



सत्यमेव जयते

File No.: 459798/16-MINB1/01-2024

Government of India

Ministry of Environment, Forest and Climate Change

(Issued by the State Environment Impact Assessment Authority (SEIAA),  
ODISHA)

\*\*\*



Dated 12/06/2024



To,

Bansidhar Swain  
BANSIDHAR SWAIN  
Bansidhar Swain Plot No-426, Semeigadia Near Manchanathdeva High school rasulgarh Bhubaneswar ,  
GAJAPATI, ODISHA, , 751010  
dandomahanadi@gmail.com

**Subject:** Grant of prior Environmental Clearance (EC) to the proposed Mining Project under the provisions of EIA Notification 2006-regarding

**Sir/Madam,**

This is in reference to your application submitted to SEIAA vide proposal number SIA/OR/MIN/459798/2024 dated 24/01/2024 for grant of prior Environmental Clearance (EC) to the project under the provision of the EIA Notification 2006-and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24B0107OR5206265N
(ii) File No.	459798/16-MINB1/01-2024
(iii) Clearance Type	Fresh EC
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals Purutiguda Sand Quarry over an area of 13.688 Acre or 5.539 Hectares bearing plot No- 1285 of Khat No- 512 in village Purutiguda under Kashinagar Tahasil of Gajapati District, Odisha
(vii) Name of Project	GAJAPATI, ODISHA
(ix) Location of Project (District, State)	SEIAA
(x) Issuing Authority	No
(xii) Applicability of General Conditions	

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-2(Part A, B and C)/EIA & EMP Report were submitted to the SEAC for an appraisal by the State Level Expert Appraisal Committee(SEAC) under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by SEAC in the meeting held on 05.05.2024. The minutes of the meeting and all the project documents are available on Parivesh portal which can be accessed from the Parivesh portal by scanning the QR Code above.

5. Details of the mineral to be mined along with production capacity and the brief on the salient features of the project as submitted by the project proponent in Form- 2 (Part A, B and C)/EIA & EMP reports and as presented before SEAC are annexed to this EC as Annexure-2.

6. This proposal conforms to the item no. 1(a)-‘Mining of Minerals’ in the schedule of EIA Notification, 2006 as amended time to time, and the minor mineral extraction project falls under Category B1 as the mining lease area is more than 5 ha.

7. The proposal was considered for EC by SEAC in its meeting held on 05.05.2024. The SEAC, based on the information submitted by the project proponent in Form-2 (Part A, B and C), EIA/EMP report, etc, clarifications/information provided to the ADS sought and after detailed deliberations on all technical aspects and public hearing issues and compliance thereto, have recommended the proposal for grant of Environment Clearance for the project valid upto the lease period under the provision of EIA Notification, 2006 and as amended thereof subject to stipulations of Specific and Standard EC conditions as detailed.

8. The matter was further examined in the State Environment Impact Assessment Authority (SEIAA), Odisha in its 167th meeting held on 03.06.2024 & 04.06.2024 in accordance with the EIA Notification, 2006 and further amendments thereto as well as the Judgement dated 2nd February,2022 of Hon’ble National Green Tribunal in OA No.33/2020/EZ (Laxmidhar Palai Vrs. District Collector, Balasore), reply of PP and recommendation of SEAC. After detailed deliberation in the matter, the Authority decided to grant EC with usual stipulated conditions as applicable for sand quarry along with additional specific conditions.

9. Environmental Clearance (EC) is granted to the project under the provisions of EIA Notification No. S.O. 1533 (E) dated the 14th September, 2006 of the Government of India in the erstwhile Ministry of Environment and Forests, as amended from time to time for “Proposed Mining of Sand from Purutiguda Sand Quarry Over an area of 13.688 Acres or 5.539 Ha. bearing Khata No.512, Plot No. 1285 located in Village- Purutiguda, Tahasil- Kashinagar, District-Gajapati of Sri Bansidhar Swain, Lease Holder” with the following stipulations under Para A,B,C (specific and standard), environmental conditions and safeguards as given in Annexure-1.

