MINUTES OF THE 135TH MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 23RD, 24TH , 25TH, 26TH, 27TH, 28TH AND 29TH SEPTEMBER, 2026.

The 135th meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 23rd, 24th, 25th, 26th, 27th 28th and 29th September, 2026 under the Chairmanship of Shri Ashok Kumar Singh, IFS (Retd.) in the Conference Room at SEAC, Ranchi.

The following members were present:

1. Shri Ashok Kumar Singh, IFS (Retd.) - Chairman
2. Shri Niranjan Lal Agarwalla - Member (Virtual Mode on 23rd, 26th to 29th)
3. Dr. Raju Kumar - Member
4. Shri Ashok Kumar Dubey, IFS (Retd.) - Member (Not present)
5. Dr. Ajay Govind Bhatt - Member
6. Shri Srikant Verma, IFS - Member Secretary

The various projects applied in SEAC for the technical appraisal after the last SEAC meeting held on 23rd, 24th, 25th, 26th and 27th August, 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 : 23rd September, 2026 [Wednesday]

A. Matter related to :

i. Letter F. no. IA-Z-12011/22/2026-IA-I, dated 15.07.2026 from Ministry of Environment, Forest & Climate Change, Govt. of India regarding Public Grievance (PG) Ref. No. MOEAF/E/2026 /0000630, dated 06.02.2026 received in the Ministry from Md. Khalil Ansari.

This matter is related to Dongodih Stone Deposit of Shri Sharwan Yadav, Village : Dongodih, Tehsil : Jamua, Distt. : Giridih, Jharkhand (0.931 Ha).

This matter was considered in the 133rd meeting of SEAC held on 08th, 09th, 10th, 11th and 12th July, 2026.

A letter has been issued by Member Secretary, SEAC to Shri Sharwan Yadav vide letter no. 89, dated 20.08.2026 with direction to provide the Action Taken Report (ATR) in compliance of Certified Compliance Report (CCR) issued by Regional Office, Ranchi, MoEF&CC, Govt. of India vide letter no. F.No. 111-31/ROR-2026/314, dated 12.06.2026.

In response to the above letter, the Project Authority have sent Action Taken Report (ATR) via e-mail dated 03rd September, 2026 to SEAC.

On perusal of above ATR it is observed that suitable evidence have not been provided against the EC condition which has been referred to in the ATR serial no. 1, 4, 5, 6, 7, 8, 9, 14, 16, 17, 18 and 20.

As suitable and conclusive evidences have not been provided against the above ATR serial numbers, The Member Secretary, SEAC will issue a final show cause notice to Project Authorities to provide suitable and conclusive evidences within 15 days of receipt of show cause letter failing which a suitable and necessary action shall be recommended to SEIAA without any further reference to the PAs.

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ii. **E-mail dated 03.09.2026 from Shri Shailendra Kumar Mehta w.r.t. Jugra Stone Mine of M/s Maa Jagdamba Stone Works (Partners : Shri Shailendra Kumar Mehta & Shri Baleshwar Saw), Village : Jugra, Thana : Barkagaon, Distt. : Hazaribagh, Jharkhand (1.72 Ha) (Proposal no.: SIA/JH/MIN/ 506404 /2025)**

A letter has been issued by Member Secretary, SEAC to Shri Shailendra Kumar Mehta vide letter no. 76, dated 20.08.2026 with direction to provide the six monthly compliance report with appropriate reply and evidences of the compliance of the EC conditions.

In response to the above letter, the Project Authority have re-submitted the same six monthly compliance report as provided earlier without suitable reply and evidences of the compliance of the EC conditions via e-mail dated 03rd September, 2026 to SEAC.

Therefore, the Committee is of the view that the Member Secretary, SEAC will issue a final show cause notice to Project Authorities to provide suitable reply and conclusive evidences of implementation of the EC conditions within 15 days of receipt of show cause letter failing which a suitable and necessary action shall be recommended to SEIAA without any further reference to the PAs.

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iii. **Letter dated 25.08.2026 from Shri Rohan Kashyap, Advocate, Jharkhand High Court, Ranchi regarding :**

a) **Md. Najimuddin, Mauza : Dhowadangal, Distt. : Pakur (3.50 Acre / 1.42 Ha.)**

In response to the legal notice of Shri Rohan Kashyap, Advocate, Jharkhand High Court, Ranchi dated 25.08.2026 regarding issuance / pendency of environmental clearance under B1 category it is stated as follows :

1. The ToR was issued vide letter no. EC/SEIAA/2024-25/3178/2024/230, dated 16.08.2024 on the basis of letter from DMO, Pakur made vide memo no. 605/M, dated 13.05.2024 (**copy enclosed**), online application submitted by Project Authority on PARIVESH Portal and existence of valid lease.
2. Further as communicated to SEIAA / SEAC by Deputy Commissioner, Pakur vide memo no. 462/M dated 29.03.2025 that the lease to above mentioned project has been cancelled.
3. In view of the above, the ToR issued vide letter no. EC/SEIAA/2024-25/3178/2024 /230, dated 16.08.2024 has become infructuous / invalid. Furthermore, no such matter of issuance of EC under B1 category is applied on PARIVESH Portal / nor pending before SEIAA.
4. The EC can be considered only if a valid lease or LoI is in existence to the project under consideration.

It is recommended to SEIAA to reply to the Advocate accordingly.

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b) **Shri Abhinash Kumar Bhagat, Mauza : Baliapatra, Distt. : Pakur (5.79 Acre / 2.34 Ha.)**

In response to the legal notice of Shri Rohan Kashyap, Advocate, Jharkhand High Court, Ranchi dated 25.08.2026 regarding issuance / pendency of environmental clearance under B1 category it is stated as follows :

1. The ToR was issued vide letter no. EC/SEIAA/2024-25/3184/2024/185, dated 08.08.2024 on the basis of letter from DMO, Pakur made vide memo no. 600/M, dated 13.05.2024 (**copy enclosed**), online application submitted by Project Authority on PARIVESH Portal and existence of valid lease.
2. Further as communicated to SEIAA / SEAC by Deputy Commissioner, Pakur vide memo no. 470/M dated 29.03.2025 that the lease to above mentioned project has been cancelled.

3. In view of the above, the ToR issued vide letter no. EC/SEIAA/2024-25/3184 /2024 / 185, dated 08.08.2024 has become infructuous / invalid. Furthermore, no such matter of issuance of EC under B1 category is applied on PARIVESH Portal / nor pending before SEIAA.
4. The EC can be considered only if a valid lease or LoI is in existence to the project under consideration.

It is recommended to SEIAA to reply to the Advocate accordingly.

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c) **M/s Manoj Stone Works, Mauza : Talpahari, Distt. : Pakur (6.28 Acre / 2.54 Ha.)**

In response to the legal notice of Shri Rohan Kashyap, Advocate, Jharkhand High Court, Ranchi dated 25.08.2026 regarding issuance / pendency of environmental clearance under B1 category it is stated as follows :

1. The ToR was issued vide letter no. EC/SEIAA/2024-25/3177/2024/218, dated 13.08.2024 on the basis of letter from DMO, Pakur made vide memo no. 603/M, dated 13.05.2024 (**copy enclosed**), online application submitted by Project Authority on PARIVESH Portal and existence of valid lease.
2. Further as communicated to SEIAA / SEAC by Deputy Commissioner, Pakur vide memo no. 460/M dated 29.03.2025 that the lease to above mentioned project has been cancelled.
3. In view of the above, the ToR issued vide letter no. EC/SEIAA/2024-25/3177/2024/ 218, dated 13.08.2024 has become infructuous / invalid. Furthermore, no such matter of issuance of EC under B1 category is applied on PARIVESH Portal / nor pending before SEIAA.
4. The EC can be considered only if a valid lease or LoI is in existence to the project under consideration.

It is recommended to SEIAA to reply to the Advocate accordingly.

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d) **M/s Four Star Stone Works, Mauza : Mansinghpur & Pratappur, Distt. : Pakur (6.55 Acre / 2.65 Ha.)**

In response to the legal notice of Shri Rohan Kashyap, Advocate, Jharkhand High Court, Ranchi dated 25.08.2026 regarding issuance / pendency of environmental clearance under B1 category it is stated as follows :

1. The ToR was issued vide letter no. EC/SEIAA/2024-25/3180/2024/231, dated 16.08.2024 on the basis of letter from DMO, Pakur made vide memo no. 602/M, dated 13.05.2024 (**copy enclosed**), online application submitted by Project Authority on PARIVESH Portal and existence of valid lease.
2. Further as communicated to SEIAA / SEAC by Deputy Commissioner, Pakur vide memo no. 456/M dated 29.03.2025 that the lease to above mentioned project has been cancelled.
3. In view of the above, the ToR issued vide letter no. EC/SEIAA/2024-25/3180/2024/ 231, dated 16.08.2024 has become infructuous / invalid. Furthermore, no such matter of issuance of EC under B1 category is applied on PARIVESH Portal / nor pending before SEIAA.
4. The EC can be considered only if a valid lease or LoI is in existence to the project under consideration.

It is recommended to SEIAA to reply to the Advocate accordingly.

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

i. Bishanpur Stone Deposit Project of Sri Pawan Kumar Tanwani at Vill – Bishanpur, Thana – Pakur, Dist – Pakur, Jharkhand (1.26 Ha)
ii. Ramnathpur Stone Deposit of Shri Rajesh Kumar Kalwar & Others, Village : Ramnathpur, Thana : Malpahari, Distt.: Pakur, Jharkhand (2.301 Ha).
iii. Malpahari & Bishunpur Stone Mine of M/s J.R. Stone Works at vill- Malpahari & Bishunpur, Taluka- Pakur, Dist- Pakur, Jhk (2.764 Ha).
iv. Bhuska Stone Deposit Project of Sri Suresh Kumar Tanwani, Village – Bhuska, Thana : Pakur, Dist – Pakur, Jharkhand (2.54 Ha)
v. Bhuska Stone Deposit Project of Sri Piyush Tanwani at Vill – Bhuska, Tehsil – Pakur, Dist – Pakur, Jharkhand (2.20 Ha)
vi. Dumrikalan Stone Mine of M/s Maa Bhawani Stone Works (Prop. : Shri Sudhansu Ranjan),

Village : Dumrikalan, Thana : Hunterganj, Distt. : Chatra, Jharkhand (1.258 Ha.).

vii. Rano Stone Mine of M/s Jai Shankar Stone Mines, Mouza : Rano, P.S. : Hunterganj, Dist. : Chatra, Jharkhand (2.82 Ha)

viii. Hosil Stone Mine of M/s Chataniya Mines (Partners : (i) Shri Mukesh Kumar (ii) Shri Uday Kumar Verma (iii) Shri Uday Kumar Sharma), Village : Hosil, Thana no. : 160, Thana : Vashishth Nagar, Distt. : Chatra, Jharkhand (2.98 Ha).

ix. Bekchuri Stone Deposit of Partner : Shri Sanjay Bharti & Others, Village : Bekchuri, Anchal : Taljhari, Distt. : Sahibganj, Jharkhand (2.02 Ha).

x. Amdanda Pahar Stone Mine of M/s K.P. & G. Sons (Partner : Shri Vishal Makhija), Village : Amdanda Pahar, P.S. : Pathna, Distt. : Sahibganj, Jharkhand (3.17 Ha).

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

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

i. Details of all applicable statutory clearances and its copies are not given.

ii. Sufficient detail about training and information on safety and health aspects not provided.

iii. Name and number of PPEs used and evidence ensuring its use by worker is poorly detailed.

iv. Number of trees planted including those planted under *"Ek Ped Ma Ke Naam"* are not clearly defined. In many cases no evidence given in form of the photographs.

v. Details about water sprinkling in terms of tanker capacity and number of times water is sprayed is not given.

vi. Details missing about number of vehicle in operation and their maintenance schedule.

vii. Details about location and number of OB dumps not provided.

viii. Sources of Air Pollution and compaitable dust suppression measures not given in sufficient detail.

ix. Occupational health check up- Summary of findings of health test reports for new joinees and periodical reports for existing workers is not provided. Sample Test report of selected employees is also not attached.

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

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

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

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

xiv. Environment management cell – organogram not given.

xv. Submission of 6 monthly compliance report in timely manner- No evidence provided.

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

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

The replies so received will be further examined.

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Day 2 & 3 : 24th & 25th September, 2026 [Thursday & Friday]

A. Site visit report to Noamundi Township of M/s Tata Steel Limited, Village : Mahudi, Tehsil : Noamundi, Distt.: West Singhbhum, Jharkhand.

The Project Authorities, in the 134th meeting of SEAC, had submitted documented evidence of implementation of Remediation Plan & Natural and Community Resource Augmentation Plan as per EC letter no. EC/SEIAA/2022-23/2770/2023/251, dated 01.09.2023.

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

As per Environmental Clearance letter no. EC/SEIAA/2022-23/2770/2023/251, dated 01.09.2023, the Remediation Plan & Natural and Community Resource Augmentation Plan was as follows :-

Sl. No	Particulars	Cost (In Lakhs)
1	Air Environment	15,00,000.00
2	Energy Conservation	50,00,000.00
3	Socio Economic Environment	19,18,750.00
Total Cost		**84,18,750.00**

The utilization of the funds is done by the Project Authoritites as per the above mentioned Remediation Plan & Natural and Community Resource Augmentation Plan and provided an affidavit certifying the same.

The details of the utilization as evidence during the site visit is as follows :

Sl. No	Particulars	Activities	Remarks	Cost (In Lakhs)
1	Air Environment	i. Mini Sweeping machine	Sweeping machine working outside township road nearby Mahudi Village for community purpose was witnessed and a letter from Munda of Mahudi village certified the same.	15,00,000.00
		ii. Avenue plantation	Roadside Avenue plantation from Kutingta (Primary School) to Todetopa (Reliance Petrol Pump) covering approximately 3000 running meters. A total of 480 trees are planted and the same was witnessed. Tree species includes Karanj, Arjun, Mahogany, Bakain, Gulmohar, Peltophorum, Lagerstroemia, Babul, Siris, Neem, etc.	
2	Energy Conservation	i. Solar lighting	Total 6 Nos. of solar based lighting arrangement has been installed at Noamundi Basti, Sarbil & Mahudi was witnessed during the site inspection. Letter issued by Sarpanch of Noamundi Basti & Mahudi certifying the same .	50,00,000.00
		ii. Roof top solar project	For Energy conservation the PAs have installed roof top 120 kW solar panels on existing buildings of Noamundi township. The energy produced is being supplied to street lights installed in Noamundi Bazar, Noamundi overbridge and to St. Mary's School, Noamundi for the use of community purpose.	

			An undertaking to the effect that the energy generated will be solely for the community use.	
		iii. Solar powered borewells at school.	One solar powered borewell is installed at Mahudi village school was witnessed. A letter issued by Sarpanch of Mahudi village certifying the same.	
3	Socio Economic Environment	i. Construction of RWH pond.	For Socio-Economic environment the PAs have constructed 4 Nos. of rainwater harvesting pond in nearby villages: Mahudi (Pond Dimension: 26.80 m X 27.90 m X 2.70 m), Noamundi Basti (Pond Dimension: 25.50 m X 34.50 m X 2.10 m), Meralgara (Pond Dimension: 29.20 m X 28.90 m X 3.10 m) & Deogaon (Pond Dimension: 32.00 m X 29.00 m X 2.90 m) was witnessed. Water from the pond will help the beneficiaries to sustain and improve agricultural practices and crop yield. A Letters issued by Sarpanch of Noamundi Basti, Meralgara, Deogaaon & Mahudi certifying the same.	19,18,750.00
		ii. Sal plate molding machine to SHGs	The PAs have provided Sal plate molding machines consisting of 04 units and have provided the same to Self Help Group in the village of Noamundi Basti for self-employment was witnessed. The letter issued by SHG of Noamundi Basti	

			certifying the same.	
Total Cost				84,18,750.00

Hence, it is recommended and requested for further action to facilitate the release of the Bank Guarantee of Rupees 84,18,750 (Rupees Eighty Four Lakh Eighteen Thousand Seven Hundred Fifty only) submitted to Jharkhand State Pollution Control Board, Ranchi, vide Bank Guarantee No. : 0393NDLG00090524 dated : 21.08.2023.

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

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Day 4 : 26th September, 2026 [Saturday]

Consideration of proposals :

1. **Madhuband Colliery with 1.5 MTPA using open cast and underground mining of M/s Bharat Coking Coal Limited, Village : Madhuband, Sidpoki (part), Keshargarh (Part), Saderiyadih (Part), Pandubitha (Part), Bansjora (Part) and Mohanpur (Part), Anchal : Baghmara, Distt.: Dhanbad, Jharkhand (393.77 Ha).**

   (Proposal no.: SIA/JH/CMIN /589311 /2026)

   Name of the consultant : Vardan EnviroNet LLP, Gurugram, Haryana

   This is a new project which has been taken for appraisal on 26.09.2026.

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

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

   The State Expert Appraisal Committee, Jharkhand deliberated the project during its 126th meeting held on 09.09.2025 - 13.09.2025 and SEIAA, Jharkhand has approved the ToRs in 126th meeting held on 24th & 25th September, 2025. TOR for the project was issued by SEIAA,

Jharkhand vide letter no. EC/SEIAA/2025-26/3919/2025/440, dated 06.10.2025. The final EIA / EMP submitted by PP to SEAC on 21.09.2026.

EC Application for: Madhuband Colliery with 1.5 MTPA using open cast and underground mining. Over an area of 393.77 Ha located at Village: Madhuband, Sidpoki (Part), Keshargarh (Part), Saderiyadih (Part), Pandubitha (Part), Bansjora (Part) and Mohanpur(Part) District-Dhanbad, State – Jharkhand Proposed by M/s Bharat Coking Coal Limited.

Approval of Mining Plan and Mine Closure Plan: Mining Plan along with Progressive Mine Closure Plan (PMCP) for Madhuband Colliery has been approved in 416th BCCL Board Meeting dated 30.12.2024 as per letter BCCL/CS/AF-1(A)/22(H), dated 13.01.2025.

Previously, the Madhuband Colliery was part of Cluster XV (4 UG mines with a normative production of 0.325 MTPA with a peak prod. of 0.423 MTPA in a combined ML area of 1696.55 ha) of M/s Bharat Coking Coal Ltd located in Jharia coalfields which had obtained Environmental Clearance vide F.No. J-11015/100/2011-IA.II(M) dated 16.12.2013. The four mines were Kharkharee Colliery (584 Ha.) for production of 0.092 MTPA, Madhuban Colliery (393.77 Ha.) for production of 0.113 MTPA, Phularitand Colliery (340.88 Ha.) for production of 0.120 MTPA and Dharmaband Colliery (377.90 Ha.).

The instant proposal is for Madhuban Colliery (393.77 Ha.) only for peak productioncapacity of 1.5 MTPA coal through underground and open cast mining.

As per specific requirement of the TOR granted by SEIAA, Jharkhand, the amendment of the previous EC of cluster XVfor de-clustering of Madhuband Colliery from Cluster XV for obtaining a separate EC granted vide EC identification no. EC26A0000JH5342065A, F. No. J-11015/100/2011-IA.II(M), dated 10.09.2026 by MoEFCC, New Delhi.

Salient Features of Project:

Sl. No.	Parameter	Details
1	Project Name	Madhuband Colliery for peak rated capacity of 1.5 MTPA located in Village Madhuband, Sidpoki (Part), Keshargarh (Part), Saderiyadih (Part), Pandubitha (Part), Bansjora (Part) and Mohanpur (Part) under Baghmara Anchal District- Dhanbad, Jharkhand proposed by Bharat Coking Coal Limited
2	Toposheet No.	F45C1
3	Lessee & Address	Bharat Coking Coal Ltd. (BCCL) Barora Area-1, BCCL. Nawagarh, Dhanbad, Jharkhand

4	Lease Area	393.77 Ha Elevation: 189.02 m to 227.66 mamsl
5	Type of Land	Non-Forest
6	Project Cost	Rs. 1018 Crores
7	Land kissam	Tenancy – 193.80 Ha BCCL - 99.57 Ha Govt. Non-Forest Land – 78.03 Ha Railway - 22.37 Ha Total: 393.77 Ha
8	Existing Status of Mine	Mining operations are closed since 01.04.2010
9	Proposed Capacity	1.5 MTPA
10	Life of mine	67 years (total)
11	Method of Mining	Opencast (OC) and Underground (UG) Mining
12	Coal Seams	43 coal seams
13	Stripping Ratio	10.38 cum/tonne
14	Percentage of Extraction	41.07%
15	Total Mineral Resources	397.89 MT
16	Mineable reserves	103.98 MT
17	Manpower	1086
18	Bench height and bench width	9 m x 9 m
19	Ultimate Quarry Area	79.53 Ha
20	Ultimate Depth	OC - 200 m& UG - 966.24 mbelow ground level
21	External Dumps	D1- 39.04 ha, D2- 45.05 ha, Top soil Dump – 3.00 ha.
22	OB To be generated	66.82 Mbcum
23	Top Soil to be generated	4.45 Mbcum

24	Tree Felling	1495 number of trees are envisaged to be felled with due permission from concerned forest authority.
25	No. of trees to be planted	4,08,200 in 163.28 ha. area after 10 years
26	Power requirement	9831 KVA
27	Water requirement	Total water requirement is 2100 KLD. Domestic (including village supply) envisaged as600 KLD and for Mining activity as 1500 KLD Source: Mine water - permission will be obtained from CGWA for this mine. Presently, the permission granted for cluster XV (combined for 4 mines) is under renewal and this mine has been recently delineated from the cluster on 10.09.2026, hence the separate application will be filed only after renewal of same. It will be obtained prior to pumping of the mine water from this mine.
28	Mode of transportation	The mineral will be transported through covered trucks to end users.
29	Fund Provision for EMP	Capital – 41.97 crores Recurring – 3.15 crores/year
30	Nearest Water Body	**Within Lease area:** Khudia nala - passing though the center. EMP: will be diverted along the western boundary with permission from the WRD, Govt. of Jharkhand.Minimum 15 m safety barrier will be maintained from either bank of the nala as per CMR 2017. **In the Vicinity:** Jamuiya Nala is at 0.70 km in West direction Damodar River is at 3.58 km in South direction

31	Nearest Habitation outside lease area	Bansjora village – 0.12 km in East EMP: Plantation in the safety zone along the eastern boundary.Regular water sprinkling in the activity area and Use of fog cannons for dust suppression in the area.
32	Nearest Railway Station	Dhanbad railway station - 35 km
33	Nearest Airport	Kazi Nazrul Islam, Durgapur Airport - 100 km
34	Nearest Schools	**Within Lease area:** - Dhowatand Primary School,Kessurgarh - Government school behratand, Madhuban - Govt. Primary School, Sidhpoki EMP: No disturbance to the schools. Regular water sprinkling and Use of fog cannons for dust suppression in the area. Infrastructure development as per public hearing issues compliance. **In the Vicinity:** - Government Primary School Bansjora Basti is at 0.14 km in East Direction - Govt. Primary School Baruabhitia is at 0.17km in NE direction. - Govt. Middle school Sadariyadih is at 0.27km in West.
35	Nearest religious places	**Within Lease area:** - Kali Mandir, Madhuban Basti. - Durga Mandir, Madhuban Basti. - Shiv Mandir, Madhuban Basti. - Hanuman mandir, Madhuban Basti. EMP: The above 4 worship places will be relocated as per plan between the DG colony- Kharkaree OP (Police Station) in the same Madhuband village about 1.15 km from the Hanuman Mandir. The new Temple cluster will be constructed near the road for ease of approach by the local people. Plantation will be done in the area and water supply provided to the temples. - Hari Mandir Sadariyadih.

		In the Vicinity: - Hanuman Mandir Gawala Basti is at 0.30km in South
36	Nearest Forest	- Protected Forest - 1.62 km in North - Protected Forest - 3.48 km in SW - Protected Forest - 4.43 km in North - Protected Forest - 4.73 km in North.
37	Road & Highways	NH-18 - 1.63 Km (S-SE)
38	Nearest ESZ of Wildlife Sanctuary or National Park	None within 10km

Co-Ordinates

Sl. No.	Latitude	Longitude	Sl. No.	Latitude	Longitude
1	23° 45' 5.73"	86° 12' 33.25"	33	23° 45' 37.46"	86° 11' 35.68"
2	23° 45' 2.91"	86° 12' 26.21"	34	23° 45' 37.62"	86° 11' 32.76"
3	23° 45' 2.17"	86° 12' 6.46"	35	23° 45' 47"	86° 11' 39.88"
4	23° 45' 45"	86° 12' 6.06"	36	23° 45' 48.67"	86° 11' 41.8"
5	23° 45' 1.87"	86° 12' 4.39"	37	23° 45' 50.62"	86° 11' 44.81"
6	23° 45' 3.44"	86° 12' 1.3"	38	23° 45' 57.85"	86° 11' 56.8"
7	23° 45' 3.2"	86° 11' 58.18"	39	23° 46' 4.67"	86° 11' 53.29"
8	23° 45' 4.99"	86° 11' 56.37"	40	23° 46' 6.51"	86° 11' 59.22"
9	23° 45' 4.72"	86° 11' 55.3"	41	23° 46' 8.13"	86° 12' 14.82"
10	23° 45' 4.15"	86° 11' 53.01"	42	23° 46' 7.44"	86° 12' 31.09"
11	23° 45' 6.7"	86° 11' 53"	43	23° 46' 5.37"	86° 12' 39.32"
12	23° 45' 7.33"	86° 11' 50.38"	44	23° 46' 6.13"	86° 12' 42.99"
13	23° 45' 10.31"	86° 11' 50.09"	45	23°46'5.29"	86°12'43.64"
14	23° 45' 10.09"	86° 11' 46.96"	46	23°46'1.28"	86°13'1.50"
15	23° 45' 13.28"	86° 11' 44.63"	47	23°45'57.08"	86°13'12.55"
16	23° 45' 13.56"	86° 11' 48.38"	48	23°45'55.93"	86°13'12.30"
17	23° 45' 14.92"	86° 11' 48.35"	49	23°45'54.82"	86°13'12.25"
18	23° 45' 15.11"	86° 11' 48.07"	50	23°45'53.11"	86°13'13.07"
19	23° 45' 16.17"	86° 11' 48.24"	51	23°45'50.40"	86°13'13.31"
20	23° 45' 21.87"	86° 11' 51.26"	52	23°45'47.45"	86°13'13.87"
21	23° 45' 25.31"	86° 11' 50.72"	53	23°45'44.42"	86°13'14.93"
22	23° 45' 25.32"	86° 11' 55.22"	54	23°45'38.68"	86°13'8.89"
23	23° 45' 29.19"	86° 11' 54.59"	55	23°45'37.20"	86°13'8.53"
24	23° 45' 29.73"	86° 11' 58.5"	56	23°45'33.96"	86°13'5.78"
25	23° 45' 31.56"	86° 12' 0.45"	57	23°45'23.31"	86°12'59.97"
26	23° 45' 32.64"	86° 12' 7.74"	58	23°45'21.93"	86°12'56.59"

27	23° 45' 34.27"	86° 12' 9.02"	59	23°45'19.32"	86°12'54.84"
28	23° 45' 36.29"	86° 12' 6.85"	60	23°45'17.63"	86°12'50.86"
29	23° 45' 31.16"	86° 11' 55.04"	61	23°45'15.53"	86°12'49.30"
30	23° 45' 29.97"	86° 11' 48.9"	62	23°45'13.14"	86°12'45.01"
31	23° 45' 29.51"	86° 11' 41.58"	63	23°45'9.05"	86°12'42.09"
32	23° 45' 33.53"	86° 11' 39.24"	--	--	--

LAND DETAILS

The lease area is situated in Village: Madhuband, Sidpoki (Part), Keshargarh (Part), Saderiyadih (Part), Pandubitha (Part), Bansjora (Part) and Mohanpur(Part) District- Dhanbad, State – Jharkhand.

Village: Madhuband

Khata No.									
119	117	36	47	31	101	109	120	18	57
27	52	43	89	97	54	70	98	58	86
33	85	60	42	25	17	103	2	19	78
83	94	112	30	110	11	100	1	50	5
106	21	4	9	13	32	65	45	105	107
20	102	88	75	35	96	108	61	62	104
22	73	39	111	74	28	116	55	72	92
110	56	66	3	118	15	90	66	54	23
118	56	1	5	24	91	114	81	40	35
73	26	16	83	76	108				

Khasra No.									
6	7	8	9	10	27	28	29	30	31
32	33	34	35	36	37	38	39	40	41
42	43	44	45	46	47	48	49	50	51
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108	109	110	111	112	113	114	115	116	117
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128	129	130	131	132	133	134	135	136	137
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148	149	150	151	152	153	154	155	156	157
158	159	160	161	162	163	164	165	166	167
168	169	170	171	172	173	174	175	176	177
178	179	180	181	182	183	184	185	186	187
188	189	190	191	192	193	194	195	196	197
198	199	200	201	202	203	204	205	206	207
208	209	210	211	212	213	214	215	216	217
218	219	220	221	222	223	224	225	226	227
228	229	230	231	232	233	234	235	236	237
238	239	240	241	242	243	244	245	246	247
248	249	250	251	252	253	254	255	256	257
258	259	260	261	262	263	264	265	266	267
268	269	270	271	272	273	274	275	276	277
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298	299	300	301	302	303	304	305	306	307
308	309	310	311	312	313	314	315	316	317
318	319	320	321	322	323	324	325	326	327
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558	559	560	561	562	563	564	565	566	567
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638	639	640	641	642	643	644	645	646	647
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718	719	720	721	722	723	724	725	726	727
728	729	730	731	732	733	734	735	736	737
738	739	740	741	742	743	744	745	746	747
748	749	750	751	752	753	754	755	756	757
758	759	760	761	762	763	764	765	766	767
768	769	770	771	772	773	774	775	776	777
778	779	780	781	783	784	785	786	787	788
789	791	792	793	794	795	796	797	798	799
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981	982	983	984	985	986	987	988	989	990
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1021	1022	1023	1024	1025	1026	1027	1028	1029	1030
1031	1032	1033	1034	1035	1036	1037	1038	1039	1040
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1071	1072	1073	1074	1075	1076	1077	1078	1079	1080
1081	1082	1083	1084	1085	1086	1087	1088	1089	1090
1091	1092	1093	1094	1095	1096	1097	1098	1099	1100
1101	1102	1103	1104	1105	1106	1107	1108	1109	1110
1111	1112	1113	1114	1115	1116	1117	1118	1119	1120
1121	1122	1123	1124	1125	1126	1127	1128	1129	1130

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1151	1152	1153	1154	1155	1156	1157	1158	1159	1160
1161	1162	1163	1164	1165	1166	1167	1168	1169	1170
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1181	1182	1183	1184	1185	1186	1187	1188	1189	1191
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1202	1203	1204	1205	1206	1207	1208	1209	1210	1211
1212	1213	1214	1215	1216	1217	1218	1219	1221	1222
1223	1224	1225	1226	1227	1228	1229	1231	1232	1233
1234	1235	1236	1237	1238	1239	1241	1243	1244	1245
1246	1247	1248	1249	1250	1251	1252	1253	1254	1255
1256	1257	1258	1259	1260	1261	1262	1264	1265	1266
1267	1268	1269	1270	1271	1272	1273	1274	1275	1276
1277	1278	1279	1280	1282	1283	1284	1285	1286	1287
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1299	1300	1301	1302	1303	1304	1305	1306	1307	1308
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1319	1320	1321	1322	1323	1324	1325	1326	1327	1328
1329	1330	1331	1332	1335	1336	1338	1339	1340	1341
1342	1345	1346	1347	1348	1349	1350	1351	1352	1353
1354	1355	1356	1358	1359	1360	1361	1362	1363	1364
1365	1366	1367	1368	1369	1370	1372	1373	1374	1375
1376	1377	1378	1379	1380	1381	1382	1385	1386	1387
1388	1389	1392	1393	1394	1395	1396	1397	1398	1399
1400	1401	1402	1403	1404	1405	1406	1407	1408	1409

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1442	1443	1444	1445	1446	1447	1448	1449	1450	1451
1452	1453	1454	1455	1456	1457	1458	1459	1460	1461
1462	1463	1464	1465	1466	1467	1468	1469	1470	1471
1473	1474	1475	1476	1477	1478	1479	1480	1481	1482
1483	1484	1485	1486	1487	1488	1489	1490	1491	1492
1493	1494	1495	1496	1497	1498	1499	1500	1501	1502
1503	1504	1505	1506	1507	1508	1509	1510	1511	1512
1513	1514	1515	1516	1517	1518	1519	1520	1521	1522
1523	1524	1525	1526	1527	1528	1529	1530	1531	1532
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1543	1544	1545	1546	1547	1548	1549	1550	1551	1552
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1563	1564	1565	1566	1567	1568	1569	1570	1571	1572
1573	1574	1575	1576	1577	1578	1579	1580	1581	1582
1583	1584	1585	1586	1587	1588	1589	1590	1591	1592
1593	1594	1595	1596	1597	1598	1599	1600	1601	1602
1603	1604	1605	1606	1607	1608	1609	1610	1611	1612
1613	1614	1615	1616	1617	1618	1619	1620	1621	1622
1623	1624	1625	1626	1627	1628	1629	1630	1631	1632
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1643	1644	1645	1646	1647	1648	1649	1650	1651	1652
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1663	1664	1665	1666	1667	1668	1669	1670	1671	1672

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1683	1684	1685	1686	1687	1688	1689	1690	1691	1692
1693	1694	1695	1696	1697	1698	1699	1700	1701	1702
1703	1704	1705	1706	1707	1708	1709	1710	1711	1712
1713	1714	1715	1716	1717	1718	1719	1720	1721	1722
1723	1724	1725	1726	1727	1728	1729	1730	1731	1732
1733	1734	1735	1736	1737	1738	1739	1740	1741	1742
1743	1744	1745	1746	1747	1748	1749	1750	1751	1752
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1764	1765	1766	1767	1768	1769	1770	1771	1772	1773
1774	1775	1776	1777	1778	1779	1780	1781	1782	1783
1784	1785	1786	1787	1788	1789	1790	1791	1792	1793
1794	1795	1796	1797	1798	1799	1800	1801	1802	1803
1804	1805	1806	1807	1808	1809	1810	1811	1812	1813
1814	1815	1816	1817	1818	1819	1820	1821	1822	1823
1824	1825	1826	1827	1828	1829	1830	1831	1832	1833
1834	1835	1836	1837	1838	1839	1840	1841	1842	1843
1844	1845	1846	1847	1848	1849	1850	1851	1852	1853
1854	1855	1856	1857	1858	1859	1860	1861	1862	1863
1864	1865	1866	1867	1868	1869	1870	1871	1872	1873
1874	1875	1876	1877	1878	1879	1880	1881	1882	1883
1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
1925	1926	1927	1928	1929	1930	1931	1932	1933	1934

1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
1975	1978	1979	1980	1981	1982	1983	1984	1985	1986
1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
2057	2058	2059	2060	2061	2062	2063	2064	2065	2066
2067	2068	2069	2070	2071	2072	2073	2074	2075	2076
2077	2078	2079	2080	2081	2082	2083	2084	2085	2086
2087	2088	2089	2090	2091	2092	2093	2094	2095	2096
2097	2098	2099	2100	2101	2102	2103	2104	2105	2106
2107	2108	2109	2110	2111	2112	2113	2114	2115	2116
2117	2118	2119	2120	2121	2122	2123	2124	2125	2126
2127	2128	2129	2130	2131	2132	2133	2134	2135	2136
2137	2138	2139	2140	2141	2142	2143	2144	2145	2146
2147	2148	2149	2150	2151	2152	2153	2154	2155	2156
2157	2158	2159	2160	2161	2162	2163	2164	2165	2166
2167	2168	2169	2170	2171	2172	2173	2174	2175	2176
2177	2178	2179	2180	2181	2182	2183	2184	2185	2186
2187	2188	2189	2190	2191	2192	2193	2194	2195	2196

2197	2198	2199	2200	2201	2202	2203	2204	2205	2206
2207	2208	2209	2210	2211	2212	2213	2214	2215	2216
2217	2218	2219	2220	2221	2222	2223	2224	2225	2226
2227	2228	2229	2230	2231	2232	2233	2234	2235	2236
2237	2238	2239	2240	2241	2242	2243	2244	2245	2246
2247	2248	2249	2250	2251	2252	2253	2254	2255	2256
2257	2258	2259	2260	2261	2262	2263	2264	2265	2266
2267	2268	2269	2270	2271	2272	2273	2274	2275	2276
2277	2278	2279	2280	2281	2282	2283	2285	2286	2287
2288	2289	2290	2292	2293	2294	2295	2296	2297	2298
2299	2300	2302	2303	2304	2305	2306	2307	2308	2309
2310	2311	2312	2313	2314	2315	2316	2317	2318	2319
2320	2321	2322	2323	2324	2326	2327	2328	2329	2330
2331	2332	2333	2334	2335	2336	2337	2338	2339	2340
2341	2342	2343	2344	2345	2346	2347	2348	2349	2350
2353	2354	306/2355	1742/2356	1472/2357	1440/2358	2113/2359	652/2360	485/2361	1428/2362
208/2363	1746/2364	1427/2365	1429/2366	2143/2367	2228/2368	782	790	886	1190
1220	1230	1240	1242	1263	1281	1297	1319	1333	1334
1337	1343	1344	1357	1371	1383	1384	1390	1391	1429
1472	1644	2325	1414	1760	1924	1976	1977	2291	

Village: Mohanpur

Khata no.									
1	2	3	4	5	6				

Khasra no.									
10	19	24	25	26	29	31	32	37	43
46	73	8	12	13	14	15	16	17	18
20	38	39	40	41	42	45	49	64	66
71	9	11	21	22	23	27	28	30	44
47	48	50	51	52	53	54	55	56	57
58	59	60	61	62	63	65	67	68	69
70	72								

Village: Keshargarh

Khata no.									
134	71	132	136	83	106	9	65	22	33
135	53	34	27	52	60	105	66	107	124
104	62	120	109	98	73	72	97	108	48
119	101	89	15	129	128	70	76	122	78
32	7	44	57	54	38	56	130	14	64

Khasra no.									
727	728	729	730	832	833	868	869	870	871
872	873	874	875	876	877	878	878	879	880
881	882	883	884	885	886	887	888	889	890
891	892	893	894	895	896	897	898	899	900
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911	912	913	914	915	916	917	918	919	920
921	922	923	924	925	926	927	928	929	930
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981	982	983	984	985	986	987	988	989	990
991	992	993	994	995	996	997	998	999	1000
1001	1002	1003	1004	1005	1006	1007	1008	1009	1010
1011	1012	1013	1014	1015	1016	1017	1018	1019	1020
1021	1022	1023	1024	1025	1026	1027	1028	1029	1030
1031	1032	1033	1034	1035	1036	1037	1038	1039	1040
1041	1042	1043	1044	1045	1046	1047	1048	1049	1050
1051	1052	1053	1054	1055	1056	1057	1058	1059	1060
1061	1062	1063	1064	1065	1066	1067	1068	1069	1070
1071	1072	1073	1074	1075	1076	1077	1078	1079	1080
1081	1082	1083	1088	1091					

Village: Bansjora

Khata no.									
113	158	311	334	157	55	39	157	167	270
167	198	77	126	197	274				

Khasra no.									
2	3	8	14	1601	1602	1603	1604	1605	1606
1607	1615	1616	1617	1618	1619	1620	1621	1622	1623
1624	1627	1628	1629	1630					

Village: Shidpoki

Khata no.									
47	15	16	49	33	22	7	5	10	26
20	13	30	9	34	50	48	51	2	3
18	41	46	38	43	28	32	23	11	6
31									

Khasra no.									
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	148	149	150	151	152	153	154
159	160	161	162	163	164	165	166	167	168
325	326	330	331	332	333	334	335	336	337
338	339	340	341	342	343	344	345	346	347
348	349	350	351	352	353	354	355	356	357
358	359	360	361	362	363	364	365	366	367
368	369	370	371	372	373	374	375	376	377
378	379	380	381	382	383	384	385	386	387
388	389	390	391	392	393	394	395	396	397
398	399	400	401	402	403	404	405	406	407
408	409	410	411	412	413	414	415	416	417
418	419	420	421	422	423	424	425	426	427
428	429	430	431	432	433	434	435	436	437

438	439	440	441	442	443	444	445	446	447
448	449	450	451	452	453	454	455	456	457
458	459	460	461	462	463	464	465	466	467
468	469	470	471	472	473	474	475	476	477
478	479	483	484						

Village: Sadariyadih

Khata no.									
64	49	60	53	85	68	4	58	84	6
79	75	29	76	17	56	67	44	77	15
8	5	74	39	7	32	83	57	82	80
24	34	37	42	21	27	10	36	65	16
61	19								

Khasra no.									
829	830	831	832	833	834	835	836	837	838
839	840	841	842	843	844	845	846	847	848
849	850	851	852	853	854	855	856	857	858
859	860	861	862	863	864	865	866	867	868
869	870	871	872	873	874	875	876	877	878
879	880	881	882	883	884	885	886	887	888
889	890	893	953	955	956	958	959	960	961
962	963	964	965	966	967	968	969	970	971
972	973	974	975	976	977	978	979	980	981
982	983	984	985	986	987	988	989	990	991
992	993	994	995	996	997	998	999	1000	1001
1002	1003	1004	1005	1006	1007	1008	1009	1010	1011

1012	1013	1014	1015	1016	1017	1018	1019	1020	1021
1022	1023	1024	1025	1026	1027	1028	1029	1030	1031
1032	1033	1034	1035	1036	1037	1038	1039	1040	1041
1042	1043	1044	1045	1046	1047	1048	1049	1050	1051
1052	1053	1054	1055	1056	1057	1058	1059	1060	1061
1062	1063	1064	1065	1066	1067	1068	1069	1070	1071
1072	1073	1074	1075	1076	1077	1078	1079	1080	1081
1082	1083	1084	1085	1086	1087	1088	1089	1090	1091
1092	1093	1094	1095	1096	1097	1098	1099	1100	1101
1102	1103	1104	1105	1106	1107	1108	1109	1110	1111
1112	1113	1114	1115	1116	1117	1118	1119	1120	1121
1122	1123	1124	1125	1126	1127	1128	1129	1130	1131
1132	1133	1134	1135	1136	1137	1138	1140	1141	1142
1143	1144	1145	1146	1147	1148	1149	1150	1151	1152
1153	1154	1155	1156	1157	1158	1159	1160	1161	1162
1163	1164	1165	1166	1167	1168	1169	1170	1171	1172
1173	1174	1175	1176	1177	1179	1180	1181	1182	1183
1184	1185	1186	1187	1188	1189	1190	1191	1192	1193
1194	1195	1196	1197	1198	1199	1200	1201	1201	1203
1204	1205	1206	1207	1208	1209	1210	1211	1212	1213
1214	1215	1216	1217	1218	1219	1220	1221	1222	1223
1224	1225	1226	1227	1228	1229	1230	1231	1232	1233
1234	1235	1236	1237	1238	1239	1240	1241	1242	1243
1247	1248	1249	1250	1251	1252	1253	1254	1255	1266
1267	1268	1269	1270	1271	1272	1273	1274	1275	1276
1277	1278	1279	1280	1281	1282	1283	1284	1285	1286

1287	1288	1289	1290	1291	1293	1294	1295	1296	1309
1310	1311	1312	1314	1315	1316	1317	1319	1320	1321
1322	1323	1703							

Village: Pandhuabhita

Khata no.									
15	10	2	33	32					

Khasra no.									
134	137	251	254	255	38	41	125	126	127
128	129	130	131	132	133	135	136	138	252
253									

STATUTORY CLEARANCES

1	Land Document	:	The mining lease has been vested through the Coking Coal (Nationalisation) Act, 1972 and Coal Mines (Nationalisation) Act, 1973 and Mineral Concession (Amendment) Rules 2021.
2	CO	:	The CO, Baghmara (Dhanbad) vide letter no. 728, dated 03.06.2025 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan & Register II.
3	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 911, dated 28.05.2025 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
4	DFO Territorial	:	Divisional Forest Officer, Dhanbad Forest Division vide letter no. 1253, dated 29.05.2025 certified that the distance of reserved / protected forest is more than 250 meters from proposed project site.
5	Mine Plan Approval	:	Mining Plan along with Progressive Mine Closure Plan (PMCP) for Madhuband Colliery has been approved in 416th BCCL Board Meeting dated 30.12.2024 vide letter BCCL/CS/AF-1(A)/22(H), dated 13.01.2025.

6	Environmental Clearance for de-clustering of Madhuband Colliery	:	Amendment of the previous EC (dated 16.12.2013) of cluster XVfor de-clustering of Madhuband Colliery from it for obtaining a separate EC granted vide EC identification no. EC26A0000JH5342065A, F. No. J-11015/100/2011-IA.II(M), dated 10.09.2026 by MoEFCC, New Delhi.
7	Public Hearing	:	Public hearing conducted on 30.03.2026.
8	Baseline study period	:	October, 2023 to December, 2023.
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/94/2026/3416, dated : 18.09.2026.

WORKING DETAILS

1.	Mining Method	:	Mining is proposed by both Opencast (OC) and Underground (UG) methods	
2.	Quarry Area	:	End of Life –79.53 ha	Achieved in 11th year
3.	Waste Generation	:	Total waste proposed to be generated is 66.82 Mbcum and out of this 22.36Mbcum is proposed to be dumped in external dump and rest to be dumped internally, as progressive backfilling. The waste is proposed to be dumped in two external dumps, initially in the southern part of the block and in the north eastern part of the block. External dump is proposed in north eastern part (Ex Dump-1), 39.04 Ha is proposed to accommodate 15.65 Mbcum. External dump 2 is proposed in southern part of the lease (Sector C) in an area of 45.05Ha which will accommodate 6.71 Mbcum. External dumping is proposed till Year 7 and internal dumping will partly commence from the same year.	

4.	Stripping Ratio	:	10.38 cum/tonne
5.	Size of the Bench	:	Bench height OC working - 9 Meter Bench width OC working - 9 Meter Individual Bench slope - 70^0 Overall pit slope - 45^0
6.	Working hours	:	4 overlapping shifts of 6 hours each
7.	Elevation range of the mine site	:	Minimum- 189.02 m AMSL Maximum- 227.66 m AMSL
8.	Topography of Mine	:	Undulating topography with a gentle slope towards west
9.	Explosive Requirement	:	For OC - 8 Tonne/day. For UG - 30 Kg/day.
10.	Diesel/Fuel requirement	:	20 Kl / Day
11.	Nala & Nala diversion	:	Minimum 15 m safety barrier will be maintained from either bank of the nala as per CMR 2017
12.	Railway line	:	Minimum 45 m safety barrier will be maintained from the railway line as per CMR 2017

Production Details:

Year (s)	Production Plan (Mt)		Total Coal (Mt)
	OC (upto 11 year)	UG	
1	-	-	-
2	-	0.14	0.14
3	0.14	0.16	0.30
4	0.45	0.30	0.75
5-8	0.80	0.30	1.10
9	1.05	0.30	1.35
10	1.05	0.45	1.50
11	0.55	0.45	1.00
12- 31	-	0.45	0.45
32	-	0.90	0.90
33-63	-	1.20	1.20
64	-	1.00	1.00
65	-	1.00	1.00

66	-	0.50	0.50
67	-	0.36	0.36
Grand Total	**6.44**	**52.96**	**59.40**

As per approved mine plan production: Production of coal with peak rated production capacity 1.5 MTPA (0.45 MTPA by underground mining and 1.05 MTPA by opencast method).

LAND USE

Pre Mining - Land use of Madhuband Colliery:

Land Type		**Area**
Tenancy	Agricultural	87.2
	Township/ Homestead land	2
	Grazing	--
	Barren	104.6
	Road	--
	Community/ other use	--
	Sub-total	**193.80**
BCCL	service buildings/ Mine infrastructure	4
	Coal stack	2.6
	Homestead	8
	Plantation	2
	Road	2.23
	Barren	80.74
	Sub-total	**99.57**
Govt Non-Forest	Agricultural	0
	Township	--
	Grazing	--
	Barren/other use	71.21
	Water Bodies	6.82
	Sub-total	**78.03**
Forest	Reserve	0

	Protected	0
	Railway	**22.37**
	Free-Hold	0
Total		**393.77**

Mining Land use - End of 11th year till End of Life

S. No.	Land Use	During mining (Ha)
1	External Dump area	84.090
2	Top Soil dump area	3.000
3	Open Pit/ Excavation	79.530
4	Roads	3.920
5	Infrastructure/ Built up area	4.610
6	Greenbelt area	4.330
7	Nala diversion channel	2.790
8	Settling Pond	1.160
9	Coal Stack & CHP	2.140
10	Fly ash dumping, if any	-
11	Undisturbed Area	208.200
Total		**393.77**

Mining Methodology:

The mining block has been divided into 3 sectors based on the fault planes conceptualized based on the exploration data. Sectors were divided for ease in selection of suitable technology for mining operation by both OC and UG method.

Mining is proposed by both opencast and UG methods. OC mining is proposed in an area of 79.53 Ha. OC operation is proposed by conventional drilling and blasting and handling by Shovel dumper combination up to Seam XVI.

UG mining is proposed in the rest of the area in Seams. Board and Pillar Method using suitable cutting technology (CM/ RH) for seams up to Seam XV is proposed.

Depillaring is proposed with stowing (Sand/ POB or bottom ash) and application of paste fill with permission from DGMS.For seams below Seam XV, Long wall method with stowing or caving method will be adopted based on the scientific study.

Stowing Methodology:

At Madhuband Colliery, paste filling is proposed as a high-density slurry backfilling system to support depillaring of coal seams up to Seam XV, while retaining necessary barriers for protection of surface features. The process is intended to address the limitations of conventional sand, processed OB and bottom-ash stowing under mechanised Continuous Miner operations and to reduce coal losses associated with permanent safety/stability barriers. Paste fill, with a high solids concentration and very low shrinkage/compressibility, will be used to substantially fill the extracted voids and control roof/overburden movement and surface subsidence.

Depillaring is proposed from Year 5, with studies on the filling material, rheology, pumping system and process configuration undertaken beforehand; the paste-filling plant is proposed for erection from the 4th year.

The proposed Madhuband system will involve preparation of the paste/slurry at a surface mixing plant, storage in surface bins and pumping through pipelines via Incline-1 to the underground working areas. The document indicates a typical solids content of 70–75%, bulk density of 2.0–2.15 t/m^3, and a target filling capacity of approximately 200 m^3/hr, based on a calculated requirement of 198 m^3/hr for the stated cutting geometry.

Hydraulic piston pumps with a nominal wet flow rate of 200 m^3/hr and design pressure of 120–160 bar are proposed, with approximately 200–250 mm diameter pipelines. Underground, extraction and filling will proceed sequentially using Continuous Miners, with barricades installed at the fender/split openings to retain the paste until curing; the sequence is designed to allow filling of an earlier slice while mining proceeds in the subsequent slice.

Consolidated Control Measures for Slope and Dump Stabilisation:

Based on the IIEST, Shibpur Scientific Study, the following consolidated control measures are proposed for maintaining stability of the opencast pit slopes and external/internal overburden dumps of Madhuband Colliery. The measures integrate the dump design, numerical modelling, drainage, slope protection, reclamation and monitoring provisions given in the report.

1. Dump Geometry and Bench Configuration

- Maintain maximum dump bench height of 30 m; dumps exceeding 30 m height shall be constructed in properly benched configuration.

- Maintain the overall/ultimate dump slope at 24° as the planned design, and not exceeding 25°, consistent with the numerical modelling recommendation.
- Provide adequate bench width and avoid any local steepening of individual benches or portions of the dump.
- The numerical modelling indicates an FoS of 1.326 at 25°, and therefore 25° is identified as the maximum permissible ultimate dump slope angle under the assumed conditions.

2. Drainage and Water-Control Measures

- Provide retaining walls/bunds at the toe of waste dumps.
- Construct and maintain garland drains, toe drains and settling pits to safely intercept and divert surface runoff.
- Maintain a minimum 15 m drainage/protection strip between the dump and the adjoining bench where specified in the study.
- Ensure positive gradients on the dump top, floors and individual benches so that water does not accumulate.
- Prevent ponding, water stagnation and saturation of dump materials; dumping shall not be undertaken on waterlogged/slushy ground or into pools of water.
- Avoid barriers or obstructions that may interrupt natural drainage and cause saturation of the dump foundation.

3. Dump Material Placement and Compaction

- Avoid discontinuous dumping, which can create water pockets between separate dump masses.
- Clayey material should, as far as practicable, be segregated from fragmented rock.
- Open cracks shall be promptly filled and compacted using dozer/compactor and properly levelled to reduce water infiltration and improve consolidation.
- Topsoil shall be stored separately and shall not be placed at intermediate levels within the dump, as this may create zones of increased water pressure.
- Appropriate compaction and systematic layer-wise placement shall be maintained to improve the shear strength and consolidation of the dump.

4. Surface Protection and Biological Stabilisation

- Initiate vegetative reclamation at the earliest practicable stage on completed dump slopes.

- Provide grass turfing and suitable shrubs/plantation on stabilised dump surfaces.
- Use biodegradable coir matting/geotextile with proper anchoring, particularly on vulnerable slopes, to control erosion and facilitate establishment of vegetation.
- Vegetative cover will also reduce surface erosion and wind-induced dust generation while the root system contributes to slope stabilisation.

5. Toe Protection and Safety Buffer

- Provide a stone wall around the toe of active dumps, approximately 50 m from the dump toe as specified in the study.
- Provide suitable fencing around dump toes to prevent unauthorised access and unsafe undercutting/collection activities.
- Dump toes shall be kept away from railway lines, public roads, buildings and other permanent structures.
- Where required after abandonment/cessation of dumping, provide a 6–10 m wide separation trench between the dump and adjoining bench.

Post Mining Land use (Conceptual Plan):

S. No.	Land Use	Land use area Post Mining (Ha)					
		Plantation	Water Body	Public Use	Undisturbed	Others	Total
1	External Dump area	84.09	-	-	-	-	84.09
2	Top Soil dump area	3.00	-	-	-	-	3.00
3	Open Pit/ Excavation	63.95	15.58	-	-	-	79.53
4	Roads	-	-	3.92	-	-	3.92
5	Infrastructure/ Built up area	4.61	-	-	-	-	4.61
6	Greenbelt area (safety zone)	4.33	-	-	-	-	4.33
7	Nala diversion channel	-	2.79	-	-	-	2.79
8	Settling Pond	1.16	-	-	-	-	1.16
9	Coal Stack & CHP	2.14	-	-	-	-	2.14
10	Fly ash	-	-	-	-	-	-

	dumping, if any						
11	Undisturbed Area	-	-	-	208.20	-	208.20
Total		**163.28**	**18.37**	**3.92**	**208.20**	**-**	**393.77**

Green Belt Development

The plantation programme of the mines covers an area of 163.28ha at a density of 2,500 plants/ha,involving 4,08,200 plants. The plantation is proposed in 10 phases over Years 1–10, commencing with 1.33 ha in Year 1 and 56.51 ha in Year 10, thereby achieving the full cumulative plantation area of 163.28 ha.

The cost framework is based on a wage rate of ₹515/man-day and follows the work heads and methodology of the applicable scheduled-rate framework. Each plantation phase is provided with a seven-year establishment and maintenance cycle. Accordingly, while plantation is completed in Year 10, maintenance of the final phase continues up to Project Year 16. The estimated capital cost for establishment/completion is ₹3.80 crore, the recurring maintenance cost is ₹2.13 crore, and the total expenditure for the complete seven-year cycle of all 10 phases is approximately ₹5.93 crore.

Year (base year - start of mine)	Annual plantation Area (ha)	Plants Proposed (annual)	Cumulative Area Plantation (ha)	Cumulative Plants
1	1.33	3,325	1.33	3,325
2	2.02	5,050	3.35	8,375
3	3.06	7,650	6.41	16,025
4	4.64	11,600	11.05	27,625
5	7.04	17,600	18.09	45,225
6	10.68	26,700	28.77	71,925
7	16.19	40,475	44.96	112,400
8	24.56	61,400	69.52	173,800
9	37.25	93,125	106.77	266,925
10	56.51	141,275	163.28	408,200

TOTAL	163.28	408,200	163.28	408,200

Nala Diversion Plan

The Khudia Nala traverses the central western part of the coal block and significantly constrains coal extraction, with about 1.296 million tonnes of coal blocked within its influence zone, besides posing potential safety implications for mine workings. To facilitate safe and systematic extraction, diversion of the 1.7 km lower stretch of the existing nala is proposed through an alternate 2.1 km diversion channel along the western boundary, reconnecting with the existing nala at a downstream location. The proposed diversion passes through open land with limited agricultural use, and no displacement or adverse impact on users is envisaged.

A Joint Inspection Committee inspected the site on 08.06.2026 and reviewed the technical study prepared by IIT (ISM), Dhanbad. The study confirms that the proposed diversion channel has been hydraulically designed to safely convey the design discharge of 11.28 m^3/s, while maintaining continuity of the existing natural drainage of the seasonal Khudia Nala. The Joint Inspection Committee observed no significant technical issues or adverse field conditions affecting the physical feasibility of the proposed diversion scheme.

The diversion proposal has been forwarded by the Superintending Engineer, Tenughat Dam Division, to the Chief Engineer, WRD, Hazaribagh, for obtaining the requisite permission. All statutory permissions/NOCs from the competent authority shall be obtained prior to commencement of mining operations in the affected area, i.e., before the fifth year of mining.

A safety zone of no working (OC or UG) within min. 15 m from either bank of the nala shall be maintained at all times as per clause 149 (6) of CMR 2017.

Railway Line Protection

A Railway line passing in the southern part of lease area shall not be disturbed or diverted. A minimum safe distance of operations shall be maintained as per clause 119 (1) of CMR 2017 – No working, extraction or reduction of pillars shall be conducted to or extended to any point within 45 m of any railway.

BCCL Quarters Dismantling

Abandoned quarters of BCCL are present inside the lease area which shall be demolished as per existing guidelines. Area identified under Jharia Master Plan(JMP) will be dealt as per the guidelines of JMP.

Demolition of 54 Nos. BCCL Office Colony Quarters and other structures:

- During demolition and dismantling proper precaution and control measures such as - covering, water sprinkling, maintaining safe distance etc. and provisions of C&D Rules 2016 as amended should be followed.

- Good bricks recovered from demolition shall be reused in the new construction/infrastructure and other waste like debris etc. shall be disposed of in the OB Dump to the extent possible.
- Doors, windows and grills recovered from the quarters, being BCCL property, shall be deposited in the BCCL Store.
- Metal sheets, MS rods and other recoverable materials shall be deposited in the BCCL Store.

Place of Worship (Temples) Relocation Plan:

There are few places of worship present in the mine lease area. The proposed relocation of the temples should be as per the action plan submitted.

- Kali Devi Mandir, Madhuband Basti.
- Durga Devi Mandir, Madhuband Basti.
- Shiv Mandir, Madhuband Basti.
- Hanuman mandir, Madhuband Basti.

The above worship places shall be relocated as per plan between the DG colony and Kharkaree OP (Police Station) in the same Madhuband village about 1.15 km from the Hanuman Mandir. The new Temple cluster shall be constructed near the road for ease of approach by the local people. Plantation will be done in the area and water supply provided to the temples.

Summary of Baseline data

Parameters	Description
Base line Period	1st October to 31st December 2023
AAQ parameters at 8 Locations	• PM 10 – 43.60 to 83.30 µg/m3 • PM 2.5 – 19.08 to 53.20 µg/m3 • SO2 – 14.10 to 25.70 µg/m3 • NOx – 18.00 to 31.90 µg/m3 • CO – 0.48 to 0.94 mg/m3
Incremental max. GLC Level	• PM 10 – 6.50 µg/m3 • PM 2.5 – 3.68 µg/m3 • SO2 – 0.43 µg/m3 • NOx – 0.59 µg/m3 • CO – 0.000024 mg/m3 All incremental values are at location A1 (Core Zone).
Water Samples At 10 locations	All the Parameters Like pH varies from 7.21 to 7.93, Total Hardness varies from 228 to 280 mg/L, Total Dissolved Solids varies from 315 to 381mg/l, etc. are found within the permissible limits.

<table>
<tr><th>Parameters</th><th>Description</th></tr>
<tr><td></td><td>All the Parameters Like pH varies from 7.26 to 7.92, Total Hardness varies from 533 to 681 mg/L, Total Dissolved Solids varies from 01 to 663 mg/L, etc. are found within the permissible limits.</td></tr>
<tr><td>Noise Level Leq (Day & Night) at Project site</td><td>The Leq values at this location for night and day time was observed to be 43.62 and 53.92 dB (A).</td></tr>
<tr><td>Soil at 10 locations</td><td>pH- 7.38 to 7.92
Organic matter- 0.42 % to 0.58 %
Nitrogen- 151.92 – 165.88 kg/ha.
Phosphorus – 170.5 – 189.42 kg/ha.
Pottasium – 15.66 – 19.72 Kg/ha.</td></tr>
<tr><td>Traffic Assessment study finding</td><td>• The traffic study has been conducted at Nawagarh Road which is approx. 2.3km from the project site.
Roads and Highways in the Study Area
<table>
<tr><th rowspan="2">Name of Road</th><th colspan="2">Direction</th><th rowspan="2">Dispatched Ratio in Percentage</th></tr>
<tr><th>Up</th><th>Down</th></tr>
<tr><td>Nawagarh Road</td><td>Mine site</td><td>Dhanbad/Gomoh</td><td>100%</td></tr>
<tr><td colspan="3">Total</td><td>100</td></tr>
</table>
Existing Traffic Scenario and LOS
<table>
<tr><th>Type of Road</th><th>Existing Volume (PCU/day)</th><th>Capacity in (PCU/day)</th><th>V/C Ratio</th><th>LOS</th></tr>
<tr><td>Nawagarh Road</td><td>2922</td><td>15000</td><td>0.19</td><td>A</td></tr>
</table>
Existing and Increase in PCU/day
<table>
<tr><th>Road</th><th>Existing</th><th>Proposed Volume (V)</th><th>Capacity (C)</th><th>Modified V/C Ratio</th><th>LOS</th></tr>
<tr><td>Nawagarh Road</td><td>2922</td><td>2922+846=3768</td><td>15000</td><td>0.25</td><td>B</td></tr>
</table></td></tr>
</table>

Parameters	Description
	Note: Capacity as per IRC 64- 1990 for capacity of road Conclusion: The level of service will be 'B' (very good) after including additional traffic due to proposed project.
Flora and Fauna	As per The Wildlife Protection (Amendment) Act, 2022 indicates that there are 17 Schedule-I species identified within the study area, comprising 05 mammals, 05 birds, and 07 reptiles. Notably, there are a total of 05 Schedule-I species including 03 mammals, 01 reptile and 01 bird are present in the core zone. The Wildlife Conservation Plan with estimated budget of Rs. 20.34 Cr. is prepared and submitted to the DFO- District Forest Department combined building, Dhanbad, Jharkhand for approval on 03.11.2025.
R &R Involved	No R&R is involved in the immediate proposal. Abandoned quarters of BCCL are present inside the lease area which shall be demolished as per existing guidelines. Area identified under Jharia Master Plan (JMP) will be dealt as per the guidelines of JMP. If in the future any habitations are identified during expansion of the proposal, its R&R will be carried out as per the provisions of LARR Act. 2013.
Proposed Nala Diversion (KhudiaJhore)	A seasonal Jhore namely KhudiaJhore is proposed to be diverted in the 5th Year for carrying out safe mining operations. The application for Nala diversion has been forwarded by the Executive Engineer of the concerned department to the Superintending Engineer for further necessary action. The process for obtaining the required permission/NOC from the competent authority and obtained prior to mining in the concerned area.
Blasting	For opencast mining, drilling, and blasting shall be required for both coal and overburden benches. The drilling shall be done departmentally but blasting shall be done by site mixed explosive to be supplied on site by explosive manufacturers. The blasting work would be required initially for sinking shaft and later for mine seam development. Magazine of 5 Tonne capacity will be constructed and used. The storage, transport and use of explosive shall be done as per statutory provisions and under proper supervision. UG mine will require explosive for development of Incline and shaft and for LHD mining. 30 kg/day for UG while 8 tonne/day of explosives are proposed to be utilized for the mining operations.

Public Hearing Action Plan with Time Frame & Budget:

Sl. No.	Activity	Details of the Activity	Year-wise Plan of Action Cost (in Lakhs)			Total Cost (Rs. in Lakhs)
			1st Year	2nd Year	3rd Year	
A.	Installation of Rainwater Harvesting	Company will install rooftop rainwater harvesting systems, along with two rainwater harvesting pits each at Dhowatand Primary School Kessurgarh, Government Primary School Baruabhitha& Government Middle School SadariyadihKeshurgarh.	20.0	--	--	**20.0**
B.	Renovation of Government Middle School	The company will renovate Government Middle School of Sadariyadih village by maintenance of existing school building, painting providing Furniture in classes and in staff room, green boards in classrooms, provide 10 computers with internet facilities, renovate school playground and construction of one pair of toilets for boys & girls with common septic tank, installation of one number water cooler with RO for drinking water, installation of playing slides & swings for students.	--	--	100.0	**100.0**
C.	Installation of solar Power Street	The Company will Install 40 Solar LED Street Lights in Sadariyadih village to improve road safety and promote	15.0	--	--	**15.0**

	Light	clean energy.				
		The Company will Install 50 Solar LED Street Lights in Madhuban village to improve road safety and promote clean energy.	20.0	--	--	**20.0**
D.	Provision of Safe Drinking Water	Installation of two solar powered bore wells with hand pumps, 100 LPH RO water purification systems, stainless steel water coolers and allied civil works at Hari Mandir and Hanuman Mandir, Sadariyadih Village.	10.0	--	--	**10.0**
		Company will provide 2 no. of solar powered Bore well (Boring + Casing + Piping + Hand-pump + Cement Platform) and install water cooler cum purifier in Behratandmadhuban (Hanuman mandir & Shiv Mandir Madhuban Village.	10.0	--	--	**10.0**
E.	Renovation of Baghmara government hospital	The company will renovate Baghmara government hospital, Lutipahari by providing Necessary furniture, infrastructure improvements, wheelchairs and essential medical equipment such as BP monitors, ECG machines, nebulizers, oxygen cylinders, delivery room equipment, hospital beds with mattresses, baby warmers, weighing machines and medical	20.0	--	--	**20.0**

		refrigerators.				
F.	**Adoption of Villages Madhuban, Sadariadih, Koradih, Jamdih and Bansjora**					
	Renovation of Drainage system	Company will renovate drainage system in Madhuban, Sadariadih, Koradih, Jamdih and Bansjoravillage, which will help prevent waterlogging and reduce the spread of water-borne diseases	--	100.0	100.0	**200.0**
	Organizing medical checkup camp	Company will organize free Eye checkup camps, blood donation camps, free medical check-up camps twice a year for three years, Donate medicines, wheelchair, hearing machines etc for peoples of Sadariadih, Koradih, Jamdih and Bansjora villages.	--	100.0	--	**100.0**
	Installation of Solar Street Lights along the Road	The company will install 120 solar street lights (40 nos. of each) all along the road of Koradih, Jamdih and Bansjora connecting with major road.	55.0	--	--	**55.0**
	Providing Agricultural facilities to villagers	The company will provide help to farmers of Madhuban, Sadariadih, Koradih, Jamdih and Bansjora villages in agricultural work. Company will provide agricultural facilities including distribution of seeds and fertilizers, soil testing and supplying two sets each of electric tractors, bund	200.0	100.0	100.0	**400.0**

		makers, ridgers, ploughs, balers, and sprayers to the Gram Panchayat of these villages.				
	Providing Ambulance facilities	Company will provide 3 No. of electric Ambulance with life supporting facilities i.e. Oxygen supply unit, Nebulizer, Stretcher, First Aid box, and other necessary accessories and medicines to Village panchayat of Madhuban, Sadariadih, Koradih, This ambulance service will be for 24x7 hours and will operate in village Madhuban, Sadariadih, Koradih, nearby villages.	30.0	30.0	30.0	**90.0**
TOTAL (A+B+C+D+E+F)			**380.0**	**330.0**	**330.0**	**1040.0**

The public hearing issues compliance action plan and village adoption plan shall be implemented as above with an envisaged budget of Rs. 10.40 crores.

COST PROPOSED FOR EMP

Sl. No.	Environmental Protection Measures	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year
1	***Air Pollution Control Measures***		
	Dust Suppression Systems at ROM unloading hopper, CHP (C&S), Conveyor Transfer Point Plant Water Sprinklers at Stock Yard	150.0	13.0
	Sub Total (A)	**150.0**	**13.0**
2	***Water Pollution Control Measures***		
	Construction of Garland drain at OB Dump	50.0	20.0
	Construction of Retaining Wall OB Dump	20.0	
	Construction of Settling Pond at OB Dump	70.0	

Sl. No.	Environmental Protection Measures	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year
	Installation of Modular ETP/Oil and Grease trap	40.0	5.0
	Installation of modular STP Or Soak pit/Septic tank	100.0	7.0
	Rain Water Harvesting	50.0	5.0
	Sub Total (B)	**330.0**	**37.0**
3.	***Noise Pollution Control Measures***	70.0	10.0
	Sub Total (C)	**70.0**	**10.0**
4.	***Greenbelt Development***		
	Green belt development and Plantation over reclaimed area	408.0	40.8
	Sub Total (D)	**380.0**	**213.0**
5.	***Environment Monitoring Program (E)***	**115.0**	**24.0**
6.	***Fire Fighting and Safety measures (F)***	**78.0**	**18.0**
7.	***Budget for Conservation of Schedule-I species***	**2034.0**	--
Total EMP Cost (A+B+C+D+E+F)		**3157.0**	**100.8**
Budget to address issues raised during Public Hearing (G)		**1040.0**	--
TOTAL EMP BUDGET (A+B+C+D+E+F+G)		**4197.0**	**315.0**

The consolidated EMP budget is envisaged as capital cost Rs. 41.97 crores and recurring cost of Rs. 3.15 Crores per year.

Environment Monitoring Programme

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 Station	Six Monthly
2	Water: Surface water sample in the	2 Surface Water	Six Monthly

	vicinity of the 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 Plan to be followed:

Environmental Component	Project Activities	Impacts	Adverse / Beneficial	Mitigative Measures
Air Quality	Drilling and Blasting	PM10, PM2.5, SO2 and NO2	Adverse	Use of dust aprons by drillers and adopting wet drilling methods. A. The production of blast fumes containing noxious gases will be reduced by the following methods: • Use of adequate booster/primer; and • Proper stemming of the blast hole. • Scientific design of blast. B. Drills fitted with dust collection system will be deployed or using wet drilling method. C. Development of greenbelt.
	Overburden removal	Increase in SPM levels in ambient air due to	Adverse	• Sprinkling of water on haul roads at regular intervals. • Installing permanent water sprinklers at strategic

		dust generation and NO2, HC, SO2 and CO concentration levels in ambient air due to vehicular emissions.		areas/locations/stretches. • Regular maintenance of vehicles and machinery will be carried out. • Cabins for shovel and dumpers and dust respirators to workmen will be provided. All HEMM cabins will be airconditioned. • Dust suppression will be done on exposed area using water sprinkler. • Greenbelt development will be taken up all along the haul roads. • Separate storage of top soil for progressive reclamation of dumps and mined out area backfilled with overburden material. • Re-vegetation of mined out area and inactive dumps and • A good housekeeping and proper maintenance will be practiced which will help in controlling pollution.
	Transportation of overburden	-do-	Adverse	• Use of tarpaulin covered trucks for transportation of coal outside the ML area. • Regular water sprinkling on haul, access roads and all transfer points. • Haul roads to be

				maintained by surface grading to minimize excessive road surface wearing. • Roads no longer required will be re-vegetated as soon as possible.
	General equipment operations	Increase in SPM, NO2 and CO concentrations in ambient air.	Adverse	• Regular maintenance of all equipment to minimize particulate matter and gaseous emissions from diesel driven vehicles & equipment. • Use of non-electric initiation and computerized blast design to maximize the explosive energy for fragmentation and minimum fume generation in blast.
	All activities	Excessive exposures to airborne particulate matter.	Adverse	Personal protective equipment (PPE) will be provided to all workers working in dusty environment.
Noise Levels and Ground Vibrations	Drilling and Blasting	High impulsive noise levels, overpressure and ground vibrations impacts and noise related	Adverse	➢ **Noise Control Measures** • Controlled blasting with proper spacing, burden and stemming will be maintained; • NONEL will be used for initiation of explosives in blasting. • The blasting will be carried out during favorable atmospheric

		community annoyance		condition and less human activity timings; • Provision of sound insulated chambers for the workers deployed on machines (HEMM) • Green belt has been developed all along the lease boundaries to attenuate noise. • A thick green belt will be provided in phased manner around the periphery of the mine to attenuate noise; • Trees will be planted on both sides of haul roads. • Personal Protective Equipment (PPE) like ear muffs/ear plugs will be provided to the operators of HEMM and persons working near HEMM; and • Reducing the exposure time of workers to the higher noise levels. • Regular monitoring of Noise level will be carried out. ➢ **Measures to Control Ground Vibration** • Proper quantity of explosive, suitable stemming materials and appropriate delay system are to be adopted for safe blasting. Computerized blast design to be used. • A safe blasting zone is kept around the
	Machine and transportation of overburden within the ML area.	Increase in noise levels occupational hazard due to noise exposures and increase in ambient noise levels.	Adverse	

				periphery of the quarry. • Overcharging will be avoided; • The charge per delay will be minimized and preferably more number of delays will be used per blasts;
Water Resources and Quality	Mining will intersect the ground water table.	Depletion of ground water	Adverse	Main source of industrial water will be through borewells and mine water. ➢ **Mine Drainage** • Garland drains will be developed. • The overall drainage planning will be done in such a manner that the existing drainage conditions should be maintained totheextent possible, so that run off distribution is not affected. • The pumped out water from mines shall be channelized • Pumps of adequate capacity will be provided at sump to keep these areas dry. • Stone pitching shall be made at suitable places to regulate water flow. • The settling tank and drains are cleaned periodically, especially during monsoons. ➢ **Surface Water Pollution Control Measures** • Retaining walls of
	Water required for mine, (dust suppression systems, workshop, domestic facilities and greenbelt development)	Except water demand for drinking & domestic purpose or quarry discharge.	Adverse	
	Waste water generated from mine &domestic usage at mine.	Depletion of ground water level and soil quality when used untreated water for	Adverse	

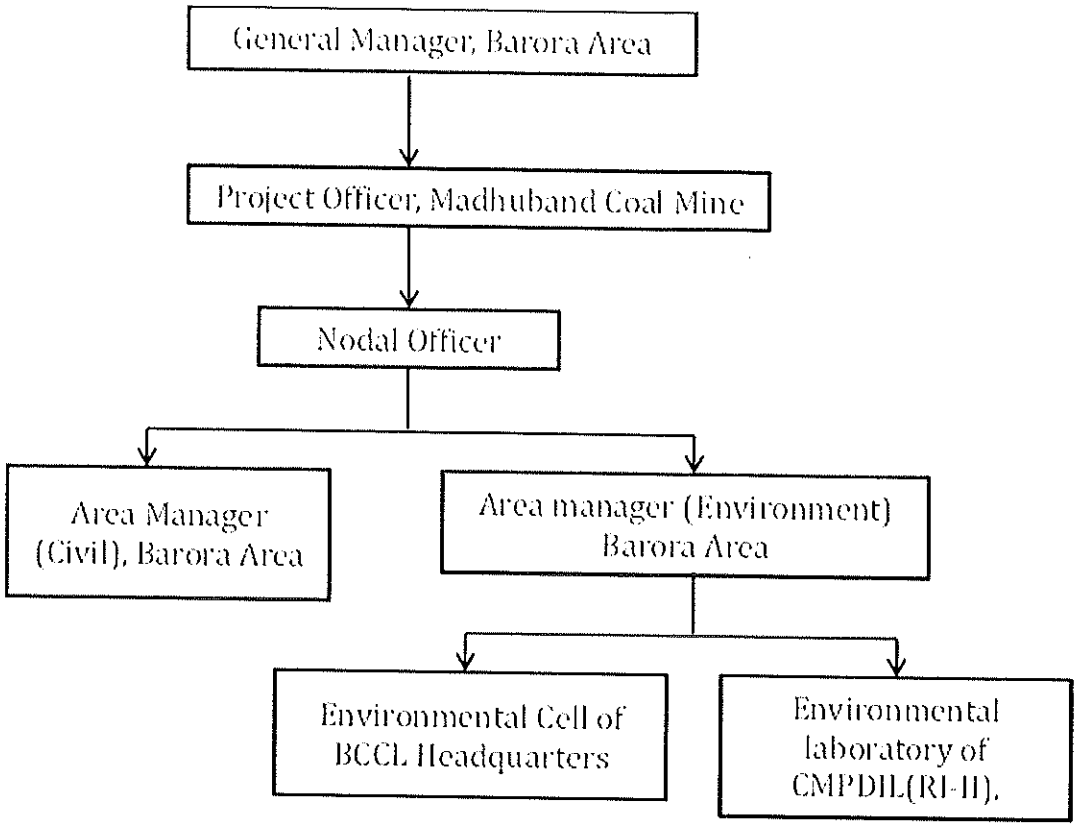
		greenbelt development.		adequate dimensions will be provided at the toe of dumps and the unstable OB benches within the mine to prevent wash off from dumps and sliding of material from benches. This will help in preventing silting of water drains/channels; • The water channels/ drains carrying the rain water from the mine will be provided with baffles and settling pits to arrest the suspended solids, if any, present in this water; • The worked out slopes will be stabilized by planting appropriate shrub/grass species on the slopes. This will help in preventing wash-off from these slopes; • The mine water will be regularly tested for presence of any undesirable elements and appropriate measures will be taken in case any element is found exceeding the limits prescribed by CPCB; ➢ **Ground Water Pollution Control Measures** • The domestic sewage from the canteen and toilets will be treated in modular STP/Soak

				pit/Septic tanks. • Regular monitoring of water levels and quality in the existing open wells and bore well in the vicinity will be carried out.
Drainage pattern and Hydrogeology	Quarries, stack yards and waste dump	Catchment area inside the mine will be affected.	Adverse	Regular monitoring of water quality of the nearby water bodies will be done as per norms and MoEFCC conditions
Landuse and Soil Characteristics	Mining & allied activities	Existing landuse of the core zone will alter. Land degradation due to disposal of waste materials.	Adverse	**Following measures will be taken:** • Construction/ Installation of diversion drains and settling ponds • Dust suppression on exposed areas using water tankers and automatic sprinkling systems. • Properly terracing of overburden dump to minimize erosion. • Plantation around service building, along road in and around the safety zone using native plant sapling. • Backfilling & re-handling of external OB dump as per approved Progressive Mine Closure Plan. • Compliance with mine decommissioning plan.

