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**File No:** EC/SEIAA/2026-27/5039/2026

# State Environment Impact Assessment Authority (SEIAA), Jharkhand

(Constituted as per the provision of EIA Notification, 2006, as amended by the Ministry of Environment, Forest and Climate Change, Government of India)

Dated: **08/10/2026**

To,

RAKESH SEN GUPTA
RAKESH SEN GUPTA
HOUSE NO. - 251, PO - JHUMARI TELAIYA, P.S - JHUMARI TILAIYA, RAJPURA, NAWADA BASTI, GIRIDIH, JHARKHAND, 825409
rakeshsen.gupta11@gmail.com

**Subject:** Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding.

**Sir/Madam,**

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project Chakarbarai Stone Deposit, M/s Chakarbarai Stone Mines submitted to Ministry vide proposal number SIA/JH/MIN/589650/2026 dated 20/08/2026.

2. The particulars of the proposal are as below:

| | |
|---|---|
| **(i) TOR Identification No.** | TO26B0108JH5737888N |
| **(ii) File No.** | EC/SEIAA/2026-27/5039/2026 |
| **(iii) Clearance Type** | TOR |
| **(iv) Category** | B1 |
| **(v) Project/Activity Included Schedule No.** | 1(a) Mining of minerals |
| **(vi) Name of Project** | Chakarbarai Stone Deposit, M/s Chakarbarai Stone Mines |
| **(vii) Name of Company/Organization** | RAKESH SEN GUPTA |
| **(viii) Location of Project (District, State)** | GIRIDIH, JHARKHAND |
| **(ix) Issuing Authority** | SEIAA |
| **(x) Applicability of General Conditions** | no |
| **(xi) Applicability of Specific Conditions** | no |

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the Ministry for an appraisal by the SEIAA Appraisal Committee (SEIAA) in the Ministry under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by SEIAA Appraisal Committee of SEIAA in the meeting held on 08/09/2026. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B, Part C EIA, EMP)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.

5. The brief about configuration of plant/equipment, products and byproducts and salient features of the project along with environment settings, as submitted by the Project proponent in Form-1 (Part A, B and C)/EIA & EMP Reports/presented during SEIAA are annexed to this EC as Annexure (1).

6. The SEIAA, in its meeting held on 08/09/2026, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of Terms of Reference under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of specific and general conditions as detailed in Annexure (2).

7. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the SEIAA Appraisal Committee hereby decided to grant Terms of Reference for instant proposal of M/s. RAKESH SEN GUPTA under the provisions of EIA Notification, 2006 and as amended thereof.

8. The Ministry reserves the right to stipulate additional conditions, if found necessary.

9. The Terms of Reference to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

10. This issues with the approval of the Competent Authority.

**Copy To**

**1.** The Member Secretary, CGWA, 18/11 Jamnagar House Man Singh Road, Central, Delhi, cgwa@nic.in
**2.** The Member Secretary, CPCB, Central Pollution Control Board Cbd-Cum-Office Complex East Arjun Nagar Delhi – 32, New Delhi, Delhi, mscb.cpcb@nic.in

**Annexure 1**

**Standard Terms of Reference for (Mining of minerals)**

**1.**

| S. No | Terms of Reference |
|---|---|
| **1.1** | 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 |
| **1.2** | A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given |
| **1.3** | 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 |
| **1.4** | All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the areashould be provided. Such an |

| S. No | Terms of Reference |
|---|---|
| | Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone) |
| **1.5** | 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 |

**Additional Terms of Reference**

N/A

**Annexure 2**

**Details of Products & By-products**

| Name of the product /By-product | Product / By-product | Quantity | Unit | Mode of Transport / Transmission | Remarks (eg. CAS number) |
|---|---|---|---|---|---|
| Stone | Stone | 150699 | Tons per Annum (TPA) | Road | |

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**State Level Environment Impact Assessment Authority, Jharkhand**

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004

E-mail: msseiaa.jhk@gmail.com / website: www.jseiaa.in

Letter No.- **EC/SEIAA/2026-27/5039/2026/** Ranchi, Date :

