



**Minutes of 139<sup>th</sup> Meeting of SEIAA, Odisha Held on 16.10.2023, 17.1.2023 & 19.10.2023**

- quarry for ensuring that working personnel are not affected by silicosis. Accordingly, specific condition to be stipulated in EC of individual lease.
- xi) The project proponent shall undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure. Accordingly, specific condition to be stipulated in EC of individual lease.
- xii) Detail risk and hazard management procedure as per the **Annexure – B** shall be followed by the lessee.

**Decision Of Authority: ADS**

The Authority observed that the cluster EMP cost of Rs.16.00Lakhs as capital cost & Rs.4.00Lakhs as recurring cost is grossly inadequate to address the issues raised during PH & also the petition dated 06.10.2022 & 15.11.2022 enclosed under Annexure-2 series of W(P) C No-34014/2022 of Hon'ble High Court Orissa, Cuttack.

After detailed deliberation on the matter, the Authority decided that the PP is required to revise the EMP cost upwardly and indicate item wise/year wise budget in the EMP to address each & every issue raised in the PH as well as the representations under Annexure-2 series.

A clarification may be sought from Directorate of Mines, Steel & Mines Department regarding the permissible depth of mining beyond 6m.

Member Secretary, SEIAA

APPROVED BY

Member, SEIAA

Chairman, SEIAA

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<b>AGENDA NO.139.26</b>	
Proposal No.	SIA/OR/MIN/407364/2022
Date of application	29.12.2022
File no.	407364/857-MINB2/12-2022
Project Type	Proposal for EC
Category	B2
Project/Activity including Schedule No.	1(a) Mining of Minerals
Name of the Project	Proposal for EC of Sorisamulu Sand Bed over an area of 11.00 acres or 4.452 hectares bearing Khata no. 283, Plot no. 973 in village Sorisamulu, Tahasil Jagannathprasad, District Ganjam, State Odisha.
Name of the company/Organization	Sri Ajay Kumar Kanhar
Location of Project	village Sorisamulu, Tahasil Jagannathprasad, District Ganjam, State Odisha
ToR Date	N/A
Name of the Consultant	N/A

**Proposal in brief:**

1. The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.
  - i) This is a proposal for mining of sand from Sorisamulu Sand Bed over an area of 11.00 acres or 4.452 hectares bearing Khata no. 283, Plot no. 973 in village Sorisamulu, Tahasil Jagannathprasad, District Ganjam, State Odisha.
  - ii) **Category:** As per the EIA Notification, 2006 and its subsequent amendments, this project falls in category B under Schedule of activity 1(a)- Mining of Minerals.
  - iii) The mining area is a part of Survey of India Toposheet No. E45A9 and is bounded between the Latitude -19° 53' 55.46" N to 19° 53' 28.28" N and Longitude - 84° 42' 1.95" E to 84° 42' 12.65" bearing khata no. 1472, Plot no. 973, Kissam-Nadi
  - iv) The mining lease is an identified sairat source in the DSR. The Sorisamulu Sand Bed sairat source will be leased out under the OMMC Rules, 2016 by Tahasildar, Jagannathprasad to the successful bidder (lessee) on the basis of public auction for a lease period of 5 years.
  - v) Documents submitted: -Form-1, PFR, checklist, Mining Plan and approval letter, DSR, Village sheet, Cluster certificate from Tahasildar, topo map etc.
  - vi) Whether submitted KML file of the lease area-Yes
  - vii) Whether submitted scrutiny fee-Yes, of Rs. 2000/- vide E-Challan Ref No. 337BE1374F dt. 21.11.2022
  - viii) Distance from nearest sanctuary/ESZ- Lakahari Valley WLS-72.0 Km
  - ix) Whether the lease area coming in DLC report-No, N/A
  - x) Whether the lease area reflecting in DSR-Yes
  - xi) Method of mining-Manual
  - xii) River-Burha, Depth of Sand deposition-0.70 meter
  - xiii) Distance from nearest road bridge-0.650 km, village road -0.70 km
  - xiv) Whether it is part of cluster -No
  - xv) Whether EC obtained earlier-Yes from SEIAA, Odisha vide letter no. 3825/SEIAA dt. 28.11.2017 and submitted EC compliance
  - xvi) Date of approval of mining plan- the Joint Director Geology, South Zonw, Berhampur vide letter no. 1535 dt. 15.11.2022.

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- xvii) Production capacity per annum-2030 cum/annum (max.), total production in 5 years period-10150 cum, Geological reserve-26593 cum and Mineable reserve-11844 cum and proposed depth of mining-0.12 m
- xviii) Whether the DSR has been prepared as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020- No
- xix) EMP budget-Rs. 1.30 Lakh/annum
- xx) Any deficiencies/omission have been noticed in the above documents- Nil.

Whether SEAC recommended the proposal – The proposal was placed in the SEAC meeting held on 02<sup>nd</sup>, 03<sup>rd</sup>, 04<sup>th</sup> and 05<sup>th</sup> August, 2023 and the SEAC recommended to grant EC valid from the date of EC accorded upto the lease period with specific conditions stipulated for sand mine with following additional conditions.

- a) Consent / NoC shall be obtained from the concerned authority if village road is to be used for transportation. The said road shall also be maintained by the lessee.
- b) In view of likely revision of DSR the mention of this deposit with final coordinates is to be ensured.
- c) The boundary area of the deposit as per the updated DSR defined by geo coordinates based on DGPS survey be superimposed on the cadastral map.
- d) Plantation programme to be completed within first two years and to be maintained in remaining years.
- e) The Project proponent shall follow Sustainable Sand Mining Guidelines, 2020.
- f) The proponent shall provide Bio- toilet for the workers.
- g) Project Proponent shall not disturb the water course during mining.
- h) A replenishment study report may be submitted by the PP from 2<sup>nd</sup> year onwards

**Decision Of Authority: Approved**

After detailed deliberation on the matter, the Authority decided to grant EC with usual stipulated conditions as applicable for sand quarry along with specific condition as follows:

- (i) Maximum depth of mining 0.12 meter and maximum quantity of extraction shall be limited to **2030 cum** in 1<sup>st</sup> year and **508 cum** in 2<sup>nd</sup> year. PP shall submit Annual rate of replenishment study (ARRS) report through ORSAC empanel agency by **December '2025**.
- (ii) The validity of EC is for 1<sup>st</sup> year and 2<sup>nd</sup> year or validity of DSR or validity of lease period whichever is earlier.
- (iii) The Grant of EC for further period will be considered after submission of approved DSR by SEIAA as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020 and also as per the Hon'ble Supreme Court order vide its order dated 10.11.2021 in Civil Appeal Nos. 3661-3662 of 2020 (State of Bihar Vrs. Pawan Kumar and Others).
- (iv) The Project proponent shall follow Enforcement & Monitoring Guideline for sand mining-2020 before and during operation of quarry.
- (v) The Project Proponent (lease holder) shall deposit Rs.5,00,000/-, with the respective District Environment Society for raising 1000 plants (minimum @100 trees per Ha) of native species within 2 years in a suitable location adjoining to quarry.
- (vi) The PP will implement the EMP with a budgetary allocation of 1.30lakhs/annum during lease period.

Member Secretary, SEIAA

APPROVED BY

Member, SEIAA

Chairman, SEIAA



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AGENDA NO.139.27	
Proposal No.	SIA/OR/MIS/288962/2022
Date of application	17.08.2022
File no.	288962/99-MIS/08-2022
Project Type	Proposal for EC
Category	B
Project/Activity including Schedule No.	8(a) Building and Construction projects
Name of the Project	Proposal for EC of Construction of Sri Jagadguru Kripalu 400 Bedded Multipurpose Hospital & Research Center, at Jagadguru Kripalu University, Banara, Cuttack, Odisha with total plot area of 56372.71 Sq.m i.e. 13.930 Acres and plot area of 37504 Sq.m.
Name of the company/Organization	SULAKSHYANA DAS
Location of Project	Banara, Cuttack, Odisha
ToR Date	N/A
Name of the Consultant	M/s Kalyani Laboratories Pvt. Ltd.

**Proposal in brief:**

1. The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.
  - (i) This proposal is for Environmental Clearance Construction of Sri Jagadguru Kripalu 400 Bedded Multi-Purpose Hospital & Research Center with total plot area of 56372.71 Sq.m i.e. 13.930 Acres and plot area of 37504 Sq.m at Jagadguru Kripalu University, Banara, Cuttack district of Smt Sulakshyana Das.
  - (ii) The project falls under category "B" or activity 8(a) Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
  - (iii) Jagadguru Kripalu University is proposing for establishment of 400 bedded hospital and research center in outskirts of Cuttack City at Vill: Baanara, Banki, Cuttack District, Odisha. The plot area meant for construction of 400 bedded hospital will be established over an area of 13.930 Acres i.e 56372.71 Sq.m with a total builtup area of 37404 Sq.m. Total parking provided for the project will be 11300 sq.m open parking (30% of builtup area) and 11274 sq.m green cover area (20% of Plot area). The land is of Gharabari kissam without any forest land included.
  - (iv) **Location and Connectivity** – The project is located at Plot No. 3654, 3656, 3858/4922, 3858/5001, Khata No- 771/462; Kissam – GharabariMauza Banara, Via: Munduli, Tahasil: Dampada. The Hospital will be constructed within the existing campus of JKU. The Geographical co-ordinate of the project site are Latitude: 20° 24' 49.21" - 20° 25' 3.35" N, Longitude: 85° 45' 22" - 85° 45' 22"37 E. and finds place in Toposheet no. 73H/11. The nearest road is Banki Cuttack road at 1km, Nearest Railway station Baranga at 7km. Nearest River is Mahanadi at 2.5km. Munduli Barage at 3.5km. Chandaka Reserve forest at 1km. The nearest Ecologically sensitive area is Chandaka Elephant Sanctuary which is located at 1 Km from the project. The project site is located outside the ESZ boundary of the sanctuary.
  - (v) **Water Requirement** - Total water requirement will be 677 cum per day out of which fresh water requirement will be 406 Cu.m Per day. Water will be sourced from ground water through bore well. Out of the total water requirement of 677 KLD, 406 KLD (60%) of fresh water, which will be met through bore well for drinking, washing and other domestic purpose. 271 KLD (40%) of water will be made available from treated waste water for Flushing and gardening purpose. Application to CGWA for withdrawal of ground water is under process. The treated

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waste water will be completely used for green belt development, HVAC use and washing purpose.

- (vi) **Waste Water Management** - The waste water generated from the project will be 271 KLD which will be treated through a Sewage Treatment Plant of 370 KLD. Another ETP is proposed for treatment of infectious waste water with capacity of 40 KLD.
- (vii) **Rain water Harvesting** - For water conservation rain water harvesting pits/tank is proposed which consists of 10 nos of each having dimension 35.325cu.m rain water recharge pits.
- (viii) **Power Requirement** - Based on the Electrical Load calculation, overall maximum demand load is anticipated as approximately 2.5 MVA. 162 KW of solar power generation proposal is included in the project which reduces 7% of the total power requirement. Total power requirement for the project is 2406 KW Backup power requirement by DG = 1 x1250 kVA + 2 x750 kVA = 2750 kVA. Backup power generated = 2475 KW. For complete power back up 1x 1250 and 2x750 kVA DG set is required
- (ix) **Green belt** - Plantation will be made over an area of 11274 Sq.Mt with 2815 saplings. The plantation will completed within 3 years of construction period.
- (x) **Solid Waste Generation** - During the implementation of the project the biomedical waste generated from the project will about 2100 Kg. The Bio medical waste generated will be collected, segregated and disposed as per Biomedical waste management rule, 2016. 3 Nos of solid waste segregation room will be constructed for separation of biological waste and other solid waste. Bio medical waste will be disposed through authorized agencies (RAMKY) (Authorized by Odisha State Pollution Control Board)
- (xi) **Fire Fighting system** - The project includes Static water storage tanks and Fire pumps, Wet Riser system, Hose Reels, Portable Fire extinguishers, Automatic Sprinkler system. There is the proposal for 100 Cu.m UG tank and 10 cu.m OHT for fire fighting. The internal road will be 7m wide road which can serve for movement of fire vehicles. In the circulation plan of the project, there will be proper entry and exit points for systematic control of the vehicular movement within the medical complex.
- (xii) All the materials used in construction of this building are strictly in accordance with BIS/ISI specifications and norms conforming to National Building Code, 2016 covering all the safety factors including earthquake and cyclone. The project obtained structural safety certification from the competent authority regarding the construction of the building.
- (xiii) **Project Cost** - Total cost of the project is Rs.90.76 crores and the capital cost for EMP is 95 lakhs and the recurring cost will be 27 Lakhs per annum.
- (xiv) The Environment Consultant **M/s Kalyani Laboratories Pvt. Ltd. Bhubaneswar** along with the proponent made a detailed presentation on the proposal before the Committee on 02.09.2022.
- (xv) The proposed site was visited by the sub-committee of SEAC on 14.11.2022. Following are the observations of the sub-committee:
- The proponent and consultants showed us the proposed land for the establishment of 400-bedded hospital & research centre.
  - The land has not been developed at all and hence, no construction work has been started.
  - The proponent has been advised to submit lay out map for parking, ETP, STP, entire drainage system, entry & exit gates, etc., while submitting for EC.
- (xvi) The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Backup calculation to attain Zero liquid Discharge concept.	Water requirement, Water balance and details of Zero Liquid discharge has been attached as <b>Annexure I</b>	Annexure 1 is attached and complied.