Flora and Fauna	Mine development and operations Mineral Transportation	Displacement of existing fauna. Loss of vegetation	Adverse	• Management of flora and fauna both at core and buffer zone shall be done as per the approved site specific wildlife conservation plan. Suitable reclamation, rehabilitation and restoration of the land shall be made to protect the biodiversity. • However, progressive afforestation and green belt development in the ML area has been carried out and shall continue till the life of the mine.
Occupational Health & Safety	Overall Mining& allied activities	Occupational health problems due to dust & noise. Accident probability due to slope failure, movement of HEMM, handling of explosives.	Adverse	• Adoption of dust suppression measures like spraying water, use of drill with dust collection system or wet drilling etc. • Plantation • Avoid blasting during unfavorable wind & atmospheric conditions • Use of personal protective equipment. • Periodical training of workers • Compliance with DGMS circulars Emergency response plan that includes installation of emergency response equipment to combat events such as fire. All personnel required to handle hazardous

				materials will be provided with personal protective equipment. On-site first aid facilities have been provided to employees and are being extended to the local community in emergencies.
Socio-economic Aspects	Land acquisition for mine site	No displacement of people	-	No R&R is involved in the immediate proposal. Abandoned quarters of BCCL are present inside the lease area which shall be demolished as per existing guidelines. Area identified under Jharia Master Plan (JMP) will be dealt as per the guidelines of JMP. If in the future any habitations are identified during expansion of the proposal, its R&R will be carried out as per the provisions of LARR Act. 2013.
	Mining operations	Increase in economic status of local people & in the region due to Increase in employment opportunities both direct and indirect.	Beneficial	The project will provide opportunity to the local people for direct and in-direct employment. The proposed project will create opportunities for indirect employment in the field of transportation business, vehicle hiring, labours, trading of construction materials, carpenters etc.

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 Coal Mining Project. With a clear structure, roles, and responsibilities, the EMP Cell is equipped to manage environmental impacts and promote sustainable practices.

Based on the presentation made and information provided, the Committee decided that the proposal for Madhuband Colliery with 1.5 MTPA using open cast and underground mining of M/s Bharat Coking Coal Limited, Village : Madhuband, Sidpoki (part), Keshargarh (Part), Saderiyadih (Part), Pandubitha (Part), Bansjora (Part) and Mohanpur (Part), Anchal : Baghmara, Distt.: Dhanbad, Jharkhand (393.77 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/94/2026/3416, dated : 18.09.2026 is also included as Annexure – I (A) :

I. In compliance of OM no. F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign *"Ek Ped Ma Ke Naam"* and the

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

II. Project specific traffic study and impact assessment is to be carried out and to be submitted alongwith 1st six monthly compliance report.

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2. **Proposed Group Housing Project "Indraprastha" by M/s Nobel Living Spaces LLP, Mouza : Bariyatu, Thana no. : 193, Tehsil : Ranchi, Distt. : Ranchi, Jharkhand.**

(Proposal no.: SIA/JH/ INFRA2 /588663/2026)

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

This is a new project which has been listed for appraisal on 26.09.2026 but due to unavoidable circumstances, appraisal has been done on 28.09.2026.

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

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

M/s Nobel Living Spaces LLP proposes to develop a Group Housing Project – "Indraprastha". The proposed development comprises residential towers, commercial/retail spaces, a clubhouse, internal roads, basement and surface parking facilities, landscaped green areas, pedestrian pathways, utility services, and other supporting infrastructure.

PROJECT AND LOCATION DETAILS

Parameters	Descriptions
Total Plot Area	27,527.95 sq. m
Total Built-up Area	1,31,166 Square Meter
Project Cost	INR 190 Crores
Proposed FAR	3.51

Total Green Area (@ 28% of plot area)	7,508Square Meter Green Belt Area: 4,023.00 sq.m. (15% of total plot area) Landscape Area: 3,485.00 sq.m. (13% of total plot area)
Population	6,656 Persons
Water Requirement	409 KLD
Fresh Water Requirement	274 KLD
Wastewater Generation	329KLD
STP Capacity	400 KLD (MBBR technology)
Total Municipal Waste	2,111 kg/day
OWC Capacity	1300 kg/day
Power Requirement	Maximum power demand for the project during operation phase is estimated to be 6606 kW. Source of power will be Jharkhand State Electricity Board.
DG Sets	• **3 × 1500 kVA + 1 × 1010 kVA** DG Sets for **Apartments, Club and Common Services** • **1 × 750 kVA** DG Set for the **Commercial Block**
RWH Pits	10 Nos.
Parking Area	24,676 sq. m
20% provision for EV charging facilities	

SURROUNDINGS OF THE PROJECT SITE:

S. No.	Features	Description
1.	**Nearest Habitation**	Project site within Rani Bagan, Bariatu, Ranchi, Jharkhand
2.	**Nearest City**	Project site within Ranchi City
3.	**Nearest School/College**	Little Millennium Preschool - Ranchi, Approx 0.19 Km in South Direction.
4.	**Nearest Hospital**	Bhagwan Mahavir Manipal Hospital, Ranchi, Approx 1.37 Km in East Direction.
5.	**Nearest water**	Subarnarekha River, Approx 3.75 Km in SSE

	body	Direction.
6.	Nearest Road	NH -20, Approx 1.18 km in SSE Direction
7.	Nearest Railway Station	Ranchi Junction Railway Station Approx 5.74 km in SSW Direction.
8.	Nearest Airport	Birsa Munda Airport, Ranchi Approx 9.37 km in SSW Direction.
9.	Temples	Shiv Mandir Approx 0.02 Km in WNW Direction.

COORDINATES

Pillar	Latitude	Longitude
1	23°23'40.32"N	85°21'45.41"E
2	23°23'43.51"N	85°21'46.28"E
3	23°23'43.24"N	85°21'47.98"E
4	23°23'39.69"N	85°21'48.06"E
5	23°23'40.15"N	85°21'48.23"E
6	23°23'45.49"N	85°21'48.65"E
7	23°23'44.95"N	85°21'50.32"E
8	23°23'44.67"N	85°21'51.73"E
9	23°23'39.62"N	85°21'53.16"E
10	23°23'39.07"N	85°21'53.45"E

LAND DETAILS :

Khata No.	Plot No.
27	**862**
50	**863**

AREA STATEMENT

S. No.	Particulars	Proposed Details
1.	Total Plot / Land Area	**27,527.95 sq. m**
2.	No. of Towers	**5 Nos. (Tower A–E)**
3.	Total No. of Flats / Residential Units	**442 Nos.**
4.	3 BHK Units	**176 Nos.**
5.	4 BHK Units	**234 Nos.**
6.	Penthouse Units	**20 Nos.**

7.	Duplex Units	**12 Nos.**
8.	Proposed Built-up Area	**1,31,166 sq. m**
9.	Additional FAR – Green Building @ 7% BUA	**0.21**
10.	Additional FAR – EWS @ 10% BUA	**0.30**
11.	Net FAR	**3.51**
12.	Proposed Ground Coverage	**32% (8,500 sq. m)**
13.	Proposed Green Area	**28% (7,508 sq. m)** Green Belt Area: 4,023 sq.m. (15% of total plot area) Landscape Area: 3,485.00 sq.m. (13% of total plot area)
14.	Proposed Building Height	**84.85 m**
15.	Building Configuration	**Lower Basement + Upper Basement + Ground Floor + 24 Floors**
16.	Club Area	**3,739 sq. m**
17.	Commercial Area	**2,762 sq. m**
18.	Parking Area	**24,676 sq. m**
19.	Services Area	**2,589 sq. m**
20.	Tower A Apartment BUA (incl. O.T.)	**20,096 sq. m**
21.	Tower A Common Area	**3,821 sq. m**
22.	Tower B Apartment BUA (incl. O.T.)	**14,809 sq. m**
23.	Tower B Common Area	**3,648 sq. m**
24.	Tower B Open Terraces	**534 sq. m**
25.	Tower C Apartment BUA (incl. O.T.)	**14,431 sq. m**
26.	Tower C Common Area	**3,723 sq. m**
27.	Tower C Open Terraces	**526 sq. m**
28.	Tower D Apartment BUA (incl. O.T.)	**14,809 sq. m**

29.	Tower D Common Area	**3,627 sq. m**
30.	Tower D Open Terraces	**534 sq. m**
31.	Tower E Apartment BUA (incl. O.T.)	**14,809 sq. m**
32.	Tower E Common Area	**3,627 sq. m**
33.	Tower E Open Terraces	**534 sq. m**
34.	Car Parking Provided – Residential	**822 Nos.**
35.	Car Parking Provided – Commercial	**43 Nos.**
36.	2-Wheeler Parking Provided – Residential	**255 Nos.**
37.	2-Wheeler Parking Provided – Commercial	**36 Nos.**

Area Summary Detail

S. No.	Floor / Level	Tower / Component	Built-up Area (sq. m)
1	Lower Basement	Parking + Services + Common Areas of Towers A–E	**13,344**
2	Upper Basement	**Club + Parking + Services + Common Areas of Towers A–E**	**13,576**
3	Ground Floor	**Club + Commercial + Parking + Services + Common Areas of Towers A–E**	**8,500**
4	1st Floor	**Club + Commercial + Towers A–E**	**4,670**
5	2nd Floor	**Club + Towers A–E**	**3,940**
6	3rd Floor	Towers A–E	**3,985**
7	4th Floor	Towers A–E	**3,980**
8	5th Floor	Towers A–E	**3,985**
9	6th Floor	Towers A–E	**3,980**
10	7th Floor	Towers A–E	**3,985**
11	8th Floor	Towers A–E	**3,980**

12	9th Floor	Towers A–E	**3,985**
13	10th Floor	Towers A–E	**3,980**
14	11th Floor	Towers A–E	**3,985**
15	12th Floor	Towers A–E	**3,980**
16	13th Floor	Towers A–E	**3,985**
17	14th Floor	Towers A–E	**3,980**
18	15th Floor	Towers A–E	**3,985**
19	16th Floor	Towers A–E	**3,980**
20	17th Floor	Towers A–E	**3,985**
21	18th Floor	Towers A–E	**3,980**
22	19th Floor	Towers A–E	**3,985**
23	20th Floor	Towers A–E	**3,981**
24	21st Floor	Towers A–E	**3,980**
25	22nd Floor	Towers A–E	**3,734**
26	23rd Floor	Towers A–E	**4,217**
27	24th Floor	Towers A–E	**3,519**
		TOTAL PROPOSED BUILT-UP AREA	**1,31,166**

Residential Unit Configuration

S. No.	Unit Category	Unit Type	Unit Area (sq. m)	No. of Units
1	3 BHK	3BR-1A	136.66	44
2	3 BHK	3BR-1B	138.99	44
3	3 BHK	3BR-2A	139.11	44
4	3 BHK	3BR-2B	141.00	44
	Total 3 BHK			**176**

5	4 BHK	4BR-1A	165.90	40
6	4 BHK	4BR-1B	164.40	40
7	4 BHK	4BR-2A	177.60	39
8	4 BHK	4BR-2B	177.92	39
9	4 BHK	4BR-3A	205.40	9
10	4 BHK	4BR-3B	209.70	10
11	4 BHK	4BR-4A	222.10	9
12	4 BHK	4BR-4B	209.60	10
13	4 BHK	4BR-5A	222.40	9
14	4 BHK	4BR-5B	216.04	10
15	4 BHK	4BR-6A	239.20	9
16	4 BHK	4BR-6B	237.00	10
	Total 4 BHK			**234**
17	Penthouse	PENT-1	324.20	4
18	Penthouse	PENT-2	338.30	4
19	Penthouse	PENT-3	261.00	4
20	Penthouse	PENT-4	274.60	4
21	Penthouse	PENT-5	406.40	1
22	Penthouse	PENT-6	415.40	1
23	Penthouse	PENT-7	460.20	1
24	Penthouse	PENT-8	418.60	1
	Total Penthouse			**20**
25	Duplex	DUP-1	455.52	1
26	Duplex	DUP-2	421.20	1
27	Duplex	DUP-3	396.40	1
28	Duplex	DUP-4	401.60	1
29	Duplex	DUP-5	333.30	4

30	Duplex	DUP-6	311.50	4
	Total Duplex			**12**
	GRAND TOTAL			**442 Nos.**

POPULATION DETAILS

S. No.	Category	Area / No. of Units	Population Standard (Sq. m/person)	Estimated Population
A. Club Block				
1	Assembly	3,739 sq. m	**1.4**	**2,671**
2	Club – Staff	—	**15%**	**401**
3	Club – Visitors	—	**85%**	**2,270**
	Total Club Population			**2,671**
B. Commercial Block				
3	Commercial Area	2,762 sq. m	**3**	**921**
3	Commercial – Staff	—	**5%**	**46**
4	Commercial – Visitors	—	**95%**	**875**
	Total Commercial Population			**921**
C. Residential Towers – A to E				
5	3 BHK Apartments	176 Nos.	**6 persons/unit**	**1,056**
6	4 BHK Apartments	234 Nos.	**7 persons/unit**	**1,638**
7	Penthouse	20 Nos.	**7 persons/unit**	**140**
8	Duplex	12 Nos.	**7 persons/unit**	**84**
	Total Residential Population	**442 Nos.**	—	**2,918**
D. Utilities				
9	Maintenance, Facility & Security Staff	Assumed	-	—
10	Drivers	—	**5% of residential population**	**146**
	GRAND TOTAL ESTIMATED			**6,656 persons***

	POPULATION			

WATER REQUIREMENT DETAILS

S. No.	Category	Population	Water Standard (LPCD)	Total Water	Fresh Water	Recycled Water
A	**Residential Population**					
1	Residential Towers – A to E	2,918	100	**292**	**205**	**87**
B	**Club Block**					
2	Club – Staff	401	45	**19**	**13**	**6**
3	Club – Visitors	2,270	15	**34**	**24**	**10**
C	**Commercial Block**					
4	Commercial – Staff	46	45	**3**	**2**	**1**
5	Commercial – Visitors	875	15	**14**	**10**	**4**
D	**Utilities**					
6	Drivers	146	45	**7**	**5**	**2**
7	**Swimming Pool Makeup Water**	—	**15,000 L/day**	**15**	**15**	—
	Total Domestic Water Demand	**6,656**	—	**384**	**274**	**110**
8	Landscape/Green Area	7,508 sq. m	Lump Sum	**10**	—	**10**
9	Fire Fighting	—	Lump Sum	**5**	—	**5**
10	DG Cooling	—	Lump Sum	**10**	—	**10**
	TOTAL WATER DEMAND	—	—	**409 KLD**	**274 KLD**	**135 KLD**

WASTE WATER CALCULATION

Category	Total Quantity (KLD)
Total Domestic Water Demand	384
Fresh water Req.	274
Flushing water Req.	110
Sewage generation (@80% of the fresh + 100% flushing water requirement)	329
Capacity of STP	400 KLD
Recovered water from STP (90% of Waste water) 1. Flushing 2. Landscaping 3. Fire Fighting 4. DG cooling 5. HVAC 6. Construction in nearby areas/road washing/sewer	297 110 10 5 10 50 112

SOLID WASTE GENERATION

S. No.	Description	Population / Area	kg/cap/day	Total Solid Waste (kg/day)
1	Staff	593 Nos.	0.25	149
2	Visitors	3,145 Nos.	0.15	472
3	Residents / Occupants	2,918 Nos.	0.50	1,459
4	Landscape Waste	7,508 sq.m	~2 kg/acre/day	4
5	Sewage generation	329 KLD	0.08	27
	TOTAL WASTE GENERATED	6,656 Persons	—	2,111 kg/day

Composition of Municipal Solid Waste Generation

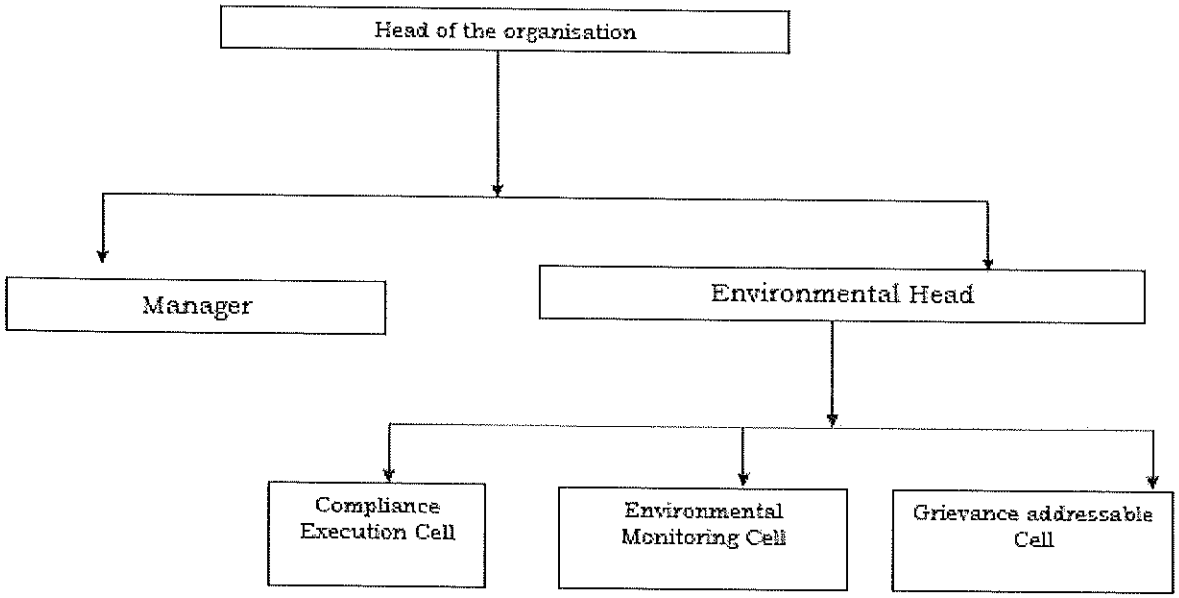
S. No.	Description	Management	Qty (kg/day)	Period of Storage
1	**Biodegradable or Wet Waste @ 60%**	Managed through in-house provision of composting/OWC facility of capacity **1,300 kg/day** within the project premises	**1,267**	**1 Day (24 Hours)**
2	**Dry Waste or Recyclable Waste @ 25%**	Sent to authorized recyclers for Material Recovery/Recycling	**528**	**1 Day (24 Hours)**
3	**Sanitary Waste @ 10%**	Sanitary waste separately wrapped and stored separately	**211**	**1 Day (24 Hours)**
4	**Special Care Waste @ 5%**	Handed over to authorized agencies or designated collection centres	**105**	**1 Day (24 Hours)**
	TOTAL		**2,111 kg/day**	**1 Day (24 Hours)**

EMP COST DURING OPERATIONS PHASE

S. No.	Activity	Capacity/ Area/Nos./parameters	Capital Cost (Lacs)	Annual Recurring Cost (Lacs)
1.	STP	350 KLD	25	8
2.	Landscaping & planting trees	7,508 Square Meter	10	4
3.	Solid waste Management	2,111 kg/day total waste generation OWC Capacity: 1300 kg/day	30	11
4.	RWH Pit Installation	10 pits	20	8
5.	Energy Saving	15% (5% Solar 10% Energy Efficient Measures)	30	5

6.	Environmental Monitoring	Air, water, soil and noise	-	5
Total			115	41

ORGANIZATION STRUCTURE



- Total green area proposed is 7,508 sq.m. (@ 28% of Plot Area)
- Approximately 335 trees are proposed within the residential campus.
- Native and pollution tolerant species shall be planted.
- Treated wastewater shall be utilized for irrigation of landscaped areas.
- Evergreen native and suitable ornamental tree species are proposed for plantation.

Suggested Monitoring Program for Project

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air Quality	Project Site	Criteria Pollutants: SO_2, NO_2, $PM_{2.5}$ & PM_{10}	Half yearly (24 hr average samples) during construction phase and annual during operation phase.
2.	Groundwater (Portability testing)	Project site	Drinking water parameters as per IS 10500.	Half Yearly
3.	Ambient Noise	Project site	dB (A) levels	Half Yearly (Hourly day and night time L_{eq} levels) during

				construction phase and every year during operation phase.
4.	Potable water quality	Drinking water supply	As per IS 10500 potable water standards	Half Yearly
5.	Soil quality	Project site	Organic matter, C.H., N, Alkalinity, Acidity, heavy metals and trace metal, Alkalinity, Acidity.	Half Yearly
6.	Waste Characterization	Municipal waste	Physical and Chemical composition	Daily
7.	Treated water	Outlet of STP	BOD, MPN, coliform count, etc.	Monthly

Solid Waste Management

During Construction Phase

- Designated construction material storage areas shall be provided within the project site. These would be segregated as recyclable/ reusable and discarded materials.
- Excavated topsoil shall be stored separately and reused for landscaping and green belt development.
- Remaining excavated soil shall be utilized for backfilling, site levelling, and internal road development, to the extent feasible.
- Separate waste collection bins/containers shall be provided for collection and segregation of waste generated by construction workers.
- Construction and Demolition (C&D) waste shall be managed in accordance with the Construction and Demolition Waste Management Rules and applicable guidelines.
- Recyclable materials such as steel scrap, cement bags, cardboard, plastic, oil and packaging materials shall be collected separately and handed over to authorized recyclers.
- Adequate housekeeping practices shall be maintained throughout the construction period.

During Operation Phase

- Waste shall be segregated at source into biodegradable, recyclable, sanitary, biomedical (where applicable), domestic hazardous, and other waste streams as per the applicable Solid Waste Management Rules, 2026.
- Color-coded bins shall be provided at appropriate locations throughout the campus for segregation and collection of different categories of waste.
- Horticultural waste shall be composted and reused for landscaping and green belt development.
- Recyclable waste such as paper, plastic, glass, metal, and cardboard shall be handed over to authorized recyclers.
- STP sludge generated from sewage treatment plants shall be utilized as manure for horticulture and landscaping activities, wherever feasible.
- Domestic hazardous waste shall be stored separately and disposed of through authorized agencies in accordance with applicable regulations.
- The overall solid waste management system shall ensure environmentally sound collection, segregation, storage, processing, transportation, recycling, and disposal of waste in compliance with statutory requirements.

Water Quality Management

During Construction Phase

- Water requirement will be met through water tankers.
- Mobile toilets shall be provided for construction workers.
- Wastewater arising from the project shall be disposed of conforming to standards of CPCB by septic tanks/ soak pits.
- Proper site drainage and housekeeping shall be maintained.

During Operation Phase

- STP of total capacity 400 KLD will be provided.
- Approximately 297 KLD treated wastewater will be reused for flushing, landscaping, HVAC cooling, DG cooling and fire-fighting.
- Dual plumbing system will be adopted.
- Rainwater harvesting pits will be provided for groundwater recharge.

Air Quality Management

- Warehouse/stock yard will be provided for storage of construction material
- Covering of trucks carrying construction materials.
- Dust suppression by water sprinkling at site and haulage road.
- Adequate maintenance of construction equipment & vehicles.

- Wheel wash facility at the entry/exit of the site to prevent dust emissions.
- Periodical Ambient Air Quality Monitoring.
- Provision of stacks with DG sets as per CPCB norms and usage if low sulphur fuel in DG sets
- Barricading the construction site
- Covering the scaffolding of buildings with green nets

Energy conservation

- Energy efficient lifts will be installed at the site
- CFL/LED Lighting Fixtures for internal lighting.
- Energy Efficient Motors and Pumps.
- BEE Star Rated Electrical Equipment.
- Copper Bus Bars in Electrical Panels.
- Heat Reflective Roof and Wall Coatings.
- Approx. 15 % of the energy saving is done by Solar panels and street light
- No fenestration provided on the west facing side of the building. West facing will be blocked
- All windows of all rooms open to outside so as the day light enters in all the flats
- Shafts and windows provided for adequate ventilation
- Usage of fly ash mixed cement for construction (PPC)
- Green belt and greenery developed around the project periphery

Undertaking

- An undertaking that no ground water will be used without any prior approval from CGWA
- E-waste shall be handed over only to authorized recyclers.
- Solid waste shall be managed as per applicable Solid Waste Management Rules 2026.
- Approximately 15% of energy would be saved by solar panels and Energy Efficient Measures).
- The project shall comply with all applicable environmental regulations and statutory requirements.

STATUTORY CLEARANCES

1	Land Docs	:	Development agreement with land owners.
2	DFO Territorial	:	DFO, Ranchi Forest Division vide letter no. 2310, dated 29.07.2026 certified that the distance of reserved/protected forest is more than 250 m from project site.
3	DFO Wildlife	:	DFO, Wildlife Division, Ranchi vide letter no. 519, dated 20.07.2026 certified that proposed project site is out side Eco Sensitive Zone of Palkot Wildlife Sanctuary.
4	CO certificate	:	The CO, Badagai, Ranchi vide letter no. 405, dated 02.07.2026 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatiyan.
5	AAI NOC	:	Airport authority of India issued NOC vide NOC ID no. RANC/EAST/B/ 051725/1711929, dated 20.08.2025 valid up to 19.08.2033.
6	Building Plan approval	:	Conceptual plan submitted.
7	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 Ref. No.: PC/SEIAA/EC-CTE/93/26/3458, dated : 25.09.2026.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Group Housing Project "Indraprastha" by M/s Nobel Living Spaces LLP, Mouza : Bariyatu, Thana no. : 193, Tehsil : Ranchi, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide Ref. no. PC/SEIAA/EC-CTE/93/26/3458, dated : 25.09.2026 is also included as Annexure – II (A) :

I. If any tree felling is undertaken, the permission from Competent Authority shall be obtained prior to undertaking tree felling activity.

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. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.

IV. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.

V. All raw material to be stored only under covered shed.

VI. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.

VII. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load.

VIII. Trees should be developed & maintained not less than 15% of project area.

IX. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.

X. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.

XI. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.

XII. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.

XIII. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.

XIV. Sufficient number of EV fast charging points to be installed.

XV. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.

XVI. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.

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3. Expansion of Residential Project located at Ranchi Smart City of M/s Big Realtors JV at Village : Jagarnathpur, Tehsil : Namkum, Distt. : Ranchi, Jharkhand.

(Proposal no.: SIA/JH/ INFRA2 /587377/2026)

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

This is an expansion project which has been listed for appraisal on 26.09.2026 but due to unavoidable circumstances, appraisal has been done on 28.09.2026.

Project Sector: 8(b) Townships and Area DevelopmentProjects , Category: B1.

Application for Environmental Clearance after Terms of Reference (ToR) as per EIA notification, 2006.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 131st meeting held on 24.04.2026 - 28.04.2026 and SEIAA, Jharkhand has approved the ToRs in 131st meeting held on 02nd & 03rd June, 2026. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2026-27/4088/2026/60, dated 08.06.2026. The final EIA / EMP submitted by PP to SEAC on 23.09.2026.

- **Existing residential project has been granted EC by SEIAA vide letter no - EC/SEIAA/2023-24/3061/2023/462 Dated – 01/11/2023, Jharkhand**
- **Consent to Establish has been obtainedRef No: JSPCB/HO/RNC/CTE-18006843/2024/205 Dated: 2024-04-2024**
- **TOR Granted vide File No: EC/SEIAA/2026-27/4088/2026 on 16.06.2026**
- **Existing buildup area 1, 49,000 square meter under 8(a) category.**
- **Proposed buildup area is 1, 93,700.0 Square meter under 8(b) category.**
- **Existing Plot Area:** 30351.40 Square Meter
- **Proposed Plot Area:** 30351.40 Square Meter
- **Existing Project Cost: 275 Crores**
- **Total Project Cost After Exapnsion: 290 Crores**

EC Application for: Expansion of Residential Project located in Ranchi Smart City of M/S Big Realtors at Plot No. 25. R.S. Plot No.1269 to 1281, 1284 to 1289, 1291, 1292, 1297, 1298, 1299, 1301, 1358, 1359, 1363 to 1369, 1372 to 1374, 1377, 1378, 1654, 1665, 1666, 1667, 1669, 1670, 1671, 1674, 1675, 1677, 1678, Khata No.3, 7, 8, 10, 18, 28, 38, 63, 68, 72, 73, 75, 94, 129, 137, 156, 157, 158, 165, 167, 169 and 171 Halka No.-01 – Mauza (village) and Thana No. Jagarnathpur-244; Block - Namkum, District – Ranchi, Jharkhand.

Total Built-up Area: 1, 93,700 sq. m (Post Expansion)

Projectand Location Details:

Parameters	Descriptions
Total Plot Area	30351.40 Square Meter
Project Cost	INR 290 Crores (Existing 275 Crore+15 Crore afrerExpansiion)
Proposed FAR	1,38,100.00 Square Meter
Green Area (@ 16% of plot area)	4856.00 Square Meter • Green Belt Area: 4,553.0 sq. m. (15% of plot area) • Landscape Area: 303.00 sq. m. (1% of plot area)
Additional 10% of green area under Ek Ped MaaKeNaam initiative, as recommended by the local NGO/Municipal Corporation.	485Sqm
Population	3208
Water Requirement	306 KLD
Fresh Water Requirement	202 KLD
Wastewater Generation	266KLD
STP	300KLD/ CSTP of Ranchi Smart City
OWC capacity	1000 kg/day
Total Municipal Waste	1498 kg/day
Power Requirement	Maximum power demand for the project during operation phase is estimated to be 2500 kVA. Source of power will be Jharkhand State Electricity Board
DG Sets	1 no. of DG set of Total 1500 KVA
RWH Pits	20 nos.
Parking Area	20000 sq. m
20% provision for EV charging facilities.	

Connectivity and Project Surroundings:

S. No.	Features	Description
1.	Nearest Habitation	• Dhurwa (580 m, WNW) • Birsa Nagar (1.65km, West) • Jagarnathpur (700 m, ENE)
2.	Nearest City	• Ranchi (Project site lies within Ranchi District)_
3.	Nearest School/College	• DAV Public School (920 m, West) • St. Thomas School (1.29 km, WNW) • Nirmala College (3.56 km, NE)
4.	Nearest Hospital	• HEC Plant Hospital (1.69 km, West) • Paras HEC Hospital (1.99 km, WNW) • Summer Hospital & Research Centre (1.98 km, ESE)
5.	Nearest water body	• HEC Talab (2.78 km, SSW) • Dhurwa Dam (4.12 km, WSW) • Kanke Dam (9.63 km, North)
6.	Nearest Road	• 45m Wide Sector Road (Adjacent, South) • Dhurwa Road (320 m, WNW) • NH 39 (4.56 km, SW)
7.	Nearest Railway Station	• Ranchi Junction (6.21 km, NE) • Hatia Railway Sta 1 KM ENE
8.	Nearest Airport	• BirsaMunda Airport (2.95 km, ENE)
9.	Temples	• Jagarnathpur Temple (1.00 km, WNW) • ShriDurga Mata Mandir (1.57 km, WSW)

CO-ORDINATES

Point	Latitude	Longitude
A	23°18'24.17"N	85°17'52.16"E
B	23°18'25.20"N	85°18'3.34"E

LAND DETAILS

Ranchi Smart CityPlot no.	25

	RS	

Khata No.	Plot no.	
3	1284	Part
3	1289	Part
7	1291	Part
7	1292	Part
8	1665	Part
8	1666	Part
10	1286	Part
10	1372	Part
10	1373	Part
10	1374	Part
10	1377	Part
10	1667	Part
18	1287	Full
28	1285	Part
38	1274	Full
63	1288	Part
68	1272	Full
68	1275	Full
68	1276	Full
68	1277	Full
68	1278	Part
68	1297	Part
68	1298	Part
68	1299	Part
72	1669	Full
72	1670	Part
72	1671	Part
73	1279	Part
73	1280	Part
73	1365	Part
73	1366	Part
73	1367	Part
75	1363	Part
75	1364	Full
75	1368	Part
75	1369	Part
94	1359	Part
129	1378	Part
129	1654	Part

129	1674	Part
137	1273	Part
137	1301	Part
156	1271	Full
157	1270	Full
158	1269	Part
165	1358	Part
165	1677	Part
167	1675	Part
169	1281	Part
171	1678	Part

AREA STATEMENT

S. NO.	DESCRIPTION	AREA (SQ M) (As per Existing EC)	Proposed	AREA (SQ M) Total After Expansion)
A.	**Total plot area**	**30,351.40**	—	**30351.40**
B.	Permissible Ground Coverage (@ 35% of plot area)	10,623.00	—	10,623.00
C.	Proposed Ground Coverage (@ 35 % of plot area)	10,623.00	—	10,623.00
D.	**Proposed FAR Area**	1,06,230.00	31,870.00	1,38,100.00
E.	Non FAR Area (Staircase, Lift, Balcony, Ramp, Common area, Accessory Use, 2 Basement)	42770.00	12,830.00	55,600.00
F.	**Built-up Area (D+E)**	**1,49,000.00**	**44,700.00**	**1,93,700.00**
G.	Green Area (@16% of plot area)	4856.22 sqm **Green Belt Area**: 4,553.00 sq. m. (15% of plot area) **Landscape Area**: 303.00 sq. m. (1% of plot area	**Ek Ped MaaKeNaam initiative**: 485Sqm	5341.22 sqm **Green Belt Area:**4,553.00 sq. m. (15% of plot area) **Landscape Area:** 303.00 sq. m. (1% of plot area **Ek Ped**

				MaaKeNaam initiative: 485Sqm
H.	Paved Area @40% of the plot area	12140.56	—	12140.56
I.	Open Area	3035.14	—	3035.14
J.	Height	70 M	—	70 M
K.	No of Dwelling units	750	-130	620

Population Detail

S. No.	Category	No of DU/Area (sq m)	Standard	Population
Residential				
1.	Residents	620	4.5 person/unit	2790
2.	Staff	--	2790@5%	139
3.	Visitors	--	2790@10%	279
	Total Residential Population			**3208**
4	**Total Population**			**3208**

Water Requirement Details

Category	Population/Area(sqm)/Capacity	Standard(LPCD)	WaterRequirement-KLD	Fresh WaterRequirement-KLD	RecycledWaterrequirement-KLD
Domestic					
Residents	2790	100	279	195	84
Staff	139	45	6	4	2
Visitors	279	15	4	3	1
TotalDomesticWaterDemand			**289**	**202**	**87**
Landscape	4856.2 sqm	3 l/day	15	0	15
Fire Fighting	--	--	2	--	2
Total			**306**	**202**	**104**

Wastewater Calculations

Category	Total Quantity (KLD)
Fresh water Req.	202
Flushing water Req.	104
Sewage generation (@80% of the fresh + 100% flushing water requirement)	266
Capacity of STP 300 KLD or CSTP of Ranchi Smart City	**300**
Recovered water from STP (90% of Waste water) • Flushing • Landscaping • Fire Fighting • HVAC Cooling • Discharge to Sewer/Road/Car washing	239 104 15 2 50 68

Solid Waste Generation

S. No	Description	Occupancy/ Area	kg/capita /day	Total Solid Waste Generation (kg/day)
1.	Residents	2790	0.5	1395
2.	Staff	139	0.25	35
3.	Visitors	279	0.15	42
5.	STP sludge	266 KLD	--	26
Total Waste Generated				**1498**

Composition of Municipal Solid Waste Generation

S. No.	Description	Management	Qty (kg/day)	Period of Storage
1	**Biodegradable or Wet Waste @ 60%**	Managed through in-house provision of composting/OWC facility of capacity **1,300 kg/day** within the project premises	**898.8**	**1 Day (24 Hours)**
2	**Dry Waste or Recyclable Waste @ 25%**	Sent to authorized recyclers for Material Recovery/Recycling	**374.5**	**1 Day (24 Hours)**
3	**Sanitary Waste @ 10%**	Sanitary waste separately wrapped and stored separately	**149.8**	**1 Day (24 Hours)**

4	Special Care Waste @ 5%	Handed over to authorized agencies or designated collection centres	74.9	1 Day (24 Hours)
	TOTAL		1,498.0	1 Day (24 Hours)

Storm Water Management

Formula:

Runoff volume = Area × Rainfall × Runoff coefficient

For 50 mm rainfall:

A. Roof-top area

= 10,623 × 0.050 × 0.90= **478.04 m³**

B. Paved area

= 14,872.18 × 0.050 × 0.80= **594.89 m³**

C. Green area

= 4,856.22 × 0.050 × 0.30= **72.84 m³**

Total design runoff

= 478.04 + 594.89 + 72.84= **1,145.77 m³**

RWH Design for Each Parameter

Sl. No.	Catchment	Area (m²)	Runoff Coefficient	50-mm Runoff (m³)	No. of Pits	Pit Size (m)	Gross Capacity (m³)
1	Roof-top	10,623.00	0.90	478.04	**6**	8 × 6 × 3	864
2	Paved area	14,872.18	0.80	594.89	**10**	8 × 6 × 3	1,440
3	Green area	4,856.22	0.30	72.84	**4**	8 × 6 × 3	576
Total	—	**30,351.40**	—	**1,145.77**	**20**	**8 × 6 × 3**	**2,880**

Pit-wise Capacity

Roof-top RWH

6 pits × 144 m^3 = 864 m^3

Required runoff = **478.04 m^3**

Capacity surplus = **385.96 m^3**

Paved-area RWH

10 pits × 144 m^3 = 1,440 m^3

Required runoff = **594.89 m^3**

Capacity surplus = **845.11 m^3**

Green-area RWH

4 pits × 144 m^3 = 576 m^3

Required runoff = **72.84 m^3**

Capacity surplus = **503.16 m^3**

Hence total Number of 20 RWH pit will be constructed 6 pit for Rooftop, 10 Pit for Paved Area and 4 pit for green area.

RWH pit constructed as per following Parameter

For each **8 m × 6 m × 3 m** pit, a typical recharge arrangement can be:

Component	Recommended provision
Pit size	**8 m × 6 m × 3 m**
Top filter layer	0.30–0.45 m coarse aggregate
Aggregate layer	0.75–1.00 m
Gravel layer	0.45–0.60 m
Coarse sand layer	0.30–0.45 m
Recharge zone	Remaining depth

Inlet	RCC/PVC stormwater pipe
Silt trap	Provided before every pit
Overflow	Connected to site stormwater drain
Inspection	Accessible inspection chamber/manhole

EMP Cost – Approx. Budget Operational Phase:

S. No.	Activity	Capacity/ Area/Nos./parameters	Capital Cost (Lacs)	Annual Recurring Cost (Lacs)
1.	STP	300 KLD	60	10
2.	Landscaping & planting trees	4856.22 sq m (16% of plot area) + Additional 10% green area under Ek Ped Maa Ke Naam initiative, as recommended by the local NGO/Municipal Corporation : 485Sqm	15	4
3.	Solid waste Management	Municipal waste- 1498kg/day OWC Capacity : 1000 kg/day	18	2
4	RWH Pit	20 pits	10	2
5	Energy Saving	Solar Energy – 2%; LED Lighting –Energy-efficient HVAC – ; BEE Star-rated Equipment –; VFD Pumps & Motors –; Energy Management & Sensors – 3%.	10	4
6	Environmental Monitoring*	Air, water, soil and noise	-	2
Total			113	24

Suggested Monitoring Program for Project

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air	Project Site	Criteria Pollutants: SO_2, NO_2, $PM_{2.5}$ &	Half yearly (24 hr average samples) during

	Quality		PM_{10}	construction phase and annual during operation phase.
2.	Groundwater (Portability testing)	Project site	Drinking water parameters as per IS 10500.	Half Yearly
3.	Ambient Noise	Project site	dB (A) levels	Half Yearly (Hourly day and night time L_{eq} levels) during construction phase and every year during operation phase.
4.	Potable water quality	Drinking water supply	As per IS 10500 potable water standards	Half Yearly
5.	Soil quality	Project site	Organic matter, C.H., N, Alkalinity, Acidity, heavy metals and trace metal, Alkalinity, Acidity.	Half Yearly
6.	Waste Characterization	Municipal waste	Physical and Chemical composition	Daily
7.	Treated water	Outlet of STP	BOD, MPN, coliform count, etc.	Monthly

STP Inlet & Outlet Characteristics

Parameter	Inlet (Raw Sewage)	Outlet (Treated Water)
pH	6.5–8.5	6.5–8.5
BOD (Biochemical Oxygen Demand)	250–350 mg/L	≤ 10 mg/L
COD (Chemical Oxygen Demand)	500–700 mg/L	≤ 50 mg/L

TSS (Total Suspended Solids)	200–300 mg/L	≤ 10 mg/L
Oil & Grease	20–50 mg/L	≤ 5 mg/L

CER BUDGET

S. No.	Activities for Environmental & Community Welfare	Year-1	Year-2	Year-3	Year-4	Year-5	Total (₹ Lakhs)
(i)	**Green Development & Tree Plantation in nearby Village** • Plantation of about 1,500 native trees along village roads, community areas and open spaces. • Greening of Government School, and Primary Health Centre (PHC), • Provision of tree guards, watering system and maintenance for 5 years.	71.00	27.00	22.00	22.00	19.00	**161.00**
(ii)	**Safe Drinking Water & Sanitation Facilities** • Installation of RO-based drinking water system with water cooler at	62.00	31.00	18.00	13.00	10.00	**134.00**

	Government School, • Installation of RO drinking water unit at PHC. • Repair and improvement of toilets, handwashing stations, water supply and drainage facilities.						
(iii)	**Education Support & Digital Learning** • Supply of desks, benches, books, smart classroom equipment, computers and educational materials to Government School, • Distribution of sports kits and awareness material on environmental protection and sanitation.	40.00	18.00	13.00	9.00	9.00	**89.00**
(iv)	**Health Care & Community Welfare** • Organizing regular health check-up camps,	45.00	22.00	18.00	13.00	9.00	**107.00**

	eye camps, women's health awareness and child health programmes at PHC. • Supply of essential medical equipment, wheelchairs, stretchers and emergency medical items.						
(v)	**Solid Waste Management & Environmental Awareness** • Installation of community dustbins and waste collection points. • IEC programs on waste segregation, plastic-free village campaign, cleanliness drives and environmental awareness in nearby Village. • Support for village cleanliness initiatives.	36.00	18.00	14.00	14.00	7.00	**89.00**
	Grand Total CER Budget	**₹254.00**	**₹116.00**	**₹85.00**	**₹71.00**	**₹54.00**	**₹580.00 Lakhs (₹5.80 Crores)**

Summary of Baseline Data:

Monitoring season – March 2026 to May 2026

Parameter	No. of Locations	Environmental Baseline Study
Ambient Air Quality Monitoring	8 locations	• PM10 o Range: 58.21 – 82.86 µg/m³ • 98th Percentile: 75.00 – 82.77 µg/m³ • PM2.5 o Range: 22.85 – 46.70 µg/m³ • o98th Percentile: 35.76 – 46.42 µg/m³ • SO_2 o Range: 5.82 – 12.83 µg/m³ • o 98th Percentile: 7.46 – 12.82 µg/m³ • NO_2 o Range: 12.32 – 19.43 µg/m³ • 98th Percentile: 15.46 – 19.14 µg/m³
Noise level monitoring	8 locations	• The monitored daytime equivalent noise level (Ld) ranges from 50.2 to 57.2 dB(A), while the night-time equivalent noise level (Ln) ranges from 38.6 to 43.0 dB(A). • Results were found within permissible limits
Water samples	Surface water – 2 locations	• **pH**: 7.26 – 7.74 • Dissolved Oxygen (DO): 6.5 – 7.5 mg/l • Biochemical Oxygen Demand (BOD): 4.2 – 4.5 mg/l • Total Dissolved Solids (TDS): 190 – 280 mg/l
	Ground water- 5locations	• pH: 7.16 – 7.82 • TDS: 675 – 872 mg/l • Total Hardness: 198 – 289 mg/l • Chlorides: 9.50 – 38.80 mg/l
Soil Samples	5 locations	• pH- – 7.12-7.66 • Conductivity- 376 – 416 µmhos/cm • Organic Carbon (0.41%–0.51%) • Total Nitrogen (0.024%–0.039%)

Ambient Air Quality Monitoring Location

Location ID	Location name	Distance (Km)	Direction
AQ 1	Near Project Site	0.60	SE
AQ 2	HesagHatia	1.00	SE
AQ 3	Chandaghasi	5.60	SE
AQ 4	Pithiyatil	4.60	South
AQ 5	Pundag	3.84	NW
AQ 6	Dhurwa	3.60	WSW
AQ 7	Railway Colony Road Gosaintola	5.95	NE
AQ 8	Tumbaguttu	6.70	East

Water Quality Monitoring Location

Ground monitoring locations			
Location ID	**Location name**	**Distance (Km)**	**Direction**
GW1	HesagHatia	1.00	SE
GW2	Chandaghasi	5.60	SE
GW3	Pithiyatil	4.60	South
GW4	Pundag	3.84	NW
GW5	Dhurwa	3.60	WSW

Surface Water monitoring locations			
Location ID	**Location name**	**Distance (Km)**	**Direction**
SW 1	Dhurwa Dam	3.84	WSW
SW 2	Ranchi Lake	6.96	NNE
SW 3	HEC Talab	2.92	SSW

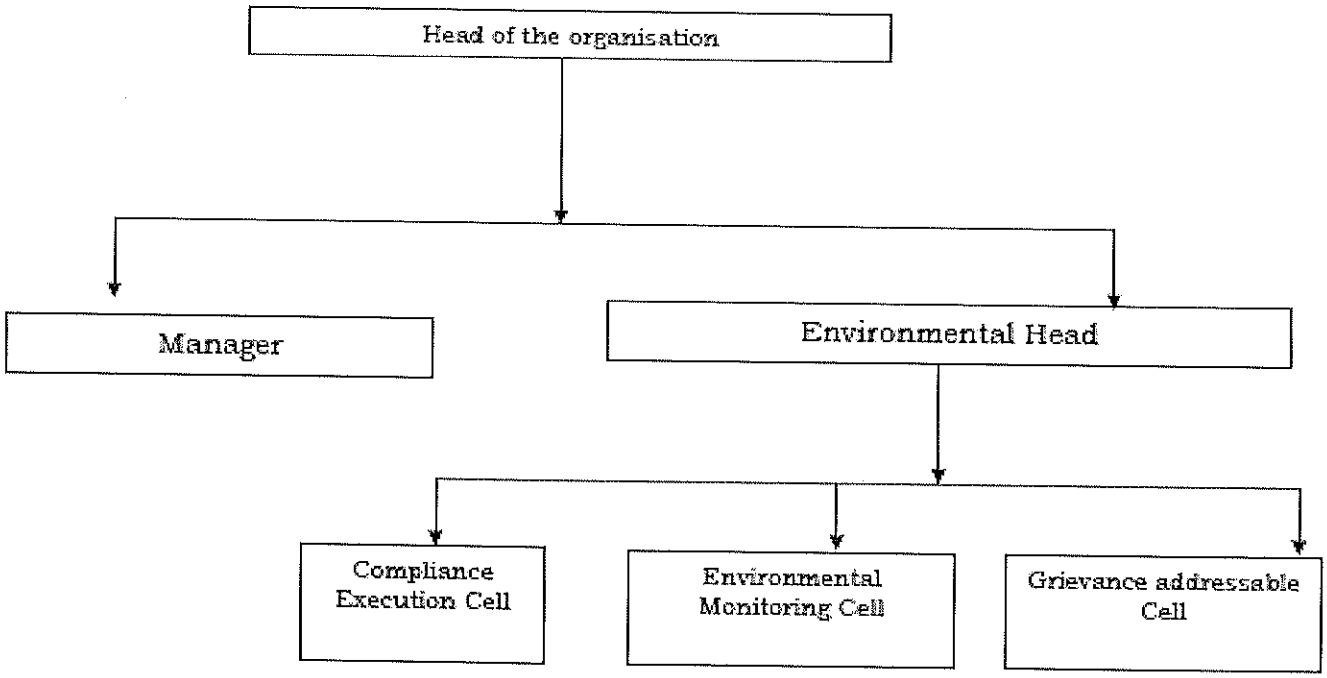
Soil Quality Monitoring Location

Location ID	Location name	Distance (Km)	Direction
SQ1	Near Project Site	0.60	SE
SQ2	HesagHatia	1.00	SE
SQ3	Chandaghasi	5.60	SE
SQ4	Pithiyatil	4.60	South
SQ5	Pundag	3.84	NW

Noise Quality Monitoring Stations

Noise monitoring locations			
Location ID	Location name	Distance (Km)	Direction
NQ 1	Near Project Site	0.60	SE
NQ 2	HesagHatia	1.00	SE
NQ 3	Chandaghasi	5.60	SE
NQ 4	Pithiyatil	4.60	South
NQ 5	Pundag	3.84	NW
NQ 6	Dhurwa	3.60	WSW
NQ 7	Railway Colony Road Gosaintola	5.95	NE
NQ 8	Tumbaguttu	6.70	East

Organization Structure



ENVIRONMENT MANAGEMENT

Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Total green beltprovided at the site is 4856.22 sqm (16.0 % of thenet plotarea which will enhance the beauty of the site and help combat air and noise pollution.
- Additional 10% green area under Ek Ped Maa Ke Naam initiative, as recommended by the local NGO/Municipal Corporation: 485.00 Sqm
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

Solid Waste Management

During Construction Phase

- Construction yards are proposed for storage of construction material.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the project.
- Remaining soil will be utilized for refilling/road work/raising of site level at locations.
- There will be "Refuse Containers" at site for the management of domestic waste generated by the construction labourers and these containers will be emptied at least once daily.
- Cement bags, waste paper and packing material (cardboard) will be sold off to recyclers.

During Operation Phase

- Waste shall be segregated at source into biodegradable, recyclable, sanitary, and biomedical (where applicable), domestic hazardous, and other waste streams as per the applicable Solid Waste Management Rules, 2026.
- Color-coded bins shall be provided at appropriate locations throughout the campus for segregation and collection of different categories of waste.
- Horticultural waste shall be composted and reused for landscaping and green belt development.
- Recyclable waste such as paper, plastic, glass, metal, and cardboard shall be handed over to authorized recyclers.
- STP sludge generated from sewage treatment plants shall be utilized as manure for horticulture and landscaping activities, wherever feasible.
- Domestic hazardous waste shall be stored separately and disposed of through authorized agencies in accordance with applicable regulations.
- The overall solid waste management system shall ensure environmentally sound collection, segregation, storage, processing, transportation, recycling, and disposal of waste in compliance with statutory requirements.

Water Quality Management

During Construction Phase

- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Laborers.

During Operation Phase

- STP of capacity i.e. 300 KLD of STP is proposed for treatment of wastewater.
- Treated waste water would be reused for Flushing, Landscaping, Road Washing &Misc
- Use of water efficient plumbing fixtures to conserve water.

Air Quality Management

- Warehouse/stock yard will be provided for storage of construction material
- Covering of stored construction materials with tarpaulin covers which will be resold to authorized construction material handling agency for reuse.
- Covering of trucks carrying construction materials.
- Dust suppression by water sprinkling.
- Adequate maintenance of construction equipment & vehicles.
- Wheel wash facility at the entry/exit of the site to prevent dust emissions.
- Periodical Ambient Air Quality Monitoring.
- PUC Certified vehicles.
- Glow signs Speed Limits to 20 kmph to reduce emissions on site will be displayed at the important junctions.

Energy conservation

- Energy will be conserved via solar power and LED at least5% of the total power requirement.

Undertaking

- -An undertaking that no ground water will be used without any prior approval from CGWA
- An undertaking that at least 5% of total power requirement will be provided solar power and LED.

STATUTORY CLEARANCES

1	Land Docs	:	Owned land :M/s Big Realtors JV
2	DFO Wildlife	:	DFO, Wildlife Ranchi vide letter no. 736 dated 24.08.2022 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	DFO Territorial	:	DFO, Ranchi Forest Division vide letter no. 4273, dated 22.12.2018 certified that the distance of reserved / protected forest is at 1300 meter from proposed project site.
4	CO certificate	:	The CO, Namkum, Ranchi vide letter no. 29 (ii), dated

			07.01.2019 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyan& Register II.
5	AAI NOC	:	Airport Authority of India NOC for height clearance vide NOC Id- RANC/EAST/B/062823/766501, dated 08.08.2023 valid upto 07.08.2031.
6	Previous Environmental Clearance	:	Previous Environmental Clearance granted by SEIAA, Jharkhand vide letter no. EC/SEIAA/2023-24/3061/2023/462, dated 01.11.2023.
7	Consent to Establish (CTE)	:	CTE issued by JSPCB vide ref. no. JSPCB / HO / RNC/ CTE-18006843 / 2024 / 205, dated 24.04.2024.
8	Building Plan approval	:	Conceptual Plan submitted.
9	Baseline Data generation period	:	March to May 2026
10	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 Ref. No.: PC/SEIAA/EC-CTE/76/26/3459, dated : 25.09.2026.

Based on the presentation made and information provided, the Committee decided that the proposal for Expansion of Residential Project located at Ranchi Smart City of M/s Big Realtors JV at Village : Jagarnathpur, Tehsil : Namkum, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide Ref. No.: PC/SEIAA/EC-CTE/76/26/3459, dated : 25.09.2026 is also included as Annexure – II (B) :

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

II. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.

III. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.

IV. All raw material to be stored only under covered shed.

V. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.

VI. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load.

VII. Trees should be developed & maintained not less than 15% of project area.

VIII. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.

IX. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.

X. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.

XI. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.

XII. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.

XIII. Sufficient number of EV fast charging points to be installed.

XIV. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.

XV. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.

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4. **Brick Soil Mining of M/s Top Bricks, Mouza : Latdag, Thana : Chandwa, Thana no. : 253, Distt. : Latehar, Jharkhand (0.32 Ha).**

(Proposal no.: SIA/JH/MIN/591370/2026)

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

This is a new project which has been listed for appraisal on 26.09.2026 but due to unavoidable circumstances, appraisal has been done on 28.09.2026.

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

Application for Environmental Clearance (EC).
EC Application for: Proposed Capacity-1200.00cum soil/season
Project and location details:

Sl	Parameter		Details	
1.	Project Name	:	Brick Soil Mining For M/s Top Bricks	
2.	Lessee:	:	M/s Top Bricks Proprietor- Sri Vikas Kumar At- Latdag, District - Latehar, Jharkhand,	
3.	Lease Address	:	Village- Latdag, Thana- Chandwa, District- Latehar, State- Jharkhand	
4.	Lease Area	:	0.32 ha	Acres-0.79Acres
5.	Type of Land	:	Non Forest – Raiyati Land	
6.	Project Cost	:	Rs. 20.13Lakhs	
7.	EMP Budget	:	Capital:3.23 Lakh	Recurring: 2.295Lakh / year
8.	New or Expansion	:	New	
9.	Mineable Reserves	:	4944cum	
10.	Mine Life	:	4 Year 11 Month	
11.	Man power	:	11	
12.	Water Requirement	:	5.81 ~ 5.90 KLD (Drinking: 0.11KLD,Dust Suppression:1.80 KLD, Plantation:3.90KLD)	

13.	Water Source	:	From Nearby villages by tankers
14.	DG Set /power	:	50 KVA
15.	Nearest Water Body	:	River, Approx. 1.53 km in South direction
16.	Nearest Habitation	:	Approx. 140 m towards East direction as per kml, EMP submitted.
17.	Nearest Rail Station	:	Chetar Railway Station at a distance of 4.56 km towards SW direction from site
18.	Nearest Airport	:	Birsa Munda Airport, Ranchi at a distance of 78.37 km in ESE direction from mine site.
19.	Nearest Forest	:	Serak Protected Forest, Approx. 1.26 km in North direction. Latdag Protected Forest, Approx., 890m in East direction Tudu Protected Forest, Approx., 3.53 km in SE direction
20.	Road & Highways	:	NH -39, Approx, 0.95 Km towards SSW direction. NH- 22, Approx, 6.60km towards East direction.

CO-ORDINATES

Boundary Pillar No.	Location (Co-ordinates)	
	Latitude	Longitude
1	N23°42'34.97"	E84°41'10.29"
2	N23°42'34.83"	E84°41'10.87"
3	N23°42'34.83"	E84°41'11.29"
4	N23°42'35.09"	E84°41'11.37"
5	N23°42'34.89"	E84°41'11.87"
6	N23°42'34.84"	E84°41'12.08"
7	N23°42'34.28"	E84°41'11.84"
8	N23°42'33.63"	E84°41'11.39"
9	N23°42'32.85"	E84°41'10.75"
10	N23°42'32.03"	E84°41'10.56"
11	N23°42'32.00"	E84°41'10.23"

12	N23°42'32.16"	E84°41'09.90"
13	N23°42'32.62"	E84°41'10.02"
14	N23°42'33.18"	E84°41'09.44"
15	N23°42'33.70"	E84°41'09.96"
16	N23°42'34.34"	E84°41'10.55"
17	N23°42'34.54"	E84°41'10.58"
18	N23°42'34.71"	E84°41'10.10"

LAND DETAILS

Khata no.	Plot no.
10	394 & 402

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Lease agreement executed with land owner.
2	CO	:	The CO, Chandwa, Latehar vide letter no. 644, dated 24.11.2022 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan & Register II.
3	DMO Cluster	:	DMO, Latehar vide memo no. 964/M, dated 20.08.2026 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	Deputy Director, Palamu Tiger Project, South Division, Medininagar vide letter no. 513, dated 24.07.2026 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Tiger Reserve.
5	DFO Territorial	:	Divisional Forest Officer, Latehar Forest Division vide letter no. 1993, dated 26.10.2022 certified that the distance of reserved / protected forest is at 320 meters from proposed project site.
6	DSR	:	The DMO, Latehar has certified vide memo no. 994/M, dated 24.08.2026 that this project is mentioned in approved DSR of Latehar District as a potential area (Page no. 79).
7	Gram Sabha	:	Gram Sabha conducted on 12.04.2026.
8	Mine Plan	:	Approved by AMO – cum- Incharge District Mining Officer, Latehar

	Approval		vide Memo No. 1332/M, dated 19.12.2025.
9	Qualified Person	:	Shri Sahadev Singh through e-mail dated 26.09.2026 affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Manual Mining method	
2	Quarry Area	:	0.29 ha	Life of Mine – 4 Year 11 Month
3	Waste Generation	:	0.0 Cu.m	
4	Stripping Ratio	:	01:00	
5	Working Days	:	150	
6	Benches: size & No	:	--	
7	Elevation of Mine	:	503AMSL to 504AMSL	
8	Ground Level Elevation	:	503AMSL	
9	Ultimate Working Depth	:	501AMSL (2 mbgl)	
10	Water Table	:	484-488 AMSL (15-19 mbgl)	
11	Topography of Mine	:	Area represents flat topography	
12	Explosive Requirement	:	--	
13	Diesel/Fuel requirement	:	--	

Production Details

Year	Total excavation of brick earth in cum	Top soil In cum
1st	1200.00	137.00
2nd	1200.00	137.00
3rd	1200.00	137.00
4th	1200.00	137.00
5th	144.00	23.00
Total	**4944.00**	**685.00**

Land Use

Pattern of Utilization	Existing (Ha)	Plan period (Ha)	AT Conceptual period (Ha)
Quarrying	Nil	0.29	0.29 Ha, (reclaimed as cultivated land and handed over to the concern rayat)

Storage of casted bricks	Nil	Storage of casted bricks within quarry	Storage of casted bric within quarry
safety Zone (Bern Area)	Nil	0.03 (Plantation)	0.03 (Plantation)
Mine Road	0.006	within pit	within pit
Total	**0.006**	**0.32**	**0.32**

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.03	48	1600 Tree per Hectare	1st Year	Arjun, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Mango etc.
Length of Approach Road Area (m.)	301	602	2m X 2 m spacing in two rows both side		
Dead Bench (Ha.)	-	-	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	-	-			
Total		**650**			

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

Budget Allotted for the Environmental Management Plan

Particulars	Capital (Rs.)	Recurring (Rs.)
650 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	1,95,000	32,500
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.80KLD) & Horticulture (3.9KLD) 1.80+ 3.9 = 5.7 KLD	0	1,07,000

5.7 KLD X 150 Days = 855 KLD 855 KLD / 4 KLD = 214 Tankers		
Environment Monitoring & Compliance	0	50,000
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC	1,28,000	40,000
Total	**3,23,000**	**2,29,500**

PROJECT COST

Particulars	Capital(Rs.)	Recurring(Rs.)
Land	7,90,000	79,000
Infrastructure	5,00,000	50,000
Mining Equipment *Equipment* / *Quantity* / *Rent per year* Dumper: *0* / *0.00* Compressor: *0* / *0.00* Water Sprinkler: *0* / *0.00* Rock Breaker: 0 / *0.00* Excavator: *0* / *0.00* Loader: *0* / *0.00* Note: no machinery shall be used for mining.	0.00	0.00
Water Facility for Domestic Purpose "0.11" KLD (Annual Water Demand "17"KL @4L per Tanker, total number of tanker required ("5") and per tanker cost @Rs. 500)	0.00	2,500
Statutory Clearances	2,00,000	0.00
Mine Closure Cost for fencing around mine	2,00,000	0.00
Mine Closure Cost for Plantation of "0" number of trees @Rs. 300 per tree for plant & @Rs. 50 per tree for maintenance	0.00	0.00
Environment Management Plan (EMP) Cost	3,23,000	2,29,500
Total	**20,13,000**	**3,61,000**

Environment Monitoring Programme

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

5	Noise	4 Stations	6 Monthly

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The top soil of depth 0.2 m i.e 640 cum will be used for plantation purpose in the berm area and along the approach road.
Air Quality Management	• Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management	• Sewage from rest shelters will be treated through septic tank–soak pit systems.
Noise Quality Management	• Mining activities will be restricted to daytime. • Greenbelt development around the lease boundary to attenuate noise propagation.
Soil Quality Management	• Topsoil will be carefully removed and stored separately for future use in plantation and reclamation. • Post-mining, the area will be rehabilitated using stored topsoil and native vegetation
Flora & Fauna management	• No tree felling will be undertaken without obtaining permission from the competent authority. • Greenbelt and plantation will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • Dust suppression measures will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	▪ Accidents due vehicles. ▪ Accidents at loading point.

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

Undertaking submitted affirming:

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

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Brick Soil Mining of M/s Top Bricks, Mouza : Latdag, Thana : Chandwa, Thana no. : 253, Distt. : Latehar, Jharkhand (0.32 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions :

I. This proposal was forwarded through PARIVESH Portal to Jharkhand State Pollution Control Board (JSPCB) for providing comments / Environmental Safeguards. The proposal was returned to SEAC via same portal without providing comments / Environmental Safeguards. Hence in compliance of OM File No. Q-15012/2/2022-CPW-Part(1)/e-240741, dated 14.01.2025 and File No. Q-15012/2/2022-CPW9Part-I)/e-231973, dated 08.10.2025, the PAs will mandatorily obtain the Environmental Safeguard to be implemented from Jharkhand State Pollution Control Board.
II. In compliance of OM no.F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "*Ek Ped Ma Ke Naam*" and the details of the same shall be uploaded in the MeriLiFE Portal (https://merilife.nic.in). 10% of the total green belt proposed shall be allocated under this clause.
III. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
IV. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone.Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.
V. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only.Sprinkling to be done

such that the haul road is kept moistened all the time with Geo-Tagged photographs.

VI. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests .Summary findings of same to submitted along with 6 monthly compliance.

VII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.

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

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

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5. **Pakariya Stone Deposit of M/s Jai Maa Tara Stone Works (Partner : Smt. Lalita Devi & Others), Village : Pakariya, Anchal : Mandro, Distt. : Sahibganj, Jharkhand (2.934 Ha).**

(Proposal no.: SIA/JH/MIN/586839/2026)

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

This is a new project which has been listed for appraisal on 26.09.2026 but due to unavoidable circumstances, appraisal has been done on 28.09.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 91145 cum/annum or 246091 TPA

Project and Location Details:

Sl	Parameter		Details
1	Project Name	:	Pakariya Stone Deposit
2	Lessee	:	M/s Jai Maa Tara Stone Works (Partner- Smt. Lalita Devi & Smt. Varuna Mishra)
3	Lessee Address	:	Gram- Naya Tola, P.O. + Thana – Mirza Chowki, District-

			Sahibganj.	
4	Lease Area	:	2.934 Ha.	7.25 Acres
5	Type of Land	:	Non-Forest Raiyati Land	
6	Project Cost	:	Rs. 104.842 Lakh	
7	EMP Budget	:	Capital: Rs. 10.842/-Lakh	Recurring: Rs. 5.532 /- Lakh per year
8	New or Expansion	:	New	
9	Mineable Reserves	:	2424386 tones	897920 Cum
10	Mine Life	:	9.97 or say 10 year	
11	Man power	:	24	
12	Water Requirement	:	8.84~ 9.0 KLD	
13	Water Source	:	By authorised hired water tankers	
14	DG Set / power	:	50 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Simartala Jhill approx 1.91km, towards north direction.	
17	Nearest Habitation	:	Nearest Habitation approx 750 meters towards WNW direction.	
18	Nearest Rail Station	:	Mirzachauki Railway Station, approx. 3.42 km towards NW direction.	
19	Nearest Air Port	:	Birsa Munda Airport, Ranchi approx. 159.10 km towards WSW direction.	
20	Road & Highways	:	NH – 33, Approx. 2.87 km towards North direction. SH-18, approx, 14.04 km towards East Direction.	
21	Approach Road	:	approx, 204 meters	
22	Cluster Certificate	:	Cluster certificate has been issued by DMO, Sahebganj vide letter no. 1004/M, Dated 10.07.2026, certified that One mine exists within 500m radius, total cluster area is 12.25 Acres.	
23	Nearest Forest	:	The distance of reserved / protected forest is 550 m from the proposed project site as per the Divisional Forest Officer (DFO), Sahibganj Forest Division, Sahibganj, vide letter no.: 46, dated 06.01.2017.	
24	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 39.5 Km in SE direction from the nearest Eco Sensitive Zone of Udhwa Lake Bird Sanctuary.	

CO-ORDINATES

Point	Latitude	Longitude
P1	25° 14' 25.256" N	87° 31' 23.632" E
P2	25° 14' 27.720" N	87° 31' 25.066" E
P3	25° 14' 27.789" N	87° 31' 28.548" E
P4	25° 14' 27.835" N	87° 31' 30.888" E
P5	25° 14' 27.221" N	87° 31' 31.339" E
P6	25° 14' 25.961" N	87° 31' 31.205" E
P7	25° 14' 24.989" N	87° 31' 31.059" E
P8	25° 14' 24.457" N	87° 31' 31.257" E
P9	25° 14' 24.066" N	87° 31' 31.044" E
P10	25° 14' 23.644" N	87° 31' 30.747" E
P11	25° 14' 23.593" N	87° 31' 30.221" E
P12	25° 14' 23.507" N	87° 31' 29.705" E
P13	25° 14' 23.621" N	87° 31' 29.705" E
P14	25° 14' 23.679" N	87° 31' 29.342" E
P15	25° 14' 23.282" N	87° 31' 29.096" E
P16	25° 14' 22.909" N	87° 31' 28.869" E
P17	25° 14' 22.766" N	87° 31' 28.536" E
P18	25° 14' 21.741" N	87° 31' 28.531" E
P19	25° 14' 22.057" N	87° 31' 27.503" E
P20	25° 14' 22.296" N	87° 31' 26.587" E
P21	25° 14' 22.442" N	87° 31' 26.241" E
P22	25° 14' 22.710" N	87° 31' 26.242" E
P23	25° 14' 23.371" N	87° 31' 24.970" E
P24	25° 14' 23.937" N	87° 31' 24.261" E
P25	25° 14' 23.759" N	87° 31' 23.589" E
P26	25° 14' 23.905" N	87° 31' 23.575" E
P27	25° 14' 24.478" N	87° 31' 23.426" E

LAND DETAILS

Khata no.	Plot no.
04, 12 & 39	01 (P), 02 (P), 03, 05, 06 & 07

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Sahibganj vide letter no. 998/M, dated 04.07.2026.
2	CO	:	The CO, Mandro vide memo no. 475/Ra., dated 01.08.2025 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II.

3	DMO Cluster	:	DMO, Sahibganj vide memo no. 1004/M, dated 10.07.2026 certified that 01 other mining lease area (5.00 Acre) exists within 500 meters radius from proposed project site and total area is 12.25 Acre.
4	DFO Wild Life	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. 3340, dated 06.12.2025 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide memo no. 46, dated 06.01.2017 certified that the distance of notified forest is at 550 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 1003/M, dated 10.07.2026 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 185).
7	Gram Sabha	:	Gram Sabha conducted on 18.03.2026.
8	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1042/M, dated 22.07.2026.
9	Grid certificate	:	DMO, Sahibganj vide memo no. 419/M, dated 26.02.2026 certified that said project falls under grid no. 02 and production is within the overall permissible production limit. The DMO also stated that this certificate is issued in the light of order passed by Hon'ble NGT on 22.12.2021 in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019. It also states this certificate is issued in compliance of report of Expert Committee.
10	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Semi- Mechanized Method
2	Quarry Area	:	2.420 Ha
3	Waste Generation	:	63092 cum
4	Stripping Ratio	:	1:0.13
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	233 m AMSL to 173 m AMSL

8	Ground Level Elevation	:	173 m AMSL
9	Ultimate Working Depth	:	120 m AMSL (53mbgl)
10	Water Table	:	100 -97 m AMSL (73-76 mbgl)
11	Topography of Mine	:	Area represents Undulating Small hillocks.
12	Explosive Requirement	:	50 kg/day
13	Diesel/Fuel requirement	:	150 litre/day

Production Details

Year	Production of stone		Overburden cum	Intercalated waste in cum	Total Waste in cum
	Cum	MT			
1st Year	86748	234220	25988	4566	30554
2nd Year	87763	236960	7120	4619	11739
3rd Year	88947	240156	0	4681	4681
4th Year	89961	242895	6586	4735	11321
5th Year	91145	246091	0	4797	4797
Total	**444564**	**1200323**	**39694**	**23398**	**63092**

Land Use

Pattern of Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At conceptual period (Ha)
Excavation	0.0	1.951	2.420 (0.194 ha area shall be backfilled & 0.931 ha converted into water reservoir, & 1.295 ha shall be left as dead benches)
Waste Dump	0.0	0.450	Nil
Road	0.0	0.003	Nil
Safety zone	0.0	0.514 (Plantation)	0.514 (Plantation)
Total	0.0	2.918	2.934
Unused Area	2.934	0.016	0.0
Total Lease Area	2.934		

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.514	823	1600 Tree per Hectare	1st Year	Sal, Arjuna, Jackfruit, Neem,

Length of Approach Road Area (m.)	204	408	2m X 2 m spacing in two rows both side		Pipal, Mango, Etc.
Plantation at Backfilling	0.194	311	1600 Tree per Hectare	At the end of plan period	
Plantation At Dead Bench	1.295	2072			
Total		3614			

- 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	72,50,000.00	7,25,000.00
Infrastructure	15,00,000.00	1,50,000.00
Mining Equipment Equipment / Quantity / Rent per year Excavator / 2 / 8,00,000 Rock Breaker / 1 / 2,00,000 Wagon drill/Compressor / 1 / 10,00,000 Dumper / 3 / 6,00,000 Water Sprinkler / 1 / 6,00,000 Loader / 1 / 2,00,000 @Per Excavator-4,00,000/- @Per Rock Breaker-2,00,000/- @Per Compressor-10,00,000/- @Per Water Sprinkler -6,00,000/- @Per Dumper-2,00,000/- @DG set -15,00,000/- @Loader – 2,00,000/-	0.00	34,00,000.00
Water Facility for Domestic Purpose "0.24" KLD (Annual Water Demand "72"KL @4L per person , total number of tanker required ("18") and per tanker cost @Rs. 500)	0.00	9000.00
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	10,84,200.00	5,53,200.00
Total	**1,04,84,200.00**	**48,37,200.00**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
3614 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	10,84,200	1,80,700
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.22KLD) & Horticulture (7.38 KLD) 1.22+ 7.38= 8.6 KLD 8.6 KLD X 300 Days = 2580 KLD 2580 KLD / 4 KLD = 645 Tankers	0	3,22,500
Environment Monitoring & Compliance	0	50,000
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF& CC	0	0
Garland Drain & Retaining wall	0	0
Total	**10,84,200**	**5,53,200**

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

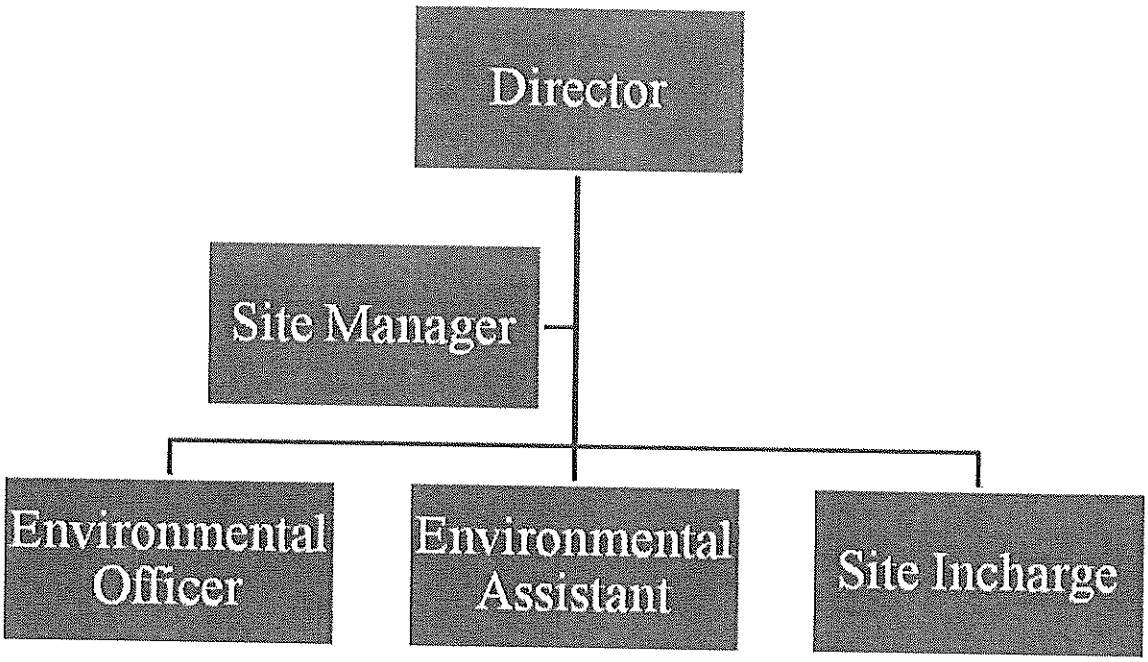
Solid Waste Management	• In this applied lease area, the stone deposit is covered with 2m layer of gritty intermixed soil which considered as over burden. The recovery of stone is about 95%, thus intercalated waste of only 5% shall be generate from this mine. • It has been calculated that total 63092 cum in-situ waste shall be generated during this plan period. • The total generated waste i.e. 63092 cum(in-situ) out of which 37111 cum(insitu) waste shall be utilized for approach & haul road maintenance and rest 25981 cum(in-situ), 32476 cum(Loose) and 27605 cum(compact) shall be used for temporary dumped in the North western part of the applied lease area and it will cover 0.450 ha area.
Air Quality Management	• **Wet drilling** and use of **sharp drill bits** to minimize dust generation. • **Controlled blasting** using optimum explosive charge during favorable weather conditions. • Regular **maintenance of diesel equipment and vehicles** to reduce emissions. • **Water sprinkling** on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid **PUC certificates.** • **Greenbelt and roadside plantation** to act as dust and noise barriers.
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 Pakariya Stone Deposit of M/s Jai Maa Tara Stone Works (Partner : Smt. Lalita Devi & Others), Village : Pakariya, Anchal : Mandro, Distt. : Sahibganj, Jharkhand (2.934 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions :

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

Safeguard to be implemented from Jharkhand State Pollution Control Board.