**To: M/s Chakarbarai Stone Mines,**
**Partners : (i) Shri Rakesh Sen Gupta,**
**(ii) Shri Raju Yadav,**
**At : Rajpura Nawada Basti, P.O. : Jhumri Telaiya,**
**District : Koderma, Jharkhand.**

Sub: Prescribing of ToR **to "Chakarbarai Stone Deposit of M/s Chakarbarai Stone Mines (Partners : Shri Rakesh Sen Gupta & Shri Raju Yadav), Village : Chakarbarai, Tehsil : Dumri, Distt. : Giridih, Jharkhand (2.473 Ha) (Proposal no.: SIA/JH/MIN/ 589650 /2026) – regarding.**

Ref: Your application no. Nil, dated – 20.08.2026.

Sir,

It is in reference to the project to **"Chakarbarai Stone Deposit of M/s Chakarbarai Stone Mines (Partners : Shri Rakesh Sen Gupta & Shri Raju Yadav), Village : Chakarbarai, Tehsil : Dumri, Distt. : Giridih, Jharkhand (2.473 Ha)"** along with the application in the prescribed format (Form-1) and a copy of the pre-feasibility report and approved mine plan to prescribe the ToRs for undertaking detailed EIA study for the purpose of obtaining environmental clearance under the provisions of the EIA Notification, 2006 in respect of the above mentioned project.

This is a new project which has been taken for appraisal on 26.08.2026.

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

**Application for Terms of Reference (ToR).**

**ToR Application for: Proposed Capacity – 55814 Cum per year or 150699 Tonnes per year**

**Project and Location Details:**

| Sl No. | Parameter | | Details |
|---|---|---|---|
| 1 | Project Name | : | Chakarbarai Stone Deposit |
| 2 | Lessee: | : | **M/s Chakarbarai Stone Mines**<br>Partner- Sri Rakesh Sen Gupta & Sri Raju Yadav |

| | | | | |
|---|---|---|---|---|
| 3 | Lessee Address | : | At-Rajpura Nawada Basti, P.O - Jhumri Telaiya, District- Koderma. | |
| 4 | Lease Area | : | 2.473 Ha. | 6.11 Acres |
| 5 | Type of Land | : | Non-Forest Raiyati Land | |
| 6 | Project Cost | : | Capital: Rs. 3533400.00 | Recurring: 8854902.67 per year |
| 7 | EMP Budget | : | Capital: Rs. 1837700.00 | Recurring: Rs. 872130.00 per year |
| 8 | New or Expansion | : | New | |
| 9 | Mineable Reserves | : | 521199 cum | 1407236 tonnes |
| 10 | Mine Life | : | 10 Years | |
| 11 | Man power | : | 20 | |
| 12 | Water Requirement | : | 16.50 KLD | |
| 13 | Water Source | : | By authorised hired water tankers | |
| 14 | DG Set / power | : | - | |
| 15 | Crusher | : | No crusher | |
| 16 | Nearest Water Body | : | Seasonal nala at a distance of 82 meters. | |
| 17 | Nearest Habitation | : | Chakarbarai Village at a distance of 600 metres on Western Direction | |
| 18 | Nearest Rail Station | : | Nearest railway stations is Parasnath railway station which is about 3.4 Km from the applied lease area in West direction. | |
| 19 | Nearest Air Port | : | Deoghar Airport is at a distance of 124 Km in North-East direction. | |
| 20 | Nearest Forest | : | Divisional Forest Officer, Giridih certified that the distance of reserved / protected forest is 600 meters from proposed project site. | |
| 21 | Nearest Wildlife Sanctuary | : | The project location is at approx. 1.99 KM from the nearest Parashnath wildlife sanctuary. | |
| 22 | Road & Highways | : | NH-19- Dumri-Govindpur Road at about 2.2Km on southern side | |
| 23 | Approach road | : | At a distance of 20 meters | |
| 24 | Environmental monitoring base line data | : | Base line data not created. | |