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b)	Details of Rain water Harvesting.	Details of rain water harvesting is attached as <b>Annexure 2</b>	Annexure 2 is attached and complied.																														
c)	Location, Source and utilisation/ disposal of 40KLD ETP affluent.	Details of ETP, Location Source, and utilisation/ disposal of 40KLD ETP affluent is attached as <b>Annexure 3</b>	Annexure 3 is attached and complied.																														
d)	Provision for Incinerator.	We will install an incinerator of 250 Kg/hr capacity. The incinerator will be provided with Bagfilter and emission will be maintained as per the CPCB guideline.  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">S. No.</th> <th rowspan="2">Parameter</th> <th colspan="2">Standards</th> </tr> <tr> <th>(3)</th> <th>(4)</th> </tr> <tr> <th>(1)</th> <th>(2)</th> <th>Limiting concentration in mg/Nm<sup>3</sup> unless stated</th> <th>Sampling Duration in minutes, unless stated</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Particulate matter</td> <td>50</td> <td>30 or 1/10<sup>th</sup> of sample volume, whichever is more</td> </tr> <tr> <td>2</td> <td>Nitrogen Dioxide (NO<sub>2</sub> and NO<sub>x</sub> expressed as NO<sub>2</sub>)</td> <td>400</td> <td>30 for online sampling or grab sample</td> </tr> <tr> <td>3</td> <td>SO<sub>2</sub></td> <td>50</td> <td>30 or 1/10<sup>th</sup> of sample volume, whichever is more</td> </tr> <tr> <td>4</td> <td>Total Oxides and Fumes</td> <td>6.1mg TGD/Nm<sup>3</sup> (at 11% O<sub>2</sub>)</td> <td>8 hours or 5/10<sup>th</sup> of sample volume, whichever is more</td> </tr> <tr> <td>5</td> <td>Hg and its compounds</td> <td>0.01</td> <td>2 hours or 1/10<sup>th</sup> of sample volume, whichever is more</td> </tr> </tbody> </table>	S. No.	Parameter	Standards		(3)	(4)	(1)	(2)	Limiting concentration in mg/Nm <sup>3</sup> unless stated	Sampling Duration in minutes, unless stated	1	Particulate matter	50	30 or 1/10 <sup>th</sup> of sample volume, whichever is more	2	Nitrogen Dioxide (NO <sub>2</sub> and NO <sub>x</sub> expressed as NO <sub>2</sub> )	400	30 for online sampling or grab sample	3	SO <sub>2</sub>	50	30 or 1/10 <sup>th</sup> of sample volume, whichever is more	4	Total Oxides and Fumes	6.1mg TGD/Nm <sup>3</sup> (at 11% O <sub>2</sub> )	8 hours or 5/10 <sup>th</sup> of sample volume, whichever is more	5	Hg and its compounds	0.01	2 hours or 1/10 <sup>th</sup> of sample volume, whichever is more	-
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e)	Location of STP, disposal of STP water with no integration of STP & ETP.	There will be no integration of STP with ETP. The Location of STP is given as <b>Annexure 4</b> . <b>ZERO LIQUID DISCHARGE</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Capacity of STP</td> <td>370 KLD</td> </tr> <tr> <td>Treated waste water from STP</td> <td>271 KLD</td> </tr> <tr> <td>Utilization of Treated water for Flushing (Dual Plumbing)</td> <td>81 KLD</td> </tr> <tr> <td>Utilization of treated water for green belt development</td> <td>15 KLD</td> </tr> <tr> <td>Utilization of treated water for HVAC</td> <td>175 KLD</td> </tr> </table> No treated water will be discharged outside the premises.	Capacity of STP	370 KLD	Treated waste water from STP	271 KLD	Utilization of Treated water for Flushing (Dual Plumbing)	81 KLD	Utilization of treated water for green belt development	15 KLD	Utilization of treated water for HVAC	175 KLD	Annexure 4 is attached.																				
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f)	Backup calculation of 175KLD water used in HVAC.	Back up calculation of 175 KLD water used in HVAC is attached as <b>Annexure 5</b> .	Annexure 5 is attached.																														
g)	Parking area in terms of ECS for 4 wheelers and 2 wheelers and their location for staffs, patients and visitors.	Parking area in terms of ECS for 4 wheelers and 2 wheelers and their location for staffs, patients and visitors is attached as <b>Annexure 6</b> .	Annexure 6 is attached but location/layout not showed.																														
h)	Traffic Study Report to be submitted duly vetted by institute of repute.	Detail traffic study report is attached as <b>Annexure 7</b> .	Traffic Study Report findings state LOS – B. Traffic study Report is not vetted by reputed institute.																														
i)	Layout plan and width of road for movement of Fire Tender.	Layout plan and width of road for movement of Fire Tender attached as <b>Annexure 8</b> .	Annexure 8 is attached																														

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j)	Detailed calculation of greenbelt with breakup and dimensions.	Detailed calculation of greenbelt with breakup and dimensions is attached as <b>Annexure 9</b> .	Layout of the greenbelt with proposed species is given but calculation of greenbelt with breakup is not visible in layout. Only total greenbelt area 11274sqm is given.
k)	Backup calculation of DG sets of 2750KW.	Detail back up calculation for DG set requirement is attached is 2750 KW. <b>Annexure 10</b> .	Solar power calculation, generation and use in % of total power is not submitted.
l)	Layout map showing nearest drain and its distance.	There is no proposal for discharge of waste water from the project to outside. The entire treated water will be utilized for watering of the plantation area, HVAC makeup water and sprinkling purpose.	Layout map showing nearest drain and its distance is not given.
m)	Layout of internal drainage map and their fallout if any to external public drain.	There is no proposal for discharge of waste water from the project to outside. The entire treated water will be utilized for watering of the plantation area, HVAC makeup water and sprinkling purpose. Internal drainage plan is attached as <b>Annexure 11</b> .	Annexure 11 is attached
n)	Copy of permission of the concerned authority of the drain to discharge if any water from project to the nearby drain.	There is no proposal for discharge of waste water from the project to outside. The entire treated water will be utilized for watering of the plantation area, HVAC makeup water and sprinkling purpose.	Complied.
o)	Breakup of total built up area of the whole project area including university.	Detail breakup of the built-up area is attached as <b>Annexure 12</b> .	Annexure 12 is attached
p)	Permission/Undertaking that total built up area will not exceed 150000sq.mt.	Undertaking attached as <b>Annexure 13</b> .	Annexure 13 is attached
q)	Approval Letter from Fire Safety Deptt.	Approval from Fire safety department will be obtained after the completion of construction work.	.....
r)	Details of accreditation of the University.	Details of accreditation of the University is attached as <b>Annexure 14</b> .	Annexure 14 is attached



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	Construction status of the project of the university such as prior to 2006 and after 2006 and till now.	Construction status of project of the university such as prior to 2006 and after 2006 and till now is attached as <b>Annexure 15</b> .	Annexure 14 is attached mentioning in undertaking that there was no construction of projects prior to 2006 and construction started of University started from 2017.
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**xvii) Sub-Committee Observation:**

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Lay out map for hospital road network, starting from entry gate to exit gate.	Layout plan of the hospital road is attached <b>Annexure A</b> .	-
b)	Lay out map for parking area for 4 wheelers and 2 wheelers for staffs, patients and visitors.	Lay out map for parking area for 4 wheelers and 2 wheelers for staffs, patients, and visitors attached as <b>Annexure A</b> .	-
c)	Traffic Study Report to be submitted.	Detail traffic study report is attached as <b>Annexure 7</b> .	-
d)	Layout plan for Firefighting gadgets and width of road for movement of Fire fighting vehicles.	Layout plan for Firefighting gadgets and width of road for movement of Fire fighting vehicles attached as <b>Annexure 8</b> .	-
e)	Detailed calculation of greenbelt with breakup and dimensions. Backup calculation of DG sets of 2750KW.	Detail back up calculation for DG set requirement is attached is 2750 KW. <b>Annexure 9</b> .	<b>Annexure 10 is attached power and DG set backup calculation.</b>
f)	Details of Rain Water Harvesting.	Details of rain water harvesting is attached as <b>Annexure 2</b> .	-
g)	Layout map for entire drainage system showing nearest public drain and its distance.	There will be no discharge of water from the hospital to outside drain. The drainage system map is attached as <b>Annexure 3</b> .	-
h)	Location, Source and utilisation/disposal ETP and STP effluents, special emphasis on Zero Liquid Discharge concept.	Water requirement, Water balance and details of Zero Liquid discharge has been attached as <b>Annexure 1</b> .	-
i)	Details of solar power calculation, generation and use in % of total power.	Details of solar power calculation, generation and use in % of total power attached as <b>Annexure 10</b> .	Not submitted
j)	Stack height vs building height may be furnished.	The maximum height of the building will be 15 m and the height of the DG stack	-



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	proposed is 30m which is much above the building height.	
k)	Layout for green belt.	Given

viii) The SEAC in its meeting held on **03-05-2023** decided to take decision on the proposal after receipt of the following information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Location / layout showing Parking area in terms of ECS for 4 wheelers and 2 wheelers for staffs, patients and visitors.	Location and Layout plan showing parking area in terms of ECS for 4 wheelers and 2 wheelers for staffs, patients and visitors is attached as <b>Annexure 1.</b>
ii)	Traffic study Report submitted is not vetted by reputed institute. Hence, vetted Traffic Study Report shall be submitted.	Vetted traffic report attached as <b>Annexure 2.</b>
iii)	Layout of the greenbelt with proposed species is given but calculation of greenbelt with breakup is not visible in layout. Only total greenbelt area 11274sqm is given. Hence, a visible layout showing details to be submitted.	Layout plan Showing the Green belt area is attached as <b>Annexure 3.</b>
iv)	Solar power calculation, generation and use in % of total power is not submitted. Hence, it shall be submitted.	Solar Power calculation, generation and use in terms of percentage of total power is attached <b>Annexure 4.</b>
v)	Layout map showing nearest drain and its distance is not given. Hence, it shall be submitted.	No waste water will be discharged to outside the project site. The waste water generated from the project will be treated through 40 KLD ETP and 370 KLD STP. Treated waste water will be utilized for Dual plumbing (Flushing) green belt development, washing and HVAC makeup water. Surface runoff water from the project site will be pass through the in ternal surface water drain and recharge through 8 nos of recharge pit. There is no surface water drain/ sewer drain constructed in the nearby area.
vi)	Construction status of the project of the university such as prior to 2006 and after 2006 and till now has not been submitted. Hence, it shall be submitted.	The construction of university started in the year 2017. There was no construction activities prior 2006. Undertaking in this regard attached for Reference. <b>Annexure - 5.</b>



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(xv) The Committee observed that they have started construction for university but not for the Hospital component for which EC has been applied.

(xx) (xxi) Any deficiencies/omission have been noticed in the above documents- Nil.