II. That the Deputy Commissioner, Sahibganj will ensure compliance of the order passed by Hon'ble NGT in OA No. 23/2017/EZ, O.A. no. 776/2018 and O.A. no. 373/2019 in the matter of Syed Arshad Nasar Vs Union of India with Ramchandra Chaurasia Vs State of Jharkhand with Pradeep Kumar Singh Vs State of Jharkhand before grant of mining lease.

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

IV. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.

V. Suitable plant species of not less than 2 M height to be planted equal to twice the area of saplings proposed in Safety zone. This is to be planted in land available near mines and outside safety zone. This will be in addition to plantation in safety zone.Newly planted saplings to be maintained for minimum 3 years with Geo-Tagged photographs.

VI. Dedicated water tanker to be provided for mine. The tanker to be used for spraying water on haul road and for irrigating newly planted saplings only.Sprinkling to be done such that the haul road is kept moistened all the time with Geo-Tagged photographs.

VII. Pre employment Occupational health check up for employees to be done and thereafter at annual interval for PLFT, Audiometry and other required tests .Summary findings of same to submitted along with 6 monthly compliance.

VIII. Ensure use of Quality PPEs equivalent not less than 3M make. Records of same to be maintained and submitted with 6 monthly compliance report with Geo-Tagged photographs.

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

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

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6. **Bhimpur Stone Deposit of Partner : Shri Biswakarma Mardi & Shri Babudhan Murmu, Village : Bhimpur, Anchal : Maheshpur, Distt. : Pakur, Jharkhand (2.837 Ha).**

(Proposal No : SIA/JH/MIN/ 574350/2026)

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

This is a new project which has been listed for appraisal on 26.09.2026 but due to unavoidable circumstances, appraisal has been done on 28.09.2026.

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

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

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 118th meeting held on 22.10.2024 - 26.10.2024 and SEIAA, Jharkhand has approved the ToRs in 118th meeting held on 28th & 29th November, 2024. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2024-25/3299/2024/431, dated 09.12.2024. The final EIA / EMP submitted by PP to SEAC on 22.09.2026.

EC Application for: Proposed Capacity- 53969.50 cum/annum or 145717.65 TPA

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Bhimpur Stone Deposit	
2	Lessee	:	Partner - Shri Biswakarma Mardi & Shri Babudhan Murmu	
3	Lease Address	:	Village – Bhimpur, Anchal – Maheshpur, District – Pakur, State – Jharkhand.	
4	Lease Area	:	2.837 Ha	Acres- 7.01Acres
5	Type of Land	:	Non- Forest (Raiyati Land)	
6	Project Cost	:	Rs. 115.997Lakhs	
7	EMP Budget	:	Capital: Rs. 24.697 lakhs	Recurring: Rs. 13.9995Lakh/year
8	New or Expansion	:	New	
9	Mineable Reserves	:	Cum.:537134.75cum	Tonnes:1450263.83tones
10	Mine Life	:	9.9 year or 10 years	
11	Man power	:	18	
12	Water Requirement	:	13.31~13.50KLD (Drinking: 0.18 KLD,Dust Suppression: 2.4KLD, Plantation:10.73KLD)	
13	Water Source	:	Water will be taken from nearby village	
14	DG Set / power	:	500 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Bansloi River, Approx. 9.66 km. in South direction of mine site.	

17	Nearest Habitation	:	Bhimpur, Approx320meter in direction as per CO Letter EMP Submitted.
18	Nearest Rail Station	:	Nagarnabi Railway station, approx. 13.95 km in East direction.
19	Nearest Air Port	:	Deoghar Airport, approx. 103.78 km towards WSW direction
20	Road & Highways	:	NH-133A, Approx. 8.50 km in North direction.
21	Approach Road	:	Approx 400meter
22.	Distance of nearest ESZ of wildlife sanctuary or National Park	:	The project location is at approx. 68.43km from the nearest Eco sensitive zone of Udhwa Bird Sanctuary.

CO-ORDINATES:

Point	Latitude	Longitude
1	24°34'49.5183"	87°43'52.8633"E
2	24°34'46.4506"N	87°43'52.7354"E
3	24°34'47.1143"N	87°43'51.4942"E
4	24°34'43.4332"N	87°43'49.1799"E
5	24°34'44.0540"N	87°43'47.5195"E
6	24°34'44.9746"N	87°43'47.8174"E
7	24°34'45.6563"N	87°43'46.0143"E
8	24°34'47.8506"N	87°43'44.6037"E
9	24°34'49.2020"N	87°43'44.6272"E
10	24°34'49.2233"N	87°43'45.6725"E
11	24°34'47.9986"N	87°43'46.5618"E
12	24°34'49.8837"N	87°43'47.9018"E
13	24°34'49.5578"N	87°43'49.4209"E
14	24°34'50.7133"N	87°43'51.0471"E

LAND DETAILS

Khata no.	Plot no.
22	185 (P) & 186 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Pakur vide memo no. 1423/M, dated 05.09.2024.

2	CO	:	The CO, Maheshpur vide letter no. 1069/Ra., dated 17.10.2023 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan & Register II and also mentioned that the habitation of 24-25 houses at a distance of 320 meters of proposed project site. For which detailed Environmental Management Plan has been prepared and submitted.
3	DMO	:	DMO, Pakur vide memo no. 1758/M, dated 15.10.2024 certified that 04 other mining lease area (7.35 Acre, 3.71 Acre, 6.47 Acre & 5.71 Acre) exists within 500 meters radius from proposed project site and total area is 30.25 Acre or 12.24 Ha.
4	DFO Wild Life	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. 2076, dated 18.10.2023 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Pakur Forest Division vide memo no. 1332, dated 07.10.2023 certified that the distance of forest is at 728.04 meters from proposed project site.
6	DSR	:	The DMO, Pakur has been certified vide memo no. 1759/M, dated 15.10.2024 that this project is mentioned in approved DSR of Pakur District as a potential area (Sl. no. 57, Page no. 130).
7	Gram Sabha	:	BDO, Maheshpur vide memo no. 1882/Vi., dated 12.09.2023 informed that Gram Sabha conducted on 14.09.2023.
8	Mine Plan Approval	:	Approved by District Mining Officer, Pakur vide Memo No. 1822/M, dated 19.10.2024.
9	Public Hearing	:	Public Hearing conducted on 09.01.2026.
10	Baseline monitoring period	:	October, 2024 to December, 2024.
11	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.
12	Environmental Safeguard from Jharkhand State Pollution Control	:	Environmental Safeguard issued by Environmental Engineer – cum – Nodal Officer, Jharkhand State Pollution Control Board (JSPCB) vide its Memo No.: PC/SEIAA/EC-CTE/56/2026/3428, dated : 21.09.2026.

	Board (JSPCB)		

Working Details

1	Mining Method	:	Opencast Semi - Mechanized Method	
2	Quarry Area	:	2.219ha	Life of Mine – 9.9 year or 10 years
3	Waste Generation	:	36746.00 cum	
4	Stripping Ratio	:	1: 0.11	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	126 AMSL to 128AMSL	
8	Ground Level Elevation	:	126 AMSL	
9	Ultimate Working Depth	:	Up to 86AMSL (40 mbgl)	
10	Water Table	:	75-72 AMSL (51-54mbgl)	
11	Topography of Mine	:	The applied lease area represents Undulating Small hillocks.	
12	Explosive Requirement	:	110kg/day	
13	Diesel/Fuel requirement	:	140 litre/day	

Production Details

Year	Production of stone (Cum)	Production of stone (Tonne)	Overburden in cum	Intercalated waste in Cum	Total waste in cum
1st	53337.75	144011.93	13490.00	2807.25	16297.25
2nd	53608.50	144742.95	0.00	2821.50	2821.50
3rd	53879.25	145473.98	3990.00	2835.75	6825.75
4th	53789.00	145230.30	5130.00	2831.00	7961.00
5th	53969.50	145717.65	0.00	2840.50	2840.50
Total	**268584.00**	**725176.80**	**22610.00**	**14136.00**	**36746.00**

Land Use

Pattern Of Utilization	Existing Land Use (Ha)	At The End Of Plan Period (Ha)	At Conceptual Period (Ha)
Excavation	0.0	1.509	2.219 (0.275ha area shall be Backfilled,1.244ha converted in to water reservoir& 0.700 ha shall be left as dead benches)
Waste Dump	0.0	0.240	Nil (waste dump to be removed and backfilled)
Road	0.0	0.020	0.0
Safety Zone	0.0	0.618 (Plantation)	0.618 (Plantation)
TOTAL	**0.0**	**2.387**	**2.837**
Unused Area	2.837	0.450	0.0
Total Area	**2.837**		

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.618	989	1600 Tree per Hectare	1st Year	Jamun, Mango, Pipal, Gulmohar Babul,Jackfruits, Neem, Arjun, etc.
Length of Approach Road Area (m.)	400	800	2m X 2 m spacing in two rows both side		
Plantation at Backfilled area	0.275	440	1600 Tree per Hectare	At the End of plan period	
Plantation atdead bench	0.700	1120			
Additional plantation as "Ek Ped Ma Ke Naam"	-	100	-	1st Year (Plantation shall be carried out after consultation	

				with the Gram Panchayat)	
Total		**3449**			

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

Summary of Baseline Data:

Monitoring season – October 2024 to December 2024(Noida Testing Laboratories)

Parameter	**No. of Locations**	**Environmental Baseline Study**
Ambient Air Quality Monitoring	8 locations	PM2.5- 30.83µg/m^3 to 60.66µg/m^3 PM10- 53.43 µg/m^3– 91.61 µg/m^3 SO_2- 4.73 µg/m^3 - 18.55 µg/m^3 NO_2- 9.47 µg/m^3– 22.52µg/m^3
Noise level monitoring	8 locations	During daytime- 50.0 to 61.5 dB (A) During Night time- 40.6 to 48.5 dB (A) Results were found within permissible limits
Water samples	Surface water – 2 locations	All parameters like pH (7.35 to 7.38), Chloride (50.0 to 60.0 mg/l), Dissolved Oxygen (4.5 to 7.0 mg/l), BOD (7.1 to 8.8mg/l), Total Alkalinity (166 to 190mg/l), Total Suspended Solid(9.1 to 20 mg/l) etc. are found within permissible limits.
	Ground water- 5locations	All parameters like pH (7.24 to 7.71), Hardness (190 to 264 mg/l), TDS (314 to 460 mg/l), Chloride (59.1 to 84.0 mg/l), Total Alkalinity (90 to 127 mg/l),etc. are found within permissible limits & fit for consumption.
Soil Samples	6 locations	Parameters like pH- 7.18 to 8.0, Conductivity- 275.2 to 410.0 µmhos/cm, Potassium 185.1mg/kgto251.0mg/kg, Phosphorus17.79mg/kg to 19.90mg/kg.

Ambient air quality monitoring Location

Code	Monitoring location	Distance (km)	Direction	Wind classification
AAQ1	Near Project Site (Near Village - Dhowadangal)	0.34	ESE	Crosswind
AAQ2	Near Project site (Near Village – Bhimpur)	0.39	East	Downwind
AAQ3	Gopalnagar	3.50	East	Downwind
AAQ4	Barua	7.80	East	Downwind
AAQ5	Bharatpur	4.22	SE	Crosswind
AAQ6	Asanjola	2.68	NW	Crosswind
AAQ7	Majurnacha	5.90	SW	Crosswind
AAQ8	Tasaria	6.55	West	Upwind

Waterquality Sampling Location

	Surface Water		
SW1	Tantiduba Nala	3.2	NW
SW2	Pond near Chhota Mahulan	4.58	NE
	Ground water		
GW1	Near Project site(Near Village Dhowadangal)	0.54	ESE
GW2	Near Project Site (Near Village - Bhimpur)	0.62	East
GW3	Bharatpur	4.22	SE
GW4	Majurnacha	5.90	SW
GW5	Tasaria	6.55	West

Soilquality Monitoring Location

Code	Monitoring location	Distance (km)	Direction
SQ1	Near Project Site (Near Village - Dhowadangal)	0.35	ESE
SQ2	Near Project site (Near Village – Bhimpur)	0.49	East
SQ3	Gopalnagar	3.50	East
SQ4	Bharatpur	4.22	SE
SQ5	Asanjola	2.68	NW

SQ6	Tasaria	6.55	West

Noise quality Monitoring Location

Code	Monitoring location	Distance (km)	Direction
NQ1	Near Project site (Near Village-Bhimpur)	0.34	ESE
NQ2	Near Project Site (Near Village - Dhowadangal)	0.39	East
NQ3	Gopalnagar	3.50	East
NQ4	Barua	7.80	East
NQ5	Bharatpur	4.22	SE
NQ6	Asanjola	2.68	NW
NQ7	Majurnacha	5.90	SW
NQ8	Tasaria	6.55	West

Public Hearing (Action Plan) –

S. No.	Issue	Reply	Action Plan	Time Bound
1.	There is a problem of drinking water	Deep boring would be done	Installation of a hand pump with deep boring; Rs. 3.0 lakh as capital cost and Rs. 0.50 lakh as recurring cost.	This will be done within 1 year after the grant of EC.
2.	Health Services	Health check up camps and medicine distribution	Budget of Rs 2.0 lakhas recurring cost will be spent on health check-up camps.	This will be done twice in a yearafter the grant of EC till life of mine.
3.	ambulance/ vehicle facilities	Vehicle would be arranged to take the villagers to the hospital.	budget for ambulance/ vehicle facilities Rs 1.50 lakh will be spent as recurring cost.	This will be done as per requirement after the grant of EC till life of mine.
4	Dust does not fly on transport routes	Water sprinkling will be done in the mine area and on transport roads.	Total Rs. 4.925 lakh will be spent as recurring cost for Pollution Control & Dust Suppression. Water sprinkling will be done twice a day.	This will be done as soon as mining will startEC till life of mine.
5	Employment	preference will be given to local people for employment based on eligibility	Direct and Indirect employment will be given to 18 Skilled & Un-Skilled persons Un-	Employment will be given as per their skill on priority basiswithin 6 months after the grant of EC.

		and necessity	Skilled on priority basis.	
6	Tree plantation should be done	Plantation along routes of transportation and around the mine will be done	Total budget of Rs 10.347 lakh as the Capital Cost and Rs. 1.7245 lakh every year will be spent as recurring cost.	This will be done within 1Year after the grant of EC.
	Total budget spent as capital cost = **Rs. 13.347 lakh**& as recurring cost =**Rs. 10.6495 lakh**for PH Demands.			

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Particulars	**Capital**	**Recurring**
Land	70,10,000.00	7,01,000.00
Infrastructure	15,00,000.00	1,50,000.00
Mining Equipment	0.00	26,00,000.00

Equipment	*Quantity*	*Rent per year*
Excavator	1	4,00,000
Rock Breakers	1	2,00,000
Compressor/ wagon drill	1	10,00,000
Dumper	2	4,00,000
Water sprinkles	1	6,00,000

@Per Excavator-4,00,000/-

@Per Rock Breaker-2,00,000/-

@Per Compressor-10,00,000/-

@Per Water Sprinkler -6,00,000/-

@Per Loader-3,00,000/- @Per Dumper-2,00,000/-		
Water Facility for Domestic Purpose "0.18" KLD (Annual Water Demand "54"KL @4L per Tanker, total number of tanker required ("14") and per tanker cost @Rs. 500)	0.00	7,000.00
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	24,69,700.00	13,99,950.00
Total	**1,15,99,700.00**	**48,57,950.00**

COST PROPOSED FOR EMP

Particulars	**Capital**	**Recurring**
Water Tanker @Rs. 500 per Tanker for Dust Suppression (2.4 KLD) & Horticulture (10.73 KLD) 2.4 + 10.73 = 13.13 KLD 13.13 KLD X 300 Days = 3939 KLD 3939 KLD / 4 KLD = 985 Tankers	0	4,92,500.00
Environment Monitoring & Compliance	0	50,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC	11,35,000.00	2,85,000.00
Garland Drain & Retaining wall	0	0
Suggestion as per Public Hearingcapital cost = **Rs. 13.347 lakh**& as recurring cost = **Rs. 10.6495 lakh)**		
Installation of 02 Hand Pump with deep boring	3,00,000.00	50,000.00
Budget for health check-up camps and medicine distribution	0	2,00,000.00
Requirement budget for ambulance/ vehicle facilities	0	1,50,000.00
3449 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	10,34,700.00	1,72,450.00
Need Based Socio Economy Survey		

SE survey Budget	5,50,000	2,00,000
Total	**30,19,700.00**	**15,99,950.00**

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

SE Need based Survey detail

S. No.	Community Priority	Status	Need of the Community	Capital Cost (In lakhs)	Recurring Cost (In lakhs)
1.	Education	Moderate Level	School building repair and stationary distribution	-	0.50
2.	Welfare Activates	Moderate Level	Worship places development & beatification,	3.00	1.00
3.	Solar Lights	Moderate Level	Solar lights required	2.50	0.50
4.	Employment	Poor	Employment is the major issue, and will be provided on the basis of capability and experience of local people		

TOTAL	5.50	2.00

Environment Management Practices to be followed:

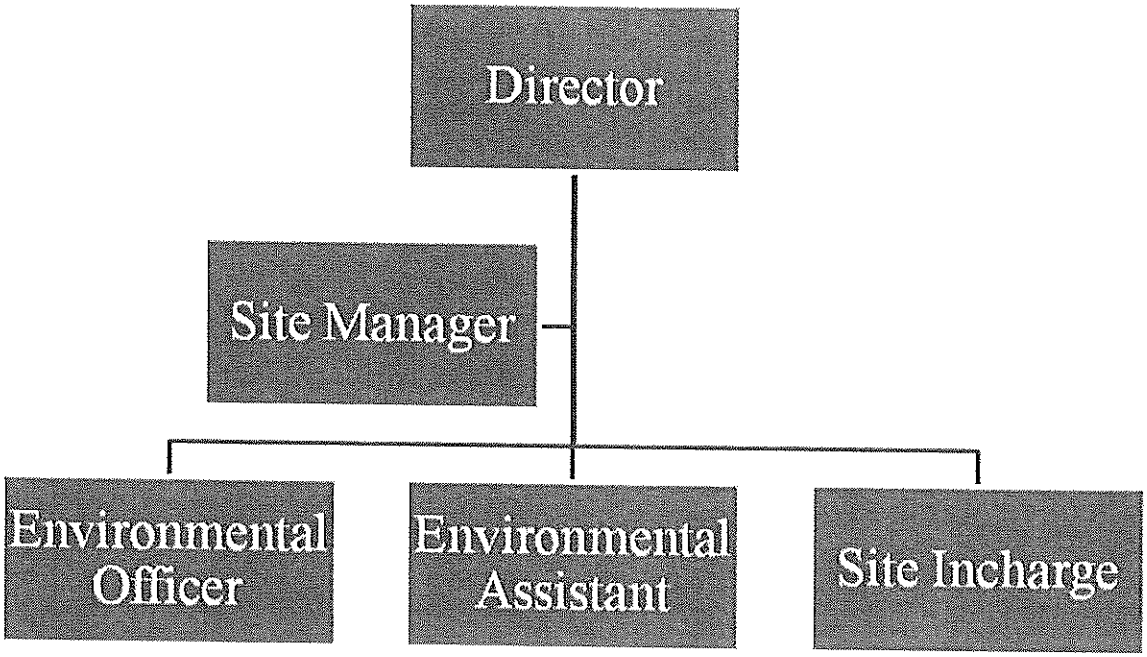
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• It has been calculated that total 36746.00 cum in-situ 45932.50 cum loose & 39042.63 cum compact waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 19521.31 cum (Insitu) shall be utilized for approach & haul road maintenance. • The rest waste material (50%) i.e. 19521.31 cum waste shall be temporary dumped in northern part of the area and it will cover 0.240ha area.
Air Quality Management	• **Wet drilling** and use of **sharp drill bits** to minimize dust generation. • **Controlled blasting** using optimum explosive charge during favourable weather conditions. • Regular **maintenance of diesel equipment and vehicles** to reduce emissions. • **Water sprinkling** on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid **PUC certificates.** • **Greenbelt and roadside plantation** to act as dust and noise barriers.
Water Quality Management	• Mining will be confined **only above the Ground Water Table (GWT).** • **Rainwater** accumulated in the pit will be collected and pumped out regularly during monsoon. • **Settling sump** will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • **Garland and foot drains** will be constructed around the quarry to control surface runoff. • **Sewage** from rest shelters will be treated through **septic tank–soak pit systems.** • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• **Mining activities** will be restricted to daytime and carried out with **controlled blasting techniques.** • **Acoustic enclosures** and **mufflers** will be provided for drilling and DG set operations. • Regular **maintenance** of mining machinery to minimize vibration and noise. • **Greenbelt development** around the lease boundary to attenuate noise propagation.

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

	overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of Explosives	▪ Blast hole geometry shall be properly designed. ▪ Blast site shall be wetted before and after blasting operations are completed. ▪ Only optimum quantity of permissible explosives shall be used so that the vibrations do not damage the structures/houses if the quarrying operations are close to human habitation. ▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours. ▪ While carrying out blasting operations near habitations, wide publicity will be given in the local area through announcement and other available media so that local people become aware of the blasting activities being undertaken in the area and take appropriate precautions. ▪ The vibrations should be monitored periodically in consultation with the local Mining authorities. ▪ Use of explosives is specialist work. Planning for a round of shots is necessary to ensure that the face is properly surveyed, holes correctly drilled, direction logged, the weight of explosive suitable for good fragmentation and the continuity of the initiator are but a few of the steps necessary to ensure its safe use.

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

Organizational Structure of Environment Management Cell:



EMP Cell structure

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

Undertaking submitted affirming:

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

k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Bhimpur Stone Deposit of Partner : Shri Biswakarma Mardi & Shri Babudhan Murmu, Village : Bhimpur, Anchal : Maheshpur, Distt. : Pakur, Jharkhand (2.837 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/56/2026/3428, dated : 21.09.2026 is also included as Annexure – III (A) :

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

II. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.

III. 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.

IV. 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.

V. 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.

VI. 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.

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

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

****

7. **Saharpur Stone Deposit of Shri Ajeet Kumar, Village : Saharpur, Anchal : Shikaripara, Distt. : Dumka, Jharkhand (2.14 Ha).**

(Proposal no.: SIA/JH/MIN/585560/2026)

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

This is a new project which has been listed for appraisal on 26.09.2026 but due to unavoidable circumstances, appraisal has been done on 28.09.2026.

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

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

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 125th meeting held on 23.07.2025 - 28.07.2025 and SEIAA, Jharkhand has approved the ToRs in 125th meeting held on 19th & 20th August, 2025. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2025-26/3855/2025/340, dated 21.08.2025. The final EIA / EMP submitted by PP to SEAC on 21.09.2026.

EC Application for: Proposed Capacity- 22278 cum/year or 60148 TPA

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Saharpur Stone Deposit	
2	Lessee:	:	Sri Ajeet Kumar S/o - Brahmdev Prasad At Village - Khandpur, Thana + P.O. + District - Sheikhpura, State – Bihar, Pin Code - 811105	
3	Lease Address	:	Village – Saharpur, Anchal - Shikaripara, District – Dumka, State - Jharkhand	
4	Lease Area	:	2.14 Ha	Acres- 5.29Acres
5	Type of Land	:	Non- Forest (Raiyati Land)	
6	Project Cost	:	Rs. 96.164Lakhs	
7	EMP Budget	:	Capital: Rs. 21.764lakhs	Recurring: Rs. 16.864Lakh/year
8	New or Expansion	:	New	
9	Mineable Reserves	:	cum.:222734cum	Tonnes:601385tones
10	Mine Life	:	9.99 years ~ 10years	
11	Man power	:	30	
12	Water Requirement	:	15.47~ 15.50 KLD (Drinking: 0.30 KLD,Dust Suppression:3.0KLD, Plantation:12.17 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	:	Pond at the distance of 500m as per CO certificate EMP Submitted
17	Nearest Habitation	:	As per CO Certificate habitation is at 500 m, EMP Submitted
18	Nearest Rail Station	:	Pakdaha Harinsing Railway station, approx. 6.13 km towards North direction
19	Nearest Air Port	:	Deoghar Airport, approx. 92.63 km towards WNW direction
20	Road & Highways	:	NH-114A, Approx. 3.67 km in North direction.
21	Approach road	:	Approx. 500 m
22	Distance of nearest ESZ of wildlife sanctuary or National Park	:	The project location is at approx.140.47 km from the nearest Eco sensitive zone of Topchanchi Wildlife Sanctuary.

CO-ORDINATES

Pillar No.	Latitude	Longitude
P1	N24°11'02.333"	E87°34'24.814"
P2	N24°11'01.845"	E87°34'26.604"
P3	N24°11'01.424"	E87°34'27.761"
P4	N24°11'00.243"	E87°34'29.103"
P5	N24°10'59.167"	E87°34'30.450"
P6	N24°10'58.093"	E87°34'31.504"
P7	N24°10'57.000"	E87°34'32.223"
P8	N24°10'56.282"	E87°34'32.897"
P9	N24°10'55.513"	E87°34'31.768"
P10	N24°10'56.264"	E87°34'30.537"
P11	N24°10'56.950"	E87°34'29.440"
P12	N24°10'57.670"	E87°34'28.532"
P13	N24°10'56.592"	E87°34'27.637"
P14	N24°10'56.749"	E87°34'27.293"
P15	N24°10'56.293"	E87°34'26.881"
P16	N24°10'57.068"	E87°34'25.886"
P17	N24°10'58.540"	E87°34'25.191"
P18	N24°10'59.228"	E87°34'25.689"
P19	N24°10'59.041"	E87°34'26.283"
P20	N24°10'59.691"	E87°34'26.714"
P21	N24°11'00.025"	E87°34'26.118"
P22	N24°11'00.888"	E87°34'25.416"
P23	N24°11'01.720"	E87°34'24.552"

LAND DETAILS

Khata no.	Plot no.
30	144 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Dumka vide letter no. 694/M, dated 17.05.2025.
2	CO	:	The CO, Shikaripara vide letter no. 99/Ra., dated 10.02.2025 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that few houses exist at a distance of 400 meters and water body created due to accumulation of rain water in abandoned mines near ML area, for which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Dumka vide memo no. 752/M, dated 29.05.2025 certified that 06 other mining lease area (6.73 Acre, 7.34 Acre, 4.62 Acre, 7.40 Acre, 4.80 Acre & 6.99 Acre) and 04 Lol (4.66 Acre, 5.06 Acre, 1.98 Acre & 7.21 Acre) exists within 500 m radius from proposed project site and total area is 62.08 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 59, dated 09.01.2025 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Dumka Forest Division vide letter no. 2687 dated 30.12.2024 certified that the distance of reserved / protected forest is at 9605 meters from proposed project site.
6	DSR	:	The DMO, Dumka has certified vide memo no. 837/M, dated 20.06.2025 that this project is mentioned in approved DSR of Dumka District as a potential area (Page no. 318, Sl no. 47).
7	Gram Sabha	:	Gram Sabha conducted on 25.12.2024.
8	Mine Plan Approval	:	Approved by DMO, Dumka vide Memo No. 833/M, dated 19.06.2025.

9	Public Hearing	:	Public Hearing conducted on 10.06.2026.
10	Baseline monitoring period	:	October, 2025 to December, 2025.
11	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/81/2026/3386, dated : 16.09.2026.
12	Qualified Person	:	Shri P.K. Sen was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Mechanized Method	
2	Quarry Area	:	1.56ha	Life of Mine – 10 Years
3	Waste Generation	:	Total 5860 cum intercalated wasteand 11751cum of grity soil	
4	Stripping Ratio	:	1: 0.05	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	170 AMSL to 189AMSL	
8	Ground Level Elevation	:	170 AMSL	
9	Ultimate Working Depth	:	Up to 149AMSL (21 mbgl)	
10	Water Table	:	131-143 AMSL (27-39 mbgl)	
11	Topography of Mine	:	The applied lease area represents a small hillock.	
12	Explosive Requirement	:	120kg/day	
13	Diesel/Fuel requirement	:	110 litre/day	

Production Details

Year	Production of stone		Intercalated waste in cum	Removal of gritty soil		Bench RL
	in cum	in ton		in cum	in ton	
1st Year	22240	60050	1170	2905	4358	191-179

2nd Year	22271	60132	1172	3885	5828	185-173
3rd Year	22278	60148	1173	1015	1523	179-167
4th Year	22271	60132	1172	3946	5919	173-161
5th Year	22277	60148	1173	000	000	167-161
Total	**111337**	**300610**	**5860**	**11751**	**17628**	-

Land Use

Land Utilization	Existing Land use (Ha.)	At the end of plan period (Ha)	At Conceptual period (Ha)	Conceptual period (in ha.)		
				Public use	Water body	plantation
Quarry	0.708	1.56(including temporary dump 0.352 ha.)	1.56(including backfill 0.56 ha.)	-	0.91	0.65 (Dead Bench Plantation)
Greenbelt Within Safety Barrier	0	0.58 (Plantation)	0.58 (Plantation)	-	-	0.58 (Plantation)
Road	0.007	0	0	-	-	-
Total Area In Used	**0.715**	**2.14**	**2.14**	-	**0.91**	**0.58**
Balanced Area Unused	1.425	0	0	-	-	-
Total Applied Area	**2.14**			**2.14**		

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.58	928	1600 Tree per Hectare	1st Year	Sisam, Amaltas, Mango, Jackfruit Neem, Arjun, Mango Etc.
Length of Approach Road Area (m.)	500	1000	2m X 2 m spacing in two rows both side		
Dead Bench Plantation	0.65	1040	1600 Tree per Hectare	At the end of Life of Mine	
Additional Plantation as "Ek Ped Ma k	-	100	-	1st Year(After the consultation	

Naam"				with Gram Panchayat)	
Total		**3068**			

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

Summary of Baseline Data:

Monitoring season – October 2025 to December 2025 (Noida Testing Laboratories LLP)

Parameter	No. of Locations	Environmental Baseline Study
Ambient Air Quality Monitoring	8 locations	PM2.5- 27.04µg/m3 to 52.10µg/m3 PM10- 62.97µg/m3– 89.39 µg/m3 SO2- 5.37 µg/m3 - 10.71 µg/m3 NO2- 11.04µg/m3– 21.24µg/m3
Noise level monitoring	8 locations	During daytime- 50.0 to 58.8dB (A) During Night time- 40.2to 43.6 dB (A) Results were found within permissible limits
Water samples	Surface water – 2 locations	All parameters like pH (7.47 to 7.52), Chloride (68.2 -74.2 mg/l), Dissolved Oxygen (4.8 to 6.8mg/l), BOD (3.80 to 4.10mg/l), Total Alkalinity (182 to 198), Total Suspended Solid(10.4 to 25) etc. are found within permissible limits. Water will be used for Drinking water/Domestic purpose source after conventional treatment/tertiary treatment and disinfection. (Class of water –C, As per CPCB Guideline)
	Ground water- 5locations	All parameters like pH (7.21 to 7.89), Hardness (165 – 215 mg/l), TDS (498– 541mg/l), Chloride (59.1- 84.0 mg/l), Total Alkalinity (176 to 210) etc. are found within permissible limits & fit for consumption.
Soil Samples	5 locations	pH- 7.22– 7.60 Conductivity- 380.0 – 448.0 µmhos/cm Organic Carbon (0.41%–0.56%) Total Nitrogen (0.025%–0.047%)

Ambient air quality monitoring Location

Code	Monitoring location	Distance (km)	Direction	Wind Status
AQ 1	Near project site at village Saharpur	0.47	East	Downwind
AQ 2	Amchua	3.90	East	Downwind
AQ 3	Sitasal	3.00	West	Upwind
AQ 4	Goldaha	3.50	South	Crosswind
AQ 5	Makrapahari	5.20	North	Crosswind
AQ 6	Bankijor	7.90	ESE	Downwind
AQ 7	Kharijol	5.40	SW	Crosswind
AQ 8	Bara Chapiria	7.30	NE	Crosswind

Water Quality Sampling Location

	Surface Water		
SW 1	Brahmani River	7.80	North
SW 2	Pond near Pinargaria	7.23	ENE
	Ground water		
GW1	Saharpur	0.70	East
GW2	Amchua	3.90	East
GW3	Sitasal	3.00	West
GW4	Goldaha	3.50	South
GW5	Makrapahari	5.20	North

Soil Quality Monitoring Location

Code	**Monitoring location**	**Distance (km)**	**Direction**
SQ1	Saharpur	0.70	East
SQ2	Amchua	3.90	East
SQ3	Sitasal	3.00	West
SQ4	Goldaha	3.50	South
SQ5	Makrapahari	5.20	North

Noise Quality Monitoring Locations

Code	Monitoring location	Distance (km)	Direction
NQ1	Near project site at village Saharpur	0.47	East
NQ2	Amchua	3.90	East

NQ3	Sitasal	3.00	West
NQ4	Goldaha	3.50	South
NQ5	Makrapahari	5.20	North
NQ6	Bankijor	7.90	ESE
NQ7	Kharijol	5.40	SW
NQ8	Bara Chapiria	7.30	NE

Public Hearing (Action Plan) –

S. No.	Issue	Reply	Action Plan	Time Bound
1.	Drinking water Issue	a deep bore will be drilled at a location identified by the villagers	Installation of 02 Hand Pump will be done, Rs. 2.00 lakh will be spent as capital cost and Rs 0.50 lakh will be spent as recurring cost	This will be done within 6 months to 1 year after the grant of EC.
2.	Road Maintenance	The road from the main road to Shahapur village will be regularly repaired.	Rs. 2.00 Lakh as a capital cost and Rs.0.50 lakh as recurring will be spend for Construction and maintenance	Maintenance will be done every year after the grant of EC. And As per requirement
3.	Employment	Preference will be given to local people for employment based on eligibility and necessity	Direct and Indirect employment will be given to 30 Skilled & Un-Skilled persons Un-Skilled on priority basis.	To be hired within 3 months.
4.	Water should be sprinkled on nearby roads	Water will be sprinkled twice a day by tankers in the mine area and on Haul roads.	Total Rs. 5.69 lakh will be spent as recurring cost for Pollution Control & Dust Suppression. Water sprinkling will be done twice a day.	This will be done regularly after mining will start.
5.	Tree plantation should be done	3068 Trees will be planted in the mines area and Nearby villages.	Rs 9.204 lakh as the Capital Cost and every year Rs. 1.534 lakh will be spent as recurring cost	This will be done within 1 year after the grant of EC.

Total	Capital cost : Rs. 13.204 Lakh Recurring cost: Rs. 8.224 Lakh	

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

<table>
<tr><th>Particulars</th><th>Capital</th><th>Recurring</th></tr>
<tr><td>Land</td><td>52,90,000.00</td><td>5,29,000.00</td></tr>
<tr><td>Infrastructure</td><td>15,00,000.00</td><td>1,50,000.00</td></tr>
<tr><td>Mining Equipment

<table>
<tr><th>Equipment</th><th>Quantity</th><th>Rent per year</th></tr>
<tr><td>Wagon drill/Compressor</td><td>1</td><td>10,00,000</td></tr>
<tr><td>Excavator</td><td>2</td><td>8,00,000</td></tr>
<tr><td>Jack Hammer</td><td>2</td><td>4,00,000</td></tr>
<tr><td>Dumper</td><td>2</td><td>4,00,000</td></tr>
<tr><td>Rock Breaker</td><td>1</td><td>2,00,000</td></tr>
<tr><td>Water Sprinkler</td><td>1</td><td>6,00,000</td></tr>
<tr><td>DG Set</td><td>1</td><td>15,00,000</td></tr>
<tr><td>Loader</td><td>1</td><td>2,00,000</td></tr>
</table>
@Per Compressor-10,00,000/-

@Per Excavator-4,00,000/-

@Per Hammer – 2,00,000/-

@Per Rock Breaker-2,00,000/-

@Per Water Sprinkler -6,00,000/-

@Per Dumper-2,00,000/-

@DG set -15,00,000/-</td><td>0.00</td><td>51,00,000.00</td></tr>
<tr><td>Water Facility for Domestic Purpose "0.20" KLD (Annual Water Demand "60"KL @4L per Tanker, total number of tanker required ("15") and per</td><td>0.00</td><td>11,500.00</td></tr>
</table>

tanker cost @Rs. 500)		
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	21,76,400.00	16,86,400.00
Total	**96,16,400.00**	**74,86,400.00**

COST PROPOSED FOR EMP

Particulars	**Capital**	**Recurring**
Environment Monitoring & Compliance	0.00	50,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF& CC	8,56,000.00	2,14,000.00
Suggestions as per public Hearing Capital cost : Rs. 13.204 Lakh Recurring cost: Rs. 8.224 Lakh		
Installation of 02 Hand Pump with deep boring for water facility	2,00,000.00	50,000.00
Budget Construction and maintenance of haul road	2,00,000.00	50,000.00
Budget to provide financial assistance at the time of illness, marriage & festivals	0.00	1,00,000.00
3068 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	9,20,400.00	1,53,400.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (3.0KLD) & Horticulture (12.17KLD) 3.0+ 12.17= 15.17KLD 15.17KLD X 300 Days = 4551KLD 4551KLD / 4 KLD = 1137.75~1138Tankers (Also asked in Public Hearing)	0.00	5,69,000.00
Ned Based Socio Economy Survey		
SE Survey	0.00	5,00,000
Total	**21,76,400.00**	**16,86,400.00**

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

SE Need based Survey detail

S. No.	Community Priority	Status	Need of the Community	Yearly Budget, Rs. In lacks
1.	Education	Moderate	School building construction and stationary distribution	1.50
2.	Medical Facilities	Very Poor	Health Camp for routine check-up, and medicine distribution	2.00
3.	Community Park	Very Poor	Community Park Maintenance required	1.50
4.	Employment	Poor	Employment is the major issue, and will be provided on the basis of capability and experience of local people	
TOTAL				**5.00**

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• Total 5860 cum intercalated waste & 11751 cum Gritty soil during the plan period, the area is covered with a layer of gritty soil. • During quarry development in 1st year gritty soil and intercalated waste will be removed and this soil & waste will be temporarily dumped [Area 0.082 Ha, (L x W x H = 35m x 23m x 5m) within the quarry • In 2nd year gritty soil & intercalated waste will be removed and this

	soil. waste & existing temporary dumped materials will be temporarily dumped [Area - 0.183 Ha. (L x W x H = 52m x 35m x 5m)] within the quarry • In 3rd year gritty soil & intercalated waste will be removed and this soil, waste & existing temporary dumped materials will be temporarily dumped [Area• 0.226 Ha, (L x W x H = 56m x 40m x 5m)] within the quarry • In 4th year intercalated gritty soil & intercalated waste will be removed and this soil, waste & existing temporary dumped materials will be temporarily dumped [Area 0.328 Ha, (L x W x H = 62m x 53m x 5m)] within the quarry • In 5th year intercalated waste will be removed and this waste & existing temporary dumped materials will be will be temporarily dumped [Area 0.352 Ha, (L x W x H = 96m x 37m x 5m)] within the quarry. • In conceptual period total removed intercalated waste & plan period existing temporary dump materials together will be backfill within the exhausted quarry.
Air Quality Management	• **Wet drilling** and use of **sharp drill bits** to minimize dust generation. • **Controlled blasting** using optimum explosive charge during favourable weather conditions. • Regular **maintenance of diesel equipment and vehicles** to reduce emissions. • **Water sprinkling** on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid **PUC certificates**. • **Greenbelt and roadside plantation** to act as dust and noise barriers.
Water Quality Management	• Mining will be confined **only above the Ground Water Table (GWT)**. • **Rainwater** accumulated in the pit will be collected and pumped out regularly during monsoon. • **Settling sump** will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • **Garland and foot drains** will be constructed around the quarry to control surface runoff. • **Sewage** from rest shelters will be treated through **septic tank–soak pit systems.** • Foot drain would be provided around the external dump, if any.
Noise Quality Management	• **Mining activities** will be restricted to daytime and carried out with

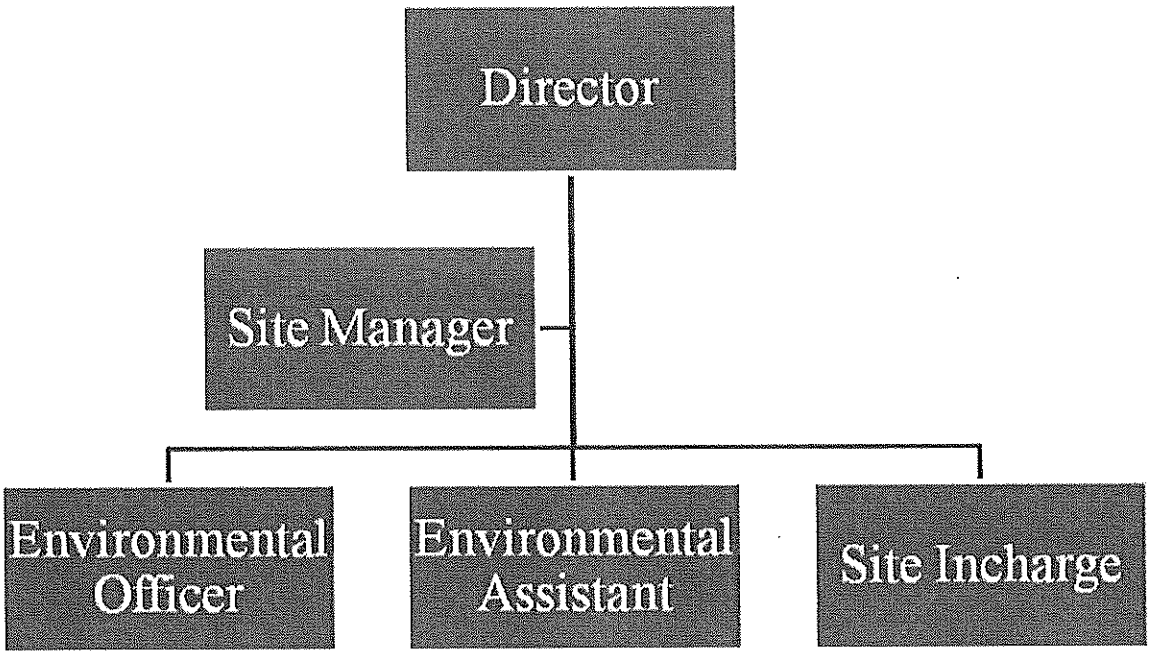
	controlled blasting techniques. • **Acoustic enclosures** and **mufflers** will be provided for drilling and DG set operations. • Regular **maintenance** of mining machinery to minimize vibration and noise. • **Greenbelt development** around the lease boundary to attenuate noise propagation. • **Use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

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

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

	checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

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

Undertaking submitted affirming:

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

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Saharpur Stone Deposit of Shri Ajeet Kumar, Village : Saharpur, Anchal : Shikaripara, Distt. : Dumka, Jharkhand (2.14 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer – cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/81/2026/3386, dated : 16.09.2026 is also included as Annexure – III (B) :

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.

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8. **Jamirtala Stone Deposit of Shri Kshitij Raj, Village : Jamirtala, Thana : Shikaripara, Distt. : Dumka, Jharkhand (2.19 Ha).**

(Proposal no.: SIA/JH/MIN/ 587621 /2026)

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

This is a new project which has been listed for appraisal on 26.09.2026 but due to unavoidable circumstances, appraisal has been done on 28.09.2026.

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

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

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 126th meeting held on 09.09.2025 - 13.09.2025 and SEIAA, Jharkhand has approved the ToRs in 126th meeting held on 24th & 25th September, 2025. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2025-26/3909/2025/430, dated 06.10.2025. The final EIA / EMP submitted by PP to SEAC on 21.09.2026.

EC Application for: Proposed Capacity- 83401 cum/year or 225182 TPA.

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Jamirtala Stone Deposit	
2	Lessee:	:	Sri Kshitij Raj At – Village - ThadhiDulampur, Ward No. - 17, Post – Deosang, Thana - Kunda, District - Deoghar, State - Jharkhand,	
3	Lease Address	:	Mouza - Jamirtala, Thana - Shikaripara, District – Dumka, State- Jharkhand	
4	Lease Area	:	2.19 Ha	Acres-5.42Acres
5	Type of Land	:	Non- Forest (Raiyati Land)	
6	Project Cost	:	Rs. 98.846Lakhs	
7	EMP Budget	:	Capital: Rs. 28.446 Lakhs	Recurring: Rs. 12.161Lakh/year
8	New or Expansion	:	New	
9	Mineable Reserves	:	417012 cum	1125932 tonnes
10	Mine Life	:	5years	
11	Man power	:	49	
12	Water Requirement	:	5.3 ~ 5.5 KLD (Drinking: 0.49KLD,Dust Suppression:1.50KLD, Plantation:3.31KLD)	
13	Water Source	:	Water will be taken from nearby village	
14	DG Set / power	:	500 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	As per KML Nearest water body is at400 meter, EMP Submitted	
17	Nearest Habitation	:	As per KMLNearest Habitation is at 330 meter, EMP Submitted.	
18	Nearest Rail Station	:	Pinargaria Railway station, approx. 5.10 km towards NNW direction.	
19	Nearest Air Port	:	Deoghar Airport, approx. 101.20 km towards WNW direction	
20	Road & Highways	:	NH-114A, Approx. 2.50 km in North direction.	
21	Approach road	:	Approx. 250 m	
22.	Distance of nearest ESZ of wildlife sanctuary or National Park	:	The project location is at approx. 105.23 km from the nearest Eco sensitive zone of Parasnath & Topchanchi.	

CO-ORDINATES

PILLAR NO	LATITUDE	LONGITUDE
P1	24°10'30.081"	87°39'59.529"

P2	24°10'29.760"	87°40'00.744"
P3	24°10'28.982"	87°40'00.581"
P4	24°10'29.049"	87°40'00.404"
P5	24°10'28.360"	87°40'00.200"
P6	24°10'28.012"	87°40'00.929"
P7	24°10'27.328"	87°40'00.642"
P8	24°10'27.527"	87°39'59.933"
P9	24°10'26.602"	87°39'59.639"
P10	24°10'26.489"	87°40'00.335"
P11	24°10'25.641"	87°40'00.075"
P12	24°10'24.745"	87°39'59.798"
P13	24°10'25.044"	87°39'59.311"
P14	24°10'23.925"	87°39'59.019"
P15	24°10'23.894"	87°39'58.034"
P16	24°10'23.757"	87°39'57.316"
P17	24°10'23.859"	87°39'57.201"
P18	24°10'23.585"	87°39'56.368"
P19	24°10'22.888"	87°39'56.004"
P20	24°10'22.754"	87°39'56.202"
P21	24°10'22.175"	87°39'55.898"
P22	24°10'22.351"	87°39'55.336"
P23	24°10'22.217"	87°39'55.266"
P24	24°10'22.579"	87°39'54.464"
P25	24°10'22.942"	87°39'54.606"
P26	24°10'24.427"	87°39'55.680"

P27	24°10'24.981"	87°39'54.845"
P28	24°10'24.967"	87°39'54.035"
P29	24°10'26.423"	87°39'54.204"
P30	24°10'26.588"	87°39'53.988"
P31	24°10'26.803"	87°39'54.256"
P32	24°10'26.747"	87°39'54.629"
P33	24°10'26.942"	87°39'55.240"
P34	24°10'28.281"	87°39'56.066"
P35	24°10'28.160"	87°39'58.055"
P36	24°10'28.051"	87°39'59.850"
P37	24°10'29.119"	87°39'59.681"

LAND DETAILS

Khata no.	Plot no.
03	63, 64, 65, 68, 69 & 70

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Dumka vide letter no. 717/M, dated 21.05.2025.
2	CO	:	The CO, Shikaripara vide letter no. 417/Ra., dated 05.05.2025 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that few houses and pond exist within 500 meters from mining lease area, for which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Dumka vide memo no. 779/M, dated 02.06.2025 certified that 06 other mining lease area (7.06 Acre, 4.57 Acre, 6.51 Acre, 5.19 Acre, 7.37 Acre & 6.13 Acre) exists within 500 m radius from proposed project site and total area is 42.25 Acre.

4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 809, dated 15.05.2025 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Dumka Forest Division vide letter no. 1066 dated 15.05.2025 certified that the distance of reserved / protected forest is at 770 meters from proposed project site.
6	DSR	:	The DMO, Dumka has certified vide memo no. 1006/M, dated 20.08.2025 that this project is mentioned in approved DSR of Dumka District as a potential area (Page no. 182).
7	Gram Sabha	:	Gram Sabha conducted on 09.03.2025.
8	Mine Plan Approval	:	Approved by DMO, Dumka vide Letter No. 945/M, dated 31.07.2025.
9	Public Hearing	:	Public Hearing conducted on 25.06.2026.
10	Baseline monitoring period	:	October, 2025 to December, 2025.
11	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/89/2026/3384, dated : 16.09.2026.
12	Qualified Person	:	Shri P.K. Sen was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Mechanized Method	
2	Quarry Area	:	1.53ha	Life of Mine – 5 Years
3	Waste Generation	:	Total21947 cum intercalated waste &20550 cum Gritty soil during the plan period.	
4	Stripping Ratio	:	1: 0.10	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	61 AMSL to 66AMSL	

8	Ground Level Elevation	:	61 AMSL
9	Ultimate Working Depth	:	Up to 24 AMSL (37mbgl)
10	Water Table	:	18-6 AMSL (43-55mbgl)
11	Topography of Mine	:	The applied lease area represents a gently sloping land
12	Explosive Requirement	:	110kg/day
13	Diesel/Fuel requirement	:	110 litre/day

Production Details

Year	Production of stone		Intercalated waste in cum	Removal of gritty soil	
	in cum	in tones		In cum	In tones
1st	83397	225171	4389	20550	30825
2nd	83401	225182	4390	000	000
3rd	83397	225171	4389	000	000
4th	83401	225182	4390	000	000
5th	83397	225171	4389	000	000
Total	**416993**	**1125877**	**21947**	**20550**	**30825**

Land Use

Pattern of Utilization	Present Land use (Ha)	At the end of plan period (Ha)	At the end of mine in (ha)	At Conceptual period (Ha)		
				Public use	Water body	Plantation
Quarry	Nil	1.53	1.53	--	1.12	0.41 (dead bench plantation)
Safety Zone	Nil	0.66 (Plantation)	0.66 (Plantation)	--	--	0.66
Road	0.02	Nil	Nil	--	--	--
Total area in use	**0.02**	**2.19**	**2.19**	**--**	**1.12**	**1.07**
Balance area unused	2.17	Nil	Nil	--	--	--

Total	2.19	2.19	2.19	2.19

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

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.66	1056	1600 Tree per Hectare	1st Year	Sisam, Amaltas, Neem, Babul,Jackfruits, Mango, Jamun, Arjun, etc.
Length of Approach Road Area (m.)	250	500	2m X 2 m spacing in two rows both side		
Plantation at Dead Bench	0.41	656	1600 Tree per Hectare	At the end of plan period	
Additional plantation as "Ek ped Ma Ke Naam"	-	100		1st Year (Plantation shall be carried out after consultation with the Gram Panchayat.)	
Total		**2312**			

Summary of Baseline Data:

Monitoring season – October 2025 to December 2025 (Noida Testing Laboratories LLP)

Parameter	No. of Locations	Environmental Baseline Study
Ambient Air	8 locations	PM2.5- 20.85 µg/m3 to 47.57µg/m3

Quality Monitoring		PM10- 62.33 µg/m3– 87.81 µg/m3 SO2- 5.56 µg/m3 - 12.83 µg/m3 NO2- 10.39 µg/m3– 19.99µg/m3
Noise level monitoring	8 locations	During daytime- 52.1 to 57.8 dB (A) During Night time- 40.2 to 45.8 dB (A) Results were found within permissible limits
Water samples	Surface water – 2 locations	All parameters like pH (7.37to 7.47), Chloride (28.92 - 34.50 mg/l), Dissolved Oxygen (6.80 - 7.12mg/l), BOD (2.9 to 3.5mg/l) Total Alkalinity (176 to 178 mg/l), Calcium (70.2 to 72.5mg/l) etc. are found within permissible limits. Water will be used for Drinking water/Domestic purpose source after conventional treatment/tertiary treatment and disinfection. (Class of water –C, As per CPCB Guideline)
	Ground water- 5locations	All parameters like pH (7.16to 7.68), Hardness (457.0- 508.0mg/l), TDS (1175-1460mg/l), Chloride (250.0-302.0 mg/l), Total Alkalinity (358.0 to 451.0), etc. are found within permissible limits & fit for consumption.
Soil Samples	5 locations	pH- 7.25 -7.50 Conductivity- 372.00 – 451.00 µmhos/cm

Ambient air quality monitoring Location

Code	Monitoring location	Distance (km)	Direction	Wind classification
AQ 1	Near Project Site	0.20	East	Downwind
AQ 2	Ghatakpur	0.94	East	Downwind
AQ 3	Bhatina	5.25	East	Downwind
AQ 4	Shankarpur	1.42	West	Upwind
AQ 5	Malooti	2.12	SSE	Crosswind
AQ 6	Chhora	5.35	NE	Crosswind
AQ 7	Pinargaria	7.14	NW	Crosswind
AQ 8	Bankijor	5.0	SW	Crosswind

Water Quality Sampling Location

	Surface Water		
SW 1	Pond near village Malooti	2.00	SSE

SW 2	Brahmani River	7.75	North
	Ground water		
GW 1	Ghatakpur	0.94	East
GW 2	Bhatina	5.25	East
GW 3	Shankarpur	1.42	West
GW 4	Malooti	2.12	SSE
GW 5	Chhora	5.35	NE

Soil Quality Monitoring Location

Code	Monitoring location	Distance (km)	Direction
SQ1	Near Project Site	0.20	East
SQ2	Ghatakpur	0.94	East
SQ3	Bhatina	5.25	East
SQ4	Shankarpur	1.42	West
SQ5	Malooti	2.12	SSE

Noise Quality Monitoring Location

Code	Monitoring location	Distance (km)	Direction
NQ1	Near Project Site	0.20	East
NQ2	Ghatakpur	0.94	East
NQ3	Bhatina	5.25	East
NQ4	Shankarpur	1.42	West
NQ5	Malooti	2.12	SSE
NQ6	Chhora	5.35	NE
NQ7	Pinargaria	7.14	NW
NQ8	Bankijor	5.0	SW

Public Hearing (Action Plan) –

S. No.	Issue	Reply	Action Plan	Time Bound
1.	There is a problem of drinking water	deep boring would be done	Installation of a hand pump with deep boring; Rs. 2.50 lakh capital cost and Rs. 0.50 lakh	This will be done within 1 year after the grant of EC.

			recurring cost.	
2.	Transport roads should be repaired regularly	assured that the transport road would be regularly repaired and maintained	Total cost of Rs. 2.25lakh as a capital cost and Rs. 1.50 Lakh of Recurring cost will be spend for road repair which is also included in EMP	This will be done as soon as mining will start EC till life of mine.
3.	Platform (chabutara) should be constructed near the football ground	platform will be constructed near the football ground	Rs. 1.0lakh as a capital cost will spend to construct platform (chabutara) near football ground which has also been included in EMP Cost	This will be done within 6 months to 1 year after the grant of EC.
4	football ground should be leveled, and a set of jerseys should be provided	The football ground will be leveled and a set of jerseys will be provided.	Rs. 1.0lakh capital cost will be spend for leveling football ground and Rs. 0.50 lakh will be spend on distribution of set of jersey	This will be done within 1 year after the grant of EC.
5	A Manjhithan should be constructed.	Manjhithan will be constructed	Rs. 1.50lakh as a capital cost will be spend to construct Manjhithan which has also been included in EMP Cost	This will be done within 2nd year after the grant of EC
6	Employment	priority will be given to (raiyats) and local villagers in employment according to their qualifications and necessity	Direct and Indirect employment will be given to 49 Skilled & Un-Skilled persons Un-Skilled on priority basis.	Will be hired as soon as mine start till closure.
7.	Dense plantation	dense plantation will be undertaken in and around the project area.	capital cost of Rs. 6.936 lakh and recurring cost of 1.156lakh will be spend	This will be done within 2nd year after the grant of EC.
8	Regular water sprinkling should be done on the transportation route	Regular water sprinkling will be carried out on the transportation route for pollution control.	Budget of Rs. 1.805Lakh as a recurring cost will be spent for water sprinkling, cost included in EMP.	This will be done as soon as mining will start EC till life of mine.

9.	Vehicles should not be overloaded	vehicles will not be overloaded.	-	-
10.	Construction of a platform or community hall for meeting in the village	Construction of a platform will be constructed in village and Financial assistance for the construction of a community center	Rs. 1.0lakh as a capital cost will spend to construct platform in village and Rs. 2.0lakh as a capital cost will spend to Financial assistance for the construction of a community center which has also been included in EMP Cost	This will be done within 2nd year after the grant of EC.
Total budget spent as capital cost = **Rs. 11.25 lakh**& as recurring cost = **Rs. 2.70 lakh**for PH Demands.				

BUDGETARY PROVISION (IN RS)

PROJECT COST

Particulars	**Capital**	**Recurring**
Land	54,20,000.00	5,42,000.00
Infrastructure	10,00,000.00	1,00,000.00
Mining Equipment	0.00	66,00,000.00

Equipment	***Quantity***	***Rent per year***
Wagon drill	2	6,00,000
Hydraulic Excavator	4	10,40,000
Compressor	2	7,20,000
Jackhammer	2	4,00,000
Tippers	5	25,00,000
Rock breaker	2	8,00,000

Water tanker	2	6,00,000		
@ Per Hydraulic Excavator: ₹2,60,000/- @ Per Wagon drill: ₹3,00,000/- @Compressor: ₹3,60,000/- @Jackhammer: ₹2,00,000 /- @Tippers: ₹5,00,000/- @Rock breaker: ₹4,00,000/- @Water tanker: ₹3,00,000/-				
Water Facility for Domestic Purpose "0.49" KLD (Annual Water Demand "147"KL @4L per Tanker, total number of tanker required ("37") and per tanker cost @Rs. 500)			0.00	18500.00
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			28,44,600.00	7,16,100.00
Total			**98,84,600.00**	**79,76,600.00**

COST PROPOSED FOR EMP

Particulars	Capital	Recurring
2312 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for maintenance	6,93,600.00	1,15,600.00
Water Tanker @Rs. 500 per Tanker for Dust Suppression (1.50KLD) & Horticulture (3.31 KLD) 1.50+ 3.31 = 4.81 KLD 4.81KLD X 300 Days = 1443KLD 1443KLD / 4 KLD = 360.75~ or say 361Tankers	0	1,80,500.00
Environment Monitoring & Compliance	0	50,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF& CC	8,76,000.00	50,000.00

Garland Drain & Retaining wall	1,50,000.00	50,000.00
Suggestion as per public Hearing		
Budget for construction of platform (chabutara) near football.	1,00,000.00	0.00
Installation of Hand pump with deep Boring	2,50,000.00	50,000.00
Construction and maintenance of Haul road	2,25,000.00	1,50,000.00
Budget for Levelling of football ground	1,00,000.00	00.00
Budget for distribution of Jersey set	0.00	50,000.00
Construction of Manjhithan	1,50,000.00	20,000.00
Construction of a platform will be constructed in village	1,00,000.00	00.00
Financial assistance for the construction of a community center	2,00,000.00	00.00
Need Based Socio-Economy Survey		
SE Survey	0.00	5,00,000
Total	**28,44,600.00**	**12,16,100.00**

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

SE Need based Survey detail

S. No.	Community Priority	Status	Need of the Community	Yearly Budget, Rs. In lakh
1.	Education	Moderate	School building construction and stationary distribution	1.00
2.	Medical Facilities	Very Poor	Health Camp for routine check-up, and medicine distribution	2.00

3.	Solar Lights	Moderate Level	Solar lights required	2.00
4.	Social Issues	Un-employment	Employment is the major issue, and will be provided on the basis of capability and experience of local people	*
TOTAL				**5.00**

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	➢ Total 21947cum intercalated waste & 20550cum Gritty soil during the plan period,the area is covered with a layer of gritty soil. ➢ During quarry development in In 1st year gritty soil and intercalated waste will be removed and this soil & waste will betemporarily dumped [Area - 0.498 Ha, (L x W x H = 73m x 68m x 5m)) within the quarry. ➢ In 2nd year Intercalated waste wilt be removed and this waste & existingtemporary dumped materiel is will be temporarily dumped I Area - 0 566 Ha, (I x W x H = 79m x 74m x 5m)1 within the quarry ➢ In 3rd year Intercalated waste will be removed and this waste & existing temporary dumped materials will be temporally ,dumped [Area _ 0.374 Ha, (L x W x H= 89m x 42m x 5rn) & Area · 0.146 Ha, (L x W x H = 51m x 29m x 5m)] within the Quarry ➢ In 4th year Intercalated waste will be removed and this waste & existing temporary dumped materials will be temporarily dumped [Area - 0.289 Ha. (L x W x H = 65m x 44m x 5m), Area - O. 156 Ha, (Lx W x H = 49m x 32m x 5m), Area – 0.265 Ha. (L x W x H =77m x 34m x 5m) & Area - 0.050 Ha. (L x W x H " 51m x 10m x 5m)[within the quarry ➢ In 5th year intercalated waste will be removed and this waste & existing temporary dumped material will be backfilling within the exhausted quarry.
Air Quality Management	• **Wet drilling** and use of **sharp drill bits** to minimize dust generation. • **Controlled blasting** using optimum explosive charge during favourable weather conditions. • Regular **maintenance of diesel equipment and vehicles** to reduce emissions. • **Water sprinkling** on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid **PUC certificates**. • **Greenbelt and roadside plantation** to act as dust and noise barriers.

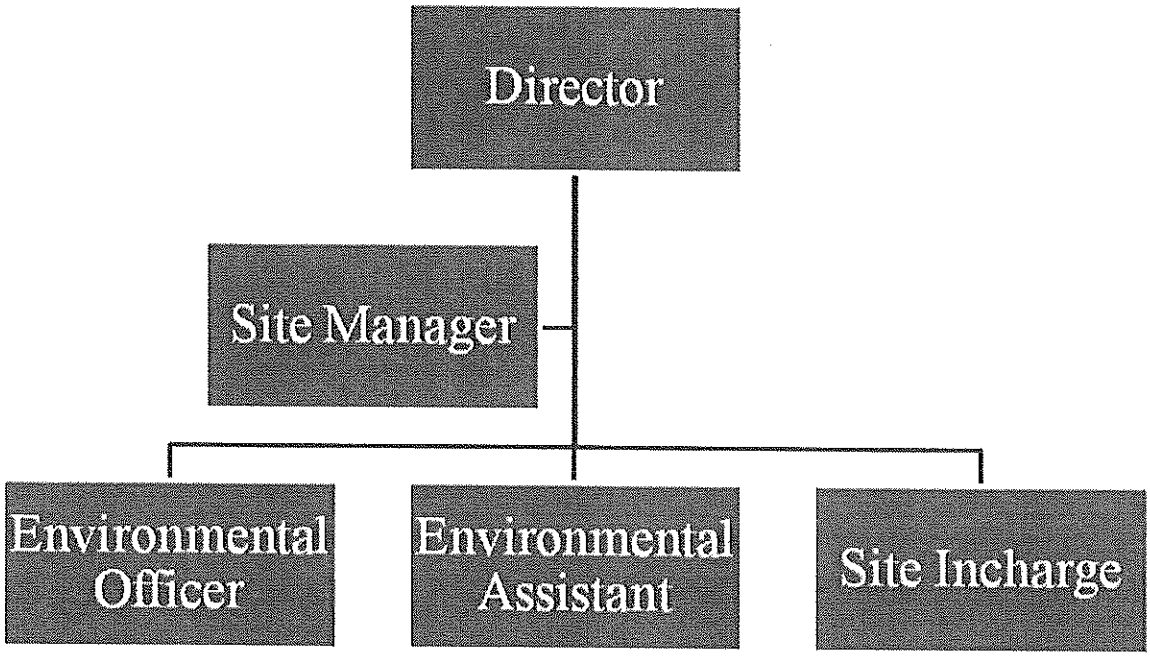
Water Quality Management	• Mining will be confined **only above the Ground Water Table (GWT).** • **Rainwater** accumulated in the pit will be collected and pumped out regularly during monsoon. • **Settling sump** will be provided to desilt pumped out of mine-pit and collected through garland drain before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

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

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

	place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell structure

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

Undertaking submitted affirming:

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

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Jamirtala Stone Deposit of Shri Kshitij Raj, Village : Jamirtala, Thana : Shikaripara, Distt. : Dumka, Jharkhand (2.19 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer – cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/89/2026/3384, dated : 16.09.2026 is also included as Annexure – III (C) :

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.

****

9. **Kurchudih Stone Deposit of M/s NCN Enterprises (Partner : (i) Shri Ankur Singh (ii) Shri Vinayak Singh (iii) Shri Vinay Kumar Singh), Village : Kurchudih, Anchal : Tamar, Distt. : Ranchi, Jharkhand (2.023 Ha.).**

(Proposal no.: SIA/JH/MIN/ 591618 /2026)

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

This is a new project which has been listed for appraisal on 26.09.2026 but due to unavoidable circumstances, appraisal has been done on 28.09.2026.

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

Application for Terms of Reference (ToR).

ToR Application for: Proposed Capacity –87487 cum/annum or 236216 TPA

Project and Location Details:

Sl	Parameter		Details
1	Project Name	:	Kurchudih Stone Deposit
2	Lessee:	:	M/s NCN Enterprises Partner 1- Shri Ankur Singh, S/o late Dharamveer Bhadoria. Add- M-9, (Old) Housing Colony, Post + Thana- Adityapur, District-SeraikelaKharsawan, Jharkhand-831013. Partner 2.- Shri Vinayak Singh, S/o late Bhagwati Prasad Singh. Add- M-9, (Old) Housing Colony, Post + Thana- Adityapur, District-SeraikelaKharsawan, Jharkhand-831013.

			Partner 3.- Sri Vinay Kumar Singh S/o Late Dineshwar Prasad Singh Add- 7 LF/13/1, New Housing Colony, Post + Thana- Adityapur, District-SeraikelaKharsawan, Jharkhand-831013.	
3	Lease Address	:	Village – Kurchudih, Anchal – Tamar, District – Ranchi, State – Jharkhand	
4	Lease Area	:	2.023 Ha	Acres- 5.0Acres
5	Type of Land	:	Non- Forest (Raiyati Land)	
6	Project Cost	:	Rs. 87.91 Lakhs	
7	EMP Budget	:	Capital: Rs. 16,41,400/-	Recurring: Rs. 11,85,000/-
8	New or Expansion	:	New	
9	Mineable Reserves	:	418091 cum	Tonnes:1128846 tones
10	Mine Life	:	5 years	
11	Man power	:	19	
12	Water Requirement	:	21.36~21.5 KLD (Drinking: 0.19 KLD, Dust Suppression:4.53KLD, Plantation:16.64KLD)	
13	Water Source	:	Water will be taken from nearby village	
14	DG Set / power	:	500 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Kharkai River, Approx. 5.15 km towards South direction	
17	Nearest Habitation	:	Approx, 320 meter towards South direction as per kml,Additional EMP will be submitted at the time of EIA/EMP	
18	Nearest Rail Station	:	Tiruldih railway station, approx. 14.83 km towards NE direction.	
19	Nearest Air Port	:	Birsa Munda Airport, Ranchi approx. 55.08 km towards WNW direction.	
21	Road & Highways	:	NH-43, Approx, 8.94 km towards South direction.	
22	Approach road	:	Approx. 755 m	
23	Cluster Certificate	:	Total Five minelease exists within 500m radius which is total of 31.1 Acres or 12.58 Ha	
24	Nearest Forest	:	The distance of reserved / protected forest is at534m from proposed project site as per Divisional Forest Officer, KhuntiForest Devision, vide letter no.:1261, 01.07.2026	
25	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	The project location is at approx. 129 KM from the nearest Eco Sensitive Zone of Palkot Wildlife Sanctuary.	

CO-ORDINATES

Pillar Id	Latitude	Longitude
1	23° 4' 41.526" N	85° 47' 49.546" E
2	23° 4' 40.833" N	85° 47' 53.915" E
3	23° 4' 35.093" N	85° 47' 53.846" E
4	23° 4' 35.445" N	85° 47' 50.334" E
5	23° 4' 38.160" N	85° 47' 50.694" E

6	23° 4′ 38.177″ N	85° 47′ 49.169″ E

LAND DETAILS

Khata no.	Plot no.
39	284 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Ranchi vide letter no. 760/M, dated 10.06.2026.
2	CO	:	The CO, Tamar, Ranchi vide letter no. 54(ii) dated 21.01.2026 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that few houses exist at a distance of 320 meters from mining lease area.
3	DMO Cluster	:	DMO, Ranchi vide memo no. 1010/M, dated 21.08.2026 certified that 04 other mining area (6.15 Acre, 6.15 Acre, 6.50 Acre & 7.30 Acre) exists within 500 m radius from proposed project site and total area is 31.10 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 311, dated 20.04.2026 certified that proposed project site is out side Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Khunti Forest Division vide memo no. 1261, dated 01.07.2026 certified that the distance of notified forest is at 534 meter from project site.
6	DSR	:	The DMO, Ranchi has certified vide memo no. 1011/M, dated 21.08.2026 that this project is mentioned in approved DSR of Ranchi District as a Other Potential Resource area in the District (Page no. 57, Sl. no. 1).
7	Gram Sabha	:	BDO, Tamar, Ranchi vide letter no. 34(ii), dated 17.01.2026 informed that Gram Sabha conducted on 20.12.2025.
8	Mine Plan Approval	:	Approved by DMO, Ranchi vide Memo No. 1007/M, dated 21.08.2026.
9	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and

			affirmed that the mine plan has been prepared by him.
10	Baseline Monitoring Period	:	To be done.

Working Details

1	Mining Method	:	Opencast semi mechanized method	
2	Quarry Area	:	1.576	Life of Mine – 5 Years
3	Waste Generation	:	Total 64331 tons waste shall be generated during the plan period.	
4	Stripping Ratio	:	1: 0.15	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	268AMSL to 284AMSL	
8	Ground Level Elevation	:	268 AMSL	
9	Ultimate Working Depth	:	Up to 229 AMSL (39mbgl)	
10	Water Table	:	212-215 AMSL (53-56mbgl)	
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	80013	216035	17578	4211	21789
2nd Year	81084	218928	0	4268	4268
3rd Year	82194	221924	16744	4326	21070
4th Year	87313	235744	8004	4595	12599
5th Year	87487	236216	0	4605	4605
Total	**418091**	**1128846**	**42326**	**22005**	**64331**

Land Use

Land Utilization	Existing Land use (Ha)	At the end of plan period (Ha)	At conceptual period (Ha)
Excavation	0.0	1.576	1.576 (0.073 ha area shall be backfilled, 1.234 ha converted into water reservoir & 0.269 ha shall be left as dead benches).
Waste Dump	0.0	Nil	Nil
Road	0.0	Nil	Nil
Infrastructure (Crusher)	0.0	0.0	0.0
Safety zone	0.0	0.447 (Plantation)	0.447 (Plantation)
Total	**0.0**	**2.023**	**2.023**
Unused area	2.023	0.0	0.0
Total Lease area	**2.023**		

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Area in Safety Zone (Ha.)	0.447	716	1600 Tree per Hectare	1st Year	**Jackfruit, Babul, Arjuna, Gulmohar, Neem, Pipal, Mango, Etc.**
Length of Approach Road Area (m.)	755	1510	2m X 2 m spacing in two rows both side		
Plantation at backfilling	0.073	117	1600 Tree per Hectare	At the end of plan period	
Plantation at Dead bench	0.269	431			
Total		**2774**			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of

mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

BUDGETARY PROVISION (IN RS)

PROJECT COST

<table>
<tr><th>Particulars</th><th>Capital(Rs.)</th><th>Recurring(Rs.)</th></tr>
<tr><td>Land</td><td>50,00,000</td><td>5,00,000</td></tr>
<tr><td>Infrastructure</td><td>15,00,000</td><td>1,50,000</td></tr>
<tr><td>Mining Equipment
<table>
<tr><th>Equipment</th><th>Quantity</th><th>Rent per year</th></tr>
<tr><td>Excavator</td><td>02</td><td>8,00,000</td></tr>
<tr><td>Rock Breakers</td><td>01</td><td>4,00,000</td></tr>
<tr><td>Compressor</td><td>01</td><td>10,00,000</td></tr>
<tr><td>Wagon Drill</td><td>01</td><td>4,00,000</td></tr>
<tr><td>Dumpers</td><td>03</td><td>2,00,000</td></tr>
<tr><td>Water sprinklers</td><td>01</td><td>6,00,000</td></tr>
<tr><td>Loader</td><td>01</td><td>3,00,000</td></tr>
</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/-
Wagon Drill- 4,00,000/-</td><td>0.0</td><td>37,00,000</td></tr>
<tr><td>Water Facility for Domestic Purpose "0.19" KLD (Annual Water Demand "57"KL @4L per person , total number of tanker required ("15") and per tanker cost @Rs. 500)</td><td>0.0</td><td>7500</td></tr>
<tr><td>Statutory Clearances.</td><td>5,00,000</td><td>0.00</td></tr>
<tr><td>Mine Closure Cost for fencing around mine.</td><td>1,50,000</td><td>0.00</td></tr>
<tr><td>Environment Management Plan (EMP) Cost</td><td>16,41,400</td><td>11,85,000</td></tr>
<tr><td>Total</td><td>87,91,400</td><td>55,42,500</td></tr>
</table>

ENVIRONMENT MANAGEMENT PLAN (EMP)

Particulars	Capital	Recurring
2774 Tree Plantation @Rs.300 per Tree for planting & @Rs.50 per tree for	8,32,200	1,38,700

maintenance		
Water Tanker @Rs. 500 per Tanker for Dust Suppression (4.53 KLD) & Horticulture (16.64 KLD) 4.53 + 16.64 = 21.17 KLD 21.17 KLD X 300 Days = 6351 KLD 6351 KLD / 4 KLD = 1588 Tankers	0.00	7,94,000
Environment Monitoring & Compliance	0.00	50,000.00
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF& CC	8,09,200	2,02,300
Garland Drain & Retaining wall	0.0	0.0
Total	**16,41,400**	**11,85,000**

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 64331cum in-situ waste shall be generated during this plan period out of which 37341cum (In situ) shall be utilized for approach & haul road maintenance. • The rest waste material 26990cum in situ 32494.58cum loose &27620.40cum compact waste shall be temporary dumped on the

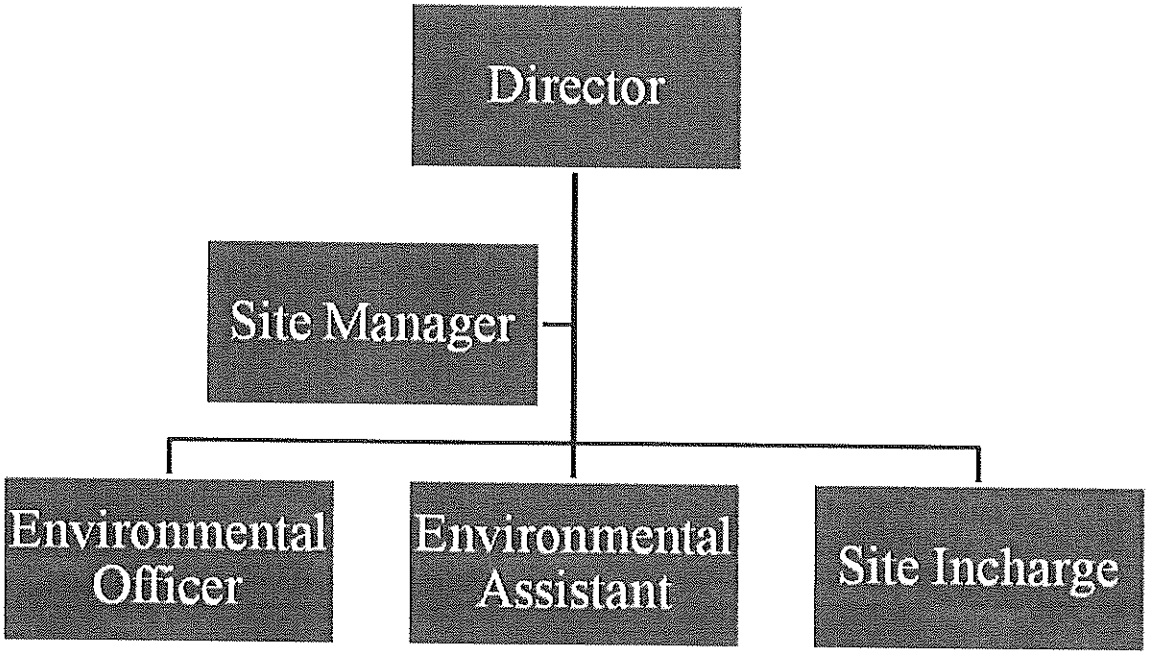
	southern part of the applied lease area and it will cover about 0.220 ha area. • While excavation of insitu waste, its volume shall be increase, as it becomes loose (insitu cum X 1.25), during the dumping/backfilling these loose materials shall be compacted with the use of dozer and volume will be decreased 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 avoidsuspension of dust. ▪ All transportation within the mine lease area should be carried out directly underthe supervision and control of management. ▪ The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement. ▪ Navigation signs will be provided at each and every turning point up to the mainroad (wherever required). ▪ To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.