**CO-ORDINATES**

| Sl.No. | LATITUDE | LONGITUDE |
|---|---|---|
| 1 | 23° 58' 56.8108" N | 86° 04' 16.3693" E |
| 2 | 23° 58' 55.4553" N | 86° 04' 15.2641" E |
| 3 | 23° 58' 55.0455" N | 86° 04' 14.6228" E |

| | | |
|---|---|---|
| 4 | 23° 58' 54.6503" N | 86° 04' 14.4741" E |
| 5 | 23° 58' 53.7519" N | 86° 04' 14.8018" E |
| 6 | 23° 58' 53.2415" N | 86° 04' 14.4009" E |
| 7 | 23° 58' 53.2387" N | 86° 04' 13.9342" E |
| 8 | 23° 58' 52.6555" N | 86° 04' 13.8155" E |
| 9 | 23° 58' 51.4314" N | 86° 04' 14.2899" E |
| 10 | 23° 58' 51.3711" N | 86° 04' 14.5687" E |
| 11 | 23° 58' 50.3150" N | 86° 04' 14.9269" E |
| 12 | 23° 58' 49.6552" N | 86° 04' 14.7943" E |
| 13 | 23° 58' 48.7028" N | 86° 04' 13.9611" E |
| 14 | 23° 58' 49.4259" N | 86° 04' 13.1945" E |
| 15 | 23° 58' 51.5239" N | 86° 04' 09.2472" E |
| 16 | 23° 58' 52.7659" N | 86° 04' 10.4880" E |
| 17 | 23° 58' 53.0911" N | 86° 04' 11.4495" E |
| 18 | 23° 58' 53.4431" N | 86° 04' 11.6903" E |
| 19 | 23° 58' 53.6470" N | 86° 04' 11.3324" E |
| 20 | 23° 58' 55.2604" N | 86° 04' 11.6422" E |
| 21 | 23° 58' 57.4609" N | 86° 04' 12.4354" E |
| 22 | 23° 58' 57.3559" N | 86° 04' 14.4687" E |
| 23 | 23° 58' 56.8108" N | 86° 04' 15.3202" E |

**LAND DETAILS**

| Khata no. | Plot no. |
|---|---|
| 17 | 248, 289, 293 & 301 |
| 24 | 288, 290 (P), 291, 294, 299, 300, 302, 303, 304 (P), 305 (P), 306 (P) & 307 (P) |
| 30 | 236, 238 & 239 (P) |
| 61 | 249, 284, 296 & 297 |
| 66 | 287, 292, 295 & 298 |

**STATUTORY CLEARANCES**

| | | | |
|---|---|---|---|
| 1 | LOI/Lease docs | : | The Letter of Intent (LoI) has been issued by District Mining Office, Giridih vide letter no. 468/M dated 08.05.2025. |
| 2 | CO | : | The CO, Dumri (Giridih) vide letter no. 340, dated 30.04.2025 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatiyan. During the appraisal it was seen from the KML that Nala exists at a distance of 40 meters from mining lease area. For which detailed Environmental |

| | | | |
|---|---|---|---|
| | | | Management Plan has been prepared and submitted. |
| 3 | DMO Cluster | : | DMO, Giridih vide memo no. 606/M, dated 17.06.2025 certified that 02 LoI (4.6350 Acre & 5.57 Acre) exists within 500 m radius from proposed project site and total area is 16.315 Acre. |
| 4 | DFO Wild Life | : | Divisional Forest Officer, Wildlife Division, Hazaribag vide letter no. 189, dated 15.02.2025 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath &Topchanchi Wildlife Sanctuary. |
| 5 | DFO Territorial | : | DFO, Giridih East Forest Division vide letter no. 1538, dated 17.07.2026 certified that the distance of reserved / protected forest is 600 meters from proposed project site. |
| 6 | DSR | : | The DMO, Giridih has certified vide memo no. 121/Khanan, dated 09.02.2026 that this project is mentioned in approved DSR of Giridih District as a Potential Zone 01. |
| 7 | Gram Sabha | : | BDO, Dumri (Giridih) vide letter no. 412, dated 21.03.2025 informed that Gram Sabha conducted on 11.02.2025. |
| 8 | Mine Plan Approval | : | Approved by The Assistant Director, Geology, District Geological Office, Bokaro vide Letter No. 18, dated 02.02.2026. |
| 9 | Qualified Person | : | Shri Vidya Bhushan Mishra was present in the meeting and affirmed that the mine plan has been prepared by him. |