A. Stipulations:

Sl.	Descriptions	Stipulation
(i)	Lease Area:	13.688 Acres or 5.539Ha
(ii)	No Mining Zone:	1/4th of river width for protection of river bank and 7.5 meter safety zone from all side of lease boundary.
(iii)	Maximum Depth of Mining:	2.0 meter as per the approved mining plan Ø 25849 cum/annum upto the valid lease period
(iv)	Permitted Quantity:	(i.e. for 1st year, 2nd year, 3rd year, 4th year & 5th year) from the date of issue of EC. Ø Total production in 5 years:1,29,245cum
(v)	Validity Period of EC:	The EC is valid till the validity of DSR or validity of lease period whichever is earlier.
(vi)	Method of Mining (as per approved mining plan):	Manual

10. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.

11. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation.

12. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

13. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

14. This issue with an approval of the Competent Authority.

## Specific EC Conditions for (Mining Of Minerals)

**1. B: Environmental Conditions And Safeguards Which Need To Be Complied With By The Concerned Tahasildar/mining Officer Before Executing Lease Agreement:**

S. No	EC Conditions
1.1	Boundary Demarcation:- The boundary of the lease area shall be demarcated on ground at the project cost, by erecting 1.20 meter (4 feet approx.) high reinforced concrete pillars above ground, each inscribed with its serial number, distance from pillar to pillar and GPS co-ordinates by any empanelled agency of ORSAC.
1.2	Digital Map:-A digital map (in KML format as well as PDF version) showing GPS coordinates of all boundary pillars duly countersigned by the concerned Mining Officer shall be submitted to SEIAA, Odisha through email at info.seiaaodisha@gmail.com.
1.3	Intimation of EC:- The copies of the EC shall be sent to the Sarpanch(s) of the concerned Gram Panchayat(s), Urban Local Bodies and relevant other Offices of the Government with a request to display the same for 30 days from the date of receipt
1.4	Tree Plantation:- Compensatory Tree Planting (CTP) shall be carried out with minimum @100 trees per Ha. of lease area as per the approved cost norm for avenue plantations of the State Forest Department. The Project Proponent (lease holder) shall deposit Rs. 3,00,000/-, with the respective District Environment Society for raising 600 plants of native species within 2 years in a suitable location adjoining to quarry.
1.5	State EMF Fund:- An amount equal to five percent(5%) of the royalty payable shall be collected from the lessee by the concerned Mining Officer and deposited to the State Environment Management Fund, which will be utilized as per provisions of Rule 49(3) of the OMMC Rule, 2016 preferably, in and around the areas where mining activities are undertaken.
1.6	Condition by Collector:- Any other condition(s) the Collector & Chairman, District Environment Impact Assessment Authority (DEIAA), may impose in the interest of protection and safeguarding the local environment.
1.7	Transfer of EC:- Any transfer of EC to a PP/Lessee shall be considered by SEIAA, Odisha only after receipt of the full compliance report through concerned Mining Officer on the above environmental conditions and safeguards.

