai, Thana : Dumri, Distt.: Giridih, Jharkhand (1.570 Ha).

(Proposal no.: SIA/JH/MIN/583268 /2026)

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

This is a new project which has been taken for appraisal on 09.07.2026.

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

Application for Terms of Reference (ToR).

ToR Application for: Proposed Capacity –24299 cum/annum or 65608 TPA.

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Chakarbarai Stone Deposit



2	Lessee:	:	M/s Ganpati Minerals Partner- Sri Ramchandra Mehta (2) Lalan Kumar Singh (3) Sri Arvind Kumar Village- Bigha, PO- Fulwari, PS- Nawalsahi, District – Koderma, Jharkhand
3	Lease Address	:	Mouza – Chakarbarai, Thana – Dumri, District – Giridih, State - Jharkhand
4	Lease Area	:	1.570 Ha Acres- 3.88 Acres
5	Type of Land	:	Non- Forest (Raiyati Land)
6	Project Cost	:	Rs. 73,67,500/-
7	EMP Budget	:	Capital: Rs. 13,67,500/- Recurring: Rs. 8,18,750/-
8	New or Expansion	:	New
9	Mineable Reserves	:	221211 cum Tonnes:597271 tones
10	Mine Life	:	10 years
11	Man power	:	15
12	Water Requirement	:	12.5KLD (Drinking: 0.15 KLD, Dust Suppression:0.56KLD, Plantation:11.79KLD)
13	Water Source	:	Water will be taken from nearby village
14	DG Set / power	:	500 KVA
15	Crusher	:	No crusher
16	Nearest Water Body	:	Seasonal nallah - approx 50 meter, WNW direction as per KML EMP Submitted.
17	Nearest Habitation	:	Approx, 352 meter towards WNW direction as per Google earth EMP submitted.
18	Nearest Rail Station	:	Parasnath railway station approx 3.40 Km towards West direction .
19	Nearest Air Port	:	Deoghar Airport approx. 82.23 km towards NE direction.
20	Nearest Forest	:	Protected Forest- Approx. 0.79 km towards ENE direction. Protected Forest- Approx. 2.00 km towards ESE direction. Protected Forest - Approx. 2.80 km towards WNW direction. Protected Forest- Approx. 1.56 km towards NNE direction. Protected Forest- Approx. 1.30 km towards NNE direction. Parasnath Hill Forest -Approx. 2.34 km towards East direction
21	Road & Highways	:	NH-19 at about 2.32 km on South-west direction
22	Approach road	:	Approx94 m
23	Cluster Certificate	:	Total Five minelease exists within 500m radius which is total of 25.46 acre or 10.30 hectare
24	Nearest Forest	:	The distance of reserved/protected forest is 400 m from proposed project site as per Divisional Forest Officer, Giridih East Forest Division vide letter no.:299, dated 07.02.2025
25	Distance of nearest ESZ of Wildlife Sanctuary or National	:	The project location is at approx. 11.10 KM from the nearest Eco Sensitive Zone of Topchanchi wildlife Sanctuary.

	Park	
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CO-ORDINATES

Point	Latitude	Longitude
P1	23° 58' 59.013" N	86° 4' 10.109" E
P2	23° 59' 0.358" N	86° 4' 10.619" E
P3	23° 59' 1.671" N	86° 4' 11.967" E
P4	23° 59' 3.684" N	86° 4' 14.053" E
P5	23° 59' 3.766" N	86° 4' 15.435" E
P6	23° 59' 3.281" N	86° 4' 15.739" E
P7	23° 59' 2.976" N	86° 4' 15.728" E
P8	23° 59' 2.945" N	86° 4' 16.023" E
P9	23° 59' 3.147" N	86° 4' 16.333" E
P10	23° 59' 3.062" N	86° 4' 16.554" E
P11	23° 59' 2.594" N	86° 4' 16.610" E
P12	23° 59' 2.233" N	86° 4' 16.757" E
P13	23° 59' 2.262" N	86° 4' 17.616" E
P14	23° 59' 2.094" N	86° 4' 18.081" E
P15	23° 59' 1.767" N	86° 4' 18.069" E
P16	23° 59' 1.495" N	86° 4' 18.623" E
P17	23° 59' 1.136" N	86° 4' 18.483" E
P18	23° 59' 0.490" N	86° 4' 18.262" E
P19	23° 59' 0.514" N	86° 4' 17.889" E
P20	23° 59' 0.014" N	86° 4' 17.845" E
P21	23° 58' 59.798" N	86° 4' 18.714" E
P22	23° 58' 59.454" N	86° 4' 18.602" E
P23	23° 58' 59.181" N	86° 4' 18.447" E
P24	23° 58' 59.392" N	86° 4' 17.860" E
P25	23° 58' 59.347" N	86° 4' 17.737" E
P26	23° 58' 59.358" N	86° 4' 17.388" E
P27	23° 58' 59.710" N	86° 4' 17.123" E
P28	23° 58' 59.809" N	86° 4' 16.906" E
P29	23° 58' 59.483" N	86° 4' 16.558" E

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P30	23° 59' 0.216" N	86° 4' 15.532" E
P31	23° 59' 0.663" N	86° 4' 14.524" E
P32	23° 59' 0.842" N	86° 4' 14.512" E
P33	23° 59' 0.868" N	86° 4' 14.815" E
P34	23° 59' 1.253" N	86° 4' 14.901" E
P35	23° 59' 1.338" N	86° 4' 14.731" E
P36	23° 59' 1.549" N	86° 4' 14.729" E
P37	23° 59' 1.695" N	86° 4' 13.881" E
P38	23° 59' 1.810" N	86° 4' 13.262" E
P39	23° 59' 1.412" N	86° 4' 12.654" E
P40	23° 59' 0.755" N	86° 4' 12.082" E
P41	23° 58' 59.662" N	86° 4' 11.703" E
P42	23° 58' 58.619" N	86° 4' 11.780" E
P43	23° 58' 58.745" N	86° 4' 11.176" E
P44	23° 58' 58.877" N	86° 4' 10.686" E

LAND DETAILS

Khata no.	Plot no.
57 & 35	215 (P), 216 (P), 219, 220, 221, 222, 225 & 226 (P)

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Giridih, vide letter no. 252/M dated 09.04.2026.
2	CO	:	The CO, Dumri (Giridih) vide letter no. 136, dated 11.02.2025 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatiyani. During the appraisal it was seen from the KML that few houses at a distance of 490 meters and Barsati Nala at a distance of 50 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Giridih vide memo no. 478/M, dated 18.06.2026 certified that 01 other mining lease area (4.6350 Acre) and 03 LoI (6.11 Acre, 4.62 Acre & 6.22 Acre) exists within 500 m radius from proposed project site and total area is 25.465 Acre.







4	DFO Wild Life	:	Divisional Forest Officer, Wildlife Division, Hazaribag vide letter no. 2135, dated 01.10.2024 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Giridih East Forest Division vide letter no. 299, dated 07.02.2025 certified that the distance of notified forest is 400 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Giridih District (Page no. 72, Sl. No. 153) and also DMO, Giridih has certified vide memo no. 536/M, dated 07.07.2026 that village Chakarbarai is identified and approved as potential village of approved DSR of Giridih District.
7	Gram Sabha	:	BDO, Dumri vide letter no. 252, dated 13.02.2025 informed that Gram Sabha conducted on 05.02.2025.
8	Mine Plan Approval	:	Mine plan approved by DMO –cum- DDM, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide memo no. 158/DDM, dated 05.06.2026.
9	Qualified Person	:	Shri Vidya Bhushan Mishra through letter dated 08.07.2026 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast semi mechanized method	
2	Quarry Area	:	0.961ha	Life of Mine – 10 Years
3	Waste Generation	:	Total 24738 cum in-situ waste shall be generated during this plan period	
4	Stripping Ratio	:	1: 0.083	
5	Working Days	:	300	
6	Bench: size & No	:	6m to 6m	
7	Elevation of Mine	:	297AMSL to 291AMSL	
8	Ground Level Elevation	:	291 AMSL	
9	Ultimate Working Depth	:	Up to 260 AMSL (31 mbgl)	
10	Water Table	:	220-217 AMSL (71-74mbgl)	
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	

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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	19876	53665	14874	1046	15920
2nd Year	20497	55342	4089	1079	5168
3rd Year	21902	59136	0	1153	1153
4th Year	23142	62483	0	1218	1218
5th Year	24299	65608	0	1279	1279
Total	109716	296234	18963	5775	24738

Land Use

Land Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At Conceptual period (Ha)
Excavation	0.0	0.649	0.961 (0.253 ha area shall be Backfilled, 0.460 ha converted in to water reservoir & 0.248 ha shall be left as dead benches)
Waste Dump	0.0	Nil (comes under quarry)	Nil (comes under quarry)
Mine Road	0.0	0.006	Nil (comes under quarry)
Crusher	0.0	0.0	0.0
Safety Zone Plantation	0.0	0.609 (Plantation)	0.609 (Plantation)
Total	0.0	1.264	1.570
Unused Area	1.570	0.306	0.00
Total Lease Area	1.570		

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone	0.609	975	1600 Tree per		Pipal, Gulmohar

(Ha.)			Hectare	1st Year	Jackfruits, Mango, Jamun, Babul, Neem, Arjun, etc.
Length of Approach Road Area (m.)	94	188	2m X 2 m spacing in two rows both side		
Plantation at Backfilling	0.253	405	1600 Tree per Hectare	At the end of Plan Period	
Plantation at Dead Bench	0.248	397			
Total		1965			

- 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(Rs.)	Recurring(Rs.)
Land			38,80,000.00	3,88,000.00
Infrastructure			15,00,000.00	1,50,000.00
Mining Equipment			0.00	45,00,000.00
<i>Equipment</i>	<i>Quantity</i>	<i>Rent per year</i>		
Excavator	1	4,00,000		
Rock Breaker	1	2,00,000		
Compressor	1	10,00,000		
Dumper	1	2,00,000		
Loader	1	3,00,000		
Water Sprinkler	1	6,00,000		
DG Set	1	15,00,000		
@Per Excavator-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 "0.15" KLD (Annual Water Demand "45"KL @4L per person , total number of tanker required ("12") and per tanker cost @Rs. 500)	0.00	6000.00
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	13,67,500.00	8,18,750.00
Total	73,67,500.00	55,62,750.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
1965Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	589500	98250
Water Tanker @Rs. 500 per Tanker for Dust Suppression (0.56 KLD) & Horticulture (11.79KLD) $0.56 + 11.79 = 12.35\text{KLD}$ $12.35 \text{ KLD} \times 300 \text{ Days} = 3705\text{KLD}$ $3705\text{KLD} / 4 \text{ KLD} = 927\text{Tankers}$	0	463500
Environment Monitoring & Compliance	0	50000
To prevent the impact of mining activities on these habitations under by MoEF & CC	628000	157000
Garland Drain & Retaining wall for Seasonal Nallah	150000	50000
Total	13,67,500	8,18,750

Note- Detail Breakup will be given at the time of final EIA

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

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

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

Environment Management Practices to be followed:

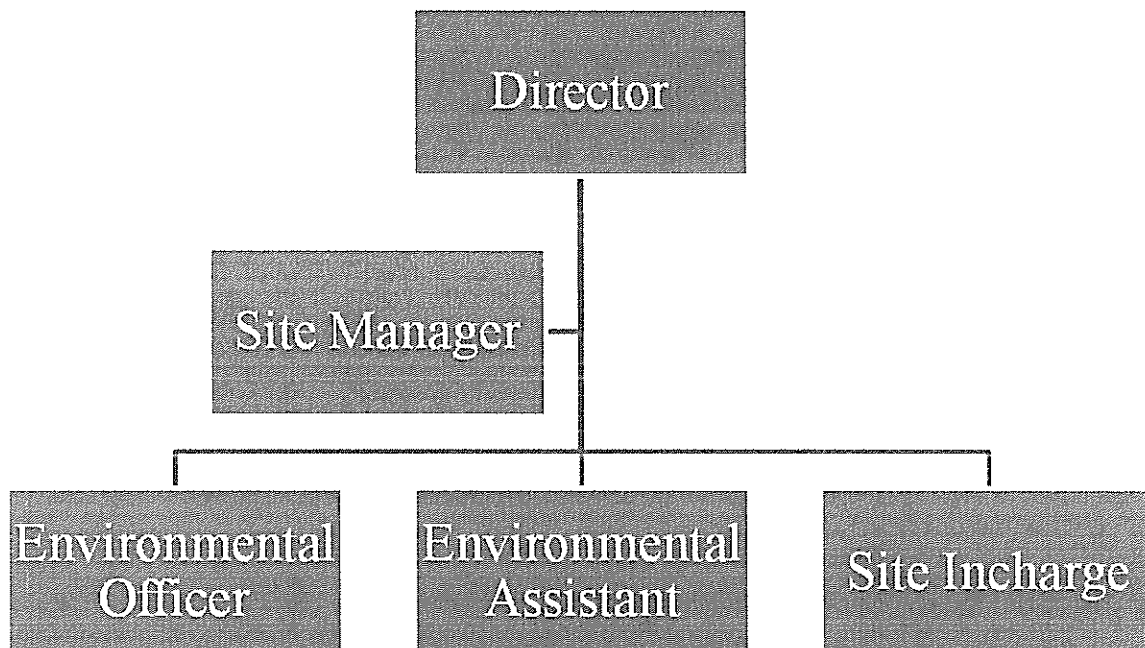
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	- In this applied lease area, the stone deposit is covered with 2m layer of gritty intermixed soil which considered as over burden. The recovery of stone is about 95%, thus intercalated waste of only 5% shall be generate from this mine. - It has been calculated that total 24738 cum in-situ waste shall be generated during this plan period out of which 14902 cum (In situ) shall be utilized for approach & haul road maintenance. - The rest waste material 9835 cum in situ 12294.07 cum loose & 10449.96 cum compact waste shall be temporary dumped on the eastern part at first year, second year onwards the general waste and waste materials of past dumping shall be removed and used for backfilling of exhausted part of quarry at south western part and it will cover about 0.116 ha area. 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. Garland drain shall be provided along the OB dump. This drain would collect surface run off from dump body. Water collected in this drain would be stored in a sedimentation tank, the treated water shall be released for natural runoff.
Air Quality Management	- Wet drilling and use of sharp drill bits to minimize dust generation. - Controlled blasting using optimum explosive charge during favorable weather conditions. - Regular maintenance of diesel equipment and vehicles to reduce emissions. - Water sprinkling on haul roads, loading/unloading points, and working areas. - All transport vehicles will have valid PUC certificates. - Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	- Mining will be confined only above the Ground Water Table (GWT). - Rainwater accumulated in the pit will be collected and pumped out regularly during monsoon. - Settling sump will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. - Garland and foot drains will be constructed around the quarry to control surface runoff. - Sewage from rest shelters will be treated through septic tank-soak pit systems. - Foot drain would be provided around the external dump, if any.

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

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

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



EMP Cell Structure

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

Undertaking submitted affirming:

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

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- 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 08, 09, 10, 11& 12.07.2026, 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 II alongwith following specific condition :-

- I. The detailed EMP is to be prepared for the Habitation and Barsati Nala 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.

4. Chakarbarai Stone Deposit of M/s Ganpati Minerals (Partners : (i) Shri Ramchandra Mehta (ii) Shri Lalan Kumar Singh (iii) Shri Arvind Kumar), Village : Chakarbarai, Thana : Dumri, Distt.: Giridih, Jharkhand (1.870 Ha).

(Proposal no.: SIA/JH/MIN/583234/2026)

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

This is a new project which has been taken for appraisal on 09.07.2026.

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

Application for Terms of Reference (ToR).

ToR Application for: Proposed Capacity –26719 cum/annum or 72141 TPA.

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Chakarbarai Stone Deposit
2	Lessee:	: M/s Ganpati Minerals Partner- Sri Ramchandra Mehta (2) Lalan Kumar Singh (3) Sri Arvind Kumar Village- Bigha, PO- Fulwari, PS- Nawalsahi, District – Koderma, Jharkhand
3	Lease Address	: Mouza – Chakarbarai, Thana – Dumri, District – Giridih, State - Jharkhand
4	Lease Area	: 1.870 Ha Acres- 4.62Acres
5	Type of Land	: Non- Forest (Raiyati Land)
6	Project Cost	: Rs. 82,97,400/-
7	EMP Budget	: Capital: Rs. 15,57,400/- Recurring: Rs. 9,26,400/-
8	New or Expansion	: New
9	Mineable Reserves	: 241626 cum Tonnes:652390 tones
10	Mine Life	: 10 years
11	Man power	: 15
12	Water Requirement	: 14.26 KLD (Drinking: 0.15 KLD, Dust Suppression:0.93KLD, Plantation:13.18 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	: Seasonal nallah - approx 210 meter, West direction as per KMLEMP Submitted.
17	Nearest Habitation	: Approx, 420 meter towards ENE direction as per Google earth EMP submitted.
18	Nearest Rail Station	: Parasnath railway station which is about 3.4 Km towards WNW direction from the applied lease area.

19	Nearest Air Port	:	Deoghar Airport approx. 82.23 km towards ENE direction.
20	Nearest Forest	:	Protected Forest- Approx. 0.81 km towards ENE direction. Protected Forest- Approx. 2.20 km towards ESE direction. Protected Forest - Approx. 2.70 km towards WNW direction. Protected Forest- Approx. 1.71 km towards NNE direction. Protected Forest- Approx. 1.31 km towards NNE direction. Parasnath Hill Forest -Approx. 2.2 km towards East direction
21	Road & Highways	:	NH-19 at about 2.4 km on South-west direction
22	Approach road	:	Approx. 155 m
23	Cluster Certificate	:	Total Five minelease exists within 500m radius which is total of 25.46 acre or 10.30 hectare
24	Nearest Forest	:	The distance of reserved / protected forest is 420m from proposed project site as per Divisional Forest Officer, Giridih East Forest Division vide letter no.:300, dated 07.02.2025
25	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 10.85 KM from the nearest Eco Sensitive Zone of Topchanchi wildlife Sanctuary.

CO-ORDINATES

Point	Latitude	Longitude
P1	23° 58' 53.281" N	86° 4' 14.247" E
P2	23° 58' 52.834" N	86° 4' 15.352" E
P3	23° 58' 52.387" N	86° 4' 15.676" E
P4	23° 58' 52.295" N	86° 4' 16.366" E
P5	23° 58' 51.709" N	86° 4' 17.363" E
P6	23° 58' 52.188" N	86° 4' 17.688" E
P7	23° 58' 51.709" N	86° 4' 18.787" E
P8	23° 58' 50.893" N	86° 4' 20.279" E
P9	23° 58' 50.807" N	86° 4' 19.903" E
P10	23° 58' 50.580" N	86° 4' 19.775" E
P11	23° 58' 50.623" N	86° 4' 19.682" E
P12	23° 58' 49.991" N	86° 4' 19.358" E
P13	23° 58' 49.961" N	86° 4' 18.186" E
P14	23° 58' 49.166" N	86° 4' 19.105" E
P15	23° 58' 49.513" N	86° 4' 19.492" E
P16	23° 58' 49.081" N	86° 4' 20.200" E
P17	23° 58' 48.797" N	86° 4' 20.129" E
P18	23° 58' 48.862" N	86° 4' 20.715" E
P19	23° 58' 48.653" N	86° 4' 20.938" E
P20	23° 58' 48.303" N	86° 4' 20.847" E
P21	23° 58' 48.140" N	86° 4' 20.718" E

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P22	23° 58' 47.636" N	86° 4' 20.663" E
P23	23° 58' 47.498" N	86° 4' 20.866" E
P24	23° 58' 47.333" N	86° 4' 20.834" E
P25	23° 58' 47.480" N	86° 4' 20.496" E
P26	23° 58' 47.394" N	86° 4' 19.858" E
P27	23° 58' 47.246" N	86° 4' 19.503" E
P28	23° 58' 47.395" N	86° 4' 19.169" E
P29	23° 58' 47.441" N	86° 4' 18.311" E
P30	23° 58' 47.509" N	86° 4' 18.340" E
P31	23° 58' 47.710" N	86° 4' 17.379" E
P32	23° 58' 47.875" N	86° 4' 16.961" E
P33	23° 58' 47.850" N	86° 4' 16.725" E
P34	23° 58' 48.243" N	86° 4' 16.823" E
P35	23° 58' 48.513" N	86° 4' 16.835" E
P36	23° 58' 48.837" N	86° 4' 17.009" E
P37	23° 58' 49.110" N	86° 4' 16.590" E
P38	23° 58' 49.185" N	86° 4' 16.089" E
P39	23° 58' 49.369" N	86° 4' 15.807" E
P40	23° 58' 49.257" N	86° 4' 15.475" E
P41	23° 58' 49.559" N	86° 4' 15.421" E
P42	23° 58' 49.817" N	86° 4' 14.812" E
P43	23° 58' 50.084" N	86° 4' 14.863" E
P44	23° 58' 50.497" N	86° 4' 14.822" E
P45	23° 58' 50.909" N	86° 4' 14.647" E
P46	23° 58' 51.229" N	86° 4' 14.600" E
P47	23° 58' 51.294" N	86° 4' 14.262" E
P48	23° 58' 51.422" N	86° 4' 14.053" E
P49	23° 58' 51.846" N	86° 4' 14.078" E
P50	23° 58' 52.034" N	86° 4' 13.772" E
P51	23° 58' 52.583" N	86° 4' 13.769" E
P52	23° 58' 53.118" N	86° 4' 13.847" E
P53	23° 58' 53.135" N	86° 4' 14.360" E