**Working Details**

| | | | |
|---|---|---|---|
| 1 | Mining Method | : | Semi-mechanized "OTFM" Method |
| 2 | Quarry Area | : | 1.893 Ha. |
| 3 | Waste Generation | : | 49620 cum |
| 4 | Stripping Ratio | : | 1:0.07 |
| 5 | Working Days | : | 300 |
| 6 | Benches: size & No | : | 6m to 6m and 6 in numbers |
| 7 | Elevation of Mine | : | 278 m AMSL to 272 m AMSL |
| 8 | Ground Level Elevation | : | 272 m AMSL |
| 9 | Ultimate Working Depth | : | 238 m AML |
| 10 | Water Table | : | 220 m AMSL |
| 11 | Topography of Mine | : | The applied lease area represents a small hillock |
| 12 | Explosive | : | 63 kg/day |

| | | | |
|---|---|---|---|
| | Requirement | | |
| 13 | Diesel/Fuel requirement | : | 301 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 | 47880 | 129276 | 14880 | 2520 | 17400 |
| 2nd Year | 48906 | 132046 | 10560 | 2574 | 13134 |
| 3rd Year | 51072 | 137894 | 10680 | 2688 | 13368 |
| 4th Year | 52820 | 142614 | 0 | 2780 | 2780 |
| 5th Year | 55814 | 150699 | 0 | 2938 | 2938 |
| Total | **256492** | **692529** | **36120** | **13500** | **49620** |

Land Use Pattern

| Land Utilization | Existing Land use (Ha) | At the end of plan period (Ha) | At Conceptual period (Ha) |
|---|---|---|---|
| Excavation | 0.0 | 1.080 | 1.893 (0.213 Ha area shall be Backfilled, 1.066 Ha converted in to water reservoir & 0.611 Ha shall be left as dead benches) |
| Waste Dump | 0.0 | 0.564 | Nil (Comes under quarry) |
| Road | 0.0 | 0.025 | 0.00 (Comes under quarry) |
| Infrastructure | 0.00 | 0.00 | 0.00 |
| Safety Zone Plantation | 0.0 | 0.580 | 0.580 |
| **Total** | 0.0 | **2.249** | **2.473** |
| **Unused Area** | **2.473** | **0.224** | **0.00** |
| **Total Lease Area** | **2.473** | | |

**ENVIRONMENT MANAGEMENT**

**Green Belt Development**

| Plantation | | | | |
|---|---|---|---|---|
| **Location** | **Area (Ha.) or Length (m)** | **No. of tree** | **Calculation** | **Timeline** |
| Safety Zone | 0.580 | 928 | 1600 tree per hectare | 1st Year |
| Approach Road | 20 | 40 | 2m X 2m spacing | 1st year |
| Dead Bench | 0.611 | 978 | 1600 tree per | End of |

| | | | | |
|---|---|---|---|---|
| | | | hectare | Mine |
| Backfilled area (level upto surface) | 0.213 | 341 | 1600 tree per hectare | End of Mine |
| **TOTAL** | | **2287** | | |