**2. C: Environmental Conditions And Safeguards Which Need To Be Complied On Field After The Lease Agreement**

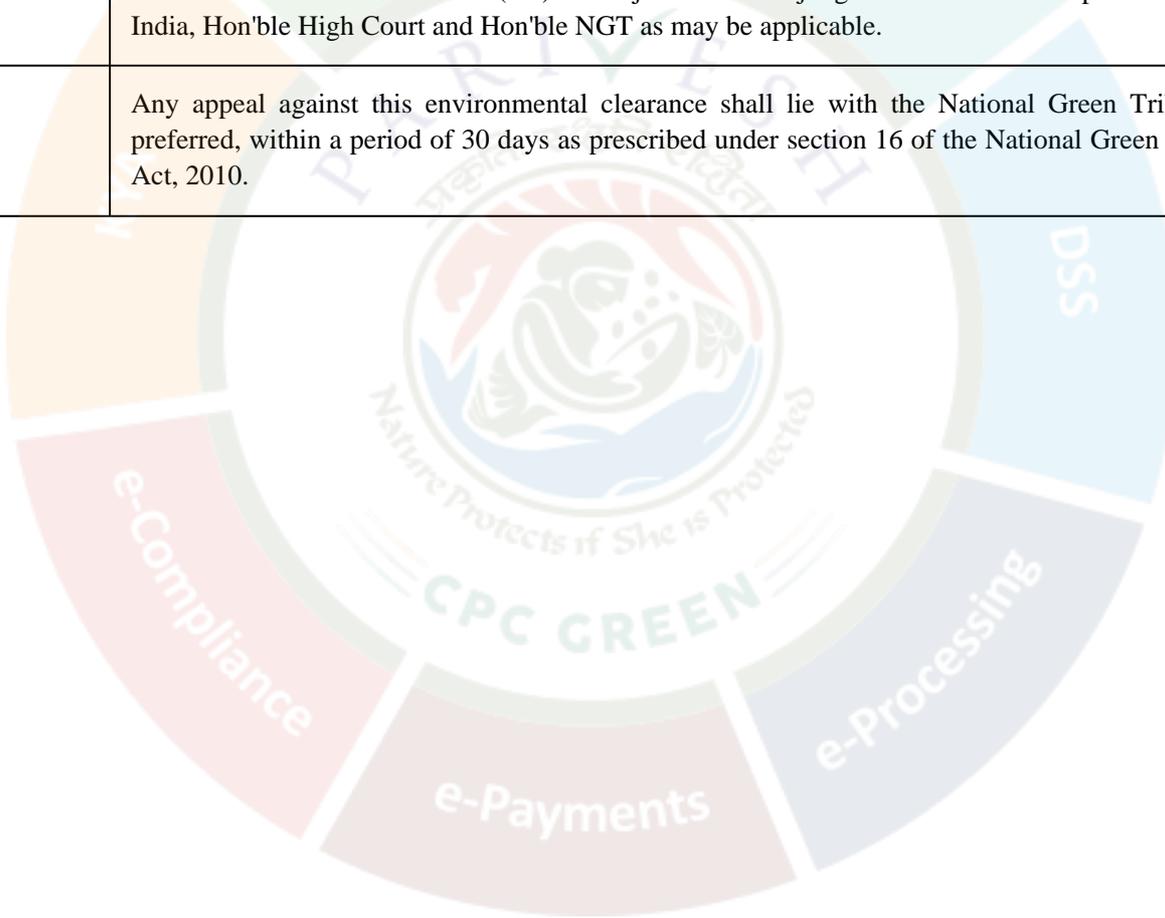
S. No	EC Conditions
2.1	Maximum Depth of Mining: Maximum yearly quantity of extraction from the quarry shall not

S. No	EC Conditions
	<p>exceed annual limit as specified above under stipulation in Table 'A stipulations'-sl.A(iv) and the total production shall be 1,29,245 cum during the valid lease period of five years as per the approved mining plan. The PP is required to submit Replenishment Study of the sand annually prepared through NABET/QCI accredited Consultant/ ORSAC empanelled agency by following the guidelines issued by MoEF &amp; CC in their notification Enforcement and Monitoring Guideline of Sand Mining 2020. The Project proponent shall follow the said guidelines during operation of quarry upto the lease period. Any flouting of this restriction shall make this EC liable to cancellation.</p>
2.2	<p>Annual Replenishment Rate Study of Sand:-The Project Proponent shall carry out by engaging appropriate consultant, annual replenishment rate study of sand as per prescribed drone method by collecting pre monsoon &amp; post monsoon data from the field to know the quantum of volume of sand deposited/replenished &amp; extracted in the mining lease area. The detailed comparison of both pre-monsoon and post-monsoon elevation data shall be included in the study report. The detailed methodology for finding the rate of replenishment study of sand is laid down in the Enforcement &amp; Monitoring Guidelines for Sand Mining, 2020 issued by the MoEF &amp; CC, Govt. of India. The finding of the study shall be submitted to SEIAA to assess the actual rate of replenishment of mined out sand in the lease area.</p>
2.3	<p>District Survey Report: In view of likely revision of DSR as per the Ministry guidelines, the mention of this deposit in DSR with final coordinates is to be ensured by concerned District Collector/Mining Officer/Tahasildar before expiry of the existing current DSR. 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. The Grant of EC for further period will be considered after submission of DSR approved by SEIAA as per the MoEF&amp; CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement &amp; 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).</p>
2.4	<p>No change in the mining plan without prior approval of SEIAA:- Any change in the calendar plan, change in production quantity or method of mining shall not be made without prior approval of the SEIAA. Mining activity shall adhere to the working parameters of approved mining plan prepared for this project. The detailed production of sand from the lease area of each year shall be submitted in tabular form during submission of compliance report.</p>
2.5	<p>Environmental Management Plan:- (i) EMP shall be implemented by PP to ensure compliance with the environmental conditions specified above. The year wise funds earmarked for environmental protection measures shall be kept in separate account and shall be spent according to the plan proposed in EMP. Year wise progress of implementation of EMP shall be reported to the SEIAA, Odisha and OSPCB along with the compliance report. The concerned Mining Officer shall ensure the compliance of this condition along with all lease holders of his jurisdiction. (ii)The PP will implement the EMP with a budgetary allocation of Rs. 1,45,000/- (as Capital Cost) and Rs. 75,000/- (as recurring cost) as proposed during the valid lease period of 5 years. The detailed expenditure on EMP shall be submitted with six monthly compliance report.</p>
2.6	<p>No Working Zone: - The lessee shall ensure that no sand mining is carried out in the areas as specified below:- a) During the rainy season; b) Within the water channel or stream flow area throughout the year;</p>