LAND DETAILS

Khata no.	Plot no.
66, 61, 24, 20, 19, 17, 38, 56 & 34	247, 249 (P), 250, 251, 252, 253, 254, 255, 256, 272, 273, 274, 280, 281, 282, 428, 429, 430, 431, 432, 433 & 434 (P)







STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Giridih, vide letter no. 253/M dated 09.04.2026.
2	CO	:	The CO, Dumri (Giridih) vide letter no. 135, dated 11.02.2025 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatiyani and also mentioned that the Nala at a distance of 250 meters of proposed project site. During the appraisal it was seen from the KML that few houses at a distance of 490 meters from mining lease area. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Giridih vide memo no. 477/M, dated 18.06.2026 certified that 01 other mining lease area (4.6350 Acre) and 03 LoI (6.11 Acre, 3.88 Acre & 6.22 Acre) exists within 500 m radius from proposed project site and total area is 25.465 Acre.
4	DFO Wild Life	:	Divisional Forest Officer, Wildlife Division, Hazaribag vide letter no. 2136, dated 01.10.2024 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Giridih East Forest Division vide letter no. 300, dated 07.02.2025 certified that the distance of notified forest is 420 meters from proposed project site.
6	DSR	:	DMO, Giridih has certified vide memo no. 537/M, dated 07.07.2026 that village Chakarbarai is identified and approved as potential village of approved DSR of Giridih District.
7	Gram Sabha	:	BDO, Dumri vide letter no. 251, dated 13.02.2025 informed that Gram Sabha conducted on 05.02.2025.
8	Mine Plan Approval	:	Mine plan approved by DMO –cum- DDM, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide memo no. 159/DDM, dated 05.06.2026.
9	Qualified Person	:	Shri Vidya Bhushan Mishra through letter dated 08.07.2026 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast semi mechanized method	
2	Quarry Area	:	1.321 acres	Life of Mine – 10 Years







3	Waste Generation	:	Total 20328cum in situ waste shall be generated during the plan period.
4	Stripping Ratio	:	1: 0.062
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	295AMSL to 289 AMSL
8	Ground Level Elevation	:	289 AMSL
9	Ultimate Working Depth	:	Up to 250 AMSL (39 mbgl)
10	Water Table	:	220-217 AMSL (69-72mbgl)
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	22230	60021	10875	1170	12045
2nd Year	23299	62907	3075	1226	4301
3rd Year	23940	64638	0	1260	1260
4th Year	25009	67524	0	1316	1316
5th Year	26719	72141	0	1406	1406
Total	121197	327231	13950	6378	20328

Land Use

Land Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At Conceptual period (Ha)
Excavation	0.0	0.809	1.312 (0.157 ha area shall be Backfilled, 0.692 ha converted in to water reservoir & 0.464 ha shall be left as dead benches)
Waste Dump	0.0	0.220	Nil (comes under quarry)
Mine Road	0.0	0.008	Nil (comes under quarry)
Crusher	0.0	0.0	0.0
Safety Zone Plantation	0.0	0.558	0.558
Total	0.0	1.595	1.870
Unused Area	1.870	0.275	0.00
Total Lease Area	1.870		







ENVIRONMENT MANAGEMENT
Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.558	893	1600 Tree per Hectare	1st Year	Pipal, Gulmohar Jackfruits, Mango, Jamun, Babul, Neem, Arjun, etc.
Length of Approach Road Area (m.)	155	310	2m X 2 m spacing in two rows both side		
Plantation at Backfilling	0.157	252	1600 Tree per Hectare	At the end of Plan Period	
Plantation at Dead Bench	0.464	743			
Total		2198			

- 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(Rs.)	Recurring(Rs.)
Land			46,20,000.00	4,62,000.00
Infrastructure			15,00,000.00	1,50,000.00
Mining Equipment			0.00	45,00,000.00
<i>Equipment</i>	<i>Quantity</i>	<i>Rent per year</i>		
Excavator	1	4,00,000		
Rock Breaker	1	2,00,000		
Compressor	1	10,00,000		
Dumper	1	2,00,000		
Loader	1	3,00,000		
Water Sprinkler	1	6,00,000		
Loader	1	3,00,000		
DG Set	1	15,00,000		
@Per Excavator-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 "0.15" KLD (Annual Water Demand "45"KL @4L per person , total number of tanker required ("12") and per tanker cost @Rs. 500)	0.00	6000.00
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	15,57,400.00	9,26,400.00
Total	82,97,400.00	60,44,400.00

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
2198 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	659400	109900
Water Tanker @Rs. 500 per Tanker for Dust Suppression (0.93 KLD) & Horticulture (13.18KLD) $0.93 + 13.18 = 14.11$ KLD $14.11 \text{ KLD} \times 300 \text{ Days} = 4233 \text{ KLD}$ $4233 \text{ KLD} / 4 \text{ KLD} = 1059 \text{ Tankers}$	0	529500
Environment Monitoring & Compliance	0	50000
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	748000	187000
Garland Drain & Retaining wall for Seasonal Nallah	150000	50000
Total	15,57,400	9,26,400

Note: Detail Breakup will be given at the time of Final EIA

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

S. no.	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate	3 Stations	Six Monthly

	location for PM10, PM2.5, SO2, NOx in the vicinity of the mine area. In the surrounding area covering project site only.		
2	Water: Surface water sample in the vicinity of the Project area.	2 Surface water 2 Ground water	Six Monthly
3	Noise: Day & Night level Noise Monitoring.	4 stations	Six Monthly
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
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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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	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

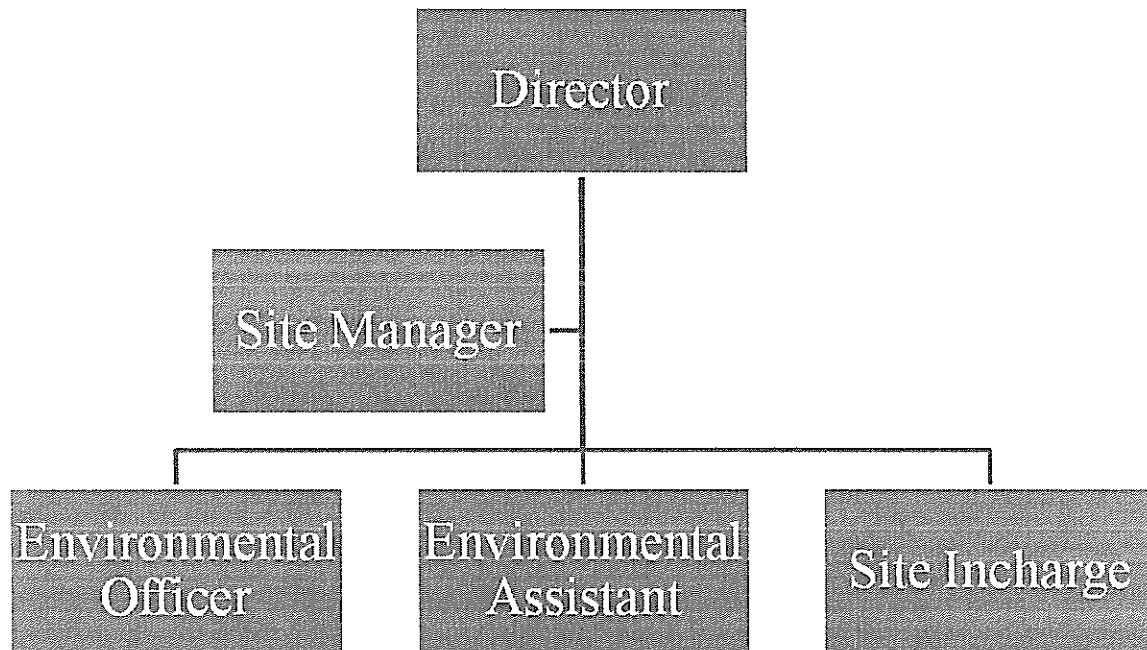
	towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted 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

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

Organizational Structure of Environment Management Cell:



EMP Cell Structure

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

Undertaking submitted affirming:

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

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- 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 08, 09, 10, 11& 12.07.2026, 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 II alongwith following specific condition :-

- I. The detailed EMP is to be prepared for the Habitation and Barsati Nala 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.







Day 3 : 10th July, 2026 [Friday]

A. Site visit report to Affordable Housing Project “Pearl Orchid” of M/s Moti Infrastructures, Village : Argora, Tehsil : Ranchi, Dist : Ranchi, Jharkhand.

The Project Authorities, in the 132nd meeting of SEAC, had submitted documented evidence of implementation of Remediation Plan and Community Resource Augmentation Plan as per EC letter no. EC/SEIAA/2021-22/2512/2021/226, dated 06.08.2022.

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

As per Environmental Clearance letter no. EC/SEIAA/2021-22/2512/2021/226, dated 06.08.2022, the Remediation Plan and Community Resource Augmentation Plan was as follows :-

Sr. No.	Major Environment	Details	Cost Rs in Lacs
1	Air Environment	Construction/maintenance of near by road.	55
2	Water Environment	Providing 4 number hand pump in nearby areas	2
3	Soil Environment	Development of Park and plantation of fruit bearing trees in near by Areas	5
4	Socio-Economic Environment	Sports facility i.e. Badminton and Basketball court will be constructed for promoting sports/games in near by School	6.25
5.	Noise Environment	Distribution of Hearing aids to the needed Sr. Citizens of the nearby area .	2.00
TOTAL COST RS. IN LACS			70.25

The PAs had approached the DFO, Ranchi and requested vide letter no. MI/PO/01048 dated 20.09.2025 to execute the above remediation plan and submitted a sum of Rupees 70,25,000/- to Divisional Forest Officer, Ranchi vide DD no. 376416, dated 20.09.2025 of State Bank of India for the purpose of execution and implementation of the above plan.

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The DFO, Ranchi had completed the execution of the above Remediation Plan and Community Resource Augmentation Plan and provided the details of the same to the PAs vide letter no. 1435, dated 27.04.2026.

The utilization of the funds are done and certified by DFO, Ranchi which are as per the above mentioned Remediation Plan and Community Resource Augmentation Plan.

As per the report of the DFO, Ranchi alongwith the details and photograph provided are as follows:-

- i. 3006 Ft. PCC road constructed with culvert and drainage from Dowaru Panchayat, Gamhartikra PCC road to full Tanr Shiv Mandir, Block :Silli, Ranchi at a cost of Rs. 55.00 Lakh.
- ii. Provided bore well with Solar power based water withdrawal and storage facility complete with 4 numbers of water tap at Government School Rupru, Angaraat a cost of Rs. 2.00 Lakh.
- iii. 200 plants with PVC / MS gabion at Central School, Road no. 1, HEC campus, Sector 2, Dhurwa and 300 plants with PVC / MS gabion at Govt. Middle School, Pali, Ratu at a cost of Rs. 5.00 Lakh.
- iv. Constructed 1 Badminton Court with poles, net and other essential equipment in Kasturba Gandhi Valika Vidyalaya, Ormanjhi, Ranchi at a cost of Rs. 6.25 Lakh.
- v. Hearing aid distributed in CRC, Namkum at a cost of 2.00 Lakh.

During the site visit on 10.07.2026 the team witnessed the reported work by the DFO, Ranchi.

Hence, it is recommended and requested for further action to facilitate the release of the Bank Guarantee of Rupees 70,25,000 (Rupees Seventy Lakh Twenty Five Thousand only) submitted to Jharkhand State Pollution Control Board, Ranchi, vide Bank Guarantee No. : 0901022BG0000019 dated : 27.07.2022.

Hence, the Member Secretary, SEAC will write a formal letter to SEIAA regarding above.



Day 4 : 11th July, 2026 [Saturday]

Consideration of proposals :

1. Proposed Green Field Project to Set-up wet 2.48 MTPA Coal Washery by M/s Omkar Coal Washeries Pvt. Ltd., Village : Olhepat, Tehsil : Balumath, Distt.: Latehar, Jharkhand (7.48 Ha).

(Proposal no.: SIA/JH/CMIN/574832/2026)

Name of the Consultant : Pollution and Ecology Control Services, Nagpur (M.S.)

This is a new project which has been taken for appraisal on 11.07.2026.

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

Application for Environmental Clearance after Terms of Reference (ToR).

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 118th meeting held on 22 - 26.10.2024 and SEIAA, Jharkhand has approved the ToRs in 118th meeting held on 28th & 29th November, 2024. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3292/2024/388, dated 06.12.2024. The final EIA / EMP submitted by PP to SEAC on 06.07.2026.

M/s Omkar Coal Washeries Private Limited has proposed to Set-up wet 2.48 MTPA coal Washeries by at Kh No 194, 195, 198, 284 Plot No CS 24P, 25, 26, 27 P, 162 163, 164P, Village Olhepat, District Latehar, Jharkhand. The total land area for the project is 7.48 ha (18.50 Acres).

PROJECT AND LOCATION DETAILS

Sr. No.	Description	Details
1.	Nature of the project	M/s Omkar Coal Washeries Pvt Ltd has Proposed Green Field Project to Set-up wet 2.48 MTPA Coal Washeries.
2.	Plant Location	Kh No 194,195, 198,284Plot No CS24P, 25,26,27 P, 162163, 164P,VillageOlhepat,DistrictLatehar,Jharkhand Total Area: 7.48 Ha + 3.89 Ha (Adjacent Continuous Land for Green belt only) = Total 11.37 Ha Non-Forest, Agricultural Barren land, will be converted for Industrial use A. 23°49'59.20"N84°43'53.65"E B. 23°50'0.10"N84°43'50.58"E C. 23°50'1.69"N84°43'43.45"E D. 23°50'8.18"N84°43'41.85"E E. 23°50'11.76"N84°43'46.42"E F. 23°50'11.57"N84°43'47.79"E G. 23°50'8.85"N84°43'49.17"E

		H. 23°50'6.68"N84°43'51.06"E I. 23°50'3.83"N84°43'51.82"E J. 23°50'2.74"N84°43'54.77"E K. 23°50'3.42"N84°43'56.65"E
3.	Production Details and type of Washery	2.48 MTPA Wet Type Coal Washery
4.	New/Expansion	New
5.	Project Cost	Rs. 29.27 Crores
6.	EMP Cost	Rs. 340 lacs + Rs. 20 lacs Towards Social Development Activities = Total Rs. 360 Lacs
7.	Raw Coal Source and Distance	Open Linkage Auction, Tetaria Mines:10 Km (ESE), Magadh Coal Mines: 40 Km, Amrapali Coal Mines: 24 Km, Ashoka Coal Mines: 60 Km
8.	Sale of Washed Coal and Reject Coal	Power plant, Steel Plant, and other industries for washed coal Power plant, Brick kilns and other industries for coal reject.
9.	Mode of Transportation	By Tarpaulin covered Trucks. Nearest Railway siding is Kusmahi railway siding which is 11 Km away from the project site. Possibility will be explored for maximum transportation by Railway by using this railway siding.
10.	Water Requirement	333 KLD
11.	Source of Water	Groundwater (313 KLD) + Rain WaterHarvestingPond ofthe plant (20 KLD)
12.	Power requirement &Source	Power requirement will be 2.0 MW and will be met from State Electricity Board. Diesel generators (DG) of 2 x 380 KVA will be provided at the project site for use in case of power failure
13.	Manpower	75 Persons
14.	Nearest Water Body	▪ PatamRiver: 0.56 Km (NNW) ▪ SatbahiniNala: 2.00 Km (S) ▪ Sukri River: 7.10 Km (SW) ▪ Ekchatia Nala: 5.60 Km (WSW) ▪ Bhalmanda Nala: 9.25 Km (WNW) ▪ DhardhariyaNala: 4.90 Km (NE)
15.	Nearest village	Olhepat (0.04 Km (E))
16.	Nearest Railway Station	Tori Railway Station 17 km (S)
17.	Nearest Airport	Birsa Munda Airport, Ranchi 85 Km (SE)
18.	Ecologically Sensitive Zones like wild life sanctuaries,national	▪ Wildlife Corridor Lawalong WLS Jharkhand: 12.62 Km (NW) ▪ ESZ BOUNDARY Lawalong WLS Jharkhand: 12.89 Km

	parks and biospheres	(NNW)
19.	Nearest Forest	- Diridag P F: 0.27 Km (SW) (as per DSS map) : 0.251 Km as per DFO letter) - Pakri P F : 0.28 Km (SE) - Bhang P F : 1.82 Km (SW) - Semarsot P F : 2.58 Km (SE) - Debu P F : 3.00 Km (NE) - Darha P F : 4.83 Km (N) - Komar P F : 4.00 Km (E) - Balu P F: 4.90 Km (WNW) - Lachhipur P F: 2.80 Km (SSW)
20.	School	- Upgrated High School: 3.00 Km (NNE) - Gokhulabagi School: 2.90 Km (NE)
21.	Hospital / PHC	- B.S. Memorial Hospital: 4.70Km (E) - PHC Village Murup: 12.70 Km (W) - PHC Borgaon: 22.10 Km (WSW)
22.	Temple	- Hindu temple makaiyatand: 8.60 Km (SE) - Hanuman Temple Sekra: 3.90 Km (NW) - Hanuman Temple Hundra: 8.90 Km (NW) - Hanuman Temple Darha: 6.50 Km (NE)
23.	Industries	- Tetaria Mines: 10 Km (ESE) - Magadh Coal Mines: 40 Km - Amrapali Coal Mines: 24 Km - Ashoka Coal Mines: 60 Km
24.	Total Cost of the project	ProposedCost: Rs.29.27Crores EMP Cost Rs. 340 Lacs and Recurring Cost Rs. 34 Lacs/year

LAND USE

Sr. No.	Description	Area in ha	Percentage (%)
a.	Land Requirement for main plant	2.44	32.62
b.	Raw Coal storage yard	1.41	18.85
c.	Other facilities (Internal Road, Lab room, Admin building etc)	0.65	8.68
d.	Green belt	1.87	25.00
e.	Open space including Landscape and Green Cover	1.11	14.85
	Total	7.48	100%
	Additional adjacent land for green belt	3.89	-







LAND DETAILS:

Sr. No.	Khata No	RS No	Area in ha
1	25	198	3.64
2	25	194,195	2.02
			0.15
3	25	284	1.66
Total			7.48

PROCESS DETAIL

The washery has been designed for throughput capacity of 2.48 MTPA Raw Coal. The washery will produce, two products viz. Washed Coal (2.0 MTPA) and Reject Coal (0.48 MTPA).

It has been planned to crush entire coal down to (-) 13 mm. Treatment of 13-0.5 mm coal into two stage HM cyclone and beneficiation of -0.5 mm size fraction by froth floatation have been envisaged.

Characteristics & Quantum of Washed Coal & Coal Washery Rejects is given below.

Sr. No.	Properties	Raw Coal	Washed Coal	Rejects
1	Quantity (MTPA)	2.48	2.0	0.48
2	Ash %	40-44	28-32	65-70
3	Total Moisture %	7.5	12.0	10.0
4	Sulphur %	0.5	0.5	0.5
5	GCV (Kcal/Kg)	3600 - 3800	4800-5000	1000-1200
6	Volatile Matter (%)	20	25	12
7	Fixed Carbon (%)	28-30	35-43	7-8
8	Mercury as (Hg) mm/kg	<0.10	<0.10	<0.10
9	Yield %	100	80.0	20.0

PROPOSED COAL WASHERY OPERATION

Run-Of-Mine Coal transported by Tipping Trucks shall be received at the Coal Washery site and dumped in the areas adjacent to the Ground Hopper from where the same shall be fed to the Ground Hopper by dozing / Pay loaders. Raw coal in the size up to 300 mm transported from mines will be feed the ground hopper.

Ground hopper is fitted with grizzly of 300 X 300 mm size opening. Coal will be transported

by pay loaders to feed over the grizzly. Ground hopper will be fitted below with two vibro-feeders (400 TPH each) which in turn feed to a conveyor (500 TPH). Coal is transported through conveyor to two rotary breakers (250 TPH each) located parallelly. Rotary breaker in turn will separate out coal and shale / rock. It will crush coal to (-) 50 mm size and pass through the perforated outer shell. Coal and shale will be transported by separate conveyors. Shale will be crushed to desired size by double roll crusher (50 TPH). Coal conveyor feed coal to a double deck vibratory screen (500 TPH) to separate out (-) 25 mm and (-) 15 mm coal fines from the crushed coal and over flow of screen will be (-) 50 mm. Thus, it will produce three products (+) 25 mm to (-) 50 mm coal and (+) 15 mm to (-) 25 mm and (-) 15 mm coal fines. Coal fines will be screened again through Flip flow screen which will produce two product (-) 15 mm to (+) 6mm and (-) 6 mm coal fines which will be transported through different conveyors. Sized coal (-) 15 mm to (+) 6mm size, (+) 15mm to (-) 25 mm will be mixed with (+) 25 mm to (-) 50 mm coal and stocked in a stock holder.

Below the Stock holder 2 Nos.of vibrators (200 TPH each) will be provided to deliver coal to a conveyor which in turn feed to a desliming screen where water is sprinkled to wash out coal fines (-) 1 mm size adhere to coal. Coal fines will flow through a launder below the screen to a set of desliming sieve bends and then flow through pipes to a fines coal tank.

The screen coal (-) 50 mm to (+) 6 mm size will be feed to a central column provided at the center of Heavy Media Tank. The magnetite will also be provided to central column. Magnetite slurry (media) is being prepared with a preset specific gravity. The mixture of coal and media will be pumped to Heavy Media Cyclone to separate out clean coal and reject by cyclonic process.