- 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 | 152772.67 |
| Infrastructure | | | 700000.00 | 0.00 |
| Mining Equipment | | | 0.00 | 7800000.00 |
| ***Equipment*** | ***Quantity*** | ***Rent per year*** | | |
| Loader | 1 | 600000 | | |
| Dumper | 2 | 2000000 | | |
| Compressor | 1 | 1000000 | | |
| Water Sprinkler | 1 | 600000 | | |
| Rock Breaker | 1 | 800000 | | |
| Excavator | 1 | 800000 | | |
| Water Facility for Domestic Purpose "0.8" KLD (Annual Water Demand "240"KL @4L per Tanker, total number of tankers required ("60") and per tanker cost @Rs. 500) | | | 0.00 | 30000.00 |
| Statutory Clearances | | | 500000.00 | 0.00 |
| Mine Closure Cost for Plantation of "1319" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance | | | 395700.00 | 0.00 |
| Mine Closure Cost for fencing around mine | | | 100000.00 | 0.00 |
| Environment Management Plan (EMP) Cost | | | **1837700.00** | **872130.00** |
| | | **Total** | **3533400.00** | **8854902.67** |

**Environment Management Budget**

| Budgetary Provision (in Lakhs) of Environment Management Plan (EMP) | | |
|---|---|---|
| **Particulars** | **Capital** | **Recurring** |
| Plantation of "968" number of trees @Rs.300 per tree for plant & @Rs. 50 per tree for maintenance | 290400.00 | 48400.00 |
| Water Facility for Horticulture "5.808" KLD & Dust Suppression "9.892" KLD (Annual Water Demand "4710"KL @4L per Tanker, total number of tankers required ("1178") and per tanker cost @Rs. 500) | 0.00 | 589000.00 |
| Garland Drain & Desiltation Pond | 247300.00 | 24730.00 |
| To prevent the impact of mining activities on the Nala | 3,00,000.00 | 60,000.00 |
| To prevent the impact of mining activities on these habitations under compliance of OM Z-11013/57/2014-IA. II (M) dated 29/10/2014 issued by MoEF & CC | 1000000.00 | 100000.00 |
| Environment Monitoring & Compliance | 0.00 | 50000.00 |
| **Total** | **1837700.00** | **872130.00** |