Organizational Structure of Environment Management Cell:



EMP Cell Structure

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

Undertaking submitted affirming:

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

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

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 23, 24, 25, 26, 27, 28 & 29.09.2026, 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 IV alongwith following specific condition :-

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

II. The detailed EMP is to be prepared for the few houses existing within an area of 500 meter radius of proposed project boundary. This EMP is to be included in EIA report.

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10. North Koyal Sand Ghat -6 (In the river bed of North Koyal) of M/s R.S. Enterprises (Prop. : Shri Praveen Kumar Jha), Village : Manjhiaon Khurd & Manjhiaon Kalan, Distt. : Garhwa, Jharkhand (10.90 Ha).

(Proposal no.: SIA/JH/MIN/587798/2026)

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

This is a new project which has been listed for appraisal on 26.09.2026 but due to unavoidable circumstances, appraisal has been done on 28.09.2026.

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

Application for Terms of Reference (ToR).
ToR Application for: Proposed Capacity- 130800 cum per Annum or 209280 TPA (Dry basis)

Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	North Koyal Sand Ghat – 6	
2	Lessee:	:	M/s R.S. Enterprises, Proprietor: Sri Praveen Kumar Jha	
3	Lessee Address	:	Village- Emililyaghat, Varanasi, Uttar Pradesh	
4	Lease Area	:	10.90 ha.	
5	Type of Land	:	Govt. non forest (river) land	
6	Project Cost	:	Rs. 150lakh	
7	EMP Budget	:	Capital: 15.39Lakhs	Recurring: 5.70Lakhs / year
8	New or Expansion	:	New	
9	Total Resource	:	218000 cum or 348800Tonnes	
10	Mineable Reserves/Production for 1st year & subsequent year 60% of replenished quantity.		130800cum or 209280 Tonnes	
11	Mine Life	:	Co-terminus with lease period.	
12	Man power	:	135	
13	Water Requirement	:	11.46~ 11.50 KLD	
14	Water Source	:	From Nearby villages by tankers	
15	DG Set / power	:	NA	
16	Crusher	:	NA	

17	Nearest Water Body	:	Project lies on North Koyal River.
18	Nearest Habitation	:	Manjhiaon KhurdApprox, 410m in SWdirection. EMP will be submitted at the time of EIA/EMP.
19	Nearest Railway Station	:	Untari Road Railway Stationapprox 1.26 Km in NE direction.
20	Nearest Airport	:	Birsa Munda Ranchi Airport approx.190 km towards SE direction.
21	Nearest Forest	:	PF, Approx. 3.85 Km in NE direction from mining lease. PF, Approx. 5.33 Km in NW direction from mining lease.
22	Road & Highways	:	NH-39, Approx- 19.50 km, in SSW direction.

CO-ORDINATES

Corner Point Coordinates (in Degree Decimal) – Approved DSR		
Point	**Latitude**	**Longitude**
1	24° 19' 49.2440" N	83° 49' 30.6008" E
2	24° 19' 41.8544" N	83° 49' 36.9400" E
3	24° 19' 42.8256" N	83° 49' 39.1799" E
4	24° 19' 42.4532" N	83° 49' 36.2404" E
5	24° 19' 20.0274" N	83° 49' 30.7071" E
6	24° 19' 58.1168" N	83° 49' 22.8487" E
7	24° 19' 49.2440" N	83° 49' 30.6008" E

LAND DETAILS

Village	Plot no.
Manjhiaon Khurd	605
Manjhiaon Kalan	1174

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by Deputy Commissioner, Garhwa vide letter no. 527/M, dated 15.06.2026.
2	CO	:	The CO, Manjhiaon vide letter no. 450, dated 29.08.2026 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan.
3	DMO Cluster	:	DMO, Garhwa vide memo no. 544/M, dated 25.06.2026 certified

			that no other Balughat exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	Deputy Director, Palamu Tiger Project, South Division, Medininagar vide letter no. 517, dated 24.07.2026 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Tiger Reserve.
5	DFO Territorial	:	Divisional Forest Officer, Garhwa North Division vide letter no. 574, dated 28.03.2023 and letter no. 575, dated 28.03.2023 certified that the distance of notified forest is more than 250 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Garhwa District (Sl. no. 14, Page no. 62).
7	Gram Sabha	:	Executive Office, Nagar Panchayat, Manjhiaon vide letter no. 808, dated 28.07.2026 informed that Gram Sabha conducted on 23.07.2026.
8	Mine Plan Approval	:	Approved by AMO, Garhwa vide Memo No. 577/M, dated 01.07.2026.
9	Qualified Person	:	Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him.
10	Baseline Monitoring period	:	March, 2026 to May, 2026.

Working Details

1	Mining Method	:	Opencast Manual Method
2	Quarry Area	:	10.90 Ha. 10.91
3	Waste Generation	:	NA, as it is sand mining project.
4	Stripping Ratio	:	0:0
5	Working Days	:	200 Days
6	Benches: size & No	:	Bench height – 2m &Bench width - 20.0 m.
7	Elevation of Mine	:	175AMSL to 179AMSL

8	Ground Level Elevation	:	175AMSL
9	Ultimate Working Depth	:	173AMSL (up to depth of 2.0m)
10	Water Table	:	NA
11	Topography of Mine	:	Area lying in river plain.
12	Explosive Requirement	:	NA
13	Diesel/Fuel requirement	:	NA

Production Details

Year	Volume (cum)	Quantity in tonne
1st Year	130800 (Dry basis)	209280 (Dry basis)

Land Use

Type of Land	Area in (ha)
Forest Land	Nil
G.M land (River)	10.90
Residential area	Nil
Company land	Nil
Private Land	Nil
Total	**10.90**

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location		Area/Length	No. of Trees
1	Plantation along both sides of approach road		990m	1980
2	No. of Plants distributed with consultation local authorities/ village Panchayat		--	109

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

Environment Management Plan

Sl. No	Description	Capital Cost (Rs.)	Recurring Cost (Rs.)
1	Pollution Control & Dust Suppression	Nil	2,00,000
2	Baseline Monitoring i) Air ii) Water iii) Soil iv) Noise	--	 50,000 40,000 20,000 10,000
3	Plantation	10,44,500	1,00,000
4	Construction and maintenance of haul road	4,95,000	1,50,000
Total		**10,44,500**	**1,00,000**

Note: *2089 plants * 500 Rs (for each plants including hedges and fences) = 10.445 lakh

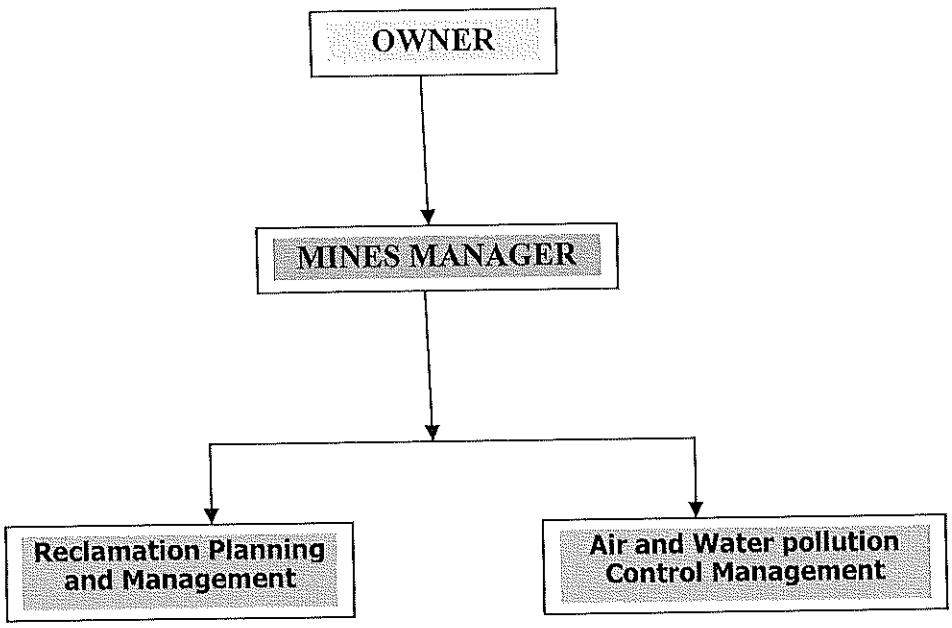
Salary of Labor for haul road maintenance 1 labor*300 = 300 per day

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

**** 5.0 lakh per kilometer (500000 * 0.990 km haul road = 4,95,000/-)***

Environment Monitoring Programme

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



Organization Structure

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 transport vehicles like tractor should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
i. If any tree felling than necessary permission shall be taken from the competent authority.
j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
l. Personal protective equipment such as safety jacket, helmet & goggles to protect from injury will be provided to working personnel.
m. Transportation from the river bed to the SH-1 will be done using the existing road.

n. The Mining Plan has been prepared and approved in consonance with Enforcement & Monitoring Guidelines for Sand Mining, 2020.
o. Wet sand will not be transported.

Solid Waste Management

No solid waste is generated during the course of mining.

Water Quality Management

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

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

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

Air Quality Management

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

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

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

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

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

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 23, 24, 25, 26, 27, 28 & 29.09.2026, 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 IV alongwith following specific condition :-

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

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11. **Mahuari Stone Deposit of M/s Diamond Stone Mine & Chips (Partners : Shri Pradeep Singh & Smt. Sunita Devi), Village : Mahuari, Thana : Naudiha Bazar, Thana no. : 180, Distt.: Palamau, Jharkhand (1.335 Ha).**

(Proposal no.: SIA/JH/MIN/581187 /2026)

Name of the consultant : Oceao-Enviro Management Solutions (India) Pvt. Ltd., Ghaziabad, U.P.

This is a new project which has been taken for appraisal on 26.09.2026.

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

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

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 126th meeting held on 09.09.2025 - 13.09.2025 and SEIAA, Jharkhand has approved the ToRs in 126th meeting held on 24th & 25th September, 2025. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2025-26/3914/2025/426, dated 06.10.2025. The final EIA / EMP submitted by PP to SEAC on 21.09.2026.

EC Application for: Proposed Capacity:28,158Cum per Year/76,027tonnes per annum.

Project and Location Details:

S. No	Parameter		Details	
1	Project Name	:	Mahuari Stone Deposit by Diamond Stone Mine & Chips.	
2	Partner's	:	Sri Pradeep Singh & Smt. Sunita Devi.	
3	Lease Address	:	Village- Mahuari, Anchal - Naudiha Bazar, District- Palamu, Jharkhand	
4	Lease Area	:	Acres: 3.30	Ha: 1.335
5	Cluster Details	:	Total area: 5.73+5.85+5.01+3.30 acre= 19.89 acre or 8.05 ha	No. of Mines falling in the cluster : 4
6	Type of Land	:	Raiyati Land	
7	Project Cost	:	59.76 Lakhs	
8	EMP Budget	:	Capital: 45.68 Lakhs	Recurring: 14.08Lakhs / year
9	New or Expansion	:	New	
10	Mineable Reserves	:	1,48,126 Cum	3,99,940 Tonnes
11	Mine Life	:	7 Years	
12	Man power	:	17 persons	
13	Water Requirement	:	Total water requirement is about 10.595 including drinking (0.595 KLD) & sprinkling (2.0 KLD) and for greenbelt (8.0 KLD).	

14	Water Source	:	The drinking water will be available from nearby village by tractor tank manually by labors at the site.
15	DG Set / power	:	100 KVA (Temporary setup for Backup)
16	Crusher	:	NA
17	Nearest Water Body	:	Batane Dam is about 1.47 km in WSW direction and Batane River is about 1.3 km in W direction.
18	Nearest Habitation	:	Mahuari is about 0.45 km in ESE direction **(EMP Submitted)**
19	Nearest Rail Station	:	Daltonganj Railway Station is about 46 km in SW direction.
20	Nearest Airport	:	Gaya international Airport is about 76.08 km in ENE direction.
21	Nearest Forest	:	BurhiBakhar Protected Forest is about 460 m in W direction.
22	Road & Highways	:	NH-69 is about 3.29 km in NE direction
23	Nearest Approach Road	:	Approach Road is about 277 m in NE direction.
24	Eco Sensitive Zone (ESZ)	:	Nearest Eco Sensitive Zone (ESZ) 58 km approx. in direction SW Betla national Park in Palamu. Nearest Eco Sensitive Zone (ESZ) 58.5 km approx. in direction SW Palamu Tiger Reserve.

CO-ORDINATES

S. No.	Latitude	Longitude	S. No.	Latitude	Longitude
1	24° 25' 55.652" N	84° 16' 28.483" E	16	24° 25' 53.492" N	84° 16' 36.008" E
2	24° 25' 55.667" N	84° 16' 29.342" E	17	24° 25' 53.023" N	84° 16' 35.737" E
3	24° 25' 56.172" N	84° 16' 30.909" E	18	24° 25' 53.077" N	84° 16' 35.172" E
4	24° 25' 56.378" N	84° 16' 33.003" E	19	24° 25' 53.468"N	84° 16' 34.859"E
5	24° 25' 56.452" N	84° 16' 34.733" E	20	24° 25' 52.852" N	84° 16' 34.149"E
6	24° 25' 57.101" N	84° 16' 35.307" E	21	24° 25' 52.180" N	84° 16' 33.333"E
7	24° 25' 57.031" N	84° 16' 37.125" E	22	24° 25' 52.219" N	84° 16' 32.628" E
8	24° 25' 56.367" N	84° 16' 37.411" E	23	24° 25' 52.651" N	84° 16' 32.797" E

9	24° 25' 56.367" N	84° 16' 35.439" E	24	24° 25' 53.394" N	84° 16' 32.966" E
10	24° 25' 55.777" N	84° 16' 35.466" E	25	24° 25' 54.651" N	84° 16' 33.082" E
11	24° 25' 55.738" N	84° 16' 34.721" E	26	24° 25' 54.265" N	84° 16' 32.386" E
12	24° 25' 55.455" N	84° 16' 34.755" E	27	24° 25' 55.233" N	84° 16' 32.436" E
13	24° 25' 54.696" N	84° 16' 35.444" E	28	24° 25' 55.122" N	84° 16' 31.910" E
14	24° 25' 54.199" N	84° 16' 35.867"E	29	24° 25' 54.931" N	84° 16' 30.003" E
15	24° 25' 53.675" N	84° 16' 35.457" E	30	24° 25' 54.679" N	84° 16' 28.308" E

LAND DETAILS

Khata no.	Plot no.
23	42 (P), 43 & 58

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Palamau, Medininagar vide letter no. 1582/M, dated 19.07.2023.
2	CO	:	The CO, Naudiha Bazar, Palamau vide letter no. 177, dated 28.04.2023 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan & Register II and also mentioned that habitation exist within 500 meters from mining lease area, for which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Palamau, Medininagar vide memo no. 1826/M, dated 31.08.2024 certified that 03 other mining lease area (5.73 Acre, 5.85 Acre & 5.01 Acre) exists within 500 m radius from proposed project site and total area is 16.59 Acre (6.71 Ha).
4	DFO Wild Life	:	Deputy Director, Palamau Tiger Project, South Division, Medininagar vide letter no. 47, dated 28.01.2025 certified that the proposed project site is outside Eco Sensitive Zone of Palamau Tiger Reserve.
5	DFO Territorial	:	Divisional Forest Officer, Medininagar Forest Division vide letter no. 2210, dated 11.07.2023 and letter no. 2016, dated 05.09.2026

			certified that the distance of reserved / protected forest is at 460 meters from proposed project boundary.
6	DSR	:	This project is mentioned in approved DSR of Palamau District (Sl no. 12, Page no. 104).
7	Gram Sabha	:	BDO, Naudiha Bazar, Palamau vide letter no. 263, dated 10.05.2023 informed that Gram Sabha conducted on 04.05.2023.
8	Mine Plan Approval	:	Mine plan approved by Assistant Director, Geology, District Geological Officer, Palamau, Jharkhand vide memo no. 109, dated 19.07.2025.
9	Public Hearing	:	Public Hearing conducted on 08.04.2026.
10	Baseline monitoring period	:	March, 2025 to May, 2025.
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	:	OCM &Semi-Mechanised	
2	Lease Area	:	1.69 ACRES / 0.684 HA	Life of Mine – 7.0 years
3	Waste Generation	:	5 years – 19,219 cum	
4	Stripping Ratio(t/m^3)	:	1:0.02	
5	Working Days	:	300	
6	Benches: size & No	:	6m x 6m	
7	Highest Elevation of lease Area	:	265 m AMSL	
8	Lowest Elevation of lease Area	:	261 m AMSL	
9	Ultimate Working Depth	:	240 m AMSL	
10	Water Table	:	220 m AMSL (41 m BGL)	
11	Topography of Mine	:	Uneven area	
12	Explosive Requirement	:	43 Kg/Day (External Agency)	
13	Diesel/Fuel requirement	:	196 Litres per day	

Year Wise 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	18,896	51,018	10,686	995	11,681

2nd	19,488	52,618	2,808	1,026	3,834
3rd	20,526	55,419	0	1,080	1,080
4th	21,711	58,621	0	1,143	1,143
5th	28,158	76,027	0	1,482	1,482
Total	**1,08,779**	**2,93,703**	**13,494**	**5,725**	**19,219**

Land Use

LAND USE PATTERN			
Land Utilization	**Existing**	**First to Fifth Years**	**After Life of Mine**
Excavation	0.00	0.438	0.684 (0.124 ha area shall be reclaimed, 0.560 ha converted into water reservoir)
Waste Dump	0.00	0.207 (Comes under quarry area)	Nil (waste dump to be removed and backfilled
Road	0.00	0.002 (Comes under quarry area)	0.00
Infrastructure	0.00	0.0	0.0
Green belt in Safety Zone	0.00	0.651	0.651
Total	**0.000**	**1.298**	**1.335**
Unused area	1.335	0.037 (Comes under quarry area)	0
Total Lease Area	**1.335**		

ENVIRONMENT MANAGEMENT

Green Belt Development

Year	Place of Plantation	Spacing b/w plants	Total No. of Plants	Area Cover in Square Meters	Total Area	Species

					in Ha.	
1st	Safety Zone	2.5 x 2.5	1042	6510	0.651	Pipal Bargad Palash Fruit Bearing Trees Mango, Jackfruit, Guava, Jamun
	Haul Road	3.0 x 3.0	368	277 M Approach Road 277/3=92 Plants 92 x 4 rows = 368 Plants	277 m	
	Reclaimed area	2.5 x 2.5	198	1240	0.124	
	Compensatory planation (in accordance to Grampanchayat)	3.0 x 3.0	30			
2nd	Care & Protection	---	---	---	---	
3rd	Care & Protection	---	---	---	---	
4th	Care & Protection	---	---	---	---	
5th	Care & Protection	---	---	---	---	
Total			**1638**	**6510**	**0.775**	

In accordance with Office Memorandum No. F.No. IA3-22/3/2024-IA.III (E-241594), dated 24.07.2024, issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC), out of the total 1638 trees proposed to be planted in the designated green belt area—both within and outside the lease boundary—10% (approximately 164 saplings) shall be earmarked under the national tree plantation campaign "Ek Ped Ma Ke Naam."

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

Environment Management Budget

S .NO.	Particulars	Budget Provisions (Rs)	
		Capital	Recurring
Water Demand			
1(a)	Overhead water sprinkling Cost for 300 days for 8.0 KLD @5 KL tanker capacity, Rupees 500/- per tanker	1,00,000	2,40,000
	Green belt Cost for 300 days for 2.0 KLD @5 KL tanker capacity, Rupees 500/- per tanker		60,000
	& One dedicated tanker of 5 KL for Greenbelt Management	10,00,000	50,000

1(b)	Handling of sewage water	0	14,280
2	Prepare & Maintenance of approach road (Max. Road length 277m, Width 4.0 m) @ 500Rs. /Meter.	1,38,500	15,000
3	Monitoring (Air, Water, Soil & Noise)	Nil	1,00,000
4	Settling tank 2 in no's (LBH 12 m* 7 m* 4 m) & Garland drains	2,00,000	30,000
5	Wire Fence 849 m x 300 /– meter	2,54,700	40,000
Plantation Scheme			
Plantation in consultation with DFO & Gram Panchayat and conversion to Grazing land as far as possible.			
6	Green belt development safety zone 7.5mtr, along the road & reclaimed area(for each plants including hedges and fences and tree guard at approach roads) 1638 No. of plants x 500 Rs.	8,19,000	2,00,000
Solid Waste Management			
7	Bins 2 Nos.	1,500	4,000
8	Transport of Dry Waste	5,000	
9	Vehicle Maintenance +PUC Certification	Nil	25,000
10	Action Plan for Addressing Public Hearing Concerns with Implementation Schedule and Budgetary Allocation	12,00,000	4,50,000
11	Budget allocation based on Socio-Economic findings	4,50,000	60,000
Total EMP Budget		**41,68,700**	**12,88,280**

Additional Blasting EMP Budget

Blasting			
1	Training and Awareness of personnel during Blasting operations	1,00,000	20,000
2	Provision of safe distance from the Project site for the settlements		
	• Blasting shelters and Sirens	1,00,000	50,000
	• Portable Drop Arm Barrier	2,00,000	50,000
Total cost		**4,00,000**	**1,20,000**

Endangered species of flora, fauna & Schedule-I

Based on the preliminary study conducted during the baseline data generation phase, along with consultations with local residents and relevant authorities, no endangered species of flora or fauna, including those listed under Schedule-I of the Wildlife (Protection) Act, 1972, were observed within the designated 10 km study area.

Action plan with time bound plan

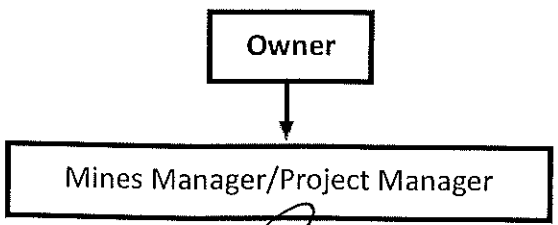
S. No.	Issues / Suggestions	Action / Commitment by Project Proponent	Time-Bound Action Plan	Capital Cost (₹ Lakhs)	Recurring Cost (₹ Lakhs)
1	Drinking water, road repair, health facilities	Deep boring for drinking water; periodic medical camps & first aid	Within 6 months	**3.0**	**1.0**
2	Winter support (blankets)	Distribution of 150 blankets to poor families	By November each year	**1.0**	**0.5**
3	Unemployment, education, Anganwadi, Education, employment, Water problem, road, health, Power problem	Priority employment to locals; proposal to concerned dept. for Anganwadi, Drinking water arrangement, Request to electricity dept., road repair; primary health care support	Employment: ongoing; 1-2 years	**8.0**	**3.0**
Total				**12.0**	**4.5**

Budget allocation based on Socio-Economic needs

S. No	Activities	Estimated Cost in Rs. (in Lakhs)	2nd Year	3rd Year	4th Year	5th Year
1	Provision of financial assistance for girl child education (scholarships/school kits)	2.00	0.4	0.4	0.4	0.4
2	Distribution of sports equipment to youth clubs and village schools	0.50	0.2	0.1	-	-
3	Beautification of village playground with fencing, seating, and tree plantation	0.50	-	-	-	-
4	Repair and maintenance of community drinking water hand pumps	1.50	-	-	-	-
Total		**4.50**	**0.6**	**0.5**	**0.4**	**0.4**

Organization Chart for Environment Management Cell

Environment Monitoring Cell



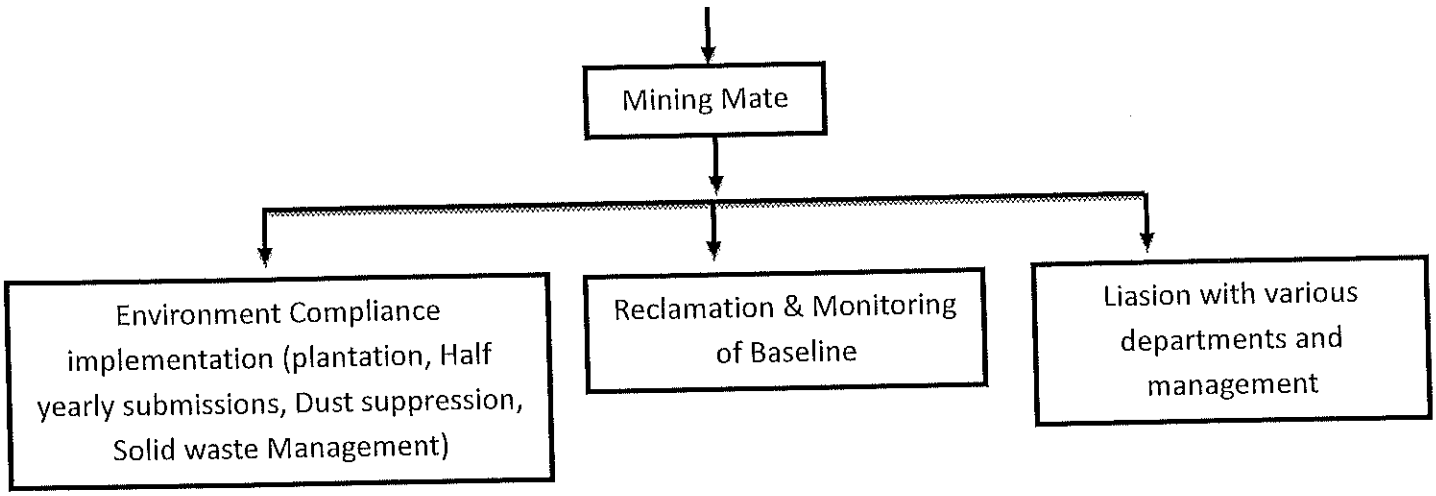


Fig: Organization Chart for Environment Management Cell

FUNCTIONS OF ENVIRONMENT MONITORING CELL

- Supervision: Managed by Mines Manager with a qualified technical team.
- Personnel: Includes skilled, semi-skilled, unskilled, and other third parties.
- Responsibilities:
  - ✓ Implement environmental control measures.
  - ✓ Oversee reclamation planning and management.
  - ✓ Manage air and water pollution control.
  - ✓ Liaise with state and central statutory agencies.
  - ✓ Develop greenbelt areas.
- Performance Review: Assess corporate environmental performance and report non-compliances.
- Remedial Actions: Suggest and implement actions for exceeding pollution limits.
- Coordination:

Collect health statistics for workers and local population.
Act as a bridge for project implementation and Project Authorities
Facilitate afforestation efforts.

Environment Monitoring Plan (post operation)

Monitoring Parameters and Frequency of Monitoring

S. no	Monitoring Parameters	No. of Locations	Frequency of Monitoring
1	Ambient Air: Ambient Air Quality at appropriate location for 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

BASELINE Findings:

Study period: March 2025-May 2025

<table>
<tr><th>Parameter</th><th>No. of locations</th><th>Baseline Findings</th></tr>
<tr><td>AAQM</td><td>8</td><td>
PM_{10} ranged from 40.6 µg/m³ to 85.9 µg/m³, while $PM_{2.5}$ concentrations varied between 24.1 µg/m³ and 40.6 µg/m³. The levels of SO_2 were found to be in the range of 5.4 µg/m³ to 13.6 µg/m³, whereas NO_2 concentrations ranged from 8.2 µg/m³ to 18.7 µg/m³.
<table>
<tr><th>Parameter</th><th></th><th>AAQ 1</th><th>AAQ 2</th><th>AAQ 3</th><th>AAQ 4</th><th>AAQ 5</th><th>AAQ 6</th><th>AAQ 7</th><th>AAQ 8</th></tr>
<tr><td rowspan="4">PM_{10} (µg/m³)</td><td>Min</td><td>58.4</td><td>76.7</td><td>44.8</td><td>44.9</td><td>42.4</td><td>41.8</td><td>49.7</td><td>40.6</td></tr>
<tr><td>Max</td><td>67.7</td><td>85.9</td><td>61.0</td><td>43.1</td><td>53.2</td><td>48.7</td><td>54.9</td><td>51.2</td></tr>
<tr><td>Avg</td><td>61.9</td><td>78.7</td><td>50.2</td><td>48.5</td><td>47.6</td><td>46.0</td><td>52.2</td><td>45.9</td></tr>
<tr><td>98 Percentile</td><td>67.3</td><td>84.3</td><td>60.6</td><td>49.3</td><td>53.0</td><td>48.7</td><td>54.6</td><td>50.5</td></tr>
<tr><td rowspan="4">$PM_{2.5}$ (µg/m³)</td><td>Min</td><td>35.0</td><td>31.4</td><td>30.2</td><td>32.3</td><td>24.1</td><td>25.6</td><td>36.9</td><td>30.2</td></tr>
<tr><td>Max</td><td>40.6</td><td>37.1</td><td>36.9</td><td>33.0</td><td>31.8</td><td>33.1</td><td>39.9</td><td>36.4</td></tr>
<tr><td>Avg</td><td>37.1</td><td>33.9</td><td>33.8</td><td>31.3</td><td>27.0</td><td>29.3</td><td>38.6</td><td>33.2</td></tr>
<tr><td>98 Percentile</td><td>40.4</td><td>36.9</td><td>36.5</td><td>35.0</td><td>31.0</td><td>33.1</td><td>39.9</td><td>36.0</td></tr>
<tr><td rowspan="2">SO_2 (µg/m³)</td><td>Min</td><td>5.5</td><td>5.4</td><td>6.0</td><td>10.8</td><td>6.4</td><td>6.9</td><td>7.9</td><td>8.3</td></tr>
<tr><td>Max</td><td>12.9</td><td>13.6</td><td>13.2</td><td>9.8</td><td>12.8</td><td>11.7</td><td>10.4</td><td>12.2</td></tr>
</table>
</td></tr>
</table>

			Avg	10.1	11.1	9.6	12.4	10.2	9.7	9.5	10.6
			98 Percentile	12.9	13.6	12.8	7.9	12.7	11.7	10.4	12.0
		NO_2 (µg/m³)	Min	10.2	8.2	8.3	15.1	9.2	9.8	10.7	9.5
			Max	18.7	16.3	17.9	14.4	17.5	16.5	14.3	14.6
			Avg	13.9	13.2	14.3	8.6	14.0	14.0	13.0	12.4
			98 Percentile	18.0	16.3	17.9	14.4	17.2	16.5	14.3	14.4
		CO (mg/m³)	Min	0.4	0.6	0.4	0.8	0.5	0.5	0.80	0.4
			Max	1.7	1.7	1.9	0.4	1.6	1.5	1.0	1.5
			Avg	1.2	1.2	1.2	0.9	1.2	1.2	0.9	1.1
			98 Percentile	1.65	1.68	1.83	0.99	1.62	1.47	1.03	1.44

ANQM — 8

Lowest Recorded Noise: 35.4 dB(A) (Day) and 25.7 dB(A) (Night) at NQ4 (Batane Dam — Silent Zone).

Highest Recorded Noise: 65.1 dB(A) (Day) and 47.4 dB(A) (Night) at NQ2 (Crushing Unit Nearby Project Site — Industrial Zone).

Location code	Sampling Location	Category of Area	Limit (as per CPCB Guidelines), Leq, dB (A)		Day Time	Night Time
			DAY*	NIGHT*	Leq dB(A)	Leq dB(A)
NQ1	On site	PROJECT SITE	75	70	59.9	38.4
NQ2	Crushing Unit Nearby Project Site	INDUSTRIAL ZONE	75	70	65.1	47.4
NQ3	Mahuari Middle School	RESIDENTIAL ZONE	55	45	42.2	29.5
NQ4	Batane Dam	SILENT ZONE	50	40	35.4	25.7
NQ5	Jay Mahadev Temple, Gulabjhari	SILENT ZONE	50	40	39.8	28.6
NQ6	Primary school Dubaridih	RESIDENTIAL ZONE	55	45	45.6	31.5
NQ7	Batane Bridge	SILENT ZONE	50	40	36.4	30.1
NQ8	Dhakcha Panchayat	RESIDENTIAL ZONE	55	45	44.8	35.6

SQM — 8

The physico-chemical analysis of soil samples collected across eight monitoring stations (SQ-1 to SQ-8) shows a uniform soil texture classified as **Sandy Clay Loam**, composed of **53.1% to 59.3% sand**,

		26.2% to 30.7% silt, and **14.5% to 18.2% clay**. Soil pH ranges from **7.46 to 7.85**, indicating neutral to slightly alkaline soil conditions, with low electrical conductivity varying between **19.8 µS/cm and 23.5 µS/cm**. Bulk density ranges from **1.31 g/cm³ to 1.57 g/cm³**, while the water holding capacity ranges from **33.6% to 37.8%**, and organic matter content ranges from **1.89% to 2.82%**. Among primary and secondary nutrients, Calcium (**940 to 1130.3 mg/kg**) and Magnesium (**308.5 to 423.9 mg/kg**) are abundant, Potassium ranges between **218.3 mg/kg and 249.2 mg/kg**, Total Nitrogen spans **53.61 mg/kg to 172.18 mg/kg**, and Phosphorus varies from **37.4 mg/kg to 51.1 mg/kg**. Iron is the predominant trace element (**123.2 to 144.2 mg/kg**), while all other heavy metals and micronutrients (such as Lead, Copper, Zinc, Nickel, Manganese, Chromium, Cadmium, and Aluminium) remain in low trace quantities.
WQM	GWQM (3) SWQM (2)	The ground water quality monitoring results across locations GWQ 1, GWQ 2, and GWQ 3 demonstrate slightly alkaline water with pH values between **7.59 and 7.80** and Total Dissolved Solids (TDS) ranging from **335.9 mg/l to 357.5 mg/l**. Key physical parameters showed high clarity and acceptability, with turbidity remaining **<1.0 NTU**, color**<5.0 Hazen**, and agreeable taste and odor. Major ions and hardness components were well within typical groundwater bounds: Total Hardness varied from **170.8 mg/l to 213.7 mg/l**, Total Alkalinity ranged from **124.8 mg/l to 164.9 mg/l**, Chloride concentrations ranged from **85.5 mg/l to 119.3 mg/l**, and Sulphate levels were between **36.24 mg/l and 50.05 mg/l**. Microbiological parameters including *E. Coli*, Total Coliform, and Faecal Coliform were completely **absent** across all locations. Heavy metal concentrations (such as Lead, Cadmium, Mercury, Arsenic, and Nickel) as well as Cyanide, Mineral Oil, and Phenolic Compounds remained below minimum detection limits across all sampled stations. Surface water sample analysis across monitoring locations SWQ-1 and SWQ-2 indicates a near-neutral pH ranging from **7.07 to 7.24**, with Total Dissolved Solids (TDS) between **448.5 mg/l and 464.9 mg/l** and electrical conductivity between **650.3 µS/cm and 703 µS/cm**. Physical parameters show an agreeable odor, color below detection limits (<5.0 Hazen), and turbidity varying from **7.13 NTU to 18.12 NTU**. Chemically, Total Hardness ranges from **177.8 mg/l to 230.4 mg/l**, Total Alkalinity from **152.7 mg/l to 171.5 mg/l**, Chloride from **65.5 mg/l to 72.2 mg/l**, and Sulphate from **31.59 mg/l to 50.54 mg/l**.

		Organic load parameters show Dissolved Oxygen (DO) levels of **4.86 mg/l to 6.52 mg/l**, Biological Oxygen Demand (BOD) of **3.23 mg/l to 3.42 mg/l**, and Chemical Oxygen Demand (COD) of **15.71 mg/l to 18.36 mg/l**. Microbiological testing indicates the presence of bacterial contamination, with Total Coliform ranging from **240 to 350 MPN/100ml** and *E. Coli* from **160 to 220 MPN/100ml**, whereas toxic heavy metals (Pb, Cd, As, Ni, Cr^{+6}) and mineral oil remain below or at trace detection limits.

Ecological biodiversity (10KM STUDY AREA)

Ecological Parameter	Baseline Survey Findings
Study Area & Location	10 km radius around proposed stone mining project in Palamu District, Jharkhand
Protected & Sensitive Areas	None present (No Wildlife Sanctuaries, National Parks, Eco-Sensitive Zones, Ramsar sites, Tiger/Elephant Reserves, or Wildlife Corridors)
Nearest Forest Patch	BurhiBakhar Protected Forest (PF) located ~0.46 km from the project site
Core Zone Characteristics	Barren stony wasteland with sparse natural vegetation
Surrounding Land Use	Intermixed forest patches, agricultural land, seasonal water bodies, rivers, and scattered settlements
Flora (Buffer Zone)	98 recorded species, dominated by tree species typical of Sal-dominated ecosystems
Agriculture & Produce	Cultivated crops along with key non-timber forest produce (Kathal, Jamun, Kendu leaf)
Fauna (Buffer Zone)	Limited diversity across common mammals, reptiles, amphibians, and avifauna
Conservation Status & Wildlife	No Schedule-I species or significant wildlife corridors/movement paths recorded
Overall Ecological Assessment	Low to Moderate Sensitivity

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The waste encountered during the mining operation is mainly 19,219 cum. During Plan period gritty soil removed will be dumped at south-west side with suitable precaution. Some quantity of the removed gritty soil would also be used for road dressing and plantation. After conceptual period mined out area of quarry will be reclaimed to the extent possible.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favourable 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 enclosuresandmufflers 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 statutoryauthorities 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 mainroad (wherever required).

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

Undertaking submitted affirming:

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Mahuari Stone Deposit of M/s Diamond Stone Mine & Chips (Partners : Shri Pradeep Singh & Smt. Sunita Devi), Village : Mahuari, Thana : Naudiha Bazar, Thana no. : 180, Distt.: Palamau, Jharkhand (1.335 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions :

I. This proposal was forwarded through PARIVESH Portal to Jharkhand State Pollution Control Board (JSPCB) for providing comments / Environmental Safeguards. The

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

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

III. In compliance of OM no.F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign *"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.

****

Day 5 : 27th September, 2026 [Sunday]

Consideration of proposals :

1. **Proposed 5 Star Hotel "Taj Ranchi" by The Indian Hotels Company Limited, Village : Kute, Thana : Ranchi, Thana no. : 230, Distt. : Ranchi, Jharkhand.**

(Proposal no.: SIA/JH/ INFRA2 /585591/2026)

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

This is a new project which has been taken for appraisal on 27.09.2026.

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

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

The Project built up area is greater than 20,000 sqm and less than 1,50,000 sqm therefore designated under Category "B" and falls under Item 8(a) (Building & Construction Project) of the Environmental Impact Assessment (EIA) Notification of September 14, 2006 and its subsequent amendments.

The Indian Hotels Company Limited (IHCL) has Proposed construction of of 5 Star Hotel "Taj Ranchi" at Ward No.-38, Village-Kute, Tehsil- Nagri, District-Ranchi, Jharkhandon the **total land area** measuring **24289.96.** The proposed **built-up area** is **42387.93 Sqm.**

SalientFeatures of the Project

Particulars	
Latitude	23°19'25.83"N
Longitude	85°15'42.31"E
Total Plot area	**24289.96 Sqm.**
Permissible FAR @1.25	30362.45 Sqm
Total FAR Achieved @1.247	30299.61 Sqm
Total Built-up area	**42387.93 Sqm.**
Total No. of Car Parking required	160 ECS
Total No. of two wheeler Parking required	502 Nos.
Total No. of Car Parking Proposed	180 ECS
Proposed parking for two wheeler	555 Nos.
Proposed Ground Coverage	8987.28 Sqm.
Green Area Provided in current development plot @ 26 %	6317.37 Sqm.
Green cover area @ 1.78 %of current development plot area	434.37Sqm.

Greenbelt area @ 24.22% of current development plot area		5883.00Sqm.
Paved area (Shared Pathway + Drive way)		7995.43 Sqm.
Unpaved area		434.37 Sqm.
Miscellaneous (Water Surface)		178.88 Sqm.
Rain Water Harvesting Pits (with size)		10 Nos. (capacity 21.2 cum)
STP Capacity		360 KLD
ETP Capacity		45 KLD
Maximum Height of the Building (m)		Approx. 27 meter
Power Requirement		2590KVA
Power Backup		DG capacity: 4000 KVA (2 x 2000 KVA) All DG Sets shall be outdoor type with silencer, acoustic enclosure as per CPCB, and other relevant norms & with provision of DG sets proper shading
Total Water Requirement		647 KLD
Fresh Water Requirement		315 KLD
Reuse of Recycled Water		321 KLD
Waste water Generated		338 KLD
Solid Waste Generated (Operational)		1087 Kg/day
Biodegradable Waste (Operational)		435 Kg/day
Non-Biodegradable Waste (Operational)		652 Kg/day
Basement		1
Stories		Max. (B+G+5)
Total Cost of the project		**465 Crores**
EMP Budget		During Construction: Capital: 48 Lakhs Recurring: 15 Lakhs
		Operational Cost: Capital: 255 Lakhs Recurring: 33 Lakhs
Construction Phase:	Water Requirement & Source	Fresh water – 9 KLD Treated wastewater-12 KLD **Source STP**

Details of Site Surroundings and Connectivity

Connectivity & Site Surroundings			
S. No.	Description		Distance and Direction
1	Nearest Railway Junction Nearest Railway Stations	Ranchi Junction Piska Railway station Hatia Railway Station	Approx.8.00 Km towards ENE Approx. 6.00 Km towards West Approx. 4.50 Km towards ESE
2	Nearest Airport	Birsa Munda Airport, Ranchi	Approx. 5.00 km towards East
3	Nearest Village	Jagarnathpur Masibari Adarsh Nagar Tundhul	Approx. 1.75 Km towards North Approx. 2.75 Km towards East Approx. 1.75 Km towards SSE Approx. 1.50 Km towards West
4	Nearest Highway/Roads	JagannathpurMandir Road NH39 Road	Adjacent to project site Approx. 1.25 Km towards West
5	Nearest School & College	KendriyaVidyalaya CRPF Govt. Middle School, Pundag Ambedkar Regent Oxford School Amity University Ranchi IIM Ranchi J N College	Approx. 0.50 Km towards SSW Approx. 2.75 Km towards NNE Approx. 1.00 Km towards SE Approx. 1.10 Km towards NE Approx. 2.00 Km towards NNW Approx. 3.25 Km towards SE
6	Nearest Hospital	PARAS EHC Hospital Divisional Railway Hospital UPHC Jagannthpur	Approx. 2.00 Km towards SE Approx. 5.50 Km towards ESE Approx. 2.50 Km towards ESE
7	Places of worship	Jagannath Mandir Masjid e Ahle Hadees St.Mati Church Mathtoli	Approx. 2.25 Km towards ESE Approx. 1.25 Km towards NW Approx. 2.00 Km towards NW
8	Water Bodies	Subarnarekha River Dhurwa Dam JodaaTalab	Approx. 4.00 Km towards SW Approx. 2.75 Km towards South Approx. 3.50 Km towards NW
9	Nearest Town	Ranchi	The project is located within the Ranchi municipal area.
10	Protected Forest/Zoo	Protected Forest, Piska	Approx. 6.00 Km towards WSW
11	Defence	NA	NA

Land Details

Sl No.	Katha No.	Khesra No.	Area (Acres)
1	87	275	0.07
2	87	276	0.63
3	87	283	0.11
4	30	393	0.75
5	30	396	1.64
6	29	398	0.72
7	44	401	0.95
8	17	402	1.13
Sub Total			**6.00**

Detailed Area Statement

S. No.	Details	Area	
1	**Total Plot area**	**24289.96**	**Sqm**
2	Permissible FAR @1.25	30362.45	Sqm
3	Proposed FAR @1.247	30299.61	Sqm
4	Total Built-up Area	42387.93	Sqm
5	Parking Required	3004.00	Sqm
6	Parking Proposed	3360.00	Sqm
7	Under Ground Parking	2549.00	Sqm
8	Open Parking	811.00	Sqm
9	Proposed parking for four wheeler	180	ECS
10	Proposed parking for two wheeler	555	Nos.
11	Permissible Ground Coverage @ 40 %	9715.98	Sqm
12	Proposed Ground Coverage 37 %	8987.28	Sqm
13	Total Green area	6317.37	Sqm
14	Green Cover	434.37	Sqm
15	Greenbelt Area provided	5883.00	Sqm
16	Paved area (Shared Pathway + Drive way)	7995.43	Sqm

S. No.	Details	Area	
17	Unpaved area	434.37	Sqm

Latitude and Longitude

SL. No.	Latitude	Longitude
1	23°19'29.72"N	85°15'42.15"E
2	23°19'27.47"N	85°15'46.47"E
3	23°19'22.29"N	85°15'43.21"E
4	23°19'25.27"N	85°15'39.27"E

Calculation of Population

Sr. No.	Component / Head	Total Rooms/Units	Total Area (Sqm.)	Occupancy / Room or Unit or Area(Nos.)	Total Occupancy
A (Hotel Area)					
	Guest Room				
1.1	Standard Room (1 Bay)	273	36	2	546
1.2	Disabled Room (1 Bay)	3	36	2	6
1.3	Executive Suite (2 Bay)	23	72	2	46
1.4	Presidential Suite (5 Bay)	1	180	2	2
2	Employee / Maintenance Staff	300	2411	-	415
3	Banquets & Pre-function	-	2075	-	1250
4	Spa, Gym	-	527	-	20
5	Speciality Restaurant	-	310	-	100

Sr. No.	Component / Head	Total Rooms/Units	Total Area (Sqm.)	Occupancy / Room or Unit or Area(Nos.)	Total Occupancy
6	All Day Dining	--	682	-	220
7	Lobby + Lounge		420	-	20
8	Bar	-	157	-	55
9	Pool Bar	-	2104	-	25
10	Kids Play Area	-	73.5	-	5
11	Executive Lounge	-	216	-	15
12	Conference Hall & Meeting Room	-	339	-	150
Total A					**2869**
B (Retail Area)					
1	Ground Floor - Fixed		788	-	24
2	1st Floor - Fixed		788	-	24
Total B					**48**
C (Basement/MEP Services)					
1	BOH(Drivers)		1452	-	48
2	MEP Services		1225	-	125
Total C					**173**
TOTAL HOTEL POPULATION/OCCUPANCY (A+ B + C)					**3,096**

Parking Details

Vehicle Type	Number	Area (Sqm)
Required		
Car	160	2000
Two wheeler	502	1004
Total		**3004**
Provided Underground		
Car	166	2075
Two wheeler	237	474
Sub total		**2549**

Provided in Open Space		
Car	14	175
Two wheeler	318	636
Sub total		**811**
		3360
Total Parking provide- CAR	**180**	**2250**
Total Parking provide- 2W	**555**	**1110**

Traffic Survey

The one-day traffic survey has been conducted on 15.06.2026 on the Main Road (2 Lane). Average values have been used for traffic estimation. Manual of Standard & Specification for Two Laning of State Highways (IRC: SP:73-2007) has been used for traffic calculations and projections. A minimum 5% annual increase in the traffic is taken for the projection. Highest traffic volume however has been observed during working hours and returning hours i.e. 9:00-11:00 AM and 05:00-07:00 PM respectively. It is envisaged that the construction will be done in one year.

Total car parking and two wheelers parking provided in the planning are 180 and 555 respectively.

Existing and Forecasted Traffic Scenario (ADT)

Classification of Traffic	Adopted PCU Value	Traffic on Main Road				
		ADT (Existing)	PCU (Existing)	ADT after 1 Year	ADT due to Project Operation	PCU (Operation Phase)
Cars	1	450	450	473	180	653
Three Wheeler	1	90	90	95	0	95
Two wheeler	0.5	2046	1023	2149	555	1352
Buses	3	46	138	49	0	147
LCV	1.5	204	306	215	0	323
Trucks	3	24	72	26	0	78
Tractor-Trailer	4.5	58	261	61	0	275

Cycle	0.5	650	325	683	100	392
Total Vehicles			**2665**			**3315**

The design service volume of two-lane highway in PCUs per day in plain area without paved shoulders (c=18000 pcu) has been adopted.

The following guidelines of IRC have been followed:

Guidelines of IRC for Judging LOS Vs Performance

V/C	LOS	Performance
0.0-0.2	A	Excellent
0.2-0.4	B	Very Good
0.4-0.6	C	Good/Average
0.6-0.8	D	Below Average
0.8-1.0	E	Poor
1.0-1.2	F	Very Poor

LoS in Existing Scenario = 2665/18000 = 0.15 (A-Excellent)

LoS during Operation of the Project = 3315/18000 = 0.18 (A-Excellent)

Calculation of Green area

Total Plot Area	**24289.96 Sqm.**
Landscape area provided @ 26 % of Plot Area	**6317.37 Sqm.**
Total Greenbelt Area@ ~24.22 % of Plot Area	5883.00 Sqm.
Green Cover Area ~ 1.78 % of Plot Area	434.37 Sqm.
Total No. of Trees will be Planted @ 1600 tree per Hec.	370 Nos.

Water Requirement

- The total water requirement during the construction phase(12 KLD for Construction Work) will be met through nearby STP-treated water and tanker-supplied water. Groundwater will be extracted only after obtaining prior approval from the Central Ground Water Authority (CGWA), as applicable.

- The domestic water requirement(9 KLD) during the construction phase will be met through local drinking water supplier / Municipal water supply. Groundwater will be extracted only after obtaining prior approval from the Central Ground Water Authority (CGWA), as applicable.

Details of Water Requirement

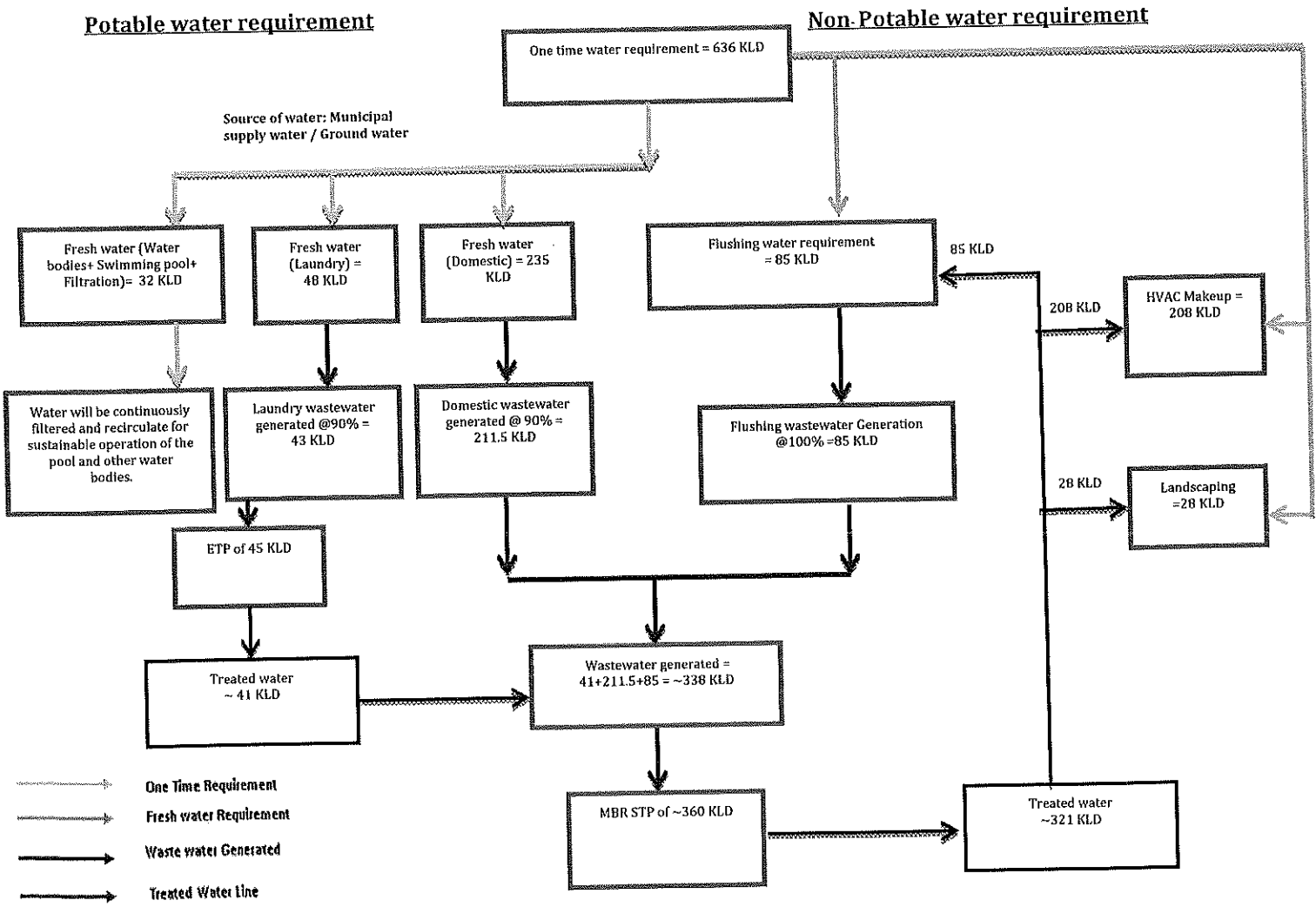
Sr. No.	Component / Head	Total Rooms/Units	Total Area (Sqm.)	Occupancy / Room or Unit or Area(Nos.)	Total Occupanc	Criteria for Water Requirement (LPCD)			Water Requirement (LPCD)			
						Domestic Cold (LPCD)	Domestic Hot (LPCD)	Flushing (LPCD)	Domestic Cold (LPD)	Domestic Hot (LPD)	Flushing (LPD)	Total (LPD)
A (Hotel Area)												
Guest Room												
1.1	Standard Room (1 Bay)	275		1.8	495	160	100	60	79200	49500	29700	158400
1.2	Disabled Room (1 Bay)	3		1.8	5	160	100	60	864	540	324	1728
1.3	Executive Suite (2 Bay)	23		2.7	62	160	100	60	9936	6210	3726	19872
1.4	Presidential Suite (5 Bay)	1		4.5	5	160	100	60	720	450	270	1440
2	Employee / Maintenance Staff	1.8 Person/Key	302	1.8	540	25	40	20	13590	21744	10872	46206
3	Banquet, Pre-function & Multipurpose Hall		3,404	1.4	2188	2	3	10	4377	6565	21883	32824
4	Spa		305	7.5	37	25	40	20	915	1464	732	3111
5	Speciality Restaurant		304	1.8	152	40	15	15	6080	2280	2280	10640
6	All Day Dining		675	1.8	338	40	15	15	13500	5063	5063	23625
7	Lobby + Lounge		758	30	25	20	5	20	505	126	505	1137
8	Bar		164	1.8	91	25	0	10	2278	0	911	3189
9	Pool Bar		50	1.8	28	25	0	10	694	0	278	972
10	Kids Play Area		50	10	5	5	0	10	25	0	50	75
11	Executive Lounge		216	1.8	120	20	5	10	2400	600	1200	4200
12	Meeting Room & Office (Floating)		270	10	27	5	0	10	135	0	270	405
13	Gym (Floating)		150	1.4	96	5	0	10	482	0	964	1446
14	Laundry Water Requirement	302	0	10		12	4	0	36240	12080	0	48320
Total A					4214				171941	106622	79028	357591
B (Retail Area)												
1	Ground Floor - Fixed		919	3	31	25		20	766		613	1379
2	Ground Floor -		919	3	276	5		10	1379		2757	4136

Sr. No.	Component / Head	Total Rooms/Units	Total Area (Sqm.)	Occupancy / Room or Unit or Area(Nos.)	Total Occupanc	Criteria for Water Requirement (LPCD)			Water Requirement (LPCD)			
						Domestic Cold (LPCD)	Domestic Hot (LPCD)	Flushing (LPCD)	Domestic Cold (LPD)	Domestic Hot (LPD)	Flushing (LPD)	Total (LPD)
	Floating											
3	1st Floor - Fixed		919	6	15	25		20	383		306	689
4	1st Floor - Floating		919	6	138	5		10	689		1379	2068
Total B		460							3217	0	5055	8271
C (Basement Parking)												
Total C	Driver (25%)	190			48	25		20	1188		950	2138
Total Occupancy (A + B + C) #					4722#							
Total Water Requirement									176345	106622	85032	367999
Total Water Requirement (KLD)									176	107	85	368
# This occupancy is calculated for 24-hour occupancy (including shifts and multiple turns), taking factors defined by NBC												
D (Other Water Usages)												
1	Swimming Pool Make-up Water	Volume of Swimming Pool (200*1.2) + (36*0.6) = 262 Cum (6% Losses for make up Water = 15800 Litre)							15800			15800
2	Swimming Pool Filter Backwash	20000 Lit/hr/m2 area of filter bed = 20000 lph x 15/60 x 1.2 = 6000 Lit.							6000			6000
3	Irrigation (6897 m^2)	4.2 Lit/m2 area Landscape (4.2 x 6897 sqmt = 29000)									28000	28000
4	Internal Water Bodies & Fountain	Lumpsum							3000			3000
5	WTP Filter Backwash	20000 Lit/hr/m2 area of filter bed = 20000 lph x 15/60 x 1.2 = 6000 Lit.							6000			6000
6	Cooling Tower Make-up Water	10 ltrs/tr/hr * 1450 TR * 18 * 0.8 (Diversit--y) = 151200 Lit.									208800	208800
7	STP Backwash	Lumpsum							10000			10000
8	Fire Make-up Water	According to IS:9688 clause 5.10, fire make up should be provided							1000			1000
Total D									41800		236800	278600
Total Water Requirement									218145	106622	321832	646599
Total Water Requirement (KLD)									219	107	322	647

STP/ ETP Calculation (in KLD)		
1	Total Hot and Cold water Requirement	283
2	Flushing Water	85
3	STP Input water (90 % of Hot and Cold Water +100 % of flushing water)	338
4	STP Capacity (more than 5% extra)	360
5	Treated Water (Considering Efficiency of STP will be 95%)	321

Sr. No.	Component / Head	Total Rooms/Units	Total Area (Sqm.)	Occupancy / Room or Unit or Area(Nos.)	Total Occupanc	Criteria for Water Requirement (LPCD)			Water Requirement (LPCD)			
						Domestic Cold (LPCD)	Domestic Hot (LPCD)	Flushing (LPCD)	Domestic Cold (LPD)	Domestic Hot (LPD)	Flushing (LPD)	Total (LPD)
6	ETP Capacity (5% extra)											45
7	Treated Water (Considering Efficiency of ETP will be 95%)											41
	Reuse of Treated Water											
8	Flushing Purpose											85
9	Irrigation Purpose											28
10	HVAC											208
11	STP Backwash											10

Water Balance



Details of Wastewater Generation and STP Capacity

STP Calculation		
Total Hot and Cold Water Requirement	283	KLD
Total Hot and Cold Water Requirement for Domestic use	235	KLD
Total Hot and Cold Water Requirement for Laundry use	48	KLD
Flushing Water	85	KLD
ETP Input water (90 % of Hot and Cold Water for Laundry)	43	KLD
ETP Capacity (5% extra)	45	KLD
Treated Water (Considering Efficiency of ETP will be 95%)	41	KLD
STP Input water (90 % of Hot and Cold Water for Domestic Use +100 % of flushing water+ ETP treated water)	338	KLD
STP Capacity (more than 5% extra)	360	KLD
Treated Water (Considering Efficiency of STP will be 95%)	323	KLD
Reuse of Treated Water		
Flushing Purpose	85	KLD
Irrigation Purpose	28	KLD
STP Backwash	10	KLD
HVAC	208	KLD

Rainwater Harvesting Pits Calculation

Sr. No.	Area Surface Type	Surface Type	Runoff Coefficient (NBC)	Catchment Area (m^2)	Impervious Area (m^2)	Peak Rainfall Intensity (mm/day)	Discharge Q (m^3/day)
1	Roofs	Roof	0.9	4836	4352	25	109
2	Soft Scape	Soft Space	0.3	1071	321	25	8
3	Roads & Hard Paved Area	Road and Hard Paved	0.8	14589	11671	25	292
4	Lawn	Lawn	0.15	3785	568	25	14
Sub Total				24281	16344.8		423
						Total Discharge (CMD)	**423**

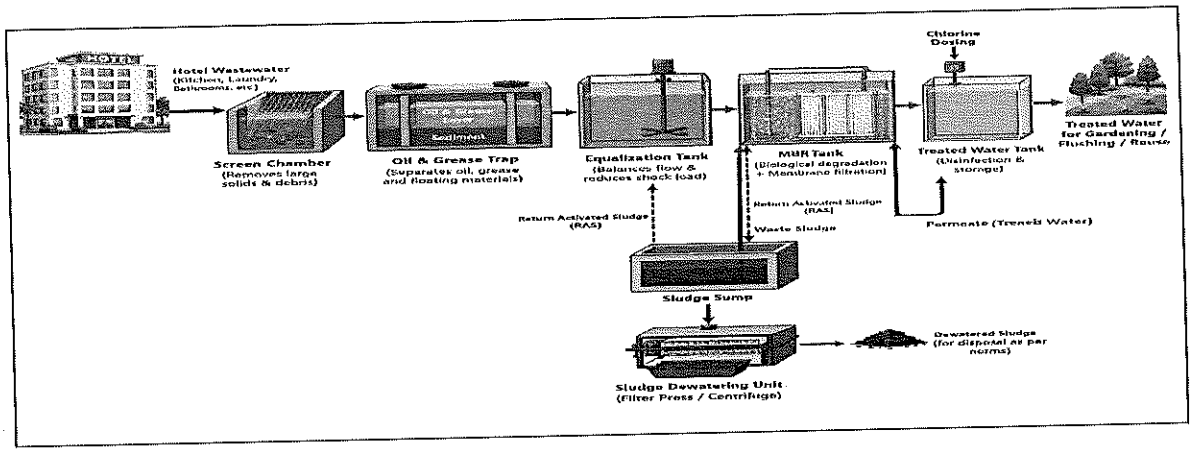
Calculation for Rain water Harvesting Tank	
Runoff (Q) = Area of Terrace x Average intensity of Rain Fall x Run off Coefficient	
For all buildings (100% roof runoff) (Cum/ day)	109
Considering 100 % of water will be available for storage (Cum/ day)	109
Considering Rain water available for 2 days storage (CUM)	218

Calculation for Rain water Harvesting Pits		
Rain water PIT size - 3m Dia x 3m Height		
Total Volume of RWH pit (Cum)		21.2
Total Volume of water available for harvesting per day (Cum/day)		205.19
No. of Pits required		9.68
	Say	**10**
Total Volume of Surface runoff recharged and stored per day will be (Cum/day)		430

Strom Water Management:

A siltation pond will be constructed at the lower contour side to collect and settle suspended sediments, after which the clarified water will be released into the drainage system.

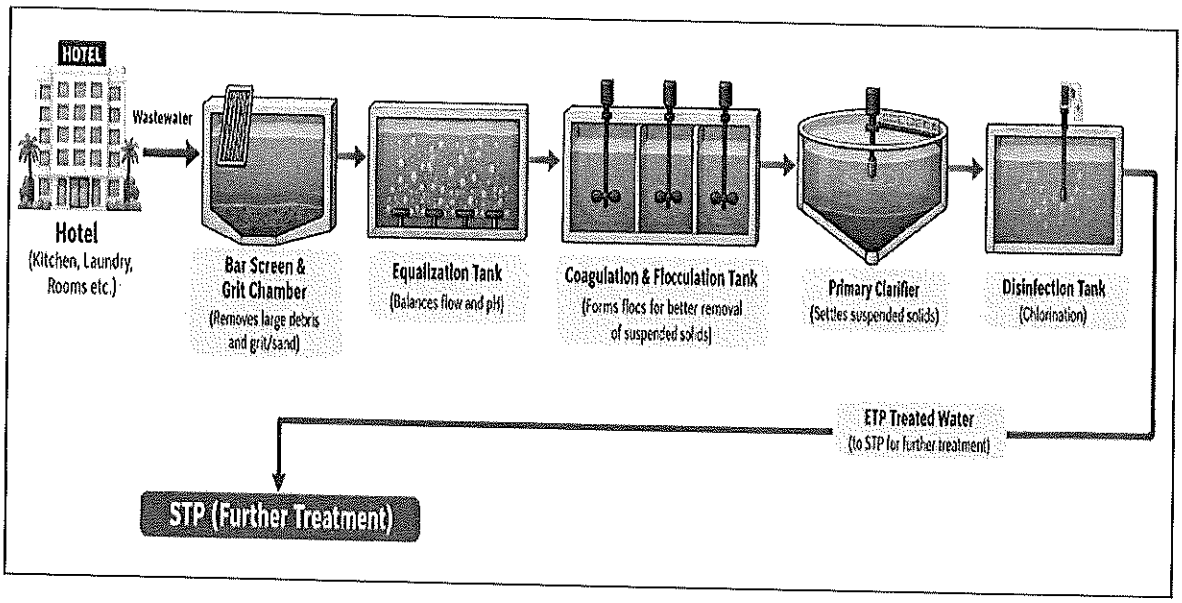
STP Design and Criteria



STP: Parameters for inlet and outlet

S. No	Parameters	Expected wastewater characteristics	Treated wastewater characteristics
1	pH	6.5-8.5	5.5-9
2	BOD	Upto 350mg/l	Less than 10 mg/l
3	Suspended solids	250mg/l	Less than 20 mg/l
4	COD	Upto 450 mg/l	Less than 50 mg/l
5	Total Nitrogen	18-25 mg/l	Less than 10 mg/l
6	Faecal Coliform (MPN/100 ml)	7500-10,000 MPN/100ml	Less than 100

ETP Design and Criteria



ETP: Parameters for inlet and outlet

S. No.	Parameters	Expected Wastewater Characteristics	Treated Wastewater Characteristics
1	pH	7.0–10.0	5.5–9.0
2	BOD	200–500 mg/L	≤ 30 mg/L
3	TSS	100– 250 mg/L	≤ 50 mg/L
4	Oil & Grease	20–80 mg/L	≤ 10 mg/L
5	Phosphate	3 –5 mg/L	≤ 1 mg/L

Solid waste Generation details

Building / Area	Occupancy	Solid Waste per person in grams	Biodegradable of total solid waste in grams	Non-Biodegradable of total solid waste in grams	Biodegradable Waste (of total solid waste (kg/day)	Non-Biodegradable Waste (of total solid waste (kg/day)	Total Waste (kg/day)	Storage Area Required (m^2) for 1 day storage
Hotel								
Standard Room	495	0.45	0.18	0.27	89	134	223	10

Building / Area	Occupancy	Solid Waste per person in grams	Biodegradable of total solid waste in grams	Non-Biodegradable of total solid waste in grams	Biodegradable Waste (of total solid waste (kg/day)	Non-Biodegradable Waste (of total solid waste (kg/day)	Total Waste (kg/day)	Storage Area Required (m^2) for 1 day storage
(1 Bay)								
Disabled Room (1 Bay)	5	0.45	0.18	0.27	1	1	2	0
Executive Suite (2 Bay)	62	0.45	0.18	0.27	11	17	28	1
Presidential Suite (5 Bay)	5	0.45	0.18	0.27	1	1	2	0
Employee / Maintenance Staff	540	0.2	0.08	0.12	43	65	109	5
Banquet, Pre-function & Multipurpose Hall	2188	0.2	0.08	0.12	175	263	438	19
Spa	37	0.2	0.08	0.12	3	4	7	0
Specialty Restaurant	152	0.2	0.08	0.12	12	18	30	1
All Day Dining	338	0.2	0.08	0.12	27	41	68	3
Lobby + Lounge	25	0.2	0.08	0.12	2	3	5	0
Bar	91	0.2	0.08	0.12	7	11	18	1
Pool Bar	28	0.2	0.08	0.12	2	3	6	0

Building / Area	Occupancy	Solid Waste per person in grams	Biodegradable of total solid waste in grams	Non-Biodegradable of total solid waste in grams	Biodegradable Waste (of total solid waste (kg/day)	Non-Biodegradable Waste (of total solid waste (kg/day)	Total Waste (kg/day)	Storage Area Required (m^2) for 1 day storage
Kids Play Area	5	0.2	0.08	0.12	0	1	1	0
Executive Lounge	120	0.2	0.08	0.12	10	14	24	1
Meeting Room & Office (Floating 15% of total)	27	0.2	0.08	0.12	2	3	5	0
Gym (Floating)	96	0.2	0.08	0.12	8	12	19	1
Retail								
Ground Floor – Fixed (Retail)	31	0.2	0.08	0.12	2	4	6	0
Ground Floor – Floating (Retail)	276	0.2	0.08	0.12	22	33	55	2
1st Floor – Fixed (Retail)	15	0.2	0.08	0.12	1	2	3	0
1st Floor – Floating (Retail)	138	0.2	0.08	0.12	11	17	28	1
Driver (25%)	48	0.2	0.08	0.12	4	6	10	0
TOTAL	**4722#**				**435**	**652**	**1087**	**48**
OWC Proposed (Recycling Capacity) in Kg/day for					**450**			**50**

Building / Area	Occupancy	Solid Waste per person in grams	Biodegradable of total solid waste in grams	Non-Biodegradable of total solid waste in grams	Biodegradable Waste (of total solid waste (kg/day)	Non-Biodegradable Waste (of total solid waste (kg/day)	Total Waste (kg/day)	Storage Area Required (m^2) for 1 day storage
Hotel								

Table 15: Solid Waste Details

Waste Stream	Quantity Generated	Treatment / On-Site Processing	Final Disposal Method
Biodegradable Waste	**435 kg/day**	Processed on-site using an **Organic Waste Converter (OWC)** of 450 kg/day capacity	Converted into organic manure/compost and reused internally for campus greenbelt landscaping.
Non-Biodegradable Waste	**788 kg/day**	**Collected, segregated into recyclables (plastics, paper, glass) and non-recyclables**	Handed over to authorized local municipal authorities or CPCB-registered recyclers.
sanitary Waste	**30 kg/day**	Wrapped and collected separately (Used sanitary napkins, Used diapers, Used tissues and hygiene waste)	Wrapped and collected separately, disposed through authorized agency
Hazardous / Domestic hazardous waste	**1.2 kg/day**	Stored in designated hazardous-waste storage area	Handed over to authorized/registered recycler or through applicable producer take-back system

Hazardous Waste Details

Sl. No	Hazardous Waste	Source	Basis of Estimation	Quantity	Basis of Estimation	Storage & Disposal
1	Used Lubricating Oil	2 × 2000 kVA DG Sets	Approx. 300 Lit oil/change × 2 DG × 2 changes/year × 75% recovery	0.90 KL/year	Maintenance activities	Stored in labeled, leak-proof drums in designated hazardous-waste storage area and handed over to authorized recycler

2	Waste/Residues Containing Oil	DG/equipment maintenance	Approx. 4 kg/filter × 2 DG × 2 changes/year	20 Kg/year	Maintenance activities	Stored in sealed containers and handed over to authorized hazardous-waste facility
3	Used Oil Filters	DG Sets	Approx. 4 kg/filter × 2 DG × 2 changes/year	16 Kg/year	Maintenance activities	Stored separately and handed over to authorized recycler/authorized hazardous-waste facility
4	Used Batteries	DG	Approx. 60 kg × 2 DG (every 4th year)	30kg/year	Replacement as required	Handed over to authorized/registered recycler or through applicable producer take-back system
5	ETP Sludge	Laundry waste water	Approx. 1 Kg/day	365 kg/year	Washing of cloths	Handed over to authorized/registered recycler or through applicable producer take-back system

Sanitary Waste Details

S. No.	Waste Category	Typical Sources in Hotel	Assumed average generation per room	Management Method	Management Method
1	Used sanitary napkins	Guest rooms, female toilets, staff toilets	0.015 kg per occupied room per day	Estimated quantity per day	Wrapped/packaged separately and handed over to authorized waste collection agency/local authority as per applicable requirements
2	Used diapers	Guest rooms, toilets	0.010 kg per occupied room per day	4.5 kg/day	Wrapped and collected separately; disposed through authorized agency
3	Used tissues and hygiene waste	Toilets, guest rooms, housekeeping	0.050 kg per occupied	3.0 kg/day	Collected separately and disposed through

		areas	room per day		authorized municipal waste system
4	Other sanitary/hygiene waste	Guest room, Spa, etc	0.025 kg per occupied room per day	15.0 kg/day	Properly wrapped, segregated and disposed through authorized collection system
		Total	0.100 kg per occupied room per day	30.0 kg/day	

E-Waste Details

Sl. No.	E-Waste Item	Source	Basis of Estimation	Quantity	Basis of Estimation (Source Activity)	Storage & Disposal
1	**E-Waste (IT & Telecommunication Equipment)**	Admin office, reception, guest rooms, billing counters (Tele vision, Computers, Laptops, Printers, Routers ets)	Approx. 0.2 kg/year for replacement of obsolete equipment	**73 kg/year**	Routine maintenance & hardware updates	Stored in dedicated e-waste storage room and handed over to authorized e-waste recyclers.
2	**Lighting & Electrical Waste**	Guest rooms, corridors, lobby, exterior grounds (LED drivers, FTLs, Electronic Ballasts, Fixtures)	Approx. 0.1 kg/day from routine replacement	**36.5 kg/year**	Maintenance and replacement of failed lighting units	Stored in dedicated e-waste storage room and handed over to authorized e-waste recyclers.
3	**HVAC Controls & Small Electrical Fixtures**	Kitchen appliances, HVAC thermostats, sensors, power sockets,	Approx. 0.25 kg/day generated during repair and routine overhaul	**90 kg/year**	Ongoing building facility and HVAC system maintenance	Stored in dedicated e-waste storage room and handed over to authorized e-waste

		cabling				recyclers.

Bio Medical Waste

- Under this project no Bio Medical Waste will be generated and doctors will visit on call only.

Power Requirement

Power details	Total
Power Requirement	2590 KVA
Source of Power	Jharkhand BijleeVitran Nigam Limited
No. of DG set	02 Number of DG sets [2 x 2000 KVA]
Solar Power	124 KVA (considering minimum ~5% as solar PV for power generation.)

Energy Conservation Measures

LED Based Lighting								
Sl. No.	Description	Consumption with conventional light (watt/sqm.)	Consumption with LED light (watt/sqm.)	FAR (sqm.)	Total Consumption with conventional light (watt)	Total Consumption with LED light (watt)	Saving (Watts)	Saving (kVA)
1	LED Light	1	0.4	42387.93	42387.93	16955.17	25432.76	25.43
Usage of energy efficient Lift (VVVF gearless lifts)								
Sl. No.	Description	Consumption with conventional lift (KW)	Consumption with VVVF gearless lifts (KW)	Noof lifts	Total Consumption with conventional lift (KW)	Total Consumption with VVVF gearless lifts (KW)	Saving (KW)	Saving (kVA)
1	Lifts	21	18	12	252	216	36	36

Solar Power generation details

RENEWABLEENERGY					
MAXIMUMDEMANDLOAD:2072KW (2590 KVA)					
MAXIMUMDEMANDFORSOLAR-5%					
Sr.No	**Particulars**	**Formula**	**Value**	**Units**	
1	Considering 5 % saving on total demand load		104	KW	
2	Total number of Proposed PV Panels		190	Nos.	

3	Size of PV		2 .5	Sq.Meters / PV	
4	Area required for Solar Panels	(3./2.)	475	Sq.Meters	
5	Capacity of the PV Panels		0.55	KWhr	
6	No. of hours per day		6	Hrs.	
7	No.of days per year for Summer		122	Days	Considering Summer only
8	Total number of Hours for Summer		732	Hrs	
9	Average Nos.of days per year in other Seasons		2	Hrs.	For 2 Month -60 Days
10	Total number of Hours for Other Seasons		120		
11	Total No. of Hours per year	(8.+10.)	852	Hrs	
12	**Total Energy Generated per year**	**(11.X 5. X 2.)**	**89034**	**KW / Annum**	

- The power generation from the solar energy system varies depending upon the season. For the calculation, 6 hours of effective solar generation per day during the summer season and 2 hours per day during the remaining seasons have been considered. Based on the seasonal average, the estimated total solar power generation is 89,034 kWh/annum, which is more than 5% of the total annual energy requirement of the project which details are as under:

Total Power Requirement	2590 KVA i.e 2072 KW
Power generation from Solar per year	89034 KW
Power generation from Solar per day (average)	243KWi.e 341.25 KVA
Considering worth condition (@50 power generation per day	121.5 KW

- After considering the average solar power generation, approximately 121.5 kW of solar power will be available, which is **approximately 5% of the total** power requirement of the project under varying conditions.