Then both clean coal and reject coal will be washed through clean coal screen and reject screen respectively to separate out the media adhering to coal and reject in the first compartment. Fine coal is washed from clean coal and reject coal will be collected below the screen in the second compartment. Washed clean coal and reject will be transported by separate conveyors to be stocked in clean coal and reject pile respectively.

The washed media will be collected in a dilute media tank and then pumped to the Magnetic Separator to separate and collect media / magnetite. The effluent of magnetic separator flow to fine coal tank. The density of magnetite media will be accurately controlled with respect to maintain required quality of washed product.

The fine coal slurry collected below screen will be feed to fine coal tank and then pumped to a set of classifying cyclones. Under flow of classifying cyclone will flow to High Frequency screen. The over flow of classifying cyclones will be feed to a high-rate thickener. Flocculent will be added to thickener to facilitate settling process. The under flow of thickener will pass through a Belt press. The fine coal cake collected from belt press in turn will be mixed with clean coal. The over flow of the thickener will flow to Clarified water tank and this water will be utilized in the process and spray of sprinklers over the screens. In Clarified water tank make up water shall also be added for circulation into the system.

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The underflow of classifying cyclones shall be dewatered in High Frequency Screen. The underflow of High Frequency Screen shall be transported back to the Fine Coal Tank while the overflow of the High Frequency Screen shall be collected on Belt Conveyor and mixed with Clean Coal at the ground storage. The overflow from classifying cyclones shall be fed to a High-Rate Thickener (18 m Dia.). Flocculants shall be used in Thickener to facilitate Settling process. The thickened slurry collected at the Thickener bottom / under flow shall be pumped and transported to a Belt press / series of Settling Ponds. Clarified water from the Settling Ponds shall be pumped back to the Clarified Water Tank adjacent to the Thickener. Make up water and make up magnetite will be added as required in the process. The clean coal will be dispatched to consumers through rail and road.

PROCESS CONTROL

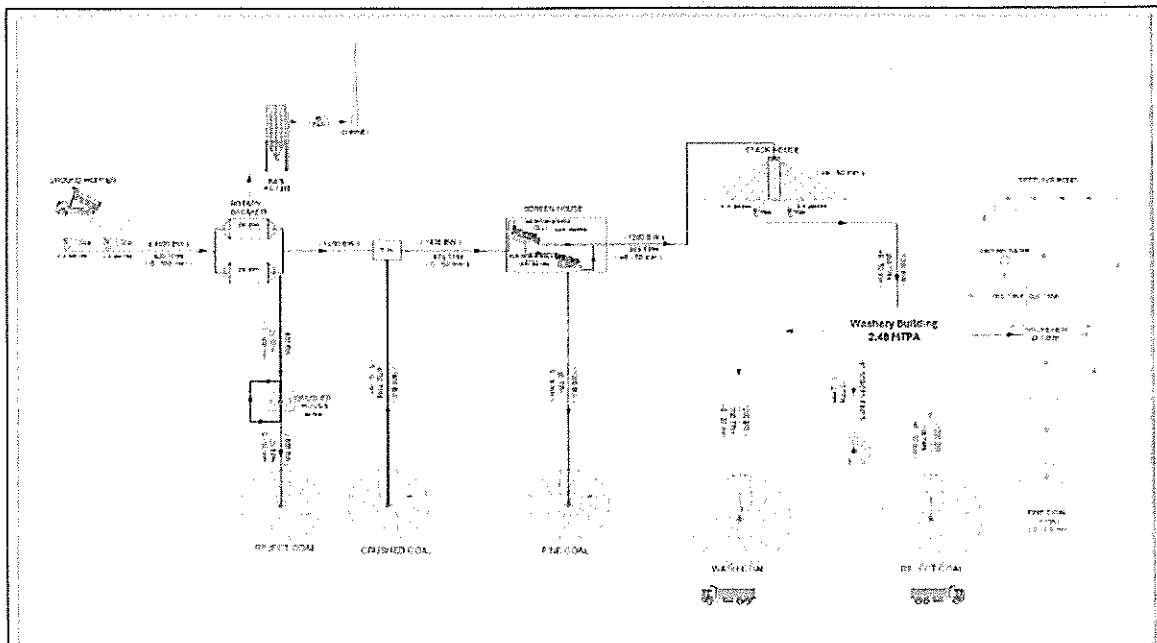
Plant control shall be achieved by a centralized PLC based control system designed to enable one operator to start-up, monitor, and control and shut down all main equipment, and process functions from the feed input to the plant through to product transfer conveyors. The PLC shall have provision for hot standby. A UPS with hot standby back up shall be provided to take care of power tripping and fluctuations. All major items of equipment will be interlocked in an automatic stopping sequence within the PLC in such a manner that both material and liquid flows will always be fail safe. Stop push buttons will be located adjacent to each drive and will be operable at all times.

An emergency stop button shall be located either in the control room or in the operating computer to enable the whole plant to be stopped. The density of the magnetite media shall be accurately controlled within the wide range to maintain required quality of the washed products. The density measurement shall be done by a density gauge.

MEDIA PREPARATION & REGENERATION CIRCUIT

The dilute media which is collected in the Dilute Media Tank shall be pumped by a Dilute Media Pump to a Magnetite Separator Feed Box from which the Dilute Media shall be fed to a Double Stage Magnetic Separator. The Separator shall separate out the Magnetite from water and the over-dense media gets dislodged from the Magnetic Drum to the Over-dense Media Launderers and from there to the Heavy Media Tank.

The effluent from the magnetic separator goes to Fine Coal Tank through wetting launders. During the process of operation, some amount of Magnetite gets lost which shall be made up by adding fresh magnetite to the system. Magnetite powder mixed with water in a sump on the ground floor to make magnetite slurry. The dilute magnetite media then shall be pumped through a vertical sump pump to the Dilute Media Tank. Dilute Media will be processed through magnetic as detailed above. Thus, make up magnetite is added here.



RECEIVING OF ROM COAL & DISPATCH OF PRODUCTS:

ROM Coal from Mine to Washery	Raw Coal is proposed from Tetaria Project – Mine, Magadh Coal Mines, Amrapali Coal Mines, Ashoka Coal Mines & other coal mines through Open Linkage Auction
Dispatch of Clean Coal	Clean Coal will be dispatched to its customers by Road/Rail
Dispatch of Reject Coal	Reject Coal will be dispatched to its customers by Road/Rail

REQUIREMENT OF WATER:

The total daily make-up water required for the proposed plant will be 333 KLD which will be met from ground water and Rainwater harvesting and it will be implemented in the coal washery plant and the harvested rainwater will be used in coal washing process to the extent possible. NOC from the Central Ground Water Authority (CGWA) has been obtained for abstracting 350 m³/day groundwater. NOC No. NOC/IND/JH/2026/5375/N Dated 15/05/2026. The project will conserve rainwater by providing collection tank. The collected water will be used for dust suppression and green belt.

Particulars	Water Requirement (In KLD)	System Loss/ Consumption	Waste Water Generation (In KLD)	Method of Disposal
Coal Washing Process	303	303	Nil	Closed Circuit System Significant water will be lost through final products inherent moisture and evaporation loss. Balance wastewater generated

				from the washing process will be treated in thickener and reused in process
Domestic & Other	10	2	8	Will be treated in Packaged Type Sewage Treatment Plant. The treated water shall be used for Plantation purpose
Dust Suppression and plantation	20	20	Nil	Loss through Evaporation
Total	333	325	8	No wastewater shall be discharge outside the plant premises. Entire wastewater shall be treated and reused inside the plant.

STATUS OF BASELINE DATA GENERATION:

Nature of Study	Name of the Agency
Micro Meteorology Studies	Ultimate Envirolytical Solutions Private Limited, Raipur
Seasonal Ambient Air Quality Study	
Ambient Noise Level Study	
Water Quality Study	
Soil Quality Study	
Socio-Economic Study	Pollution and Ecology Control Services, Nagpur
Flora & Fauna Study	
Geology and Hydrogeology	M/s Srushti Sewa Private Limited, Nagpur

CUMULATIVE IMPACT ASSESSMENT OF STUDY AREA:

1. Cumulative impact assessment of the study area (10 km buffer) w.r.t. all environmental parameters has been carried out by incorporating all existing and proposed industrial activities and impact is minimum.
2. Impact on ambient air quality has been assessed by using AEROMOD software Ver. 13.0.0 and the results suggest that the predicted ambient air quality is well within the prescribed norms.
3. Furthermore, the impact on flora fauna and socio-economic regimes has been done for the 10 km buffer zone of the project.

Predicted GLC of PM₁₀ at AAQ Monitoring Stations

Location Code	Location	Max. Baseline conc. $\mu\text{g}/\text{m}^3$	Predicted incremental conc. $\mu\text{g}/\text{m}^3$	Total conc. $\mu\text{g}/\text{m}^3$	NAAQ Standard ($\mu\text{g}/\text{m}^3$)
A1	Project Site	61.87	0.01	61.88	100
A2	Pakri	53.48	0.01	53.49	100
A3	Serka	54.66	0.005	54.665	100
A4	Basaria	56.89	0.01	56.90	100
A5	Diridag	54.06	0.01	54.07	100
A6	Banarchuan	54.88	0.008	54.888	100
A7	Kolutola	54.36	0.1	54.37	100
A8	Olhepat	56.21	0.05	56.26	100

IMPACTS ON TRAFFIC DENSITY

The proposed 2.48 MTPA Coal Washery to be developed on private land at Village Olhepat, District Latehar, Jharkhand, is expected to contribute to an increase in local traffic density due to the transportation of raw coal to the site and dispatch of washed coal. The site is strategically located approximately 3.10 km northeast of State Highway 10 (SH-10) and about 5.70 km east of National Highway 99 (NH-99), which will serve as the primary routes for incoming and outgoing vehicular movement. Increased frequency of heavy vehicles such as trucks and tippers may lead to higher traffic loads on connecting village roads and approach routes to these highways. While this could result in minor traffic congestion, potential delays, and wear on existing infrastructure, the impact is expected to be moderate. The project will

incorporate an internal road network, a designated parking area, and a truck queuing zone to reduce roadside congestion. Furthermore, measures such as regulated vehicle movement schedules, maintenance of haul roads, and coordination with traffic authorities will be implemented to ensure smooth flow of traffic and minimize inconvenience to local residents.

IMPACTS ON GROUNDWATER AND SURFACE WATER

In this project, groundwater is withdrawing hence impact on groundwater in this case. The impact is identified on basis of Radius of Influence.

Radius of Influence (R):

The estimation of radius of influence assumes that pump was running round the clock for duration of pumping considered for estimating radius of influence. The radius of influence has been estimated based on empirical formula for single borewell pumping and multiple bore well pumping. The duration of pumping is considered 1 day and 1 year to 5-year pumping. The estimated value of radius of influence considering:

Sichardt Formula:

$$R=3000 \times S \times \sqrt{K}$$

K = 0.64 m/day (Average taken from CGWA)

S = 0.03 (Recommended by CGWA)

The estimated value of R is given in table below.

Radius of Influence

Sr no.	Constant	Drawdown (m)	K in m/sec	$\sqrt{K}$	Radius of Influence (m)
1	3000	4	7.40741E-06	0.002721655	33
2	3000	8	7.40741E-06	0.002721655	65
3	3000	12	7.40741E-06	0.002721655	98
4	3000	16	7.40741E-06	0.002721655	131
5	3000	20	7.40741E-06	0.002721655	163

During pumping through borewells, drawdown in water level will occur and when the drawdown is 20 m then the radius of influence is 163 m.

Fractional Load (Lg):

Step 1: Convert withdrawal to annual volume:

Annual volume= 350 m³/day x 365= 127,750 m³/year=0.1278 MCM/year

Step 2: Groundwater availability (Balumath):

Annual Extractable Recharge = 2472.12 MCM

Step 3: Fractional Load (Lg):

$L_g = \text{Annual Extraction (MCM)} / \text{Annual Extractable Recharge (MCM)}$

$L_g = 0.1278 / 2472.12 \approx 5.17 \times 10^{-5}$

Step 4: Fractional Load (Lg) in Percentage:

$L_g \times 100 = 0.0052\%$

The industry borewell extraction of 350 KLD contributes only 0.005% of the annual recharge at the block scale (Balumath).

Impact on surface water sources:

There is no surface water stream within the proposed project site. No surface water will be used in this project hence there will be no impact on surface water.

Estimation of Annual Rainfall Runoff Potential

Land use Type	Area (sqm)	Runoff Coefficient	Rainfall (m)	Recharge Potential (m ³)
Green belt Area	18,700	0.1	1.3	2,431.0
Open area	11,100	0.2	1.3	2,886.0
Roads and Paved Area	42,400	0.65	1.3	35,828.0
Roof Area of Building / Shed	2,600	0.85	1.3	2,873.0
Total	74,800			44,018.0

Estimation of Runoff for Designing of RWH/Artificial Recharge Scheme

Land use Type	Area (sqm)	Runoff Coefficient	Intensity Rainfall (m/hr)	Runoff for Hourly peak intensity (m ³)	Runoff for 15 minutes peak intensity (m ³)
Green belt Area	18,700	0.1	0.035	65.5	16.4

Open area	11,100	0.2	0.035	77.7	19.4
Roads and Paved Area	42,400	0.65	0.035	964.6	241.2
Roof Area of Building / Shed	2,600	0.85	0.035	77.4	19.3
Total	74,800			1185.1	296.3

SOCIO-ECONOMIC STUDY:

Potential impacts have been assessed, and suitable mitigation and management measures will be integrated into project planning and operation. The Omkar Coal Washeries Private Limited adopts a sustainable development approach, aiming to minimize adverse impacts while maximizing socio-economic benefits for the surrounding communities, thereby contributing to long-term and inclusive regional growth.

Parameter	Existing Condition	Envisaged Impact Assessment	Mitigation Measures
Economy/ Employment/ Livelihood	Predominantly agrarian economy with dependence on agriculture, daily wage labour, small trade and livestock. Limited local employment opportunities.	Generation of direct and indirect employment during construction and operation phases. Increased income opportunities and growth of ancillary services.	Preference to local employment; skill development programs; contractor guidelines for hiring local work force; CSR-based livelihood support initiatives.
Socio-Cultural Aspects	Rural social structure with traditional practices and community-based living. Presence of SC/ST communities.	Influx of workforce may bring moderate socio-cultural interaction and exposure to new practices.	Code of conduct for workers; awareness programs; community engagement activities; preservation of local cultural identity.

Aesthetics	Semi-rural landscape with agricultural fields and scattered vegetation.	Temporary visual disturbance during construction phase.	Greenbelt development within project premises; landscaping; proper maintenance of plant infrastructure.
HealthCare Facilities	Basic PHCs and private clinics available within reachable distance. Limited advanced health care facilities in villages.	Increased access to healthcare through CSR camps; minor pressure on local facilities during construction.	Periodic health camps; occupational health measures; tie-up with nearby hospitals; on-site first aid and ambulance facility.

FLORA AND FAUNA STUDY:

Impact on terrestrial Flora

Based on past experience, dust deposition on leaf lamina will take place on nearby vegetation, which may result in decline the rate of photosynthesis and retards the plant growth.

Impact on Wildlife

There are no National Park, Wildlife Sanctuary and Biosphere Reserve within 10 km radius of the project site. Noise generated due to the plant operations may drive away wild animals.

Impact on Agriculture/ Crop Productivity within Study Area

Agricultural crops may be affected when exposed to high concentrations of various air pollutants especially particulate matter (dust) & SO₂. This may result in crop damage and loss in agriculture produce to the nearby farmers.

Measures for Minimizing Impact

Dust issues are mainly raised in the area due to kuchha road, cumulative fugitive dust emissions by plant operation and coal transportation activities. To mitigate the impact, adequate air pollution control measures, as suggested in previous paragraphs, will be implemented. Fencing around the entire proposed coal washery will be carried out in order to restrict the entry of stray animals. Green belt development will be carried out which will help in minimizing sound level arising from the coal washery operation.

Control Measures to avoid impacts on agriculture crops:

1. Maximise coal transportation through rail mode.
2. Periodic maintenance of coal transport road in collaboration with PWD
3. Regular water sprinkling on PWD road used for coal transport.
4. Covered coal Transport system

Apart from the above, monitoring will be carried out by Environmental Cell of the company to assess effectiveness of the dust control system and complaints of farmers regarding impact on crop productivity/damage, if any.

GREEN BELT DEVELOPMENT

Three tier green belt will be developed along the boundary of the proposed coal washery site at Village Olhepat, District Latehar, Jharkhand. The selection of tree species for plantation will be guided by the following criteria:

- Fast-growing varieties
- Native/local species with dense foliage
- Tolerance to high dust levels
- Evergreen and perennial species with a survival rate of over 75%.

Thick Green belt and landscape will be developed in the open spaces in the plant, administrative building, along internal roads, near the plant infrastructure, and other open spaces within the project premises. This initiative will not only help in improving the aesthetics of the area but also act as a pollution sink and provide ecological benefits.

Proposed Plantation Program (Area in sq. m)

- Total Project Area: 7.48 Ha
- Green Belt Area: 1.87 Ha (25% of total area) + 3.89 Ha (Additional Adjacent land) = Total 5.76 Ha
- Plantation Density: 2500 plants/Ha
- Total No. of Saplings: $5.76 \times 2500 = 14,400$ saplings

Proposed Plantation Program in the Coal Washery Area

Year	Area in Ha	No. of Saplings	Cost (Rs. Lakh)	Location
1	0.8	2000	1.00	Plant boundary, lawn area, along internal roads
2	0.7	1750	0.90	Around office building and plant building
3	0.37	925	0.45	Open spaces, around coal stack yard, etc.
4	3.89	9725	5.0	On Additional adjacent land
Total	5.76	14,400	7.35	

Approximately 2000 saplings will be planted along the village road and approach road used for coal transportation in the 1st year, enhancing dust control and visual screening.

Recommended Species for Plantation

Sr. no	Scientific Name	Common Name
1	<i>Aegle marmelos</i>	Bel
2	<i>Annona squamosa</i>	Sitaphal
3	<i>Azadirachta indica</i>	Neem
4	<i>Bauhinia variagata</i>	Kachnar
5	<i>Bougainvillea spectabilis</i>	Bougainvilla
6	<i>Butea monosperma</i>	Palash
7	<i>Cassia fistula</i>	Amaltas
8	<i>Delbergia latifolia</i>	Shisham
9	<i>Delonix regia</i>	Gulmohar
10	<i>Emblica officinalis</i>	Amla
11	<i>Ficus religiosa</i>	Peepal
12	<i>Madhuca indica</i>	Mahua

Sr. no	Scientific Name	Common Name
13	<i>Pongamia pinnata</i>	Karanj
14	<i>Terminalia arjuna</i>	Arjun
15	<i>Zizyphus jujube</i>	Ber

SOLID AND HAZARDOUS WASTE HANDLING

Sr. No.	Type of solid waste	Estimated daily Quantity	Estimated annual quantity	Disposal
1	Reject coal	~1,100 TPD tonnes per day	~0.48 MTPA (4,80,000 tonnes/year)	To Power Plant, Brick Kilns and other Industries
2	Sludge from thickener	~13.7 TPD	~5,000 TPA	To be blend with washed coal
3.	Spent oil & Grease	~10 kg/Month (Max)	~120 kg/year (Max)	Will be sold to authorised recyclers
4.	Damaged / worn out machine parts	-	~2 TPA (Max.)	To be sold to scrap dealers
5.	Sludge from Domestic waste	~0.65 to 0.7 kg/day	~214 to 231 Kg/year	Will be used as manure in plantation.

WATER POLLUTION CONTROL AND WATER MANAGEMENT MEASURES

It is proposed to operate the coal washery plant on 'Zero Effluent Discharge' principle. Thus, all the effluent generated from the plant will be treated, recycled and reused or discharged within the plant premises only.

Fine coal slurry from the coal washery collected in the fine coal tank and will be pumped into a set of classifying cyclones. The underflow of classifying cyclone will be dewatered in Hi Frequency screen while the overflow from cyclone will be fed to a Hi-rate Thickener. Thickened slurry from thickener will be dewatered in a Multi Roll Belt Press filter. Anionic and Cationic Flocculants will be used in thickener and Belt Press to facilitate settling and dewatering process. The treated water will be recycled and reused in the coal washing process.

Domestic discharge from rest shelters, canteens and toilets will be channelized through proper sewage drains and treated in package type STP.

Storm water run-off from the plant area will be collected in a series of settling tanks and will be utilized for coal washing, dust suppression and plantation. Wash water from workshop will be treated in oil & grease traps and treated water will be used for sprinkling at coal stack yard.