S. No	EC Conditions
	<p>c) Mining shall not be undertaken in a mining lease located in 250-500 meter of bridge, 200 meter upstream and downstream of water supply/irrigation scheme, 100 meter from the edge of National Highway and railway line, 50 meter from a reservoir, canal or building, 25 meter from the edge of State Highway and 10 meter from the edge of other roads except on special exemption by the Sub-Divisional level Joint Inspection Committee.</p> <p>d) The mining or any ancillary activity shall not in any way disturb the flow pattern of the river water during the non- monsoon period.</p> <p>e) No stream shall be diverted for the purpose of sand mining and no natural water course shall be obstructed.</p> <p>f) Sand mining operations shall not affect the existing sources for irrigation / drinking water / industrial purpose.</p> <p>g) The natural sand dunes, if any, near or surrounding the lease area shall not be disturbed.</p>
2.7	<p>Transport Safeguards:</p> <p>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.</p> <p>b) No transportation of the minerals shall be allowed on any road passing through villages/habitations without prior explicit permission.</p> <p>c) Transportation of minerals through existing rural roads can be allowed only by the concerned Govt. Department/ Gram Panchayat/BDO after required strengthening such that the carrying capacity of road is increased to handle the mineral carrying truck traffic. The project proponent shall bear the cost towards the widening and strengthening of existing public roads in case the same is proposed to be used for the project.</p> <p>d) Project proponent shall ensure that the transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and traffic density.</p> <p>e) Vehicles hired for transportation of minor mineral from the site should be in good condition and should have pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours. Speed of vehicle be regulated and in no case &gt;30 Kms / hr. be allowed.</p> <p>f) The vehicles shall not be overloaded and shall be covered with Tarpaulin. The concerned Mining Officer may collect an appropriate additional road maintenance levy from the lessee as part of the lease conditions on the basis of quantum of mineral transported, and utilize the proceeds of the levy for proper maintenance of the extraction paths and roads to prevent their degradation on account of plying of mineral carrying trucks.</p> <p>g) Water spraying should be made on the village road to control particulate matter (dust particles) pollution in surrounding air during transportation from the quarry.</p>
2.8	<p>Other Environmental Conditions:-</p> <p>a)The Project Proponent shall follow all the provisions of Sand Policy of Govt. Of Odisha dated 02.09.2021 for this sand mining project.</p> <p>b) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.</p> <p>c) The concerned Mining Officer/DDM shall take adequate measures to prevent unauthorized mining;</p> <p>d) The project proponent should carry out river bed sand mining manually(as proposed) by engaging local laborers to check over exploitation of sand at the source;</p> <p>e) The lessee shall ensure safety of human life and livestock from accidents in case village / any habitation is very nearby the mining lease area.</p> <p>f) At the end of mine closure, the proponent shall immediately remove all the sheds put up in the quarry and all the equipment in the area before closure of the quarry.</p>