S. No.	Net Energy saved (weighted Average Calculation)	
1.	Solar Based lighting will be done in the common areas, entry gates and boundary walls etc. (approx. 5 %)	124 KVA
2.	LED Based lighting will be done in the dwelling units	25.43 KVA
3.	Usage of energy efficient Lift (VVVF non gear lifts)	3 KVA
4.	Total Energy saved	152.43 KVA

5.	Total Energy consumption	2590 KVA
	Total Energy saving	**5.88 %**

Environmental Management Cost – Construction Phase

Sr. No.	Component	Particulars	Capital Investment (Lakhs)	Recurring Expenditure per Annum (Lakhs)
1.	Air	Anti-Smog Gun	15.0	5.0
2.	Water	Mobile STP, etc.	12.0	2.5
3.	Solid and C&D Waste and its Management	Stack yard and its management	3.0	2.0
4.	Environment Monitoring & Management	Environment Monitoring as per monitoring plan ➢ Construction of wind breaking wall ➢ Green Curtains on under construction building	25.0	3.0
5.	Green Belt	Development and maintenance of green belt	10.0	2.5
Total (Rs.)			**65**	**15**

Environmental Management Cost – Operation Phase

Sr. No.	Component	Particulars	Capital Investment (Lakhs)	Recurring Expenditure per Annum (Lakhs)
1.	Air	Stack emission control	5.0	2.0
2.	Water	Sewage Treatment Plant (STP)	160.0	20.0
3.	Rain Water Harvesting	Installation of RWH System & Annual Cleaning of RWH tank	25.0	2.0
4.	Solid waste Area and its Management	Purchase of Containers for Storage of Waste (450 Kg/day)	30.0	5.0
5.	Environment Monitoring & Management	Environment Monitoring as per monitoring plan	0.0	0.5
6.	Green Belt	Development and maintenance of green belt	25.0	2.5
7.	Others	Energy saving devices,	71.5	5.0

Sr. No.	Component	Particulars	Capital Investment (Lakhs)	Recurring Expenditure per Annum (Lakhs)
		Miscellaneous i.e. Electrical Vehicle Charging point	30.0	1.0
		Total (Rs.)	**346.5**	**33.0**

Management of Building Materials at Project Site

Sl. No.	Material	Management Practice	Environmental Protection
1	**Cement**	Store in a covered and dry place	Prevents dust and wastage
2	**Sand**	Store in a fixed area and cover with tarpaulin	Reduces dust pollution
3	**Excavated Soil**	Keep separately and cover when required	Prevents dust and soil erosion/ Grass cover
4	**Stone/Aggregate**	Store in designated areas	Prevents dust and material loss
5	**Bricks/Blocks**	Stack properly in designated areas	Reduces breakage and wastage
6	**Steel**	Store on raised platforms and under cover	Prevents rusting and damage
7	**Paints/Chemicals**	Keep in a covered and safe area	Prevents soil and water pollution
8	**Construction Waste**	Collect and store separately	Helps in reuse and recycling
9	**Transportation**	Cover vehicles carrying loose materials	Prevents dust and spillage

Air Quality: Impact and Mitigation Measures

POTENTIAL IMPACT AREAS	PROPOSED MITIGATION MEASURES

CONSTRUCTION PHASE	
Fugitive Dust Emission due to Construction Activities	For construction of project, dust emission will be controlled. Provision of barricading will be done. Other measures: ➢ Anti Smog Gun ➢ Regular Water Sprinkling is proposed through out the construction phase ➢ Wheel wash arrangement will be provided at site.
Gaseous Pollution due to vehicular movement	➢ Only PUC certified vehicle shall be deployed during construction phase.
Gaseous Pollution due to fuel consumption in Heavy earth moving machines and DG set	➢ Good quality of fuel, proper stack height and regular maintenance of the machineries will help in reduction of emission rate.
OPERATION PHASE	
Emission due to DG set operation as power back-up	➢ Stack height as per CPCB guidelines for wider dispersion of plume ➢ Use of Low sulphur content fuel
Emission due to vehicular movement	➢ Only PUC certified vehicle will be entertained
Effect due to paved surfaces.	➢ Grass paving is proposed at all the open surface excluding landscape road & paved area.

Noise Quality Impact and Mitigation Measures

IMPACTS	PROPOSED MITIGATION MEASURES
CONSTRUCTION PHASE	
Increase in noise levels due to construction activities.	• Proper maintenance of construction equipment & vehicles. • Use of PPEs like ear muff/plugs for construction workers. • Proper maintenance of construction machines. • Provision of silencer to modulate padding / noise isolators at equipment / machinery used for construction. • Construction will be done only during day time. • PUC certified vehicle are only allowed. • Compliance of conditions as per statuary authority.

OPERATION PHASE	
Impacts due to operation of DG sets and traffic generated due to the project.	• DG sets will be installed with in built acoustic enclosure. • DG sets provided with exhaust mufflers. • Plantation to act as noise barriers.

Organization Structure

Organizational Structure:

Introduction

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

Environmental Policy

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

EMP Cell Objectives

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

Monitoring Period

Construction Phase:

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air Quality Monitoring	As per requirement	SO_2, NO_2, PM_{10}, $PM_{2.5}$ and CO	Once in a Six month.
2.	Ambient Noise Monitoring	As per requirement	Noise level L_{eq}both during day time and night time	Once in a Six month.

3.	Water Quality Testing (Portability testing)	(i) Any operational bore well (ii) One of the Drinking Water Point	Drinking water parameters as per IS 10500:2005.	Once in a Six month.
4.	Treated Wastewater Quality	Inlet and outlet of the STP	Parameters for assessing compliance with standards for recycling and horticulture use	Once in a Six month.

Operation Phase:

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air Quality Monitoring	As per requirement	SO_2, NO_2, PM10, PM2.5 and CO	Once in a Six month.
2.	Ambient Noise Monitoring	As per requirement	Noise level L_{eq}both during day time and night time	Once in a Six month.
3.	Water Quality Testing (Potability testing)	(i)Any operational borewell (ii)One of the Drinking Water Point	Drinking water parameters as per IS 10500:2012.	Once in a Six month.
4.	Treated Wastewater Quality	Inlet and outlet of the STP	Parameters for assessing compliance with standards for recycling and horticulture use	Once in a Six month.

STATUTORY CLEARANCES

1	Land Docs	:	Government land on lease agreement.
2	DFO Territorial	:	DFO, Ranchi Forest Division vide letter no. 1637, dated 15.05.2026 certified that the distance of reserved/protected forest is more than 250 meter from project site.
3	DFO Wildlife	:	DFO, Wildlife Division, Ranchi vide letter no. 397, dated 13.05.2026 certified that proposed project site is out side Eco Sensitive Zone of Palkot Wildlife Sanctuary.
4	CO certificate	:	The CO, Nagri, Ranchi vide letter no. 630 (ii) dated 11.05.2026 has mentioned the plot no. of the project is not recorded as

			"Jangle Jhari" in R.S. Khatiyan.
5	Building Plan approval	:	Conceptual plan submitted.
7	Fire Department	:	Fire Advisory has been issued by Fire Department, Jharkhand, Ranchi, vide memo no. 3508/Tech./2026, dated 18.05.2026.
8	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 Ref. No.: PC/SEIAA/EC-CTE/73/26/3277, dated : 02.09.2026.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed 5 Star Hotel "Taj Ranchi" by The Indian Hotels Company Limited, Village : Kute, Thana : Ranchi, Thana no. : 230, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide Ref. no. PC/SEIAA/EC-CTE/73/26/3277, dated : 02.09.2026 is also included as Annexure – II (C) :

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

II. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.

III. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.

IV. All raw material to be stored only under covered shed.

V. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.

VI. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load.

VII. Trees should be developed & maintained not less than 15% of project area.

VIII. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.

IX. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.

X. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.

XI. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.

XII. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.

XIII. Sufficient number of EV fast charging points to be installed.

XIV. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.

XV. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.

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2. **Proposed "Madan Mohan Medical College and Hospital" by Sitwanto Devi Mahila Kalyan Sansthan, Mauza : Ulidih and Jariya, Thana no. : 319 & 320, Distt. : Ranchi, Jharkhand.**

(Proposal no.: SIA/JH/INFRA2/591671/2026)

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

This is a new project which has been taken for appraisal on 27.09.2026.

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

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

The Project built up area is greater than 20,000 sqm and less than 1,50,000 sqm therefore designated under Category "B" and falls under Item 8(a) (Building & Construction Project) of the Environmental Impact Assessment (EIA) Notification of September 14, 2006 and its subsequent amendments.

Sitwanto Devi Mahila Kalyan Sansthanhas Proposed **"Madan Mohan Medical College and Hospital"** in total land area measuring 89832.0 Sqm. at Mauza-Ulidih, Jariya Dist. – Ranchi, Jharkhand. Total Built-up Area= 97391.31Sqm.

Salient Features of the Project

Particulars	
Latitude	23°14'12.97"N
Longitude	85°27'43.83"E
Total Plot area	**89832 Sqm.**
Permissible FAR	2.2
Total Built-up area	**97391.31Sqm.**
Hospital Bed	1100 No
Total No. of Car Parking Proposed	700 ECS
Proposed parking for two wheeler	700 Nos.
Total No. of Ambulance Parking Proposed	12 Nos.
Proposed Ground Coverage	12263.44 Sqm.
Green Area Provided @ 22 % of the Plot Area	19763.04Sqm.
Greencoverarea@ 5.90 % ofplotarea	5300.088 Sqm
Greenbeltarea@ 16.10 %ofplotarea	14462.96 Sqm
Road Area	4311.45 Sqm.
Oxygen Plant Capacity	13 KLD
Rain Water Harvesting Pits (with size)	12 Nos. (capacity 21.21 cum)
STP Capacity	740 KLD
ETP Capacity	30 KLD
Maximum Height of the Building (m)	Approx. 29.8 meter
Power Requirement	1500 KVA
Power Backup	DG capacity: 1500 KVA (3 x 500 KVA) All DG Sets shall be outdoor type with hospital type silencer, acoustic enclosure as per CPCB, and other relevant norms & with provision of DG sets proper shading
Total Water Requirement	~710 KLD
Fresh/Domestic Water Requirement	~469 KLD
Reuse of Recycled Water	~336 KLD
Waste water Generated	~616 KLD
Solid Waste Generated	~1314 Kg/day

(Operational)	
Biodegradable Waste (Operational)	~526 Kg/day
Non-Biodegradable Waste (Operational)	~788 Kg/day
Bio-medical waste generated	~1210 Kg/day
Types of Buildings	Proposed Block Hospital, Academic, Hostel, Doctor and Nursing Out, Chairman Office.
Basement	1
Stories	Max. (B+G+7)
Total Cost of the project	310 Crores
EMP Budget	During Construction: Capital: 34 Lakhs Recurring: 15 Lakhs
	Operational Cost: Capital: 201 Lakhs Recurring: 30 Lakhs

Details of Site Surroundings and Connectivity

Connectivity & Site Surroundings			
S. No.	**Description**		**Distance and Direction**
1	Nearest Railway Station	Gangaghat Railway Station	Approx.14.5 Km towards NNE.
2	Nearest Airport	Birsa Munda Airport, Ranchi	Approx. 16.4 km towards NW.
3	Nearest Village	Ulidih Singarsarai Huanghatu	Approx. 0.85 km towards WNW. Approx. 3.5 Km towards SW. Approx. 1.65 Km towards South.
4	Nearest Highway/Roads	Tata Road	Adjacent to project site
5	Nearest School & College	School: Notre Dame Academy Kasturba Gandhi Balika	 Approx. 75 mtrs. towards ENE Approx. 1.8 km towards NNW.
6	Nearest Hospital	New Hospital, Huanghatu Summer Hospital & Research Centre Pvt. Ltd. Maa Kalawati Hospital & Research Centre.	Approx. 1.70 km towards South. Approx. 16.60 km towards WNW. Approx. 10.25 km towards NW.
7	Places of worship	Shiv Mandir, Huwanghatu Shiv Mandir Surya Mandir	Approx. 2.45 km towards SSE. Approx. 1.4 km towards ENE. Approx. 11.10 km towards ESE.
8	Water Bodies	Subarnarekha River Kanchi River	Approx. 14.0 km towards NW. Approx. 11.20 km towards South.
9	Nearest Town	Ranchi	Approx. 18.0 km towards NW.

10	Wetland/Park	Bio-Diversity Park	Approx. 11.80 km towards WNW.

Land Summary

S. No.	Khata No.	Khesra No.	Area in Dismil
1	9	2323	70
2	13	2315	305
3	13	2324	393
4	13	2333	142
5	13	3062	22
6	13	3063	112
7	13	3064	567
8	13	3065	18
9	13	3066	21
10	14	2319	35
11	14	2320	33
12	178	2312	114
13	3	2233	188
14	3	2234	103
15	3	2220	7
16	3	2221	2
17	3	2222	3
18	3	2224	58
19	66	2316	26
	Total		**22.19 Acres**

Detailed Area Statement

Sr. No.	Particulars	
1.	**Total Plot area**	**89832 Sqm.**
2.	Permissible FAR	2.2
3.	**Total Built-up area**	**97391.31Sqm.**
4.	Total No. of Car Parking Proposed	700 ECS
5.	Proposed parking for two wheeler	700 Nos.
6.	Total No. of Ambulance Parking Proposed	12 Nos.
7.	**Proposed Ground Coverage**	12263.44 Sqm.
8.	Green Area Provided @ 22 % of Plot Area	19763.44 Sqm.
9.	Greencoverarea@ 5.90 %ofplotarea	5300.088 Sqm
10.	Greenbeltarea@ 16.10 %ofplotarea	14462.96 Sqm
11.	Road Area	4311.45 Sqm.

Block Built-up area details

BLOCKS	DESCRIPTION	No. of FLOOR	Blocks	Per Floor Area	Built-up area (sqm)
BLOCK- A	Admin & academic	9 (B+G+7)	1 BLOCK	1289.96	11609.64
BLOCK- B	College & hospital	9 (B+G+7)	1 BLOCK	1510.22	13591.98
BLOCK- C	College & hospital	9 (B+G+7)	1 BLOCK	1231.41	11082.69
BLOCK- D	College & hospital	9 (B+G+7)	1 BLOCK	3269.12	29422.08
BLOCK- E , F & G	Girls & boy's hostel	8 (G+7)	3 BLOCK	2384.69	19077.51
BLOCK- H & I	Doctor & nursing out.	5 (P+4)	2 BLOCK (1BHK)	1421.53	7107.64
BLOCK- J	Doctor & nursing out.	8 (P+7)	1 BLOCK (2&3BHK)	620.47	4963.72
Chairman office	Chairman office	G	1 Floor	536.05	536.05
			Total all block	**12,263.45**	**97391.31**

Latitude and Longitude

Pillar No.	Latitude	Longitude
1	23°14'12.97"N	85°27'43.83"E
2	23°14'13.41"N	85°27'47.23"E
3	23°14'12.71"N	85°27'47.72"E
4	23°14'12.01"N	85°27'46.60"E
5	23°14'10.32"N	85°27'46.35"E
6	23°14'10.37"N	85°27'45.88"E
7	23°14'5.71"N	85°27'45.52"E
8	23°14'5.77"N	85°27'45.86"E
9	23°14'0.82"N	85°27'45.59"E
10	23°13'59.16"N	85°27'42.73"E
11	23°13'53.74"N	85°27'45.41"E
12	23°13'52.82"N	85°27'44.00"E
13	23°13'51.89"N	85°27'43.85"E
14	23°13'51.37"N	85°27'42.95"E
15	23°13'56.06"N	85°27'37.94"E
16	23°14'1.76"N	85°27'34.83"E
17	23°14'3.73"N	85°27'32.93"E
18	23°14'5.28"N	85°27'33.39"E
19	23°14'4.97"N	85°27'36.07"E
20	23°14'4.14"N	85°27'37.09"E
21	23°14'1.51"N	85°27'40.02"E
22	23°14'0.54"N	85°27'40.06"E
23	23°13'59.44"N	85°27'42.19"E
24	23°14'1.18"N	85°27'44.48"E
25	23°14'4.36"N	85°27'44.24"E
26	23°14'4.35"N	85°27'42.51"E

27	23°14'6.23"N	85°27'42.48"E
28	23°14'6.36"N	85°27'44.11"E
29	23°14'7.67"N	85°27'43.78"E
30	23°14'7.58"N	85°27'42.28"E
31	23°14'9.31"N	85°27'42.16"E
32	23°14'9.50"N	85°27'44.01"E

Calculation of Population

Sl. No.	Description	Total Capacity / Bed
1	Beds in Hospital Block	1100
2	Attendent with pateint	1100
3	OPDs	1200
4	Academic Block (Student)	325
5	Hospital &Acedemic Block Staff	809
6	Girls & Boys Hostel	966
7	Doctors & Nursing Qtr Population	210
	Total	5710

Parking Details

Building Name	Car (Reqd.)	Car (Prop.)	Two-wheeler (Reqd.)	Two-wheeler (Prop.)	Ambulance (Reqd./Unit)	Ambulance (prop)
Main Hospital Block (OPD & IPD)	520	520	520	520	1 / 100 Beds	10
Medical College & Admin Block	120	120	120	120	-	-
Residential & Hostel Block	60	60	60	60	1 / Block	2
Total	700	700	700	700		12

Calculation of Green belt

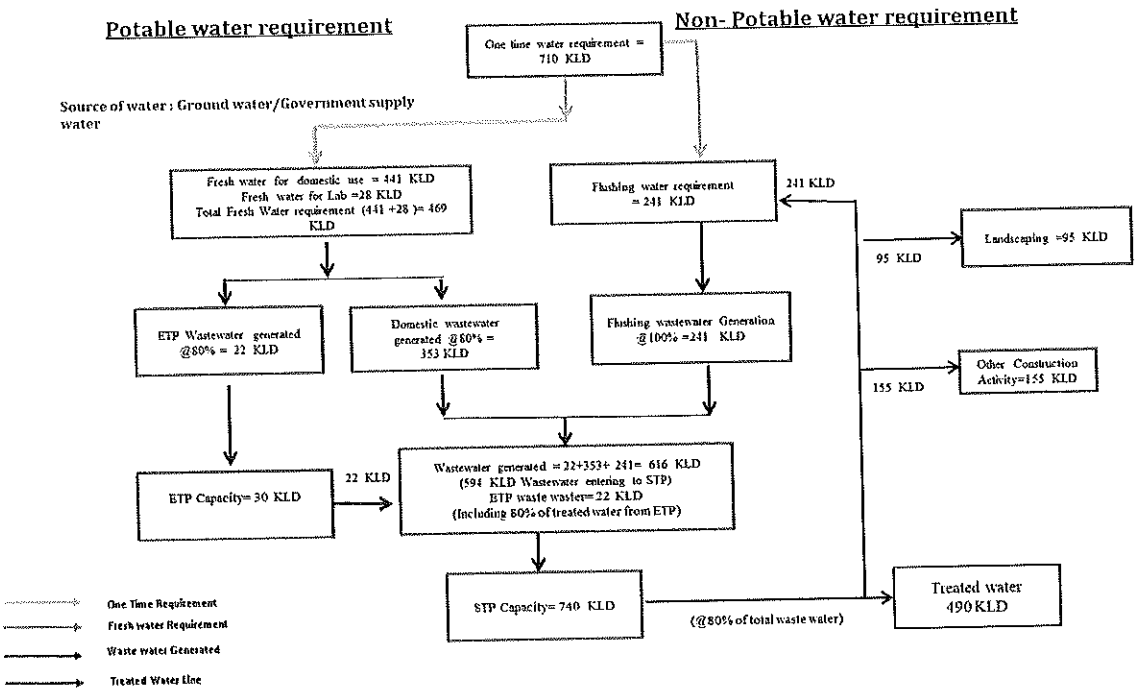
Total Plot Area	**89832.00 Sqm.**
Greenbelt area Provided @ 22 %	**19763.04 Sqm**
Green cover area@ 5.90 % of plot area	5300.088 Sqm
Green belt area@ 16.10 %of plot area	14462.96 Sqm

Total No. of Trees will be Planted @ 1600 tree per Hec	2304Nos.
Total no of trees to be planted	2305 Nos.
No. Of Trees already Existing at Site	300 Nos.

Details of Water Requirement

WATER BALANCE							
Sl. No.	**Description**	**Total Population**	**Water Requirement**	**Fresh/ Domestic**	**Flushing**	**Total water Requirement**	**Total waste water**
			LPCD	**LPD**	**LPD**	**LPD**	**LPD**
1	Hospital Bed	1100	450	330000	165000	495000	429000
2	OPD	1200	15	12000	6000	18000	15600
3	Lab Water	Lump sum		28,000	0	28,000	22400
4	Academic Block (Student)	325	45	8,125	6500	14,625	13000
5	Girls & Boys Hostel	966	100	57,960	38640	96,600	85008
6	Doctors & Nursing Qtr Population	210	100	12,600	8400	21,000	18480
7	Hospital Staff	809	45	20,225	16180	36,405	32,360.0
	Say			**469 KLD**	**241 KLD**	**710 KLD**	**616 KLD**
	Landscape area use 19763Sqm.		5 litre/sq.m of Landscape area			95	

Water Balance :



Details of Wastewater Generation and STP Capacity

Details	Water (KLD)
Water requirement for domestic purpose	469
Wastewater to be generated from domestic use (@ 80% of domestic water requirement)	**375**
Water requirement for Flushing Purpose	241
Wastewater to be generated from Flushing (@ 100% of flushing requirement)	**241**
Total Wastewater generated	**616**
Waste water from Lab	22
ETP capacity 20% higher than total waste water	**30**
After treated in ETP	22
Final Waste water for STP Water	**375+241=616**
STP capacity 20% higher than total waste water	**740**
Treated water from STP	**490**

- Waste water generated is ~616 KLD, which will be treated in the onsite STP of capacity 20% more than the waste water generated i.e. 740 KLD. The treated water available is 490 KLD (which is of 80 % total waste water entering in the STP) and it will be recycled and re-used for flushing, and irrigation of landscape area. it fully complies with ZLD requirements

- Sludge generation due to TSS removal is estimated atdry Kg solids/day, while sludge generation is 40 Kg ,due to BOD removal, using a sludge yield coefficient of 0.45 kg/kg BOD removed, is 2.77 kg dry solids/day. This results in a total dry sludge generation of 42.81 kg/day.
- .ETP sludge generation is approx. 2-3 kg/month will be disposed as (TSDF) HWM rules, 2016

Parameters for inlet and outlet

S. No	Parameters	Expected wastewater characteristics	Treated wastewater characteristics
1	pH	6.5-8.5	5.5-9
2	BOD	Upto 350mg/l	Less than 10 mg/l
3	Suspended solids	250mg/l	Less than 20 mg/l
4	COD	Upto 450 mg/l	Less than 50 mg/l
5	Total Nitrogen	18-25 mg/l	Less than 10 mg/l
6	Faecal Coliform (MPN/100 ml)	7500-10,000 MPN/100ml	Less than 1

ETP—Parameters for inlet and outlet

S. No.	Parameters	Expected Wastewater Characteristics	Treated Wastewater Characteristics
1	pH	7.0–10.0	5.5–9.0
2	BOD	200–500 mg/L	≤ 30 mg/L
3	TSS	100– 250 mg/L	≤ 50 mg/L
4	Oil & Grease	20–80 mg/L	≤ 10 mg/L
5	Phosphate	3 –5 mg/L	≤ 1 mg/L

Table 15: Solid waste Generation details

Sl. No.	Description	Total Population	Unit rate Waste Generation	Solid Waste (Kg/day)	Bio-degradable (Kg/Day)	Non-biodegradable (Kg/Day)

1	Hospital Bed	1100	1	1100	....	.....
2	Attendant with patient (24 hours)	1100	0.45	495	198	297
3	OPD	1200	0.1	120	48	72
4	Academic Block	325	0.15	48.75	19.5	29.25
4	Staff	809	0.15	121.35	48.54	72.81
5	Hostels &Qtr	1176	0.45	529.2	211.68	317.52
	Total solid Waste	**5710**		**1314.3**	**526**	**788**
	Biomedical Waste Generation			1100 kg/day		
	OPD Medical Waste			110 Kg/day		
	Total BMW			**1210 Kg/day**		

Biomedical Waste Management

Category	Type of Biomedical Waste	Quantity (kg/day)	Treatment / Disposal
Yellow	Human/animal anatomical waste, soiled waste, expired medicines, chemical and laboratory waste	605	Incineration / plasma pyrolysis or deep burial, as applicable; chemical liquid waste to be pre-treated before discharge to ETP
Red	Contaminated recyclable waste – tubing, IV sets, bottles, catheters, urine bags, syringes without needles, gloves	363	Autoclaving / microwaving / hydroclaving followed by shredding/mutilation and recycling through authorized recycler
White	Waste sharps including needles, blades, scalpels and other sharps	121	Autoclaving / dry-heat sterilization followed by shredding/mutilation or encapsulation and final disposal as per BMW Rules
Blue	Glassware, vials, ampoules and metallic implants	121	Disinfection / autoclaving or microwaving/hydroclaving followed by recycling through an authorized recycler
Total	**Biomedical Waste**	**1,210**	

Hazardous Waste Management

Hazardous Waste	Source	Basis of Estimation	Quantity	Quantity	Basis of Generation	Storage & Disposal
Used Lubricating Oil	3 × 500 kVA DG Sets	300 L oil/change × 3 DG × 2 changes/year × 50% recovery	0.90 KL/year	**2.47 kg/day**	DG maintenance activities	Stored in labelled, leak-proof drums in a designated hazardous-waste storage area and handed over to an authorized recycler/reprocessor.
Waste/Residues Containing Oil	DG/equipment maintenance	Approx. 4 kg/filter × 3 DG × 2 changes/year	24 kg/year	**0.066 kg/day**	Maintenance activities	Stored in sealed and labelled containers and handed over to an authorized hazardous-waste treatment/disposal facility.
Used Oil Filters	DG Sets	Approx. 4 kg/filter × 3 DG × 2 changes/year	24 kg/year	**0.066 kg/day**	DG maintenance activities	Stored separately in labelled containers and handed over to an authorized recycler/authorized hazardous-waste facility.
Used Batteries	DG Sets	Approx. 60 kg/battery × 2 batteries, replaced every 4 years	30 kg/year	**0.082 kg/day**	Replacement as required	Stored safely and handed over to an authorized/registered recycler or through the applicable producer take-back system.
Discarded Chemicals/Reagents	Hospital	0.02 kg/bed/day × 1,100 beds	5 kg/day	**5.00 kg/day**	Medical/laboratory activities	Stored in compatible, closed and labelled containers and handed over to an authorized hazardous-waste treatment/disposal facility, as applicable.
Chemical-Contaminated Containers	Hospital	0.005 kg/bed/day × 1,100 beds	0.5 kg/day	**0.50 kg/day**	Medical/laboratory activities	Stored in closed and labelled containers and handed over to an authorized recycler/TSDF, as applicable.
ETP Sludge	Hospital wastewater treatment	As per actual sludge generation from ETP	3 kg/Month	**0.10 kg/day**	ETP operation	Dewatered and stored in a designated covered area; handed over to an authorized agency/recycler/TSDF as

						applicable.
Total				8.28 Kg/Day		

E- Waste Management

Aspect	Hospital & Clinical Block	Academic & Admin Block	Hostels & Quarters	Total Project
Population / Base	1100 Beds	1134 Persons (325 students + 809 staff)	966 Students + 210 Staff/Doctors	**1100 Beds+2310 Persons**
Generation Rate	0.015 kg/bed/day	0.005 kg/capita/day	0.003 kg/capita/day	—
Daily E-Waste Quantity	**16.50 kg/day**	**5.67 kg/day**	**2.90 kg/day**	**25.07 kg/day**
Waste Sources	Patient monitors, ECG machines, lab analyzers, diagnostic radiology equipment, clinical UPS systems, IT terminals	Desktop PCs, laptops, servers, printers, projectors, smartboards, routers, networking switches	Personal laptops, smartphones, small kitchen appliances, ACs, LED/fluorescent lamps	Complete campus electrical & electronic equipment
Disposal Method	Handed over to CPCB/JSPCB-authorized recyclers/dismantlers	Handed over to CPCB/JSPCB-authorized recyclers/dismantlers	Handed over to CPCB/JSPCB-authorized recyclers/dismantlers	**Handed over exclusively to CPCB/JSPCB-registered E-waste recyclers per E-Waste Rules**

Radioactive Waste Management

Sl. No.	Radioactive Waste Source	Waste Type	Disposal / Management Method
1	Nuclear Medicine	Contaminated syringes, vials, cotton, gloves, tissues, absorbent material	Collected in labelled, radiation-shielded containers and kept in a designated **delay/decay storage area**. After radioactive decay and radiation survey confirms clearance, the waste may be transferred to the appropriate authorised waste stream.

2	Nuclear Medicine	Radioactive liquid waste/urine	Collected through dedicated leak-proof piping in **delay/decay tanks**. Held for sufficient radioactive decay and discharged only after monitoring confirms compliance with applicable AERB Guidelines.
3	PET/CT	F-18 contaminated solid waste	Stored separately for **radioactive decay**. After survey confirms the material is below the applicable clearance level, it can be disposed of through the authorised biomedical/general waste route, as applicable.
4	SPECT	Tc-99m contaminated materials	Segregated and stored in designated decay-storage facilities. After adequate decay and radiation monitoring, released to the authorised waste-management stream.
5	I-131 Therapy	Contaminated solid/liquid waste	Stored in a dedicated, shielded **radioactive-waste storage/decay facility**. Disposal/release shall be undertaken only after the prescribed decay period and radiation monitoring, in accordance with AERB Guidelines..
6	Disused sealed radioactive sources	Sealed source	**Not disposed of with hospital waste.** Returned to the supplier/manufacturer or transferred to an AERB-authorised agency/facility following the applicable regulatory procedure.
7	Radioactive waste that does not meet clearance criteria	Solid/liquid	Continued controlled storage and management through an **AERB-authorised radioactive-waste management/disposal facility.**

Storm Water Management

Component	Storm Water Management Measures
1. Surface Drainage	Properly designed drains will be provided along roads, paved areas and building surroundings to collect rainwater and prevent waterlogging.
2. Rainwater Collection	Rainwater from open areas will be guided through suitable drains towards the rainwater harvesting/recharge system.
3. Silt Trap	Silt traps/desilting chambers will be provided before the harvesting/recharge structure to prevent entry of soil and suspended matter.

4. Rainwater Harvesting	Collected storm water will be diverted to recharge pits/tanks for storage and groundwater recharge, as feasible.
5. Open Area Management	Natural ground surfaces will be retained wherever possible to facilitate infiltration of rainwater into the soil.
6. Protection from Contamination	Storm water from areas containing oil, chemicals, waste or other pollutants will not be directly discharged into the natural drainage system.
7. Maintenance	Drains, catch pits and silt traps will be regularly inspected and cleaned, particularly before and during the monsoon season.
8. Emergency Overflow	Suitable overflow arrangements will be provided so that excess storm water can be safely discharged without causing flooding or erosion within the site.

Storm water will be managed through suitable site contouring, with water-retention/siltation ponds created at lower-contour locations to collect, retain and facilitate infiltration of runoff, while excess water will be safely discharged through the designated drainage system.

Energy Conservation Measures

S. No.	Net Energy saved (weighted Average Calculation)	
1.	Solar Based lighting will be done in the common areas, Signages, entry gates and boundary walls etc.generated @ 5.0 %	75KVA
2.	LED Based lighting will be done in the dwelling units	58.34 KVA
3.	Usage of energy efficient Lift (VVVF non gear lifts)	30 KVA
4.	**Total Energy saved @10.88 %**	163.34 KVA
5	Total Energy consumption	1500 KVA
	Total Energy saving	**10.88 %**

Environmental Management Cost – Construction Phase

Sr. No.	Component	Particulars	Capital Investment (Lakhs)	Recurring Expenditure per Annum (Lakhs)
1.	Air	Anti-Smog Gun	8.0	2.0
2.	Solid and C&D Waste and its Management	Stack yard and its management	3.0	2.5

4.	Occupational Health & Safety	Health medical check-up of workers, PPEs for Workers. Emergency Preparedness, Fire hydrant systems, fire extinguishers, emergency control room, OHC and HAZOP study.	3	2.0
5.	Environment Monitoring & Management	Environment Monitoring as per monitoring plan Green Curtain on under construction building Wind breaking wall of 3-meter height	10.0	3.0
6.	Green Belt	Development and maintenance of green belt	10.0	3.0
Total (Rs.)			**34.0**	**15.0**

Environmental Management Cost – Operation Phase

Sr. No.	Component	Particulars	Capital Investment (Lakhs)	Recurring Expenditure per Annum (Lakhs)
8.	Air	Stack emission control	3.0	2.00
9.	Water	Sewage Treatment Plant (STP) & Effluent Treatment Plan (ETP)	125	10.0
10.	Rain Water Harvesting	Installation of RWH System & Annual Cleaning of RWH tank	25	3.00
11.	Solid waste Area and its Management	Purchase of Containers for Storage of Waste Installation of OWC for Bio-degradable waste of 530 Kg/day	3 10	5.00
12.	Environment Monitoring & Management	Environment Monitoring as per monitoring plan	0.00	3.0
13.	Green Belt	Development and maintenance of green belt	5	2
14.	Others	Energy saving devices, miscellaneous i.e. – Solar , EV charging etc.	30	5
		Total (Rs.)	**201**	**30**

Organizational Structure:

Introduction

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

Environmental Policy:

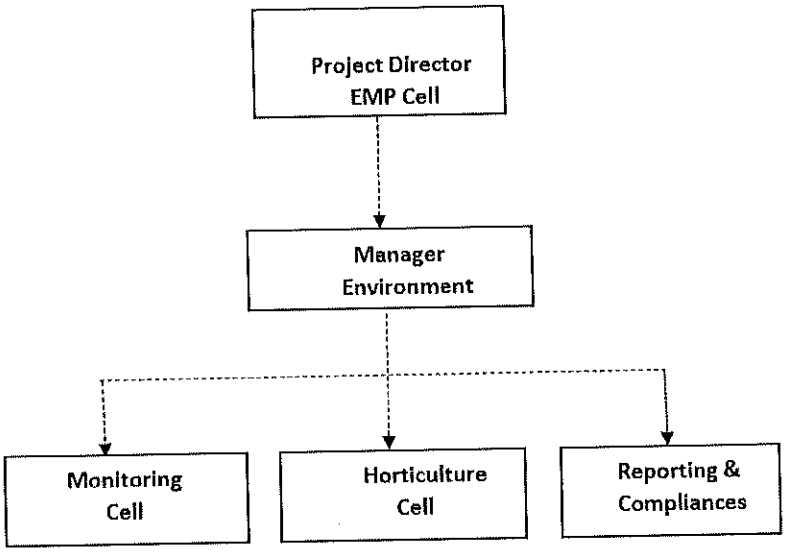
Our company is committed to:

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

EMP Cell Objectives:

The EMP Cell objectives are:

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



Monitoring Period

Construction Phase:

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air Quality Monitoring	As per requirement	SO_2, NO_2, PM_{10}, $PM_{2.5}$ and CO	Once in a Six month.

2.	Ambient Noise Monitoring	As per requirement	Noise level L_{eq}both during day time and night time	Once in a Six month.
3.	Water Quality Testing (Portability testing)	(iii) Any operational bore well (iv) One of the Drinking Water Point	Drinking water parameters as per IS 10500:2005.	Once in a Six month.
4.	Treated Wastewater Quality	Inlet and outlet of the STP	Parameters for assessing compliance with standards for recycling and horticulture use	Once in a Six month.

Operation Phase:

S. No.	Type	Locations	Parameters	Period and Frequency
1.	Ambient Air Quality Monitoring	As per requirement	SO_2, NO_2, PM10, PM2.5 and CO	Once in a Six month.
2.	Ambient Noise Monitoring	As per requirement	Noise level L_{eq}both during day time and night time	Once in a Six month.
3.	Water Quality Testing (Potability testing)	(i)Any operational bore well (ii)One of the Drinking Water Point	Drinking water parameters as per IS 10500:2012.	Once in a Six month.
4.	Treated Wastewater Quality	Inlet and outlet of the STP& ETP	Parameters for assessing compliance with standards for recycling and horticulture use	Once in a Six month.

STATUTORY CLEARANCES

1	Land Docs	:	Own land through sale deed.
2	DFO Territorial	:	DFO, Khunti Forest Division vide memo no. 1981, dated 10.09.2026 certified that the distance of reserved/protected forest is at 20 meter from project site.
3	DFO Wildlife	:	DFO, Wildlife Division, Ranchi vide letter no. 616, dated 27.08.2026 certified that proposed project site is out side Eco Sensitive Zone of Palkot Wildlife Sanctuary.
4	CO certificate	:	The CO, Namkum, Ranchi vide letter no. 876 (ii), dated 17.08.2026 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan.
5	AAI NOC	:	The NOC from the Airport Authority of India is not required for the proposed project, as the project site does not fall within the applicable funnel / airspace zoning area requiring AAI height clearance.
6	Building Plan approval	:	Conceptual plan submitted.
7	Fire Department	:	Fire Advisory has been issued by Fire Department, Jharkhand, Ranchi, vide memo no. 7067/Tech./2026, dated 14.09.2026.
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/115/2026/3376, dated : 16.09.2026.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed "Madan Mohan Medical College and Hospital" by Sitwanto Devi Mahila Kalyan Sansthan, Mauza : Ulidih and Jariya, Thana no. : 319 & 320, Distt. : Ranchi, Jharkhand. is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/115/2026/3376, dated : 16.09.2026 is also included as Annexure – II (D) :

I. In compliance of OM no.F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "*Ek Ped Ma Ke Naam*" and the

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

II. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.

III. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.

IV. All raw material to be stored only under covered shed.

V. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.

VI. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load.

VII. Trees should be developed & maintained not less than 15% of project area.

VIII. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.

IX. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.

X. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.

XI. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.

XII. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.

XIII. Sufficient number of EV fast charging points to be installed.

XIV. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.

XV. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.

****

3. **Gajure Stone Deposit of M/s SRS Enterprises (Prop. : Shri Atul Shekhar), Village : Gajure, Tehsil : Chandwara, Distt. : Koderma, Jharkhand (1.117 Ha.).**

(Proposal no.: SIA/JH/MIN/ 585479 /2026)

Name of the consultant : Crystal Consultants, Ranchi, Jharkhand

This is a new project which has been taken for appraisal on 27.09.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 9798 Cum per year or 27435 Tonnes per year

Project and Location Details:

Sl. No.	Parameter		Details	
1	Project Name	:	Gajure Stone Deposit	
2	Lessee:	:	M/s SRS Enterprises, Proprietor- Sri Atul Shekhar	
3	Lessee Address	:	At- 15A, Singh Mension, Behind old Municipal office, ward No-24, Jhumri Tilaiya, District – Kodarma, Jharkhand	
4	Lease Area as per LOI	:	1.117 Ha.	2.76 Acres
5	Project Area as per Approved Mining Plan		1.06 Ha.	2.62 Acres
6	Type of Land	:	Non-Forest Raiyati Land	
7	Project Cost	:	Capital: Rs. 2448100.00	Recurring: Rs 11091432 per year
8	EMP Budget	:	Capital: Rs. 1014000.00	Recurring: Rs 785450.00 per year
9	New or Expansion	:	New	
10	Mineable Reserves	:	97693 cum	273538 tonnes
11	Mine Life	:	10 Years	
12	Man power	:	27	
13	Water Requirement	:	16.54 KLD	
14	Water Source	:	By authorised hired water tankers	
15	DG Set / power	:	-	
16	Crusher	:	Not Proposed	
17	Nearest Water Body	:	Margoja Nadi at a distance of 6.5 km from lease area	
18	Nearest Habitation	:	Gajure Village is located approximately 387 m in the S direction. *The EMP includes appropriate measures to mitigate potential*	

			impacts on the habitation as per Office Memorandum No. Z-11013/57/2014-IA. II (M) dated 29/10/2014 issued by the Ministry of Environment, Forests and Climate Change (MoEF & CC), regarding "Impact of mining activities on Habitations – Issues related to the mining projects wherein habitations and villages are part of the mine lease areas or are surrounded by the mine lease area
19	Nearest Rail Station	:	Nearest railway stations is Pipradih railway station which is about 5.23 Km from the applied lease area.
20	Nearest Air Port	:	Birsa Munda Ranchi Airport 118.71 Km
21	Nearest Forest	:	Divisional Forest Officer, Kodarma certified that the distance of reserved / protected forest is more than 452 meters from proposed project site.
22	Nearest Wildlife Sanctuary	:	The project location is at approx. 20.2 KM from the nearest Kodarma wildlife sanctuary.
23	Road & Highways	:	NH-20 is located approximately 4.00 Km from the project site, while the approach road is approximately 541 m away.

CO-ORDINATES

Sl.No.	LATITUDE	LONGITUDE	Sl.No.	LATITUDE	LONGITUDE
P1	24° 23' 7.691" N	85° 26' 28.324" E	P24	24° 23' 4.014" N	85° 26' 29.254" E
P2	24° 23' 7.667" N	85° 26' 28.726" E	P25	24° 23' 4.022" N	85° 26' 28.900" E
P3	24° 23' 7.214" N	85° 26' 29.870" E	P26	24° 23' 4.490" N	85° 26' 29.087" E
P4	24° 23' 6.923" N	85° 26' 29.636" E	P27	24° 23' 4.365" N	85° 26' 29.345" E
P5	24° 23' 6.663" N	85° 26' 30.082" E	P28	24° 23' 5.530" N	85° 26' 29.958" E
P6	24° 23' 6.519" N	85° 26' 30.034" E	P29	24° 23' 6.023" N	85° 26' 30.013" E
P7	24° 23' 6.318" N	85° 26' 30.389" E	P30	24° 23' 6.260" N	85° 26' 29.640" E
P8	24° 23' 6.061" N	85° 26' 30.344" E	P31	24° 23' 6.153" N	85° 26' 29.513" E
P9	24° 23' 5.785" N	85° 26' 30.911" E	P32	24° 23' 5.920" N	85° 26' 29.741" E
P10	24° 23' 5.631" N	85° 26' 31.053" E	P33	24° 23' 5.658" N	85° 26' 29.603" E
P11	24° 23' 5.201" N	85° 26' 31.875" E	P34	24° 23' 5.611" N	85° 26' 28.938" E
P12	24° 23' 4.952" N	85° 26' 32.145" E	P35	24° 23' 5.920" N	85° 26' 28.460" E

P13	24° 23' 4.497" N	85° 26' 32.902" E	P36	24° 23' 6.116" N	85° 26' 28.572" E
P14	24° 23' 4.117" N	85° 26' 32.649" E	P37	24° 23' 6.063" N	85° 26' 28.286" E
P15	24° 23' 3.899" N	85° 26' 33.002" E	P38	24° 23' 5.330" N	85° 26' 28.009" E
P16	24° 23' 4.072" N	85° 26' 33.158" E	P39	24° 23' 4.968" N	85° 26' 27.764" E
P17	24° 23' 3.433" N	85° 26' 33.131" E	P40	24° 23' 5.225" N	85° 26' 27.285" E
P18	24° 23' 2.703" N	85° 26' 33.186" E	P41	24° 23' 5.465" N	85° 26' 27.510" E
P19	24° 23' 2.770" N	85° 26' 33.038" E	P42	24° 23' 5.672" N	85° 26' 27.234" E
P20	24° 23' 2.512" N	85° 26' 32.855" E	P43	24° 23' 6.530" N	85° 26' 27.651" E
P21	24° 23' 3.143" N	85° 26' 31.430" E	P44	24° 23' 6.861" N	85° 26' 27.602" E
P22	24° 23' 3.646" N	85° 26' 30.212" E	P45	24° 23' 7.543" N	85° 26' 28.008" E
P23	24° 23' 3.825" N	85° 26' 29.905" E			

LAND DETAILS

Khata no.	Plot no.
04	109, 111 (P), 113, 114 & 239
02	117 & 238

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by Distirct Mining Officer, Koderma vide memo no. 71/M, dated 08.02.2025.
2	CO	:	The CO, Chandwara vide letter no. 721, dated 23.10.2024 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II.
3	DMO Cluster	:	DMO, Koderma vide memo no. 880/M, dated 26.09.2026 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 2327, dated 19.11.2024 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Koderma Forest Division vide letter no. 3407, dated 21.11.2024 certified that the distance of notified/

			demarcated forest is at 452 meters from proposed project site.
6	DSR	:	This project is mentioned in approved DSR of Koderma District (Page no. 43, Sl. No. 13).
7	Gram Sabha	:	BDO, Chandwara (Koderma) vide letter no. 1723, dated 28.11.2024 informed that Gram Sabha conducted on 26.11.2024.
8	Mine Plan Approval	:	Approved by The Assistant Director, Geology, District Geological Office, Hazaribag vide Memo No. 61, dated 08.08.2025.
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/90/2026/3414, dated : 18.09.2026.
10	Qualified Person	:	Shri P.K. Sen was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Semi-mechanized "OTFM" Method
2	Quarry Area	:	0.567 Ha.
3	Waste Generation	:	7453 cum
4	Stripping Ratio	:	1:0.05
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m and 4 in numbers
7	Elevation of Mine	:	355 m AMSL to 351m AMSL
8	Ground Level Elevation	:	351 m AMSL
9	Ultimate Working Depth	:	331 m AMSL
10	Water Table	:	324m AMSL
11	Topography of Mine	:	The applied lease area represents a gently sloping land.
12	Explosive Requirement	:	11 kg/day
13	Diesel/Fuel requirement	:	55 litre/day

Production Details

Year	Removal of Gritty Soil		Intercalated Waste	Production of Stone	
	in cum	in tonnes	in cum	in cum	in tonnes
1st	992	1488	512	9719	27212
2nd	1116	1674	515	9777	27377

3rd	1488	2232	515	9777	27377
4th	1284	1926	516	9798	27435
5th	000	000	515	9777	27377
Total	**4880**	**7320**	**2573**	**48848**	**136778**

Land Use Pattern

Type of Land	Present Land use (in Ha)	At the End of Plan Period (in Ha)	At the End of Mine (in Ha)	Conceptual Period (in Ha)		
				Public use	Water Body	Plantation
Quarry	Nil	0.567 (Including temporary dumped 0.147 Ha.)	0.567	----	0.288	0.279
Greenbelt within Safety Barrier	Nil	0.492	0.492	----	----	0.492
Road	0.007	Nil	Nil	----	----	----
Total Area in Use	0.008	1.059	1.059	----	0.288	0.771
Balanced Area unused	1.051	Nil	Nil	----	----	----
Blocked Area due to Road Safety	0.001	0.001	0.001	0.001	----	----
Total Applied Area	1.060	1.060	1.060	1.060		

ENVIRONMENT MANAGEMENT

Green Belt Development

Plantation				
Location	**Area (Ha.) or Length (m)**	**No. of tree**	**Calculation**	**Timeline**
Safety Zone	0.492	788	1600 tree per hectare	1st Year
Approach Road	541	1082	2m X 2m spacing	1st year
Dead Bench	0.279	447	1600 tree per	End of

			hectare	Mine
TOTAL		**2317**		
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 equipment's 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	65482.83
Infrastructure			700000.00	0.00
Mining Equipment			0.00	10200000.00
Equipment	***Quantity***	***Rent per year***		
Dumper	2	2000000		
Wagon Drill	1	1000000		
Jack Hammer	2	600000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	1	800000		
Excavator	2	800000		
Water Facility for Domestic Purpose "1.08" KLD (Annual Water Demand "324"KL @4L per Tanker, total number of tankers required ("81") and per tanker cost @Rs. 500			0.00	40500.00
Statutory Clearances			500000.00	0.00
Mine Closure Cost for Plantation of "447" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance			134100.00	0.00
Mine Closure Cost for fencing around mine			100000.00	0.00
Environment Management Plan (EMP) Cost			**1014000.00**	**785450.00**
		Total	**2448100.00**	**11091432.83**

Environment Management Budget

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP)		
Particulars	**Capital**	**Recurring**
Plantation of "1870" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	561000.00	93500.00
Water Facility for Horticulture "11.22" KLD & Dust Suppression "4.24" KLD (Annual Water Demand "4638"KL @4L per Tanker, total number of tankers required ("1160") and per tanker cost @Rs. 500)	0.00	580000.00
Garland Drainage System, Desilting Pond, Retaining Wall, etc. measures to prevent surface-run-off	106000.00	10600.00
Habitation as per Office Memorandum No. Z-11013/57/2014-IA. II (M) dated 29/10/2014 issued by the Ministry of Environment, Forests and Climate Change (MoEF & CC) :		
(i) 3m high wall all along project boundary	212000.00	0.00
(ii) Safety Gadgets to manpower engaged in mine	135000.00	1350.00
(iii) HealthCare Camp & Awareness Camp	0.00	50000.00
Environment Monitoring & Compliance	0.00	50000.00
Total	**1014000.00**	**785450.00**

Environment Monitoring Plan (post operation)

Monitoring Parameters and Frequency of Monitoring

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

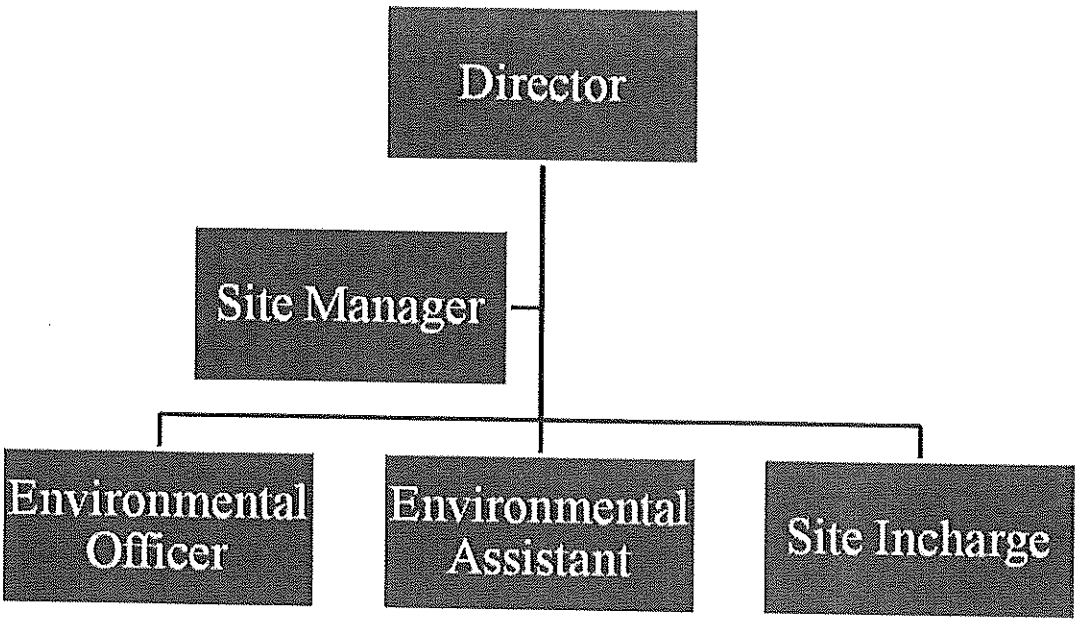
4	Soil: Soil Monitoring, Qualitative and quantitative testing/analysis to check the soil fertility, porosity, texture, water holding capacity, etc.	2 stations	Six Monthly

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	During quarry development in 1st year gritty soil and intercalated waste will be removed and this soil & waste will be temporarily dumped [Area - 0.030 Ha, (L x W x H = 20m x 15m x 5m)l at the north-west part of the area with suitable precaution like constructing parapet wall, garland drain & in 2nd year gritty soil & intercalated waste will be removed and this soil & waste will be temporarily dumped [Area - 0.032 Ha, (L x W x H = 20m x 16m x 5m)] at the existing dump yard & in 3rd year gritty soil & Intercalated waste will be removed and this soil & waste will be temporarily dumped [Area-0.040 Ha, (L x W x H = 24m * 17m * 5m)] within the quarry & in 4th year gritty soil & intercalated waste will be removed and this soil, waste & existing temporary dumped materials will be temporarily dumped [Area-0.137 Ha, (L x W x H =57m x 24m x 5m)] within the quarry & in 5th year intercalated waste will be removed and this waste & existing temporary dumped materials will be temporarily dumped [Area - 0.147 Ha. (L x W x H = 40m x 37m x 5m)] within the quarry. In conceptual period total removal intercalated waste & plan period temporary dumped materials together will be backfill within the exhausted quarry.
Air Quality Management	• **Wet drilling** and use of **sharp drill bits** to minimize dust generation. • **Controlled blasting** using optimum explosive charge during favorable weather conditions. • Regular **maintenance of diesel equipment and vehicles** to reduce emissions. • **Water sprinkling** on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid **PUC certificates.** • **Greenbelt and roadside plantation** to act as dust and noise barriers.
Water Quality Management	• Mining will be confined **only above the Ground Water Table (GWT).** • **Rainwater** accumulated in the pit will be collected and pumped out regularly during monsoon. • **Settling sump** will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage. • **Garland and foot drains** will be constructed around the quarry to control surface runoff. • **Sewage** from rest shelters will be treated through **septic tank–soak pit systems.**

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

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

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



EMP Cell structure

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

Undertaking submitted affirming:

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

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Gajure Stone Deposit of M/s SRS Enterprises (Prop. : Shri Atul Shekhar), Village : Gajure, Tehsil : Chandwara, Distt. : Koderma, Jharkhand (1.117 Ha.) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/90/2026/3414, dated : 18.09.2026 is also included as Annexure – III (D) :

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

II. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.

III. 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.

IV. 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.

V. 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.

VI. 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.

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

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

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4. **Kurchudih Stone Deposit of M/s Dandar Nirman Pvt. Ltd. (Director : Shri Rahul Pandey), Village : Kurchudih, Tehsil : Tamar, Distt. : Ranchi, Jharkhand (2.63 Ha.).**

(Proposal no.: SIA/JH/MIN/ 590260 /2026)

Name of the consultant : Crystal Consultants, Ranchi, Jharkhand

This is a new project which has been taken for appraisal on 27.09.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity – 121212 Cum per year or 339393 Tonnes per year

Project and Location Details:

Sl. No.	Parameter		Details	
1	Project Name	:	Kurchudih Stone Deposit	
2	Lessee:	:	M/s Dandar Nirman Pvt. Ltd Director – Sri Rahul Pandey	
3	Lessee Address	:	At- House No.- 90, Ratu Road, Beside of Bijulia House, Thana – Sukhdeo Nagar, P.O.- Hehal, District- Ranchi	
4	Lease Area	:	2.63 Ha	6.50 Acres
5	Type of Land	:	Non-Forest Raiyati Land	
6	Project Cost	:	Capital: Rs 3449800.00	Recurring: Rs 23740421 per year
7	EMP Budget	:	Capital: Rs 1674600.00	Recurring: Rs 1101450.00 per year
8	New or Expansion	:	New	
9	Mineable Reserves	:	605853 cum	1696389 tonnes
10	Mine Life	:	5 Years	
11	Man power	:	51	
12	Water Requirement	:	34.88 KLD	
13	Water Source	:	By authorised hired water tankers	
14	DG Set / power	:	-	
15	Crusher	:	Not Proposed	
16	Nearest Water Body	:	Karkari River at a distance of 5.33Km in the South direction.	
17	Nearest Habitation	:	Kurchudih Village is located approximately 486 m in the SW direction. The EMP includes appropriate measures to mitigate potential impacts on the habitation as per Office Memorandum No. Z-11013/57/2014-IA. II (M) dated 29/10/2014 issued by the Ministry	

			of Environment, Forests and Climate Change (MoEF & CC), regarding "Impact of mining activities on Habitations – Issues related to the mining projects wherein habitations and villages are part of the mine lease areas or are surrounded by the mine lease area
18	Nearest Rail Station	:	Tirudih railway station which is at a distance of about 14.34 Km from the applied lease area in North-East direction.
19	Nearest Air Port	:	Birsa Munda Airport Ranchi is at a distance of 55.69 Km in North-West direction.
20	Nearest Forest	:	Divisional Forest Officer, Khunti certified that the distance of reserved/protected forest is more than 534 meters from proposed project site.
21	Nearest Wildlife Sanctuary	:	The project location is at approx. 135 KM from the nearest Palkot Wildlife Sanctuary in Gumla district in West direction.
22	Road & Highways	:	NH-43 is located approximately 8.51 km from the project site, while the approach road is approximately 515 m away.

CO-ORDINATES

PILLAR_NO	LATITUDE	LONGITUDE
BM01	23° 4' 37.567" N	85° 48' 7.227" E
P1	23°4' 39.012" N	85°48' 8.261" E
P2	23°4' 39.050" N	85°48' 9.421" E
P3	23°4' 39.085" N	85°48' 10.495" E
P4	23°4' 37.499" N	85°48' 10.597" E
P5	23°4' 37.830" N	85°48' 12.500" E
P6	23°4' 38.235" N	85°48' 14.376" E
P7	23°4' 38.294" N	85°48' 15.705" E
P8	23°4' 38.601" N	85°48' 16.904" E
P9	23°4' 38.447" N	85°48' 18.187" E
P10	23°4' 37.870" N	85°48' 18.512" E
P11	23°4' 36.607" N	85°48' 18.266" E
P12	23°4' 36.183" N	85°48' 18.592" E
P13	23°4' 35.868" N	85°48' 18.615" E
P14	23°4' 35.750" N	85°48' 17.076" E
P15	23°4' 35.992" N	85°48' 16.367" E
P16	23°4' 35.732" N	85°48' 14.477" E
P17	23°4' 35.373" N	85°48' 14.531" E
P18	23°4' 35.466" N	85°48' 13.512" E
P19	23°4' 35.110" N	85°48' 13.334" E
P20	23°4' 34.816" N	85°48' 12.024" E
P21	23°4' 34.789" N	85°48' 11.045" E
P22	23°4' 34.985" N	85°48' 10.627" E

P23	23°4' 34.050" N	85°48' 10.494" E
P24	23°4' 34.045" N	85°48' 10.323" E
P25	23°4' 34.191" N	85°48' 10.326" E
P26	23°4' 34.279" N	85°48' 9.066" E
P27	23°4' 35.648" N	85°48' 9.075" E
P28	23°4' 36.856" N	85°48' 9.083" E
P29	23°4' 36.843" N	85°48' 8.251" E
P30	23°4' 37.927" N	85°48' 8.256" E

LAND DETAILS

Khata no.	Plot no.
39	274 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Ranchi vide letter no. 759/M, dated 10.06.2026.
2	CO	:	The CO, Tamar, Ranchi vide letter no. 172 (ii), dated 17.03.2025 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that habitation exist at a distance of 486 meters from mining lease area, for which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Ranchi vide memo no. 775/M, dated 15.06.2026 certified that no other mining lease area / LoI exists within 500 meter radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 454, dated 15.06.2026 certified that proposed project site is out side Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Khunti Forest Division vide letter no. 964, dated 25.05.2026 certified that the distance of reserved / protected forest is 534 meter from project site and DFO, Saraikela Forest Division vide letter no. 1082, dated 25.04.2025 certified that the distance of forest is 480 meter from project site.
6	DSR	:	The DMO, Ranchi has certified vide memo no. 986/M, dated 14.08.2026 that this project is mentioned in approved DSR of Ranchi District as a List of Stone Blocks in Ranchi District proposed by Department of Geology (Page no. 54, Sl. no. 10).

7	Gram Sabha	:	BDO, Tamar, Ranchi vide letter no. 381 (ii), dated 17.03.2025 informed that Gram Sabha conducted on 09.03.2025.
8	Mine Plan Approval	:	Approved by DMO, Ranchi vide Memo No. 956/M, dated 05.08.2026.
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/114/2026/3387, dated : 16.09.2026.
10	Qualified Person	:	Shri P.K. Sen was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Semi-mechanized "OTFM" Method
2	Quarry Area	:	1.96 Ha.
3	Waste Generation	:	33506 cum
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m and 7 in numbers
7	Elevation of Mine	:	230 m AMSL to 216 m AMSL
8	Ground Level Elevation	:	216 m AMSL
9	Ultimate Working Depth	:	188 m AML
10	Water Table	:	181 m AMSL
11	Topography of Mine	:	The applied lease area represents a small hillock
12	Explosive Requirement	:	141 kg/day
13	Diesel/Fuel requirement	:	679 litre/day

Production Details

Year	Removal of Gritty Soil		Intercalated Waste	Production of Stone	
	In cum	In tonnes	In cum	In cum	In tonnes
1st Year	000	000	6376	121145	339206
2nd Year	1620	2430	6378	121181	339307
3rd Year	000	000	6380	121212	339393

4th Year	000	000	6377	121168	339272
5th Year (11 months)	000	000	6375	121131	339169
Total	1620	2430	31886	605837	1696347

Land Use

Type of Land	Present Land use (in Ha)	At the End of plan period (in Ha)	At the End of Mine (in Ha)	Conceptual Period (in Ha)		
				Public use	Water Body	Plantation
Quarry	Nil	1.96 (including backfill 0.60 Ha)	1.96	-----	0.97	0.99 (Dead bench plantation)
Greenbelt Within Safety Barrier	Nil	0.67	0.67	-----	-----	0.67
Road	0.05	Nil	Nil	-----	-----	-----
Total Area in Use	0.05	2.63	2.63	-----	0.97	1.66
Balanced Area unused	2.58	Nil	Nil	-----	-----	-----
Total Applied Area	2.63	2.63	2.63	2.63		

ENVIRONMENT MANAGEMENT

Green Belt Development

Plantation				
Location	**Area (Ha.) or Length (m)**	**No. of tree**	**Calculation**	**Timeline**
Safety Zone	0.670	1072	1600 tree per hectare	1st Year
Approach Road	515	1030	2m X 2m spacing	1st year
Dead Bench	0.990	1584	1600 tree per hectare	End of Mine
TOTAL		**3686**		

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	162471.54
Infrastructure			700000.00	0.00
Mining Equipment			0.00	22400000.00
Equipment	***Quantity***	***Rent per year***		
Dumper	5	2000000		
Wagon Drill	2	1000000		
Jack Hammer	3	600000		
Compressor	2	1000000		
Water Sprinkler	3	600000		
Rock Breaker	3	800000		
Excavator	3	800000		
Water Facility for Domestic Purpose "2.04" KLD (Annual Water Demand "612"KL @4L per Tanker, total number of tankers required ("153") and per tanker cost @Rs. 500)			0.00	76500.00
Statutory Clearances			500000.00	0.00
Mine Closure Cost for Plantation of "1584" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance			475200.00	0.00
Mine Closure Cost for fencing around mine			100000.00	0.00
Environment Management Plan (EMP) Cost			**1674600.00**	**1101450.00**
		Total	**3449800.00**	**23740421.54**

Environment Management Budget

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP)		
Particulars	**Capital**	**Recurring**
Plantation of "2102" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	630600.00	105100.00
Water Facility for Horticulture "12.612" KLD & Dust Suppression "10.52" KLD (Annual Water Demand "6939.6"KL @4L per Tanker, total number of tankers required ("1735") and per tanker cost @Rs. 500)	0.00	867500.00
Garland Drainage System, Desilting Pond, Retaining Wall, etc. measures to prevent surface-run-off	263000.00	26300.00
Habitation as per Office Memorandum No. Z-11013/57/2014-IA. II (M) dated 29/10/2014 issued by the Ministry of Environment, Forests and Climate Change (MoEF & CC)		
(i) 3m high wall all along project boundary	526000.00	0.00
(ii) Safety Gadgets to manpower engaged in mine	255000.00	2550.00
(iii) HealthCare Camp & Awareness Camp	0.00	50000.00
Environment Monitoring & Compliance	0.00	50000.00
Total	**1674600.00**	**1101450.00**

Environment Monitoring Plan (post operation)

Monitoring Parameters and Frequency of Monitoring

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

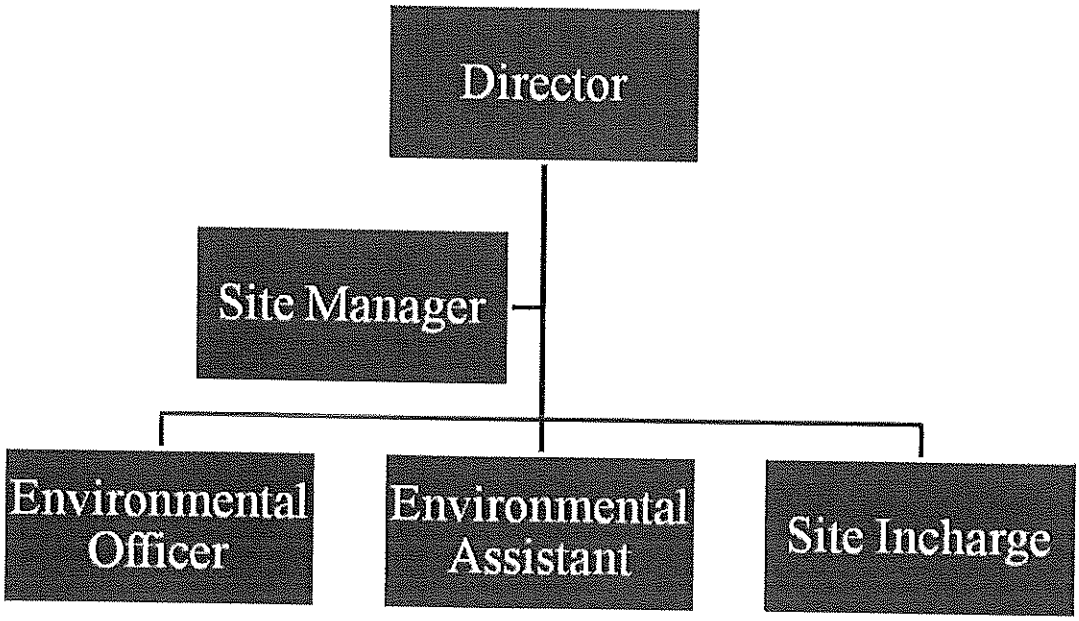
Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The area is covered with a layer of gritty soil. During quarry development in 1st year intercalated waste will be removed and this soil & waste will be temporarily dumped [Area 0.127 Ha, (LWH = 40m * 32m * 5m)] at the cast part of the area with suitable precaution like constructing parapet wall, garland drain & in 2nd year gritty soil & intercalated waste will be removed and this soil, waste & existing temporary dump materials will be temporarily dumped [Area-0.287 Ha, (LWH = 80mx 36m x 5m)) within the quarry with suitable precautions & in 3rd year removed intercalated waste & existing temporary dump materials will be temporarily dumped [Area-0.415 Ha. (LWH = 129m * 32m * 5m)] within the quarry with suitable precautions & in 4th year removed intercalated waste and previous temporary dump material will be temporarily dumped [Area-0.286 Ha. (LWH = 110m * 2m x 5m), Area-0.198 Ha, (LWH = 47m * 42m * 5m) & Area-0.057 Ha, (L x W x H = 28m * 20m * 5m / l within the quarry with suitable precautions & in 5th year removed intercalated waste & existing temporarily dumped materials will be backfill within the exhausted quarry.
Air Quality Management	• **Wet drilling** and use of **sharp drill bits** to minimize dust generation. • **Controlled blasting** using optimum explosive charge during favourable 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.



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 Kurchudih Stone Deposit of M/s Dandar Nirman Pvt. Ltd. (Director : Shri Rahul Pandey), Village : Kurchudih, Tehsil : Tamar, Distt. : Ranchi, Jharkhand (2.63 Ha.) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/114/2026/3387, dated : 16.09.2026 is also included as Annexure – III (E) :

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.

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5. **Bhakso Stone Deposit of M/s Lohardaga Stone Mines (Partners : Shri Arvind Kumar Choudhary & Others), Village : Bhakso, Anchal : Lohardaga, Distt. : Lohardaga, Jharkhand (1.61 Ha.).**

(Proposal no.: SIA/JH/MIN/ 589561 /2026)

Name of the consultant : Crystal Consultants, Ranchi, Jharkhand

This is a new project which has been taken for appraisal on 27.09.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity –21587 Cum per Year or 60442Tonnes per Year

Project and Location Details:

Si. No.	Parameter		Details	
1	Project Name	:	Bhakso Stone Deposit	
2	Lessee:	:	M/sLohardaga Stone Mines Partner – Sri Arvind Kumar Choudhary & Others	
3	Lessee Address	:	At – G-3, Block-D, Gangor Apartment, Rani Bagan, P.O. – Bariatu, District – Ranchi, Pin code – 834009, State – Jharkhand.	
4	Lease Area	:	1.61 Ha	3.97Acre
5	Type of Land	:	Non-Forest Raiyati Land	
6	Project Cost	:	Capital: Rs. 2975200.00	Recurring: Rs 10874409.76 per year
7	EMP Budget	:	Capital: Rs. 1464000.00	Recurring: Rs. 1134450.00 per year
8	New or Expansion	:	New	
9	Mineable Reserves	:	215826 cum	604315 Tonnes
10	Mine Life	:	10 Years	
11	Man power	:	27	
12	Water Requirement	:	24.44 KLD	
13	Water Source	:	By authorised hired water tankers	
14	DG Set / power	:	-	
15	Crusher	:	No	
16	Nearest Water Body	:	Nearest Water Body, flowing from west-north to north-east direction, is situated near about 0.225 km away in the south direction.	
17	Nearest Habitation	:	Khakhparta Village at a distance of 0.67 Km (East)	
18	Nearest Rail Station	:	Bhakso Stone Deposit is situated near about 3.21 km away from Lohardaga Railway Station.	
19	Nearest Air Port	:	Nearest airport Birsa Munda Airport, Ranchi, is about 62.20 km away from the applied area	
20	Nearest Forest	:	Divisional Forest Officer, Lohardaga certified that the distance of reserved / protected forest is more than 2000 meter from proposed project site.	
21	Nearest Wildlife Sanctuary	:	The project location is at approx. 72.55 KM from the nearest Eco Sensitive Zone of Palkot wildlife Sanctuary.	
22	Road & Highways	:	Nearest National Highway, NH-143A is about 4.24 km away from the applied area.	

23	Approach Road	:	At a distance of 930 metres.

CO-ORDINATES

PILLAR ID	LATITUDE	LONGITUDE	PILLAR ID	LATITUDE	LONGITUDE
P1	N23°26'58.91255"	E84°44'16.76803"	P22	N23°27'03.95827"	E84°44'22.07677"
P2	N23°26'59.68745"	E84°44'16.37786"	P23	N23°27'04.17460"	E84°44'20.98255"
P3	N23°27'00.01447"	E84°44'16.33596"	P24	N23°27'04.50994"	E84°44'19.79315"
P4	N23°27'00.75452"	E84°44'15.86756"	P25	N23°27'03.73014"	E84°44'19.56782"
P5	N23°27'01.65485"	E84°44'15.97715"	P26	N23°27'03.88220"	E84°44'18.66671"
P6	N23°27'02.67120"	E84°44'16.04213"	P27	N23°27'04.08017"	E84°44'17.85059"
P7	N23°27'02.61875"	E84°44'16.22198"	P28	N23°27'03.96536"	E84°44'17.75933"
P8	N23°27'02.85764"	E84°44'16.32790"	P29	N23°27'03.55666"	E84°44'17.56496"
P9	N23°27'03.11616"	E84°44'16.36451"	P30	N23°27'02.75767"	E84°44'17.26166"
P10	N23°27'04.43286"	E84°44'17.02806"	P31	N23°27'01.76011"	E84°44'17.25817"
P11	N23°27'04.70844"	E84°44'17.05693"	P32	N23°27'01.56524"	E84°44'17.99408"
P12	N23°27'05.57726"	E84°44'17.66846"	P33	N23°27'01.41448"	E84°44'18.74602"
P13	N23°27'05.61834"	E84°44'17.89148"	P34	N23°27'00.90097"	E84°44'18.67646"
P14	N23°27'06.02086"	E84°44'19.32000"	P35	N23°27'00.35129"	E84°44'18.72312"
P15	N23°27'05.99317"	E84°44'20.08010"	P36	N23°26'59.98304"	E84°44'18.71077"
P16	N23°27'05.87956"	E84°44'21.43820"	P37	N23°26'59.69645"	E84°44'18.63362"
P17	N23°27'05.91541"	E84°44'22.48616"	P38	N23°26'59.51789"	E84°44'18.65530"
P18	N23°27'05.84802"	E84°44'22.52461"	P39	N23°26'59.48794"	E84°44'18.72290"
P19	N23°27'05.74758"	E84°44'22.41913"	P40	N23°26'58.71955"	E84°44'18.63161"
P20	N23°27'04.94852"	E84°44'22.46536"	P41	N23°26'59.00755"	E84°44'17.62008"
P21	N23°27'04.41745"	E84°44'22.31128"	P42	N23°26'58.95150"	E84°44'17.07486"
			P43	N23°26'58.91255"	E84°44'16.76803"

LAND DETAILS

Khata no.	Plot no.
161	847, 855, 866, 971 & 972

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Lohardaga vide letter no. 64/M, dated 20.01.2026.
2	CO	:	The CO, Lohardaga (Sadar) vide letter no. 706, dated 09.07.2025 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan. During the appraisal it was seen from the KML that few houses exist at a distance of 494 meters and seasonal nala exists at a distance of 225 meters from mining lease area, for which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Lohardaga vide memo no. 99/M, dated 31.01.2026 certified that 01 other mining lease area (2.60 Acre) exists within 500 meter radius from proposed project site and total area is 6.57 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide letter no. 551, dated 22.08.2025 certified that proposed project site is out side Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Lohardaga Forest Division vide letter no. 921, dated 19.08.2026 certified that the distance of forest is more than 2000 meter from project site.
6	DSR	:	The DMO, Lohardaga has certified vide memo no. 454/M, dated 17.04.2026 that this project is mentioned in approved DSR of Lohardaga District as a Annexure iv of Zone II.
7	Gram Sabha	:	BDO, Lohardaga Sadar vide letter no. 510, dated 07.08.2025 informed that Gram Sabha conducted on 02.08.2025.
8	Mine Plan Approval	:	Approved by DMO, Lohardaga vide Memo No. 98/M, dated 31.01.2026.
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/117/2026/3385, dated : 16.09.2026.

10	Qualified Person	:	Shri P.K. Sen was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Semi-mechanized "OTFM" Method	
2	Quarry Area	:	1.01 Ha.	Life of Mine – 10 years
3	Waste Generation	:	14947 cum	
4	Stripping Ratio	:	1:0.05	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m and 4 in numbers	
7	Elevation of Mine	:	654 m AMSL to 650 m AMSL	
8	Ground Level Elevation	:	650 m AMSL	
9	Ultimate Working Depth	:	630 m AMSL	
10	Water Table	:	622 m AMSL	
11	Topography of Mine	:	Area represents gently sloping land.	
12	Explosive Requirement	:	34 kg/day	
13	Diesel/Fuel requirement	:	121 litre/day	

Production Details

Year	Production of Stone		Intercalated Waste	Removal of Gritty Soil	
	in cum	in tonnes	in cum	in cum	in tonnes
1st Year	21482	60150	1131	3136	4704
2nd Year	21546	60329	1134	000	000
3rd Year	21552	60347	1135	000	000
4th Year	21574	60410	1136	1581	2372
5th Year	21587	60442	1137	4557	6836
Total	107741	301678	5673	9274	13912

Land Use

Type of Land	Present Land Use (in Ha)	At the End of Plan Period (In Ha)	At the end of Mine (In Ha)	Conceptual Period (In Ha)		
				Public use	Water body	Plantation
Quarry	Nil	1.01 (Including backfill area 0.27 Ha.)	1.01	---	0.57	0.44 (Deadbench plantation)

Greenbeltwithin SafetyBarrier	Nil	0.60	0.60	---	---	0.60
Road	0.01	Nil (merged with quarry & safety barrier)	Nil(merged with quarry & safety barrier)	---	---	---
Total Area in Use	**0.01**	**1.61**	**1.61**	---	**0.57**	**1.04**
Balanced Area unused	1.60	Nil	Nil	---	---	---
Total Applied Area	**1.61**	**1.61**	**1.61**	**1.61**		

ENVIRONMENT MANAGEMENT

Green Belt Development

Plantation				
Location	**Area (Ha.) or Length (m)**	**No. of tree**	**Calculation**	**Timeline**
Safety Zone	0.600	960	1600 tree per hectare	1st Year
Approach Road	930	1860	2m X 2m spacing	1st year
Dead Bench	0.44	704	1600 tree per hectare	End of Mine
TOTAL		**3524**		
Species: Neem, Peepal, Arjun, Ashoka, Gulmohar, Banyan, Bamboo: - Bombas, Nutans, Toolda, Strictus& other Native Species				

- As per MoEF&CC OM No. F.No. IA3-22/3/2024-IA.III dated 24.07.2024, 10% of the proposed green belt shall be developed under the **"Ek Ped Maa Ke Naam"** plantation campaign.
- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.
- Plantation on dead benches and on backfilled up area would be done during mine closure phase cost for such plantation is included in budget for mine closure.