PROPOSED AIR POLLUTION CONTROL MEASURES

It is proposed to adopt wet coal washing process in the proposed coal washery. Hence, no dust emissions are envisaged from coal washing process. However, to control fugitive dust emissions from coal handling, storage, crushing and transport activities, following control measures will be adopted:

- Minimise transport of coal by trucks by maximizing use of Kusmahi railway siding at 11 km.
- Transportation of coal by trucks covered with tarpaulin sheet. Overloading will be strictly prohibited.
- Concreting/blacktopping of internal roads to avoid generation of dust.
- Plantation of tall trees with thick foliage along periphery of the project boundary in order to arrest dust;
- Permanent water sprinklers where unloading / loading of raw coal will be carried out.
- Periodic water sprinkling on internal roads.
- The speed of trucks plying on the unpaved roads will be limited to avoid generation of dust;
- Provision of bag filters of adequate capacity for coal crushers.
- Use of covered conveyors for internal transport of coal.
- Provision of dust extraction / water sprinkling arrangement at all transfer points.
- Dust mask will be provided to the workers. Regular trainings will be imparted to workers to improve awareness about usage of dust masks.
- Regular maintenance of trucks will be carried out and Pollution Under Control Certificate (PUC) will be obtained as per Govt. norms for HCV vehicles.
- High polluting vehicles / machinery shall be discarded and replaced with new vehicles / machinery having improved technology.
- Ground stocks of coal, rejects will be covered with tarpaulin during heavy winds.
- Periodic maintenance of equipment & machinery deployed at project site.
- Wagon loading of washed coal through closed conveyor system.
- Periodic monitoring of ambient air quality in plant premises and in nearby villages to assess efficacy of adopted air pollution control measures and adoption of additional air pollution control measures, if required.

TOTAL EIA/EMP EXPENDITURE

Sr. No.	Component	Description	Capital Investment (Rs.In lacs)	Recurring Cost (Rs. In lacs/annum)
1	Air Pollution Control Equipment	Bag Filters, Sprinklers, Rain Guns, Water Tankers, Pipelines, Pumps, and Monitoring etc.	150.0	15.0
2	Water Pollution Control & Conservation	Packaged type STP, Storm water drain, Piezometer to monitor ground monitor level,	100.0	10.0

		Rainwater Harvesting Structures/Recharge Structures, etc.		
3	Green Belt*	Landscaping and Plantation	30.0	3.0
4	Occupational Health & Safety, Fire Fighting System	Provision of PPE, First Aid Centre, Fire Extinguishers, etc.	30.0	3.0
5	Approach Road	Construction of 100 m length and 9 m width approach road.	30.0	-
6	Environmental Monitoring	Stack Monitoring, Ambient Air Quality Monitoring, Water quality monitoring, Noise Monitoring, Soil Quality Monitoring etc.	-	3.0
	Total (A)		340.0	34.0
	Amount towards various social Development activities		20.0	CSR As per Company Law
	Total (B)		20.0	
	Total (A+B)		360.0	

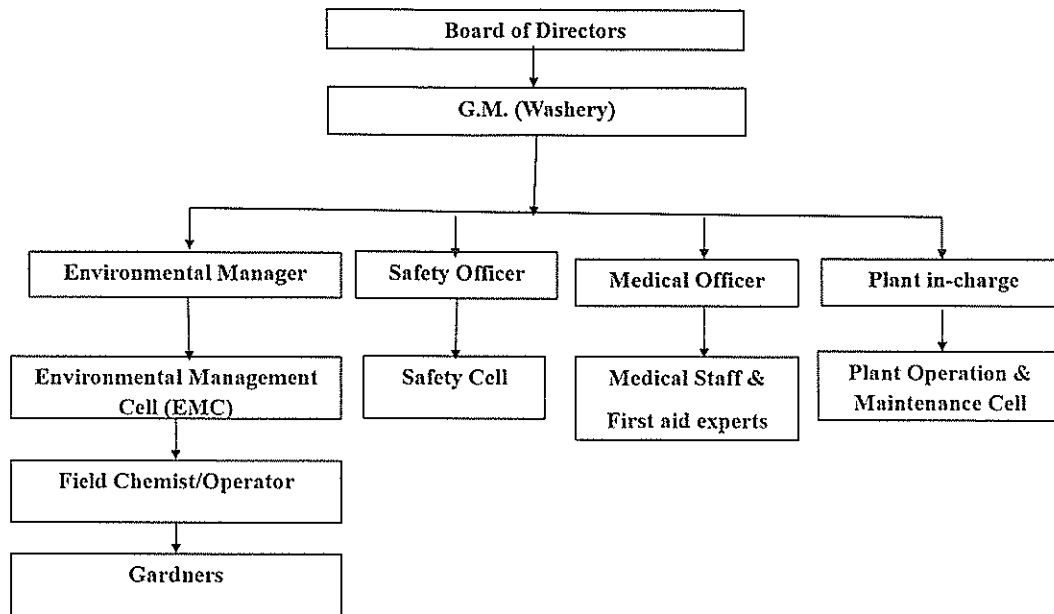
* In 3 years, Considering 5.76 ha Greenbelt area x 2500 trees per ha = 14,400 nos. x Rs. 200 per tree = Rs. 28,80,000

Provision for Action Plan of Public Hearing

Sr. No	Major Activities Heads	Year of Implementation			
		Budget in Lacs (Rs.)	1 st year	2 nd year	3 rd year
			(Rs. In lacs)	(Rs. In lacs)	(Rs. In lacs)
Based on Public Hearing/Consultation					
1	Health Check-up camp	1.25	0.50	0.50	0.25
2	Distribution of Medicines for BP, Sugar, TB, Cancer etc.	1.25	0.50	0.50	0.25
3	Skill development training program for Youth (LMV, HMT, Electrician etc. and short-term courses)	1.25	0.50	0.50	0.25
4	Tree plantations in nearby villages	1.50	0.50	0.50	0.50
	Sub Total (A)	5.25	2.00	2.00	1.25

Community and Infrastructure Development					
1	Solar Based Street Light	2.50	1.00	1.00	0.50
2	Support to local school- provide the Educational Material including teaching material, school uniforms and shoes etc.	1.25	0.50	0.50	0.25
3	School infrastructure Improvement	2.50	1.00	1.00	0.50
	Sub Total (B)	6.25	2.50	2.50	1.25
Training and Awareness Program					
1	Awareness Program on innovative Agriculture Practices / Environment	1.25	0.50	0.50	0.25
2	Training Program for small farmers for livelihood generation goat, poultry unit, fishery etc.	1.25	0.50	0.50	0.25
	Sub Total (C)	2.50	1.00	1.00	0.50
Woman Empowerment					
1	Skill training courses for women for self-employment encouragement - short term courses like Beauty parlour, Stitching, Pickle, etc.	1.50	0.50	0.50	0.50
2	Training & Law sessions for women issues or Domestic Violence	1.50	0.50	0.50	0.50
3	Capacity Building Program for Asha Worker/Anganwadi Teachers/ School Techers	1.50	0.50	0.50	0.50
4	Health Awareness Camp for Woman	1.50	0.50	0.50	0.50
	Sub Total (D)	6.00	2.00	2.00	2.00
	Total	20.00	7.50	7.50	5.00

ENVIRONMENTAL CELL AND ORGANIZATION CHART



STATUTORY CLEARANCES

1.	Land docs	:	Land is purchased by mutual understanding with land owner.
2.	CO	:	The CO, Balumath vide letter no. 912, dated 11.07.2024 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyar & Register II.
3.	DFO Wild Life	:	Deputy Director, Palamau Tiger Project, South Division, Mediniagar vide letter no. 797, dated 09.09.2024 certified that the proposed project site is outside Eco Sensitive Zone of Palamau Tiger Reserve.
4.	DFO Territorial	:	Divisional Forest Officer, Latehar Forest Division vide letter no. 1613, dated 08.10.2024 certified that the distance of reserved / protected forest land is more than 250 meter from proposed project site.
5.	Public Hearing	:	Member Secretary, JSPCB vide Ref. No. PC/PH/RNC/14/2025 /3428, dated 31.12.2025 informed that Public Hearing conducted on 08.11.2025.
6.	Baseline study period	:	2 nd December, 2024 to 28 th February, 2025.
7.	CGWA	:	No Objection Certificate (NOC) for withdrawal of water has been obtained from CGWA vide No. NOC/IND/JH/2026 /5375/N, dated 15.05.2026 valid up to 14.05.2029.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Green Field Project to Set-up wet 2.48 MTPA Coal Washery by M/s Omkar Coal Washeries Pvt. Ltd., Village : Olhepat, Tehsil : Balumath, Distt.: Latehar, Jharkhand (7.48 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III alongwith the 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. An additional area of 3.89 Ha adjacent to the project boundary of 7.48 Ha is earmarked for green belt development to meet the minimum distance criteria of 250 meters from the nearest forest. This green belt is in addition to the green belt development within the project area over 1.87 Ha.

2. Patal East (Eastern Part) Underground Coal Mine, South Karanpura Coalfield (rated capacity 0.36 MTPA, peak capacity 0.5400 MTPA) by M/s RCR Steel Works Private Limited, Village : Binja and Hendag, Subdistrict : Burmu, Distt.: Ranchi, Jharkhand (336.38 Ha).

(Proposal no.: SIA/JH/CMIN/541947/2026)

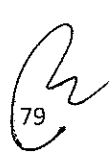
Name of the consultant: Rian Enviro Pvt. Ltd., Patna, Bihar.

This is a new project which has been taken for appraisal on 11.07.2026.

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

Application for Terms of Reference (ToR).

Fresh ToR for underground Coal Mining: Rated capacity 0.36 MTPA Peak capacity-0.5400 MTPA in an area of 336.38 Ha.

Patal East Underground Coal Mine is a Green field underground coal mining project situated in South Karanpura Area of M/s RCR steelworks Private Limited is situated in the South Karanpura Coalfield of Jharkhand in Ranchi district. This project falls within revenue Village: Binja and Hendag, Subdistrict-Burmu, Dist.: Ranchi, Jharkhand.

A Mining Plan has been prepared by of M/s RCR steel works Private Limited, as per approved Guidelines of MoC, for Rated capacity 0.36 MTPA Peak capacity-0.5400 MTPA Area 336.38 Ha. Accordingly, the instant application in Form-I is submitted to SEIAA Jharkhand, as per EIA Notification, 2006, on 04.07.2026 for obtaining ToR.

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Patal East Underground Coal Mine, SOUTH KARANPURA Coal Field
2	Project Proponent	: M/s RCR Steel Works Private Limited
3	Address	: 401, Sky villa Apartment, 4 th Floor, Near Gandhi Nagar, Kanke Road, Jharkhand, Ranchi,834008
4	Area	: Ha:336.38 ha Acres:831.20 Acres
5	Type of Land	: Forest Land: 132.6 Ha& Non-Forest Land: 203.78 Ha
6	Project Cost	: 35761.63 Lakhs INR
9	New or Expansion	: New
10	Gross Geological Reserve	: 61.466 Mte Net Geological Reserve: 55.319 Mte
11	Mineable Reserves	: Coal: 39.694 Mte Extractable Reserve:25.616 Mte
12	Mine Life	: 76 years
13	Man power	: 592
14	Water Requirement	: 8831 KL/Day
15	Water Source	: Mine seepage, and borewells
16	DG Set / power	: The annual energy consumption is around 14.77 M kWh.
17	Crusher	: No
18	Nearest Water Body	: Damodar River approx. 1.5 km towards NE.
19	Nearest Habitation	: Binja and Hendag within mine lease
20	Nearest Rail Station	: Hendegir Station approx. 3.5 km towards NW.
21	Nearest Air Port	: Ranchi airport: approx. 40 km towards SE.
22	Nearest Forest	: Within Project boundary, Tokisud Protected Forest Adjacent towards NE.
23	Road & Highways	: State Highway-7 approx. 11.0 Km towards East.

LAND & LAND SCHEDULE:

Sl. No.	Nature of land involved in the project	Name of Village	Thana No.	Khata No	Plot No.	Total Area in acre
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1	Raiyati	Binja	34	211,262,266,269,270,271,272,315,319,1405,1409,1769,1772,1776,1783,1785,1786,1866,1442p,1722p,1834p,1859p,1860p,52,56,68,69,70,225,246,259, 283,355,409,414,449,451,789,790,792,959,996,997,1020,1061,1408,1723,1865,1046p,1047p,1726p,994p,943,67,150,348,515,516,638,639,640,775,776, 797,900,1019,1021,1032p,1033p,960p,1034p,218,220,855,1397p,498,533,597,598,600,601,602,620,683,684,685,686,687,688,695,980,981,982,983,984, 1018,1026,310,329,429,430,432,433,434,435,445,446,448,633,836,837,838,839,840,841,842,843,844,853,854,923,944,967,971,972,973,1053,1055, 18, 1058,1059,853/1921,922p,969,1398,1399,1400,73,77,78,89,91,92,103,110,129,130,131,132,141,142,146,298,299,300,332,353,372,374,387,389,390, 23,24,25,26, 391,392,393,395,396,397,398,399,400,401,453,454,466,505,506,511,551,553,589,624,642,643,647,668,698,699,700,701,702,703,705,712,713,724, 27,28,29, 30,31,32,35,38,39, 728,729,732,763,764,768,769,770,771,772,773,774,899,904,917,918,954,991,1002,1003,1004,1011,1012,1013,1031,41p,42p,43p,44p,585,102,47p, 42,43,44,45,47,49,50,52, 846,261,331,361,1768,1455p,1765p,1767p,261/1938,852,662,861,881,898,878p,14,16,17,18,36,71,74,75,86,87,88,107,364,365,366, 53,54,56,57,58, 381,383,384,385,419,420,447,739,740,741,128p,19,20,23,98,106,152,154,106/1932,1900/1935p,1426,1427,1428,1432,1441p,165,531,532,594, 59,62,63,64,65,66, 68,69,70, 595,599,733,734,995,1001,1049,95,96,97,104,459,461,478,587,596,715,716,717,719,720,721,730,761,762,896,901,167,168,169,191,234,235,237, 77,79,80,81,82,84,85, 87,89,90,92,94,95, 276,277,278,282,1416,1851p,45,66,317,318,367,368,370,371,376,403,404,455,583,584,592,693,694,749,750,751,752,753,754,212,292,293,294,295, 96,97,98,99,100, 296,297,1411,1771,285,301,307,308,215,323,324,349,1415,1419,1774,181,182,183,185,186,187,189,190,214,322,1773,1854,1852p,1853p,1855p, 105,106,107,115 388,845,304,418,422,423,424,425,426,431,437,438,439,500,555,556,557,558,559,565,567,618,632,641,644,645,815,816,817,818,819,820,821,825, 826,827,833,834,835,1022,25,26,27,29,57,58,59,60,61,62,63,64,65,83,84,339,341,440,441,442,443,444,452,468,469,470,471,472,473,474,475,476, 503,507,508,509,510,512,517,518,519,520,521,522,523,524,525,526,577,578,579,580,581,582,593,613,614,615,777,778,779,780,781,782,783,784, 785,786,787,912,913,957,958,961,964,965,966,1007,1015,1016,	417.41 (168.93 Ha)
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					1017,1029,1030,30,32,160,250,251,252,253,254,255,1429,1434,1454,1777,1453p, 1456p,232,233,239,240,279,1417,194,196,198,221,245,280,281,302,303,1418,1452p,159,963,54,491,492,742,743,744,745,793,940,493,494,514,697, 746,747,748,905,907,908,909,941,956,1006,894p,219,21,93,94,99,100,108,149,171,172,173,174,244,351,354,362,456,504,554,588,590,591,709,711, 723,725,765,766,767,955,1005,1028,891p,145,378,603,604,634,678,679,680,681,682,696,934,936,937,938,952,988,989,990,992, 993,1056,1057,109,151,382,501,735,737,953,1008,893p,464,465,335,337,338,342,343,344,346,379,380,407,457,458,479,480,481,482, 484,485,486,487,488,489,490,499,513,560,561,562,564,568,569,573,574,576,605,606,607,608,609,610,611,612,616,617,619,622,625,627, 628,652,653,799,800,801,802,803,804,805,806,807,808,809,810,811,812,813,814,823,851,856,858,859,862,863,864,865,868,869,870,883, 884,885,886,887,919,920,921,931,932,968,975,976,977,979,1024,1025,880p,929p,930p,177,178,179,359,1403,1404,1414,1770,416, 417,496,570,571,572,636,637,824,828,829,830,831,832,915,916,942,947,948,949,950,974,978,1023,1868/1939P,312,689,1009,143, 314,326,327,328,330,427,428,690,691,692,1010,1063,1393p,1395p,197,290,291,1430,1435,1436p,1437p,217,358,707,736,871,872,882, 873p,875p,925p,79,80,82,226,227,228,229,230,231,238,105,111,114,133,134,135,136,137,139,140,144,147,148,502,563,586,626,635, 718,757,758,759,760,902,903,1027,928p,247,1748,1749p,1750p,176,249,306,321,350,360,1413,192,223,241,242,1420,1421,1422,1721,1724, 1778,1423p,1720p,1725p,1746p,1779p,415,477,495,528,529,530,534,535,536,537,538,539,541,542,544,545,547,548,549,575,621,629,630,631, 656,673,674,675,676,677,945,946,986,1014,888p,1892p,1893p,1896p,1897p,1898p,1899p,1424,1425,1433,274,284,287,288,289,1747p,669, 670,671,672,155,655,657,658,411	
		Hendag	31	5,29	218,214,215	3.1 (1.25 Ha)

UMA

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mm

2	BakastBhuihari	Binja	34	104,109,111,113,114	654,659,660,661,666,706,847,848,1861,1862,649,651,665,1864,650,667,1863,386,410,412,413	10.27 (4.16 Ha)
		Hendag	31	-	-	0
3	Notified Forest	Binja	34	102,103	153,157,162,163,1867,1064p,115p,1387p,1460p,1868p,1891p, 199p,311p,794p,911p,924p,926p,985p,158	176.63 (71.49 Ha)
		Hendag	31	21	212,245	5.97 (2.41 Ha)
4	GM Jungle Jhari	Binja	34	102	34,35,37,112,153,156,157,161,163,170,175,184,305,363,369,402,405,462,546,708,727,731,798,914,1867,1064p,115p,1387p,1460p,1868p,1891p,1900p,199p,205p,311p,38p,46p,51p,794p,890p,894/1922p,924p,926p,985p	135.75 (54.94 Ha)
		Hendag	31	21	212,245	9.31 (3.76 Ha)
5	GM Aam	Binja	34	103,108	158,193,195,208,236,313,356,527,756,788,795,939,951,1051,1052,1407,1412,1431,1760p,1782p,49p,849	14.49 (5.86 Ha)
		Hendag	31	-	-	0
6	GM, GM Khas	Binja	34	2,102,103	210,263,13,15,22,24,28,31,33,53,55,72,76,81,85,90,101,113,138,162,164,166,180,188,207,209,213,216,222,224,243,248,256,257,258,260,264,265,267,268,273, 275,286,309,316,320,325,333,334,336,340,345,347,352,357,373,375,377,394,406,408,421,436,450,460,463,467,483,497,540,543,550,552,566,623,646,663,664, 704,710,714,722,726,738,791,796,822,850,857,860, 866,867,895,897,906,910,933,935,970,987,1048,1050,1054,1060,1062,1401,1402,1406,1775,1784,1894,1895, 1000p,1042p,1044p,1045p,12p,1727p,1781p,1787p,1835p,648p,876p,892p,911p,962p,998p,755	49.02 (19.84 Ha)
		Hendag	31	21	216,217	1.25 (0.50 Ha)
7	Railway	Binja	34	116	1550p	2.02 (0.82 ha)
		Hendag	31	-	-	0
8	Keshar-E-Hind	Binja	34	117	1410p,206p	5.98 (2.42 ha)
		Hendag	31	-	-	0
					Total Area	831.20 (336.38)

						Ha)
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Summary of Mining lease Area											
Sl. No.	Village	Thana No.	Raiyati	Bakast Buihari	Notified Forest	GM Jungle Jhari	GM		Railway	Keshar-E-Hind	Total
							GM Aam	GM Khas			
1	Binja	34	417.41	10.27	176.63	135.75	14.49	49.02	2.02	5.98	811.57
2	Hendag	31	3.10	0.00	5.97	9.31	0.00	1.25	0.00	0.00	19.63
Total Area (In acre)			420.51	10.27	182.60	145.06	14.49	50.27	2.02	5.98	831.20
Total Area (In Ha)			170.18	4.16	73.90	58.70	5.86	20.34	0.82	2.42	336.38

TOPOSHEET & BOUNDING CO-ORDINATES:

Topo-Sheet No. : F45B1, F45B2, F45B5, F45B6

1	Latitude		From 23° 40' 27.791" N	To 23° 40' 38.293" N
2	Longitude		From 85° 12' 46.756" E	To 87° 2' 46.253" E

The project includes 132.6 Ha of forest land., Out of which 73.90 Ha is forest land and 58.70 is GM Jungle Jhari falling under the Ranchi Forest Division has already applied Stage-I is currently under consideration for Forest Clearance as part of the ongoing proposal No. FP/JH/MIN/QRY/535386/2025. The details of Forest Land is submitted below:

Particulars	Total Area in Ha	Application Submitted for FC (HA)
Forest Division Involved		Ranchi
Notified Forest (a)	73.90	73.90
GMJJ / Revenue Forest (b)	58.70	58.70
Forest Land including GM JJ/Revenue (A= a + b)	132.6	132.6
Non-Forest (B)	203.78	203.78
Total Land (A+B)	336.38	336.38

SITE DESCRIPTION:

The block shows undulating topography with maximum elevation of 402m in the southwestern side and minimum elevation of 370m in the northern part of the block. Damodar river, flowing at about 3km from the northern boundary of the block, controls the drainage pattern of the area. The general slope of the block is towards north and few

seasonal nalas flow in the Damodar River. A number of valleys are present in the Block, most of them followed by nalas. The area shows dendritic pattern of drainage and is traversed by a few nalas. All these nalas flow almost northerly and ultimately drain to Damodar River. The rainfall generally remains within a range of 1200-1700mm. The rainy season lasts from mid-June to mid-September. HFL of Damodar River, as recorded in 1976, is 363.75 m.