2. Whether SEAC recommended the proposal – The proposal was placed in the SEAC meeting held on 17.08.2023 and the SEAC recommended for grant of Environmental Clearance for the project valid for a period of 10 years with stipulated conditions as per Annexure – C in addition to following specific conditions:

- (i) The project is built on an area of 13.93 acres and from the available document it is noted that the site is not connected to any outside storm water drain for facilitating effective drainage of rainwater from the project site during periods of natural rainfall. The project proponent has declared that the entire surface run off from the entire project site during rainfall will be recharged to the ground through the constructed rainwater pits. Hence, it is important to ensure that the proposed plan of diverting entire surface run off from the project site during rainfall to the ground water system through the constructed rainwater recharge pits can be effectively done during natural rainfall keeping in view natural ground water level during rainy season, flow of ground water at the project site and maximum anticipated rainfall in any season as well as highest anticipated intensity of such rain fall in any day.
- (ii) As it is not practically possible to manage surface runoff with RWH in rainy season, the PP need to plan and have a drain till the nearest fallout for the extra surface runoff with due permission from the appropriate authority.

**Decision Of Authority: ADS**

1. The Authority observed that the PP has applied EC for the plot area instead of total built-up area. The PP needs to rectify the title of the project in the Old Parivesh Portal or apply afresh in new Parivesh.2 portal with total built-up area for which EC is required.
2. The Annexure-12 shows the project has total built up area of 1,17,677.93 Sq. mt. while the EC is sought for 37,504 Sq. mt. this needs to be clarified.
3. The KML file of the area for which EC is sought shall be uploaded and not for the whole area.

Member Secretary, SEIAA

APPROVED BY

Member, SEIAA

Chairman, SEIAA

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**AGENDA NO.139.28**

Proposal No.	SIA/OR/MIN/406749/2022
Date of application	28.04.2023
File no.	406749/812-MINB1/04-2023
Project Type	Proposal for EC
Category	B1
Project/Activity including Schedule No.	1(a) Mining of Minerals
Name of the Project	Proposal for EC of Bauriakan Sand Quarry on River Bauriakan over an area of 9.55 Ha/23.60 Acre in village Lataharan, under Kakatpur Tahasil of Puri district, Odisha.
Name of the company/Organization	Mrs. Sakuntala Kabu
Location of Project	village Lataharan, under Kakatpur Tahasil of Puri district, Odisha
ToR Date	19.11.2018
Name of the Consultant	M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar

**Proposal in brief:**

1. The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.
  - i) This is a proposal for mining of sand from Bauriakan Sand Quarry on River Bauriakan over an area of 9.55 Ha/23.60 Acre in village Lataharan, under Kakatpur Tahasil of Puri district, Odisha.
  - ii) **Category:** As per the EIA Notification, 2006 and its subsequent amendments, this project falls in category B under Schedule of activity 1(a)- Mining of Minerals.
  - iii) The mining area is a part of Survey of India Toposheet No. 73L/4 & 73L/8) and is bounded between the Latitude -20°02'03.7N to 20°02'09.4''N and longitudes of 86°14'18.6''E to 86°14'24.2''E bearing Khata no. 1608 and plot no 1780 and 1690(P)
  - iv) **TOR details:** Terms of reference has been granted by SEIAA, Odisha vide letter no 9682 dated 23.11.2020.
  - v) Mining plan was approved by Deputy Director Geology, Bhubaneswar vide letter no 661/19, 4822/DZ dated 06.07.2020.
  - vi) The lease has been granted by Tahasildar Kakatpur for five years to the successful bidder vide letter no. 4667 Dated.19.11.2018.
  - vii) **Public hearing details:** Public hearing was conducted on 02.06.2022 at 11.00 A.M near Jouban Danda in Lataharan Mouza under Lataharan G.P under Kakatpur Tahasil of Puri District. Issues raised during public hearing are damage to river embankment, dust pollution, loss of trees, safety of school children due to sand transportation and flood due to damage of river embankment etc. Total expenses to be incurred for action plan of public hearing is 4.10 lakhs.
  - viii) **Location and connectivity:** The lease area is in survey of India topo sheet no. (73L/4 & 73L/8) & between latitude of 20°02'03.7N to 20°02'09.4''N and longitudes of 86°14'18.6''E to 86°14'24.2''E bearing Khata no. 1608 and plot no 1780 and 1690(P). Nearest Railway station is Puri Railway Station at a distance of 47 Km from the project site. The nearest road is Kakatpur- Astaranga road located at a distance of 4.5 Km. The haul road from the lease will connect to Dahanikhia village Road through a distance of 80m that connecting to Kakatpur- Astaranga road. The site is well connected to NH-60 & SH-43 at a distance of 16 Km & 5.2 Km. Nearest airport is Bhubaneswar airport at a



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distance of 80 Km from the mining lease area. There is no human settlement within the lease area. Nearest River Embankment is 0.5 Km and nearest Railway bridge / road bridge Talada Bridge is 0.80 Km away from the project site.

- ix) **Total production and reserves:** Total production of the proposed sand quarry is 50,210cum for 5 years. As estimated Geological Reserve and mineable reserve of the project is 131012cum and 50210cum.

**Table: Year wise production of sand**

Sl. No.	Year	Production plan (cum)
i)	1st	10,000
ii)	2nd	10,080
iii)	3rd	10,060
iv)	4th	10,020
v)	5th	10,050
<b>Total</b>		<b>50,210</b>

Category	Surface Area (m <sup>2</sup> )	Thickness of the deposit (m)	Volume of the Excavation sand at 100% incidence (m <sup>3</sup> )
Geological Reserve	95506	2m	131012
Mineable reserve	25105	2m	50210

- x) **Replenishment study:** The lessee will extract 10080cu.m of sand at their peak level of extraction within three months of dry period which is very less than the annual replenished quantity of sand of 28833cum within the lease hold area of 9.550 Ha. So, the quantity of sand extraction is about 34.95% of the replenished sand in the lease area. The sand depth in the area is 2.10m and the mining operation in the area will go up to maximum depth of 2.00 m.

Area in m <sup>2</sup>	Pre monsoon RL in m	Post Monsoon RL in m	Difference in RL in m
58843	10.05	10.54	0.49

- xi) **Mining method:** Mining shall be undertaken manually to extract sand, mainly through an open pit spread over the river course devoid of water or nominal water that may be encountered below. Mining will be done with manual excavation & loading into trucks/tractors and transported from Devi River sand bed to the users/destination through trucks/tractors. The mining will be undertaken on single shift basis.

- xii) **Employment Generation:** Due to the proposed sand mining, there will be generation of employment for 05 persons.

Category	Post	Nos.
Semi-Skilled	Supervisory Personnel	01
Un-skilled	Laborers	04
<b>Total</b>		<b>05</b>

- xiii) **Greenbelt:** There is the proposal for development of green belt along the road side, river bank and village waste land.

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Sl. No.	Year	No. of Saplings proposed	Area covering in Ha.	Type of saplings
1.	1st	500	Plantation will be carried out safety zone of the lease	Teak, Mango, Jammu, Neem, Jhaun etc.
	Total	500		

xiv) **Project cost:** Estimated cost of the proposed project is Rs. 10,00,000/-.

**Table- Environmental management cost**

Sl. No.	Particulars	Cost/ Annum (in Lakhs)
i)	Environmental Monitoring: Air, Noise 3 Points each and Water 2 points (Twice yearly)	Rs. 1.50
ii)	Water sprinkling on the haul road	Rs. 1.00
iii)	Green belt development in river bank	Rs. 1.00
iv)	Occupational health	Rs. 0.50
<b>Total</b>		<b>Rs. 4.00</b>

xv) **Environment Consultant:** The Environment consultant M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 13.06.2023.

xvi) The SEAC in its meeting held on dated **13-06-2023** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Revised Replenishment study report along with correct figures as there is gross mistake in figures used for calculation of volume of sand.	The revised replenishment study attached as <b>Annexure - 1</b> .
ii)	Relook on the action plan of public hearing and find the possibility to cover all the issues raised during the public hearing.	Revised action plan for public hearing is attached as <b>Annexure - 2</b> .
iii)	Layout map of road connectivity to the site.	Layout map and transportation details is attached as <b>Annexure - 3</b> .

Any deficiencies/omission have been noticed in the above documents- Nil.

Whether SEAC recommended the proposal – The proposal was placed in the SEAC meeting held on **23.08.2023** and the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure - C** and following specific conditions:

- Amended EIA Notification dated 25<sup>th</sup> July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure - D**.
- Sand extraction shall be limited to quantity and depth as per replenishment study report. Regular replenishment study as per guidelines to be conducted and report to be submitted.
- Provision of Bio-toilet shall be made at the site.
- Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the

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advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.

- e) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.

**Decision Of Authority: Approved**

After detailed deliberation in the matter, the Authority decided to grant EC with usual stipulated conditions recommended by SEAC along with specific conditions as follows:

- (i) Maximum depth of mining 2.0 meter and maximum quantity of extraction shall be limited to **10000 cum** in 1<sup>st</sup> year and **10000 cum** in 2<sup>nd</sup> year. Further enhancement of production quantity as per replenishment study i.e. upto 28833cum will be considered on revision of mining plan by the competent authority. PP shall submit Annual rate of replenishment study (ARRS) report through ORSAC empanel agency till valid of lease year.
- (ii) The validity of EC for 1<sup>st</sup> year and 2<sup>nd</sup> year is subjected to validity of DSR or validity of lease period whichever is earlier.
- (iii) The Grant of EC for further period will be considered after submission of approved DSR by SEIAA as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020 and also as per the Hon'ble Supreme Court order vide its order dated 10.11.2021 in Civil Appeal Nos. 3661-3662 of 2020 (State of Bihar Vrs. Pawan Kumar and Others).
- (iv) The Project proponent shall follow Enforcement & Monitoring Guideline for sand mining-2020 before and during operation of quarry.
- (v) The Project Proponent (lease holder) shall deposit Rs.5,00,000/-, with the respective District Environment Society for raising 1000 plants (minimum @100 trees per Ha) of native species within 2 years in a suitable location adjoining to quarry.
- (vi) The PP will implement the EMP with a budgetary allocation of Rs. 4.0 Lakh/annum, as proposed during lease period of 5 years.
- (vii) The PP shall comply to the issues raised during public hearing will spend Rs. 4.10 Lakhs as proposed towards compliance of public hearing issues.

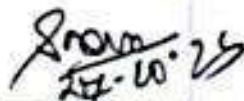


Member Secretary, SEIAA

APPROVED BY



Member, SEIAA



Chairman, SEIAA

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**AGENDA NO.139.29**

Proposal No.	SIA/OR/MIN/426559/2023
Date of application	18.04.2023
File no.	426559/809-MINBI/03-2023
Project Type	Proposal for EC
Category	B1
Project/Activity including Schedule No.	1(a) Mining of Minerals
Name of the Project	Proposal for EC of Birupa River Sand Quarry, Bhairpur over an area of 5.058 ha is located in mouza - Bhairpur, Tahasil – Salipur, in district Cuttack, Odisha
Name of the company/Organization	M/s Sahu Metaliks Pvt. Ltd, At / PO - Barbil, Ward No - 5 Keonjhar
Location of Project	mouza - Bhairpur, Tahasil – Salipur, in district Cuttack, Odisha
ToR Date	09.04.2021
Name of the Consultant	M/s EHS360 Labs Private Limited

**1. Proposal in brief:**

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

- i) This proposal is for Environmental Clearance of M/s. Sahu Metaliks Pvt. Ltd. for Birupa River Sand Quarry, Bhairpur over an area of 5.058 ha. is located in Mouza - Bhairpur, Tahasil – Salipur, in District - Cuttack of Sri Amrik Singh.
- ii) **Category:** The project falls in category “B” under Schedule of activity 1(a)-Mining of minerals as per the EIA Notification,2006 and its subsequent amendments.
- iii) The Letter of Intent (LOI) was granted to Sri Amrik Singh vide letter No.383 dated 03.02.2018 for the period of 5 years by Tahasildar, Salipur.
- iv) This Mining Plan is approved vide letter No. 7847/DG dated 28.04.2018 by the Directorate of Geology, Bhubaneswar, Cuttack District.
- v) Mining lease is an identified sairat source in the Cuttack DSR in Annexure – I, sl.no. – 24.
- vi) **TOR details:** Terms of Reference (TORs) has been granted by SEIAA, Odisha vide No – 1265/SEIAA dated 09.04.2021.
- vii) **Public hearing details:** The Public Hearing was held on 09.03.2022 at the playground of Bhairpur mouza situated near Tarini Mandir under Salipur tahasil in Cuttack district. The villagers did not raise any specific issues on the environment. Budget earmarked for the action plan of public hearing is Rs. 3 lakhs.
- viii) **Location and connectivity:** The Proposed Sand Mining Project is located at Birupa River Sand Bed in Plot No.- 01, Khata no. - 655, over an area of 5.058 ha., Kissam- Nadi, of Bhairpur-Village, Salipur-Tahasil, Cuttack-District, Odisha-State. The said lease is located in survey of India Topo Sheet No. F45T14, bounded by Latitude: 20° 30' 44.70" to 20° 30' 51.02" N, Longitude: 85° 58' 43.02" to 85° 58' 55.56" E. The Lease area is accessible from SH 9A at a distance of 1.75 km, which is well connected to National Highway - 5. The nearest railway station is Nirgundi at distance 3.5 km from the lease area. Nearest airport is Bhubaneswar airport at a distance of 35 Km from the mining lease area.
- ix) **Topography and drainage:** The general topography of the area around the mine site is general plan agricultural land along the river. The area constitutes almost alluvial plain without any conspicuous topographical features and forms a part of the vast Indo-Gangetic plain. The proposed area is undulating. The flow rate of the river varies with the quantity of precipitation



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in the catchment area. The lease area surrounded mostly with agricultural lands. There is no major impact of mining on the topography of the area. The mining lease area in riverbed will be replenished with sediments after monsoon and the area which in agriculture field will be reclaimed after mining. Drainage system in the region is dendritic. General flow direction of Birupa River is from west to east.