Project Cost

Budgetary Provision (in Lakhs) of Project Cost		
Particulars	**Capital**	**Recurring**
Land	0.00	99459.76
Infrastructure	700000.00	0.00
Mining Equipment	0.00	9600000.00

Equipment	*Quantity*	*Rent per year*		
Dumper	2	2000000		
Wagon Drill	1	1000000		
Jack Hammer	1	600000		
Compressor	1	1000000		
Water Sprinkler	1	600000		
Rock Breaker	1	800000		
Excavator	2	800000		
Water Facility for Domestic Purpose "1.08" KLD (Annual Water Demand "324"KL @4L per Tanker, total number of tankers required ("81") and per tanker cost @Rs. 500)			0.00	40500.00
Statutory Clearances			500000.00	0.00
Mine Closure Cost for Plantation of "704" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance			211200.00	0.00
Mine Closure Cost for fencing around mine			100000.00	0.00
Environment Management Plan (EMP) Cost			**1464000.00**	**1134450.00**
		Total	**2975200.00**	**1,08,74,409.76**

Environment Management Budget

Budgetary Provision (in Lakhs) of Environment Management Plan (EMP)		
Particulars	**Capital**	**Recurring**
Plantation of "2820" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance	846000.00	141000.00
Water Facility for Horticulture "16.92" KLD & Dust Suppression "6.44" KLD (Annual Water Demand "7008"KL @4L per Tanker, total number of tankers required ("1752") and per tanker cost @Rs. 500)	0.00	876000.00
Garland Drainage System, Desilting Pond, Retaining Wall, etc. measures to prevent surface-run-off	161000.00	16100.00
Office Memorandum No. Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by the Ministry of Environment, Forests and Climate Change (MoEF& CC)		
(i) 3m high wall all along project boundary	322000.00	0.00
(ii) Safety Gadgets to manpower engaged in mine	135000.00	1350.00
(iii) HealthCare Camp & Awareness Camp	0.00	50000.00
Environment Monitoring & Compliance	0.00	50000.00

Total	**1464000.00**	**1134450.00**

Environment Monitoring Plan (post operation)

Monitoring Parameters and Frequency of Monitoring

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

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	During quarry development in 1st year gritty soil and intercalated waste will be removed and this soil & waste will be temporarily dumped [Area - 0.085 Ha, (L x W x H = 35m x 24m x 5m)] at the north-east part of the area with suitable precaution like constructing parapet wall, garland drain & in 2nd year intercalated waste will be removed and this waste will be temporarily dumped [Area - 0.022 Ha, (L x W x H = 22m x 10m x 5m)] at the existing dump yard & in 3rd year intercalated waste will be removed and this waste will be temporarily dumped [Area - 0.022 Ha, (L x W x H = 22m x 10m x 5m)] at the existing dump yard & 4th year gritty soil & intercalated waste will be removed and this soil & waste will be temporarily dumped [Area - 0.054 Ha, (L x W x H = 26m x 21m x 5m)] at the existing dump yard & 5th year gritty soil & intercalated waste will be removed and this soil, waste & existing temporary dumped materials will be backfill within the exhausted quarry. In conceptual period total removal intercalated waste will be backfill within the exhausted quarry.
Air Quality Management	• Wet drilling and use of sharp drill bits to minimize dust generation. • Controlled blasting using optimum explosive charge during favorable weather conditions.

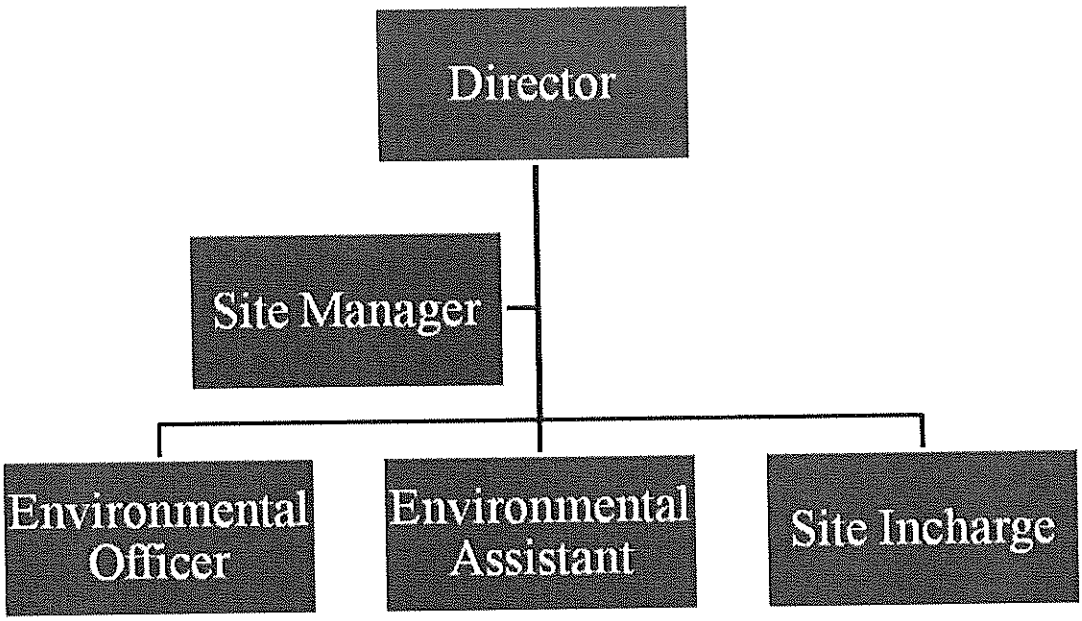
	• Regular maintenance of diesel equipment and vehicles to reduce emissions. • Water sprinkling on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid PUC certificates. • Greenbelt and roadside plantation to act as dust and noise barriers.
Water Quality Management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

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

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

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

Organizational Structure of Environment Management Cell:



EMP Cell structure

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

Undertaking submitted affirming:

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

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Bhakso Stone Deposit of M/s Lohardaga Stone Mines (Partners : Shri Arvind Kumar Choudhary & Others), Village : Bhakso, Anchal : Lohardaga, Distt. : Lohardaga, Jharkhand (1.61 Ha.) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/117/2026/3385, dated : 16.09.2026 is also included as Annexure – III (F) :

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.

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6. **Shahpur Stone Mine of M/s Ishant Mining (Partners : (i) Shri Tuleshwar Sao (ii) Shri Shubham Jaiswal (iii) Shri Ramnath Kumar (iv) Shri Binda Kumar Sao), Village : Shahpur, Thana : Naudiha Bazar, Distt. : Palamu, Jharkhand (2.83 Ha).**

(Proposal no.: SIA/JH/MIN/ 586834/2026)

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

This is a new project which has been taken for appraisal on 27.09.2026.

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

Application for Environmental Clearance (EC).
EC Application for: Proposed Capacity – 86,590 cum/annum or 2, 30, 329 TPA.

Project and Location Details:

Sl. No.	Parameter	:	Details
1	Project Name	:	Shahpur Stone Mine

2	Applicant	:	M/s Ishant Mining and Infrastructure Partners: 1. Shri Tuleshwar Sao 2. Shri Subham Jaiswal 3. Shri Ramnath Kumar 4. Shri Binda Kumar Sao	
3	Lease Address	:	Mouza– Shahpur, Thana- Naudiha -Bazar, District- Palamu, State- Jharkhand.	
4	Lease Area	:	7.0 Acre	Acres- 2.83 Ha
5	Cluster Details	:	NA	
6	Type of Land	:	Non-Forest Raiyati Land	
7	Project Cost	:	Rs. 116 Lakhs	
8	EMP Budget	:	Capital: Rs. 28.86 lakhs	Recurring cost: Rs. 7.5632 lakhs
9	New or Expansion	:	New	
10	Mineable Reserves	:	cum.: 8,55,520 cum	Tonnes: 22,75,683 tones
11	Mine Life	:	10 years	
12	Man power	:	29	
13	Water Requirement	:	7.314 KLD {Manpower (29 nos.)- 0.453 KLD, Plantation (2135 nos.)- 6.405 KLD, Dust Suppression- 0.456 KLD}	
14	Water Source	:	By authorised hired water tankers	
15	DG Set / power	:	60 KVA	
16	Crusher	:	No.	
17	Nearest Water Body	:	Seasonal Nala is present at a minimum distance of 220 m in the N direction. (EMP Submitted)	
18	Nearest Habitation	:	Few residential houses are present at a distance of 158 m in SE direction. (EMP Submitted)	
19	Nearest Rail Station	:	Rajhura Railway Station is located at an aerial distance of about 33.06 km in the SW direction.	
20	Nearest Air Port	:	Birsa Munda (Ranchi) Airport is at aerial distance of 152 km in SE direction.	
21	Nearest Forest	:	Divisional Forest Officer, Medininagar, vide memo no.-2152, Dated- 16.07.2024 certified that the distance of reserved Protected/forest is at 1360 m from proposed project site.	
22	Road & Highways	:	The approach road length is about 114 m, after which it connects to the village road. The village road further connects to the nearby major road network facilitating transportation of men, material, and mineral.	
23	Approach Road	:	The distance of Approach Road is 114 m.	
24	Distance of nearest ESZ of Wildlife Sanctuary or National Park	:	DFO Wildlife Palamu, Letter no. – 435 Dated- 29.06.2026 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Tiger Reserves. Palamu Tiger Reserves is located at a distance of 47.96 Km in S.	
25	Environmental safeguard		Environmental safeguard vide Memo no.- PC/SEIAA/EC-CTE/121/2026-3430, dated- 21.09.2026	

CO-ORDINATES

Point Name	Latitude	Longitude
1	24°18'27.88657"N	84°17'37.69807"E
2	24°18'28.62082"N	84°17'37.86264"E
3	24°18'29.40829"N	84°17'38.03546"E
4	24°18'30.40050"N	84°17'38.38448"E
5	24°18'31.54604"N	84°17'38.37161"E
6	24°18'32.65173"N	84°17'38.55471"E
7	24°18'33.74906"N	84°17'38.62832"E
8	24°18'34.19694"N	84°17'38.81777"E
9	24°18'34.78745"N	84°17'38.80120"E
10	24°18'35.62264"N	84°17'39.07941"E
11	24°18'35.48876"N	84°17'39.43899"E
12	24°18'35.66094"N	84°17'39.54808"E
13	24°18'35.56050"N	84°17'40.08789"E
14	24°18'34.91482"N	84°17'39.77638"E
15	24°18'34.52931"N	84°17'40.22939"E
16	24°18'34.00521"N	84°17'40.80405"E
17	24°18'33.55951"N	84°17'40.50375"E
18	24°18'33.43831"N	84°17'40.22061"E
19	24°18'33.08644"N	84°17'39.93318"E
20	24°18'32.70721"N	84°17'40.31070"E
21	24°18'32.54300"N	84°17'40.19916"E
22	24°18'32.28106"N	84°17'40.54236"E
23	24°18'31.56715"N	84°17'40.28667"E
24	24°18'30.69128"N	84°17'40.57694"E
25	24°18'29.81540"N	84°17'40.86720"E
26	24°18'30.03902"N	84°17'41.82346"E
27	24°18'30.27030"N	84°17'42.81246"E
28	24°18'30.51596"N	84°17'43.86296"E
29	24°18'31.56565"N	84°17'43.56313"E
30	24°18'32.61533"N	84°17'43.26331"E
31	24°18'32.72453"N	84°17'43.63743"E
32	24°18'32.54955"N	84°17'44.47840"E
33	24°18'32.35143"N	84°17'45.73329"E
34	24°18'31.53942"N	84°17'45.90237"E
35	24°18'30.75237"N	84°17'46.08507"E
36	24°18'30.82666"N	84°17'45.33432"E
37	24°18'30.14471"N	84°17'44.90847"E
38	24°18'29.11031"N	84°17'44.45486"E
39	24°18'29.00474"N	84°17'44.31973"E
40	24°18'28.60595"N	84°17'44.32187"E
41	24°18'27.93544"N	84°17'44.00870"E
42	24°18'26.99711"N	84°17'43.47888"E
43	24°18'26.92319"N	84°17'42.69406"E
44	24°18'26.97170"N	84°17'41.80363"E
45	24°18'27.25711"N	84°17'41.04429"E

46	24°18'27.38222"N	84°17'39.96750"E
47	24°18'27.56989"N	84°17'39.57281"E
48	24°18'27.72438"N	84°17'38.71140"E

LAND DETAILS

Khata no.	Plot no.
181	2326 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Palamu, Medininagar vide letter no. 1589/M, dated 22.06.2026.
2	CO	:	The CO, Naudiha Bazar, Palamu vide letter no. 166, dated 26.05.2026 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that seasonal nala exist at a distance of 220 meters from mining lease area, for which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Palamu, Medininagar vide memo no. 1801/M, dated 24.07.2026 certified that no other mining lease area exists within 500 meter radius from proposed project site.
4	DFO Wild Life	:	Deputy Director, Palamu Tiger Project, South Division, Medininagar vide letter no. 435, dated 29.06.2026 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Tiger Reserve.
5	DFO Territorial	:	DFO, Medininagar Forest Division vide letter no. 2152, dated 16.07.2024 and permission letter no. LETTER20240716, dated 16.07.2024 certified that the distance of forest is at 1360 meter from project site.
6	DSR	:	The DMO, Palamu, Medininagar has certified vide memo no. 1800/M, dated 24.07.2026 that this project is mentioned in approved DSR of Palamu District as a Potential village (Page no. 149).
7	Gram Sabha	:	Gram Sabha conducted on 15.11.2025.
8	Mine Plan	:	Approved by Assistant Director, Geology, Palamu vide Memo No.

	Approval		69, dated 06.07.2026.
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/121/2026/3430, dated : 21.09.2026.
10	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast semi-Mechanized method
2	Quarry Area	:	1.977 Ha
3	Waste Generation	:	1, 02, 700 cum of OB
4	Stripping Ratio	:	1:0.24
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	286 m AMSL to 282 m AMSL
8	Ground Level Elevation	:	282 m AMSL
9	Ultimate Working Depth	:	245 m AMSL
10	Water Table	:	230 m AMSL
11	Ground water level	:	Pre monsoon- 60 mgbl Post monsoon- 55 mgbl
12	Topography of Mine	:	The area represents a gently sloping land
13	Explosive Requirement	:	77.616 Kg Nitro mix explosives (07 holes)
14	Diesel/Fuel requirement	:	HSD – 356.46 liters / day (106.93 KL/year)

Production Details

Year	Production of Stone		Removal of OB
	In cum	In tones	Cum
1st	86590	230329	11900
2nd	85660	227856	16600
3rd	83800	222908	27800
4th	85600	227696	31000
5th	85400	227164	15400
Total	**427050**	**1135953**	**102700**

Land Use

Sl. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha.)	Proposed Land use for current plan period (Ha.)	Land used at the conceptual stage i.e. end of plan period (Ha.)	Area to be converted in the conceptual period.
1	Mining Activities	0.000	1.776	1.106	Water body
2	Dead Benches	0.000	0.000	0.871	Plantation
3	Dumping	0.000	0.201	0.000	-
4	Garland drain	0.000	0.051	0.051	-
5	Settling Tank	0.000	0.009	0.009	-
6	Safety Zone	0.000	0.793	0.793	Plantation
7	Unutilized	2.83	0.000	0	-
Total		**2.83**	**2.83**	2.83	2.83

Green Belt Development

Location	Area to be Covered (Ha)	No. of Plants	Remark	Species of Plant
Approach Road	114 m	152	2m X 2 m spacing in two rows both side	Mixed plants i.e. Mango, Guava, Saguan, Jackfruit, Gulmohar, Teak, Gamhar, etc. as available in the locality
Dead Benches	0.871	2178	2500 Tree per Hectare	
Safety Zone	0.793	1983		
Total	**1.664 Ha**	**4313**		

Note- 4313 trees proposed for plantation, out of which 10% (i.e. 431 trees) plantation will be carried out as per MoEF & CC, Govt. of India Scheme "Ek Ped Ma Ke Naam".

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

BUDGETARY PROVISION (IN LAKHS)

PROJECT COST

Sl. No.	Head	Capital Cost Rs. in Lakhs	Recurring Cost Rs. in Lakhs
1.	Government Revenue (Dead Rent & Royalty)	25.00	--
2.	Cost of Infrastructure	5.00	0.50
3.	Mining Machineries owned by applicant a. Wagon Drill -01 b. Compressor-01 c. Diesel Pump-01 d. D.G. Set-01	65.00	--
	Mining Machineries on hired basis (Excavator– 02)	--	5.00
4.	Lease Agreement (lump-sum)	--	0.65
5.	Statutory Clearance & Others	10.0	--
6.	Contingency	11.00	--
Total		**116.00**	**6.15**
Budget for Environment Management		**28.86**	**7.5632**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Sl. No.	Particulars	Capital Cost in Rs.	Recurring Cost in Rs. per year
1	Water facility for Dust Suppression, watering plants etc. (Rs. 500 per Tanker) 7.314 KLD * 300 = 2194.2 KL/ Year 2194.2/4= 549 Tankers	--	2,74,500
2	Plantation 152 X 800 = Rs 1,21,600 (Gabion Plantation along approach road) 4161 X 400 = 16,64,400 (Plantation within lease area) (also includes Fertilizer, Pesticides, Maintenance)	17,86,000	1,78,600
3	Fencing	1,00,000	--
4	EMP cost (Additional EMP for protection of Habitation & water body)	10,00,000	1,00,000

5	Environmental Monitoring (One Day Monitoring) • Ambient Air 24 hrs. (3 point) -Rs.27,270 • Ground Water (2 point) -Rs.12,420 • Noise 24 hrs. (3 point) -Rs.21,000 • Soil (3 point) -Rs.40,920 Total -Rs. 1,01,610 (Per Season) At least two seasons in a Year -Rs. 1,01,610 x 2 = Rs. 2,03,220 Source: Central Pollution Control Board Notification, New Delhi, the 23rd February, 2022	--	2,03,220
Total		**28,86,000**	**7,56,320**

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

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

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• Solid waste management is important from both aesthetic and environmental points of view and will be managed as per the Solid Waste Management Rules, 2016. • The O.B. dump area will accommodate **1,02,700** cum of overburden during the working plan period. • After completion of the working plan, the generated O.B. will be backfilled into the stone quarry faces. • Part of the O.B. will be used for haul road and village road maintenance. • The remaining O.B. will be utilized for plantation activities. • No hazardous or other solid waste generation is envisaged from the stone mining activities.
Air Quality	• Wet drilling and use of sharp drill bits to minimize dust generation.

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

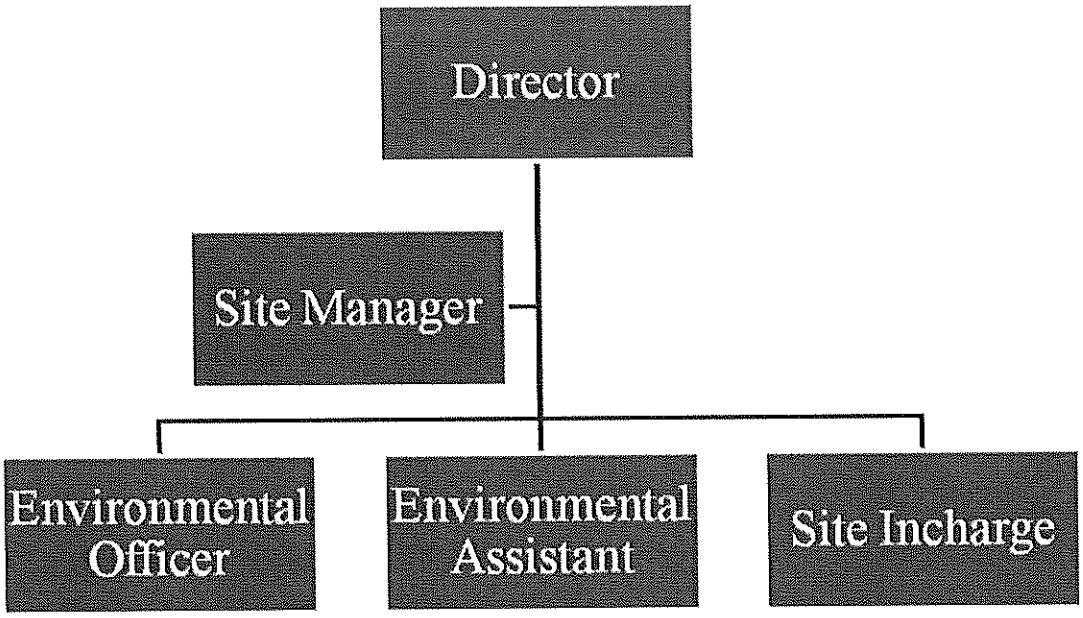
Socio Economy:	• Priority employment to local people in mining and ancillary activities. • Community development initiatives such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on safety, hygiene, and environmental protection
Monitoring & Reporting:	• Periodic monitoring of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be submitted to statutory authorities as per the compliance schedule. • Corrective measures will be taken immediately if any deviation from standards is observed.
Risk & Hazard	Activities which are likely to create risk are: Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation Proposed Preventive measures: ▪ Overall slope angles of benches will be maintained at 45°. ▪ Unmanageable heights are not created. ▪ Loose sides are properly dressed. ▪ No loose stone or debris will be permitted to remain on the top of the bench or side of any excavation (Regulation 106(4) of MMR 1961). ▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961) ▪ It will be ensured that the drilling equipment is suitable for the job. ▪ The person in charge of the drilling machine is competent to carry out the drilling operation; part of the training includes instructions to always face towards the open edge of the bench so that any inadvertent backward step is away from the edge. ▪ Provision of portable rail fencing between the drilling operations and the edge of the bench ▪ Provision to attach a safety line to the drilling rig and provide a harness for the driller to wear. ▪ Restricted access to the area to all persons except those necessary for the drilling operation. ▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation. ▪ In case due to any reason, wet drilling is not possible (due to non-availability of water), exhaust/ vacuum system will be provided which removes the dust from the drill hole continuously and discharges the same in a dust collector specially provided for the purpose. ▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement.
Blasting & Handling of	▪ 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 for Habitation	▪ **Nearest habitation:** 158 m and 160 m from lease boundary. ▪ **Habitation within 500 m:** Houses present around the lease area. ▪ **Mining hours:** Mining restricted to daytime. ▪ **Noise control:** Peripheral plantation and low-noise machinery. ▪ **Blasting:** Controlled blasting with delayed detonation. ▪ **Dust control:** Regular water sprinkling on haul roads. ▪ **Water protection:** Garland drains and settling ponds provided. ▪ **Groundwater:** Mining will remain above groundwater table; half-yearly monitoring. ▪ **Transportation:** Route will bypass inhabited areas. ▪ **Traffic safety:** Speed limits and regular road maintenance. ▪ **Village status:** No village within the mining lease area. ▪ **R&R:** No resettlement/rehabilitation issues anticipated. ▪ **CSR:** Socio-economic development measures for nearby habitations. ▪ **Additional provision:** ₹5 lakh allocated for road maintenance, noise reduction and allied measures.
Additional EMP for water body	• **Water Body:** Nearest well – 85 m (S); seasonal nala – 220 m (N). • **Water Protection:** Surface runoff will be controlled through garland drains, retaining wall and sedimentation pond. • **Garland Drain:** 1,077 m drain proposed along the mine periphery to intercept and divert runoff. • **Retaining Wall:** 780 m retaining wall proposed to prevent overflow, erosion and silt discharge. • **Sedimentation Pond:** 90 m^2 area with 2 m depth and 180 m^3 storage capacity for settling suspended solids. • **ZLD:** Collected runoff will be treated and reused for dust suppression and horticulture; no direct discharge outside the lease area. • **Maintenance:** Drains and sedimentation pond will be regularly inspected, cleaned and desilted, particularly after monsoon. • **Groundwater:** Mining will not intersect the groundwater table; groundwater levels will be monitored periodically. • **Dust Control:** Wet drilling and regular water sprinkling on

	haul/unpaved roads. • **Blasting:** Controlled blasting with appropriate measures to minimize dust and vibration impacts. • **Greenbelt:** Plantation along drains, retaining wall, mine boundary and both sides of the link road. • **Soil Protection:** Topsoil will be separately stored and reused for reclamation and greenbelt development. • **Water Quality:** Runoff will pass through sedimentation measures before reuse, preventing silt-laden water from reaching nearby water bodies. • **Budget:** ₹5 lakh for retaining wall, garland drain and sedimentation pond; recurring maintenance provision included in EMP.

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 Shahpur Stone Mine of M/s Ishant Mining (Partners : (i) Shri Tuleshwar Sao (ii) Shri Shubham Jaiswal (iii) Shri Ramnath Kumar (iv) Shri Binda Kumar Sao), Village : Shahpur, Thana : Naudiha Bazar, Distt. : Palamu, Jharkhand (2.83 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/121/2026/3430, dated : 21.09.2026 is also included as Annexure – III (G):

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.

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7. **Gosainpahari Stone Mine of M/s Karnika Mining Pvt. Ltd. (Prop. : Shri Ravi Shankar Kumar & Shri Manick Chand Maheshwari), Village : Gosainpahari, Thana : Shikaripara, Distt. : Dumka, Jharkhand (2.335 Ha).**

(Proposal no.: SIA/JH/MIN/ 581372/2026)

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

This is a new project which has been taken for appraisal on 27.09.2026.

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

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

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 126th meeting held on 09.09.2025 - 13.09.2025 and SEIAA, Jharkhand has approved the ToRs in 126th meeting held on 24th & 25th September, 2025. TOR for the project was issued by SEIAA,

Jharkhand vide letter no. EC/SEIAA/2025-26/3909/2025/430, dated 06.10.2025. The final EIA / EMP submitted by PP to SEAC on 21.09.2026.

EC Application for: Proposed Capacity – 64,529 cum/annum or 1, 74, 228 TPA.
Project and Location Details:

Sl	Parameter		Details	
1	Project Name	:	Gosainpahari Stone Mine	
2	Applicant	:	M/s Karnika Mining Pvt. Ltd. Partners: 1. Shri Ravi Shankar Kumar 2. Shri Manick Chand Maheswari	
3	Lease Address	:	Mouza– Gosainpahari, Thana- Shikaripara, Thana No.- 30, District- Dumka, State- Jharkhand	
4	Lease Area	:	2.335 Ha	Acres- 5.77 Acres
5	Cluster Details	:	2 numbers of mines including project site having total cluster area 17.45 Acres (7.06 Ha.)	
6	Type of Land	:	Non-Forest Raiyati Land	
7	Project Cost	:	Rs. 132.39 Lakhs	
8	EMP Budget	:	Capital: Rs. 35.46 lakhs	Recurring: Rs. 17.22 Lakh / year
9	New or Expansion	:	New	
10	Mineable Reserves	:	cum.: 2,78,626 cum	Tonnes: 7,52,289 tones
11	Mine Life	:	5 years	
12	Man power	:	21	
13	Water Requirement	:	8.910 KLD {Manpower (21 nos.)- 0.315 KLD, Plantation (2384 nos.)- 7.347 KLD, Dust Suppression- 1.248 KLD}	
14	Water Source	:	By authorised hired water tankers	
15	DG Set / power	:	20 KVA (Emergency purpose)	
16	Crusher	:	No crusher detail within the project area	
17	Nearest Water Body	:	Few number of abandoned quarry turned ponds are present surrounding the lease area within the distance of 500 m. (EMP submitted)	
18	Nearest Habitation	:	Few habitations are at a distance of 215 m from the lease area in South-West direction. (EMP submitted)	
19	Nearest Rail Station	:	Pinargaria Railway station, approx. 11.05 km in NE direction.	
20	Nearest Air Port	:	Deoghar Airport, approx. 93 km towards NW direction	
21	Nearest Forest	:	Divisional Forest Officer, Dumka Forest Division, vide Letter No. 1930 dated 23.08.2024, has certified that the distance of the reserved/protected forest is at 610 m from the proposed project site.	
22	Road & Highways	:	The length of the approach road is 0.312 km, after which it connects to Village Road at 0.48 km in W direction.	
23	Approach Road	:	The distance of Approach Road is 312 m.	
24	SE Budget	:	Capital cost: Rs. 7.4 Lakhs & Recurring cost: 3.3 Lakhs (Need Based Survey)	
25	Eco Sensitive Zone (ESZ)	:	Parasnath and Topchanchi Wildlife Sanctuary – 144.88 km in SW direction.	

CO-ORDINATES

Point Name	Latitude	Longitude
1	24° 08' 11.73701438" N	087° 34' 10.56401882" E
2	24° 08' 12.25197328" N	087° 34' 10.82472833" E
3	24° 08' 12.08929066" N	087° 34' 11.13122386" E
4	24° 08' 11.85727307" N	087° 34' 11.64001177" E
5	24° 08' 11.58219624" N	087° 34' 12.25322446" E
6	24° 08' 11.37161258" N	087° 34' 12.73553329" E
7	24° 08' 11.14591028" N	087° 34' 13.18622361" E
8	24° 08' 10.90194470" N	087° 34' 14.03704628" E
9	24° 08' 10.66134426" N	087° 34' 14.80318608" E
10	24° 08' 10.45436082" N	087° 34' 15.13771355" E
11	24° 08' 10.11137198" N	087° 34' 15.16442185" E
12	24° 08' 09.90385076" N	087° 34' 15.23490725" E
13	24° 08' 09.59696629" N	087° 34' 15.27286906" E
14	24° 08' 09.29265078" N	087° 34' 15.27683249" E
15	24° 08' 09.30958566" N	087° 34' 15.67035995" E
16	24° 08' 09.59152409" N	087° 34' 15.94559628" E
17	24° 08' 09.58518982" N	087° 34' 16.07522971" E
18	24° 08' 09.67769019" N	087° 34' 16.13790620" E
19	24° 08' 09.98243794" N	087° 34' 16.14963745" E
20	24° 08' 09.69206913" N	087° 34' 16.75032668" E
21	24° 08' 09.43038631" N	087° 34' 17.32000275" E
22	24° 08' 09.14250314" N	087° 34' 17.89215521" E
23	24° 08' 08.86474843" N	087° 34' 18.30347994" E
24	24° 08' 08.50979247" N	087° 34' 18.98171975" E
25	24° 08' 08.37243936" N	087° 34' 19.26341143" E
26	24° 08' 08.22716268" N	087° 34' 18.99042568" E
27	24° 08' 08.30785512" N	087° 34' 18.60385950" E
28	24° 08' 08.00792465" N	087° 34' 18.31474474" E
29	24° 08' 07.39165630" N	087° 34' 19.17442367" E
30	24° 08' 06.77538664" N	087° 34' 20.03410030" E
31	24° 08' 06.58003819" N	087° 34' 20.55579230" E
32	24° 08' 06.05412633" N	087° 34' 20.52287020" E
33	24° 08' 05.48818555" N	087° 34' 20.40881601" E
34	24° 08' 05.80370162" N	087° 34' 19.50062518" E
35	24° 08' 05.56815208" N	087° 34' 19.28319244" E
36	24° 08' 05.61408628" N	087° 34' 18.85591697" E
37	24° 08' 06.14738187" N	087° 34' 18.53524628" E
38	24° 08' 06.35961069" N	087° 34' 18.74890280" E
39	24° 08' 06.59463801" N	087° 34' 19.07509044" E
40	24° 08' 06.99563851" N	087° 34' 18.95452398" E
41	24° 08' 07.17329248" N	087° 34' 18.39522421" E
42	24° 08' 06.95815710" N	087° 34' 18.28479852" E
43	24° 08' 06.89019970" N	087° 34' 18.18719407" E
44	24° 08' 06.81967164" N	087° 34' 17.32753589" E
45	24° 08' 06.33795040" N	087° 34' 17.21499780" E

46	24° 08' 06.34571466" N	087° 34' 16.88403554" E
47	24° 08' 06.41304555" N	087° 34' 16.34185096" E
48	24° 08' 06.10711637" N	087° 34' 16.34779772" E
49	24° 08' 05.89712139" N	087° 34' 16.42763878" E
50	24° 08' 05.70506172" N	087° 34' 16.40659037" E
51	24° 08' 05.69329021" N	087° 34' 15.90277687" E
52	24° 08' 05.64279180" N	087° 34' 15.58371598" E
53	24° 08' 05.78036956" N	087° 34' 15.56838327" E
54	24° 08' 05.95139804" N	087° 34' 14.95484944" E
55	24° 08' 05.97120992" N	087° 34' 14.95639003" E
56	24° 08' 06.45688094" N	087° 34' 15.03708075" E
57	24° 08' 06.94114700" N	087° 34' 15.15872996" E
58	24° 08' 07.21870783" N	087° 34' 15.21174721" E
59	24° 08' 07.29227316" N	087° 34' 14.90272430" E
60	24° 08' 07.39809095" N	087° 34' 14.61158796" E
61	24° 08' 07.58992958" N	087° 34' 14.69961587" E
62	24° 08' 07.82928319" N	087° 34' 14.77247088" E
63	24° 08' 08.19429200" N	087° 34' 14.79157245" E
64	24° 08' 08.23065864" N	087° 34' 14.37515354" E
65	24° 08' 08.16693012" N	087° 34' 14.22202387" E
66	24° 08' 08.29887670" N	087° 34' 13.94817589" E
67	24° 08' 08.38070201" N	087° 34' 13.58084669" E
68	24° 08' 08.44704045" N	087° 34' 13.18893527" E
69	24° 08' 08.39632577" N	087° 34' 13.18764741" E
70	24° 08' 08.34186953" N	087° 34' 12.62199632" E
71	24° 08' 08.34518551" N	087° 34' 12.25641140" E
72	24° 08' 09.02554719" N	087° 34' 11.79727947" E
73	24° 08' 09.70590850" N	087° 34' 11.33814621" E
74	24° 08' 09.71123808" N	087° 34' 11.33018732" E
75	24° 08' 10.34274746" N	087° 34' 10.32329895" E
76	24° 08' 10.35094849" N	087° 34' 10.31086725" E
77	24° 08' 10.93522186" N	087° 34' 09.42525508" E
78	24° 08' 11.39880124" N	087° 34' 09.69832387" E

LAND DETAILS

Khata no.	Plot no.
14, 22, 26, 33 & 34	235, 236, 237, 238, 266, 267, 268, 269, 270, 271, 273, 282, 284, 285, 286, 287, 288, 289, 290 & 298

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Dumka vide letter no. 486/M, dated 06.03.2025.
2	CO	:	The CO, Shikaripara vide letter no. 97/Ra., dated 08.02.2025 has mentioned the plot no. of the project is not recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that few houses exist at a distance of 215 meters and water body created due to accumulation of rain water in abandoned mines within 500 meters from ML boundary, for which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Dumka vide memo no. 510/M, dated 12.03.2025 certified that 01 LoI (5.32 Acre) and 01 other mining lease area (6.36 Acre) exists within 500 meters radius from proposed project site and total area is 17.45 Acre.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 55, dated 09.01.2025 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Dumka Forest Division vide letter no. 1930, dated 23.08.2024 certified that the distance of reserved / protected forest is at 610 meters from proposed project site.
6	DSR	:	The DMO, Dumka has been certified vide memo no. 568/M, dated 04.04.2025 that this project is mentioned in approved DSR of Dumka District as a potential area (Page no. 318, Sl. no. 69).
7	Gram Sabha	:	Gram Sabha conducted on 24.07.2024.
8	Mine Plan Approval	:	Approved by District Mining Officer, Dumka vide Letter No. 525/M, dated 19.03.2025.
9	Baseline monitoring period	:	March, 2025 to May, 2025.
10	Public Hearing	:	Public Hearing conducted on 22.04.2026.
11	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/63/2026/3429, dated : 21.09.2026.

12	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Mechanized method
2	Quarry Area	:	1.501 Ha
3	Waste Generation	:	40,480 cum.
4	Stripping Ratio	:	1:0.05
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	124 m AMSL to 113 m AMSL
8	Ground Level Elevation	:	113 m AMSL
9	Ultimate Working Depth	:	90 m AMSL
10	Water Table	:	79 m AMSL (Source: JSAC Ground water Prospect Map)
11	Ground Water level	:	Pre monsoon- 42 mbgl Post monsson- 38 mbgl
12	Topography of Mine	:	The area represents a gently sloping topography
13	Explosive Requirement	:	53.46 kg/day Nitro mix explosives
14	Diesel/Fuel requirement	:	HSD – 287.49 litre/day (86.247 KL/year)

Production Details

Year	Production of Stone		Removal of OB
	In cum	In tones	Cum
1st	53,860	1,45,423	40,480
2nd	64,529	1,74,228	0
3rd	64,078	1,73,009	0
4th	51,272	1,38,433	0
5th	44,888	1,21,196	0
Total	**2,78,626**	**7,52,289**	**40,480**

Land Use

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

			period (Ha.)		
1	Mining Activities	0	1.45	1.45	Water Body
2	Dumping	0	0.052	0.052	Plantation
3	Garland drain	0	0.051	0.051	-
4	Settling Tank	0	0.003	0.003	Water Body
5	Safety Zone	0	0.761	0.761	Plantation
6	Unutilized	2.335	0.018	0.018	Plantation
Total		**2.335**	**2.335**	**2.335**	-

Green Belt Development

Location	Area to be Covered (Ha)/length	No. of Plants	Remark	Species of Plant
Approach Road	312 m	416	2m X 2 m spacing in two rows both side	Mixed plants i.e. Mango, Guava, Saguan, Jackfruit, Gulmohar, Teak, Gamhar, etc. as available in the locality
Dumping	0.052 ha	130	2500 Tree per Hectare	
Safety Zone	0.761 ha	1903		
Total	0.813 Ha.	2449		

Note- 2449 tree proposed to be planted out of which 10% plantation will be carried out i.e. (245 trees) as per MoEF&CC, Govt. of India Scheme "Ek Ped Ma Ke Naam".

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

BUDGETARY PROVISION (IN LAKHS)
PROJECT COST

Sl. No.	Head	Capital Cost Rs. in Lakhs	Recurring Cost Rs. in Lakhs
1.	Government Revenue (Dead Rent & Royalty)	28.00	--
2.	Infrastructure	5.00	0.50

3.	Mining Machineries owned by applicant • Wagon Drill -01 • Compressor-01 • Diesel Pump-01 • D.G. Set-01 • Mobile crusher-01	82.35	--
	a. Mining Machineries on hired basis (Hydraulic Excavator– 01, Dumper-06, JCB-01, Water tanker-01)	--	10.5
4.	Lease Agreement (lump-sum)	--	1.4425
5.	Statutory Clearance & Others	5.0	--
6.	Contingency	12.035	--
Total		**132.385**	**12.4425**
Budget for Environment Management		**35.46**	**17.22**

ENVIRONMENT MANAGEMENT PLAN (EMP)

Sl. No.	Particulars	Capital Cost in Rs.	Recurring Cost in Rs. per year
1	Water facility for Dust Suppression, watering plants etc. (Rs. 500 per Tanker) 8.910 KLD*300 =2673 KL/Year 2673/4 = 669 Tankers	--	3,34,500
2	Plantation 416 X 800 = Rs 3,32,800 (Gabion Plantation along approach road) 2033 X 400 = 8,13,200 (Plantation within lease area) (also includes Fertilizer, Pesticides, Maintenance)	11,46,000	1,14,600
3	Fencing	1,00,000	--
4	Environmental Monitoring Ambient Air 24 hrs (3 point) -Rs.27,270 Ground Water (2 point) -Rs.12,420 Noise 24 hrs (3 point) -Rs.21,000 Soil (3 point) -Rs.40,920 Total -Rs. 1,01,610 (Per Season) At least two seasons in a Year -Rs. 1,01,610 x 2 = Rs. 2,03,220 Source: Central Pollution Control Board Notification, New Delhi, the 23rd February, 2022	--	2,03,220
5	Environment Management Plan (For EMP Habitation & Water body)	12,00,000	1,20,000
6	Public Hearing Budget	11,00,000	9,50,000
Total		**35,46,000**	**17,22,320**

Environment Monitoring Plan

Monitoring Parameters and Frequency of Monitoring

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

Summary of Baseline Data:

Monitoring season – March to May 2025 for summer season.

Type	Parameter
AAQ Parameter at 7 locations	PM10 = 72.5 µg/m3 to 41.6 µg/m3 PM2.5 = 48.5 µg/m3 to 20.7 µg/m3 SO2 = 11.6 µg/m3 to 5.23 µg/m3 NOx = 31.8 µg/m3 to 18.5 µg/m3
Noise quality at 7 locations	Daytime 54.8 (AN2) to 53.6 (AN7) dB(A) Night time 43.3 (AN1) to 42.1 (AN4) dB(A)
Surface water at 2 locations	pH – 7.14 to 7.09 TDS – 273 to 362 mg/l Sulphate – 21.5 to 19.2 mg/l Fluoride – 0.18 mg/l to 0.21 mg/l
Ground water at 6 locations	Turbidity – <1 NTU pH – 6.88-7.03 Chloride – 29.9 to 21.8 mg/l Total Hardness – 142 to 128 mg/l TDS – 236 to 216 mg/l
Soil at 5 locations	pH – 7.11 to 6.86 Conductivity – 283 µS/cm to 261 µS/cm Iron - 3719 mg/l to 2109 mg/l Organic Matter – 1.42 to 0.89 %

Public Hearing (Action Plan) –

Sl. No.	Issue Raised	Commitment by Project Proponent (Brief)	Time Frame	Funds to be Spent	
				Capital (in Lakhs)	Recurring (in Lakhs)

1	• Repair of village roads. • Drinking water facility. • Teachers in school. • Housing assistance. • Support during marriages and emergencies.	Proponent assured that village roads will be repaired. Deep borewell will be provided at identified location. Request will be made to concerned department for teachers and housing schemes. Assistance will be provided during marriages and emergencies under CSR.	• Road Repair – Within 6 months • Drinking Water – Within 6 months • Education Support – Immediate • CSR Assistance – As required	3.00 1.50 Under CSR Under CSR	1.00 0.50 Under CSR Under CSR
2	• Water sprinkling.	Proponent assured that regular water sprinkling will be done.	• Water Sprinkling – Regular	Included in EMP cost	Included in EMP cost
3	• Employment priority. • Vehicle for patients. • Housing assistance.	Proponent assured that employment will be provided as per eligibility and requirement. Vehicle facility for patients will be arranged. Housing scheme matter will be taken up with concerned department.	• Employment – Immediate • Vehicle Facility – As required • Housing assistance- When required	1.00 Under CSR Under CSR	5.00 Under CSR Under CSR
4	• Sports materials. • Village development issues.	Proponent assured that sports materials will be provided. Village issues will be addressed under CSR activities.	• Sports Materials – Within 6 months • Development issue- Immediate	4.0 Under CSR	1.0 Under CSR
5	• Plantation. • Assistance during social functions.	Proponent assured that plantation will be carried out. Assistance will be provided under CSR.	• Plantation – During Monsoon • CSR Assistance – As required	Included in EMP cost Under CSR	Included in EMP cost Under CSR
6	• Medical camp.	Proponent assured that medical will be arranged.	• Medical Camp – Within 6 months	1.50	2.00
7	• Distribution of sarees during festivals.	Proponent assured that sarees will be distributed under CSR	During Festivals	Under CSR	Under CSR

		activities during festivals.			
Total				**Rs. 11.00**	**Rs. 9.50**

SE Need based Survey detail (included in CSR)

Zone	Coverage & Survey Details	Key Socio-Economic Observations	Workforce Characteristics	Priority Needs (Focused)	Proposed Budget		Implementation Timeline
					Capital (₹ Lakhs)	Recurring (₹ Lakhs)	
0–2 km	**Villages: 7 Households surveyed: 23 Population covered: 115 FGDs Conducted: 4**	Balanced gender composition with presence of children and vulnerable groups. Proximity to mine increase's sensitivity to dust, traffic and occupational health issues.	Low workforce participation (~35%); dominance of informal and "other" occupations indicating livelihood instability.	• Preventive healthcare & health check-ups • Local skill development linked to mine & allied activities	3.9	1.5	Short-term & ongoing (Year 1–2)
2–5 km	**Villages: 12 Households surveyed: 28 Population covered: 124 FGDs Conducted: 3**	Moderate literacy levels with gender disparity; limited access to secondary education and structured training facilities.	Mixed workforce pattern; dependence on agriculture and daily wage labour.	• Education support (secondary level / scholarships) • Agricultural productivity support (inputs, awareness)	3.5	1.8	Medium-term (Year 2–3)
Total (0–5 km)					**7.4**	**3.3**	-

Environment Management Practices to be followed:

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	• Solid waste management is important from both aesthetic and environmental points of view and will be managed as per the Solid Waste Management Rules, 2016. • An O.B. (Overburden) dump area of **0.052 ha** has been provided **within the lease area.** • The O.B. dump area will accommodate **40,480 cum** of overburden during the working plan period.

	• After completion of the working plan, the generated O.B. will be **backfilled into the stone quarry faces.** • Part of the O.B. will be used for **haul road and village road maintenance.** • The remaining O.B. will be utilized for **plantation activities.** • No **hazardous or other solid waste generation** is envisaged from the stone mining activities.
Air Quality Management	• **Wet drilling** and use of **sharp drill bits** to minimize dust generation. • **Controlled blasting** using optimum explosive charge during favourable 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

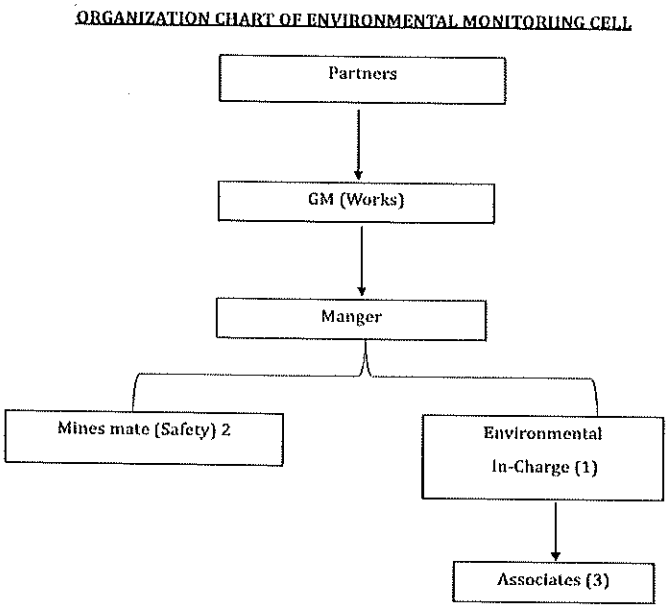
Flora & Fauna management	• **No tree felling** will be undertaken without obtaining permission from the competent authority. • **Greenbelt and plantation** will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • **Dust suppression measures** will minimize 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.
Additional EMP for Habitation	▪ **Distance:** Nearest habitation – **215 m (SW).** ▪ **500 m zone:** Habitation falls within 500 m. ▪ **Compliance:** MoEF&CC O.M. dated 29.10.2014. ▪ **Mining:** Operations during daytime only. ▪ **Noise:** Peripheral plantation and low-noise machinery. ▪ **Blasting:** Controlled/delayed blasting with DGMS compliance. ▪ **Dust:** Regular water sprinkling on haul roads. ▪ **Water:** Garland drains and sedimentation pond. ▪ **Groundwater:** Mining remains **13 m above water table**; half-yearly monitoring. ▪ **Transportation:** Route bypasses inhabited areas; speed control and avenue plantation. ▪ **Village:** No village within the lease area. ▪ **R&R:** No R&R issues. ▪ **Infrastructure:** No alteration/re-routing proposed. ▪ **CSR:** CSR measures for surrounding habitations. ▪ **Budget: ₹5 lakh** for road maintenance, noise control and allied measures.
Additional EMP for water body	▪ **Water Body:** Nearest pond – 4 m (N). ▪ **Runoff:** Garland drains and retaining wall proposed. **Garland Drain:** 1,045 m. **Retaining Wall:** 1,045 m. **Sedimentation Pond:** 30 m^2 × 2 m; 60 m^3 capacity. **ZLD:** Runoff treated and reused for dust suppression/horticulture. **Groundwater:** Mining will remain above groundwater table. **Dust:** Wet drilling and regular water sprinkling. **Blasting:** Controlled blasting with safety measures.

	Noise: Daytime operation, greenbelt and acoustic barriers. **Greenbelt:** Plantation along mine boundary, drains and link road. **Soil:** Topsoil conserved and reused for reclamation. **Biodiversity:** Minimum vegetation clearance and ecological protection measures. **Budget:** ₹5 lakh capital + ₹0.50 lakh recurring.

Organizational Structure of Environment Management Cell:



EMP Cell structure

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

Undertaking submitted affirming:

a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Gosainpahari Stone Mine of M/s Karnika Mining Pvt. Ltd. (Prop. : Shri Ravi Shankar Kumar & Shri Manick Chand Maheshwari), Village : Gosainpahari, Thana : Shikaripara, Distt. : Dumka, Jharkhand (2.335 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/63/2026/3429, dated : 21.09.2026 is also included as Annexure – III (H) :

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.

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8. **Ordinary Soil Mining of M/s Kisan Bricks Field (Prop. : Shri Sabbir Ahmad & Shri Abdul Wahid), Village : Dudhijol, Thana : Barharwa, Distt.: Sahibganj, Jharkhand (0.709 Ha).**

(Proposal no.: SIA/JH/MIN/587451 /2026)

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

This is a new project which has been taken for appraisal on 27.09.2026.

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

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

Sl. NO.	Parameter		Details	
1.	Project Name	:	Ordinary soil Mining	
2.	Lessee:	:	M/S Kisan Bricks Field, Proprietor: Shri Sabbir Ahmad & Abdul Wahid	
3.	Lessee Address	:	At Mauza- Dudhijol, Thana – Barharwa, District- Sahibganj, Jharkhand.	
4.	Mine Lease Area	:	0.709ha	Acres-1.752Acre
5.	Type of Land	:	Non-Forest – Raiyati Land	
6.	Project Cost	:	RS- 18.714Lakh	
7.	EMP Budget	:	Capital: RS –2.664Lakh	Recurring: RS – 2.448Lakh

8.	New or Expansion	:	New
9.	Mineable Reserves	:	14180 CUM
10.	Mine Life	:	09years only
11.	Man power	:	10
12.	Water Requirement	:	2.234 KLD (Drinking: 0.150 KLD, Dust Suppression:0.920KLD, Plantation:1.164KLD)
13.	Water Source	:	Tube well of nearby Villages
14.	DG Set /power	:	-
15.	Crusher	:	No crusher
16.	Nearest Water Body	:	Nearest ponds is present within a distance of about 257 m in the NE direction. (EMP Submitted)
17.	Nearest Habitation	:	Few habitation is present within a distance of about245 m from the lease area in NE direction.(EMP Submitted)
18.	Nearest Railway Station	:	Kotalpukur Railway Station is located at an aerial distance of approximately 1.88 km in the north-west (NW) direction from the project site.
19.	Nearest Airport	:	Deoghar Airport is located at an aerial distance of 119 km towards SW direction.
20.	Nearest Forest	:	Divisional Forest Officer, Sahibganj, vide memo no.-1054, Dated-25.05.2026 certified that the distance of reserved Protected/forest is at 1456 m from proposed project site.
21.	Road & Highways	:	NH-133 A, at 9.8 km Southern direction. Approach road is approx. 230 m.
22.	Approach road	:	Distance of Approach Road 230 m.
23.	Distance of nearest ESZ of Wildlife Sanctuary or National Park		Udhwa Bird Sanctuary is located at a distance of 56.28 km in NW direction.

CO-ORDINATES

Point No.	**Toposheet:**G45V14	
Sl. No.	**Latitude**	**Longitude**
1	24°43'37.258"N	87°50'9.308"E
2	24°43'37.761"N	87°50'9.395"E
3	24°43'38.179"N	87°50'9.692"E
4	24°43'39.164"N	87°50'10.015"E
5	24°43'38.394"N	87°50'11.672"E
6	24°43'37.544"N	87°50'13.504"E
7	24°43'36.661"N	87°50'13.098"E
8	24°43'36.097"N	87°50'14.633"E

9	24°43'35.503"N	87°50'16.247"E
10	24°43'35.261"N	87°50'15.976"E
11	24°43'35.797"N	87°50'14.505"E
12	24°43'35.149"N	87°50'13.715"E
13	24°43'36.242"N	87°50'12.321"E
14	24°43'36.267"N	87°50'11.772 "E
15	24°43'36.419"N	87°50'11.187"E
16	24°43'36.940"N	87°50'10.224"E

LAND DETAILS

Khata no.	Plot no.
14	221 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Lease agreement executed with land owner.
2	CO	:	The CO, Barharwa, Sahibganj vide letter no. 152/Ra., dated 18.02.2026 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that few house exist at a distance of 245 meters and pond exist at a distance of 257 meters from mining lease boundary, for which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 898/M, dated 25.06.2026 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa vide letter no. 1055, dated 25.05.2026 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide letter no. 1054, dated 25.05.2026 certified that the distance of notified forest is at 1456 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 896/M, dated 25.06.2026 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 195).

7	Gram Sabha	:	Gram Sabha conducted on 09.02.2026.
8	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1031/M, dated 18.07.2026.
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/97/2026/3424, dated : 21.09.2026.
10	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Manual Mining method	
2	Quarry Area	:	0.6586ha	Life of Mine – 09 Years
3	Waste Generation	:	0.0cum	
4	Stripping Ratio	:	0:0	
5	Working Days	:	200	
6	Benches: size & No	:	--	
7	Elevation of Mine	:	41m AMSL to 42 m AMSL	
8	Ground Level Elevation	:	41 m AMSL	
9	Ultimate Working Depth	:	39 mAMSL	
10	Ground water level	:	Pre monsoon-48 mbgl Post monsoon- 44 mbgl	
11	Topography of Mine	:	Area represents Plain to gently undulating terrain topography	
12	Explosive Requirement	:	--	
13	Diesel/Fuel requirement	:	--	

Production Details

Year	Production of Soil in Cum (Volume)
1st	1,200
2nd	1,200
3rd	1,200
4th	1,200

5th	1,200
Total	6,000

Land use:

Sl. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha)	Proposed Land use for current plan period (Ha)	Land at conceptual period (Ha)	Area to be converted in the conceptual period (Ha)
1	Mining activity	0	0.3737	0.6586	Cultivation Land
2	Berm Area	0	0.0504	0.0504	Plantation
3	Unutilized	0.709	0.2849	0	-
Total		**0.709**	**0.709**	**0.709**	-

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Berm Area (Ha.)	0.0504	81	1600 Tree per Hectare	1st Year	Arjun, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Mango etc.
Length of Approach Road Area (m.)	230	307	2m X 2 m spacing in two rows both side		
Dead Bench (Ha.)	-	-	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	-	-			
Total		**388**			

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

Solid Waste Management

The top soil of depth 0.2 m and volume 1418 cum. Will be used for plantation purpose in the berm area and along the approach road.

EMP Cost-

Particulars	Capital (Rs.)	Recurring (Rs.)
388 Tree Plantation @Rs.300 per Tree for planting & @Rs.100 per tree for maintenance	1,16,400	38, 800

Water Tanker @Rs. 500 per Tanker for Drinking (0.150) Dust Suppression (0.920 KLD) & Horticulture (1.164 KLD) Total water requirement- 2.234 KLD 2.234 KLD X 200 Days = 446.8 KL/ year 446.8 KLD / 4 KLD = 112 Tankers	0	56,000
Environment Monitoring & Compliance	0	50,000
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC (2% of project cost)	0	1,00,000
To prevent the impact of mining activities on water body, retaining wall will be constructed	1,50,000	0
Total	**2,66,400**	**2,44,800**

Project cost

Sl. No.	Head	Project Cost Rs. in Lakhs	Recurring Cost Rs. In Lakh
1.	Land Expenses & Other	10.00	1.0
2.	Temporary structures	0.75	0.50
3.	Manual Tools	0.30	--
4.	Operational Cost (Wages, Salary etc.)	--	2.00
5.	EMP	2.664	2.448
6.	Miscellaneous	1.00	--
7.	Statutory Clearance	4.00	--
Total		**18.714**	**5.958**

Environment MonitoringProgramme:

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

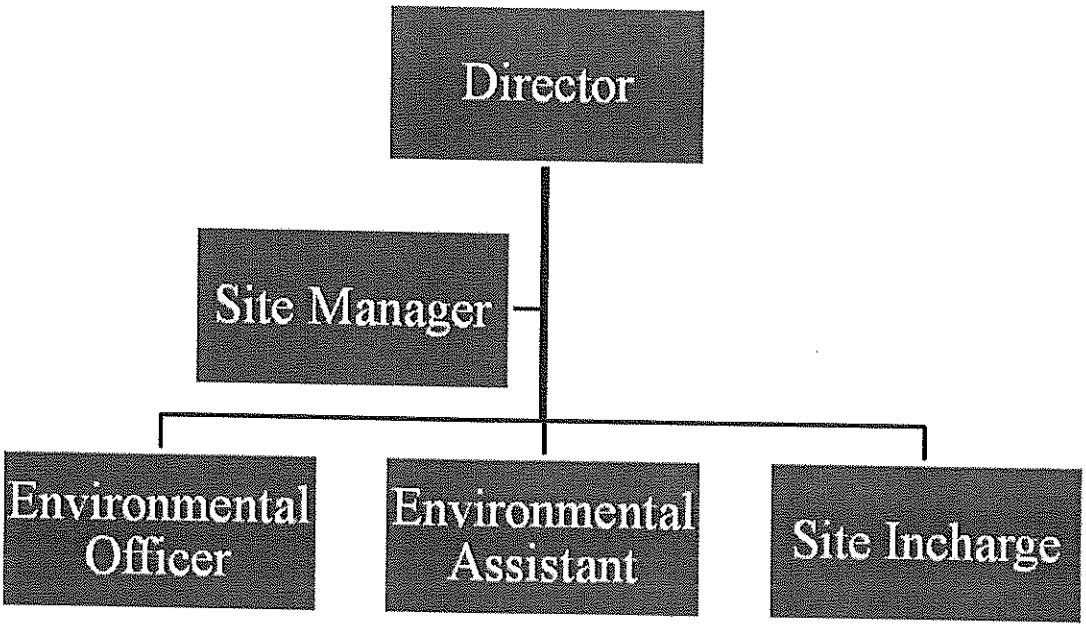
Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The top soil of depth 0.2 m and volume 1418 cum. Will be used for plantation purpose in the berm area and along the approach road.
Air Quality Management	• **Water sprinkling** on haul roads, loading/unloading points, and working areas.

	• All transport vehicles will have valid **PUC certificates.** • **Greenbelt and roadside plantation** to act as dust and noise barriers.
Water Quality Management	• **Sewage** from rest shelters will be treated through **septic tank–soak pit systems.**
Noise Quality Management	• **Mining activities** will be restricted to daytime. • **Greenbelt development** around the lease boundary to attenuate noise propagation.
Soil Quality Management	• **Topsoil** will be carefully removed and stored separately for future use in **plantation and reclamation.** • Post-mining, the area will be **rehabilitated** using stored topsoil and native vegetation
Flora & Fauna management	• **No tree felling** will be undertaken without obtaining permission from the competent authority. • **Greenbelt and plantation** will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • **Dust suppression measures** will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to **local people** in mining and ancillary activities. • **Community development initiatives** such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on **safety, hygiene, and environmental protection**
Monitoring & Reporting:	• **Periodic monitoring** of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be **submitted to statutory authorities** as per the compliance schedule. • **Corrective measures** will be taken immediately if any deviation from standards is observed.
Risk & Hazard	▪ **Accidents due vehicles.** ▪ **Accidents at loading point.**
Health 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	▪ **Mine road shall be made smooth regularly with a road roller.**

Prevention	▪ **Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoidsuspension of dust.** ▪ **All transportation within the mine lease area should be carried out directly underthe supervision and control of management.** ▪ **The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement.** ▪ **Navigation signs will be provided at each and every turning point up to the mainroad (wherever required).** ▪ **To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.**
Additional EMP for Habitation	• Distance: Nearest habitation – 245 m (NE); another habitation – 336 m (SW). • 500 m Zone: Habitations fall within 500 m of the lease area. • Compliance: MoEF&CC O.M. dated 29.10.2014. • Mining: Operations during daytime only. • Noise: Peripheral plantation and low-noise/well-maintained machinery. • Blasting: No blasting proposed for ordinary soil mining; DGMS requirements will be followed. • Dust: Regular water sprinkling on haul/approach roads. • Water: Garland drains, retaining structures and sedimentation pond. • Groundwater: Mining will remain above groundwater table; half-yearly monitoring proposed. • Transportation: Route will bypass inhabited areas; speed control, road maintenance and avenue plantation proposed. • Village: No village within the lease area. • R&R: No R&R/resettlement issues anticipated. • Infrastructure: No alteration/re-routing of existing infrastructure proposed. • CSR: CSR measures for surrounding habitations; water supply in case of scarcity. • Budget: ₹5 lakh for road maintenance, noise-reduction measures and allied environmental measures; 10% retained as recurring annual cost
Additional EMP for Water body	• **Water Bodies:** Two water bodies in NE & W; nearest – **257 m (NE).** • **Water Protection:** Retaining wall proposed along the lease boundary near water bodies. • **Retaining Wall:244 m**; ₹1.50 lakh provision. • **ZLD:** Runoff retained within lease area; no direct discharge to nearby water bodies.

	• **Groundwater:** Mining up to 2 m depth; groundwater table will not be intersected. • **Dust:** Wet drilling and regular water sprinkling on haul/unpaved roads. • **Noise:** Daytime operation, equipment maintenance, greenbelt and acoustic barriers. • **Speed Control:** 20 km/h restriction on unpaved roads. • **Greenbelt:** Safety-zone and avenue plantation along the link road. • **Soil:** Topsoil conserved and reused for reclamation/greenbelt development. • **Biodiversity:** Minimum vegetation clearance, buffer zones and ecological protection measures. • **Wildlife:** No wildlife corridor reported. • **Budget:** ₹1.50 lakh capital + ₹50,000 recurring for retaining wall and maintenance.

Organizational Structure of Environment Management Cell:



EMP Cell structure

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

Undertaking submitted affirming:

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

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Ordinary Soil Mining of M/s Kisan Bricks Field (Prop. : Shri Sabbir Ahmad & Shri Abdul Wahid), Village : Dudhijol, Thana : Barharwa, Distt.: Sahibganj, Jharkhand (0.709 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/97/2026/3424, dated : 21.09.2026 is also included as Annexure – III (I) :

I. In compliance of OM no.F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign *"Ek Ped Ma Ke Naam"* and the details of the same shall be uploaded in the MeriLiFE Portal (https://merilife.nic.in). 10% of the total green belt proposed shall be allocated under this clause.
II. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.
III. 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.

IV. 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.

V. 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.

VI. 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.

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

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

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9. **Ordinary Soil Mining of M/s Sony Bricks Field (Prop. : Shri Firoj Ahmad), Village : Shyamnagar, Thana : Kotalpokhar, Distt.: Sahibganj, Jharkhand (1.675 Ha).**

(Proposal no.: SIA/JH/MIN/586563 /2026)

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

This is a new project which has been taken for appraisal on 27.09.2026.

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

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

Sl. NO.	Parameter		Details	
1.	Project Name	:	Ordinary soil Mining	
2.	Lessee:	:	M/S Sony Bricks field, Proprietor: Shri Firoj Ahmad	
3.	Lessee Address	:	At Mauza- Shyamnagar, Thana – Kotalpokhar, District- Sahibganj, Jharkhand.	
4.	Mine Lease Area	:	0.678ha	Acres-1.675Acre
5.	Type of Land	:	Non-Forest – Raiyati Land	

6.	Project Cost	:	RS- 18.338Lakh	
7.	EMP Budget	:	Capital: RS –2.538Lakh	Recurring: RS – 2.326Lakh
8.	New or Expansion	:	New	
9.	Mineable Reserves	:	11142 CUM	
10.	Mine Life	:	09years only	
11.	Man power	:	10	
12.	Water Requirement	:	1.908 KLD (Drinking: 0.150 KLD, Dust Suppression:0.72KLD, Plantation:1.038KLD)	
13.	Water Source	:	Tube well of nearby Villages	
14.	DG Set /power	:	-	
15.	Crusher	:	No crusher	
16.	Nearest Water Body	:	The nearest pond is present at a distance of 240 m in the NE direction. (EMP Submitted)	
17.	Nearest Habitation	:	Fewhabitation is present at a distance of 185 m from the lease area in West direction. (EMP submitted)	
18.	Nearest Railway Station	:	Kotalpokhar Railway Station is located at an aerial distance of approximately 2.6 km in the eastern direction from the project site.	
19.	Nearest Airport	:	Deoghar airport is located at an aerial distance of 115 km in south-western direction.	
20.	Nearest Forest	:	Divisional Forest Officer, Sahibganj, vide memo no.-1201, Dated-13.06.2026 certified that the distance of reserved Protected/forest is at 558 m from proposed project site.	
21.	Road & Highways	:	The distance of approach road is approx. 180 m after that it connects to village road.	
22.	Approach road	:	Distance of Approach Road 180 m.	
23.	Distance of nearest ESZ of Wildlife Sanctuary or National Park		Udhwa Bird Sanctuary is located at a distance of 53.85 km in NW direction.	

CO-ORDINATES

Point No.	**Toposheet:**G45V14	
Sl. No.	**Latitude**	**Longitude**
1	24°44'13.157"N	87°47'54.79"E
2	24°44'13.182"N	87°47'55.32"E
3	24°44'13.057"N	87°47'55.602"E
4	24°44'13.022" N	87°47'56.019"E
5	24°4413.042"N	87°47'56.662"E
6	24°4412.816"N	87°47'57.587' 'E
7	24°44'12.401"N	87°47'57.558"E

8	24°44'11.855"N	87°47'57.329 "E
9	24°44' 11. 121 "N	87°47'57.037"E
10	24°44'10.4"N	87°47'56.664"E
11	24°44'9.789"N	87°47'56.287"E
12	24°44'10.103"N	87°47'55.88"E
13	24°44'10.398"N	87°47'55.318"E
14	24°44'10.734"N	87°47' 54.645"E
15	24°44'10.862"N	87°47'54.631 "E
16	24°44'11.204"N	87°47'53.839"E
17	24°44'11.929"N	87°47'34.258 "E
18	24°44'12.574"N	87°47'54.543"E

LAND DETAILS

Khata no.	Plot no.
10, 28 & 12	142, 144 & 145 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Lease agreement executed with land owner.
2	CO	:	The CO, Barharwa, Sahibganj vide letter no. 154/Ra., dated 18.02.2026 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that few house exist at a distance of 185 meters and pond exist at a distance of 240 meters from mining lease boundary, for which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 661/M, dated 23.04.2026 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa vide letter no. 1207, dated 13.06.2026 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide letter no. 1201, dated 13.06.2026 certified that the distance of notified

			forest is at 558 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 662/M, dated 23.04.2026 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 195).
7	Gram Sabha	:	Gram Sabha conducted on 22.01.2026.
8	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1030/M, dated 18.07.2026.
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/103/2026/3423, dated : 21.09.2026.
10	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Manual Mining method	
2	Quarry Area	:	0.6118ha	Life of Mine – 09Years
3	Waste Generation	:	0.0cum	
4	Stripping Ratio	:	0:0	
5	Working Days	:	200	
6	Benches: size & No	:	--	
7	Elevation of Mine	:	43m AMSL to 40 m AMSL	
8	Ground Level Elevation	:	40 m AMSL	
9	Ground water table	:	Pre monsoon- 46 mbgl Post monsoon- 40 mbgl	
10	Ultimate Working Depth	:	38 m AMSL	
11	Topography of Mine	:	Area represents Plain to gently undulating terrain topography	
12	Explosive Requirement	:	--	
13	Diesel/Fuel requirement	:	--	

Production Details

Year	Production of Soil in Cum (Volume)
1st	1,200

2nd	1,200
3rd	1,200
4th	1,200
5th	1,200
Total	6,000

Land use:

Sl. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha)	Proposed Land use for current plan period (Ha)	Land at conceptual period (Ha)	Area to be converted in the conceptual period (Ha)
1	Mining activity	0	0.3828	0.6118	Cultivation Land
2	Berm Area	0	0.0662	0.0662	Plantation
3	Unutilized	0.678	0.229	0	–
Total		0.678	0.678	0.678	

ENVIRONMENT MANAGEMENT

	Area / Length	Number of Trees	Remarks	Timeline	Species
Berm Area (Ha.)	0.0662	106	1600 Tree per Hectare	1st Year	Arjun, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Mango etc.
Length of Approach Road Area (m.)	180 m	240	2m X 2 m spacing in two rows both side		
Dead Bench (Ha.)	-	-	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	-	-			
Total		346			

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation.

Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Solid Waste Management

The top soil of depth 0.2 m and volume 1356 cum. Will be used for plantation purpose in the berm area and along the approach road.

EMP Cost-

Particulars	Capital(Rs.)	Recurring(Rs.)
346 Tree Plantation @Rs.300 per Tree for planting & @Rs.100 per tree for maintenance	1, 03,800	34,600
Water Tanker @Rs. 500 per Tanker for Drinking (0.150) Dust Suppression (0.720 KLD) & Horticulture (1.038 KLD) Total water requirement- 1.908 KLD 1.908 KLD X 200 Days = 381.6 KL/ year 381.6 KLD / 4 KLD = 96 Tankers	0	48,000
Environment Monitoring & Compliance	0	50,000
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC (2% of project cost)	0	1,00,000
To prevent the impact of mining activities on water body, retaining wall will be constructed	1,50,000	0
Total	**2,53,800**	**2,32,600**

Project cost

Sl. No.	Head	Project Cost Rs. in Lakhs	Recurring Cost Rs. In Lakh
1.	Land Expenses & Other	10.00	1.0
2.	Temporary structures	0.60	0.5
3.	Manual Tools	0.20	--
4.	Operational Cost (Wages, Salary etc.)	--	2.00
5.	EMP	2.538	2.326
6.	Miscellaneous	1.00	--
7.	Statutory Clearance	4.00	--
Total		**18.338**	**5.826**

Environment MonitoringProgramme:

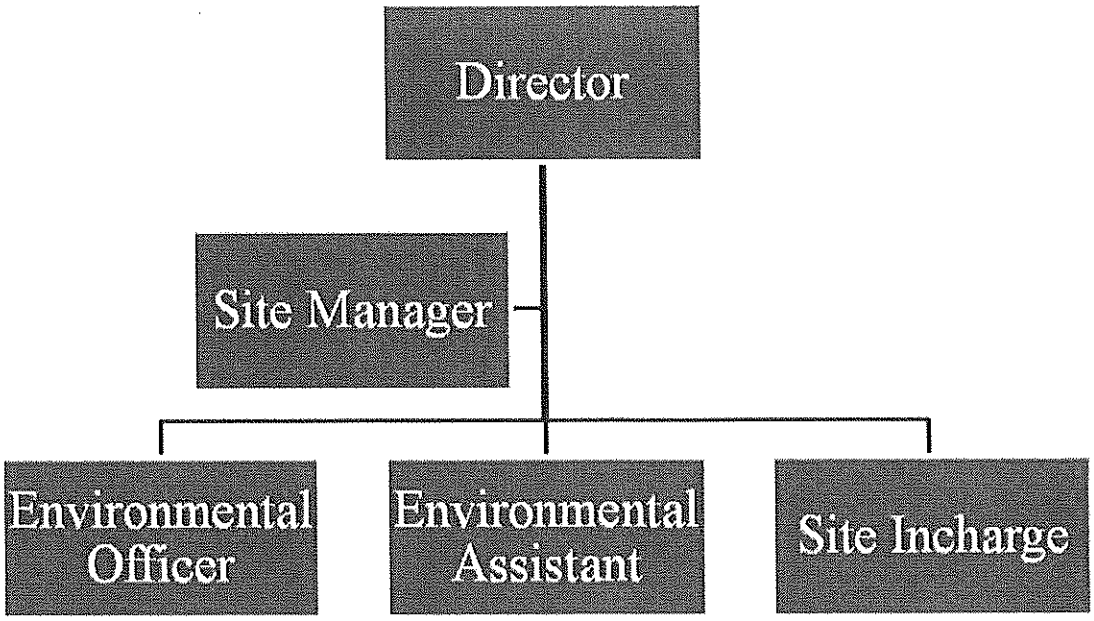
S. No.	Description	No. Monitoring Stations	Duration
1	Air	4 Stations	6 Monthly
2	Soil	2 Stations	6 Monthly
3	Surface Water	2 Stations	6 Monthly
4	Ground Water	2 Stations	6 Monthly
5	Noise	4 Stations	6 Monthly

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The top soil of depth 0.2 m and volume 1356 cum. Will be used for plantation purpose in the berm area and along the approach road.
Air Quality Management	• **Water sprinkling** on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid **PUC certificates.** • **Greenbelt and roadside plantation** to act as dust and noise barriers.
Water Quality Management	• **Sewage** from rest shelters will be treated through **septic tank–soak pit systems.**
Noise Quality Management	• **Mining activities** will be restricted to daytime. • **Greenbelt development** around the lease boundary to attenuate noise propagation.
Soil Quality Management	• **Topsoil** will be carefully removed and stored separately for future use in **plantation and reclamation.** • Post-mining, the area will be **rehabilitated** using stored topsoil and native vegetation
Flora & Fauna management	• **No tree felling** will be undertaken without obtaining permission from the competent authority. • **Greenbelt and plantation** will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • **Dust suppression measures** will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to **local people** in mining and ancillary activities. • **Community development initiatives** such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on **safety, hygiene, and environmental protection**
Monitoring & Reporting:	• **Periodic monitoring** of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines. • All monitoring reports will be **submitted to statutory authorities** as per the compliance schedule. • **Corrective measures** will be taken immediately if any deviation from standards is observed.

Risk & Hazard	▪ **Accidents due vehicles.** ▪ **Accidents at loading point.**
Health Hazards	**Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept.** **The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level**
Accident Prevention	▪ **Mine road shall be made smooth regularly with a road roller.** ▪ **Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoidsuspension of dust.** ▪ **All transportation within the mine lease area should be carried out directly underthe supervision and control of management.** ▪ **The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement.** ▪ **Navigation signs will be provided at each and every turning point up to the mainroad (wherever required).** ▪ **To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.**
Additional EMP for Habitation	• **Distance:** Nearest habitation – 185 m (W); few houses also present in NW & NE directions. • **500 m Zone:** Habitations fall within 500 m of the lease area. • **Compliance:** MoEF&CC O.M. dated 29.10.2014. • **Mining:** Operations during daytime only. • **Noise:** Peripheral plantation and low-noise/well-maintained machinery. • **Blasting:** No blasting proposed for ordinary soil mining; DGMS guidelines will be followed. • **Dust:** Regular water sprinkling on haul/approach roads. • **Water:** Garland drains, retaining walls and sedimentation pond. • **Groundwater:** Mining will remain above the groundwater table; half-yearly monitoring proposed. • **Transportation:** Route will bypass inhabited areas; speed control,

	road maintenance and avenue plantation proposed. • **Village:** No village within the lease area. • **Grazing Land:** No grazing land included within the mining lease. • **R&R:** No resettlement or rehabilitation issues. • **Infrastructure:** No alteration or re-routing of existing infrastructure proposed. • **Agriculture:** Dust suppression and runoff management measures to protect nearby agricultural crops. • **CSR:** CSR measures for surrounding habitations; water supply in case of scarcity. • **Budget:** ₹5 lakh for road maintenance, noise-reduction measures and allied environmental measures; 10% retained as recurring annual cost.
Additional EMP for water body	• Groundwater table will not be intersected during mining. • Nearest pond is **240 m east** of the lease. • Wells are present on the **E, W and S** sides. • A **216 m retaining wall** will be provided. • Retaining wall will control **run-off, erosion and siltation.** • No direct discharge into nearby **ponds, wells, Nala or rivers.** • **Zero Liquid Discharge (ZLD)** approach will be followed. • Regular inspection and maintenance will be done, especially during monsoon. • **Water sprinkling** will control dust from roads. • Mining will be carried out during **daytime** to control noise. • Greenbelt and plantation will be developed around the lease. • Topsoil will be stored and reused for **reclamation/plantation.** • **₹1.50 lakh** capital and **₹0.50 lakh** recurring provision for retaining wall/maintenance.

Organizational Structure of Environment Management Cell:



EMP Cell structure

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

Undertaking submitted affirming:

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

j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.

k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Ordinary Soil Mining of M/s Sony Bricks Field (Prop. : Shri Firoj Ahmad), Village : Shyamnagar, Thana : Kotalpokhar, Distt.: Sahibganj, Jharkhand (1.675 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/103/2026/3423, dated : 21.09.2026 is also included as Annexure – III (J) :

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

II. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.

III. 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.

IV. 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.

V. 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.

VI. 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.

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

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

****

10. Ordinary Soil Mining of M/s Jay Jawan Bricks (Prop. : Shri Sharat Chandra Mandal), Village : Mirzapur, Thana : Barharwa, Distt.: Sahibganj, Jharkhand (0.894 Ha).

(Proposal no.: SIA/JH/MIN/585612 /2026)

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

This is a new project which has been taken for appraisal on 27.09.2026.

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

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

Sl. NO.	Parameter		Details	
1.	Project Name	:	Ordinary soil Mining	
2.	Lessee:	:	M/S Jay Jawan Bricks, Proprietor: Shri Sharat Chandra Mandal	
3.	Lessee Address	:	At Mauza- Mirzapur, Thana – Barharwa, District- Sahibganj, Jharkhand.	
4.	Mine Lease Area	:	0.894ha	Acres-2.21Acre
5.	Type of Land	:	Non-Forest – Raiyati Land	
6.	Project Cost	:	RS- 18.139Lakh	
7.	EMP Budget	:	Capital: RS –2.139Lakh	Recurring: RS – 2.013Lakh
8.	New or Expansion	:	New	
9.	Mineable Reserves	:	15190 CUM	
10.	Mine Life	:	10years only	
11.	Man power	:	10	
12.	Water Requirement	:	1.189 KLD (Drinking: 0.150 KLD, Dust Suppression:0.40KLD, Plantation:0.639KLD)	
13.	Water Source	:	Tube well of nearby Villages	
14.	DG Set /power	:	-	
15.	Crusher	:	No crusher	
16.	Nearest Water Body	:	Nearest pond is present at a distance of about 20 m from the lease area in N direction.	