WORKING DETAILS:

Quarry-1 (East) will be exhausted in the 3rd year of quarry operation and then Quarry-2 (West) will be started. During Quarry-1 operation OB from Quarry- 1 will be dumped over the property of Quarry-2. It will again be re-handled during operation of Quarry-2.

1	Mining Method	The coal deposit will be extracted using the Bord and Pillar method, considering the geological conditions and seam characteristics of the block. The method involves driving a network of bords (galleries) while leaving coal pillars to support the roof during mine development.
2	Project Area and capacity	Proposed Project Area : 336.38 Ha. Proposed Rated Capacity : 0.36 MTPA Proposed Peak Capacity : 0.54 MTPA
3	No of Seams considered	09
4	Name of Coalfield	Patal east coal field (eastern part)
5	Average Grade	G9
6	Exploration Details	MECL carried out exploratory drilling from 05.07.2011 to 04.01.2013 in the Patal East Captive Coal Block from which the present Patal East (Eastern Part) Block has been carved out. Area covered by "detailed" exploration within the block (sq.km)-2.8
7	Life of the project	76 Years
8	Gross Geological Reserve	61.466Mte
9	Net Geological Reserve	55.319Mte
10	Blocked Reserve	15.625Mte
11	Mineable Reserves	39.694Mte
12	Extractable Reserve	25.616Mte
13	Depth of Working	140-350 m bgl
14	Mode of Transport	Road and Road cum Rail
15	Top soil	0.365Mte
16	StrippingRatio	NA

TOPSOIL MANAGEMENT

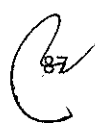
Year/Stage		Top Soil Removal Plan	TOP SOIL USED				
(Life of the mine plus post closure period)			Spreading Over Embankment	Spreading Over Backfill area	Spreading Over External OB Dump area	Used in Green Belt area	Total Utilised
Up to Base year	2027						
Y-1	2027-28						
Y-3	2029-30	0.36505					
Y-5	2031-32	0.36505	0.26025			0.1048	0.36505
Y-6	2032-33	0.36505	0.26025			0.1048	0.36505
Y-10	2036-37	0.36505	0.26025			0.1048	0.36505
Y-15	2041-42	0.36505	0.26025			0.1048	0.36505
Y-20	2046-47	0.36505	0.26025			0.1048	0.36505
Y-25	2051-52	0.36505	0.26025			0.1048	0.36505
Y-30	2056-57	0.36505	0.26025			0.1048	0.36505
Y-35	2061-62	0.36505	0.26025			0.1048	0.36505
Y-40	2066-67	0.36505	0.26025			0.1048	0.36505
Y-45	2071-72	0.36505	0.26025			0.1048	0.36505
Y-50	2076-77	0.36505	0.26025			0.1048	0.36505
Y-55	2081-82	0.36505	0.26025			0.1048	0.36505
Y-60	2086-87	0.36505	0.26025			0.1048	0.36505
Y-65	2091-92	0.36505	0.26025			0.1048	0.36505
Y-70	2096-97	0.36505	0.26025			0.1048	0.36505
Y-75	2101-02	0.36505	0.26025			0.1048	0.36505
Y-76	2102-03	0.36505	0.26025			0.1048	0.36505

Post closure							
Y-79	2105-06	0.36505	0.26025			0.1048	0.36505

Proposed Calendar Program:

Calendar year from which the production will start					2030-31	
Year of Achieving rated production					2032-33	
Year		Coal Production Schedule			OB MM3	SR
Year of operation	Calendar year	UG	OC	Total		
1	2027-28	0		0.0000		
2	28-29	0		0.0000		
3	29-30	0		0.0000		
4	30-31	0.072		0.0720		
5	31-32	0.292		0.2920		
6	32-33	0.36		0.3600		
7	33-34	0.36		0.3600		
8	34-35	0.36		0.3600		
9	35-36	0.36		0.3600		
10	36-37	0.36		0.3600		
11	37-38	0.36		0.3600		
12	38-39	0.36		0.3600		
13	39-40	0.36		0.3600		
14	40-41	0.36		0.3600		
15	41-42	0.36		0.3600		
16	42-43	0.36		0.3600		
17	43-44	0.36		0.3600		







18	44-45	0.36		0.3600		
19	45-46	0.36		0.3600		
20	46-47	0.36		0.3600		
21	47-48	0.36		0.3600		
22	48-49	0.36		0.3600		
23	49-50	0.36		0.3600		
24	50-51	0.36		0.3600		
25	51-52	0.36		0.3600		
26	52-53	0.36		0.3600		
27	53-54	0.36		0.3600		
28	54-55	0.36		0.3600		
29	55-56	0.36		0.3600		
30	56-57	0.36		0.3600		
31	57-58	0.36		0.3600		
32	58-59	0.36		0.3600		
33	59-60	0.36		0.3600		
34	60-61	0.36		0.3600		
35	61-62	0.36		0.3600		
36	62-63	0.36		0.3600		
37	63-64	0.36		0.3600		
38	64-65	0.36		0.3600		
39	65-66	0.36		0.3600		
40	66-67	0.36		0.3600		
41	67-68	0.36		0.3600		
42	68-69	0.36		0.3600		







43	69-70	0.36		0.3600		
44	70-71	0.36		0.3600		
45	71-72	0.36		0.3600		
46	72-73	0.36		0.3600		
47	73-74	0.36		0.3600		
48	74-75	0.36		0.3600		
49	75-76	0.36		0.3600		
50	76-77	0.36		0.3600		
51	77-78	0.36		0.3600		
52	78-79	0.36		0.3600		
53	79-80	0.36		0.3600		
54	80-81	0.36		0.3600		
55	81-82	0.36		0.3600		
56	82-83	0.36		0.3600		
57	83-84	0.36		0.3600		
58	84-85	0.36		0.3600		
59	85-86	0.36		0.3600		
60	86-87	0.36		0.3600		
61	87-88	0.36		0.3600		
62	88-89	0.36		0.3600		
63	89-90	0.36		0.3600		
64	90-91	0.36		0.3600		
65	91-92	0.36		0.3600		
66	92-93	0.36		0.3600		
67	93-94	0.36		0.3600		







68	94-95	0.36		0.3600		
69	95-96	0.36		0.3600		
70	96-97	0.36		0.3600		
71	97-98	0.36		0.3600		
72	98-99	0.36		0.3600		
73	99-2100	0.36		0.3600		
74	2100-01	0.3		0.3000		
75	2101-02	0.262		0.2620		
76	2102-03	0.21		0.2100		
Note: Calendar Plan/Production Plan for the entire life of the mine						

DESCRIPTION OF FAULT:

Interpretation of sub-surface data has revealed that the block is traversed by 4 number of faults Viz faults F5-F5, F6-F6, F7-F7 & F8-F8. Fault F8-F8 is a boundary fault along which Gondwanas have come in juxtaposition with metamorphics located in the south of the block boundary. This fault is steeply dipping towards north. Geological structure between fault F8 -F8 and F5-F5 is highly complicated.

SEQUENCE OF COAL SEAMS:

The sequence of coal seams, their thickness range and range of parting between coal seams are given below:

Seam	Thickness Range, m	Depth Range, m	GCV Range	Grade range
BM 1	0.33-2.27	51.47-331.88	4230	G13-G11
Parting	127.56-157.75			
XI	0.05-0.30	117.8-445.08		
Parting	10.66-23.88			
XA/ XB/ XAB	0.17-3.34	153.9-569.3	3980-5490	G12-G7
Parting	0.66-8.75			
IXA	0.28-4.08	132.65-74.04	3780-4460	G10-G12
Parting	1.55-4.56			
IXB	0.05-2.38	135.89-578.7	3880-4130	G12-G11
Parting	9.46-32.45			
VIIIA/VIIIB/VIIIAB	0.06-3.74	143.99-38.17	3010-4670	G15-G9

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Parting	0.79-4.40			
VIIIC/VIIID/VIIICD	0.03-4.04	145.21-543.4	3830-4850	G12-G9
Parting	2.37-13.26			
L4	0.12-0.8	151.4-556.81		
Parting	7.14-14.29			
VII	0.05-1.95	195.3-603.31	4500-4830	G10-G9
Parting	8.65-29.85			
VI T	0.34-1.35	374.44-57.26	5290-5353	G7-G7
Parting	0.46-4.57			
VIB/ VComb	0.04-4.18	212-580.22	4570-5470	G10-G7
Parting	8.20-42.19			
V	0.16-3.38	222.55-617.21	3770-473	G12-G9
Parting	4.27-29.34			
IV Comb	0.2-8.15	227.95-639.8	4550-4710	G10-G9
Parting	4.84-14.20			
L3	0.09-0.24	334.57-571.29		
Parting	4.84-17.44			
L2	0.05-0.90	285.85-584.87		
Parting	5.48-19.97			
L1	0.07-1.49	320.4-590.42		
Parting	2.35-7.64			
III	0.1-4.70	328.71-595.67	4060-4940	G11-G8
Parting	19.35-26.29			
II	0.45-2.28	479.7-483.15	4940	G8
Parting	14.8-38.02			
	Not developed			

DIP AND STRIKE:

The general strike of the beds in the block is NE-SW, which swings to NNE-SSW in the southern part along fault F5-F5. The dip of the formation in general varies between 10deg - 12deg due south-west in major part of the area but becomes very steep in the southern part, about 40deg.

LAND USE:

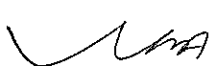
Pre Mining Land Use

Sl. No	Land Type	Current Land Use Area in Ha	Proposed Land Use
	Agriculture Area	53.18	53.18

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1	Water bodies	7.11	7.11
2	Road	5.99	5.99
3	Community/other use	1.56	1.56
4	PF	73.9	73.9
5	Township	23.88	23.88
6	Grazing	64.22	64.22
7	Free hold	0.82	0.82
8	Barren	105.72	52.06
9	Mining Activity	0	53.66
	Total	336.38	336.38

Type	Land Use (Post Closure)						
	Agricultural land	Plantation	Water Body	Public/Comp any Use	Forest Land (Returned)	Undisturbed	Total
Settling Pond			0.315				0.315
Road And Infrastructure Area		18.085		1.2			19.285
Rationalized ion Area	27.97						27.97
Green Belt		5.24					5.24
Water Reservoir Near Pit			0.06				0.06
UG Entry		0.79					0.79
Undisturbed OR Mining Right For UG						282.72	282.72
Total	27.97	24.12	0.38	1.20	0.00	282.72	336.38







MACHINERIES / HEMM

Sl.No.	Type of Equipment	Capacity	Unit	Population
1	SDL kW V Cum bucket capacity	48	KW	12
2	Gathering Arm loader	37	KW	5
3	Pony Conveyor/Light duty Chain Conveyor-800 mm, 150 tph	30	KW	21
4	Specially designed Light duty Chain Conveyor- 150 tph	30	KW	7
5	UDMs- Drill hole diameter-25-55 mm	37	KW	8
6	Coal Drill with Panel-500-600 rpm, 110-125V	1.1	KW	4
7	Roof bolting machine	22	KW	4
8	Anchorage Testing Machine	30	Tonnes	2
9	Face Pump-11lps	11	KW	8
10	Auxiliary Fan msec mm water gauge	22	KW	4
11	Multi Utility vehicle Tonne	168	KW	2
12	Free Steered Vehicle Tonne	55	KW	2
13	Main Fan and standby fan	250	KW	2
14	Chair lift man riding system m	90	KW	1
15	Trunk Gate Belt Conveyor tph	800	mm	31
16	Main Belt conveyor tph	1000.00	mm	6
17	Auxiliary pump lps	110	KW	18
18	Main pump lps	120	KW	8
19	Axial pump for stowing lps	150	KW	2
20	Direct haulages	150	KW	2
21	Endless haulages	37	KW	7
22	Direct haulages	55	KW	4

PLANTATION

In order to absorb the pollutants arising out of the mining operations and to improve the ecological status and aesthetics of the area, a plantation program over life of the mine has been planned in a phase wisemanner on 5.24 ha. plantation will be started from first year of mining along theboundary of ML area. The green belt will comprise of:

A 7.5 m wide green belt will be established on the safety zone around the ML boundary. The green belt will be widened wherever space will become available. Greenbelt shall be developed over the unused area of mining boundary.

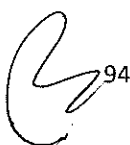
During peak requirements, additional plants will be purchased from Govt./Forest nurseries located around the project. The common species used for plantation in the region are Bamboo, Kendu, Mahua, Arjun, Bargad, Peepal, Aam, Sal, Neem,Jamun, Amrood, other fruit bearing trees, etc.

Subsidence Management:

Patal East (Eastern Part) coal mine is located in Burmu block of Ranchi District, falls in the western part of South Karanpura Coalfield. The Coalfield is spread over an area of about 180 sq.km and bounded by latitudes 23°39'33" & 23°40'43" N and longitudes 85°11'16" & 85°13'07"E. The block shows undulating topography with a maximum elevation of 402m on the southwestern side and a minimum elevation of 370m on the northern part of the block. The major part of the coalfield is occupied by rocks of Barakar Formation. The Barakar Formation is predominantly composed of medium to coarse-grained sandstones, grey shales, carbonaceous shales, intercalations of shale and sandstone, and coal seams. There are nineteen coal seams in the coal block, out of which nine seams, namely XAB/B/A, IXA, VIIIAB/B/A, VIIICD/D/C, VII, VIB/VIComb, V, IVComb, and III are persistent and have a potential thickness to mine the property. Hence, depillaring with stowing following the bord and pillar mining method is proposed by RCR Steel Works Private Limited to mine the workable coal seams only. A total of 97 panels are proposed to be extracted. The minimum cover depth of panels ranges from 123 m and 505 m. Important surface features above the coal block are forest area, villages (Binja and Hendag), nallas, HT and LT power lines passing through the block, pucca and kutcha roads.

Three-dimensional subsidence prediction modelling was performed using FLAC3D to estimate the maximum subsidence and tensile strain during the extraction of the panels. The subsidence and strain values were estimated at an interval of 5 years up to 30 years, viz. 5, 10, 15, 20, 25, and 30 years. Thereafter, they were assessed at an interval of 10 years till the completion of the mine life, viz. 40, 50, 60,70, and 76 years, in accordance with the panel progress plan provided by the mine management. The following conclusion and recommendations are proposed for workings:

1. The maximum estimated subsidence and tensile strain due to extraction of coal from XA/XB/XAB to III seams after 30 years are 215 mm and 1.13 mm/m, respectively, whereas their values after 76 years are 637 mm and 2.92 mm/m respectively.



2. The predicted maximum tensile strain of 2.92 mm/m at the surface would not affect the forest area, villages (Binja and Hendag), nallas, HT and LT power lines passing through the block, pucca, and kutcha roads,
3. Suitable drainage, if necessary, should be made to avoid logging of water in the centre of subsidence troughs as it would affect the surface topography.
4. Subsidence should be monitored, especially during the extraction of panels located beneath and in the vicinity of the surface structures, to assess the actual impact as well as from the safety perspective.

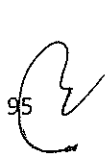
STATUTORY CLEARANCES

1	Land Docs	:	Vesting order issued by Office of the Nominated Authority, Ministry of Coal, Govt. of India vide order no. NA-104/24/2023-NA, dated 08.06.2023.
2	CO	:	The CO, Burmu, Ranchi vide letter no. 248(A)(ii), dated 08.05.2025 has mentioned that out of 336.38 Ha, 58.70 Ha land is Jungle-Jhari for which diversion application of deemed Forest land under Forest (Conservation) Act, 1980 has been submitted vide proposal no. FP/JH/MIN/QRY/535386/2025, dated 26.04.2025.
3	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 456, dated 15.06.2026 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
4	DFO Territorial	:	DFO, Ranchi vide letter no. 1462, dated 29.04.2026 certified that the the distance of reserved / protected forest is less than 250 meters from project site and also certified that out of 336.38 Ha, 73.90 Ha land is notified forest for which diversion application under Forest (Conservation) Act, 1980 has been submitted vide proposal no. FP/JH/MIN/QRY/535386/2025, dated 26.04.2025.
5	Mine Plan Approval	:	Mine plan approved by Deputy Director, Coal Controller Organisation (A subordinate organisation of Ministry of Coal), Govt. of India vide Application No. JHRA/APP00294/2024, dated 18.12.2024.
6	CGWA	:	No Objection Certificate (NOC) for withdrawal of water has been obtained from CGWA vide No. NOC/MIN/JH/2025/8963/N, dated 02.07.2025 valid up to 01.07.2027.

Stowing

Procurement of sand for stowing will be done only from legal and authorized sources.







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 08, 09, 10, 11 & 12.07.2026, the Committee recommends for issuing of ToR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure - IV alongwith following specific condition :-

- I. PAs shall obtain Stage-I Clearance under Forest (Conservation) Act, 1980 before submission of the application for final EC.
- 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.

3. Nagri Stone Deposit of Sri Sachidanand Kumar Deo & Sri Kripa Mahto, Village : Nagri, Tehsil : Birni, Distt.: Giridih, Jharkhand (0.992 Ha).
(Proposal no.: SIA/JH/MIN/582153/2026).

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

This is a new project which has been taken for appraisal on 11.07.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 10152 cum per year or 27410 TPA

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Nagri Stone Deposit
2	Lessee:	: Partner- Sri Sachidanand Kumar Deo & Sri Kripa Mahto
3	Lessee Address	: Near S.S.V.M. School Barganda, District-Giridih, Jharkhand
4	Lease Area	: 0.992 ha 2.45 acres
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital : Rs. 2080800.00
7	EMP Budget	: Capital : Rs. 683600.00 Recurring : Rs . 529820.00 per year

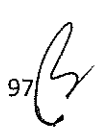


8	New or Expansion	:	Reappraisal	
9	Mineable Reserves	:	71387 cum	192744 tonnes
10	Mine Life	:	10 Years	
11	Man power	:	16	
12	Water Requirement	:	10.30 KLD	
13	Water Source	:	By authorised hired water tankers	
14	DG Set / power	:	-	
15	Crusher	:	Not Proposed	
16	Nearest Water Body	:	Barakar River (5 Km) A season nallah identified in KML Map at a distance of 68.70m. EMP on nallah has been submitted by Proponent.	
17	Nearest Habitation	:	Dharampur Village 0.530m (E)	
18	Nearest Rail Station	:	Nearest railway stations is Kavar Railway Station (7 Km)	
19	Nearest Air Port	:	Deoghar Airport (91 Km)	
20	Nearest Forest	:	Divisional Forest Officer, Giridih certified that the distance of reserved / protected forest is more than 1251 meter from proposed project site.	
21	Nearest Wildlife Sanctuary	:	The project location is at approx. 29.32 KM from the nearest Parasnath wildlife sanctuary.	
21	Road & Highways	:	NH-114A Giridih-Dumri Road (16 Km)	
23	Approach Road	:	At a distance of 100 metres.	