- x) **Baseline study:** Baseline study was conducted during Mar to May 2021 (Pre-monsoon Season) around 10km radius of mine lease boundary
- a) **Ambient Air quality:** Ambient air quality of the study area has been monitored at 8 locations for 12 air quality parameters. The AAQ analysis indicates that the concentration of PM10 varied from 46 to 66  $\mu\text{g}/\text{m}^3$ , PM2.5 from 25 to 58  $\mu\text{g}/\text{m}^3$ , SO<sub>2</sub> from <4 to 8.8  $\mu\text{g}/\text{m}^3$ , NO<sub>x</sub> from <9 to 13.9  $\mu\text{g}/\text{m}^3$ . Benzene, BaP, Ni, As, & Pb were found below detection limit.
  - b) **Noise quality:** Near industrial area day and night noise levels are 45.8 dB (A) to 44.2 dB (A). In residential areas daytime noise levels varied from 51.2 dB (A) to 47 dB (A) and nighttime noise levels varied from 41.9 dB (A) to 38.5dB (A) across the sampling stations. The field observations during the study period indicate that the ambient noise levels are well within the prescribed limit by CPCB (55 dB (A) Day time & 45 dB (A) Nighttime).
  - c) **Surface water:** pH values varied between 6.9 to 7.1 while Turbidity varies from 8.2 to 11.0 NTU, Dissolved Solids varied from 86 to 94 mg/L, Dissolved oxygen varies from 7.0 to 7.1 mg/L, BOD varied from 1.5 to 1.7 mg/L and Chloride values varied between 12 to 13.4 mg/L. Iron values varied from 0.23 to 0.28 mg/L, Manganese values varied below 0.02 mg/L. Sulphate values varied from 11 to 13.6 mg/L and Nitrate values varied from 1.2 to 2.3 mg/L. Zinc 0.1 to 0.12 mg/L. Copper below 0.05. Fluoride, Arsenic, Lead, Chromium, Cyanide, Selenium, Fluoride, Phenolic compound and Cadmium have been observed below detection limit and Total Coliform varies from 162 to 279 MPN/100 ml.
  - d) **Ground water:** pH values varied between 7.0 to 7.3 while Dissolved Solids varied between 174 to 186 mg/l and total hardness varied from 89 to 94 mg/l. Chloride values varied between 6.2 to 6.7 mg/l. Calcium values varied between 22.1 to 28.1 mg/l while Magnesium values varied between 5.3 to 5.9 mg/l, Sulphate values varied from 2.1 to 3.5 mg/l and Nitrate values varied from 2.5 to 3.2 mg/l. Zinc values varied below 0.05 mg/l & Boron value below 0.01 mg/l. Lead, Copper, Manganese, Fluoride, Mercury, Cadmium, Cyanide, Arsenic, Selenium, Chromium, Phenolic compounds and Aluminum have been observed below detection limit.
  - e) **Soil quality:** The pH of the soil samples ranged from 6.4 to 6.6. Indicating that the soils are slightly acidic to moderately alkaline in nature. Nitrogen content ranged from 0.07 % to 0.09 %. Potassium ranged from 0.08 % to 0.09 %.
- xi) **Total reserves and production:** As estimated, geological reserve of sand is 35140 CuM and mineable reserve is 31224 Cu.M. During the plan period, a total of 23200 CuM (4640 cum/annum) sand will be extracted. At the end of the plan period the quarry level will be 23 m RL.
- xii) **Replenishment study:** The pre-monsoon data on was carried out in date 10.06.2022 by using DGPS Survey Method and the post monsoon data on 05.12.2022 by using UAV/ Drone Method. Considering the safe workable area for pre- monsoon and post-monsoon survey was 12045.92 m<sup>2</sup>. It is estimated that during Pre-monsoon the extractable sand available is 11565.96 m<sup>3</sup> and during Post-monsoon the extractable sand available is 11436.94 m<sup>3</sup>. It is observed that erosion of 164.92 m<sup>3</sup> has been done with average thickness of 0.013m.
- xiii) **Method of mining:** The winning of mineable reserve of sand of Birupa River Sand Quarry' Bhairpur will be carried out by opencast by manual dry pit mining method. Sand is to be excavated in layers up to a depth of 1.0m. No machines are proposed to be deployed to carry out wining of sand. Total handling of sand from excavation screening stacking and loading to the user carriers like tractors/Tippers will be done manually. To maintain safety and stability of riverbanks a safety



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distance of 3m or 1/10th of the width of the river on both side of riverbank will be left as per sustainable sand.

- xiv) **Water requirement:** Total water requirement will be approx. 1 KLD that will be required for different purposes like domestic, dust suppression, plantation purposes & sourced from private suppliers.
- xv) **Power/Fuel requirement:** Minimal power required for office shall be taken from the General Electric supply of the area. The approximate quantity of the fuel used per day is 0.014 KLD diesel is required as fuel.
- xvi) **Greenbelt:** It is proposed to plant 50 Nos. per year of native species (250 Numbers of native species will be planted during the 5-year plan period) along with some fruit bearing and medicinal trees during the plan period and a budget of Rs. 0.5 Lakh for plantation is given in EMP.
- xvii) **Manpower requirement:** 11 nos. of person are to be employed daily for the manpower requirement of the proposed project.
- xviii) **Project Cost:** The project proponent will incur a total cost of Rs. 50.00 Lakhs. This will include cost of labour, cost of transportation, fuel charges etc. 2.0 % of capital cost has been earmarked towards CER which is Rs 1.00 Lakh. Capital & recurring cost estimated for environmental management is Rs. 3.0 Lac & Rs.1.0 lakhs respectively.
- xix) **Environment Consultant:** The Environment consultant M/s EHS 360 Labs Pvt. Ltd., Chennai along with the proponent made a presentation on the proposal before the Committee on 12.06.2023.
- xx) The proposed site was visited by the sub-committee of SEAC on 14.07.2023. Following are the observations of the sub-committee
- PP, RI and Consultant were present along with other team members. The Mine is in Birupa River. The lease area was shown by the RI. This is a new sand mining proposal. It was observed that although grass and bushes are present in the lease area, there is enough sand available for mining. **Sand mining can be done after removal of bushes and grass with condition that these removed things should not be deposited on the river bed within both side flood embankments.**
  - There are no ongoing mining activities in the lease area.
  - As this is new sand mine lease and drone survey has been done recording levels as shown by consultant during visit, PP may be asked to provide information on LWL at lease site from competent authority of Water Resources Department and assess the minable sand quantity basing on LWL.
  - The site is presently approachable from Peer bazar on Jagatpur to Salipur Road and also from Jagatpur on NH16 (before Birupa bridge on NH 16). Road from Peer Bazar is narrow and passing through a number of villages and may not be suitable for commercial transportation of sand. The road approachable to NH 16, is suitable as it passes through one small village with few houses. For transportation of sand, a portion of Pattamundai canal embankment (which is also flood embankment) is proposed for use by PP which is a narrow moorum surface road. Light commercial vehicles (Tractors/ Mini truck etc. not exceeding 3 cum capacity) can be allowed for transportation. **Use of tippers as proposed in methods of mining may not be allowed.** However, the Water Resources Department being the authority of this canal-cum-flood embankment, permission from competent authority of this department for use of the embankment road as well as the approach road from lease area to the embankment by PP for transportation of sand is required for grant of EC and PP may be asked to obtain such permission. PP may also be asked to furnish the actual length of transportation on canal-cum-flood embankment.
  - No bridge or high-tension line is visible near the lease area. The PP may be asked to provide the distance of nearest bridge from lease area.

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There is no other sand mine under operation near the lease area. R.I. explained that there is no other sand mine proposed near the lease area. PP was asked to submit required certificate from Tahasildar to justify that this lease area is not coming under cluster approach.

- g) The lease area appears to be about 200-meter distance from embankment, PP may be asked to provide a sketch indicating actual distance from canal-cum-flood embankment
- h) PP was asked to submit required documents as asked during presentation.

xxi) The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Revised replenishment study report as present replenishment study is done in DGPS for pre-monsoon and Drone method for post monsoon which aren't comparable to one another. Further the replenishment study report is representing negative data/erosion.	In DGPS survey method, we have taken cross-section points of each section & by using Virtual Surveyor software, calculated the volume and compared with the volume, outcome from the Drone Survey method. Earlier 2 patches out of 3 patches were considered for volume calculation as the third patch was covered with grass (as shown in Image 1). As a result; we found erosion. Presently, the revised Replacement report has been prepared considering all aspects and attached as Annexure - A. however, Alluvial soil and silt deposited under grass growth during flood shall be stacked separately for plantation purpose of nearby area.
2.	Latest KML file as the present KML file is showing two distinct patches of sand in between the water body.	Initially, the lease area was a single patch and the flow of water on the northern area of lease area (Image - 2). But due to non-mining activities from the main flow, gradually another flow entered the lease area and selected the area (as shown in image - 3). However, excavation will be restricted to Patch 2 & 3 only.
3.	Detail note on Transportation of sand from proposed quarry to river embankment and mention type of road to be used for transportation.	Daily 3 - 4 nos. of only tractor (3 cum capacity) will be used for transportation of sand. Covering a distance of 400m Govt. land from the proposed quarry, it enter the canal road & continue for 5 km then it touches NH-16 (as shown in image - 4). However, if required, NOC from Irrigation Dept, will be obtained for use of canal road.
4.	Cross section details and net loss of sand shall be clarified.	Cross- section details given in Replenishment report, which shows, there is net replenishment of sand. But during estimation of sand volume, some portions were not considered due to

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		<p>grass growth. After considering due to grass growth. After considering all it shows a replenishment of 1741.45 cum within safe mineable area. This is a fresh mining lease and no mining has been done earlier. So after excavation only, the exact rate of replenishment can be estimated.</p>
<p>cxii) The Committee observed and recommended the following:</p> <ul style="list-style-type: none"> <li>i) In the replenishment study report submitted by PP there was net loss of sand and clarifications were sought. On asking clarification figures are changed to make it positive without sufficient details and justification. Moreover, two different methods are employed for Pre and post monsoon study which are not comparable. Figures are changed arbitrarily in each of the communication without any supporting documents or data. This whole thing makes it difficult to accept. Hence, replenishment study report is rejected.</li> <li>ii) In view of net loss of sand in replenishment study report and unsatisfactory compliance it is recommended to return the proposal to SEIAA to take further action.</li> </ul>		
<p>2. Whether SEAC recommended the proposal – The proposal was placed in the SEAC meeting held on <b>18.08.2023</b> and the SEAC observed and recommended the following:</p> <ul style="list-style-type: none"> <li>a) In the replenishment study report submitted by PP there was net loss of sand and clarifications were sought. On asking clarification figures are changed to make it positive without sufficient details and justification. Moreover, two different methods are employed for Pre and post monsoon study which are not comparable. Figures are changed arbitrarily in each of the communication without any supporting documents or data. This whole thing makes it difficult to accept. Hence, replenishment study report is rejected.</li> <li>b) In view of net loss of sand in replenishment study report and unsatisfactory compliance it is recommended to return the proposal to SEIAA to take further action.</li> </ul>		
<p align="center"><b><u>Decision Of Authority: ADS</u></b></p> <p>After detailed deliberation on the matter, the Authority perused the recommendation of SEAC &amp; the replenishment study is rejected. The PP is required to submit replenishment study report in accordance with Sustainable sand mining guidelines-2016 and Enforcement &amp; Monitoring Guideline for sand mining-2020 issued by MoEF &amp; CC,Gol.</p>		