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 station | Six Monthly |

**Environment Management Practices to be followed:**

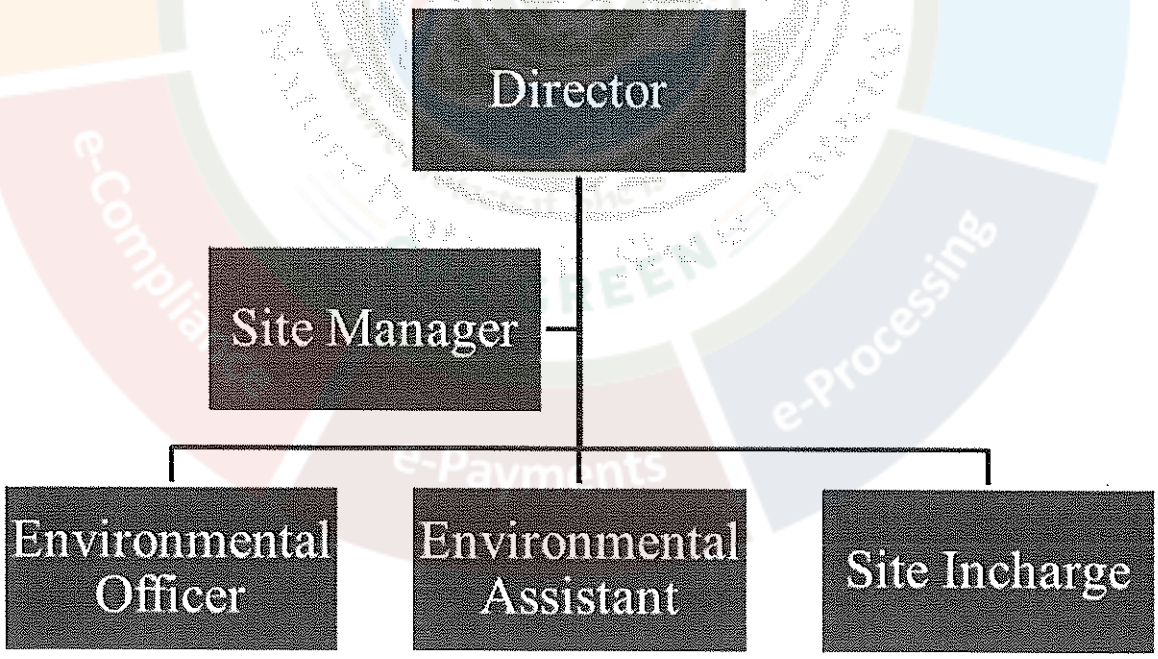
| Aspect | Mitigation Measures / Control Measures |
|---|---|
| Solid Waste Management | In this applied lease area, the stone deposit is covered with 2m layer of intermixed soil which considered as over burden. The recovery of stone is about 95%, thus intercalated waste of only 5% shall be generate from this mine. It has been calculated that total 49620 cum in-situ waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 24810 cum (In situ) shall be utilized for approach & haul road maintenance. The rest waste material (50%) i.e. 24810 cum in situ 31012.25 cum loose & 26360.41 cum compact waste shall be temporary dumped on the northern part of the applied lease area and it will cover about 0.564 ha area. |
| Air Quality Management | • **Wet drilling** and use of **sharp drill bits** to minimize dust generation.<br>• **Controlled blasting** using optimum explosive charge during favorable weather conditions.<br>• Regular **maintenance of diesel equipment and vehicles** to reduce emissions.<br>• **Water sprinkling** on haul roads, loading/unloading points, and working areas.<br>• All transport vehicles will have valid **PUC certificates**.<br>• **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).**<br>• **Rainwater** accumulated in the pit will be collected and pumped out regularly during monsoon.<br>• **Settling sump** will be provided to desilt pumped out of mine-pit and collected through garland drain before discharge into natural drainage.<br>• **Garland and foot drains** will be constructed around the quarry to control surface runoff.<br>• **Sewage** from rest shelters will be treated through **septic tank–soak pit systems**.<br>• 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**.<br>• **Acoustic enclosures** and **mufflers** will be provided for drilling and DG set operations.<br>• Regular **maintenance** of mining machinery to minimize vibration and noise.<br>• **Greenbelt development** around the lease boundary to attenuate noise propagation.<br>• **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**.<br>• **Garland drains and retaining walls** will prevent soil erosion and siltation.<br>• Spillage of oil or fuel will be avoided; **impervious flooring** and **oil traps** provided near storage areas<br>• 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.<br>• **Greenbelt and plantation** will be developed using native species along approach roads and lease periphery (7.5m Safety Zone).<br>• **Dust suppression measures** will minimize impact on surrounding vegetation |
| Socio Economy: | • Priority employment to **local people** in mining and ancillary activities.<br>• **Community development initiatives** such as tree plantation drives, road maintenance, and local infrastructure support.<br>• 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.<br>• All monitoring reports will be **submitted to statutory authorities** as per the compliance schedule.<br>• **Corrective measures** will be taken immediately if any deviation from standards is observed. |
| Risk & Hazard | Activities which are likely to create risk are:<br>Temporary Storage of Explosives, Charging of Explosives, Blasting, Drilling, Bench Formation, Loading / Unloading, Transportation<br>Proposed Preventive measures:<br>▪ Overall slope angles of benches will be maintained at 45°.<br>▪ Unmanageable heights are not created.<br>▪ Loose sides are properly dressed.<br>▪ 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).<br>▪ No undercutting of any face or sides will be permitted so as to cause any overhanging (Regulation 106(5) of MMR 1961)<br>▪ It will be ensured that the drilling equipment is suitable for the job.<br>▪ 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.<br>▪ Provision of portable rail fencing between the drilling operations and the edge of the bench<br>▪ Provision to attach a safety line to the drilling rig and provide a harness for |