CO-ORDINATES

Sl.No.	LATITUDE	LONGITUDE	Sl.No.	LATITUDE	LONGITUDE
P1	24° 13' 46.4484" N	86° 06' 46.8361" E	P23	24° 13' 42.9677" N	86° 06' 42.3309" E
P2	24° 13' 45.9160" N	86° 06' 46.6042" E	P24	24° 13' 43.4327" N	86° 06' 42.6789" E
P3	24° 13' 45.5280" N	86° 06' 46.5057" E	P25	24° 13' 43.8085" N	86° 06' 42.9500" E
P4	24° 13' 45.4559" N	86° 06' 46.6890" E	P26	24° 13' 44.2483" N	86° 06' 43.2404" E
P5	24° 13' 45.5460" N	86° 06' 46.8091" E	P27	24° 13' 44.5024" N	86° 06' 43.4737" E
P6	24° 13' 45.3376" N	86° 06' 47.3612" E	P28	24° 13' 44.3433" N	86° 06' 44.0720" E
P7	24° 13' 45.1706" N	86° 06' 47.9496" E	P29	24° 13' 43.5125" N	86° 06' 43.7653" E
P8	24° 13' 44.4111" N	86° 06' 47.5502" E	P30	24° 13' 43.3845" N	86° 06' 44.1916" E







P9	24° 13' 43.9061" N	86° 06' 47.1485" E	P31	24° 13' 44.0790" N	86° 06' 44.7430" E
P10	24° 13' 43.1724" N	86° 06' 46.7857" E	P32	24° 13' 43.8510" N	86° 06' 45.3871" E
P11	24° 13' 43.3866" N	86° 06' 45.8746" E	P33	24° 13' 43.7125" N	86° 06' 46.0130" E
P12	24° 13' 42.8074" N	86° 06' 45.5130" E	P34	24° 13' 44.2259" N	86° 06' 46.2300" E
P13	24° 13' 42.5574" N	86° 06' 45.8560" E	P35	24° 13' 44.8364" N	86° 06' 46.3786" E
P14	24° 13' 41.8553" N	86° 06' 45.3301" E	P36	24° 13' 45.2107" N	86° 06' 46.4647" E
P15	24° 13' 42.1836" N	86° 06' 44.4703" E	P37	24° 13' 45.2611" N	86° 06' 45.3364" E
P16	24° 13' 41.7102" N	86° 06' 44.1312" E	P38	24° 13' 45.5006" N	86° 06' 44.5891" E
P17	24° 13' 41.9213" N	86° 06' 43.0892" E	P39	24° 13' 46.0526" N	86° 06' 44.4789" E
P18	24° 13' 42.0968" N	86° 06' 42.1420" E	P40	24° 13' 46.2656" N	86° 06' 44.7633" E
P19	24° 13' 41.9938" N	86° 06' 41.9131" E	P41	24° 13' 46.1004" N	86° 06' 45.2556" E
P20	24° 13' 42.0540" N	86° 06' 41.7611" E	P42	24° 13' 46.4424" N	86° 06' 45.8157" E
P21	24° 13' 42.5003" N	86° 06' 42.0346" E	P43	24° 13' 46.4677" N	86° 06' 46.3561" E
P22	24° 13' 42.9589" N	86° 06' 42.0346" E	P44	24° 13' 46.6826" N	86° 06' 46.5819" E

LAND DETAILS

Khata no.	Plot no.
35	946, 947, 948, 949, 950 & 951

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Giridih, vide letter no. 303/M dated 27.04.2026.
2	CO	:	The CO, Birni (Giridih) vide letter no. 1360, dated 12.12.2025 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatyan and also mentioned that the Nala within 500 meters of proposed project site. Accordingly PAs has submitted EMP for the same.
3	DMO Cluster	:	DMO, Giridih vide memo no. 338/Khanan, dated 07.05.2026 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. 2212, dated 08.12.2025 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Giridih East Forest Division vide letter no. 376, dated 27.02.2026 certified that the distance of notified forest is 1251 meters from proposed project site.
6	DSR	:	The village Nagri has been made part of the Potential Zone for stone mining in the approved DSR of Giridih District.
7	Gram Sabha	:	BDO, Birni vide letter no. 1327, dated 31.12.2025 informed that Gram Sabha conducted on 29.12.2025.
8	Mine Plan Approval	:	Mine plan approved by DMO –cum- DDM, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide memo no. 82/DDM, dated 09.05.2026.
9	Environmental Safeguard from Jharkhand State Pollution Control Board (JSPCB)	:	Environmental Safeguard issued by Environmental Engineer –cum – Nodal Officer, Jharkhand State Pollution Control Board (JSPCB) vide its Memo No.: PC/SEIAA/EC-CTE/57/2026 - 2189, dated : 07.07.2026.
10	Qualified Person	:	Shri Vidya Bhushan Mishra through letter dated 08.07.2026 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Semi-mechanized "OTFM" Method
2	Quarry Area	:	0.525 Ha.
3	Waste Generation	:	9,941 cum
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m and 3 in numbers
7	Elevation of Mine	:	321 m AMSL to 317 m AMSL
8	Ground Level Elevation	:	317 m AMSL
9	Ultimate Working Depth	:	300 m AML
10	Water Table	:	280 m AMSL
11	Topography of Mine	:	The applied lease area represents a small hillock
12	Explosive Requirement	:	11 kg/day

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13	Diesel/Fuel requirement	:	55 litre/day
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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	5,558	15,005	3,354	293	3,647
2nd Year	6,076	16,406	1,950	320	2,270
3rd Year	6,669	18,006	2,730	351	3,081
4th Year	7,781	21,007	0	410	410
5th Year	10,152	27,410	0	534	534
Total	36,235	97,834	8,034	1,907	9,941

Land Use

Land Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At Conceptual period (Ha)
Quarry	NIL	0.193	0.525 (0.145 ha area shall be backfilled, 0.323 ha converted into water reservoir & 0.057 ha shall be left as dead benches)
Waste Dump	NIL	0.067	Nil (comes under quarry)
Road	NIL	0.011	Nil (comes under quarry)
Safety Zone Plantation	NIL	0.467	0.467
Total	Nil	0.738	0.992
Unused Area	0.992	0.254	0.0
Total Lease Area	---	---	0.992

ENVIRONMENT MANAGEMENT

Green Belt Development

Plantation				
Location	Area (Ha.) or Length (m)	No. of tree	Calculation	Timeline







Safety Zone	0.467	748	1600 tree per hectare	1st Year
Approach Road	100	200	2m X 2m spacing	1st year
Dead Bench	0.057	92	1600 tree per hectare	End of Mine
Backfilled area (level upto surface)	0.145	232	1600 tree per hectare	End of Mine
TOTAL		1272		
Species: Neem, Peepal, Arjun, Ashoka, Gulmohar, Banyan, Bamboo: - Bombas, Nutans, Toolda, Strictus & other Native Species				

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

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	61282.04
Infrastructure			700000.00	0.00
Mining Equipment			0.00	5200000.00
Equipment	Quantity	Rent per year		
Dumper	1	2000000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	1	800000		
Excavator	1	800000		
Water Facility for Domestic Purpose "0.64" KLD (Annual Water Demand "192"KL @4L per Tanker, total number of tanker required ("48") and per tanker cost @Rs. 500)			0.00	24000.00
Statutory Clearances			500000.00	0.00

Mine Closure Cost for Plantation of "324" number of tree @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	97200.00	0.00
Mine Closure Cost for fencing around mine	100000.00	0.00
Environment Management Plan (EMP) Cost	683600.00	529820.00
Total	2080800.00	5815102.04

Environment Management Budget

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP)		
Particulars	Capital	Recurring
Plantation of "948" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	284400.00	47400.00
Water Facility for Horticulture "5.688" KLD & Dust Suppression "3.968" KLD (Annual Water Demand "2896.8"KL @4L per Tanker, total number of tanker required ("725") and per tanker cost @Rs. 500)	0.00	362500.00
Garland Drain & Desiltation Pond	99200.00	9920.00
To prevent the impact of mining activities on the Nala	3,00,000.00	60,000.00
Environment Monitoring & Compliance	0.00	50000.00
Total	683600.00	529820.00

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,	2 station	Six Monthly

	texture, water holding capacity, etc.		
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Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	During plan period, a total of 9,941 cum of solid waste will be generated. This solid waste will be stored in external 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.

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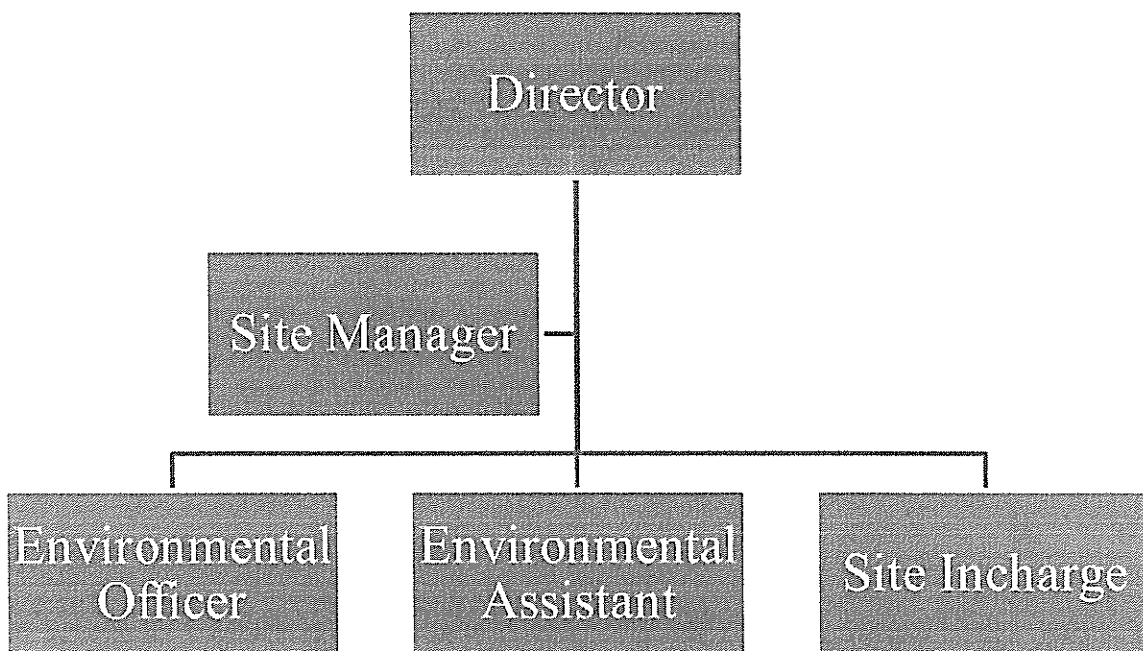
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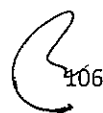
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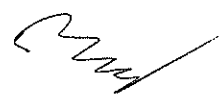
	▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet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

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









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.

EMP on Nallah

This EMP ensures that the mine run-off water is fully managed within the lease area using garland drains, a retaining wall, and desilting ponds.

The desilting pond will serve as a critical component for sediment control and water reuse.

The stored water will be fully utilized for **dust suppression** and **horticulture activities** within the project site, thereby eliminating the need for external discharge. This integrated approach supports the **Zero Liquid Discharge (ZLD)** concept and promotes water conservation, ecological balance, and compliance with environmental safeguards. By adopting the ZLD approach, the plan avoids any direct discharge to the nearby waterbody, thereby mitigating adverse environmental impact.

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.

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Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Nagri Stone Deposit of Sri Sachidanand Kumar Deo & Sri Kripa Mahto, Village : Nagri, Tehsil : Birni, Distt.: Giridih, Jharkhand (0.992 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 Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/57/2026 - 2189, dated : 07.07.2026 is also included as Annexure – I (A) :

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

4. Hathidari Stone Deposit of M/s Shambhavi Mining Company, Mouza : Hathidari, Anchal : Jirwabari, Distt. : Sahibganj, Jharkhand (2.934 Ha.).

(Proposal no.: SIA/JH/MIN/584585/ 2026)

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

This is an amendment project which has been taken for appraisal on 11.07.2026.

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

Application for amendment Environmental Clearance (EC).

EC Application for: Proposed Capacity – 90079 Cum per year or 243213 Tonnes per year

The Hathidari Stone Deposit, located at Village Hathidari, Anchal Mandro, District Sahibganj, Jharkhand, in the name of M/s Shambhavi Mining Company, was initially granted a Letter of Intent (LOI) by the District Mining Officer (DMO), Sahibganj, vide Letter No. 62/M dated 06.01.2018, for an area of 11.00 acres (4.45 ha). Based on the LOI, the Mining Plan was approved, and Environmental Clearance (EC) for the said area of 11.00 acres (4.45 ha) was granted by the State Environment Impact Assessment Authority (SEIAA), Jharkhand, vide Letter No. EC/SEIAA/2018-19/2019/630 dated 04.11.2019.

Subsequently, in accordance with the provisions of the Jharkhand Minor Minerals Concession Rules, 2019, which stipulate that the maximum area for a stone mining lease shall not exceed 3.00 hectares in tenancy / revenue land, the mining plan & lease area was revised accordingly. Therefore, lease granted order issued by DMO, Sahebganj vide its Letter No. 1106/M dated 09.10.2024 & the mining lease was executed on 18.03.2025 for an area of 7.25 acres (2.934 ha) for a period of 10 years, valid up to 17.03.2035.

Details of Amendment Sought

Particulars	Existing EC	Proposed amendment
Area	4.45 Ha. / 11 Acres	2.934 Ha. / 7.25 Acres
Production	356756 TPA	243213 TPA

The present proposal is submitted for amendment of the Environmental Clearance to align the EC with the executed Mining Lease. No change is proposed in the mining method, technology, mining machinery, mineral, or other environmental safeguards. The amendment is limited to the reduction in lease area and the corresponding reduction in annual production capacity.

The amendment has become necessary due to the execution of the mining lease over 7.25 acres instead of the originally proposed 11.00 acres, in compliance with the provisions of the Jharkhand Minor Minerals Concession Rules, 2019, which restrict the maximum permissible lease area for stone mining on raiyati land to 3.00 hectares in tenancy / revenue land.

Consequently, the production capacity has been revised proportionately from 356,756 TPA to 243,213 TPA.

Since the lease area has been reduced, there will be a corresponding reduction in mining operations and associated environmental impacts. All other data stipulated in the Environmental Clearance shall remain unchanged.

In view of the above, M/s Shambhavi Mining Company requested to the SEAC, Jharkhand to amend the Environmental Clearance dated 04.11.2019 issued vide Letter No. EC/SEIAA/2018-19/2019/630 by revising:

- Mining Lease Area: from 11.00 Acres (4.45 ha) to 7.25 Acres (2.934 ha); and
- Annual Production Capacity: from 356,756 TPA to 243,213 TPA.

All other terms & conditions stipulated in the Environmental Clearance shall remain unchanged.

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Hathidari Stone Deposit
2	Lessee:	: M/S Shambhavi Mining Company- 1. Sri Niranjana Kumar Singh, 2. Sri Prakash Chandra, 3. Sri Shivji Sah, 4. Sri Amit Kumar, 5. Sri Sujit Kumar, 6. Sri Rajesh Kumar Singh
3	Lessee Address	: At- Ward No.- 21, Farangaha, Near Durga Sthan, P.S.- Ratanpur, P.O.+ District – Begusarai, Bihar
4	Lease Area	: 2.934 ha 7.25 acres
5	Type of Land	: Non-Forest Raiyati Land
6	Project Cost	: Capital : Rs. 2278300.00
7	EMP Budget	: Capital : Rs. 643800.00 Recurring : Rs . 840740.00 per year
8	New or Expansion	: Reappraisal
9	Mineable Reserves	: 773823 cum 2089321 tonnes
10	Mine Life	: Up to the lease period i.e. 18.03.2025 to 17.03.2035.
11	Man power	: 22
12	Water Requirement	: 19.62 KLD
13	Water Source	: By authorised hired water tankers
14	DG Set / power	: -
15	Crusher	: Not Proposed
16	Nearest Water Body	: Ganga river at a distance of 5.0km from lease area on northern side
17	Nearest Habitation	: Saharpur Village 0.584 Km(S)
18	Nearest Rail Station	: Nearest railway stations is Sahibganj railway station which is about 5.0 Km from the applied lease area.

19	Nearest Air Port	:	Deoghar Airport (179Km)
20	Nearest Forest	:	Divisional Forest Officer, Sahibganj certified that the distance of reserved / protected forest is more than 560 meter from proposed project site.
21	Nearest Wildlife Sanctuary	:	The project location is at approx. 4.08 KM from the nearest Udhwa wildlife sanctuary.
21	Road & Highways	:	NH-33- Sahibganj-Bhagalpur Road at about 3.0 Km
23	Approach Road	:	At a distance of 100 metres.

CO-ORDINATES

Sl.No.	LATITUDE	LONGITUDE
P1	25°13'27.1856"	87°35'08.5641"
P2	25°13'27.0096"	87°35'09.2145"
P3	25°13'25.4789"	87°35'11.8801"
P4	25°13'24.2758"	87°35'14.2540"
P5	25°13'23.4400"	87°35'16.5615"
P6	25°13'23.1982"	87°35'18.2415"
P7	25°13'22.7078"	87°35'18.4489"
P8	25°13'22.1207"	87°35'18.5611"
P9	25°13'21.5583"	87°35'18.5053"
P10	25°13'20.5523"	87°35'18.1360"
P11	25°13'20.0853"	87°35'17.8087"
P12	25°13'19.8419"	87°35'16.5928"
P13	25°13'19.6847"	87°35'14.8012"
P14	25°13'19.6609"	87°35'11.2862"
P15	25°13'20'4043"	87°35'11.5687"
P16	25°13'21.7348"	87°35'11.6527"
P17	25°13'22.4559"	87°35'11.5500"
P18	25°13'23.4502"	87°35'11.0990"
P19	25°13'24.5020"	87°35'10.5038"
P20	25°13'25.5104"	87°35'09.8137"
P21	25°13'26.2433"	87°35'09.2369"
P22	25°13'26.7981"	87°35'08.7111"

LAND DETAILS

Khata no.	Plot no.
08	06 (P)
10	09 (P)
19	10 (P)
07	11

17	12 (P)
14	14 (P)
08	31 (P)
16	32 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	i. The Letter of Intent (LOI) has been issued by District Mining Officer, Sahibganj vide letter no. 62/M, dated 06.01.2018. ii. Lease deed : 18.03.2025 to 17.03.2035.
2	CO	:	The CO, Mandro vide memo no. 255/Ra., dated 12.03.2019 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatyan & Register II.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 61/M, dated 06.01.2018 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 1545, dated 03.08.2019 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Lake Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide memo no. 2176, dated 27.11.2017 certified that the distance of forest is 560 meters from proposed project site.
6	DSR	:	The village Hathidari has been made part of the Potential Zone for stone mining in the approved DSR of Sahibganj District (Page no. 185)
7	Gram Sabha	:	Gram Sabha conducted on 07.12.2017.
8	Mine Plan Approval	:	Modified mining plan approved by District Mining Officer, Sahibganj vide Letter No. 852/M, dated 16.06.2026.
9	Grid Certificate	:	DMO, Sahibganj vide memo no. 715/M, dated 08.05.2026 certified that said project falls under grid no. 13 and production is within the over all permissible production limit. The DMO also stated that this certificate is issued in the light of order passed by Hon'ble NGT on 22.12.2021 in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019. It also states this certificate is issued in compliance of report of Expert Committee.

10	Previous Environmental Clearance (EC)	:	Previous EC granted by SEIAA, Jharkhand vide letter no. EC/SEIAA/2018-19/2199/2019/630, dated 04.11.2019.
11	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	:	2.329 Ha.
3	Waste Generation	:	25025 cum
4	Stripping Ratio	:	1:0.03
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m and 12 in numbers
7	Elevation of Mine	:	259 m AMSL to 234 m AMSL
8	Ground Level Elevation	:	234 m AMSL
9	Ultimate Working Depth	:	179 m AML
10	Water Table	:	160 m AMSL
11	Topography of Mine	:	The applied lease area represents a small hillock
12	Explosive Requirement	:	101 kg/day
13	Diesel/Fuel requirement	:	487 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
2 nd Year	82555	222899	4730	4345	9075
3 rd Year	84541	228259	2200	4450	6650
4 th Year	86631	233902	0	4560	4560
5 th Year	90079	243213	0	4741	4741
Total	343805	928274	6930	18095	25025

Production & Waste/OBR Table

Land Use

Land Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At Conceptual period (Ha)
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Quarry	Nil	1.467	2.329 (0.029 ha area shall be Backfilled, 1.634 ha area shall be converted in to water reservoir & 0.667 ha left as dead benches)
Waste Dump	Nil	0.217	Nil (comes under quarry)
Road	Nil	0.005	Nil (comes under quarry)
Safety Zone Plantation	Nil	0.605	0.605
Total	0.000	2.294	2.934
Unused Area	2.934	0.640	0.0
Total Lease Area	2.934		

ENVIRONMENT MANAGEMENT

Green Belt Development

Plantation				
Location	Area (Ha.) or Length (m)	No. of tree	Calculation	Timeline
Safety Zone	0.605	968	1600 tree per hectare	1st Year
Approach Road	100	200	2m X 2m spacing	1st year
Dead Bench	0.667	1068	1600 tree per hectare	End of Mine
Backfilled area (level upto surface)	0.029	47	1600 tree per hectare	End of Mine
TOTAL		2283		
Species: Neem, Peepal, Arjun, Ashoka, Gulmohar, Banyan, Bamboo: - Bombas, Nutans, Toolda, Strictus & other Native Species				

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

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 :

Particulars	Capital	Recurring
Land	0.00	181251.52

Infrastructure			700000.00	0.00
Mining Equipment			0.00	9200000.00
Equipment	Quantity	Rent per year		
Dumper	3	2000000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	1	800000		
Excavator	1	800000		
Water Facility for Domestic Purpose "0.88" KLD (Annual Water Demand "264"KL @4L per Tanker, total number of tanker required ("66") and per tanker cost @Rs. 500)			0.00	33000.00
Statutory Clearances			500000.00	0.00
Mine Closure Cost for Plantation of "1115" number of tree @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance			334500.00	0.00
Mine Closure Cost for fencing around mine			100000.00	0.00
Environment Management Plan (EMP) Cost			643800.00	840740.00
Total			2278300.00	10254991.52

Environment Management Budget

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP)		
Particulars	Capital	Recurring
Plantation of "1168" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	350400.00	58400.00
Water Facility for Horticulture "7.008" KLD & Dust Suppression "11.736" KLD (Annual Water Demand "5623.2"KL @4L per Tanker, total number of tanker required ("1406") and per tanker cost @Rs. 500)	0.00	703000.00
Garland Drain & Desiltation Pond	293400.00	29340.00
Environment Monitoring & Compliance	0.00	50000.00
Total	643800.00	840740.00

Environment Monitoring Plan (post operation)

Monitoring Parameters and Frequency of Monitoring

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

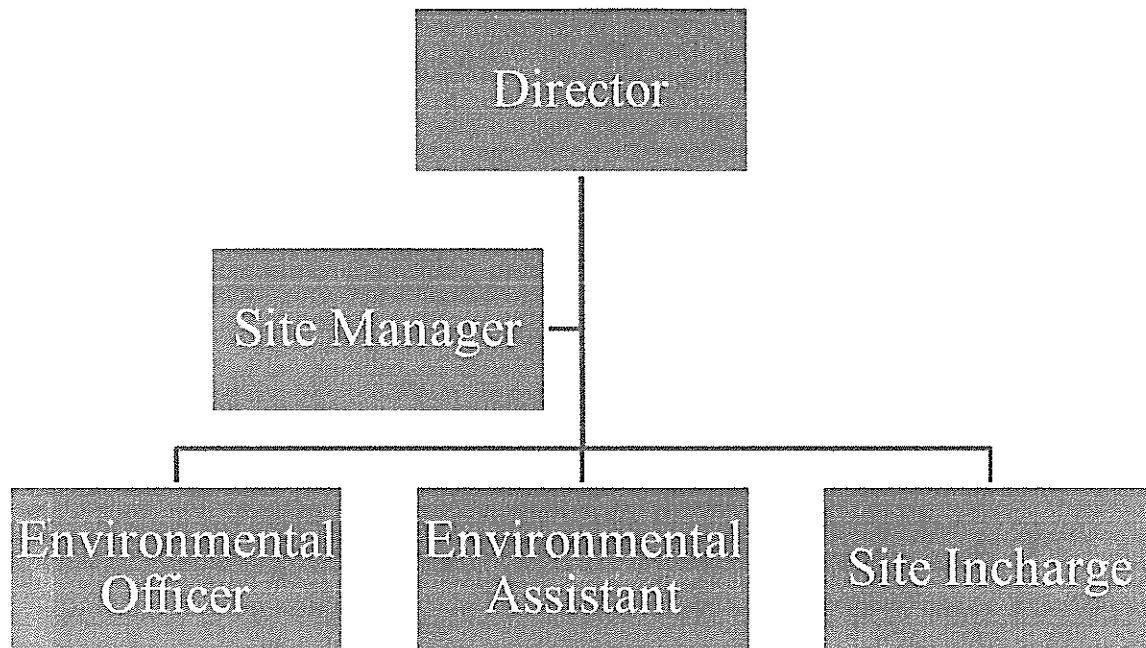
Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	During plan period, a total of 25025 cum of solid waste will be generated. This solid waste will be stored in external 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 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



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 decided that the proposal for Hathidari Stone Deposit of M/s Shambhavi Mining Company, Mouza : Hathidari, Anchal : Jirwabari, Distt. : Sahibganj, Jharkhand (2.934 Ha.) is recommended for grant of amended EC. All other terms and conditions of the earlier EC letter no. EC/SEIAA/2018-19/2199/2019/630, dated 04.11.2019 shall remain the same along with following specific conditions :

- 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. 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 or CTE from Jharkhand State Pollution Control Board, whichever is applicable.