**Member Secretary, SEIAA**

**APPROVED BY**

**Member, SEIAA**

**Chairman, SEIAA**



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AGENDA NO.139.30	
Proposal No.	SIA/OR/MIN/425424/2023
Date of application	15.04.2023
File no.	425424/589-MINB1/03-2023
Project Type	Proposal for EC
Category	B2
Project/Activity including Schedule No.	1(a) Mining of Minerals
Name of the Project	Proposal for EC of Proposal for Fresh EC of Naragaon Decorative Stone Mine over 2.918 ha. in village Naragaon under Kundra Tehasil of Koraput district, Odisha of M/s. Sustainable Mining Services.
Name of the company/Organization	Sri Ashok Mohapatra
Location of Project	village Naragaon under Kundra tehasil of Koraput district, Odisha
ToR Date	N/A
Name of the Consultant	M/s EHS360 Labs Private Limited, Chennai - 68

**1. Proposal in brief:**

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

1. This proposal for Environmental Clearance of M/s. Sustainable Mining Services for Naragaon Decorative Stone Mine over an area 7.21 acres or 2.918 ha. in village Naragaon under Kundra Tahasil of Koraput district of Sri Ashok Mohapatra.
2. **Category:** As per EIA notification 2006 and subsequent amendments, the proposed project is coming under B2 category and activity 1 (a) - Mining of Minerals.
3. The Mining Plan with Progressive Mine Closure Plan has been approved by Additional Director of Mines, O/o-Directorate of Mines, Odisha, Bhubaneswar vide letter no. MXXII-(b) 05/2022-5018 dated 09.06.2022.
4. Letter of Intent has been issued by Steel and Mines department vide letter no 1313 /SM-MC3-MC-0009-2021 S & M, Bhubaneswar dated 15.02.2022.
5. As per District Survey Report, Koraput (Under Ministry of Environment, Forest & Climate Change, New Delhi, Notification Date 15-01-2016.) Naragaon Decorative Stone Mines is listed in Sl.No.23 in the Mineral Concession list page no. 58.
6. The proposed land does not come under DLC and there are no mines within 500 metres of the project site as certified by Tahasildar, Kundra.
7. **Location and connectivity:** The granted M.L. area for decorative stone over 7.21 acres or 2.918 hectares is covered in the Survey of India Toposheet No. E 44 K5, and bounded by latitude N 18053'49.05" to N 18053'57.68" & Longitude E 82°23'53.11" to E 82°23'58.23". The land use pattern of the mining lease area comes under the non forest agricultural land (Abada Ajogya Anabadi), bearing Khata no: 200, Plot no: 837/P. The applied Mining lease area over 7.21 acres or 2.918 hectares in village Naragaon, Under Kundra Tahasil of Koraput district, Odisha. M/s. Sustainable Mining Services for a period of 30 (thirty) years. Nearest railway stations is Khadapa Railway Station at an aerial distance of 12 Km. The lease area can be approached from SH:48 & NH:26 at a distance

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of 2.7 Km & 17 Km respectively. Nearest Airport is Bhubaneswar Airport which is at a distance of 38.8 Km. Nearest reserve forest is Judanga reserve forest which is 6km away from the project site.

8. **Topography:** The M.L. area under reference represents a hilly terrain with a small hillock. The highest and lowest elevations of the area are 624 mRL in the Northwestern part and 605 mRL in the Southeastern part of the M.L. area respectively. Overall slope of the area is due South-east. There is no forest land in the M.L. area. The entire area falls in waste land under the revenue class of "Parbat" of Abada Ajogya Anabadi category.
9. **Life of mine:** Considering the production of Granite Gneiss@ 300Cum (Average) per annum, then the life of the mine will be =  $20034.900/300=66.80$  years.
10. **Total production and reserves:** The proposed quarry will be developed to produce 302 m<sup>3</sup> of decorative stone (Saleable) in the first year to fifth year of the current plan period. However, the proposed rate of production will be 5258m<sup>3</sup> of saleable decorative stone after the quarry is fully developed. As estimated, the geological reserves is 262500cum. Out of which the recoverable decorative stone @ 11.3% (cum) is 29662.500cum and mineable reserves is 177300cum. Out of which the recoverable decorative stone @ 19% (cum) is 20034.900cum.
11. **Mining method:** It has been proposed that the mining will be carried out in a systematic, scientific and sustainable manner by adopting semi mechanized open cast method of mining by exposed the spreading sheet. The mode of working will be Semi Mechanised, loading, hauling & transportations are the various mining operations those will be practiced in the Naragaon Decorative Mines. After drilling and blasting, excavation will be done mechanically by excavators & dumpers with the help of the common equipment like hand shovel, crowbar, hammer, pick axe etc. Loading will be done through the excavators by the help of dumpers. Breaking & sizing is done by hammering & Wire saw etc. Crowbars, Pickaxe, hammer etc. will be used for breaking of the ore. The height of the bench of the quarry will be kept 3m and width will be 3m wide or more than the height. Excavation work and loading will be carried out by mechanised means. Granite which that is to be excavated, will be stacked in the ore stack yard manually by head load. Waste materials will be transported to the proposed dumping site by tipper. The individual slope of benches will be 90° whereas the overall slope of the proposed quarry would be kept 45°. The gradient of the haul road will be maintained at 1:16 with more width than other benches for easy mobilization of workmen.
12. The ultimate extent and size of the quarry will be 120m × 100m. Ultimate pit slope at the time of closure of mine will be around 45°. The ultimate pit will be reclaimed by means of back filling. Back filling will be done over an area of 0.729 hectares up-to 584 mRL and remaining dead benches will be fenced with barbed wire from safety point of view.
13. **Waste Generation and Management:** During the proposed plan period a total of 9078 m<sup>3</sup> of waste will generate due to course of mining. However about 40% of the generated waste will be utilized for maintenance and construction of the haul road, approach and existing roads in the surrounding areas periodically. Therefore, a total of 3631.200 m<sup>3</sup> of waste will be utilized for construction and maintenance of roads and remaining waste will be dumped in the earmarked site over 0.141 Ha. During plan period, retaining wall and garland drain will be constructed for the proposed dump. In the 1st year programme, Construction of retaining wall of 100 m & garland drain of 105m will construct all around the waste dump.
14. **Water requirement:** Total water requirement for the project will be 5 KLD out of which 2 KLD will be required for drinking and domestic purpose and 1.5 KLD for dust suppression and 1.5 KLD for plantation purpose. Water will be sourced from the nearby villages through tanker.

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15. **Power Requirement:** No electricity connection within ML area. However solar lights will be employed for day to day living purposes. Diesel requirement of 6000litters/month for operation of mining equipment and DG sets.

16. **Greenbelt:**

Year	Area (m <sup>2</sup> )	No. of saplings	Type of species	Location
1 <sup>st</sup> Year	200.00	40	Amla, Neem, Mango, Gamhari, Kasi, Bahada, Jamun, and Bamboo	Along the M.L. Boundary
2 <sup>nd</sup> Year	200.00	40		
3 <sup>rd</sup> Year	200.00	40		
4 <sup>th</sup> Year	200.00	40		
5 <sup>th</sup> Year	200.00	40		
<b>Total</b>	<b>1000.00</b>	<b>200</b>		

17. **Manpower:** A rough estimate reveals that a total of 22 nos. of administrative, technical persons, supervisory staffs, skilled and un-skilled workmen to carry out the mining and allied activities.

18. **Project cost:** The approximate cost of the project comes around 200 lakhs. CSR budget of plan proposed for the project.

**Table: Details of CSR Activities & Its Budget**

Activities	Cost (Inr)	Village
Construction and Maintenance of approach road the mines (1.5 Km)	6,00,000.00	Naragaon
Maintenance of School building and furniture	1,00,000 per annum	Naragaon
Employment generation for the local people	--	Nearby villages
Free health checkup camp in Naragaon Village (Quarterly once) for 22 people	1,00,000 per annum	Naragaon,
Plantation along the road side of the approach road (250saplings)	60,000.00 per annum	Approach road ton Naragaon village and mines

**Table: EMP Capital cost**

Sl. No.	Particulars	Capital cost Lakh
<b>I.</b>	<b>Pollution Control</b>	
a)	Water Tanker	5.00
b)	Garland drains & retaining walls around the dump (m)	3.00

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	Sub Total	8.00
<b>II.</b>	<b>Occupational Health</b>	
a)	Safety equipment	1.0
b)	Occupational health check up	1.0
	Sub Total	2.0
<b>III.</b>	<b>Green Belt</b>	1.0
<b>IV.</b>	<b>Miscellaneous</b>	0.5
	Grand Total	11.50

**Table: EMP Recurring cost**

Sl. No.	Particulars	Total cost (Lakh)
<b>I.</b>	<b>Pollution Control</b>	
i)	Regular Water sprinkling in the dust prone areas	3.60
ii)	Maintenance of garland drain, settling tank & retaining wall	1.0
	Sub Total	4.6
<b>II.</b>	<b>Pollution Monitoring</b>	
i)	Air pollution Monitoring	3.0
ii)	Water Pollution Monitoring	0.5
iii)	Noise monitoring	0.2
	Sub Total	3.7
<b>III.</b>	<b>Occupational Health</b>	
i)	PPEs for workers	1.0
ii)	Regular health check ups	0.5
	Sub Total	1.5
<b>IV.</b>	<b>Green Belt</b>	0.5
<b>V.</b>	<b>Others (Expert Advice Etc.)</b>	0.5
	Total	9.80

19. **Environment Consultant:** The Environment consultant M/s EHS360 Labs Private Limited, Chennai - 68 along with the proponent made a presentation on the proposal before the Committee on 03.05.2023.

20. The SEAC in its meeting held on **03-05-2023** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	Details of silt management be submitted.	During mining operation Diamond wire saw will be used cutting of granite blocks & finished at mine faces and similarly in the granite blocks shifted / transported from one location to other silts / dusts will be generated and in waste dump area silts are to be generated. To prevent silts necessary measures are be taken to manage silts/solid waste particles at mine pit heads so that there should not any silts /	Complied



solid waste particle causes water pollution. Hence the surface run-off may contain silts / solid waste from mining operation & transportation activities:

**Following Measures shall be carried out for management of silt:**

- Comply with any requirements in silt management plan about managing silt / solids at site.
- Settling tanks/Pits and Garland drains, Check weirs shall be constructed at strategic area inside mining pits, so that contaminated run-off are prevented and clean water will be allowed from mining pits.
- Minimize the amount of ground you expose and stocking of granite blocks use at mine site.
- Development of plant vegetation at strategic area
- Use of retaining fences to prevent solids from being washed off or blown away.
- Vegetation shall not be removed until we need to work in that area.
- Diversion of clean water and prevent water from entering the excavations area by using cut off ditches around working area.
- Construction of settlement ponds, tanks or lagoons to collect run-off from the site and let suspended silt / solids settle so we can remove them from the water.
- Settling pond shall be designed carefully so it can take the amount of water that will flow through it can stop discharges from the settling pond if the water becomes contaminated.
- if anytime we find any water pollution, we will use polyelectrolytes or alum for treatment of same.
- Treatment also will be done to water entering the settlement pond if it is contaminated by pollutants other than suspended solids.
- Use sustainable drainage systems grass swales, ponds or infiltration trenches shall be used to control surface water run-off at site, run-off close to the source by slowing and holding back the run-off from your site and allowing natural processes to break down pollutants such as grass swales, ponds or infiltration trenches. SuDS deal with run-off close to the source by slowing and holding back the run-off from your site and allowing natural processes to break down pollutants
- Collection of run-off from your roads by using ditches and build bridges to cross water courses if required.
- Cleaning of site roads regularly and keep them free from dust and mud.
- Designated vehicle shall be used in washing areas and collect contaminated water in a sump.