17.	Nearest Habitation	:	Few habitation is at a distance of about 103 m from the lease area in South West direction. (EMP submitted)
18.	Nearest Rail Station	:	Bonidanga Railway Station is located at an aerial distance of approximately 6.7 km in the south-west (SW) direction from the project site.
19.	Nearest Airport	:	Nearest Airport is Deoghar Airport which is about 126 km SW
20.	Nearest Forest	:	Divisional Forest Officer, Sahibganj, vide memo no.-242, Dated-05.02.2026 certified that the distance of reserved Protected/forest is at 352 m from proposed project site.
21.	Road & Highways	:	NH-33, at 1.71 km in NW direction. Approach road is approx. 100 m.
22.	Approach road	:	Distance of Approach Road 100 m.
23.	Distance of nearest ESZ of Wildlife Sanctuary or National Park		Udhwa Bird Sanctuary, Jharkhand is located at a distance of 47.68 km in NW Direction.

CO-ORDINATES

Point No.	**Toposheet:**G45V13	
Sl. No.	**Latitude**	**Longitude**
1	24°50'33.95894172"N	87°50'46.61122536"E
2	24°50'34.63366344"N	87°50'46.62450736"E
3	24°50'34.66906873"N	87°50'46.75167565"E
4	24°50'35.25565106"N	87°50'46.76392734"E
5	24°50'35.47687505"N	87°50'46.87739246"E
6	24°50'35.59007604"N	87°50'47.08286933"E
7	24°50'35.56845437"N	87°50'47.66927053"E
8	24°50'35.43006977"N	87°50'48.41028570"E
9	24°50'35.32532496"N	87°50'49.13481636"E
10	24°50'35.22279740"N	87°50'49.19845518"E
11	24°50'35.10760038"N	87°50'49.48008195"E
12	24°50'35.09313909"N	87°50'49.87936757"E
13	24°50'35.15070044"N	87°50'50.21564772"E
14	24°50'34.98830851"N	87°50'50.61810508"E
15	24°50'34.89755880"N	87°50'51.02522566"E

16	24°50'34.74941527"N	87°50'51.38531480"E
17	24°50'34.17836623 "N	87°50'51.36796482"E
18	24°50'34.10779996"N	87°50'51.55242401"E
19	24°50'33.20865017 "N	87°50'51.54143231"E
20	24°50'32.41929213 "N	87°50'51.49697537"E
21	24°50'32.27415618"N	87°50'50.83147905"E
22	24°50'32.44484471"N	87°50'50.35221416"E
23	24°50'33.10681351"N	87°50'49.36974695"E
24	24°50'33.26631719"N	87°50'48.71838345"E
25	24°50'33.24421961 "N	87°50'48.45682227"E
26	24°50'33.68717117"N	87°50'48.49377910"E
27	24°50'33.71648561"N	87°50'48.15584685"E
28	24°50'33.87860893"N	87°50'47.50549740"E
29	24°50'33.85585592"N	87°50'47.10585271"E
30	24°50'33.94415402"N	87°50'46.88655908"E

LAND DETAILS

Khata no.	Plot no.
63	406, 408 & 409

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Lease agreement executed with land owner.
2	CO	:	The CO, Barharwa, Sahibganj vide letter no. 153/Ra., dated 18.02.2026 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that few house exist at a distance of 103 meters and pond exist at a distance of 20 meters from mining lease boundary, for which detailed Environmental Management Plan has been prepared and submitted.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 629/M, dated 20.04.2026 certified that no other mining lease area exists within 500 meters radius from proposed project site.

4	DFO Wild Life	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa vide letter no. 243, dated 05.02.2026 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide letter no. 242, dated 05.02.2026 certified that the distance of notified forest is at 352 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 628/M, dated 20.04.2026 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 195).
7	Gram Sabha	:	Gram Sabha conducted on 22.01.2026.
8	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 980/M, dated 03.07.2026.
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/101/2026/3425, dated : 21.09.2026.
10	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Manual Mining method	
2	Quarry Area	:	0.8439ha	Life of Mine – 13Years
3	Waste Generation	:	0.0cum	
4	Stripping Ratio	:	0:0	
5	Working Days	:	200	
6	Benches: size & No	:	--	
7	Elevation of Mine	:	25m AMSL to 29 m AMSL	
8	Ground Level Elevation	:	25 m AMSL	
9	Ultimate Working Depth	:	23 mAMSL	
10	Ground water level	:	Pre monsoon - 39 mbgl Post monsson - 35 mbgl	
11	Topography of Mine	:	Area represents Plain to gently undulating terrain topography	
12	Explosive Requirement	:	--	
13	Diesel/Fuel	:	--	

	requirement		

Production Details

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

Land use:

Sl. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha)	Proposed Land use for current plan period (Ha)	Land at conceptual period. (Ha)	Area to be converted in the conceptual period (Ha)
1	Mining activity	0	0.3713	0.8439	Cultivation Land
2	Berm Area	0	0.0501	0.0501	Plantation
3	Unutilized	0.894	0.4726	0	_
Total		**0.894**	**0.894**	**0.894**	

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Berm Area (Ha.)	0.0501	80	1600 Tree per Hectare	1st Year	Arjun, Jackfruits, Jamun, Babul, Gulmohar, Neem, Pipal, Mango etc.
Length of Approach Road Area (m.)	100 m	133	2m X 2 m spacing in two rows both side		
Dead Bench (Ha.)	-	-	1600 Tree per Hectare	At the end of life of mine	
Backfilled (Ha.)	-	-			

Total	**213**			

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

Solid Waste Management

The top soil of depth 0.2 m and volume 1688 cum. Will be used for plantation purpose in the berm area and along the approach road.

EMP Cost-

Particulars	**Capital(Rs.)**	**Recurring(Rs.)**
213 Tree Plantation @Rs.300 per Tree for planting & @Rs.100 per tree for maintenance	63,900	21,300
Water Tanker @Rs. 500 per Tanker for Drinking (0.150) Dust Suppression (0.40 KLD) & Horticulture (0.639 KLD) Total water requirement- 1.189 KLD 1.189 KLD X 200 Days = 237.8 KL/ year 237.8 KLD / 4 KLD = 60 Tankers	0	30,000
Environment Monitoring & Compliance	0	50,000
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC (2% of project cost)	0	1,00,000
To prevent the impact of mining activities on water body, retaining wall will be constructed	1,50,000	0
Total	**2,13,900**	**2,01,300**

Project cost

Sl. No.	**Head**	**Project Cost Rs. in Lakhs**	**Recurring Cost Rs. In Lakh**
1.	Land Expenses & Other	10.00	1.0
2.	Temporary structures	0.70	0.5
3.	Manual Tools	0.30	--
4.	~~Operational~~ Cost (Wages, Salary etc.)	--	2.00

5.	EMP	2.139	2.013
6.	Miscellaneous	1.00	--
7.	Statutory Clearance	4.00	--
Total		**18.139**	**5.513**

Environment MonitoringProgramme:

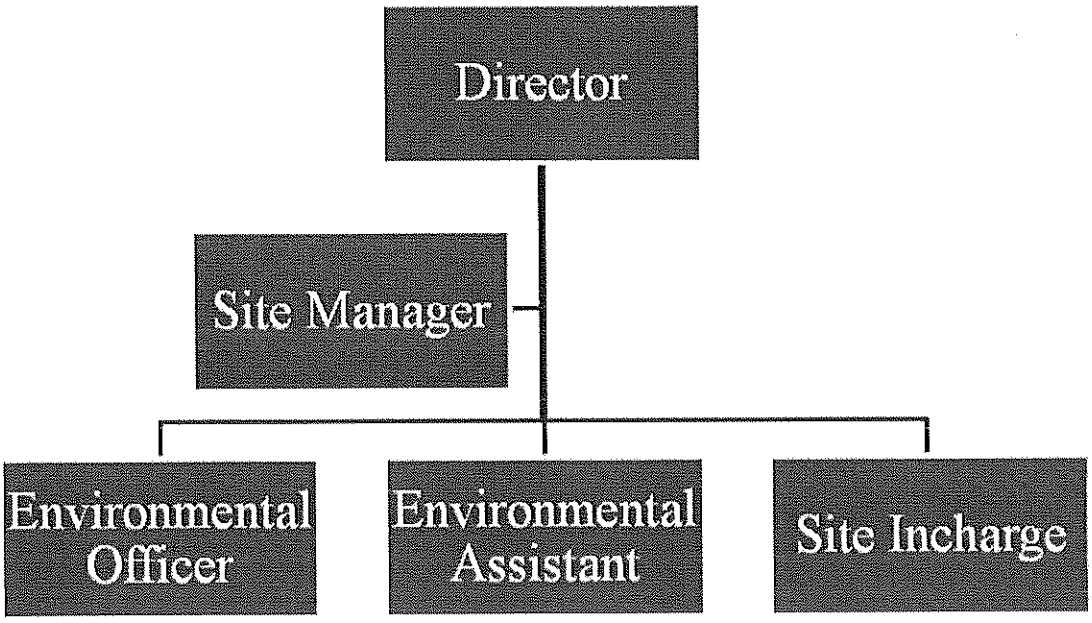
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Aspect	Mitigation Measures / Control Measures
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Monitoring & Reporting:	• **Periodic monitoring** of air, water (ground & surface), noise, and soil

	quality as per CPCB and SPCB guidelines. • All monitoring reports will be **submitted to statutory authorities** as per the compliance schedule. • **Corrective measures** will be taken immediately if any deviation from standards is observed.
Risk & Hazard	▪ **Accidents due vehicles.** ▪ **Accidents at loading point.**
Health Hazards	**Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept.** **The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level**
Accident Prevention	▪ **Mine road shall be made smooth regularly with a road roller.** ▪ **Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoidsuspension of dust.** ▪ **All transportation within the mine lease area should be carried out directly underthe supervision and control of management.** ▪ **The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement.** ▪ **Navigation signs will be provided at each and every turning point up to the mainroad (wherever required).** ▪ **To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.**
Additional EMP for habitation	• Distance: Nearest habitation – 103 m (SW); other habitations in N, NE & SW directions. • 500 m Zone: Habitations fall within 500 m of the lease area. • Compliance: MoEF&CC O.M. dated 29.10.2014. • Mining: Operations during daytime only. • Noise: Peripheral plantation and low-noise/well-maintained machinery. • Blasting: No blasting proposed for ordinary soil mining; DGMS guidelines will be followed. • Dust: Regular water sprinkling on haul/approach roads. • Water: Garland drains, retaining walls and sedimentation pond. • Groundwater: Mining will remain above the groundwater table; half-yearly monitoring proposed. • Transportation: Route will bypass inhabited areas; speed control, road maintenance and avenue plantation proposed. • Village: No village within the lease area. • Grazing Land: No grazing land included within the mining lease. • R&R: No resettlement or rehabilitation issues. • Infrastructure: No alteration or re-routing of existing infrastructure

	proposed. • Agriculture: Dust suppression and runoff management measures to protect agricultural crops. • CSR: CSR measures for surrounding habitations; water supply in case of scarcity. • Budget: ₹5 lakh for road maintenance, noise-reduction measures and allied environmental measures; 10% retained as recurring annual cost.
Additional EMP for water body	• Groundwater table will not be intersected during mining. • Nearest water body is **13.5 m north** of the lease. • Retaining wall of **355 m** will be provided. • Retaining wall will control **run-off, erosion and siltation**. • No direct discharge into nearby **ponds, nala or rivers**. • **Zero Liquid Discharge (ZLD)** approach will be followed. • Water sprinkling will be done for **dust suppression**. • Vehicle speed on unpaved roads will be limited to **20 km/h**. • Mining will be carried out during **daytime**. • Greenbelt and avenue plantation will be developed. • Topsoil will be stored and reused for **reclamation/plantation**. • Heavy vehicle movement on agricultural land will be restricted. • Regular maintenance of machinery and vehicles will be carried out. • **₹1.50 lakh** capital and **₹0.50 lakh** recurring provision for retaining wall and maintenance.

Organizational Structure of Environment Management Cell:



EMP Cell structure

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

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

Undertaking submitted affirming:

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Ordinary Soil Mining of M/s Jay Jawan Bricks (Prop. : Shri Sharat Chandra Mandal), Village : Mirzapur, Thana : Barharwa, Distt.: Sahibganj, Jharkhand (0.894 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/101/2026/3425, dated : 21.09.2026 is also included as Annexure – III (K) :

I. In compliance of OM no.F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign *"Ek Ped Ma Ke Naam"* and

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

II. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.

III. 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.

IV. 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.

V. 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.

VI. 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.

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

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

****

11. Ordinary Soil Mining of M/s Diamond Bricks (Prop. : Shri Sajahan Shekh), Village : Ruppur & Madhupur, Thana : Barharwa, Distt.: Sahibganj, Jharkhand (1.539 Ha).

(Proposal no.: SIA/JH/MIN/587662 /2026)

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

This is a new project which has been taken for appraisal on 27.09.2026.

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

Application for Environmental Clearance (EC).

EC Application for: Proposed Capacity-1,200 cum. of soil/Annum

Project and Location Details:

Sl. NO.	Parameter		Details	
1.	Project Name	:	Ordinary soil Mining	
2.	Lessee:	:	M/S Diamond Bricks, Proprietor: Shri Sajahan Shekh	
3.	Lessee Address	:	At Mauza- Ruppur&Madhupur, Thana – Barharwa, District-Sahibganj, Jharkhand.	
4.	Mine Lease Area	:	1.539ha	Acres-3.803Acre
5.	Type of Land	:	Non-Forest – Raiyati Land	
6.	Project Cost	:	RS- 18.388Lakh	
7.	EMP Budget	:	Capital: RS –2.388 Lakh	Recurring: RS – 2.196Lakh
8.	New or Expansion	:	New	
9.	Mineable Reserves	:	29420 CUM	
10.	Mine Life	:	10years only	
11.	Man power	:	10	
12.	Water Requirement	:	1.598 KLD (Drinking: 0.150 KLD, Dust Suppression:0.560KLD, Plantation:0.888KLD)	
13.	Water Source	:	Tube well of nearby Villages	
14.	DG Set /power	:	-	
15.	Crusher	:	No crusher	
16.	Nearest Water Body	:	Nearest ponds is present in the southern part of the lease boundary. (EMP Submitted)	
17.	Nearest Habitation	:	Few Habitation is presentwithin a distance of about 140 m from the lease area in North West direction.(EMP Submitted)	
18.	Nearest Railway Station	:	Bonidanga Railway Station is located at an aerial distance of approximately 3.90 km in the south-west (SW) direction from the project site.	
19.	Nearest Airport	:	Deoghar Airport which is about 123.3 km SW.	
20.	Nearest Forest	:	Divisional Forest Officer, Sahibganj, vide memo no.-1247, Dated-20.06.2026 certified that the distance of reserved Protected/forest is at 1830 m from proposed project site.	
21.	Road & Highways	:	The distance of approach road is approx. 180 m after that it connects to village road.NH-33 is 470 m away from the lease area in the NW side.	
22.	Approach road	:	Distance of Approach Road 140 m.	
23.	Distance of nearest ESZ of Wildlife Sanctuary or National Park		Udhwa Bird Sanctuary is located at a distance of 45.62 km in NW direction.	

CO-ORDINATES

Point No.	Toposheet:G45V13	
Sl. No.	Latitude	Longitude
1	24°50'18.13645"N	87°50'42.11439"E
2	24°50'18.61799"N	87°50'42.10258"E
3	24°50'19.10508"N	87°50'42.10327"E
4	24°50 '19.27017"N	87°50 '43.23179"E
5	24°50'19.70296"N	87°50'42.78210"E
6	24°50'19.84839"N	87°50'42.42476"E
7	24°50'20.54920"N	87°50'42.25978"E
8	24°50 '20.99632"N	87°50'42.31939"E
9	24°50'21.10007"N	87°50'42.23209"E
10	24°50'21.54872"N	87°50'42.02139"E
11	24°50'21.76663"N	87°50'42.03544 "E
12	24°50'22.11588"N	87°50'42.15726"E
13	24°50'22.23004"N	87°50'42.25862"E
14	24°50' 22.66587"N	87°50'42.28673"
15	24°50' 23.00350"N	87°50'42.43361"E
16	24°50'23. 43762"N	87°50'42.76346" E
17	24°50'24.01455"N	87°50' 43.20115"
18	24°50'24.58124"N	87°50'3.41874"E
19	24°50'25.24635"N	87°50'43.47984 "E
20	24°50'25.37173"N	87°50 '43.62529"E
21	24°50'25.53182"N	87°50'43.72068"E
22	24°50'25.76230"N	87°50'43.53993"E
23	24°50'26.10262" N	87° 50'42.19690"E
24	24°50'25.84355"N	87°50'41.34645"E
25	24°50'25.13807"N	87°50' 41.32280"E
26	24°50'24.57676"N	87°50'41.16812"E
27	24°50'24.00439"N	87°50'40.93791 'E
28	24°50'23.99441"N	87°50'40.67381 "E

29	24°50'23.06785"N	87°5040.18345"E
30	24°50'22.44835"N	87°5040.17296"E
31	24°50'20.76574"N	87°50'39.78855"E
32	24°50'20.17339"N	87°50'39.75982"E
33	24°50' 20.08722"N	87°50'39.83998"E
34	24°50'19.61830"N	87° 50'39.79066"E
35	24°50'19.07262"N	87°50' 9.61520"E
36	24°50'19.00553"N	87°50'39.79177" E
37	24°50'19.08594"N	87°50'39.85669" E
38	24°50'19.03768"N	87° 50'40.13269"E
39	24°50'18.99011"N	87°50 '40.27473"E
40	24°50'18.83024"N	87°5040.24973"E
41	24°50'18.76351"N	87°5040.41665"E
42	24°50'L8.86634"N	87°50'40.51520"E
43	24°50' 18.64520"N	87°50'40.97719"E
44	24°50' 18.08477"N	87°50'40.77254"E
45	24°50'17-97582"N	87°50'40.92630" E
46	24°50'18.03272"N	87° 50'41.25113"E
47	24°50'17.94450"N	87°50 '41.47712" E

LAND DETAILS

Khata no.	Plot no.
58, 9, 51 & 5	4, 5, 79 (P), 80 (P) & 82

STATUTORY CLEARANCES

1	LOI / Lease docs	:	Lease agreement made.
2	CO	:	The CO, Barharwa, Sahibganj vide letter no. 486/Ra., dated 04.06.2026 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyan & Register II. During the appraisal it was seen from the KML that few house exist at a distance of 140 meters from mining lease boundary, for which detailed Environmental Management Plan has been prepared and

			submitted.
3	DMO Cluster	:	DMO, Sahibganj vide memo no. 1080/M, dated 31.07.2026 certified that no other mining lease area exists within 500 meters radius from proposed project site.
4	DFO Wild Life	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa vide letter no. 1248, dated 20.06.2026 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Territorial	:	Divisional Forest Officer, Sahibganj Forest Division vide letter no. 1247, dated 20.06.2026 certified that the distance of notified forest is at 1830 meters from proposed project site.
6	DSR	:	The DMO, Sahibganj has certified vide memo no. 1093/M, dated 06.08.2026 that this project is mentioned in approved DSR of Sahibganj District as a potential area (Page no. 195).
7	Gram Sabha	:	Gram Sabha conducted on 24.05.2026.
8	Mine Plan Approval	:	Approved by DMO, Sahibganj vide Letter No. 1041/M, dated 22.07.2026.
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/118/2026/3426, dated : 21.09.2026.
10	Qualified Person	:	Shri Malay Kumar Mukhopadhyay was present in the meeting and affirmed that the mine plan has been prepared by him.

Working Details

1	Mining Method	:	Opencast Manual Mining method	
2	Quarry Area	:	1.471ha	Life of Mine – 10Years
3	Waste Generation	:	0.0cum	
4	Stripping Ratio	:	0:0	
5	Working Days	:	200	
6	Benches: size & No	:	--	
7	Elevation of Mine	:	31m AMSL to 28 m AMSL	
8	Ground Level Elevation	:	28 m AMSL	
9	Ultimate Working Depth	:	26 mAMSL	

10	Ground water level	:	Pre monsoon- 44 mbgl Post monsoon- 40 mbgl
11	Topography of Mine	:	Area represents Plain to gently undulating terrain topography
12	Explosive Requirement	:	--
	Diesel/Fuel requirement	:	--

Production Details

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

Land use:

Sl. No.	Pattern of Utilization	Present/Existing land use pattern in (Ha)	Proposed Land use for current plan period (Ha)	Land at conceptual period. (Ha)	Area to be converted in the conceptual period (Ha)
1	Mining activity	0	0.35	1.429	Cultivation land
2	Berm Area	0	0.068	0.068	Plantation
3	Unutilized	1.497	1.079	0	-
4	Pond	0.042	0.042	0.042	Water body
Total		**1.539**	**1.539**	**1.539**	-

ENVIRONMENT MANAGEMENT

Green Belt Development

	Area / Length	Number of Trees	Remarks	Timeline	Species
Berm Area (Ha.)	0.068	109	1600 Tree per Hectare	1st Year	Arjun, Jackfruits, Jamun, Babul, Gulmohar, Neem,
Length of Approach Road Area (m.)	140 m	187	2m X 2 m spacing in two rows both side		

Dead Bench (Ha.)	-	-	1600 Tree per Hectare	At the end of life of mine	Pipal, Mango etc.
Backfilled (Ha.)	-	-			
Total		296			

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

Solid Waste Management

The top soil of depth 0.2 m and volume 3078 cum. Will be used for plantation purpose in the berm area and along the approach road.

EMP Cost-

Particulars	Capital(Rs.)	Recurring(Rs.)
296Tree Plantation @Rs.300 per Tree for planting & @Rs.100 per tree for maintenance	88, 800	29, 600
Water Tanker @Rs. 500 per Tanker for Drinking (0.150) Dust Suppression (0.560 KLD) & Horticulture (0.888 KLD) Total water requirement- 1.598 KLD 1.598 KLD X 200 Days = 319.6 KL/ year 319.6 KLD / 4 KLD = 80 Tankers	0	40, 000
Environment Monitoring & Compliance.	0	50, 000
To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA.II (M) dated 29/10/2014 issued by MoEF & CC (2% of project cost).	0	1, 00, 000
To prevent the impact of mining activities on water body, retaining wall will be constructed.	1, 50, 000	0
Total	**2, 38, 800**	**2, 19, 600**

Project cost

Sl. No.	Head	Project Cost Rs. in Lakhs	Recurring Cost Rs. In Lakh
1.	Land Expenses & Other	10.00	1.0
2.	Temporary structures	0.70	0.5
3.	Manual Tools	0.30	--

4.	Operational Cost (Wages, Salary etc.)	--	2.00
5.	EMP	2.388	2.196
6.	Miscellaneous	1.00	--
7.	Statutory Clearance	4.00	--
Total		18.388	5.696

Environment MonitoringProgramme:

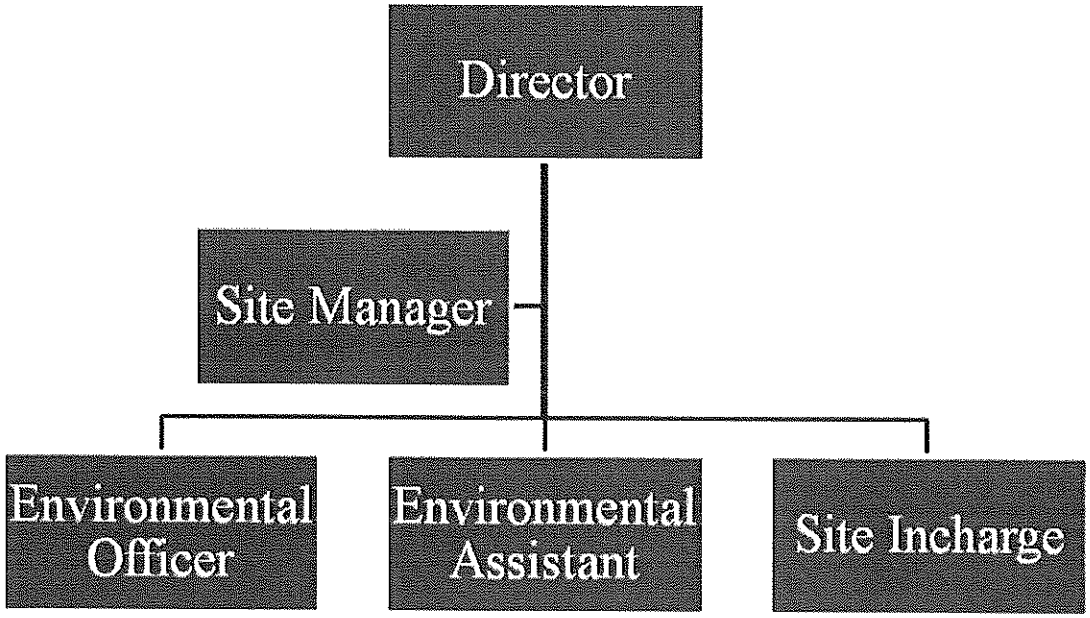
S. No.	Description	No. Monitoring Stations	Duration
1	Air	4 Stations	6 Monthly
2	Soil	2 Stations	6 Monthly
3	Surface Water	2 Stations	6 Monthly
4	Ground Water	2 Stations	6 Monthly
5	Noise	4 Stations	6 Monthly

Aspect	Mitigation Measures / Control Measures
Solid Waste Management	The top soil of depth 0.2 m and volume 3078 cum. Will be used for plantation purpose in the berm area and along the approach road.
Air Quality Management	• **Water sprinkling** on haul roads, loading/unloading points, and working areas. • All transport vehicles will have valid **PUC certificates.** • **Greenbelt and roadside plantation** to act as dust and noise barriers.
Water Quality Management	• **Sewage** from rest shelters will be treated through **septic tank–soak pit systems.**
Noise Quality Management	• **Mining activities** will be restricted to daytime. • **Greenbelt development** around the lease boundary to attenuate noise propagation.
Soil Quality Management	• **Topsoil** will be carefully removed and stored separately for future use in **plantation and reclamation.** • Post-mining, the area will be **rehabilitated** using stored topsoil and native vegetation
Flora & Fauna management	• **No tree felling** will be undertaken without obtaining permission from the competent authority. • **Greenbelt and plantation** will be developed using native species along approach roads and lease periphery (7.5m Safety Zone). • **Dust suppression measures** will minimize impact on surrounding vegetation
Socio Economy:	• Priority employment to **local people** in mining and ancillary activities. • **Community development initiatives** such as tree plantation drives, road maintenance, and local infrastructure support. • Awareness programs on **safety, hygiene, and environmental protection**
Monitoring & Reporting:	• **Periodic monitoring** of air, water (ground & surface), noise, and soil quality as per CPCB and SPCB guidelines.

	• All monitoring reports will be **submitted to statutory authorities** as per the compliance schedule. • **Corrective measures** will be taken immediately if any deviation from standards is observed.
Risk & Hazard	▪ **Accidents due vehicles.** ▪ **Accidents at loading point.**
Health Hazards	**Health hazards should be interpreted as being harmful dust and noise which is emitted during surface mining operations. All suitable steps and precautions will be undertaken to ensure minimum health hazard. Provision of use of Personal Protective Equipment (PPE) will be kept.** **The PPE shall be of good make and quality, wherever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particulate hazardous dust and maintained to recommended standards. As personal protective equipment only affords limited protection it will only be used as a last resort and as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level**
Accident Prevention	▪ **Mine road shall be made smooth regularly with a road roller.** ▪ **Mine road will be made sufficiently wide to keep two-way traffic. Regular water sprinkling will be done on mine road and haul road to avoidsuspension of dust.** ▪ **All transportation within the mine lease area should be carried out directly underthe supervision and control of management.** ▪ **The vehicles will be maintained in good working condition and checked thoroughlyat least once a month by the competent person authorized for the purpose by themanagement.** ▪ **Navigation signs will be provided at each and every turning point up to the mainroad (wherever required).** ▪ **To avoid danger while reversing the vehicles especially at working place/loadingpoints, stopper should be posted to properly guide reversing/spotting operating.**
Additional EMP for Habitation	• **Distance:** Nearest habitation – 140 m (NW); other habitations in SW & SE directions. • **500 m Zone:** Habitations fall within 500 m of the lease area. • **Compliance:** MoEF&CC O.M. dated 29.10.2014. • **Mining:** Operations during daytime only. • **Noise:** Peripheral plantation and low-noise/well-maintained machinery. • **Blasting:** No blasting proposed for ordinary soil mining; DGMS guidelines will be followed. • **Dust:** Regular water sprinkling on haul/approach roads. • **Water:** Garland drains, retaining walls and sedimentation pond. • **Groundwater:** Mining will remain above the groundwater table; half-yearly monitoring proposed. • **Transportation:** Route will bypass inhabited areas; speed control, road maintenance and avenue plantation proposed. • **Village:** No village within the lease area. • **Grazing Land:** No grazing land included within the mining lease. • **R&R:** No resettlement or rehabilitation issues. • **Infrastructure:** No alteration or re-routing of existing infrastructure proposed.

	• **Agriculture:** Dust suppression and runoff management measures to protect agricultural crops. • **CSR:** CSR measures for surrounding habitations; water supply in case of scarcity. • **Budget:** ₹5 lakh for road maintenance, noise-reduction measures and allied environmental measures; 10% retained as recurring annual cost.
Additional EMP for water body	• Groundwater table will not be intersected during mining. • Nearest water body is **87 m north** of the lease. • Temporary waterlogging occurs at the **southern corner** of the lease. • A **448 m retaining wall** will be provided. • Retaining wall will control **run-off, erosion and siltation.** • No direct discharge into nearby **ponds, nala or rivers.** • **Zero Liquid Discharge (ZLD)** approach will be followed. • Water sprinkling will be used for **dust suppression.** • Vehicle speed on unpaved roads will be limited to **20 km/h.** • Mining operations will be restricted to **daytime.** • Greenbelt and avenue plantation will be developed. • Topsoil will be stored and reused for **reclamation/plantation.** • Heavy machinery movement on agricultural land will be restricted. • Regular maintenance of machinery, vehicles and roads will be carried out. • **₹1.50 lakh** capital and **₹0.50 lakh** recurring provision for retaining wall and maintenance.

Organizational Structure of Environment Management Cell:



EMP Cell structure

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

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

Undertaking submitted affirming:

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Ordinary Soil Mining of M/s Diamond Bricks (Prop. :

A

Shri Sajahan Shekh), Village : Ruppur & Madhupur, Thana : Barharwa, Distt.: Sahibganj, Jharkhand (1.539 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III along with following specific conditions and Environmental Safeguard as provided by Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/118/2026/3426, dated : 21.09.2026 is also included as Annexure – III (L):

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

II. The Deputy Commissioner through District Mining Officer will ensure that the mines owner of the respective leases to complete the plantation and maintenance in a time bound manner.

III. 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.

IV. 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.

V. 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.

VI. 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.

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

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

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12. **Tubed Coal Mine Project of M/s Damodar Valley Corporation, Village : Tubed, Mangra, Dihi, Ambajharan, Dhobiajharan, Nawari, Tehsil : Latehar, Distt. : Latehar, Jharkhand (460.00 Ha).**

(Proposal no.: SIA/JH/CMIN/ 590630 /2026).

Name of the consultant: JM EnviroNet Pvt. Ltd., Gurugram, Haryana

This is an amendment project which has been taken for appraisal on 27.09.2026.

Project Sector: 1(a) Mining of Minerals (Coal) as per EIA Notification, 2006, Category: B1. Application for amendment in Environmental Clearance (EC).

The key points of the proposal and presentation made before the committee are as follows :

It is in reference to the project *"Tubed Coal Mine of M/s Damodar Valley Corporation (Area: 460 Ha., Capacity: 6 MTPA), Village – Tubed, Mangra, Dihi, Ambajharan, Dhobiajharan, Nawari, Tehsil – Latehar, District – Latehar, State – Jharkhand"* submitted by you for seeking amendment in Environment Clearance.

M/s. Damodar Valley Corporation (DVC) has been accorded Environment Clearance vide letter No J-11015/54/2017-IA. II (M) dated 28.04.2020 for Tubed Coal Mining Project (Area 460 ha) with Coal production capacity of 6.0 Million TPA at Villages Tubed, Mangra, Dihi, Ambajharan, Dhobiajharan, Nawari, Tehsil & District Latehar, State Jharkhand

- ✓ As per Specific Condition No. XV of Environment Clearance Letter dated 28.04.2020 *"No transportation of coal shall be carried by road after commission of proposed railway siding near the coal mine i.e. after 36 months from the due date of issue of EC".*
- ✓ As per Specific Condition No. XXIII of Environment Clearance Letter dated 28.04.2020 *"Install in pit conveyor from the pit bottom up to the silo loading point/ rapid loading system within 3 yrs and further no transportation shall be carried over by trucks to railway siding".*

Action initiated by DVC since its allotment of Tubed coal block in 2016 is outlined below:

Sl. No.	Date	Activity	Description
1	16.05.2017	Appointment of consultant	RITES was appointed by East Central Railway (ECR) as consultant for Tubed railway connectivity and the Letter of Acceptance was issued. This marks the beginning of the documented railway-connectivity development process for Tubed Coal Mine.

2	27.09.2018	Feasibility study	RITES submitted the feasibility report to ECR. DVC continued pursuing the proposed rail connectivity on the basis of the feasibility work.
3	26.06.2019	In-principle approval	ECR accorded in-principle approval based on the feasibility report. The project moved from feasibility to survey/DPR development.
4	2019	Survey of original Demu–Kaima/Tubed alignment	RITES commenced survey of the original alignment. Survey could not be completed in Bishanpura due to local resistance and field-level hindrances. Incomplete field survey became an early constraint in progressing the original route.
5	28.04.2020	Environmental Clearance for Tubed Coal Mine	MoEF&CC granted Environmental Clearance for the 6 MTPA Tubed Coal Mine. The EC for railway-based coal evacuation and restriction on road transportation after commissioning of the proposed railway siding. The railway connectivity became an important compliance-linked component of the coal evacuation system.
6	2020	DPR for Demu–Tubed connectivity	RITES resumed survey in selected stretches and submitted the DPR for the original connectivity. DVC continued coordination with ECR/RITES for further railway processing.
7	10.08.2020	In-principle approval of railway project	ECR accorded in-principle approval based on the DPR, subject to observations/conditions. The original railway proposal advanced to formal project processing.
8	28.03.2022	Forest Clearance Stage II	Forest clearance stage II was granted on 28.03.2022 & handing over of forest land was done on 11.06.2022.
9	November 2022	Commencement of Over burden	Tubed Mine commenced Over burden from November 2023.
10	January	Commencement	Tubed Mine commenced coal production. The need for a dependable permanent evacuation system

	2023	of coal production	became operationally significant.

Amendment in Specific Condition no XV and XXIII of Environment Clearance letter dated 28.04.2020 was granted by MoEF&CC, New Delhi vide letter No J-11015/54/2017-IA.II (M) dated 30.08.2023

- ✓ As per Specific Condition No. 1.1 of Amendment in Environment Clearance Letter dated 30.08.2023 *"Install in-pit conveyor from the pit bottom up to the silo loading point/rapid loading system within 3 yrs w.e.f 27.04.2023. During the period the coal transportation shall be made through road through tarpaulin covered trucks".*
- ✓ As per Specific Condition No. 1.4 of Amendment in Environment Clearance Letter dated 30.08.2023 *"No transportation of coal shall be carried by road after commission of proposed belt conveyor and railway siding i.e. after 36 months w.e.f. 27.04.2023. SPCB shall grant the CTO accordingly.*

Action taken by DVC after the 1st amendment in EC dated 30.08.2023 is detailed below:

Sl.	Date / Period	Event / Activity	Description
1	15.12.2023	Review of original Demu–Tubed alignment	ECR reviewed the status. Approximately 4 km remained unsurveyed due to persistent local resistance/agitation; a major bridge over the Auranga River, high project cost and other technical issues were also noted. The original alignment faced combined survey, social, engineering and cost constraints.
2	08.02.2024	Demu–Tubed proposal placed in abeyance	Railway declined DVC's request for extension and kept the Demu–Tubed proposal in abeyance. Subsequent review recorded constraints involving reserve forest, institutions/habitation, water bodies and coal-bearing areas. The original route ceased to be the practical basis for final connectivity.
3	12.02.2024	DRM/ECR–DVC review and alternative	The earlier Demu alignment was reviewed and considered infeasible. Chetar–Banhardih–Rajbar was identified as the optimal alternative, with comparatively lower cost and land-acquisition

		identified	implications; Rajbar–Tubed was noted at about 8 km. This marks the principal shift toward the integrated Chetar–Banhardih–Rajbar–Tubed corridor. RITES had surveyed 20 km of an earlier 24 km work; the remaining 4 km could not be surveyed due to local agitation and the RITES contract was terminated.
4	23.04.2024	Review of evacuation strategy	DVC was recorded as exploring evacuation routes/options with emphasis on minimum rehabilitation, reduced rail distance, smooth operation, low pollution and minimum environmental impact. The approach moved from a single route to comparative assessment of alternative corridors.
5	30.05.2024	Joint consideration of Chetar–Banhardih–Rajbar–Tubed	Railway, PVUNL, TVNL and DVC examined an integrated corridor. Rajbar take-off was proposed from the PVUNL siding bulb and DVC Tubed take-off at Rajbar; alternatives to bypass coal blocks were considered. The concept evolved into a regional/common-user corridor rather than an isolated Tubed siding.
6	30.05.2024–05.06.2024	Comparative study of alternatives	The Chetar–Banhardih–Rajbar option emerged as most optimal on cost and land acquisition. The study sought to avoid reserve forest, settlements, infrastructure, hill terrain and coal-bearing areas as far as practicable. The alignment was refined using technical, land, mining and environmental considerations.
7	27.06.2024	Chetar/PVUNL R&D take-off examined	Railway recorded that separate connectivity from Chetar Station was constrained/saturated; connectivity through the Banhardih/PVUNL R&D yard was therefore examined, subject to avoiding the Banhardih coal-block boundary and resolving

			land/cost issues. The practical take-off shifted toward the Banhardih/PVUNL corridor.
8	27.06.2024	DVC proposed shorter integrated alignment	DVC proposed an approximately 20-km route through the boundaries of Banhardih, Rajbar E&D, Rajbar ABC, future Aragundi and Tubed mines. DVC sought a shorter integrated corridor serving multiple mines and reducing future rerouting.
9	25.09.2024	Divisional approval of preferred alignment	ECR informed that the alignment had been approved at divisional level and DPR preparation by the Construction Department was in progress for submission to Railway Board. The preferred corridor moved from option assessment to formal DPR preparation.
10	03.01.2025	Final DPR stage	ECR recorded that the final DPR for Tubed connectivity with Chetar Station was to be deposited by Construction Division ECR to HQ on 06.01.2025.
11	03.02.2025	Route confirmed after joint examination	The meeting recorded that Demu–Tubed was not feasible based on the RITES survey. Option-3 became the agreed alignment subject to further survey and statutory confirmation.
12	03.02.2025	Further survey and mine/land conditions examined	Railway Construction was directed to survey Tubed with Kusmahi and Rajbar to Chetar. Rajbar ABC/Aragundi mining status, Banhardih land acquisition and avoidance of NTPC/PVUNL mining areas were also discussed. The preferred alignment was being technically optimized against mine-boundary and land constraints.
13	07.02.2025	DVC consent for deposit-basis construction	DVC gave consent to execute the Banhardih–Rajbar–Tubed new line on deposit basis. The selected connectivity obtained a funding/implementation pathway through deposit work.

14	14.05.2025	Fresh FLS and Banhardih–Rajbar–Tubed route found suitable	At the Chairman/DVC–GM/ECR coordination meeting, the Demu–Tubed alignment was recorded as infeasible. A fresh FLS from Banhardih to Tubed via Rajbar was conducted and found suitable; DPR was under discussion. The documentary basis for proceeding with Banhardih–Rajbar–Tubed was strengthened.
15	16.05.2025	Record of 14.05.2025 meeting / revised ECR record	The revised ECR record confirmed the decision for the Banhardih–Rajbar–Tubed line and deposit-work approach. This continuity between the meeting decision and the formal ECR/DVC correspondence.
16	23.05.2025	ECR submission of DPR for deposit execution	ECR informed DVC that the FLS had been conducted and a DPR cum detailed estimate had been prepared at Rs. 485.38 crore. Departmental components were Civil Engineering Rs. 351.68 crore, S&T Rs. 52.12 crore, Electrical (TRD) Rs. 78.66 crore and Electrical (G) Rs. 2.92 crore. ECR formally forwarded both DPR volumes for DVC consent for execution on deposit terms.
17	15.07.2025	DPR review and execution planning	DVC reviewed the DPR and sought/considered clarifications. ECR agreed to provide expenditure phasing and a three-year execution plan. Co-user permission from NTPC was also discussed; urgency was linked to the applicable environmental/road-cum-rail consent window. The project progressed from alignment selection to DPR scrutiny, financial phasing and execution planning.
18	05.09.2025	DVC requested modification to avoid Rajbar ABC	DVC requested modification of the final alignment so that the railway line would avoid the Rajbar ABC Mine boundary and future operational/land-related complications. This initiated another alignment refinement after scrutiny of the Railway DPR.
19	06.11.2025	Railway review of revised	Railway Construction Department agreed to revise the DPR after considering stakeholder suggestions.

		connectivity	DVC reiterated concerns regarding the Rajbar ABC mine area and proposed an alternative alignment. The alignment/DPR entered another revision cycle driven by mine-boundary considerations. However, M/s DVC has issued concern over the proposed alignment from Banhardih to Tubed as it crosses the Rajbar ABC mine and the ministry of coal has denied NOC for M/s DVC passing lines from the mine area. Therefore, M/s DVC has proposed alternation in proposed alignment so that Rajbar ABC mine is avoided.
20	04.04.2026	Revised alignment discussed	ECR Construction Division submitted a revised alignment plan. DVC pointed out that the proposed approximately 1,500 m siding would pass through the Tubed Coal Block, West Tubed area and river stretch, affecting mine planning, increasing cost and creating operational constraints. DVC requested shortening/re-examination of the siding/alignment.
21	08.04.2026	Integrated railway evacuation concept	Railway and stakeholders discussed a master plan, two-phase execution and common-user infrastructure. DVC requested modification so the track would pass predominantly through its own coal-block area and raised concerns regarding cost escalation. The project was further examined as an integrated evacuation corridor.
22	20.04.2026	High-level implementation review	Railway reviewed traffic, common-user corridor, cost sharing and land acquisition. Rajbar–Tubed alignment remained under finalization and survey was affected by local disturbances. DVC assured coordination with State Government authorities to help resolve local issues and enable survey.
23	15.05.2026	Review of Rajbar–Tubed alignment and siding	At the joint ECR-Dhanbad–Railway Construction–DVC review, DVC proposed revised alignment avoiding the western side of Tubed Coal Mine and

		configuration	river crossing and suggested shifting the siding yard toward the unallocated Aragundi block.
24	22.05.2026	DVC consent to Railway for deposit execution	DVC Resolution No. 9617 conveyed the decision to proceed with the Banhardih–Rajbar–Tubed New Line on deposit terms through DVC funding at an estimated Rs. 485.38 crore. A corrigendum states that the date in letter No. 381, 22.05.2025. The documentary record establishes DVC's willingness to fund/execute the project on deposit basis, with the date discrepancy expressly corrected.

Again, Amendment in Specific Condition no XV and XXIII of Environment Clearance letter dated 28.04.2020 was granted by SEIAA, Jharkhand vide letter No EC/SEIAA/2025-26/4068/2025 dated 26.05.2026 with following specific conditions:

- ✓ **Specific Condition No 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 months i.e. up to 26.10.2026".**
- ✓ **Specific Condition No 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".
- ✓ **Specific Condition No 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".
- ✓ **Specific Condition No 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"**

Action taken by DVC after 2nd amendment in EC dated 26.05.2026 is detailed below:

Sl.	Date / Period	Event / Activity	Description

1	26.05.2026	Second EC amendment / six-month extension	SEIAA, Jharkhand issued the second amendment to the Environmental Clearance dated 26.05.2026, amending the prior EC framework for the Tubed Coal Mining Project, validity upto 26.10.2026.
2	16.06.2026	DVC submitted revised final alignment to Railway	DVC proposed the final alignment from Rajbar to the vicinity of the Aragundi Mine block boundary and noted that Banhardih–Rajbar alignment had already been prepared by Railway Construction Division, Hazaribagh. This was the formal submission of the revised final alignment immediately preceding Railway's survey-data requirement.
3	17.06.2026	Railway required detailed survey data	ECR requested ground coordinates with RLs at specified intervals, LiDAR orthophotos and TBM details for the revised Rajbar–Tubed alignment to enable L-Section preparation, alignment finalization and initiation of land acquisition. The Railway requirement made fresh detailed field survey a necessary precondition for further DPR/alignment processing.
4	23.06.2026	Work Order for conveyor feasibility	DVC/MDO issued a Work Order for feasibility of a coal conveying system integrated with the Rapid Loading System. This supported the integrated long-term coal evacuation concept alongside railway connectivity. A scheme for Coal Handling System was submitted for evacuation of coal from Tubed Coal Mines to the proposed Aragundi siding.
5	24.06.2026	Work Order for LiDAR and Ground Topographical Survey	A Work Order was issued to the survey agency for LiDAR and Ground Topographical Survey of the revised Rajbar–Tubed alignment. DVC/Project Proponent acted on Railway's 17.06.2026 requirement rather than leaving the survey pending.
6	08.07.2026	Detailed survey commenced	The appointed survey agency commenced the detailed LiDAR/Ground Topographical Survey.

			The record demonstrates commencement of the field work required for Railway's finalization process.
7	09.07.2026	Proposal for additional time for Railway-approved DPR	DVC submitted a proposal to SEIAA for extension up to 26.10.2026 for submission of the final DPR duly approved by Railway, explaining that finalization depended upon Railway technical requirements, alignment optimization, detailed surveys and Railway approval. The request linked the remaining regulatory timeline to activities outside a simple DPR drafting exercise.
8	10.07.2026	Survey disrupted at Aragundi	During drone-based survey at Aragundi, local resistance/public agitation disrupted the survey activity. The record includes reporting/received copy and FIR-related material. The field-level obstruction interrupted the survey after it had already commenced.
9	10.08.2026	DVC requested administrative/security support	DVC letter No. DVC/Tubed/2026/323 requested the Deputy Commissioner, Latehar, to provide administrative support and directions to concerned officials, police and local stakeholders for completion of the balance survey. DVC took formal administrative action to enable completion of the Railway survey.
10	21.08.2026	Further follow-up with Railway	The consolidated chronology records a further DVC follow-up to the Railway Authority seeking expeditious finalization of the revised alignment and DPR. The record shows continued correspondence with Railway after the survey disruption and administrative intervention.
11	August 2026	Railway connectivity remains under active implementation process	The documentary records indicate that completion of balance survey inputs, incorporation of survey outputs in the DPR and Railway scrutiny/approval remained the key next steps. The overall record reflects continued technical, administrative and field-level action by DVC.

12	05.09.2026	Order Regarding Deployment of Magistrate and Police Force for Drone Survey Work for Railway Line Construction at Tubed Coal Mines, Latehar	This is an order dated 05.09.2026 from the Office of the Sub-Divisional Officer, Latehar, appointing Shri Vishwajeet Pratap Singh, Circle Inspector as Magistrate and directing the Latehar Police Station to deploy police force (including female force) to maintain law & order during the drone survey for the Rajbar to Tubed Coal Mines railway line, after villagers of Aragundi opposed the survey work.
13	16.09.2026	SDO Latehar Order for Police & Magistrate Deployment for Drone Survey at DVC Tubed Coal Mines on 19.09.2026	SDO Latehar appointed Circle Inspector as Magistrate and ordered police force (with female force) for drone survey work of railway line at Aragundi village, as villagers were opposing the work.
14	19.09.2026	Survey at Aragundi (Remaining 3.7 km)	Survey at Aragundi was again disrupted due to local resistance/law-and-order issues

Timeline for construction of Railway corridor & siding:

SN	Component	Status/Implementation Schedule	Predecessor	Completion Date
1	Proposed realigned Railway route	Realigned and agreed in principle on 16.06.2026	-	Completed
2	Survey Work Order	Work Order issued on 24.06.2026	1	Completed
3	Field Survey	In progress*(the local issues to be sorted to continue the survey). Additionally, Railway authorities have also been requested to conduct the survey.	2	31.03.2027
4	Finalization of alignment and preparation of land schedule	To be started after completion of Field Survey	3	30.04.2027
5	Preparation & updation of DPR based on final revised alignment.	This activity shall be started after completion of FLS & preparation of land schedule.	4	30.09.2027

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6	Consent of DVC to Railways to take up the execution & issue of Work-order by Railways for construction of Railway Line	To commence after approval of DPR, acquisition of land and other necessary clearances	5	31.12.2027
7	Acquisition of land and obtaining other necessary clearances and approval by railways.	This activity will be started after the updation of DPR with final revised alignment.	6	31.12.2028
8	Laying of Track, testing & Commissioning of Railway Siding	To commence after contractor mobilisation & supply of material	7	31.12.2030

Timeline for construction of Conveying System from Mine to proposed Railway Siding at Aragundi:

SN	Component	Status/Implementation Schedule	Predecessor	End Date
1	Preparation of scheme for conveying system	Completed	-	Completed
2	Due to technical challenges in the above scheme, Comprehensive Scientific Study for exploring the alternative options for Conveying/ handling/ evacuation system from Tubed Mines to proposed Railway Siding at Aragundi	Under Tendering Process	-	30.04.2027
3	Issuance of Work-order for construction of Conveying System as recommended by the scientific study upto railway siding and construction of Silo/Rapid loading system at Aragundi Railway siding	After approval of Railway DPR & Comprehensive Scientific Study	2	30.10.2027
4	Survey Work	After issuance of Work Order	3	31.12.2027

5	Contractor Mobilization	Immediately after Work Order & Survey work	4	31.03.2028
6	Construction of Conveying System along Silo/Rapid loading system as recommended by the scientific study	After contractor mobilisation & supply of material	5	30.09.2030
7	Testing & commissioning	After completion of construction	6	31.12.2030

PROJECT and LOCATION Details:

Sl	Parameter		Details	
1	Project Name	:	Tubed Coal Mine	
2	Lessee:	:	M/s Damodar Valley Corporation Hotel the Carnival Complex, 1st Floor Jublee Road, Latehar, Dist Latehar, Jharkhand	
3	Lease Address	:	Hotel the Carnival Complex, 1st Floor Jublee Road, Latehar, District Latehar, Jharkhand	
4	Lease Area	:	Ha: 460 ha	Acres: 1136.68 Acres
5	Type of Land	:	Forest Land: 162.39 Ha, Non-Forest Land: 297.61 Ha	
6	Project Cost	:	Rs. 1300 Crores/-	
7	Proposal	:	Amendment in EC	
8	Mineable Reserves	:	Coal: 130.25 Mtes	
9	Mine Life	:	30 Years	
10	Man power	:	400	
11	Water Requirement	:	700 KLD	
12	Water Source	:	Mine seepage & rain water stored in mine sump	
13	DG Set / power	:	6.9 MW from DVC Substation	
14	Crusher		No	
15	Nearest Water Body	:	Sukri River flows through the M.L area.	
16	Nearest Habitation	:	Tubed (within the lease area)	
17	Nearest Railway Station	:	Latehar railway station (15 KM)	
18	Nearest Air Port	:	Ranchi (110 KM)	
19	Nearest Forest	:	Within Project boundary	
20	Road & Highways	:	NH-39 (approx. 9.45 km)	
21	Distance of nearest ESZ of Wildlife Sanctuary or	:	The project location is at approx. 12.62 KM from the nearest Eco Sensitive Zone of Palamau Wildlife Sanctuary, Mahuadanr Wolf Sanctuary and Betla National Park.	

	National Park		

CO-ORDINATES

Point ID	Longitude (X)	Latitude (Y)
1	84°34' 1.993" E	23°49' 17.307" N
2	84°34' 2.247" E	23°49' 18.143" N
3	84°34' 1.933" E	23°49' 20.322" N
4	84°34'1.816" E	23°49' 21.221" N
5	84°34' 1.676" E	23°49' 22.227" N
6	84°34' 1.602" E	23°49' 22.891" N
7	84°34' 1.334" E	23°49' 25.418" N
8	84°34' 0.959" E	23°49' 28.545" N
9	84°34' 0.509" E	23°49' 32.625" N
10	84°34' 0.102" E	23°49' 36.126" N
11	84°33' 59.867" E	23°49' 38.192" N
12	84°33' 59.524" E	23°49' 41.340" N
13	84°33' 59.042" E	23°49' 45.367" N
14	84°33' 58.721" E	23°49' 48.290" N
15	84°34' 0.233" E	23°49' 49.349" N
16	84°34' 2.439" E	23°49' 50.918" N
17	84°34' 4.653" E	23°49' 52.477" N
18	84°34' 6.198" E	23°49' 53.618" N
19	84°34' 7.552" E	23°49' 54.585" N
20	84°34' 8.888" E	23°49' 55.534" N
21	84°34' 10.372" E	23°49' 56.582" N
22	84°34' 11.489" E	23°49' 57.394" N
23	84°34' 12.407" E	23°49' 58.045" N
24	84°34' 14.587" E	23°49' 59.614" N
25	84°34' 15.871" E	23°50' 0.549" N
26	84°34' 17.777" E	23°50' 1.906" N
27	84°34' 19.342" E	23°50' 3.033" N
28	84°34' 21.100" E	23°50' 4.301" N
29	84°34' 22.536" E	23°50' 5.322" N
30	84°34' 23.529" E	23°50' 6.038" N
31	84°34' 24.461" E	23°50' 6.720" N
32	84°34' 25.411" E	23°50' 7.412" N
33	84°34' 26.880" E	23°50' 8.445" N

34	84°34' 27.932" E	23°50' 9.218" N
35	84°34' 29.043" E	23°50' 10.003" N
36	84°34' 30.304" E	23°50' 10.897" N
37	84°34' 30.670" E	23°50' 10.592" N
38	84°34' 30.755" E	23°50' 10.517" N
39	84°34' 32.116" E	23°50' 9.300" N
40	84°34' 33.456" E	23°50' 8.132" N
41	84°34' 35.063" E	23°50' 6.748" N
42	84°34' 35.854" E	23°50' 6.042" N
43	84°34' 36.954" E	23°50' 5.052" N
44	84°34' 38.503" E	23°50' 3.719" N
45	84°34' 40.011" E	23°50' 2.410" N
46	84°34' 41.224" E	23°50' 1.358" N
47	84°34' 42.872" E	23°49' 59.881" N
48	84°34' 44.167" E	23°49' 58.843" N
49	84°34' 45.226" E	23°49' 57.938" N
50	84°34' 46.514" E	23°49' 56.832" N
51	84°34' 48.224" E	23°49' 55.317" N
52	84°34' 49.368" E	23°49' 54.303" N
53	84°34' 50.701" E	23°49' 53.124" N
54	84°34' 51.808" E	23°49' 52.172" N
55	84°34' 52.935" E	23°49' 51.144" N
56	84°34' 54.076" E	23°49' 50.143" N
57	84°34' 55.608" E	23°49' 48.793" N
58	84°34' 56.132" E	23°49' 48.413" N
59	84°34' 57.338" E	23°49' 47.238" N
60	84°34' 58.524" E	23°49' 46.141" N
61	84°34' 59.425" E	23°49' 45.274" N
62	84°35' 0.531" E	23°49' 44.202" N
63	84°35' 1.323" E	23°49' 43.455" N
64	84°35' 2.094" E	23°49' 42.756" N
65	84°35' 2.666" E	23°49' 42.081" N
66	84°35' 2.889" E	23°49' 41.868" N
67	84°35' 4.208" E	23°49' 40.638" N
68	84°35' 5.188" E	23°49' 39.706" N
69	84°35' 5.945" E	23°49' 38.997" N

70	84°35' 6.953" E	23°49' 38.041" N
71	84°35' 8.025" E	23°49' 37.030" N
72	84°35' 9.121" E	23°49' 36.002" N
73	84°35' 9.868" E	23°49' 35.310" N
74	84°35' 10.403" E	23°49' 34.868" N
75	84°35' 11.281" E	23°49' 34.069" N
76	84°35' 12.350" E	23°49' 33.079" N
77	84°35' 13.584" E	23°49' 31.945" N
78	84°35' 14.745" E	23°49' 30.862" N
79	84°35' 15.862" E	23°49' 29.834" N
80	84°35' 17.538" E	23°49' 28.241" N
81	84°35' 18.658" E	23°49' 27.234" N
82	84°35' 19.555" E	23°49' 26.407" N
83	84°35' 19.672" E	23°49' 26.291" N
84	84°35' 21.009" E	23°49' 25.099" N
85	84°35' 21.516" E	23°49' 24.640" N
86	84°35' 21.879" E	23°49' 24.280" N
87	84°35' 22.986" E	23°49' 23.245" N
88	84°35' 23.466" E	23°49' 22.704" N
89	84°35' 24.353" E	23°49' 21.744" N
90	84°35' 25.223" E	23°49' 20.867" N
91	84°35' 26.330" E	23°49' 19.706" N
92	84°35' 27.934" E	23°49' 17.996" N
93	84°35' 29.033" E	23°49' 16.958" N
94	84°35' 30.000" E	23°49' 16.050" N
95	84°35' 31.172" E	23°49' 14.929" N
96	84°35' 32.114" E	23°49' 14.045" N
97	84°35' 33.149" E	23°49' 13.058" N
98	84°35' 34.207" E	23°49' 12.041" N
99	84°35' 35.040" E	23°49' 11.194" N
100	84°35' 35.876" E	23°49' 10.434" N
101	84°35' 36.668" E	23°49' 9.759" N
102	84°35' 37.223" E	23°49' 9.351" N
103	84°35' 37.651" E	23°49' 9.056" N
104	84°35' 37.994" E	23°49' 8.846" N
105	84°35' 37.774" E	23°49' 8.726" N

106	84°35' 36.585" E	23°49' 8.100" N
107	84°35' 35.333" E	23°49' 7.420" N
108	84°35' 30.144" E	23°49' 4.636" N
109	84°35' 27.610" E	23°49' 3.471" N
110	84°35' 26.556" E	23°49' 2.937" N
111	84°35' 26.083" E	23°49' 2.697" N
112	84°35' 24.076" E	23°49' 1.673" N
113	84°35' 21.715" E	23°49' 0.468" N
114	84°35' 16.394" E	23°48' 57.736" N
115	84°35' 16.261" E	23°48' 57.669" N
116	84°35' 15.212" E	23°48' 57.139" N
117	84°35' 13.177" E	23°48' 56.120" N
118	84°35' 13.066" E	23°48' 56.061" N
119	84°35' 11.597" E	23°48' 55.273" N
120	84°35' 10.783" E	23°48' 54.817" N
121	84°35' 9.768" E	23°48' 54.204" N
122	84°35' 8.586" E	23°48' 53.514" N
123	84°35' 7.906" E	23°48' 53.138" N
124	84°35' 6.875" E	23°48' 52.491" N
125	84°35' 5.967" E	23°48' 51.874" N
126	84°35' 4.703" E	23°48' 51.107" N
127	84°35' 3.538" E	23°48' 50.305" N
128	84°35' 2.931" E	23°48' 49.918" N
129	84°35' 1.612" E	23°48' 49.041" N
130	84°35' 0.965" E	23°48' 48.616" N
131	84°35' 0.154" E	23°48' 48.087" N
132	84°34' 59.707" E	23°48' 47.804" N
133	84°34' 58.936" E	23°48' 47.267" N
134	84°34' 58.301" E	23°48' 46.828" N
135	84°34' 57.720" E	23°48' 46.581" N
136	84°34' 57.499" E	23°48' 46.439" N
137	84°34' 56.254" E	23°48' 45.645" N
138	84°34' 54.342" E	23°48' 44.363" N
139	84°34' 51.601" E	23°48' 42.431" N
140	84°34' 50.093" E	23°48' 41.327" N
141	84°34' 48.264" E	23°48' 39.936" N

142	84°34' 47.030" E	23°48' 38.977" N
143	84°34' 44.878" E	23°48' 37.209" N
144	84°34' 43.261" E	23°48' 35.749" N
145	84°34' 41.562" E	23°48' 34.187" N
146	84°34' 40.417" E	23°48' 33.063" N
147	84°34' 38.937" E	23°48' 31.439" N
148	84°34' 37.978" E	23°48' 30.472" N
149	84°34' 36.456" E	23°48' 29.068" N
150	84°34' 35.401" E	23°48' 28.156" N
151	84°34' 34.318" E	23°48' 27.306" N
152	84°34' 33.400" E	23°48' 26.649" N
153	84°34' 32.639" E	23°48' 26.196" N
154	84°34' 31.817" E	23°48' 25.785" N
155	84°34' 30.816" E	23°48' 25.360" N
156	84°34' 30.001" E	23°48' 25.011" N
157	84°34' 29.089" E	23°48' 24.565" N
158	84°34' 27.054" E	23°48' 23.674" N
159	84°34' 26.959" E	23°48' 23.859" N
160	84°34' 25.759" E	23°48' 26.196" N
161	84°34' 24.937" E	23°48' 27.855" N
162	84°34' 23.991" E	23°48' 29.746" N
163	84°34' 23.367" E	23°48' 30.986" N
164	84°34' 22.620" E	23°48' 32.474" N
165	84°34' 22.010" E	23°48' 33.707" N
166	84°34' 21.117" E	23°48' 35.483" N
167	84°34' 20.480" E	23°48' 36.760" N
168	84°34' 20.062" E	23°48' 37.623" N
169	84°34' 19.494" E	23°48' 38.761" N
170	84°34' 18.888" E	23°48' 39.960" N
171	84°34' 17.999" E	23°48' 41.693" N
172	84°34' 16.820" E	23°48' 44.085" N
173	84°34' 15.106" E	23°48' 47.498" N
174	84°34' 14.904" E	23°48' 47.881" N
175	84°34' 14.427" E	23°48' 48.819" N
176	84°34' 13.386" E	23°48' 50.914" N
177	84°34' 12.386" E	23°48' 52.864" N

178	84°34' 8.754" E	23°49' 0.002" N
179	84°34' 5.978" E	23°49' 5.527" N
180	84°34' 4.578" E	23°49' 8.290" N
181	84°34' 3.524" E	23°49' 10.230" N
182	84°34' 2.825" E	23°49' 11.644" N
183	84°34' 2.290" E	23°49' 12.698" N
184	84°34' 1.651" E	23°49' 13.906" N
185	84°34' 1.095" E	23°49' 15.019" N
186	84°34' 1.287" E	23°49' 15.494" N

Working Details

1	Mineable Reserve (Mte)	:	170.838
2	OB (Mcum)	:	280 Mcum
3	Stripping Ratio (cum/te)	:	2.15
4	Life (Years)	:	30 years
5	Dip of seams (Degree)	:	3 Degree -15 Degree
6	Strike Length (km)	:	3.13
7	Maximum depth (m)	:	235
8	Seams Considered	:	12 no. of seams (IT,II, III B, III M, III T, IV B, IV T, VB, VT, VII C, VII B, VII T)
9	Minimum Seam Thickness (m)	:	1.2
10	Maximum Seam Thickness (m)	:	11
11	Grade of Coal	:	F Grade
12	Area of Excavation	:	350 Ha
13	Method of Mining	:	Open cast mining with Shovel-Dumper & Surface Miner)
14	Coal Evacuation	:	Through Kushmahli Siding (40 km from mine site). Proposed for Biratoli siding, (50 km from Mine site) and any other suitable siding coming up in near future.

Proposed Calendar Plan as per EC

YEAR	COAL (Mtes)		OB+T.S. (Mm3)		S.R. (m3/te)	
	YRL	PROG	YRL	PROG	YRL	PROG
1st	1.0	1.0	4.87	4.87	4.87	4.87
2nd	2.15	3.15	8.6	13.47	4.0	4.27

3rd	4.0	7.15	12.04	25.51	3.01	3.56
4th	5.0	12.15	15.0	40.51	3.0	3.33
5th	6.0	18.15	15	55.51	2.5	3.06
6th	6.0	24.15	15	70.51	2.5	2.92
7th	6	30.15	15	85.51	2.5	2.84
8th	6	36.15	15	100.51	2.5	2.78
9th	6	42.15	13	113.51	2.17	2.69
10th	6	48.15	13	126.51	2.17	2.62
11th	6	54.15	13	39.51	2.17	2.57
12th	6	60.15	13	152.51	2.17	2.53
13th	6	66.15	12	164.51	2.0	2.48
14th	6	72.15	12	176.51	2.0	2.45
15th	6	78.15	12	188.51	2.0	2.41
16th	6	84.15	12	200.51	2.0	2.38
17th	6	90.15	12	212.51	2.0	2.36
18th	6	96.15	12	224.51	2.0	2.33
19th	6	102.15	12	136.51	2.0	2.31
20th	6	108.15	12	248.51	2.0	2.29
21st	6	114.15	12	260.51	2.0	2.28
22nd	6	120.15	9	269.51	1.5	2.24
23rd	5	125.15	6	275.51	1.2	2.20
24th	3	128.15	3	278.51	1.0	2.17
25th	2.1	130.55	2	280.51	1.0	0.15
Total		**130.55**		**280.51**		**2.15**

1. OB-Over Burden
2. TS-Top Soil
3. SR-Stripping Ratio

Plot Details

Village	Khata No & Plot No	
	Khata No	**Plot No**
Tubed, Mangra, Di hi, Ambajharan, Dh obiajharan, Nawari	**Mangra** **CS:** 25, 21, 1, 16, 4, 9, 8, 5, 2. **RS:** 6, 33, 35, 36, 49, 52, 55, 56, 57, 59, 60, 69, 71, 80, 86, 93,	**Mangra** CS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 26, 27, 29, 76, 77, 80, 81, 82, 83, 95, 96,

	108, 116, 117. **Tubed** **CS:** 23, 7, 13, 2, 30, 12, 5, 22, 27, 1, 9, 21, 15, 15, 30, 16, 17, 8,26, 19, 25, 31, 6, 14, 10, 24, 18, 3, 29, 11. **RS:** 1, 5, 6, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 103, 24, 28, 29, 30, 31, 32, 34, 39, 41, 46, 49, 51, 59, 60, 61, 63, 64, 65, 70, 71, 72, 73, 74, 75, 76, 82, 86, 87, 89, 90, 91, 92, 96, 97, 102. **Dihi** **CS:** 30, 46, 91, 1, 83. **RS:** 11, 24, 47, 79, 87, 122, 131, 228. **Ambajharan** **CS:** 33, 26, 2, 27, 7, 56, 19, 10, 3, 35, 49, 25, 31, 32, 23, 11, 12, 45, 46, 39, 38, 15, 16, 13, 51, 50, 17, 30, 5, 9, 28, 44, 53, 55, 1, 47, 37, 57. **RS:** 8, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 41, 44, 45, 46, 47, 48, 49, 52, 54, 55, 56, 57. **Dhobiajharan** **CS:** 3, 21, 31, 43, 24, 25, 28, 13, 18, 35, 34, 27, 10, 32, 40, 2, 39, 12, 19, 16, 36, 11, 5, 4, 37, 17, 33, 23, 8, 9, 15, 7, 26, 22, 14, 38, 41, 6, 29, 30, 1, 20, 42, 44. **RS:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,	474, 475, 13, 76, 3, 13,3, 6, 19. **RS:** 4, 7, 8, 3, 26, 27, 1, 2, 5, 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 28, 29, 30, 35, 36, 39, 48, 52, 53, 54, 22, 33, 34, 37, 38, 42, 32, 41, 44, 40, 43, 46, 96, 97, 98, 100, 102, 44/1569, 47, 49, 50, 51, 92, 93, 94, 95, 88, 90, 91, 55, 56, 58, 59, 84, 57, 60, 61, 63, 74, 83, 85, 86, 87, 89, 62, 68, 71, 65, 66, 67, 72, 73, 75, 76, 145, 70, 77, 78, 137, 80, 81, 79, 131,82, 130, 132, 133, 134, 127, 128, 104, 306, 307, 308, 309, 311, 312, 315, 313, 314, 310, 333, 337, 356, 359, 347, 348, 349, 350, 354, 355, 357, 358, 360, 361, 362, 164, 166, 154, 155, 156, 157, 162, 163, 170, 165, 158, 159, 167, 168, 169, 160, 161, 545, 546, 548, 549, 550, 547, 556, 558, 557, 591, 592, 593, 594, 595, 599, 600, 601, 618, 336, 339, 340, 341, 342, 343, 344, 345, 346, 351, 352, 353, 338, 363, 148, 150, 151, 152, 153, 64, 45, 101. **Tubed** **CS :** 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 56, 269, 292, 293, 298, 300, 301, 302, 304, 305, 307, 308, 309, 310, 313, 315, 316, 317, 318, 319, 320, 323, 324, 325, 326, 327, 330, 332, 333, 335, 336, 341, 342, 343, 344, 347, 349, 350, 352, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 365, 366, 368, 369, 370, 373, 374, 375, 376, 377, 378, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389,

12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 52, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66,67,68, 69, 70, 71,72, 73, 74, 75, 76, 77, 78, 79, 80.

Nawari (Newari)

CS: 16, 55, 46, 7, 88, 14, 59, 2, 83, 74, 73, 69, 75, 61, 66, 36, 21, 30, 76, 15, 71, 34, 44, 33, 1, 11, 57, 26, 18, 5, 29, 22, 48, 79, 47, 60, 62, 85, 89.

RS: 2, 3, 6, 7, 8, 9, 10, 12, 16, 20, 22, 24, 25, 30, 34, 39, 43, 49, 52, 55, 58, 61, 62, 66, 67, 68, 69, 70, 73, 74, 76, 77, 83, 84, 85, 86, 88, 91, 94, 97, 99, 101, 105, 107, 113, 116, 121, 122, 123, 130, 131, 133, 134, 138, 141, 143, 150, 151, 153, 155, 157, 158, 159.

390, 391, 393, 394, 395, 396, 398, 399, 400, 401, 402, 406, 408, 409, 411, 413, 424, 425, 426, 428, 430, 431, 432, 433, 434, 436, 437, 438, 439, 442, 443, 444, 446, 447, 448, 449, 450, 452, 453, 454, 456, 459, 460, 461, 462, 463, 464, 465, 466, 467,468, 469, 470, 471, 472, 475, 476, 481, 482, 484, 487, 489, 491, 492, 495, 497, 498, 499, 500, 501, 502, 506, 507, 508, 509, 510, 511, 512, 513, 514, 516, 517, 518, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 337, 538, 539, 540, 541, 542, 544, 545, 546, 548, 549, 551, 552, 553, 554, 561, 3, 29, 328, 2, 99, 558, 345, 346, 3, 58, 367, 3, 71, 372, 378, 379, 3, 85, 383, 408, 410, 4, 27,428, 4, 44, 445, 446, 444, 4, 53, 454, 4, 76, 470, 4, 81, 482, 4, 85, 486, 49, 54, 69, 467, 495, 496, 4, 96, 495, 501, 494,
5, 13, 515, 525, 547.

RS: 99, 1114, 101, 103, 1113, 100, 104, 1112, 105, 1111, 109, 110,1110, 112, 113, 108, 96, 97, 98, 106, 107, 111, 114, 1084, 1109/1630, 1121, 1127, 1129, 1132, 1109, 1108, 1115, 1117, 1118, 1120, 1119, 1122, 1123, 1124, 1125, 1126, 1128, 1137, 1138, 1139, 1141, 1142, 1143, 1145, 1144, 1146, 1147, 1149, 1150, 1148, 1151, 1154, 1153, 1155, 1156, 1152, 1200, 1201, 1202, 1204, 1205, 1207, 1206, 1220, 1218, 1219,

		1221, 1194, 1195, 1199, 1223, 1193, 1192, 1160, 1187, 1190, 1191, 1157, 1159, 1161, 1162, 1163, 1164, 1180, 1183, 1184, 1185, 1186, 1189, 1188, 1182, 1181, 1158, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1179, 1329, 1330, 1173, 1174, 1175, 1177, 1327, 1328, 1233, 1224, 1226, 1227, 1229, 1230, 1231, 1232, 1235, 1236, 1238, 1239, 1228, 1240, 1241, 1242, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1257, 1255, 1256, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1285, 1286, 1287, 1289, 1295, 1299, 1305, 1306, 1307, 1309,1308, 1297, 1316, 1317, 1318, 1319, 1320, 1321, 1343, 1313, 1314, 1342, 1344, 1312, 1345, 1346, 1347, 1311, 1348, 1349, 1350, 1351, 1356, 1357, 1358, 1374, 1359, 1375, 1354, 1372, 1373, 1353, 1386, 1388,1389, 1390, 1391, 1392, 1393, 1407, 1336, 1337, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1394, 1, 39, 51, 396, 1338, 1339, 1340, 1323, 1324, 1325, 1326, 1332, 1331, 1333, 1335, 1496, 1486, 1491, 1492, 1408, 1490, 1493, 1494, 1495, 1497, 1498, 1499, 1500, 1501, 1514, 1486/1628, 1505, 1502, 1503,

		1504, 1516, 1519, 1520, 1515, 1518,1521,1522, 1526, 1527, 1529, 1593, 1530, 1517, 1524, 1525, 1594, 1595, 1586, 1599, 1600, 1585, 1567, 1587, 1588, 1589, 1533, 1534, 1537, 1590, 1591, 1592, 1531, 1532, 1535, 1536, 1538, 1543, 1506, 1507, 1510, 1509, 1511, 1545, 1546, 1544, 1547, 1548, 1539, 1540, 1550, 1541, 1559, 1558, 1552, 1553, 1557, 1551, 1549, 1489, 1508, 1481 , 1487 , 1488, 1482, 1455, 1474, 1476, 1477, 1479, 1480, 1554, 1556, 1475, 1485, 1483, 1484, 1466, 1467, 1469, 1468, 1473, 1457, 1458, 1456, 1453, 1444, 1459, 1462, 1463, 1472, 1464, 1470, 1471, 1409, 1438, 1465, 39, 1446, 1443, 1441, 1440, 1447, 1448, 1449, 1450, 1451, 1452, 1445, 1460, 1461, 1454, 1626, 102, 1198, 1116, 1222, 1178, 1176, 1234, 1243, 1288,1298, 1371, 1355, 1406, 1598, 1584, 1512, 1513, 1542, 1478, 1436. **Dihi** **CS:** 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 15, 24. **RS:** 323, 307, 309, 310, 313, 312, 314, 311, 315, 316, 317, 318, 322, 324, 321, 320, 325, 326, 329, 306 **Ambajharan** **CS:** 1, 2, 19, 60, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 98, 99, 100, 101,

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Land

Land is acquired under Nationalization and CB Act vide SO N otification **S.O.3238(E) dated 2nd July 2018**

Land Use During Mining as per EC:

SN	Particular	Area (in Ha)
1	Forest Land	162.39
2	Government Land	62.37
3	Private Land	235.24
	Total Project Area	**460**

Proposed Post Mining Land Use as per EC

S. No.	Particulars	Area (Ha)
1	Agricultural Land	230

2	Forest Land	162.4
3	Waste Land	39
4	Grazing Land	-
5	Surface Water Bodies	22
6	Settlements	1
7	Other (Specify)	-
8	Old Excavation Area (East Quarry)	-
9	Old Excavation Area (West Quarry)	-
10	Old OB Dumps	-
11	Roads & Mine Infrastructure	5.6
12	R & R Colony	-
13	Staff Colony	-
14	Green Belt	-
15	Balance Area	-
Total Project Area		**460**

Proposed Post Mining Land Use as per EC

S. No.	Land Use	Land Use (ha.)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump	63	-	-	-	63
2	Top Soil Dump	-	-	-	-	-
3	Excavation	330	12	8	-	350
4	Road	3	-	4	-	7
5	Built-up Area	7	-	3	-	10
6	Green Belt	-	-	-	-	-
7	Undisturbed	-	-	-	-	-
8	Safety Zone/Rationalization Area	16	-	-	-	16
9	Diversion Below River/Nala/Canal	4	10	-	-	14
10	Water Body	-	-	-	-	-
11	Staff Colony	-	-	-	-	-
Total		**423**	**22**	**15**	**-**	**460**

Amendment Sought

Specific Condition No	2nd Amendment EC letter issued on 26.05.2026	Amendment being sought
5 (ii)	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 months, i.e. up to 26.10.2026.	Coal transportation shall continue through covered trucks to Kushmahi Siding and Biratoli Siding until commissioning of the permanent coal evacuation system comprising the railway siding/rail track up to Aragundi and the conveying system recommended through the scientific feasibility study, scheduled for commissioning by 31.12.2030.
5(iii)	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.	The in-pit belt conveying system from pit bottom up to the Silo/Ground Bunker/Rapid Loading System (RLS) is proposed. A conveyor alignment scheme has been prepared; for shape implantation of the proposed alignment, a technical study is required by an expert agency, which is targeted by 30.04.2027 and based on the report, necessary action will be taken
5 (iv)	The Project Authority shall ensure that the final Detailed Project Report (DPR) is completed and approved by the Railway Authorities and the	The DPR prepared by Railways has been accepted by DVC. The DPR shall be revised during implementation of the present DPR to incorporate the frozen railway realignment terminating at Aragundi by the Railways. Construction of the railway siding/rail track shall commence at 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.	earliest after obtaining the necessary approvals and clearances.
5(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.	The DPR has been prepared by the Railways and accepted by the DVC Board. Since it is prepared by the Railway it does not require any approval from Railway. Railway has been given a go-ahead by the DVC for further works. However, Railway has been requested to incorporate the changes in the DPR for the railway route up to Aragundi. Land acquisition, clearances, work order, construction, testing and commissioning of the railway siding/rail track shall be completed progressively, with commissioning targeted by 31.12.2030.