A. Any other matter

1. The following mines were asked by Member Secretary, SEAC to provide clarification and details with evidence of the compliance of conditions of EC.

- i. Bara Bana Para & Matiyani Stone Mine of M/s Rahul Metals at Vill- Bara Bana Para & Matiyani, thana- Talhjari, Dist- Sahibganj, Jhk (9.086 Ha).
- ii. Srirampur Stone Deposit of M/s Mandhan Minerals Corporation (Sri Anil Tanwari) at Vill – Srirampur, P.S. – Malpahari, Dist – Pakur, Jharkhand (1.48 Ha).
- iii. Bishanpur Stone Deposit of Sri Bhawesh Tanwani at Vill – Bishanpur, Thana – Pakur, Dist – Pakur, Jharkhand (2.17 Ha).
- iv. Kordar Stone Mine of M/s A.R.S. Enterprises at Village : Kordar, Thana : Ranga, Distt. : Sahibganj, Jharkhand. (2.797 Ha).
- v. Rajbandh Stone Deposit of M/s Mandhan Minerals Corporation (Sri Shiladitya Mukherjee) at Village – Rajbandh, P.O.- Pakur, P.S.- Malpahari, Dist – Pakur, Jharkhand (3.64 Ha).

The replies have been received from the above mines. In the replies received, all the conditions are addressed suitably.

However, status of actual compliance can only be ascertained by physical verification of project site.

Accordingly, above matter may be forwarded to SEIAA for information.

2. The following mines were asked by Member Secretary, SEAC to provide clarification and details with evidence of the compliance of conditions of EC.

- i. Saharpur Stone Deposit of M/s Shree Shree Stone Works at Village – Saharpur, Thana – Shikaripara, Dist – Dumka, Jharkhand (2.97 Ha).

No reply has been received in above mine.

The Member Secretary, SEAC may issue a final show cause as to why the project may be recommended to SEIAA for keeping the EC of the above project in abeyance and take necessary action as deemed fit.



3. Tubed Coal Mine Project of M/s Damodar Valley Corporation, Village : Tubed, Mangra, Dihi, Ambajharan, Dhubiajharan, Nawari, Tehsil : Latehar, Distt. : Latehar, Jharkhand (460.00 Ha) (Proposal no.: SIA/JH/CMIN/ 563453 /2026)

Earlier this project was considered in 130th meeting of SEIAA held on 29th & 30th April, 2026 based on recommendation of SEAC for amendment of extension of time to implement the specific condition no. xv and xxiii of the EC letter no. J-11015/54/2017-IA.II (M), dated: 28.04.2020 & amendment EC letter no. IA-J-11015/54/2017-IA-II(M) Dated: 30.08.2023 granted by MoEF&CC, Govt. of India.

The amended EC was approved with following specific conditions :

- i. The directions proscribed and prescribed in the Office Memorandum No. FC-11/119/2020-FC, Dated : 17th May, 2022 of MoEF&CC shall be strictly adhered to".
- ii. The specific condition no. xv "No transportation of coal shall be carried by road after commission of proposed railway siding near the coal mine w.e.f. 27.04.2026" is being extended by further six month i.e. up to 26.10.2026.
- iii. The specific condition no. xxiii "Install in-pit conveyor from the pit bottom upto the silo loading point/rapid loading system shall be commenced prior to 26.10.2026 and subsequently the progress report for its completion shall be submitted while applying for further amendments of EC. Further extension will be considered only after compliance of this condition.
- iv. The Project Authority shall ensure that the final Detailed Project Report (DPR) is completed and approved by the railway authorities and the implementation of the construction of the railway siding has commenced within 26.10.2026. Further extension will be considered only after compliance of this condition.
- v. The Project Authority shall mandatorily submit a Detailed Project Report (DPR) approved by Railway Authorities for implementation of the construction of the railway siding within 2 months of issuance of this amended EC.
- vi. 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.

The Project Authority vide letter no. DVC/HQ/Mining/Kolkata/Tubed EC/389, dated 09.07.2026 addressed to the Member Secretary, SEIAA providing details of the progress in the matter with a request for amendment of specific condition no. v as stated above. This letter has been forwarded to SEAC for consideration of request.

On perusal of the details submitted the SEAC is of the view that the specific condition no. v above may amended as follows :

"The Project Authority shall mandatorily submit a Detailed Project Report (DPR) approved by Railway Authorities for implementation of the construction of the railway siding upto

26.10.2026 of issuance of the further amended EC.”

Hence, it is recommended to SEIAA that the specific condition no. v of SEIAA EC letter no. EC/SEIAA/2025-26/4068/2025/10, dated 30.04.2026 may be amended as above.

4. Compliance of Office Memorandum no. Q-15012/2/2022-CPW-Part(1)/e-240741, dated 14.01.2025 regarding streamlining the implemenatation of Notifications G.S.R. 702 and G.S.R. 703 dated 12th November, 2024 and further implementation of para 16 of minutes of 131st meeting of SEIAA held on 02nd & 03rd June, 2026.

The Environmental Safeguards are mandatory and pre-requisite before appraisal process and procedure for implementation of the same has been prescribed by MoEF&CC, Govt. of India vide OM no. Q-15012/2/2022-CPW-Part(1)/e-240741, dated 14.01.2025. This procedure prescribed that Environmental Safeguards are to be provided by State Pollution Control Board which is as follows :

i. In all cases where ToR is applicable, the comments shall be uploaded on the PARIVESH portal by the concerned SPCBs/PCCs within thirty days from the date on which the fee payment receipt is uploaded by the project proponent on PARIVESH.

ii. In all such cases where ToR is not applicable, the comments shall be uploaded on the PARIVESH portal by the concerned SPCBs/PCCs within fifteen days from the date on which the fee payment receipt is uploaded by the project proponent on PARIVESH.

SEIAA vide 131st meeting dated 02nd and 03rd June, 2026 decided that meeting of SEAC will be convened twice a month on 2nd and 04th week of each month as per OM F. No. IA-J-11013/30/2020.IA.I (M) – Part (1), dated 19.05.2026 of MoEF&CC, Govt. of India.

The timely meetings of SEAC are not being possible as the Environmental Safeguard are not being received from JSPCB within the timeline prescribed in OM dated 14.01.2025.

The list of projects pending with JSPCB as available on PARIVESH Portal for receipt of Environmental Safeguard are as follows :

Sl No	Projects Name	Date of forwarding to JSPCB
1.	Kalikapur Brick Soil Mining of M/s Tara Brick (Proprietor- Sri Shubhashis Kumar Patra) at Mouza – Kalikapur, Thana- Ghatshila, District – East Singhbhum, State- Jharkhand (Area 1.012 Ha.) (Proposal no. SIA/JH/MIN/559166/2025)	01/12/2025

2.	Bhelwara Stone Deposit of M/S Ganpati Stone Minerals at Village: Bhelwara, Anchal : Vishnugarh, District: Hazaribagh, Jharkhand. (Area: 1.634 Ha) (Proposal no. SIA/JH/MIN/571853/2026)	10/03/2026
3.	Dandila Stone Deposit of M/S Sai Interprises at Village: Dandila, Anchal - Hussainabad, District Palamu, Jharkhand, (Area 0.89 Ha.) (Proposal no. SIA/JH/MIN/573048/2026)	20/03/2026
4.	Laiyo Sand Deposit of M/S Gurudev Jee Trading Company Proprietor: Sri Birendra Kumar at Village: Laiyo, Block: Mandu, District: Ramgarh, Jharkhand, (Area 0.08 Ha.) (Proposal no. SIA/JH/MIN/564935/2026)	24/03/2026
5.	Hesapora Sand Deposit of M/S Gurudev Jee Trading Company Proprietor: Sri Birendra Kumar at Village: Hesapora, Block: Gola, District: Ramgarh, Jharkhand, (Area 1.82 Ha.) (Proposal no. SIA/JH/MIN/565064/2026)	25/03/2026
6.	Marro Stone Deposit Project of Shri Ajit Kumar Singh at Village – Marro, Thana: Govindpur, District – Dhanbad, State - Jharkhand (Area: 3.234 Ha) (Proposal no. SIA/JH/MIN/575107/2026)	10/04/2026
7.	Marro Stone Deposit Project of Shri Ajit Kumar Singh at Village – Marro, Thana: Govindpur, District – Dhanbad, State - Jharkhand (Area: 2.02 Ha) (Proposal no. SIA/JH/MIN/575271/2026)	13/04/2026
8.	Bhimpur Stone Deposit of Sri Biswakarma Mardi at Village – Bhimpur, Anchal - Maheshpur, District –Pakur, State - Jharkhand (Area: 2.837 Ha) (Proposal no. SIA/JH/MIN/574350/2026)	13/04/2026
9.	Mahjori Stone Deposit of M/s Siyaram Stone at Village: Mahjori, Anchal- Margomunda, District: Deoghar, Jharkhand. (Area-2.226 Hect) (Proposal no. SIA/JH/MIN/579041/2026)	15/05/2026
10.	Karma Stone Deposit of M/S Karma Stone at Village: Karma, Anchal : Birni, District: Giridih, Jharkhand. (Area: 0.32 Ha) (Proposal no. SIA/JH/MIN/578115/2026)	19/05/2026
11.	Gosainpahari Stone Mine of M/S Karnika Mines Pvt Ltd at Village: Gosainpahari, Thana- Shikaripara, Thana No. 30, District- Dumka, State- Jharkhand., (Area: 2.335 Ha) SIA/JH/MIN/581372/2026	10/06/2026
12.	Kurunda Cluster Stone Mine of M/S Tridev Engicon Pvt Ltd at Village: Kurunda, Thana - Shikaripara, District- Dumka, State- Jharkhand., (Area: 2.42 Ha) SIA/JH/MIN/582447/2026	18/06/2026
13.	Kurunda Cluster Stone Mine of M/S ViraaJ Engicon Pvt Ltd at Village: Kurunda, Thana - Shikaripara, District- Dumka, State-	18/06/2026

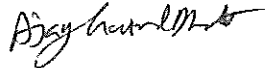
	Jharkhand., (Area: 2.48 Ha) SIA/JH/MIN/582399/2026	
14.	Aamchua Stone Mine of M/S Kalinga Minerals at Village: Aamchuwa, Thana - Shikaripara, District- Dumka, State- Jharkhand., (Area: 2.695 Ha) SIA/JH/MIN/582548/2026	18/06/2026
15.	Amchua Cluster Stone Mine of Mr. Rashid Akhtar at Village: Amchua, Thana: Shikaripara, District: Dumka, State- Jharkhand., (Area: 1.74 Ha) SIA/JH/MIN/582476/2026	18/06/2026
16.	Ordinary Soil Mining of M/s J. Kisan Bricks of Shri Jakir Hussain, at Mauza: Mirzapur-Sirasin, Thana: Barharwa, District: Sahibganj, Jharkhand. (Area- 0.8823 Ha) SIA/JH/MIN/582953/2026	25/06/2026
17.	Ordinary Soil Mining of M/s Sahara Brick (Proprietor Shri Mukim Akhtar), at Mauza: Sirasin - Kamalpur, Thana: Barharwa, District: Sahibganj, Jharkhand. (Area- 0.8259 Ha) SIA/JH/MIN/583324/2026	25/06/2026
18.	Ordinary Soil Mining of M/s Ajanta Bricks Field, Proprietor- Mukim Akhtar PropShri Mukim Akhtar, at Mauza: Sirasin, Thana: Barharwa, District: Sahibganj, Jharkhand. (Area- 1.187 Ha) SIA/JH/MIN/583684/2026	30/06/2026
19.	Tentoposi Stone Deposit of M/S Maa Banbhoori Devi Stone Crusher, Prop.- Sri Manish Agarwal at Village: Tentoposi, Tehsil- Saraikela, District: Saraikela-Kharsawan, Jharkhand. (Area- 1.821 Ha) SIA/JH/MIN/583457/2026	01/07/2026
20.	Mayapur Stone Deposit, Partner- Shri Taiyab Khan, at Village- Mayapur, Thana- Peterwar, District- Bokaro, (Jharkhand) (Area- 2.833 Ha) SIA/JH/MIN/582269/2026	03/07/2026
21.	Hutap Stone Deposit of Smt. Payal Kumari at Village- : Hutap, Anchal: Dumri, District: Gumla, Jharkhand. (Area- 1.749 Ha) SIA/JH/MIN/584123/2026	03/07/2026
22.	Mogalpara Brick Soil Mining at Village - Mogalpara, Thana - Mogalpara District- Sahibganj, Jharkhand (Area- 2.47 Ha) SIA/JH/MIN/583885/2026	03/07/2026

Hence, it is stated that SEIAA may write to JSPCB to provide the Environmental Safeguards within the time frame as prescribed in OM dated 14.01.2025. This matter may also be brought to the knowledge of the concerned authorities with a copy to the Nodal Officer as appointed by State Forest Deptt. for Compliance Reduction and Deregulation Phase II of Cabinet Secretariat, Govt. of India.

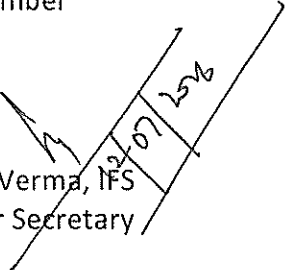


The meeting concluded with thanks to all present.

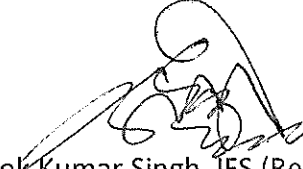
Ashok Kumar Dubey, IFS (Retd.)
Member


Dr. Ajay Govind Bhatt
Member


Niranjana Lal Agarwalla
Member


Srikant Verma, IFS
Member Secretary


Dr. Raju Kumar
Member


Ashok Kumar Singh, IFS (Retd.)
Chairman

12/07/2026

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. GodavermanThirumulpadv union of India and ors. The Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities 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.



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- ix. The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
- x. The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
- xi. The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-11013/57/2014-IAJI (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- xii. The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- xiii. A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- xiv. State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- xv. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change ([www. Environment clearance.nic.in](http://www.Environmentclearance.nic.in)). A copy of the advertisement may be forwarded to the concerned MoEF& CC Regional Office for compliance and record.
- xvi. The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation

- i. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical

parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2; CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCUI, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

- ii. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance: Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

III. Water quality monitoring and preservation

- i. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- ii. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- iii. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be



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submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

- iv. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
- v. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IAJI (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
- vi. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC annually.
- vii. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

- viii. The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

IV. Noise and vibration monitoring and prevention

- i. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- ii. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
- iii. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining Plan

- i. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
- ii. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.

- iii. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.

VI. Land reclamation

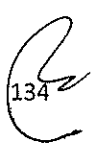
- i. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
- ii. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
- iii. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
- iv. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
- v. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
- vi. Catch drains, settling tanks and ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

- vii. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
- viii. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

VII. Transportation

- i. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
- ii. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.



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VIII. Green Belt

- i. The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
- ii. The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
- iii. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
- iv. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation, if any found or reported by the competent authority. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
- v. If any Wild Life Conservation Plan is prepared as per above clause no. iv, it shall be implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

IX. Public hearing and human health issues

- i. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which

are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.

- ii. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
- iii. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).
- iv. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be

presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.

- v. The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- vi. Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
- vii. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

X. Corporate Environment Responsibility (CER)

- i. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.
- ii. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.

XI. Miscellaneous

- i. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.

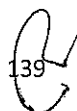
- ii. The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- iii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF& CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.
- iv. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
- v. The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
- vi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- vii. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- viii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- ix. The Environmental Clearance accorded shall be valid for the period of lease of the mine. The PP shall not increase production rate and alter lease area during the validity of Environmental Clearance
- x. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.



Environmental Safeguard provided by JSPCB

Environmental Safeguards: -

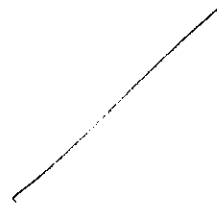
- 1) That, the occupier must provide a display board of adequate size (preferably not less than 1 m × 1 m) near the entrance of mines, mentioning the following details: -
 - a. Name of the Mines with Capacity.
 - b. Address and exact location of area with latitude and longitude of all corner points.
 - 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 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.
- 8) 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 JSPC Board.
- 9) That, the occupier shall do plantation in 3 rows in the safety barrier & enhance the density of the plantation by practicing the continued plantation.
- 10) That, the occupier shall keep their annual production within the capacity mentioned in the Environmental Clearance accorded to the Unit.



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- 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 PM₁₀ 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.



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.
- xl. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- xl. 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.
- xlvi. After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
- xlvi. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022 of MoEF&CC, Govt. of India.

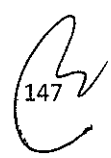


1. Statutory compliance:

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- vi. Solid waste/hazardous waste generated in the washery needs to be addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016.
- vii. Coal beneficiation practices shall be carried out under strict adherence to provisions of the Factories Act, 1957 and subordinate legislations made there under.

2. Air quality monitoring and preservation

- i. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16th November, 2009 shall be complied with.
- ii. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.
- iii. Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement

and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.

- iv. Transportation of coal by road shall be carried out by covered trucks/conveyors. The transportation of clean coal and rejects shall be by rail with wagon loading through silo. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulates such as roads, belt conveyors, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled at source. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board
- v. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.
- vi. Covered trucks shall be engaged for mineral transportation outside the washery upto the railway siding, shall be optimally loaded to avoid spillage en-route. Trucks shall be adequately maintained and emissions shall be below notified limits.
- vii. Facilities for parking of trucks carrying raw material from linked mine shall be created within the unit.
- viii. Vehicular emissions shall be kept under control and regularly monitored. The vehicles having 'PUC' certificate from authorized pollution testing centres shall be deployed for washery operations.
- ix. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.
- x. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.
- xi. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

3. Water quality monitoring and preservation

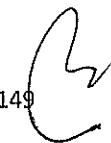
- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for compliance.
- iii. Industrial waste water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time.

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- iv. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side stabilised with plantation so as to withstand the peak water pressure preventing any chance of inundation.
- v. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.
- vi. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run off from reject dumping sites.
- vii. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake etc. with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.
- viii. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.
- ix. Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resources in consultation with Central Ground Water Board.
- x. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m³/tonne of raw coal.
- xi. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- xii. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
- xiii. The project proponent shall take all precautionary measures to ensure riverine/ riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

4. Noise and Vibration Monitoring and Prevention

- i. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises,

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and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

- ii. Adequate measures shall be taken for control of noise levels as per noise pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

5. Coal beneficiation

- i. Coal stacking plan shall be prepared separately for raw coal, clean coal, middling and rejects.
- ii. Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

6. Green Belt

- i. Three tier greenbelt comprising of a mix of native species, of minimum 30 m width shall be developed all along the washery area to check fugitive dust emissions and to render aesthetic to neighbouring stakeholders. A 3-tier green belt comprising of a mix of native species or tree species with thick leaves shall be developed along vacant areas, storage yards, loading/transfer points and also along internal roads/main approach roads.
- ii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

7. Public Hearing and Human Health issues

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six- monthly basis.
- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any. as amended time to time.
- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.



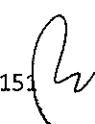
- v. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

8. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental/forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry / Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

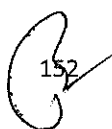
9. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels) or critical sectoral parameters, indicated for the projects

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and display the same at a convenient location for disclosure to the public and put on the website of the company.

- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form- V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIAJEMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made.
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- xvii. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.



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

- i. An EIA-EMP Report shall be prepared for.....MTPA peak rated capacity in a mining lease (ML) area of ha based on the generic structure specified in Appendix-III of the EIA Notification, 2006.
- ii. The cover page of the EIA report shall consists of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with reference of QCI/NABET/NABL accreditation certificate.

Introduction about the project:

- i. Details regarding project capacity (peak rated capacity in MTPA) and mining lease area (ha), details regarding project proponent and project location (including coalfield / coal block & geographical location), significance/need of the project and coal linkage.
- ii. Details of mine plan and mine closure plan approval from Competent Authority should be furnished for green field and expansion projects. Reference of the Vesting Order should also be provided.
- iii. Details of the chronology of past EC regarding the project and its implementation status (in case of expansion proposals) shall be provided

Project Details and Description

- i. Details w.r.t location of the project - Coordinates w.r.t the mining lease boundary (including kml in polygon format) to be provided and submitted as location plan. A toposheet depicting the core zone (mine infrastructural area) and buffer zone (10 kms radius from periphery of the core zone) on 1:25,000 scale. (including all eco-sensitive areas and environmentally sensitive places)
- ii. Details of sensitive environmental receptors (habitation / school / river or water body / forest / areas of archaeological significance, etc.) within 10 kms from the periphery of the core zone shall be provided. Details w.r.t need for diversion of water body / road / railway / transmission lines to be indicated.
- iii. Details of mineral reserves, geological status of the mining lease area and the seams to be worked, ultimate working depth, gassiness of seams to be worked and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved peak rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and section should be included.
- iv. Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts on air quality, noise & vibration on account of mineral transportation, coal handling & storage/stockyard, etc. should be provided. Details

- w.r.t manpower engaged in the project shall also be included.
- v. Submission of sample test analysis of characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, sulphur and heavy metals including levels of Hg, As, Pb and Cr.
 - vi. Details w.r.t utilities required for the project including power, fuel, water supply, including source of the utilities.
 - vii. Details w.r.t infrastructural facilities planned as a part of the project including incline, ventilation shafts, CHP, ETP, Stockyard, township/colony, magazine, etc.
 - viii. Project proponent should clearly show the transport route & details of transportation route (*viz.* Type of road, width of road, Pavement Condition Index, V/C of road etc.) of the mineral and protection and mitigative measures to be adopted while transporting the mineral. The coal or lignite evacuation facility should be through conveyor or railway or any environmentally friendly transport other than road transport from mine sites to the railway siding for projects with PRC more than 2 MTPA, as per new Guidelines for preparation of Mining Plan and Mine Closure Plan from MoC dated 31.01.2025. Also, preference to be given to eliminate road transport by adopting environment friendly transport of coal evacuation and opt for mechanized loading for projects with peak rated capacity even upto 2 MTPA.
 - ix. A detailed site plan of the mine showing the proposed break-up of the land for mining operations such as the mine entries / incline, UG seams and panels, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area-if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification thereof in terms of construction of embankments/bunds, proposed diversion/re-channeling of the water courses, etc., approach roads, etc. should be indicated.
 - x. Project proponent shall submit the drone video & geo-tagged photographs of mine lease area to be mined, including infrastructural area and proposed transportation route.
 - xi. It must be endeavored to locate the mine inclines and ventilation shafts at least 100 m from habitations. In case such 100 m buffer is not possible, justification for the same shall be provided. Project proponent should ensure that no forestland is diverted to the extent feasible for setting up of the mine infrastructure facilities.
 - xii. Original land use (agricultural land/ forest land (*if applicable*) /grazing land/waste land/water bodies) of the area should be provided as per the tables given below. Impacts of project, if any on the land use, in particular, agricultural land/forestland/grazing land/water bodies falling within the mining lease area, acquired for mining operations should be analyzed. Extent of area under surface rights and mining rights should be specified. A map depicting the same shall also be submitted.

Pre-Mining Land use



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Sl. No.	ML/Project Land- use	Area under Surface Rights only (ha)	Area under Mining Rights (ha)	Area under Both / All Rights (ha)
1.	Agricultural Land			
2.	Forest Land			
3.	Grazing Land			
4.	Settlements			
5.	Water bodies			
5.	Others(specify)			
	TOTAL			

Break-up of Area under Surface Rights only

Sl. No.	Details	Area (ha) under Surface Rights only
1.	Buildings	
2.	Infrastructure	
3.	Roads	
4.	Water bodies	
5.	Others(specify)	
	Total	

Land Use during Mining Phase

Sl. No.	Details	Area under Surface Rights only (ha)			Area under Mining Rights [beneath surface] (ha)			Area under Both /All Rights (ha)		
		Forest Land	Non-forest land	Total	Forest Land	Non-forest land	Total	Forest Land	Non-forest land	Total
1	UG Extraction / Working area (beneath surface)									
2	Industrial Infrastructure (Mine entry /									

	incline, stockyard / siding / magazine, etc.)									
3	Other infrastructure (office buildings, utilities, treatment plants, colony etc.)									
4	Roads									
5	Greenbelt									
6	Water body									
7	Undisturbed/ vacant area / safety zone									
	TOTAL									

In case of expansion proposals, the above table must be provided for

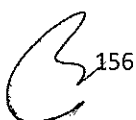
- (1) Present land use as per existing EC and
- (2) Proposed land use in terms of expansion proposal

Land Use Status - Post Mining Phase

Sl. No.	Details	Plantation	Water Body	Public Infrastruc- ture	Un- disturbed areas	Subsided Area	Total
1.	UG Extraction / Working area (beneath surface)						
2.	Industrial Infrastructure (Mine entry / incline,						
3.	stockyard / siding / magazine, etc.)						
4.	Other infrastructur e (office						





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	buildings, utilities, treatment plants, colony etc.)						
5.	Roads						
6.	Green belt						
7.	Water body						
8.	Undisturbed / vacant area / safety zone						
9.	Total						

In case of expansion proposals, the above table must be provided for

- (1) Post mining land use as per existing EC and
- (2) Proposed post mining land use in terms of expansion proposal

- xiii. A list of major industries within study area (10 km radius from the periphery of the core zone) with name, products manufactured and distance from core zone and the location of the industries shall be depicted in the study area map.

Baseline Data Generation

- i. A study area map of the core zone (mine infrastructure area) and 10 kms area (1:50,000 scale), from the periphery of core zone, clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nallahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources shall be prepared.
- ii. In case of ecologically sensitive areas such as ESZ/ESA/National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve/Tiger Corridor/ Elephant Corridor are found to be within 10 kms from the boundary of the mining lease, the nearest distance from such sites should be duly certified by Chief Wildlife Warden (CWW) and the same shall be included in the EIA/EMP report.
- iii. The environmental baseline data collection shall be of three months' period and can be for any season except monsoon season, as per the below table:

Attributes	Sampling, Frequency and Remarks
A. Air Environment	
Micro-Meteorological	Minimum 1 site in the core zone Hourly continuous data shall be

• Wind speed (Hourly) • Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover	recorded The sampling shall be as per: • IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, CPCB guidelines to be considered. Project proponent has to plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study.
Pollutants Core Zone: 4 parameters as per Coal Mines, GSR 742 (E) dated 25.09.2000 Buffer zone: 12 parameters as per NAAQS, 2009	Collection of one season (90 days) AAQ data (except in monsoon season) To be monitored at 10 locations (2 locations within the core zone and 8 locations in the buffer zone) Monitoring stations in the core zone as well as buffer zone should be based on pre-dominant wind direction, habitations and terrain features. The direction and distance of monitoring stations with respect to project location should be clearly specified with geo-coordinates. The monitoring stations should cover upwind, downwind, cross wind directions, human settlements and sensitive areas. Sampling and report preparation should be as per: • National Ambient Air Quality Standards, CPCB Notification and Standards for Coal Mines, GSR 742 (E) dated 25.09.2000. • Sampling as per CPCB guidelines • 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. • Summary of the air quality along with predicted values of air

	pollutants should be provided in the EIA Report. NABL accredited laboratory
B. Noise	
Noise levels	To be monitored at 6 locations (2 locations within the core zone and 4 locations in the buffer zone) Noise levels at outer limits of the core zone during daytime and night time and noise levels within 1 to 3 kms from the core zone & coal transportation route especially at habitation should be monitored. The monitoring locations for sampling shall be selected as per the sources and magnitude of noise pollution. Sampling and report preparation as per: - As per CPCB norms and Standards for Coal Mines, GSR 742 (E) dtd 25.09.2000. - NABL accredited laboratory Summary of the noise level should be provided in the EIA Report.
C. Water	
For Surface Water - Arsenic - BOD - Cadmium - Chlorides - Copper - Dissolved Oxygen - Fluoride - Hexavalent Chromium, - Iron - Lead - Nitrate - pH value - Phenolic compounds - Selenium - Sulphate - Total Dissolved Solids - Total Suspended Solids - Zinc	Upstream and downstream sampling of all the relevant surface water bodies (minimum 6 locations) in the core and buffer zone shall be carried out. Samples for water quality should be collected and analysed as per: - Designated best use water quality criteria, CPCB - NABL accredited laboratory - Standard methodology for collection of surface water (BIS standards)

Any other relevant parameters	
For Ground Water Relevant parameters as per BIS: 10500 (latest edition)	Ground water monitoring data should be collected at minimum of 6 locations (from existing wells /tube wells) from the core and buffer zone shall be included. Samples for water quality should be collected and analysed as per: - NABL accredited laboratory - Standard methodology for collection of ground water (BIS standards) - Summary of surface and ground water quality should be provided in the EIA Report.
D. Soil Environment	
Soil - Texture - pH - Electrical conductivity - Cation exchange capacity	Sampling shall be done at various type of soils (agriculture/forest/barren etc.) within the core and buffer zone (across minimum 5 locations). Samples for soil should be collected and analysed as per: NABL accredited laboratory
- Sodium Absorption Ratio (SAR) - Water holding capacity - Permeability - Available NPK - Available Organic Carbon	- Standard methodology for collection of soil samples - ICAR standards for available NPK to be followed.
E. Land Use	Land use based on Digital Survey of entire study area (including core and buffer zone) using Satellite Remote Sensing survey (1:50000)
F. Biological Environment	
Flora (both aquatic* and terrestrial) - Vegetation-species list, economic importance, forest produce, medicinal value - Importance value index (IVI) of trees - Diversity indices - Rare and endangered species	Detailed description of flora and fauna (terrestrial and aquatic) existing in the core and buffer zone shall be given with special reference to rare, endemic and endangered species. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result into any adverse effect on any species.

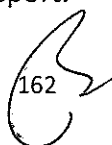
*Aquatic assessment requirement in case of proximity of ML area to river / perennial nallah.	Secondary data to be collected from Government offices, NGOs, published literature.
Fauna (both aquatic* and terrestrial) • Enumeration of zoo plankton and benthos • Fisheries • Diversity indices • Rare and endangered species • Avi fauna • Details of Sanctuaries / National Park / • Biosphere reserve Migratory routes/CRZ/ Marine Parks *Aquatic assessment requirement in case of proximity of ML area to river / perennial nallah.	
G. Socio-Economic	
• Demographic structure, traditional skills, sources of livelihood • Socio-economic profile of the people with in 2, 5 and 10 km from the core zone.	• Measures for occupational health and safety of the manpower in the mine should be given.
• Human settlement, health status, sources of livelihood • Data relating to historically, culturally and ecologically important places in core as well as buffer areas • Information on notified tribal settlements, if any • Infrastructure resource base • Health status: Morbidity pattern • Education	• Socio-economic survey shall be based on proportionate, stratified and random sampling method. • Primary data collection through questionnaire • Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. Agencies

- iv. Map (1:50,000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided.
- v. A contour map showing the area drainage of the core zone and surrounding 10 kms radius should be depicted such as to clearly indicate the water courses and the location where they ultimately join with major rivers / streams.

- vi. The data generated should be validated through secondary data sources / published literature (example - routine environmental monitoring or CAAQMS, CEQMS data (if available) for mines/projects in vicinity).
- vii. Summary of the baseline environmental data and inference w.r.t cause of deviations in concentrations of environmental parameters.

Impact assessment and mitigation measures Air

- i. In case of expansion proposals, Cumulative Environmental Impact Assessment study of all the existing and proposed projects in the 10 kms radius of the core zone area shall be conducted and the same shall be included in the EIA/EMP report. Details of industrial units present in 10 kms radius of the core zone shall be earmarked in map and submitted.
- ii. The impact of construction (particularly if constructed in forest land) and associated mitigation measures must also be provided.
- iii. In case of proximity of mining infrastructure to habitation/water bodies, adequate safety measures should be provided as per the Coal Mining Regulations, 2017 and DGMS circulars issued from time to time and environmental protection measures like wind barriers, Vertical Greenery System (VGS), avenue/buffer plantation, etc.
- iv. Impacts of mineral handling & transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided, especially w.r.t impact on habitation in case of transportation through village roads. Impacts of generation of effluents from workshop, sewage, etc. & management plan for maintenance of machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- v. Air quality modelling should be carried out for prediction of impact of the project on air quality of the area. It should *inter alia* take into account the emissions from DG sets if any, impact of movement of vehicles for transportation of coal. The details of the model used and input parameters 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 habitations. The wind roses showing pre- dominant wind direction may also be indicated on the map.
- vi. The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding should be provided and details w.r.t frequency of their use/operation to ensure efficient mitigation in terms of air quality should be provided.
- vii. Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.
- viii. Project proponent shall explore feasibility for transitioning towards adoption of EVs and eco-friendly mode of transport.



Noise

- i. Measures for noise control in the work zone and surrounding areas should be provided. All the DG sets should have proper acoustic measures to reduce noise pollution.

Water

- i. Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime (both dynamic and static resources) within the core zone and 10 kms buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater in the buffer zone should be reflected. Necessary mitigation measures w.r.t quality of mine water, treatment, utilization and discharge of mine water must be provided.
- ii. Treatment facility should be based on mine water characteristics and domestic waste water characteristics.

Hydrogeology

- i. Impact of proposed project/activity on hydrological regime of the area shall be assessed and report be submitted. Hydrological studies as per GEC 2015 guidelines to be prepared and submitted.
- ii. Detailed water balance should be provided (breakup of water requirement as per different activities in the mining operations, including for sand stowing). Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.
- iii. In case of need for river/nallah diversion, impact assessment and proper mitigation plan is required; diversion plan approved by competent authority is to be submitted.

Land

- i. Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre-mining status to the extent possible should be provided and submitted with detailed cost provisions.
- ii. The details regarding Progressive Mine Development and Conceptual Final Mine Closure Plan should also be provided and shown in plans/drawings.
- iii. The project proponent shall prepare comprehensive plantation plan including number of saplings to be planted, location of plantation, target for survival rate and budget all along the periphery of mine infrastructure. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling should be provided. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. The plantation plan should cover areas other than core zone.
- iv. Project proponent is advised to submit an action plan towards implementation of the 'Ek Ped Maa Ke Naam' Campaign which was launched on 5th June 2024 on

the occasion of the World Environment Day to increase the forest cover across the Country. This plantation drive is other than green belt development. The action in this regard shall be submitted concerned RO in six monthly report.

Flora & Fauna

- i. If the study area (core and buffer zone) has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 10 kms of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.

Waste Management

- i. Quantification of solid and hazardous wastes, including corresponding impacts and management plan to be provided.
- ii. Project proponent shall submit the action plan to adhere to the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.

Additional studies

- i. Risk assessment and management as per the Coal Mining Regulations, 2017 and other applicable statutes must be summarized in the EIA/EMP report. Measures for addressing occupational health and safety risks of the personnel and manpower engaged in the mine should be submitted in line with work zone regulations. The risk assessment studies must be undertaken by qualified institutes engaged in mine planning projects and the detailed report may be attached as annexure to the EIA/EMP report. These studies may be aligned with DGMS norms.
- ii. Study on subsidence including modelling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out from reputed institutes equipped for the same. The subsidence study should *interalia* include seismic characteristics of the location of the project site. Summary of the same along with the mitigation measures should be included in the EIA/EMP report and detailed report should be attached as Annexure.
- iii. Traffic assessment study to be done considering transportation of coal from the coal stockyard either upto siding or upto nearest public transport route/highway. Adequacy of existing roads, impact due to additional traffic and proposed management / mitigation measures to be provided.
- iv. In case of diversion of power line / transmission lines / railway line / roads – the impact assessment of such diversions and corresponding mitigation proposed in line with the permissions/NoC obtained from the competent Authority shall be provided.
- v. Assessment of carbon emission intensity of the project should be summarized in the EIA/EMP report including measures to reduce the same in line with GoI NDC commitments / SDGs should be provided. The detailed report may be

attached as an annexure to the EIA/EMP report.

- vi. Details w.r.t R&R plan should be summarized in the EIA/EMP report. Detailed project specific R&R Plan with data on the existing socio- economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc. and costs along with the schedule of the implementation of the R&R Plan should be given as annexure to the EIA/EMP report.
- vii. In case the project is located either in Critically Polluted Area or in Severely Polluted Area, the proponent must submit additional action plan to address environmental safeguards as per OM dated 31st October, 2019 (Ref. F. No. 22-23/2018-IA.III (Pt)).
- viii. Signed copy of complete Public Hearing Proceedings (forwarding letter to MoEF&CC by SPCB, notice issued in newspaper for PH, PH MoM, Attendance sheet, PH photographs, written representations received during public hearing and written communication submitted, notarized copy of English translation of PH proceeding including written representation and response submitted) to be enclosed as Annexures to the EIA/EMP report.
- ix. Action plan duly addressing the issues raised during the Public Hearing and Consultation with physical and financial outlay as per Ministry's OM dated 30.09.2020 shall be included as per the table given below:

Proposed Activities under Public Hearing	Place of Implementation (Physical targets)	Year wise financial outlay in, Rs. Lakhs					
		Year - 1	Year - 2	Year - 3	Year - 4	Year - 5	Total

Environmental Management Plan

- i. Summary containing mitigation measures to be adopted for each environment component during development and operation phase of UG coal mining shall be submitted.
- ii. Details of the Environment Management Cell
- iii. Performance monitoring of pollution control devices and Effluent Treatment Plant shall be furnished.
- iv. Cost of Environmental Management Plan (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- v. Corporate Environment Policy:
 - a. The Company must have a well laid down Environment Policy approved by the Board of Directors.

- b. The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements /deviation/violation of the environmental or forest norms/conditions.
 - c. The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
 - d. To have proper checks and balances, the company should have a well laid down 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.
- vi. In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.

Environmental Monitoring Plan

- i. Details w.r.t environmental monitoring plan in terms of air (including fugitive emissions), noise, water, soil to ensure effectiveness of mitigation measures deployed shall be provided
- ii. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

Project Benefits

- i. Details regarding benefits of the project w.r.t improvements in physical and social infrastructure, employment potential and other tangible benefits to be provided.

Legal and statutory approvals and details w.r.t litigations

- i. Status of any litigations/ court cases filed/pending on the project should be provided in below format

S. No.	Name of the Court/Tribunal	Name of the specific Court/ Bench	Case Category	Status of court case	Orders/Directions of the court, if any, and its relevance with the proposed project

- i. Copy of clearances/approvals such as Forestry Clearance, Mining Plan / Mine Closure Plan approval, NOC from CGWA, NOC from Flood and Irrigation Dept. (if req.), NBWL, NTCA, etc. wherever applicable.
- ii. Details on the Forestry Clearance (*if forest land is involved*) should be given as per the format given:

Total ML	Total	Status w.r.t FC	Status w.r.t balance Forest Land
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/Project Area (ha)	Forest Land (ha)	received			
		Date of FC	Extent Of Forest Land	Balance area For which FC is yet to be obtained	Status of appl. For diversion of forest land

- iii. In case of expansion proposals, Certified Compliance Report (CCR) from RO, MoEF&CC is required to be submitted.
- iv. Necessary coordination shall be made with concerned SPCB (who is responsible for Compliance of OM dated 14.01.2025) regarding streamlining the implementation of GSR 702 and GSR 703 dated 12.11.2024 through which projects requiring prior EC were exempted from requirement of CTE.
- v. In case of diversion of water body / road / railway lines / transmission line, approval for the same from competent authority must be submitted.

Summary and conclusion

- i. An executive summary of the report covering key findings of EIA/EMP study are to be provided.

Details regarding consultant and laboratories engaged

- i. It should be ensured that only NABET-accredited consultants shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that the accreditation of the consultant is valid during the collection of baseline data, preparation of EIA/EMP report and the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and the PP and consultant are fully accountable for the same.
- ii. Project proponent shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.
- iii. 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.

Regarding approval of 133rd MOM of SEAC held from 08 - 12.07.2026

Wed, Jul 15, 2026 at 4:51 PM

ashok kumar dubey <ashokrndubey@gmail.com>
To: Member Secretary SEAC <seac.jhk@gmail.com>

Sir,

Acknowledge receipt of the Minutes of the 133rd meeting of SEAC held from 08th July, 2026 to 12th July, 2026 in which i have joined the meeting in virtual mode on 09th , 11th & 12th July, 2026.

I have reviewed the document in detail and find it to be an accurate record of the proceedings and decisions taken. Accordingly, I hereby convey my approval of the Minutes without any modifications.

Please place this communication on record and circulate the approved Minutes to the concerned at your earliest convenience.

Faithfully yours
Ashok Kumar Dubey
Member SEAC
[Quoted text hidden]

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15/07/26

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