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		<ul style="list-style-type: none"> <li>• If required we will build any flood attenuation ponds and spillways upstream of the site to prevent settlement ponds from overflowing and causing pollution after heavy rain.</li> </ul>	
	<p>Usage of surface run-off water and its management and find the possibility of SRTS installation if required.</p>	<p>Surface Runoff water shall be collected at the settling pits and will be used for mining activities like dust suppression, plantation etc.</p> <p>Drainage system shall be designed in proper way so that runoff generated will be channelized to the settling pit.</p> <ul style="list-style-type: none"> <li>• Surface runoff water harvesting is the collection, accumulation, treatment or purification, and storing of storm water for its eventual reuse.</li> <li>• All the mine sumps, garland drains, sedimentation ponds to be created on the surface should be de-silted before monsoon</li> <li>• In order to avoid accidental entry of any person or cattle into the sedimentation ponds, proper fencing shall be carried out around it.</li> <li>• The surface water shall be monitored for the parameters like pH, total suspended solids, chemical oxygen demand, oil and grease, and treatment shall be done if required.</li> <li>• Provision of catch drain may be made around the material stock area in order to protect the interaction of natural surface runoff with that of the material stock. This will reduce the siltation of fine material particles into the surrounding area</li> </ul> <p>There will be no requirement of SRTS as the runoff generation is insignificant.</p>	<p>Complied</p>
	<p>Details of road connectivity layout and permission to be taken from the appropriate authority/private land owners for 50 meters road connectivity from proposed quarry site to nearest public road for transportation of minerals.</p>	<p>The mining lease area can be approached from SH:48 &amp; NH:26 at a distance of 22Kms &amp; 17 Kms respectively. The Lease area is well connected to the NH and SH through RD/PWD/ Panchayat / Village road. (Copy of layout is enclosed) Public road of 50 meter shall be used for transportation, necessary permission has been obtained from the concerned authority vide his letter no. 2024/2023 dated 14/07/2023.(Copy attached as <b>Annexure-1</b>)</p>	<p>Complied and permission copy is attached.</p>
	<p>Detailed note on quantity of waste generation, storage, utilization and</p>	<p>Total mineable quantity in the M.L. area = 21006.700 m<sup>3</sup>          Total ROM excavated during the proposed Plan period = 13650 m<sup>3</sup>          Generation of waste @ 79 % = 12008.00 m<sup>3</sup>          Utilization of waste @ 40% for road &amp; maintenance= 5460 m<sup>3</sup>          Remaining waste for dump = 8190 m<sup>3</sup></p>	<p>Complied.</p>



its management.

The generated waste will be periodically dumped over the proposed dump for the plan period an additional area of 0.141 ha with an average height of 1.5 m having 5 terraces. However the generated waste will be back filled from the southern end of the conceptual boundary after reaching the ultimate pit limit. It has been computed that the waste generated during the conceptual period will be back filled. During conceptual period the waste generated will be completely utilized for road construction and for other construction purpose.

There will be temporary storage of waste over an area of 0.701 Ha which will consequently utilized for construction purpose.

- The dump will have inward slope with catch drains at inward side of the terrace and the catch drain of the individual terrace will be connected to the garland drain outside the periphery of the dump.
- Retaining wall and garland drain will be constructed around the dumps and the surface runoff water pass through the garland drain and finally settled in a settling pit before released outside.
- Retaining wall and garland drains for the proposed waste dump will be constructed to arrest wash offs from the dump. Materials other than marketable Granite Gneiss rock recovered by way of mining will be treated as waste. As discussed above Granite Gneiss deposits of the applied area are associated with weathered Granite Gneiss and cracks constitute in the main waste materials. Those materials which are removed and get the marketable blocks and tiles are considered as intercalated waste and those are removed & dumped directly (Weathered Granite Gneiss) are considered as waste. 11.3 % of the ROM with associated ferruginous minerals rejects will be treated as waste. The volumes of total waste likely to be generated during the proposed plan period are as below;

Year	Volume of Waste (m3)
1 <sup>st</sup> Year	1382.50
2 <sup>nd</sup> Year	1896.00
3 <sup>rd</sup> Year	2567.50
4 <sup>th</sup> Year	2567.50
5 <sup>th</sup> Year	3594.50
Total	12008.00

**Maximum Height and Spread of Dumps**

However about 40% of the generated waste will be utilized for maintenance and construction of the haul road, approach and existing roads in the surrounding areas periodically.



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	<p>Therefore a total of 5460 m<sup>3</sup> of waste will be utilized for construction and maintenance of roads and remaining 8190 m<sup>3</sup> of waste will be dumped in the proposed temporary waste dump (Refer Plate No-VII). The details of the area covered and height of the proposed dump is given below;</p> <p><b>Maximum Height and Spread of Dumps</b></p> <table border="1" data-bbox="486 450 1008 1122"> <tr> <td>Total intercalated waste from proposed Granite during 5 years of plan period</td> <td>=</td> <td>12008 M<sup>3</sup></td> </tr> <tr> <td>Construction and Maintenance of Road @ 40%</td> <td>=</td> <td>5460 M<sup>3</sup></td> </tr> <tr> <td>Remaining waste for dumping</td> <td>=</td> <td>8190 M<sup>3</sup></td> </tr> <tr> <td>Quantity due to maintain for slope of the dump@15%</td> <td>=</td> <td>1228.50 M<sup>3</sup></td> </tr> <tr> <td>Average height of the proposed dump</td> <td>=</td> <td>1.5 M</td> </tr> <tr> <td>Surface area required</td> <td>=</td> <td>1174 M<sup>2</sup></td> </tr> </table> <p><b>Precautionary measures to be adopted during waste disposal</b></p> <p>There will five terraces in proposed temporary waste dump and height of terrace will be 1.5 m.</p> <p><b>The following measures will be undertaken to stabilize the dump and the rest of wash off:</b></p> <p>Terracing at the dead end and as the dump constitutes of rocky mass, no plantation of saplings on the dump slope is envisaged.</p> <p>During plan period, retaining wall and garland drain will be constructed for the proposed dump. In the 1st year programme, Construction of retaining wall of 100 m&amp; garland drain of 105m will construct all around the waste dump.</p> <p>One settling tank will be constructed to arrest the wash-off water.</p>	Total intercalated waste from proposed Granite during 5 years of plan period	=	12008 M <sup>3</sup>	Construction and Maintenance of Road @ 40%	=	5460 M <sup>3</sup>	Remaining waste for dumping	=	8190 M <sup>3</sup>	Quantity due to maintain for slope of the dump@15%	=	1228.50 M <sup>3</sup>	Average height of the proposed dump	=	1.5 M	Surface area required	=	1174 M <sup>2</sup>	
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<p>Layout map showing the mining area, waste dump, settling area and waste backfilled in the area and</p>	<p>The details of layout map showing the mining area, waste dump, settling area and waste backfilled in the area and balance storage have been earmarked in the Surface Plan and 5 Years Development Plan of the approved Mining Plan are attached in <b>Annexure-2</b>.</p> <p>The details are discussed in point no <b>IV</b>.</p>	<p>Complied and layout map is attached.</p>																		

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balance storage.		
Management plan for water and dust.	<p><b><u>Water Management Plan:</u></b></p> <ul style="list-style-type: none"> <li>• The surrounding area is covered with network of small seasonal nalas, which carry water during rainy days only. Drainage pattern is dendritic. Quality of water in seasonal nalas has been found to be muddy during rainy season. There will be no waste water generation due to mining of decorative stone. Only waste water generation will be sanitary waste water which will be treated in soak pit via septic tank. The impact of mine drainage water on the surrounding water environment and the proposed mitigation measure has been given below.</li> <li>• The ground water level in the surrounding plain land is noticed to be 6-8m below the surface level. The RL of water table is around 200m. As the quarrying activity proposed to be taken up at a much higher level at 140 mRL, there will be no water logging in the quarry due to subsurface water. As per propose mining operation there is no generation of water or any process water is used, water pollution will be negligible.</li> <li>• Moreover, surface run-off water during rains is likely to be less contaminated as the same will not contain any dissolved pollutant generated from the mines and the suspended solids will also not be noticeably added to the same from the workings or stacks.</li> <li>• The Surface run-off water of the M.L. area flows along the natural slopes. Retaining wall and garland drain will be constructed around the dumps and the surface run off water pass through the garland drain and finally settled in a settling pit before released outside.</li> <li>• During the rainy season Quarry water will be channelized through peripheral drain and settling tank to release clean water. There is no river/nala flowing with in the lease hold area.</li> <li>• The groundwater table is below 6-8m below the surface level depending upon seasonal variation. However in the surrounding areas, water courses remain dry throughout except during rainy season. It is a fact that no constituent of the waste water state either goes into solution in the surface run off or carried as suspended particulate matter in the same. Therefore, contamination of water bodies due to mining of decorative stone does not arise and as such no treatment of waste water is required before its discharge into natural water course.</li> <li>• A boundary wall with garland drain will be constructed towards the south of the lease area to retain the mine drainage water and prevent mixing up the mines water with the canal.</li> </ul>	Complied



- The rain water harvesting structure created in the lease area supplement the water requirement dust suppression and plantation will met from the rainwater harvesting structure.
- There is no proposal for use of water in the process of mining. Water required only for dust suppression, plantation and drinking purpose. During monsoon period surface runoff around the quarry and dump near the natural drains will follow the garland drains to arrest the eroded sediments, which shall pass through a series of garland drains before being discharged to the natural drainage system. From the analysis of waste material from the lease area it has been found that there is no contamination due to the dumping of waste material

**Dust Management Plan:**

During mining operation Diamond wire saw will be used for cutting of granite blocks & finished at mine faces, hence very less quantities of dust will be generated and similarly in the granite blocks shifted / transported from one location to other silts / dusts will be generated. The impact of decorative stone mines have very less impact on air environment and proper mitigate measures will be adopted to reduce the impact of the mines on environment. Following table describes the potential sources of air pollutant emission and the proposed control measures for air pollution.

**Sources of Air pollution and Mitigation Measures**

Potential sources	Magnitu de of air pollution	Control measures of air pollution
Cutting & Sizing	Dust generatio n	Water will be added in diamond wire saw at time of cutting so that no dust will be generated
Loading of material	Air emission	Water sprinkling on mineral ore/overburden Material prior to loading. Overloading will be avoided in the trucks
Transport ation	High dust	Provision for automatic water sprinkle system On permanent road and water spray by tankers on temporary road. Covering of the material with turpentine in case of long haulage Green belt of trees with good footage on both side of haul road. Provision of

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			water sprinkling on the dumper to arrest fine dust before it is transported. Ino.of water tanker with 8000 liter capacity will be procured and used for water sprinkling twice in a day in haul roads , dumping site, loading and unloading site etc.	
	Storage of Sized & Finished granite Block	High dust potential	Water sprinkling arrangement will be done, Development to greenbelt to arrest the dust generation	
	Air pollution Monitoring	Monitoring of air pollution	Ambient air pollution monitoring will be Carried out as per the Environment clearance letter issued by SEIAA, Odisha.	
i)	As per the KML file, dense vegetation is seen within the proposed site. Therefore, details of procedure to be followed for tree felling or transplantation of those trees within safety zone. Provision for compensatory afforestation must be done by equal number of plantation under consultation with forest deptt.			Complied. DFO Permission Copy is attached. Special condition to be stipulated that provision for compensatory afforestation must be done by equal number of plantation under consultation with Forest Deptt.
ii)	Certificate from the	The Mining Officer, Koraput Circle, Koraput, Odisha has been certified that no other mines located within 500 meters		Complied and No other

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<p>Concerned mining officer that no other mines located within 500 meter from the periphery of the lease boundary.</p>	<p>from the periphery of the lease boundary. The copy of signed check list is attached as Annexure-3 (Please refer point no. 18 &amp; 23).</p>	<p>mines certificate is attached.</p>
<p>As per the provisions stipulated in OM F.No.22-34/2018-IA.III dated 16th January 2020, MOEFCC, Government of India for the stone mining projects, the mining lease holder to undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure.</p>	<p>As per the provisions stipulated in OM F. No. 22-34/2018-IA.III dated 16th January 2020, MOEFCC, Government of India, we are undertaking that re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure. Undertaking of the same attached as <b>Annexure-4</b>.</p>	<p>Complied and undertaking of the same is attached.</p>

2. Whether SEAC recommended the proposal – The proposal was placed in the SEAC meeting held on **17.08.2023** and the SEAC recommended for grant of Environmental Clearance upto lease period with stipulated conditions as per **Annexure – A and following additional conditions:**
- a) Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.



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- b) The project proponent shall maintain periodic health check-up records of their employees and ensure use of face mask by workers in crushing and handling sections of the decorative stone quarry for ensuring that working personnel are not affected by silicosis.
- c) The project proponent shall follow proper procedure as advised by Forest Deptt. for tree felling or transplantation of those trees within safety zone. Provision for compensatory afforestation must be done by equal number of plantations in consultation with Forest Deptt.
- d) The project proponent shall undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure.
- e) Detail risk and hazard management procedure as per the **Annexure – B** shall be followed by the lessee.