| | |
|---|---|
| | the driller to wear.<br>▪ Restricted access to the area to all persons except those necessary for the drilling operation.<br>▪ Wet drilling will be carried out by constantly injecting a jet of water at the drill bit inside the hole, which prevents dust generation.<br>▪ 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.<br>▪ Drilling machine shall be fitted with dust suppression, collection and disposal arrangement. |
| Blasting & Handling of Explosives | ▪ Blast hole geometry shall be properly designed.<br>▪ Blast site shall be wetted before and after blasting operations are completed.<br>▪ 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.<br>▪ Blasting shall be conducted only during favourable weather conditions and only during the day time and permissible hours.<br>▪ 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.<br>▪ The vibrations should be monitored periodically in consultation with the local Mining authorities.<br>▪ 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.<br>▪ Proper and safe storage of explosives in approved and Licensed Magazine.<br>▪ 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.<br>▪ Explosives shall be conveyed in special containers.<br>▪ Explosives and detonators shall not be carried in the same container.<br>▪ 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.<br>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.<br>▪ 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.<br>▪ All transportation within the mine lease area should be carried out directly under the supervision and control of management.<br>▪ 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.<br>▪ Navigation signs will be provided at each and every turning point up to the main road (wherever required).<br>▪ 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.

SEAC, Jharkhand has suggested the ToRs in its **134th** meeting held on **23rd, 24th, 25th, 26th and 27th August, 2026** in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC OM dated 12.12.18 for undertaking detailed EIA / EMP study and SEIAA, Jharkhand has approved the ToRs in its **134th** meeting held on **08th, 09th & 10th September, 2026.**

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

**Specific Conditions:**

1. **The directions proscribed and prescribed in the Office Memorandum No. FC-11/119/2020-FC, Dated : 17th May, 2022 of MoEF&CC shall be strictly adhered to.**
2. **This ToR is subject to interim order dated 28.04.2026 of the Hon'ble Jharkhand High Court, Ranchi in W.P (PIL) no. 3950 of 2024, Anand Kumar vs The State of Jharkhand**

**& Ors vide paragraph no.** ***4. Accordingly, in Paragraph-2 of our order, the name of Mr. Sunil Kumar should be substituted by Mr. Bhanu Kumar and the word 'Jharkhand State Pollution Control Board (JSPCB)' must be substituted by "SEIAA". Similarly, in Paragraph-11, the name of 'Mr. Sunil Kumar' should be substituted with "Mr. Bhanu Kumar" and the expression 'JSPCB' must be substituted by "SEIAA". In Paragraph62(b) in line-2, the number '500' should be substituted with "400" and in line-4, the number '400' must be substituted with the number "500".***

3. **In compliance of OM no.F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign "*Ek Ped Ma Ke Naam*" and the details of the same shall be uploaded in the MeriLiFE Portal (https://merilife.nic.in). 10% of the total green belt proposed shall be allocated under this clause.**
4. **Environmental Management Plan to be prepared and incorporated in the final EIA / EMP report w.r.t. Seasonal Nala situated nearby to proposed ML area.**
5. This TOR letter is subject to Hon'ble NGT order dated 13.09.2018, order dated : 11.12.2018 and MoEF & CC OM dated : 12.12.2018.
6. 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.
7. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
8. 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.
9. 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).
10. 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.
11. 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.
12. 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.

13. 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.

14. 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.

15. 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.

16. 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.

17. 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.

18. 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.

19. 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.

20. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

21. 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.

22. 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.

23. 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 along with 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.

24. 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.

25. 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).

26. 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.

27. 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.

28. 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.

29. 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.

30. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

31. 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.

32. 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.

33. 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.

34. 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.

35. 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.

36. 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.

37. 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.

38. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.

39. 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.

40. 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.

41. 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.

42. 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.

43. 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.

44. 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.

45. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

46. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

47. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.

48. 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.

49. 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.

50. 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.

51. 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.