Justification for Delay

- The delay in commissioning the permanent coal evacuation system from Tubed OCP to Aragundi is attributable to the sequential technical, survey, design and statutory activities involved in finalising the railway realignment and the associated conveying system.
- The DPR prepared by Railways was accepted by DVC and the same has been informed to Railway to move ahead for the construction of rail corridor based on deposit work basis. It was found that the railway alignment was passing through Coal bearing and accordingly it was proposed to terminate the alignment up to Aragundi and conveying system would be implanted from Mines to Aragundi. The revised railway alignment was submitted to the Railway Authorities on 16.06.2026. The rail track realignment up to Aragundi has now been frozen for further development, while survey/detailing activities at Aragundi are being pursued.
- The field survey at Aragundi was disrupted on 10.07.2026 and again on 19.09.2026 due to local resistance/law-and-order issues. DVC subsequently approached the District Administration for administrative and security support for completion of the balance survey.
- The conveying system scheme has been prepared with provision for the in-pit belt conveying system through the Silo/Ground Bunker/Rapid Loading System (RLS) interface. However, because alternative alignment/handling options need to be technically evaluated in the context of hilly terrain, multi-seam working and faults, Sukri River/nala,

forest and land constraints and interfaces with adjoining coal blocks, a comprehensive scientific feasibility study by an expert agency is required.

- These activities are sequentially interlinked: balance survey/detailing → revision of DPR and Railway approval → land acquisition/clearances → Railway work order → construction and commissioning. In parallel, the conveyor scheme → scientific feasibility study → finalization of the conveying/RLS configuration → work order → construction and commissioning.
- Thus, the delay is associated with the railway realignment and survey requirements, local disruptions affecting field work, revision of the 2025 DPR to terminate the route at Aragundi, and the need for a scientific assessment of the conveying arrangements.

Status on progress of completion and approval of Detailed Project Report (DPR) by Railway Authorities

Date	Particular
04.04.2026 08.04.2026 20.04.2026 15.05.2026	Meeting with Railways and DVC for finalization of DPR wherein the need of revised Railway Alignment is discussed due to presence of coal-bearing areas and operational constraints
22.05.2026	DVC conveyed consent to Railway to proceed with the DPR/execution on a deposit basis.
16.06.2026	The revised Railway Siding proposal has been submitted by DVC to the Railway Authorities.
17.06.2026	ECR sought detailed survey inputs, including ground coordinates/RLs, LiDAR orthophotos and TBM details
23.06.2026	Work Order issued for feasibility study of the Coal Conveying System integrated with RLS.
24.06.2026	On the advice of DVC, Work Order was issued for LiDAR and Ground Topographic Survey of the revised Rajbar–Tubed alignment to M/s Aeroscan Technology LLP
08.07.2026	The preparations have been made to commence the survey. The Survey Team, along with local supporters, visited Aragundi and marked the proposed survey locations. The local Mukhiya, Gram Pradhan, villagers, and local leaders were informed about the Railway Alignment Survey scheduled for 10.07.2026.
10.07.2026	The police protection was sought from the district authorities.
10.07.2026	Survey at Aragundi was disrupted due to local resistance/law-and-order issues.
10.08.2026	DVC approached the Deputy Commissioner, Latehar, seeking administrative/security support for completion of the balance survey.
05.09.2026	Discussion was held with DC and SP Latehar to carry out & complete the survey work at Argundi for Railway line and they have instructed SDO Latehar and a

	magistrate has been posted for this purpose to organize/mobilize in due time
19.09.2026	Survey at Aragundi was again disrupted due to local resistance/law-and-order issues

Expenditure incurred / committed for the transport route up to Kushmahi and Biratoli Sidings

Mitigation / Environmental Measure	Expenditure (₹)
Water sprinkling / road dust suppression	₹ 2,04,15,400
Road maintenance / grading / repair	₹ 5,97,88,489
Environmental monitoring / air-quality assessment	₹ 32,92,290
Plantation along the coal transport route	₹ 1,82,000
Traffic Study & Air Quality Impact Prediction Study	₹ 4,55,000
Other dust-control / housekeeping measures	₹ 1,32,50,000
Total	**₹ 9,73,83,179**

Proposed Additional EMP for Coal Transportation Route: DVC is already working in **the field of measures for transportation. In addition to above,** overloading of trucks will be avoied. speed restriction will be done. Proper maintenance of machinery & equipment as per manufactures specification. Transport vehicle with valid PUC will be used. The exit road joining MDR will be provided with rumbler system / dry wheel cleaning system. Dust suppression will be carried out by means of water tankers. Internal as well as public road will be washed on daily basis. Road sweeping machine will be deployed on the transportation route. Traffic marshals will be deployed at the road junctions to ensure traffic discipline and compliance to speed limit. Gap plantation with 15000 number of trees (spacing 4 x 4m). Environment monitoring will be carried out as stipulated in the CTO and reports submitted to SPCB on monthly basis.

An amount of Rs. 262.50 lakhs has been earmarked for further strengthening of road.

Description	Cost (Rs in Lakhs)	Details
Road sweeping machine dust collection	50.00	Road sweeping machine deployed on transport route
Truck mounted mobile mist cannon for Transport Route (2 No's)	80.00	Water tankers with pump for road washing and dust suppression on transport route
Maintenance of road	50.00	Desilting of road side drains, bush cutting, cleaning of road shoulders
Plantation along the road (15000)	52.50	Plantation with 15000 number of trees

Wheel washing system near mine exit	20.00	
Environment monitoring	10.00	Air and noise monitoring in transport route and nearest habitation
TOTAL	**262.50**	

STATUTORY CLEARANCES :

1	Land docs	:	Land has been acquired under Nationalisation and CB Act vide notification no. S.O.3238(E) dated 2nd July 2018.
2	CO	:	The CO, Latehar vide letter no. 33, dated 10.01.2026 has mentioned the plot no. of the project is recorded as "Jungle-Jhari" in R.S. Khatiyan & Register II.
3	DFO Wild Life	:	Deputy Director, Palamau Tiger Project, South Division, Medininagar vide letter no. 72, dated 06.02.2026 certified that the said project is outside Eco Sensitive Zone of Palamau Tiger Reserve.
4	DFO Territorial	:	DFO, Latehar Forest Division vide letter no. 72, dated 08.01.2026 certified that the distance of reserved / protected forest is **Zero (0)** meter from proposed project site.
5	Forest clearance	:	i. Diversion of 162.394 Ha of forest land (54.365 Ha protected forest land and 108.029 ha Jungle – Jhari land) issued by MoEF&CC, Govt. of India vide F.No. 8-23/2019-FC, dated 13th November, 2019. ii. Diversion of 162.394 Ha of forest land (54.365 Ha protected forest land and 108.029 ha Jungle – Jhari land) issued by MoEF&CC, Govt. of India vide F.No. 8-23/2019-FC, dated 28th March, 2022 (Stage II).
6	Previous EC	:	i. Previous EC was granted by MoEF&CC, Govt. of India vide letter no. J-11015/54/2017-IA.II (M), dated: 28.04.2020. ii. Amendment EC granted by MoEF&CC, Govt. of India vide letter no. IA-J-11015/54/2017-IA-II(M) Dated: 30.08.2023. iii. Amendment in Specific Condition no XV and XXIII of Environment Clearance letter dated 28.04.2020 was granted by SEIAA, Jharkhand vide letter No. EC/SEIAA/2025-26/4068/2025/10, Dated: 30.04.2026.

7	Consent to Establish (CTE)	:	CTE granted by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-8184118/2021/249, dated 28.09.2021.
8	Consent to Operate (CTO)	:	i. CTO granted by JSPCB vide Ref. no. JSPCB/HO/RNC/CTO-17814220/2024/736, dated 19.04.2024 valid up to 31.03.2025. ii. CTO granted by JSPCB vide Ref. no. JSPCB/HO/RNC/CTO-20628933/2025/626, dated 28.03.2025 valid up to 31.03.2026.
9	Mine Plan Approval	:	Mining Plan approved by Ministry of Coal, Govt. of India vide letter No. 13016/19/2009-CA-I dated 12.10.2009 & Mine Closure Plan vide Letter No. 34011-03-2011-CPAM dated 10.08.2011
10	NOC from CGWA	:	NOC for Ground Water Abstraction vide NOC no NOC/MIN/JH/2025/7361/R-1/1 dated 03.07.2025 valid up to 13.08.2027.

Based on the presentation made and information provided, the Committee found that the reason for the delay in execution of coal transportation by proposed railway siding and implementation of in-pit conveyor system is plausible.

The Project Authorities have further submitted that there are eight stages in the completion of entire system of transporation by railway siding and in-pit conveyor system. Timeline has been provided for each stage of the activities.

The Committee is of the view that the amendment in the EC can be permitted upto sixth stage of the activities i.e. upto 31.12.2027. Therefore, the proposal for Tubed Coal Mine Project of M/s Damodar Valley Corporation, Village : Tubed, Mangra, Dihi, Ambajharan, Dhobiajharan, Nawari, Tehsil : Latehar, Distt. : Latehar, Jharkhand (460.00 Ha) is recommended for grant of amended EC. All other terms and conditions of the earlier 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 shall remain the same along with following specific conditions :

I. The specific condition no. xv "No transportation of coal shall be carried by road after commission of proposed railway siding near the coal mine after 31.12.2027.

II. As per Specific Condition No. XXIII of Environment Clearance Letter dated 28.04.2020 "Install in pit conveyor from the pit bottom up to the silo loading point/ rapid loading system within 31.12.2027 and further no transportation shall be carried over by trucks to railway siding".

III. The status of compliance of each stage of the activities is to be provided to SEIAA/ SEAC, Jharkhand with suitable evidence and supporting documents and also to be included in the six monthly compliance report of EC conditions.

IV. The SEAC may visit the site from time to time with prior intimation to witness the

progress of the activities proposed in the timeline.

V. Application for further extension will be considered only if the timeline proposed for the different activities for the implementation of railway siding and in-pit conveyor system has been abided by.

VI. Project Authorities will ensure that until the implementation of proposed railway siding and in-pit conveyor system, additional measure shall be taken to ensure that Air pollution resulting especially from road transportation of coal will not exceed CPCB norms at any point of time.

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Day 6 : 28th September, 2026 [Monday]

A. Any other matter :

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

i. **Pindra Stone Deposit of M/s M. G. Contractor Pvt. Ltd. (Prop. : Shri Asim Kumar), Village : Pindra, Thana : Ranka, Anchal : Ranka, Distt.: Garhwa, Jharkhand (2.821 Ha). (Proposal no. : SIA/JH/MIN/429420/2023)**

ii. **Chaprakocha Stone Mine of Shri Moiz Akhtar, Village : Chaprakocha, Tehsil : Ormanjhi, Dist. : Ranchi, Jharkhand (1.555 Ha). (Proposal No. : SIA/JH/MIN/232601/2021)**

iii. **Chaprakocha Stone Deposit of M/s Hardrock Infra (Partners : (i) Shri Nitesh Sharda (ii) Mr. Moij Akhtar (iii) Shri Varun Lalwani), Mouza : Chaprakocha, Anchal : Ormanjhi, Distt. : Ranchi, Jharkhand (0.668 Ha) (Proposal no.: SIA/JH/MIN/ 526896 /2025)**

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.

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The meeting concluded with thanks to all present.

Ashok Kumar Dubey, IFS (Retd.)
Member

Dr. Ajay Govind Bhatt
Member

NIRANJAN LAL AGARWALLA

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Date: 2026.10.06 18:55:43 +05'30'

Niranjan Lal Agarwalla
Member

Dr. Raju Kumar
Member

Srikant Verma, IFS
Member Secretary

Ashok Kumar Singh, IFS (Retd.)
Chairman

Annexure - I

Conditions for Open Cast Coal Mine

I. 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. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to ".

v. The project proponent shall obtain 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.

vi. The project proponent shall obtain the necessary permission from the Central Ground Water Authority.

vii. Solid waste/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

i. Continuous ambient air quality monitoring stations as prescribed in the statue be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM1O, PM2.5, S02 and NOx. 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.

ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.

iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water / mist sprinkling / rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/ unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

iv. The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.

v. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.

vi. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

vii. Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

III. 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-20012/1/2006-1A.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

iii. 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.

iv. 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.

v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

vi. Catch and or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.

vii. Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).

viii. Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP / STP needs to be provided.

ix. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose *viz.* watering the mine area, roads, green belt development *etc.* The drains shall be regularly desilted particularly after monsoon and maintained properly.

x. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of

river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining PlaniEIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.

xi. The project proponent shall take all precautionary measures to ensure reverian/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A revarian /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

IV. Noise and Vibration monitoring and prevention

i. 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.

ii. Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.

iii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

V. Mining Plan

i. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.

ii. Mining shall be carried out as per the approved mining plan(including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).

iii. No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980

iv. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

VI. Land reclamation

i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and

Climate Change (MOEF&CC) from time to time shall be submitted to MOEFCC/Regional Office (RO).

ii. The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural /forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

iii. The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining" / "post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.

iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

v. Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.

vi. 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.

VII. Green Belt

i. The project proponent shall take all precautionary measures during rmnmg operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

ii. Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach! coal transportation roads.

VIII. 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 & it's 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 outsoured 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.I1 (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'.

IX. 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.

X. 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; PM_{10}, SO_2, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form- V to the concerned State Pollution Control Board as prescribed

under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.

viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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 Trans boundary 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.

Conditions for Underground Coal Mine

1. **Statutory Compliance**

   i. The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project.

   ii. Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant provisions under CMR, 2017 and circulars issued by Directorate General of Mines Safety (DGMS) from time to time.

   iii. Mining activities shall not be carried out in the forestland, until the Stage - II Forestry Clearance is obtained under the relevant provisions of Van (Sanrakshan Evam Samvardhan), Adhiniyam, 1980, if any forestland involved in the ML area.

   iv. The project proponent shall obtain prior approval / clearance from the National Board for Wildlife, if applicable.

   v. In case of the presence of Schedule-I species in the study area, the project proponent shall prepare a Conservation Plan & Wildlife Management Plan which shall be approved by the Chief Wildlife Warden. The recommendations of the approved 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).

   vi. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.

   vii. Solid waste/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016 and subsequent amendments.

   viii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority for groundwater abstraction & usage prior to commencement of mining. The proponent shall also obtain necessary permissions for drawl / usage of surface water, if applicable, prior to commencement of mining.

   ix. In case of diversion of water body / road / railway lines / transmission line, approval for the same from competent authority shall be submitted, as applicable.

   x. Permission of power supply to be taken from the concerned authority for meeting power demand of the project site.

   xi. The annual peak production at any given time shall not exceed the limit as prescribed in the EC.

xii. Validity of EC shall be as per life of the mine as mentioned in EC letter or 30 years, whichever is earlier, as per EIA Notification, 2006 and its amendments therein.

xiii. In case of change in mining method from UG to OC, prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) shall be obtained.

2. Air quality Mitigation Measures and Monitoring

i. Coal handling points like stockyards / sidings shall be equipped with effective control measures like water sprinkling, fog cannons, wind barriers, vertical greenery systems.

ii. Transportation of coal, to the extent if permitted by road, shall be carried out by covered trucks. Effective control measures such as regular water sprinkling/rain gun/ fog cannons /mist sprinkling, etc., shall be installed in critical areas like coal transport roads, loading/unloading and transfer points.

iii. Transportation of the coal through the existing road passing through any village shall be avoided. In such cases, it is proposed to construct a 'bypass' road, such that the impact of sound, dust and accidents could be appropriately mitigated. Major approach roads shall be black topped / made with concrete and properly maintained.

iv. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in coal transportation shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centers. The proponent must strive to use electric vehicles / eco-friendly fuel based vehicles as far as possible.

v. In order to prevent particulates getting airborne and in order to mitigate dust concentrations, proper housekeeping shall be maintained by the project.

vi. Plantation in core zone and along the coal transportation route shall be taken up for control of air pollution. Native tree species shall be selected for plantation.

vii. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

viii. For ambient air quality monitoring, at least 4 sampling sites shall be established (of which 1 shall be situated in the upwind direction, 1 in core zone and balance 2 shall be located in the buffer zone - in downwind direction and near receptors) for monitoring of pollutants. The frequency of monitoring for core zone shall be as per Coal Mine Standards GSR 742 (E) dated 25.09.2000 and for buffer zone shall be as per NAAQS, 2009. 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. The monitoring reports shall be submitted to Regional Office of MoEF&CC and SPCB/CPCB as a part of the six monthly compliance report.

ix. The project shall install an automatic weather monitoring station in the core zone. At least 2 online ambient air quality monitoring stations (CAAQMS) for monitoring of PM10, PM2.5, SO2, NOx shall be installed - one in core zone and one in buffer zone, in consultation with the SPCB. The data from the CAAQMS shall be connected to CPCB server as well as SPCB server. The calibration of CAAQMS installed shall be carried out as per the calibration protocol for CAAQMS system specified by CPCB and records shall be maintained.

3. Water quality Mitigation Measures and Monitoring

i. The water pumped out from the mine (seepage water / mine effluent), after treatment, shall be utilized for industrial purpose viz. dust suppression on roads, plantation, and for domestic uses, etc. Balance water after treatment, if any, shall be discharged into surrounding water bodies with prior permission from concerned SPCBs/PCCs.

ii. Industrial wastewater from workshop and/or coal handling plant, if any, shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time.

iii. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic wastewater. The treated water, after conforming to the prescribed norms shall be reused.

iv. Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low-lying areas including coal stockyards, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff. The garland drains shall be regularly desilted, particularly after monsoon and maintained properly.

v. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. 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, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.

vi. In case of diversion / straightening of any river / nallah, the same shall be done only after approval is granted by Water Resources Department / Irrigation Department / approved regulatory agency of the concerned state. Mitigation measures or management plan proposed under EIA/EMP as well as regulatory agencies as a part of the diversion plan shall be duly complied with.

vii. Project proponent shall provide a rain water-harvesting pond in ML area in the core zone.

viii. The effluent discharge (mine water, workshop effluent, CHP wastewater (if applicable), STP if applicable) - shall be monitored in terms of the parameters

and frequency notified under the Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. The effluent samples must include raw effluent (i.e upstream of treatment facility) as well as treated water (i.e. outlet stream from treatment facility). The monitoring reports shall be submitted to Regional Office of MoEF&CC and SPCB/CPCB as a part of the six monthly compliance report.

ix. Project proponent shall install ground water monitoring piezometers prior to commencement of production in line with NOC issued by CGWA. The water level will be monitored for all piezometers and the record will be shared with the Regional Office (CGWB).

4. Noise Prevention and M onitoring

i. Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work zone environment. Operational safety norms for worker safety as prescribed by DGMS for UG coal mines must be adhered to.

ii. In case of installation of conveyors, DG sets, etc., adequate noise attenuation measures including acoustic barriers must be installed to control noise pollution.

iii. The noise level monitoring shall be carried out as per the prescribed DGMS guidelines in the core zone to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the RO of MoEF&CC on six-monthly basis.

iv. Ambient noise levels shall be monitored at strategic locations (at least 4 locations of which 2 to be located within the core zone at coal loading point and workshop respectively and remaining 2 to be located in buffer zones near receptors and along coal transportation route). The monitoring reports shall be submitted to Regional Office of MoEF&CC and SPCB/CPCB as a part of the six monthly compliance report.

5. Risk and Subsidence

i. Project proponent shall include adequate provisions w.r.t risk management to ensure safety of personnel engaged in mining operations and work zone environment must be maintained in conformity of relevant DGMS norms.

ii. Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued beyond post closure period as specified in the Mine Plan/Mine Closure Plan Guidelines issued by MoC from time to time. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.

iii. A separate team for subsidence monitoring and surface mitigation measures shall be created at project level and continuous monitoring & implementation of mitigation measures be carried out.

iv. Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine. Native tree species shall be selected and planted over areas affected by subsidence.

6l. Land reclamation

i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MoEF&CC) and shall be submitted to MoEF&CC/Regional Office (RO).

ii. Post-mining land be rendered usable as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 31st January, 2025 and subsequent amendments.

iii. The post closure land form must be safe & stable and should incorporate repurposing activities like renewables, energy efficiency etc. as feasible. 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.

iv. Project proponent shall implementation 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.

v. Greenbelt will be developed in 33% of the total mine infrastructure area. A 5-15 m wide greenbelt, consisting of at least 3 tiers around core zone will be developed as greenbelt and green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of saplings will be planted and nurtured in hectares in years. Thus, the total plantation raised in the mine lease will be over --- % of total ML area at the end of the mining. Along with this, Miyawaki plantation shall be carried out and plantation shall also be carried out in the nearby environmentally sensitive receptors.

7. Public hearing and Human health issues

i. Implementation of the time bound 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 time bound action plan submitted with budgetary provisions during the public hearing.

ii. 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. Adequate facility of drinking water, plantation and other social amenities should be provided to established R&R villages.

iii. The work zone environment shall be maintained as prescribed under Coal Mines Regulations, 2017 & DGMS (complying with provisions regarding illumination, temperature, humidity, dust, noise, etc.)

iv. 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 Act, 1952 and rules made thereunder 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 per Clause No. 123, 124 & 125 of Coal Mines Regulations, 2017.

v. 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.

vi. Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.

vii. Effective arrangement shall be made to provide and maintain sufficient supply of drinking water at suitable points, for all the persons employed.

viii. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z11013/5712014-IA.11 (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. Others

i. The project shall comply with the recommendations of the additional studies like Traffic Study, Biodiversity Management Plan, Carbon Footprint Assessment, as applicable.

ii. In pursuant to the Ministry's OM dated 18/07/2022. PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) in order to ensure compliance of Ministry's Notification published by the Ministry on 12/08/2021.

iii. The project shall align its activities towards some SDGs and submit the details in its six-monthly compliance report on routine basis.

iv. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

v. Post closure monitoring of air quality, water, land & soil etc. shall be carried out by NABL accredited laboratories and analysed with EMP measures at regular interval. A suitable recommendation in this regard, shall be furnished to RO, MoEF&CC for compliance. The data used for analysis shall be obtained from routine environmental monitoring, continuous air / water QMS, etc.

vi. In case the project is located either in Critically Polluted Area or in Severely Polluted Area, compliance w.r.t action plan to address environmental safeguards as per OM dated 31st October, 2019 (Ref. F.No. 22-23/2018-IA.III (Pt)) shall be submitted.

vii. Third Party Environmental Audit shall be undertaken once in every three years through reputed institutes or scientific agencies.

9. Corporate Environment Policy

i. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental /forest/wildlife norms/conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental /forest /wildlife norms/ conditions to shareholders/stake-holders.

ii. A separate Environmental Cell both at the project and company head quarter level, with adequate qualified personnel shall be set up under the control of senior executive, who will directly report to the Head of the organization.

iii. 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.

I. 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 tum has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at PARIVESH portal.

v. The monitoring data w.r.t environmental parameters 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 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

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 MOEF&CC 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 EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x. No further expansion or modifications in the mine shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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.

Annexure – I (A)

Environmental Safeguard provided by JSPCB

Environmental Safeguards:

Greenbelt Development and Ecological Protection

1. The Project Proponent shall develop avenue plantation in a minimum of three rows along the roads and mine boundary. A minimum 7.5 m wide greenbelt shall be maintained along the mine boundary, subject to site-specific feasibility. The greenbelt shall primarily comprise native/local species suitable to the local climatic conditions.
2. Dense greenbelt/dust barriers shall be developed along the mine-side boundaries facing nearby villages, habitations and other sensitive receptors to minimize the impact of fugitive dust emissions.
3. Plantation shall be undertaken progressively over inactive/stabilized OB dumps, reclaimed areas and other available vacant areas, with appropriate maintenance and survival monitoring.

Water Pollution Control and Water Management

1. The unit shall not discharge untreated or inadequately treated mine water, waste water or contaminated storm water be discharged into Seasonal Khudia Nala or any other surface-water body.
2. The Project Proponent shall prepare and implement a comprehensive Mine Water and Storm water Management Plan covering collection, channelization, treatment, reuse and disposal.
3. Properly designed catch drains/garland drains shall be provided along internal roads, haul roads, OB dumps, topsoil dumps and other runoff-generating areas and shall terminate in suitably designed settling/sedimentation ponds or mine sumps.
4. Settling-cum-sedimentation ponds shall have adequate capacity and, wherever required, an impervious bottom/lining to prevent seepage and groundwater contamination.
5. Properly designed toe walls/retaining walls with garland drains shall be provided along OB and topsoil dumps to prevent washout and contamination of nearby water bodies.
6. Runoff generated within the mine area shall be suitably collected and treated before reuse or discharge. reuse-based water management shall be adopted to the maximum extent feasible during dry and low/moderate rainfall conditions.
7. Treated mine water shall be reused, to the maximum extent feasible, for dust suppression, plantation, vehicle/wheel washing and other suitable non-potable purposes.
8. During heavy rainfall, any unavoidable surplus discharge shall be permitted only after

adequate treatment and compliance with the applicable discharge standards and statutory permissions.

9. The Project Proponent shall prepare and implement an action plan for maintaining a balance between water withdrawal and groundwater recharge, including rainwater harvesting and groundwater- recharge measures.
10. Piezometers shall be installed at suitable locations for periodic monitoring of groundwater level and quality. The monitoring results shall be submitted to the Board/competent authority on a quarterly basis.
11. The water quality of Seasonal Khudia Nala and other natural drainage channels within or adjoining the project area shall be monitored periodically, and the analysis reports shall be submitted to the Board on a quarterly basis.
12. Requisite permission from CGWA shall be obtained.
13. A properly designed wheel-washing facility shall be provided at the mine exit. The wheel-wash effluent shall be collected, treated through settling arrangements and recycled/reused.

Air Pollution and Fugitive Dust Control

1. Adequate dust-suppression measures shall be provided at all major dust-generating sources, including quarry operations, coal handling, loading/unloading areas, coal stockyards, haul roads and transportation routes.
2. Fixed-type water sprinklers/mist foggers shall be provided along major haul roads and regular water sprinkling shall be ensured on internal haul roads and transportation roads.
3. Adequate numbers of mobile fog cannons shall be deployed at identified dust-prone and loading/unloading areas.
4. Mechanized road-sweeping machines shall be deployed for maintaining paved roads in and around the mine area free from accumulated dust.
5. Adequate dust-control measures shall be implemented on the road connecting the mine exit gate to the main road to minimize fugitive dust emissions and impacts on nearby habitations.
6. All internal and haul roads shall be properly maintained to minimize fugitive emissions from transportation activities.
7. Transportation vehicles shall be loaded properly and a minimum freeboard shall be maintained.
8. Coal and coal fines shall, wherever feasible, be stored under covered / partially covered arrangements, with suitable wind barriers and dust-suppression systems.
9. Adequate preventive measures shall be implemented to control spontaneous heating and fire in coal stockyards and coal seams.
10. Minimum two CAAQMS, one in the upwind and one in the downwind direction, shall be installed at scientifically selected representative locations, particularly considering nearby villages, haul-road dust and major mining activity. Monitoring data shall be transmitted to the CPCB and JSPCB servers.

Carbon Footprint Reduction and Sustainable Transportation

1. Diesel/petrol-operated transportation vehicles shall progressively be replaced with electric vehicles (EVs), hydrogen-based vehicles or other cleaner-fuel vehicles, wherever technically

feasible.

2. The use of rail, conveyors and other closed/efficient transportation systems for coal evacuation shall be maximized, wherever feasible, to reduce road transportation and associated air pollution.
3. Advanced carbon-sequestration, energy-efficiency and emission-reduction measures shall be implemented, wherever technically feasible, with a progressive approach towards Net Zero emissions.

Noise Pollution

1. Adequate measures shall be implemented to control noise levels in the work environment in accordance with the Noise Pollution (Regulation & Control) Rules, 2000.
2. Workers engaged in blasting and drilling operations, operation of HEMM, etc. shall be provided with personal protective equipment (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programmes for users to be conducted.
3. Controlled blasting techniques shall be strictly followed as per DGMS guidelines to minimize noise, ground vibration, fly rock, and air blast.
4. 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.
5. Workers should not be exposed to noise levels above 90 dB for more that 8 hours per day, 92 dB for more that 6 hours per day,95 dB for more than four hours per day and 100 dB for more that 2 hours per day and so on with every increase in 3 dB the exposure time shall be reduced by half accordingly.

Solid & Hazardous Wastes Management

1. The Mines area should be declared as single use plastic free area.
2. The Garbage/solid wastes to be generated from the Mines should be collected & disposed of in accordance with the provision under Solid Waste Management Rule 2016 and its amendments thereof.
3. Hazardous wastes shall be disposed of in accordance with the Provisions under Hazardous and other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and its amendments thereof.

Sustainable Resource utilization Strategy & OB Management

1. The OB being generated by Mines contains Sand stone with other materials & gets dumped without exploring its further use.
2. Explore the feasibility of utilization of other materials available in the OB to further use.
3. Feasibility may be explored for the utilization of Shale as sub-base materials for roads etc. to preserve natural soil.
4. Mine needs to furnish an action plan for balance of natural water i.e. withdrawal and Ground water recharge to maintain the ground water Table & adequate flow in surrounding Streams/Rivers.

Circular Economy

1. The Project Proponent shall maximize the beneficial utilization of suitable overburden materials, including sand stone and shaly sands tone, for permissible applications such as road construction, embankment and sub-base works, so as to minimize extraction of fresh natural materials.
2. The remaining suitable overburden shall, to the maximum extent feasible, be utilized for backfilling and reclamation of mined-out areas in accordance with the approved Mining Plan and Mine Closure Plan.
3. The Project Proponent shall adopt reuse-based mine-water management and maximize the reuse of treated mine water for dust suppression, plantation, vehicle/wheel washing and other suitable non-potable purposes.
4. Rainwater harvesting and groundwater-recharge measures shall be implemented to conserve water resources and maintain an appropriate balance between water withdrawal and recharge.
5. The Project Proponent shall maximize the use of rail, conveyors and other efficient transportation systems for coal evacuation, wherever feasible, to reduce road transportation, fuel consumption, dust generation and associated air pollution.
6. Coal and coal fines shall be stored and handled with suitable covered/partially covered arrangements, wind barriers and dust-control measures to minimize material loss and fugitive emissions.
7. Suitable check dams/in-stream storage structures, subject to approval of the competent authority, may be provided at appropriate locations to facilitate water conservation, groundwater recharge and reduction of sediment transport while maintaining downstream flow

DIVERSION / REALIGNMENT OF SEASONAL KHUDIA NALA

1. The proposed diversion/realignment of Seasonal Khudia Nala, Dhanbad, shall be undertaken only after obtaining prior approval of the competent authority and the concerned State Water Resources/Flood & Irrigation Department. No diversion, modification, obstruction or alteration of the existing course of Seasonal Khudia Nala shall be undertaken without such approval.
2. The Project Proponent shall implement a comprehensive Seasonal Khudia Nala Diversion and Re-alignment Plan based on the IIT (ISM) hydrological/hydraulic study and the approval of the competent authority, clearly indicating existing and proposed alignment, cross-sections, design discharge, drainage connectivity, bank protection, safety arrangements and long-term maintenance.
3. No mine water, untreated runoff, overburden, excavated material, coal, mineral waste or other waste material shall be discharged or dumped into the existing or diverted Seasonal Khudia Nala.
4. The Project Proponent shall provide suitable upstream and downstream monitoring locations for periodic monitoring of water quality, flow, sedimentation and bank stability, including the downstream connectivity of Seasonal Khudia Nala towards the Jamunia Rivulet.
5. Any modification in the approved alignment, cross-section, design discharge or protection measures shall be undertaken only with prior approval of the competent authority.

6. The Project Proponent shall prepare and implement a Seasonal Khudia Nala Protection and Catchment Management Plan covering catchment treatment, erosion control, sediment management, groundwater recharge, downstream-flow protection and ecological restoration.
7. All other conditions relating to water pollution control, groundwater protection, storm water management, mine-water reuse, greenbelt development and environmental monitoring shall remain applicable not with standing the proposed diversion /realignment of Seasonal Khudia Nala.

Miscellaneous

Housekeeping and Workplace Cleanliness

1. Regular removal of coal dust from roadways, Conveyor and machinery areas.
2. Water Spraying or dust suppressants in High dust zone area.
3. Regular Monitoring by Continuous Ambient Air Quality Monitoring and ensure the connectivity to CPCB and JSPCB servers.
4. Thermal cameras near Conveyor belt to detect early frictional heat.

Water management

1. Regular inspection and cleaning of sumps and drains.
2. Emergency dewatering Pumps with backup power supply.

Slope and Strata Safety

1. Drone based monitoring of High walls/ dumps and unstable slopes.
2. Routine geological mapping to identify weak zones.

Personnel Safety & Training

1. Compulsory safe rescuer training and mock drills on a quarterly basis.
2. Use of high visibility clothing for all working personnel's in the mine area.

Behavioral safety training to reduce human error related accidents.

I. Statutory Compliance

i. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

ii. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc as per National Building Code including protection measures from lightening etc.

iii. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.

iv. In the writ petition (Civil) no. 202/1995, T.N. GodavermanThirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to ".

v. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

vi. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.

vii. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.

viii. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.

ix. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

x. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

xi. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

xii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel (kerosene/gas) for cooking, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after completion of the project.

xiii. Provision of drinking water, waste water disposal, solid wastes management and primary health facilities shall be ensured for labour force. Proper sanitation facilities shall be provided at the construction site to prevent health related problems. Domestic as well as sanitary wastes from construction camps shall be cleared regularly.

xiv. All the labourers to be engaged for construction works shall be screened for health and adequately treated before issue of work permits. The contractor shall ensure periodic health check-up of construction workers.

xv. All vehicles/equipment deployed during construction phase shall be ensured in good working condition and shall conform to applicable air and noise emission standards. These shall be operated only during non-peaking hours.

xvi. Accumulation/stagnation of water shall be avoided ensuring vector control.

xvii. Water during construction phase should be preferred from Municipal supply.

xviii. Unskilled construction labourers shall be recruited from the local areas.

xix. Monitoring of ground water table and quality once in three months shall be carried out. Construction of tube wells, bore wells shall be strictly regulated.

xx. Adequate provision shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be adopted.

xxi. Rest room facilities shall be provided for service population.

xxii. Water body falling within premises (if any) shall not be lined or no embankment shall be cemented. The water bodies, if any, shall be kept in natural conditions without disturbing the ecological habitat.

xxiii. Construction shall conform to the requirements of local seismic regulations. The project proponent shall obtain permission for the plans and designs including structural design, standards and specifications of all construction work from concerned authority.

II. Air quality monitoring and preservation

i. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.

ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25) covering upwind and downwind directions during the construction period.

iv. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.

v. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

vi. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

vii. Wet jet shall be provided for grinding and stone cutting.

viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

ix. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.

x. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

xi. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

xii. For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation

i. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and

other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.

ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

iv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

v. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

vi. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

vii. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

viii. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.

ix. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xi. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

xii. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be

harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

xiii. All recharge should be limited to shallow aquifer.

xiv. No ground water shall be used during construction phase of the project.

xv. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

xvi. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

xvii. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.

xviii. No sewage or untreated effluent water would be discharged through storm water drains.

xix. Onsite sewage treatment of capacity of treating 100% waste water to be installed based on the MBBR/MBR/SBR technology. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.

xx. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

xxi. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

IV. Noise monitoring and prevention

i. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

ii. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

i. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.

ii. Outdoor and common area lighting shall be LED.

iii. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

iv. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.

v. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.

vi. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

i. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.

ii. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

iii. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.

iv. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.

v. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

vi. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

vii. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.

viii. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016., Ready mixed concrete must be used in building construction.

ix. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

x. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

i. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

ii. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.

iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.

iv. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled

appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VIII. Transport

i. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
   a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
   b. Traffic calming measures.
   c. Proper design of entry and exit points.
   d. Parking norms as per local regulation

ii. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

iii. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human Health Issues

i. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

ii. For indoor air quality the ventilation provisions as per National Building Code of India.

iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

iv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

v. Occupational health surveillance of the workers shall be done on a regular basis.

vi. A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

XI. Miscellaneous

i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as

prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

xi. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF& CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.

xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.

xvi. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.

Environmental Safeguard provided by JSPCB

A. Safeguards for control of Water Pollution:

1. That, the occupier shall provide provisions for treatment of Effluent through an Effluent Treatment Plant (ETP) of adequate capacity as required, to meet the discharge norms prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder.

2. That, the occupier shall provide provisions for treatment of Sewage through a Sewage Treatment Plant (STP) of adequate capacity as required, to meet the discharge norms prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder.

3. That, the occupier shall ensure that no untreated wastewater or effluent is discharged outside the premises under any circumstances, and all wastewater shall be treated to meet prescribed standards before reuse or disposal.

4. That, the occupier shall provide proper drainage channels across the premises to prevent waterlogging and avoid contamination of surrounding areas.

5. That, the occupier shall install silt traps and sedimentation tanks to control construction run-off and prevent the discharge of silt-laden water outside the premises.

6. That, the occupier shall ensure that, water during construction phase should be preferred from Treated Waste Water of the existing Hospital premises.

7. That, the occupier shall ensure that, the natural drain system should be maintained for ensuring unrestricted flow of water.

8. That, the occupier shall ensure that, total fresh water use shall not exceed the proposed requirement as provided in the project details.

9. That, the occupier shall ensure that, installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

10. That, the occupier shall ensure that, use of water saving devices/ fixtures (viz. low flow flushing systems: use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
11. That, the occupier shall ensure that, water demand during construction should be reduced by use of premixed concrete, curing agents and other best practices referred.

12. That, the occupier shall ensure that, rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

13. That, the occupier shall ensure that, the ground water shall not be withdrawn without approval from the Competent Authority.

14. That, the occupier shall obtain permission from concerned authorities for drawl of surface water and CGWA for ground water.

15. That, the occupier shall ensure that, no ground water shall be used during construction phase of the project for the construction purposes.

B.Safeguards for control of Air Pollution:

1. That, the occupier shall ensure that, acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and conform to rules made under the Environment (Protection) Act, 1986. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Low Sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

2. That, the occupier shall install acoustic enclosures for all DG sets and maintain the stack height as per CPCB norms.

3. That, the occupier shall install Retrofit Emission Control Devices (RECDs) to the DG sets as per CPCB norms from the manufacturers certified by CPCB for same.

4. That, the occupier shall use only low-sulphur fuel for DG sets and shall ensure periodic monitoring of emissions to meet prescribed standards.

5. That, the occupier shall install such automatic inbuilt system(s) that process flue gas(es) / process gas(es) and undergo cleaning so that clean air is discharged through chimneys of height as per CPCB norms.

6. That, the occupier shall use only PUC-certified vehicles and DG sets complying with established emission norms of CPCB.

7. That, the occupier shall ensure regular maintenance of all construction machinery and equipment to minimize emissions and ensure efficient operation.

8. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust / wind breaking walls all around the site (at least 6-meter height).

9. That, the occupier shall ensure that, plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

10. That, the occupier shall store fine construction materials such as sand, cement and aggregates in enclosed spaces to prevent their dispersion due to wind or site activity.

11. That, the occupier shall construct pucca internal road or pave the approach road so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.

12. That, the occupier shall ensure that, all construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. Moreover, all construction and demolition waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.

13. That, the occupier shall ensure that, unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

14. That, the occupier shall ensure that for indoor air quality the ventilation provisions as per National Building Code of India.

C. General Safeguards:

1. That, the occupier shall construct pucca (i) minimum ten feet high boundary wall and (ii) approach road and internal roads and shall keep the premises neat, clean and tidy.

2. That, the occupier shall submit ambient air quality, noise level and effluent analysis reports to the Board before and after commissioning of the project.

3. That, the occupier shall ensure that, use of environment friendly materials such as Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks shall be used for at least 50% of the construction material quantity.

4. That, the occupier shall comply with the provisions of the Environment (Construction and Demolition) Waste Management Rules, 2025.

5. That, the occupier shall ensure that, adequate provisions shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be complied with.

6. That, the occupier shall ensure that separate bins for dry and wet solid waste must be provided in each unit for facilitating segregation of waste.

7. That, the occupier shall install organic waste compost / Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day.

8. That, the occupier shall ensure that, all non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recycler.

9. That, the occupier shall ensure that, used CFLs and TFLs should be properly collected and disposed off / sent for recycling to authorized TSDFs to avoid mercury contamination.

10. That, the occupier shall ensure that any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

11. That, the occupier shall ensure that the provisions of the Solid Waste Management Rules, 2026; the E-Waste (Management) Rules, 2022; the Plastic Waste Management Rules, 2016, the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Noise Pollution (Regulation and Control) Rules, 2000 shall be followed and complied with.

12. That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and rules thereunder.

13. That, the occupier shall ensure that the DG set should be acoustically designed and should be housed in appropriate acoustic enclosures so that the noise level outside it shall conform to the prescribed norms.

14. That, the occupier shall ensure that the height of the stack attached to D.G. sets shall be maximum of the following in meter:
    a) 14 $Q^{0.3}$, Q=Total SO_2 emission from the plant in Kg/Hr
    b) Minimum 6m above the building where the generator set is installed.
    c) 30 m.

15. That, this Comments & Environmental Safeguards is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions' rests with the occupier.

16. That, this Comments & Environmental Safeguards shall not in any way adversely affect or jeopardize legal proceedings, if any, instituted in the past or that may be instituted against the occupier by the State Board for violation of the Act or Rules made thereunder.

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

Environmental Safeguard provided by JSPCB

A. Safeguards for control of Water Pollution: -

1) That, the occupier shall provide provisions for treatment of Effluent through an Effluent Treatment Plant (ETP) of adequate capacity as required, to meet the discharge norms prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder.

2) That, the occupier shall provide provisions for treatment of Sewage through a Sewage Treatment Plant (STP) of adequate capacity as required, to meet the discharge norms prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder.

3) That, the occupier shall ensure that no untreated wastewater or effluent is discharged outside the premises under any circumstances, and all wastewater shall be treated to meet prescribed standards before reuse or disposal.

4) That, the occupier shall provide proper drainage channels across the premises to prevent waterlogging and avoid contamination of surrounding areas.

5) That, the occupier shall install silt traps and sedimentation tanks to control construction run-off and prevent the discharge of silt-laden water outside the premises.

6) That, the occupier shall ensure that, water during construction phase should be preferred from Treated Waste Water of the existing Hospital premises.

7) That, the occupier shall ensure that, the natural drain system should be maintained for ensuring unrestricted flow of water.

8) That, the occupier shall ensure that, total fresh water use shall not exceed the proposed requirement as provided in the project details.

9) That, the occupier shall ensure that, installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

10) That, the occupier shall ensure that, use of water saving devices/ fixtures (viz. low flow flushing systems: use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.

11) That, the occupier shall ensure that, water demand during construction should be reduced by use of premixed concrete, curing agents and other best practices referred.

12) That, the occupier shall ensure that, rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

13) That, the occupier shall ensure that, the ground water shall not be withdrawn without approval from the Competent Authority.

14) That, the occupier shall obtain permission from concerned authorities for drawl of surface water and CGWA for ground water.

15) That, the occupier shall ensure that, no ground water shall be used during construction phase of the project for the construction purposes.

B. Safeguards for control of Air Pollution: -

1) That, the occupier shall ensure that, acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and conform to rules made under the Environment (Protection) Act, 1986. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Low Sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

2) That, the occupier shall install acoustic enclosures for all DG sets and maintain the stack height as per CPCB norms.

3) That, the occupier shall install Retrofit Emission Control Devices (RECDs) to the DG sets as per CPCB norms from the manufacturers certified by CPCB for same.

4) That, the occupier shall use only low-sulphur fuel for DG sets and shall ensure periodic monitoring of emissions to meet prescribed standards.

5) That, the occupier shall install such automatic inbuilt system(s) that process flue gas(es) / process gas(es) and undergo cleaning so that clean air is discharged through chimneys of height as per CPCB norms.

6) That, the occupier shall use only PUC-certified vehicles and DG sets complying with established emission norms of CPCB.

7) That, the occupier shall ensure regular maintenance of all construction machinery and equipment to minimize emissions and ensure efficient operation.

8) Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust / wind breaking walls all around the site (at least 6-meter height).

9) That, the occupier shall ensure that, plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

10) That, the occupier shall store fine construction materials such as sand, cement and aggregates in enclosed spaces to prevent their dispersion due to wind or site activity.

11) That, the occupier shall construct pucca internal road or pave the approach road so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.

12) That, the occupier shall ensure that, unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

13) That, the occupier shall ensure that, all construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. Moreover, all construction and demolition waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.

14) That, the occupier shall ensure that for indoor air quality the ventilation provisions as per National Building Code of India.

C. General Safeguards: -

1) That, the occupier shall construct pucca (i) minimum ten feet high boundary wall and (ii) approach road and internal roads and shall keep the premises neat, clean and tidy.

2) That, the occupier shall submit ambient air quality, noise level and effluent analysis reports to the Board before and after commissioning of the project.

3) That, the occupier shall ensure that, use of environment friendly materials such as Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks shall be used for at least 50% of the construction material quantity.

4) That, the occupier shall comply with the provisions of the Environment (Construction and Demolition) Waste Management Rules, 2025.

5) That, the occupier shall ensure that, adequate provisions shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be complied with.

6) That, the occupier shall ensure that separate bins for dry and wet solid waste must be provided in each unit for facilitating segregation of waste.

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11) That, the occupier shall ensure that the provisions of the Solid Waste Management Rules, 2026; the E-Waste (Management) Rules, 2022; the Plastic Waste Management Rules, 2016, the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Noise Pollution (Regulation and Control) Rules, 2000 shall be followed and complied with.

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14) That, the occupier shall ensure that the DG set should be acoustically designed and should be housed in appropriate acoustic enclosures so that the noise level outside it shall conform to the prescribed norms.

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

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Environmental safeguards: -

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6. That, the occupier shall ensure that, water during construction phase should be preferred from Treated Waste Water of the existing Hospital premises.
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B.Safeguards for control of Air Pollution:

1. That, the occupier shall ensure that, acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and conform to rules made under the Environment (Protection) Act, 1986. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
2. That, the occupier shall install acoustic enclosures for all DG sets and maintain the stack height as per CPCB norms.
3. That, the occupier shall install Retrofit Emission Control Devices (RECDs) to the DG sets as per CPCB norms from the manufacturers certified by CPCB for same.
4. That, the occupier shall use only low-sulphur fuel for DG sets and shall ensure periodic monitoring of emissions to meet prescribed standards.
5. That, the occupier shall install such automatic inbuilt system(s) that process flue gas(es) / process gas(es) and undergo cleaning so that clean air is discharged through chimneys of height as per CPCB norms.
6. That, the occupier shall use only PUC-certified vehicles and DG sets complying with established emission norms of CPCB.
7. That, the occupier shall ensure regular maintenance of all construction machinery and equipment to minimize emissions and ensure efficient operation.
8. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 6 meter height).
9. That, the occupier shall ensure that, plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
10. That, the occupier shall store fine construction materials such as sand, cement and aggregates in enclosed spaces to prevent their dispersion due to wind or site activity.
11. That, the occupier shall construct pucca internal road or pave the approach road so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.
12. That, the occupier shall ensure that, all construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. Moreover, all construction and demolition waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.
13. That, the occupier shall ensure that, unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
14. That, the occupier shall ensure that for indoor air quality the ventilation provisions as per National Building Code of India.

C. General Safeguards:

1. That, the occupier shall construct pucca (i) minimum ten feet high boundary wall and (ii) approach road and internal roads and shall keep the premises neat, clean and tidy.
2. That, the occupier shall submit ambient air quality, noise level and effluent analysis reports to the Board before and after commissioning of the project.
3. That, the occupier shall ensure that, use of environment friendly materials such as Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks shall be used for at least 50% of the construction material quantity.
4. That, the occupier shall comply with the provisions of the Construction and Demolition Waste Management Rules, 2016.
5. That, the occupier shall ensure that, adequate provisions shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be complied with.
6. That, the occupier shall ensure that separate bins for dry and wet solid waste must be provided in each unit for facilitating segregation of waste.
7. That, the occupier shall install organic waste compost / Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day.
8. That, the occupier shall ensure that, all non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recycler.
9. That, the occupier shall ensure that any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
10. That, the occupier shall ensure that, used CFLs and TFLs should be properly collected and disposed off / sent for recycling to authorized TSDFs to avoid mercury contamination.
11. That, the occupier shall ensure that the provisions of the Solid Waste Management Rules, 2026, The e-Waste (Management) Rules, 2022, the Plastic Waste Management Rules, 2016, the Hazardous and Other Wastes (Management and Transboundary Movement) Rules,2016 and The Noise Pollution (Regulation and Control) Rules, 2000 shall be followed and complied with.
12. That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and rules thereunder.
13. That, this Comments & Environmental Safeguards is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions' rests with the occupier.
14. That, this Comments & Environmental Safeguards shall not in any way adversely affect or jeopardize legal proceedings, if any, instituted in the past or that may be instituted against the occupier by the State Board for violation of the Act or Rules made thereunder.
15. That, the occupier shall mandatorily obtain Consent to Operate (CTO) and Hazardous Waste Authorization (as applicable) from the Board before start of operation of the Unit.

Environmental Safeguard provided by JSPCB

Environmental safeguards: -

A. Safeguards for control of Water Pollution:

1. That, the occupier shall provide provisions for treatment of Effluent through an Effluent Treatment Plant (ETP) of adequate capacity as required, to meet the discharge norms prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder.
2. That, the occupier shall provide provisions for treatment of Sewage through a Sewage Treatment Plant (STP) of adequate capacity as required, to meet the discharge norms prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder.
3. That, the occupier shall ensure that no untreated wastewater or effluent is discharged outside the premises under any circumstances, and all wastewater shall be treated to meet prescribed standards before reuse or disposal.
4. That, the occupier shall provide proper drainage channels across the premises to prevent waterlogging and avoid contamination of surrounding areas.
5. That, the occupier shall install silt traps and sedimentation tanks to control construction run-off and prevent the discharge of silt-laden water outside the premises.
6. That, the occupier shall ensure that, water during construction phase should be preferred from Treated Waste Water of the existing Hospital premises.
7. That, the occupier shall ensure that, the natural drain system should be maintained for ensuring unrestricted flow of water.
8. That, the occupier shall ensure that, total fresh water use shall not exceed the proposed requirement as provided in the project details.
9. That, the occupier shall ensure that, installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
10. That, the occupier shall ensure that, use of water saving devices/ fixtures (viz. low flow flushing systems: use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
11. That, the occupier shall ensure that, water demand during construction should be reduced by use of premixed concrete, curing agents and other best practices referred.
12. That, the occupier shall ensure that, rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
13. That, the occupier shall ensure that, the ground water shall not be withdrawn without approval from the Competent Authority.
14. That, the occupier shall obtain permission from concerned authorities for drawl of surface water and CGWA for ground water.

15. That, the occupier shall ensure that, no ground water shall be used during construction phase of the project for the construction purposes.

B. Safeguards for control of Air Pollution:

1. That, the occupier shall ensure that, acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and conform to rules made under the Environment (Protection) Act, 1986. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Low Sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
2. That, the occupier shall install acoustic enclosures for all DG sets and maintain the stack height as per CPCB norms.
3. That, the occupier shall install Retrofit Emission Control Devices (RECDs) to the DG sets as per CPCB norms from the manufacturers certified by CPCB for same.
4. That, the occupier shall use only low-sulphur fuel for DG sets and shall ensure periodic monitoring of emissions to meet prescribed standards.
5. That, the occupier shall install such automatic inbuilt system(s) that process flue gas(es) / process gas(es) and undergo cleaning so that clean air is discharged through chimneys of height as per CPCB norms.
6. That, the occupier shall use only PUC-certified vehicles and DG sets complying with established emission norms of CPCB.
7. That, the occupier shall ensure regular maintenance of all construction machinery and equipment to minimize emissions and ensure efficient operation.
8. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust / wind breaking walls all around the site (at least 6-meter height).
9. That, the occupier shall ensure that, plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
10. That, the occupier shall store fine construction materials such as sand, cement and aggregates in enclosed spaces to prevent their dispersion due to wind or site activity.
11. That, the occupier shall construct pucca internal road or pave the approach road so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.
12. That, the occupier shall ensure that, all construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. Moreover, all construction and demolition waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.
13. That, the occupier shall ensure that, unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
14. That, the occupier shall ensure that for indoor air quality the ventilation provisions as per National Building Code of India.

C. Safeguards for Bio-Medical Waste Management:

1. That, the occupier shall make a provision within the premises for a safe, ventilated and secured location for storage of segregated biomedical waste in colored bags or containers in the manner as specified in Schedule I, to ensure that there shall be no secondary handling, pilferage of recyclables or inadvertent scattering or spillage by animals and the bio-medical waste from such place or premises shall be directly transported in the manner as prescribed in these rules to the common bio-medical waste treatment facility or for the appropriate treatment and disposal, as the case may be, in the manner as prescribed in Schedule I;
2. That, the occupier shall make arrangements for pre-treating the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site in the manner as prescribed by the World Health Organisation (WHO) or National AIDs Control Organisation (NACO) guidelines and then sent to the common bio-medical waste treatment facility for final disposal;
3. That, the occupier shall make provisions for disposing of solid waste other than bio-medical waste in accordance with the provisions of respective waste management rules made under the relevant laws and amended from time to time;
4. That, the occupier shall make provisions for ensuring treatment and disposal of liquid waste in accordance with the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);
5. That, the occupier shall make provisions for ensuring segregation of liquid chemical waste at source and ensure pre-treatment or neutralisation prior to mixing with other effluent generated from health care facilities;

D. General Safeguards:

1. That, the occupier shall construct pucca (i) minimum ten feet high boundary wall and (ii) approach road and internal roads and shall keep the premises neat, clean and tidy.
2. That, the occupier shall submit ambient air quality, noise level and effluent analysis reports to the Board before and after commissioning of the project.
3. That, the occupier shall ensure that, use of environment friendly materials such as Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks shall be used for at least 50% of the construction material quantity.
4. That, the occupier shall comply with the provisions of the Environment (Construction and Demolition) Waste Management Rules, 2025.
5. That, the occupier shall ensure that, adequate provisions shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be complied with.
6. That, the occupier shall ensure that separate bins for dry and wet solid waste must be provided in each unit for facilitating segregation of waste.

7. That, the occupier shall install organic waste compost / Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day.
8. That, the occupier shall ensure that, all non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recycler.
9. That, the occupier shall ensure that any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
10. That, the occupier shall ensure that, used CFLs and TFLs should be properly collected and disposed off / sent for recycling to authorized TSDFs to avoid mercury contamination.
11. That, the occupier shall ensure that the provisions of the Solid Waste Management Rules, 2026; the E-Waste (Management) Rules, 2022; the Plastic Waste Management Rules, 2016, the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Noise Pollution (Regulation and Control) Rules, 2000 shall be followed and complied with.
12. That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and rules thereunder.
13. That, the occupier shall ensure that the height of the stack attached to D.G. sets shall be maximum of the following in meter:
    a. $14\ Q^{0.3}$, Q=Total SO_2 emission from the plant in Kg/Hr
    b. Minimum 6m above the building where the generator set is installed.
    c. 30 m.
14. That, the occupier shall ensure that the DG set should be acoustically designed and should be housed in appropriate acoustic enclosures so that the noise level outside it shall conform to the prescribed norms.
15. That, this Comments & Environmental Safeguards is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions' rests with the occupier.
16. That, this Comments & Environmental Safeguards shall not in any way adversely affect or jeopardize legal proceedings, if any, instituted in the past or that may be instituted against the occupier by the State Board for violation of the Act or Rules made thereunder.

I. Statutory compliance

i. This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.

ii. In the writ petition (Civil) no. 202/1995, T.N. GodavermanThirumulpadvs union of India and ors. TheHon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities proscribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to ".

iii. The Project proponent complies with all the statutory requirements and judgement of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors before commencing the mining operations.

iv. The Hon'ble Supreme Court vide order dated 08.01.2020 in W.P. (Civil) No.114/2014 in the matter of Common Cause vs. Union of India has directed that the area which has been mined should be restored so that grass and other vegetation including trees can grow in the mining area for the benefit of animals.

> *"The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.*

v. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgement of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors.

vi. This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.

vii. This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.

viii. Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.

ix. The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.

x. The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.

xi. The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-11013/57/2014-IAJI (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

xii. The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.

xiii. A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.

xiv. State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.

xv. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www. Environment clearance.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF& CC Regional Office for compliance and record.

xvi. The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation

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

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

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

III. Water quality monitoring and preservation

i. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

ii. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

iii. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be

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

iv. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

v. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IAJI (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

vi. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC annually.

vii. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

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

IV. Noise and vibration monitoring and prevention

i. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

ii. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.

iii. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PPshall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining Plan

i. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.

ii. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.

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

VI. Land reclamation

i. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.

ii. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.

iii. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.

iv. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.

v. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.

vi. Catch drains, settling tanks and ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

vii. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

viii. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

VII. Transportation

i. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.

ii. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

VIII. Green Belt

i. The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

ii. The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

iii. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

iv. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation, if any found or reported by the competent authority. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.

v. If any Wild Life Conservation Plan is prepared as per above clause no. iv, it shall be implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

IX. Public hearing and human health issues

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

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

ii. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.

iii. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).

iv. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be

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

v. The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

vi. Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

vii. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

X. Corporate Environment Responsibility (CER)

i. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's 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 make necessary arrangements to preserve live soil of the mine(s) and shall reclaim mined out areas by filling it (them) with over burden and live soil and shall do tree plantation over it (them). In no case soil shall be stored out of mine lease area and report to J.S.P.C. Board.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Annexure – III (B)

Environmental Safeguard provided by JSPCB

Environmental Safeguards: -

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Annexure – III (C)

Environmental Safeguard provided by JSPCB

Environmental Safeguards: -

1) That, the occupier must provide a display board of adequate size (preferably not less than 1 m × 1 m) near the entrance of mines, mentioning the following details: -

   a. Name of the Mines with Capacity.
   b. Address and exact location of area with latitude and longitude of all corner points.
   c. Name of the Proprietor with contact no.
   d. Status of regulatory compliance status with Validity (CTE, CTO, HWA etc.).
   e. Status of Electricity Power Supply.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Annexure – III (D)

Environmental Safeguard provided by JSPCB

Environmental Safeguards: -

1) That, the occupier must provide a display board of adequate size (preferably not less than1 m × 1 m) near the entrance of mines, mentioning the following details: -
    a. Name of the Mines with Capacity.
    b. Address and exact location of area with latitude and longitude of all corner points.
    c. Name of the Proprietor with contact no.
    d. Status of regulatory compliance status with Validity (CTE, CTO, HWA etc.).
    e. Status of Electricity Power Supply.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Annexure – III (E)

Environmental Safeguard provided by JSPCB

Environmental Safeguards: -

1) That, the occupier must provide a display board of adequate size (preferably not less than1 m × 1 m) near the entrance of mines, mentioning the following details: -
    a. Name of the Mines with Capacity.
    b. Address and exact location of area with latitude and longitude of all corner points.
    c. Name of the Proprietor with contact no.
    d. Status of regulatory compliance status with Validity (CTE, CTO, HWA etc.).
    e. Status of Electricity Power Supply.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Annexure – III (F)

Environmental Safeguard provided by JSPCB

Environmental Safeguards: -

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

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

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

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

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

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

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

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

9) That, the occupier shall install fixed type water sprinklers to cover all dusty places in the premises to impart water spraying intermittently and during loading, unloading of raw materials / products and wastes.
10) That, the occupier shall keep their annual production within the capacity mentioned in the Environmental Clearance accorded to the Unit.

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

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

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

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

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

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

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

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

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

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

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

Annexure – III (G)

Environmental Safeguard provided by JSPCB

Environmental Safeguards: -

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

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

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

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

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

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

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

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

9) That, the occupier shall install fixed type water sprinklers to cover all dusty places in the premises to impart water spraying intermittently and during loading, unloading of raw materials / products and wastes.
10) That, the occupier shall keep their annual production within the capacity mentioned in the Environmental Clearance accorded to the Unit.

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

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

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

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

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

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

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

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

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

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

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

Annexure – III (H)

Environmental Safeguard provided by JSPCB

Environmental Safeguards: -

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

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

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

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

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

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

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

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

9) That, the occupier shall install fixed type water sprinklers to cover all dusty places in the premises to impart water spraying intermittently and during loading, unloading of raw materials / products and wastes.
10) That, the occupier shall keep their annual production within the capacity mentioned in the Environmental Clearance accorded to the Unit.

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

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

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

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

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

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

Annexure – III (I)

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 of the Mines duly certified by D.M.O, within consent period.

6) That, the occupier shall supply mined out mineral only to those brick kiln units which have valid Consent to Operate from the Board and shall maintain record of it and show the record to the Inspecting Officer at the time of inspection.

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

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

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

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

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

12) 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.

13) 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.

14) That, the measures shall be taken to prevent dust emission by covering of burrowed / excavated earth during transportation.

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

16) That, the burrowing / excavation of brick earth and ordinary earth for the purpose of brick manufacturing shall not involve blasting.

17) That the burrowing / excavation activity shall be restricted to a maximum depth of 2 meters below general ground level at the site.

18) That, the burrowing /excavation activity shall be restricted to 2 meters above the ground water table at the site.

19) That the burrowing / excavation activity shall not alter the natural drainage pattern of the area.

20) That, the appropriate fencing all around the burrow / excavation pit shall be made to demarcate the Mining lease area and prevent any mishap.

21) 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.

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

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: -
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   b. Address and exact location of area with latitude and longitude of all corner points.
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17) That the burrowing / excavation activity shall be restricted to a maximum depth of 2 meters below general ground level at the site.

18) That, the burrowing /excavation activity shall be restricted to 2 meters above the ground water table at the site.

19) That the burrowing / excavation activity shall not alter the natural drainage pattern of the area.

20) That, the appropriate fencing all around the burrow / excavation pit shall be made to demarcate the Mining lease area and prevent any mishap.

21) 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.

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

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

i. Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.

ii. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.

iii. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.

iv. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).

v. Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.

vi. Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.

vii. It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.

viii. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.

ix. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.

x. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

xi. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.

xii. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.

xiii. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.

xiv. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.

xv. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

xvi. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.

xvii. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.

xviii. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

xix. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.

xx. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).

xxi. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

xxii. One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.

xxiii. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

xxiv. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.

xxv. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

xxvi. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.

xxvii. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.

xxviii. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.

xxix. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.

xxx. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.

xxxi. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

xxxii. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

xxxiii. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.

xxxiv. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.

xxxv. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.

xxxvi. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

xxxvii. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

xxxviii. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.

xxxix. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

xl. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

xli. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

xlii. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.

xliii. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

xliv. Besides the above, the below mentioned general points are also to be followed :-

a) Executive Summary of the EIA/EMP Report

b) All documents to be properly referenced with index and continuous page numbering.

c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.

d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF & CC / NABL accredited laboratories. All the original analysis / testing reports should be available during appraisal of the Project.

e) Where the documents provided are in a language other than English, an English translation should be provided.

f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.

g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF & CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

xlv. After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

xlvi. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022 of MoEF&CC, Govt. of India.

चुनाव का पर्व DESH KA GARV

चुनाव का पर्व DESH KA GARV

जिला खनन कार्यालय, पाकुड़

ज्ञापांक ..... / एम0, दिनांक .....

प्रेषित,

मो0 नाजीमुद्दिन,
पिता–स्व0 मो0 ताहिरूद्दिन,
ग्राम+पो0–कासीमनगर, जिला–वीरभूम(पं0बं0)।

विषय : महेशपुर अंचलान्तर्गत मौजा–धोवाडंगाल नं0–05, जमाबन्दी सं0–12 एवं 13, प्लॉट नं0–554, 555 एवं 556, रकवा–3.50 एकड़ क्षेत्र के लिए निर्गत Contiguous Certificate के संबंध में।

प्रसंग : Sr Audit Officer (Field) AMG-III, प्रधान महालेखाकार (अंकेक्षण) का कार्यालय, झारखण्ड, रांची का Audit observation reference : #18 (OBS-1161436), दिनांक 03.01.2024 एवं उपायुक्त, पाकुड़ के आदेश दिनांक 19.03.2024, इस कार्यालय के ज्ञापांक 419 / एम0, दिनांक 22.03.2024 एवं आपसे प्राप्त उत्तर दिनांक 07.04.2024

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के सन्दर्भ में कहना है कि महेशपुर अंचलान्तर्गत मौजा–धोवाडंगाल नं0–05, जमाबन्दी सं0–12 एवं 13, प्लॉट नं0–554, 555 एवं 556, रकवा–3.50 एकड़ क्षेत्र के लिए अधोहस्ताक्षरी के ज्ञापांक 1043 / एम0, दिनांक 03.07.2021 से Contiguous Certificate निर्गत किया गया था, जिसमें आवेदित क्षेत्र सहित स्वीकृत खनन पट्टा एवं आशय का पत्र स्वीकृत क्षेत्र का कुल रकवा 13.68 एकड़ या 5.54 हे0 है, जिसके आधार पर पर्यारणीय स्वीकृति B-1 के स्तर से होना है, जबकि आपके द्वारा समर्पित पर्यावरणीय स्वीकृति B-2 Category (5 हे0 से कम) का है।

अतः उपरोक्त के आलोक में प्रश्नगत खनन पट्टा को Abeyance में रखते हुए निदेशित किया जाता है कि State Environment Impact Assessment Authority (SEIAA) से B-1 श्रेणी स्तर का पर्यावरणीय स्वीकृति प्राप्त कर अग्रेतर कार्यवाही हेतु इस कार्यालय में समर्पित करें।

ह0 –
जिला खनन पदाधिकारी,
पाकुड़

ज्ञापांक 605 / एम0, दिनांक 13/05/2024

प्रतिलिपि :– Member Secretary, State Environment Impact Assessment Authority (SEIAA), Jharkhand, Ranchi को सूचनार्थ एवं अग्रेतर कार्रवाई हेतु प्रेषित।

13/5/24
जिला खनन पदाधिकारी,
पाकुड़

चुनाव का पर्व DESH KA GARV

चुनाव का पर्व DESH KA GARV

जिला खनन कार्यालय, पाकुड़

ज्ञापांक ...../एम0, दिनांक .....

प्रेषित,

श्री अविनाश कुमार भगत,
पिता–श्री प्रदीप प्रसाद भगत, धुलियान रोड,
हरिणडांगा बाजार, पाकुड़।

विषय : महेशपुर अंचलान्तर्गत मौजा– बलियापतरा नं०–322 के ज़मावन्दी नं0–21, 22 एवं 15 के प्लॉट नं0–419, 693, 694, 695, 701, 702, 703, 704, 708, 709, 710, 711, 716, 717, 718, 719, 720, 721 एवं 722, रकवा–5.79 एकड़ क्षेत्र के लिए निर्गत Contiguous Certificate के संबंध में।

प्रसंग : Sr Audit Officer (Field) AMG-III, प्रधान महालेखाकार (अंकेक्षण) का कार्यालय, झारखण्ड, रांची का Audit observation reference : #18 (OBS-1161436), दिनांक 03.01.2024 एवं उपायुक्त, पाकुड़ के आदेश दिनांक 19.03.2024, इस कार्यालय के ज्ञापांक 418/एम0, दिनांक 22.03.2024 एवं आपसे प्राप्त उत्तर दिनांक 08.04.2024

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के सन्दर्भ में कहना है कि महेशपुर अंचलान्तर्गत मौजा– बलियापतरा नं०–322 के जमाबन्दी नं0–21, 22 एवं 15 के प्लॉट नं0–419, 693, 694, 695, 701, 702, 703, 704, 708, 709, 710, 711, 716, 717, 718, 719, 720, 721 एवं 722, रकवा–5.79 एकड़ क्षेत्र के लिए अधोहस्ताक्षरी के ज्ञापांक 1387/एम0, दिनांक 10.09.2020 से Contiguous Certificate निर्गत किया गया था, जिसमें आवेदित क्षेत्र सहित स्वीकृत खनन पट्टा एवं आशय का पत्र स्वीकृत क्षेत्र का कुल रकवा 15.83 एकड़ या 6.41 हे0 है, जिसके आधार पर पर्यारणीय स्वीकृति B-1 के स्तर से होना है, जबकि आपके द्वारा समर्पित पर्यावरणीय स्वीकृति B-2 Category (5 हे0 से कम) का है।

अतः उपरोक्त के आलोक में प्रश्नगत खनन पट्टा को Abeyance में रखते हुए निदेशित किया जाता है कि State Environment Impact Assessment Authority (SEIAA) से B-1 श्रेणी स्तर का पर्यावरणीय स्वीकृति प्राप्त कर अग्रेतर कार्यवाही हेतु इस कार्यालय में समर्पित करें।

ह०–
जिला खनन पदाधिकारी,
पाकुड़

ज्ञापांक 600/एम0, दिनांक 13/05/2024

प्रतिलिपि :– Member Secretary, State Environment Impact Assessment Authority (SEIAA), Jharkhand, Ranchi को सूचनार्थ एवं अग्रेतर कार्रवाई हेतु प्रेषित।

13/5/24
जिला खनन पदाधिकारी,
पाकुड़

चुनाव का पर्व DESH KA GARV

जिला खनन कार्यालय, पाकुड़

चुनाव का पर्व DESH KA GARV

ज्ञापांक ...../एम0, दिनांक .....

प्रेषित,

मेसर्स मनोज स्टोन वर्क्स,
प्रो0–श्री मनोज कुमार गौंड, पिता–श्री श्याम लाल गौंड,
ग्राम–शहरकोल, गोकुलपुर, पाकुड़।

विषय : हिरणपुर अंचलान्तर्गत मौजा–तालपहाड़ी नं०–115 के जमाबन्दी सं0–3, प्लॉट नं0–426/पी0, 429, 430, 435, 436, 437, 438, 439, 440, 441 एवं 442, रकवा–6.28 एकड़ क्षेत्र के लिए निर्गत Contiguous Certificate के संबंध में।

प्रसंग : Sr Audit Officer (Field) AMG-III, प्रधान महालेखाकार (अंकेक्षण) का कार्यालय, झारखण्ड, रांची का Audit observation reference : #18 (OBS-1161436), दिनांक 03.01.2024 एवं उपायुक्त, पाकुड़ के आदेश दिनांक 19.03.2024, इस कार्यालय के ज्ञापांक 415/एम0, दिनांक 22.03.2024 एवं आपसे प्राप्त उत्तर दिनांक 09.04.2024

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के सन्दर्भ में कहना है कि हिरणपुर अंचलान्तर्गत मौजा–तालपहाड़ी नं०–115 के जमाबन्दी सं0–3, प्लॉट नं0–426/पी0, 429, 430, 435, 436, 437, 438, 439, 440, 441 एवं 442, रकवा–6.28 एकड़ क्षेत्र के लिए अधोहस्ताक्षरी के ज्ञापांक 1691/एम0, दिनांक 22.09.2020 से Contiguous Certificate निर्गत किया गया था, जिसमें आवेदित क्षेत्र सहित स्वीकृत खनन पट्टा एवं आशय का पत्र स्वीकृत क्षेत्र का कुल रकवा 13.25 एकड़ या 5.36 हे0 है, जिसके आधार पर पर्यारणीय स्वीकृति B-1 के स्तर से होना है, जबकि आपके द्वारा समर्पित पर्यावरणीय स्वीकृति B-2 Category (5 हे0 से कम) का है।

अतः उपरोक्त के आलोक में प्रश्नगत खनन पट्टा को Abeyance में रखते हुए निदेशित किया जाता है कि State Environment Impact Assessment Authority (SEIAA) से B-1 श्रेणी स्तर का पर्यावरणीय स्वीकृति प्राप्त कर अग्रेतर कार्यवाही हेतु इस कार्यालय में समर्पित करें।

जिला खनन पदाधिकारी,
पाकुड़

ज्ञापांक 603/एम0, दिनांक 13/05/2024

प्रतिलिपि :– Member Secretary, State Environment Impact Assessment Authority (SEIAA), Jharkhand, Ranchi को सूचनार्थ एवं अग्रेतर कार्रवाई हेतु प्रेषित।

जिला खनन पदाधिकारी,
पाकुड़

चुनाव का पर्व DESH KA GARV

चुनाव का पर्व DESH KA GARV

जिला खनन कार्यालय, पाकुड़

ज्ञापांक ..... / एम0, दिनांक .....

प्रेषित,

मेसर्स फोर स्टार स्टोन वर्क्स,
प्रो0–अहिदुर रहमान, पिता–अबु बकार,
ग्राम–नया अंजना, पो0–पृथ्वीनगर, पाकुड़।

विषय : हिरणपुर अंचलान्तर्गत मौजा–मानसिंहपुर नं0–103, जमाबन्दी सं0–71 एवं 20 एवं मौजा–प्रतापपुर नं०–104 के जमाबन्दी सं0–8, 7, 6, 9 एवं 4 के प्लॉट नं0–54 / पी0, 72 / 1542, 73, 594, 595, 596, 597, 616, 617, 618, 619, 620, 621, 622, 623 एवं 625, रकवा–6.55 एकड़ क्षेत्र के लिए निर्गत Contiguous Certificate के संबंध में।

प्रसंग : Sr Audit Officer (Field) AMG-III, प्रधान महालेखाकार (अंकेक्षण) का कार्यालय, झारखण्ड, रांची का Audit observation reference : #18 (OBS-1161436), दिनांक 03.01.2024 एवं उपायुक्त, पाकुड़ के आदेश दिनांक 19.03.2024, इस कार्यालय के ज्ञापांक 411 / एम0, दिनांक 22.03.2024 एवं आपसे प्राप्त उत्तर दिनांक 08.04.2024

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के सन्दर्भ में कहना है कि हिरणपुर अंचलान्तर्गत मौजा–मानसिंहपुर नं0–103, जमाबन्दी सं0–71 एवं 20 एवं मौजा–प्रतापपुर नं०–104 के जमाबन्दी सं0–8, 7, 6, 9 एवं 4 के प्लॉट नं0–54 / पी0, 72 / 1542, 73, 594, 595, 596, 597, 616, 617, 618, 619, 620, 621, 622, 623 एवं 625, रकवा–6.55 एकड़ क्षेत्र के लिए अधोहस्ताक्षरी के ज्ञापांक 1247 / एम0, दिनांक 08.08.2020 से Contiguous Certificate निर्गत किया गया था, जिसमें आवेदित क्षेत्र सहित स्वीकृत खनन पट्टा एवं आशय का पत्र स्वीकृत क्षेत्र का कुल रकवा 12.36 एकड़ या 5.00 हे0 है, जिसके आधार पर पर्यारणीय स्वीकृति B-1 के स्तर से होना है, जबकि आपके द्वारा समर्पित पर्यावरणीय स्वीकृति B-2 Category (5 हे0 से कम) का है।

अतः उपरोक्त के आलोक में प्रश्नगत खनन पट्टा को Abeyance में रखते हुए निदेशित किया जाता है कि State Environment Impact Assessment Authority (SEIAA) से B-1 श्रेणी स्तर का पर्यावरणीय स्वीकृति प्राप्त कर अग्रेतर कार्यवाही हेतु इस कार्यालय में समर्पित करें।

जिला खनन पदाधिकारी,
पाकुड़

ज्ञापांक 602 / एम0, दिनांक 13/05/2024

प्रतिलिपि :– Member Secretary, State Environment Impact Assessment Authority (SEIAA), Jharkhand, Ranchi को सूचनार्थ एवं अग्रेतर कार्रवाई हेतु प्रेषित।

जिला खनन पदाधिकारी,
पाकुड़

Gmail **Member Secretary SEAC <seac.jhk@gmail.com>**

Regarding approval of 135th MOM of SEAC held from 23 - 29.09.2026.

Niranjan Lal Agarwalla <niranjan.seac@gmail.com> Tue, Oct 6, 2026 at 7:02 PM
To: Member Secretary SEAC <seac.jhk@gmail.com>

Sir,
I Acknowledge receipt of the Minutes of the 135th MOM of SEAC held from 23 - 29.09.2026 in which i have joined the meeting in virtual mode on 23rd and 26th to 29th September, 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.

I have also placed my digital signature on the page where full signatures are provided

Digitally MOM attached herewith

Niranjan Lal Agarwalla
Member, SEAC Jharkhand
9434064411

[Quoted text hidden]

135th MOM of SEAC_digitally signed.pdf
24101K