**Decision Of Authority: Approved**

After detailed deliberation on the matter, the Authority granted EC subject to the condition that the Tahasildar, Kundra shall certify that this quarry is not coming in cluster i.e. within 500meters distance from the nearby decorative stone quarry of Naragaon Decorative Stone Mine over 3.785 ha. of the same lessee in the same Naragaon village.

Member Secretary, SEIAA

APPROVED BY

Member, SEIAA

Chairman, SEIAA





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<b>AGENDA NO.139.31</b>	
Proposal No.	SIA/OR/MIN/425450/2023
Date of application	15.04.2023
File no.	425450/590-MINB1/03-2023
Project Type	Proposal for EC
Category	B2
Project/Activity including Schedule No.	1(a) Mining of Minerals
Name of the Project	Proposal for EC of Naragaon Decorative Stone Deposit over 3.785 ha. in village Naragaon under Kundra tehsil of Koraput district, Odisha of M/s. Sustainable Mining Services.
Name of the company/Organization	Sri Ashok Mohapatra
Location of Project	village Naragaon under Kundra tehsil of Koraput district, Odisha
ToR Date	N/A
Name of the Consultant	M/s EHS360 Labs Private Limited, Chennai - 68

**1. Proposal in brief:**

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

1. This proposal is for Environmental Clearance of M/s. Sustainable Mining Services for Naragaon Decorative Stone Mine over an area 9.35 acres or 3.785 ha. in village Naragaon under Kundra Tahasil of Koraput district of Sri Ashok Mohapatra.
2. **Category:** This project falls under Category "B2" under Schedule of Item 1(a) - Mining of Minerals as per the EIA Notification, 2006 and its amendments thereof.
3. The applied Mining lease area over 9.35 acres or 3.785 hectares in village Naragaon, under Kundra Tahasil of Koraput district, Odisha. M/s. Sustainable Mining Services for a period of 30 (twenty) years. The tenure of the lease period is scheduled to expire on 08.06.2052.
4. The Mining Plan with Progressive Mine Closure Plan has been approved by Additional Director of Mines, O/o-Directorate of Mines, Odisha, Bhubaneswar vide letter no. MXXII-(b)04/2022-5025 dated 09.06.2022.
5. Letter of Intent has been issued by Steel and Mines department vide letter no 1309 /SM-MC3-MC-0009-2021 S & M Bhubaneswar, dated 15.02.2022.
6. **Location and connectivity:** The land use pattern of the mining lease area comes under the non-forest agricultural land (Abada Ajogya Anabadi), bearing Khata no: 200, Plot no 989/P. The applied Mining lease area over 9.35 acres or 3.785 hectares in village Naragaon, Under Kundra Tahasil of Koraput district, Odisha. The area of mining lease area is in the Survey of India. Toposheet No. E44K5, and bounded by latitude N18° 53'38.79" to N18° 53'50.78"& Longitude E820 24'09.60" to E820 24'17.71". Nearest railway stations is Khadapa Railway Station at an aerial distance of 12 Km. The lease area can be approached from SH - 48 & NH - 26 at a distance of 22 Km & 17 Km respectively. Nearest Airport is Bhubaneswar Airport which is at a distance of 388 Km. Nearest reserve forest is Judanga reserve forest which is 6km away from the project site.
7. **Topography:** The M.L. area under reference represents a hilly terrain with a small hillock. The highest and lowest elevations of the area are 610 mRL in the Northwestern part and 600 mRL in

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the South-eastern part of the M.L. area respectively. Overall slope of the area is due South-east. There is no forest land in the M.L. area. The entire area falls in waste land under the revenue class of "Parbat" of Abada Ajogya Anabadi category.

8. **Reserves and total production:** As estimated, the geological reserves is 287150cum. Out of which the recoverable decorative stone @ 11.3% (cum) is 32447.950cum and mineable reserves is 185900cum. Out of which the recoverable decorative stone @ 19% (cum) is 21006.700cum. The proposed quarry will be developed to produce 4550 m<sup>3</sup> of decorative stone (Saleable) in the first year to fifth year of the current plan period. However, the proposed rate of production will be 13650m<sup>3</sup> of saleable decorative stone after the quarry is fully developed.

Year	Volume of Rocks	Volume of Presently Non Saleable Materials	Volume of Blocks	Volume of Waste
1st Year	1750	175	192.50	1382.50
2nd Year	2400	240	264.00	1896.00
3rd Year	3250	325	357.50	2567.50
4th Year	3250	325	357.50	2567.50
5th Year	4550	455	500.50	3594.50
Total	13650	1520	1672.00	12008.00

9. **Mining method:** It has been proposed that the mining will be carried out in a systematic, scientific and sustainable manner by adopting semi mechanized open cast method of mining by exposed the spreading sheet. The mode of working will be Semi Mechanised, loading, hauling & transportations are the various mining operations those will be practiced in the Naragaon Decorative Mines. After drilling and blasting, excavation will be done mechanically by excavators & dumpers with the help of the common equipments like hand shovel, crowbar, hammer, pick axe etc. Loading will be done through the excavators by the help of dumpers. Breaking & sizing is done by hammering & Wire saw etc. Crowbars, Pickaxe, hammer etc. will be used for breaking of the ore. The height of the bench of the quarry will be kept 3m and width will be 3m wide or more than the height. Excavation work and loading will be carried out by mechanised means. Granite which that is to be excavated, will be stacked in the ore stack yard manually by head load. Waste materials will be transported to the proposed dumping site by tipper. The individual slope of benches will be 90° whereas the overall slope of the proposed quarry would be kept 45°.
10. **Waste Generation and management:** During the proposed plan period a total of 12008 m<sup>3</sup> of waste will generate due to course of mining. However about 40% of the generated waste will be utilized for maintenance and construction of the haul road, approach and existing roads in the surrounding areas periodically. Therefore, a total of 1493.00 m<sup>3</sup> of waste will be utilized for construction and maintenance of roads and remaining 2240.00 m<sup>3</sup> of waste will be dumped in the earmarked site over 0.141 Ha. area.
11. **Water requirement:** Total water requirement for the project will be 5 KLD out of which 2 KLD will be required for drinking and domestic purpose and 1.5 KLD for dust suppression and 1.5 KLD for plantation purpose. Water will be sourced from the nearby villages through tanker.



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12. **Power Requirement:** No electricity connection within ML area. However solar lights will be employed for day to day living purposes. Diesel requirement of 6000liters/month for operation of mining equipment and DG sets.

13. **Greenbelt:** Eucalyptus etc. are proposed to be planted with a minimum spacing of 2m between two consecutive plants.

Year	Area (m <sup>2</sup> )	No. of saplings	Type of species	Location
1 <sup>st</sup> Year	200.00	40	Amla, Neem, Mango, Gamhari, Kasi, Bahada, Jamun, and Bamboo	Along the M.L. Boundary
2 <sup>nd</sup> Year	200.00	40		
3 <sup>rd</sup> Year	200.00	40		
4 <sup>th</sup> Year	200.00	40		
5 <sup>th</sup> Year	200.00	40		
Total	1000.00	200		

14. **Manpower:** A rough estimate reveals that a total of 22 nos. of administrative, technical persons, supervisory staffs, skilled and un-skilled workmen to carry out the mining and allied activities.

Sl. No	Description	No. of Persons
<b>Administrative Staffs</b>		
i)	Mines Manager (1st/2nd class certificate of Competency)	1
ii)	Geologist (Part Time)	1
iii)	Surveyor (Competency – Part Time)	1
iv)	Mechanical Engineer (Part Time)	1
<b>Skilled Employees</b>		
v)	Mining Mate	1
vi)	Quarry supervisor	1
vii)	Compressor Operator	1
viii)	Excavator Operator	1
ix)	Jack Hammer Operator	2
x)	LMV Driver	1
xi)	Water Tanker Operators	1
xii)	Tipper Operators	2
xiii)	Excavator Helper	1
xiv)	Jack hammer helper	2
<b>Semi-skilled Employees</b>		
xv)	Watchman	2
xvi)	Office staff	2
xvii)	Office Peon	1
	Total	22

15. **Project cost:** The approximate cost of the project comes around 105 lakhs. CSR budget is 8.6 lakhs. EMP capital cost of the project is 11.5 Lakh and EMP Recurring cost is 9.8 Lakh/Annum.

**Table: EMP Capital cost**



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Sl. No.	Particulars	Capital cost Lakh
<b>I.</b>	<b>Pollution Control</b>	
i)	Water Tanker	5.00
ii)	Garland drains & retaining walls around the dump (m)	3.00
	Sub Total	8.00
<b>II.</b>	<b>Occupational Health</b>	
i)	Safety equipment	1.0
ii)	Occupational health check up	1.0
	Sub Total	2.0
<b>III.</b>	<b>Green Belt</b>	1.0
<b>IV.</b>	<b>Miscellaneous</b>	0.5
	<b>Grand Total</b>	<b>11.50</b>

**Table: EMP Recurring cost**

Sl. No.	Particulars	Total cost (Lakh)
<b>I.</b>	<b>Pollution Control</b>	
a)	Regular Water sprinkling in the dust prone areas	3.60
b)	Maintenance of garland drain, settling tank & retaining wall	1.0
	<b>Sub Total</b>	<b>4.6</b>
<b>II.</b>	<b>Pollution Monitoring</b>	
a)	Air pollution Monitoring	3.0
b)	Water Pollution Monitoring	0.5
c)	Noise monitoring	0.2
	Sub Total	3.7
<b>III.</b>	<b>Occupational Health</b>	
a)	PPEs for workers	1.0
b)	Regular health check ups	0.5
	Sub Total	1.5
<b>IV.</b>	<b>Green Belt</b>	0.5
<b>V.</b>	<b>Others (Expert Advice Etc.)</b>	0.5
	<b>Total</b>	<b>9.80</b>

16. **Environment Consultant:** The Environment consultant M/s EHS360 Labs Private Limited, Chennai, along with the proponent made a presentation on the proposal before the Committee on 03.05.2023.
17. The SEAC in its meeting held on 03-05-2023 decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

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Sl. No. Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i) Details of silt management be submitted.	<p>During mining operation Diamond wire saw will be used cutting of granite blocks &amp; finished at mine faces and similarly in the granite blocks shifted / transported from one location to other silts / dusts will be generated and in waste dump area silts are to be generated. To prevent silts necessary measures are be taken to manage silts/solid waste particles at mine pit heads so that there should not any silts / solid waste particle causes water pollution. Hence the surface run-off may contain silts / solid waste from mining operation &amp; transportation activities:</p> <p><b>Following Measures shall be carried out for management of silt:</b></p> <ul style="list-style-type: none"> <li>• Comply with any requirements in silt management plan about managing silt / solids at site.</li> <li>• Settling tanks/Pits and Garland drains, Check weirs shall be constructed at strategic area inside mining pits, so that contaminated run-off are prevented and clean water will be allowed from mining pits.</li> <li>• Minimize the amount of ground you expose and stocking of granite blocks use at mine site.</li> <li>• Development of plant vegetation at strategic area</li> <li>• Use of retaining fences to prevent solids from being washed off or blown away.</li> <li>• Vegetation shall not be removed until we need to work in that area.</li> <li>• Diversion of clean water and prevent water from entering the excavations area by using cut off ditches around working area.</li> <li>• Construction of settlement ponds, tanks or lagoons to collect run-off from the site and let suspended silt / solids settle so we can remove them from the water.</li> <li>• Settling pond shall be designed carefully so it can take the amount of water that will flow through it can stop discharges from the settling pond if the water becomes contaminated.</li> <li>• if anytime we find any water pollution, we will use polyelectrolytes or alum for treatment of same.</li> <li>• Treatment also will be done to water entering the settlement pond if it is contaminated by pollutants other than suspended solids.</li> <li>• Use sustainable drainage systems grass swales, ponds or infiltration trenches shall be used to control surface water run-off at site, run-off close to the source by slowing and holding back the run-off from your site and allowing natural processes to break down pollutants such as grass swales, ponds or infiltration trenches. SuDS deal with run-off close to the</li> </ul>	Complied