Sd/-
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand

Memo No : **EC/SEIAA/2026-27/5039/2026/** 174 Dated: 16-09-2026

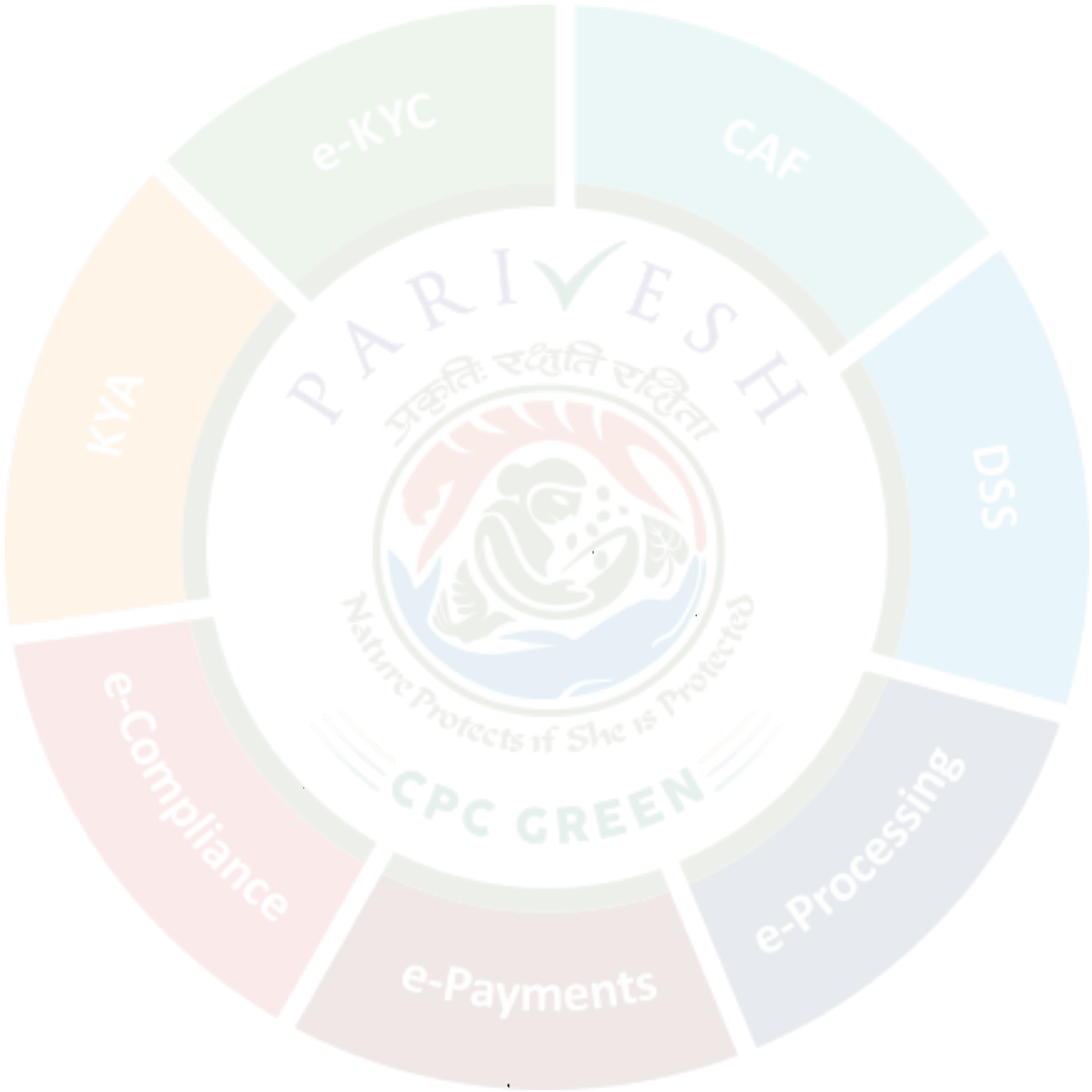
Copy to:

1. Member Secretary, Jharkhand State Pollution Control Board, Ranchi for information and necessary action.

2. Regional Office, Ministry of Environment, Forest and Climate Change, Govt. of India, 2nd Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi, Jharkhand – 834002.
3. Member Secretary, SEAC, Jharkhand, Ranchi for information and necessary action.

16/9/26

Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand




Signature Not Verified

Digitally Signed by : Smt Smitha Pankaj
Member Secretary, SEIAA

Date: 09/10/2026