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		<p>source by slowing and holding back the run-off from your site and allowing natural processes to break down pollutants.</p> <ul style="list-style-type: none"> <li>• Collection of run-off from your roads by using ditches and build bridges to cross water courses if required</li> <li>• Cleaning of site roads regularly and keep them free from dust and mud.</li> <li>• Designated vehicle shall be used in washing areas and collect contaminated water in a sump.</li> <li>• If required we will build any flood attenuation ponds and spillways upstream of the site to prevent settlement ponds from overflowing and causing pollution after heavy rain.</li> </ul>	
ii)	<p>Usage of surface run-off water and its management and find the possibility of SRTS installation if required.</p>	<p>Surface Runoff water shall be collected at the settling pits and will be used for mining activities like dust suppression, plantation etc.</p> <p>Drainage system shall be designed in proper way so that runoff generated will be channelized to the settling pit.</p> <ul style="list-style-type: none"> <li>• Surface runoff water harvesting is the collection, accumulation, treatment or purification, and storing of storm water for its eventual reuse.</li> <li>• All the mine sumps, garland drains, sedimentation ponds to be created on the surface should be de-silted before monsoon</li> <li>• In order to avoid accidental entry of any person or cattle into the sedimentation ponds, proper fencing shall be carried out around it.</li> <li>• The surface water shall be monitored for the parameters like pH, total suspended solids, chemical oxygen demand, oil and grease, and treatment shall be done if required.</li> <li>• Provision of catch drain may be made around the material stock area in order to protect the interaction of natural surface runoff with that of the material stock. This will reduce the siltation of fine material particles into the surrounding area</li> </ul> <p>There will be no requirement of SRTS as the runoff generation is insignificant.</p>	Complied
iii)	<p>Details of road connectivity layout and permission to be taken from the appropriate authority/private land owners from proposed quarry site to nearest public road for transportation of minerals.</p>	<p>The mining lease area can be approached from SH:48 &amp; NH:26 at a distance of 22Kms &amp; 17 Kms respectively. The Lease area is well connected to the NH and SH through RD/PWD/ Panchayat / Village road. (Copy of layout is enclosed) Public road of 50 meter shall be used for transportation, necessary permission has been obtained from the concerned authority vide his letter no. 2024/2023 dated 14/07/2023.(Copy attached as <b>Annexure-1</b>)</p>	Complied. Copy of permission is attache

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12) Detailed note on quantity of waste generation, storage, utilization and its management.

Total mineable quantity in the M.L. area = 21006.700 m<sup>3</sup>

Total ROM excavated during the proposed Plan period = 13650 m<sup>3</sup>

Generation of waste @ 79 % = 12008.00 m<sup>3</sup>

Utilization of waste @ 40% for road & maintenance= 5460 m<sup>3</sup>

Remaining waste for dump = 8190 m<sup>3</sup>

The generated waste will be periodically dumped over the proposed dump for the plan

Period an additional area of 0.141 ha with an average height of 1.5 m having 5 terraces. However the generated waste will be back filled from the southern end of the conceptual boundary after reaching the ultimate pit limit. It has been computed that the waste generated during the conceptual period will be back filled. During conceptual period the waste generated will be completely utilized for road construction and for other construction purpose.

There will be temporary storage of waste over an area of 0.701 Ha which will consequently utilized for construction purpose.

- The dump will have inward slope with catch drains at inward side of the terrace and the catch drain of the individual terrace will be connected to the garland drain outside the periphery of the dump.
- Retaining wall and garland drain will be constructed around the dumps and the surface runoff water pass through the garland drain and finally settled in a settling pit before released outside.
- Retaining wall and garland drains for the proposed waste dump will be constructed to arrest wash offs from the dump.

Materials other than marketable Granite Gneiss rock recovered by way of mining will be treated as waste. As discussed above Granite Gneiss deposits of the applied area are associated with weathered Granite Gneiss and cracks constitute in the main waste materials. Those materials which are removed and get the marketable blocks and tiles are considered as intercalated waste and those are removed & dumped directly (Weathered Granite Gneiss) are considered as waste. 11.3 % of the ROM with associated ferruginous minerals rejects will be treated as waste. The volumes of total waste likely to be generated during the proposed plan period are as below;

Year	Volume of Waste (m <sup>3</sup> )
1 <sup>st</sup> Year	1382.50
2 <sup>nd</sup> Year	1896.00

Complied



3 <sup>rd</sup> Year	2567.50
4 <sup>th</sup> Year	2567.50
5 <sup>th</sup> Year	3594.50
Total	12008.00

**Maximum Height and Spread of Dumps:**

However about 40% of the generated waste will be utilized for maintenance and construction of the haul road, approach and existing roads in the surrounding areas periodically. Therefore a total of 5460 m<sup>3</sup> of waste will be utilized for construction and maintenance of roads and remaining 8190 m<sup>3</sup> of waste will be dumped in the proposed temporary waste dump (Refer Plate No-VII). The details of the area covered and height of the proposed dump is given below;

Total intercalated waste from proposed Granite during 5 years of plan period	=	12008 M <sup>3</sup>
Construction and Maintenance of Road @ 40%	=	5460 M <sup>3</sup>
Remaining waste for dumping	=	8190 M <sup>3</sup>
Quantity due to maintain for slope of the dump @ 15%	=	1228.50 M <sup>3</sup>
Average height of the proposed dump	=	1.5 M
Surface area required	=	1174 M <sup>2</sup>

**Precautionary measures to be adopted during waste disposal:**

There will five terraces in proposed temporary waste dump and height of terrace will be 1.5 m.

**The following measures will be undertaken to stabilize the dump and the rest of wash off:**

- Terracing at the dead end and as the dump constitutes of rocky mass, no plantation of saplings on the dump slope is envisaged.
- During plan period, retaining wall and garland drain will be constructed for the proposed dump. In the 1st year programme, Construction of retaining wall of 100 m & garland drain of 105m will construct all around the waste dump.
- One settling tank will be constructed to arrest the wash-off water.





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	<p>Layout map showing the mining area, waste dump, settling area and waste backfilled in the area and balance storage.</p>	<p>The details of layout map showing the mining area, waste dump, settling area and waste backfilled in the area and balance storage have been earmarked in the Surface Plan and 5 Years Development Plan of the approved Mining Plan are attached in <b>Annexure-2</b>.</p> <p>The details are discussed in point no IV.</p>	<p>Complied and layout map is attached.</p>
<p>vi)</p>	<p>Management plan for water and dust.</p>	<p>Water Management Plan:</p> <ul style="list-style-type: none"> <li>• The surrounding area is covered with network of small seasonal nalas, which carry water during rainy days only. Drainage pattern is dendritic. Quality of water in seasonal nalas has been found to be muddy during rainy season. There will be no waste water generation due to mining of decorative stone. Only waste water generation will be sanitary waste water which will be treated in soak pit via septic tank. The impact of mine drainage water on the surrounding water environment and the proposed mitigation measure has been given below.</li> <li>• The ground water level in the surrounding plain land is noticed to be 6-8m below the surface level. The RL of water table is around 200m. As the quarrying activity proposed to be taken up at a much higher level at 140 mRL, there will be no water logging in the quarry due to subsurface water. As per propose mining operation there is no generation of water or any process water is used, water pollution will be negligible.</li> <li>• Moreover, surface run-off water during rains is likely to be less contaminated as the same will not contain any dissolved pollutant generated from the mines and the suspended solids will also not be noticeably added to the same from the workings or stacks.</li> <li>• The Surface run-off water of the M.L. area flows along the natural slopes. Retaining wall and garland drain will be constructed around the dumps and the surface run off water pass through the garland drain and finally settled in a settling pit before released outside.</li> <li>• During the rainy season Quarry water will be channelized through peripheral drain and settling tank to release clean water. There is no river/nala flowing with in the lease hold area.</li> <li>• The groundwater table is below 6-8m below the surface level depending upon seasonal variation. However in the surrounding areas, water courses remain dry throughout except during rainy season. It is a fact that no constituent of the waste water state either goes into solution in the surface run off or carried as suspended particulate matter in the same. Therefore,</li> </ul>	<p>Complied</p>



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contamination of water bodies due to mining of decorative stone does not arise and as such no treatment of waste water is required before its discharge into natural watercourse.

- A boundary wall with garland drain will be constructed towards the south of the lease area to retain the mine drainage water and prevent mixing up the mines water with the canal.
- The rain water harvesting structure created in the lease area supplement the water requirement dust suppression and plantation will met from the rainwater harvesting structure.
- There is no proposal for use of water in the process of mining. Water required only for dust suppression, plantation and drinking purpose. During monsoon period surface runoff around the quarry and dump near the natural drains will follow the garland drains to arrest the eroded sediments, which shall pass through a series of garland drains before being discharged to the natural drainage system. From the analysis of waste material from the lease area it has been found that there is no contamination due to the dumping of waste material.

**Dust Management Plan:**

- During mining operation Diamond wire saw will be used for cutting of granite blocks & finished at mine faces, hence very less quantities of dust will be generated and similarly in the granite blocks shifted / transported from one location to other silts / dusts will be generated. The impact of decorative stone mines have very less impact on air environment and proper mitigate measures will be adopted to reduce the impact of the mines on environment. Following table describes the potential sources of air pollutant emission and the proposed control measures for air pollution.

**Sources of Air pollution and Mitigation Measures:**

Potential sources	Magnitude of air pollution	Control measures of air pollution
Cutting & Sizing	Dust generation	Water will be added in diamond wire saw at time of cutting so that no dust will be generated
Loading of material	Air emission	Water sprinkling on mineral ore/overburden Material prior to loading. Overloading will be avoided in the trucks
Transportation	High dust	Provision for automatic water sprinkle system On permanent road and water spray by tankers on

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			<p>Temporary road.</p> <p>Covering of the material with turpentine in case of long haulage Green belt of trees with good footage on both side of haul road. Provision of water sprinkling on the dumper to arrest fine dust before it is transported.</p> <p>1no.of water tanker with 8000 liter capacity will</p> <p>be procured and used for water sprinkling twice</p> <p>in a day in haul roads , dumping site, loading and unloading site etc.</p>	
	Storage of Sized & Finished granite Block	High dust potential	<p>Water sprinkling arrangement will be done,</p> <p>Development to greenbelt to arrest the dust generation</p>	
	Air pollution Monitoring	Monitoring of air pollution	<p>Ambient air pollution monitoring will be Carried out as per the Environment clearance letter issued by SEIAA, Odisha.</p>	
vii)	Certificate from the concerned mining officer that no other mines located within 500 meter from the periphery of the lease boundary.	The Mining Officer, Koraput Circle, Koraput, Odisha has been certified that no other mines located within 500 meters from the periphery of the lease boundary. The copy of signed check list is attached as Annexure-3 (Please refer point no. 18 & 23).	Complied and copy of signed check list is attached.	
viii)	As per the provisions stipulated in OM F.No.22-34/2018-IA.III dated 16th January 2020, MOEFCC, Government of India for the stone mining projects, the mining lease holder to undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to	As per the provisions stipulated in OM F. No. 22-34/2018-IA.III dated 16th January 2020, MOEFCC, Government of India, we are undertaking that re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time	Complied and Undertaking of the same is attached.	



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<p>a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure.</p>	<p>of mine closure. Undertaking of the same attached as <b>Annexure-4</b>.</p>	
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2. Whether SEAC recommended the proposal – The proposal was placed in the SEAC meeting held on **17.08.2023** and the SEAC recommended for grant of Environmental Clearance upto lease period with stipulated conditions as per **Annexure – A** and following additional conditions;
- f) Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.
  - g) The project proponent shall maintain periodic health check-up records of their employees and ensure use of face mask by workers in crushing and handling sections of the decorative stone quarry for ensuring that working personnel are not affected by silicosis.
  - h) The project proponent shall follow proper procedure as advised by Forest Deptt. for tree felling or transplantation of those trees within safety zone. Provision for compensatory afforestation must be done by equal number of plantations in consultation with Forest Deptt.
  - i) The project proponent shall undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure.
  - j) Detail risk and hazard management procedure as per the **Annexure-B** shall be followed by the lessee.

**Decision Of Authority: Approved**

After detailed deliberation on the matter, the Authority granted EC subject to the condition that the Tahasildar, Kundra shall certify that this quarry is not coming in cluster i.e. within 500meters distance from the nearby decorative stone quarry of Naragaon Decorative Stone Mine over 2.918 ha. of the same lessee in the same Naragaon village.

Member Secretary, SEIAA

**APPROVED BY**

Member, SEIAA

Chairman, SEIAA