S. No	EC Conditions
2.9	Public Hearing Compliance:- The activities proposed in action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the action plan and within a stipulated time frame as submitted in the Final EIA/EMP Report. The Status Report on implementation of action plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration. The project proponent shall comply in true spirit all the issues raised and recorded in proceedings of public hearing w.r.t. environment / pollution / CER shall be complied by the Mining Authority as per OM F. No. 22-65/2017-IA.III, dated 30.09.2020 of MoEF&CC, Govt. of India. The PP will spend Rs. 4.00Lakhs towards addressing public hearing issues.
2.10	Half-yearly Compliance Report:- It shall be mandatory for the project management to submit half yearly compliance reports on the status of implementation of the above stipulated environmental safeguards to the SEIAA, Odisha / Regional Office of the MoEF& CC, Bhubaneswar in soft copies on 1st day of June and December of each calendar year. No hard copy of six-monthly compliance report shall be submitted to SEIAA. The proponent shall upload the six-monthly compliance report including results of monitored data, as applicable in the website of the Ministry(www.parivesh.nic.in) for monitoring of EC Conditions, failing which EC is liable to be revoked.
2.11	Concomitant Monitoring:- The conditions stipulated in the environmental clearance will be closely monitored on the ground by the lease granting authority, i.e. the concerned Mining Officer, who shall ensure compliance of the stipulated conditions and take corrective measures promptly in case of any non- compliance and also ensure that the project proponent submits quarterly compliance reports.
2.12	Independent Monitoring:-The concerned Regional Office of the MoEF & CC/ SPCB, Odisha shall periodically monitor compliance of the stipulated conditions as applicable for this project. The project authorities should extend full cooperation to the MoEF & CC officer(s)/SPCB officer(s) by furnishing the requisite data / information / monitoring reports.
2.13	Revocation of EC:- The SEIAA, Odisha may revoke or suspend the EC, if implementation of any of the above conditions is not satisfactory. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.
2.14	Change in Ownership of Lease:- This EC shall not be transferred without the permission of SEIAA, Odisha. The concerned Mining Officer shall inform the SEIAA of any change in ownership of the mining lease. No mining is allowed without transfer of EC as per the provision of the Para 11 of EIA Notification,2006, as amended from time to time.
2.15	Statutory compliance on Grant of CTE & CTO from SPCB:- Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board. The SPCB, Odisha shall ensure that there is no change in the extraction quantity as given in the EC stipulations in respect of year wise permitted quantity before giving 'consent to operate' to this project.
2.16	Basis of Permitted Quantity:- It is made clear that the EC granted is on adhoc basis as the applicant has not submitted the approved District Survey Report (DSR) or Annual Replenishment Rate Study Report (ARRS). In the absence of approved District Survey Report (DSR) the area for removal of minerals shall not exceed 60% of the mine lease area, and any deviation or relaxation in this regard shall be adequately supported by the scientific report (Refer Para: 4.3 (r) of the Enforcement &

S. No	EC Conditions
	Monitoring Guidelines for Sand Mining issued in January, 2020 by the Ministry of Environment, Forest and Climate change). The permitted quantity in the 1st year has been calculated on the basis of 60% mine lease area or quantity mentioned in the Mining Plan, whichever is less. Further in the absence of approved Annual Replenishment Rate Study Report an annual replenishment rate of @25% of the 1st year quantity is allowed for 2nd year w.r.t Order dated 02.02.02022 of the Hon'ble NGT in OA No.33/2020/EZ (Laxmidhar Palai Vrs. District Collector, Balasore). Further amendment to the permitted quantity in the 2nd year shall be considered on submission of duly approved ARRS.
2.17	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act,1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court and any other Court of Law relating to the subject matter.
2.18	This Environmental Clearance (EC) is subject to orders/judgment of Hon'ble Supreme Court of India, Hon'ble High Court and Hon'ble NGT as may be applicable.
2.19	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.



## Annexure-2

**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 Purutiguda Sand Quarry over an area of 13.688 Acres or 5.539 Ha. having Khata No.512, Plot No. 1285 in village Purutiguda under Kashinagar Tahasil of Gajapati District of Sri Bansidhar Swain.
2. **Category:** The proposed mining project falls under Category 'B1' with project activity type "1(a)" - Mining of Minerals) as per Notification of MoEF & CC vide S.O. No. 3977(E), Appendix-XI dated the 14th August,2018 and EIA notification 2006 and amendment thereof of Ministry of Environment and Forests, New Delhi.
3. Quarry lease has been awarded to Sri Bansidhar Swain S/o-Jayadev Swain, by Tehsildar of Kashinagar for 5 years via letter no. 5440/ Sairat dated 09/11/2021.
4. Mining Plan with Progressive Mine Closure Plan has been approved by Deputy Director Geology O/o Joint Director Geology, South Zone, Berhampur, Odisha vide letter no. Memo no.-1051/SZ dated 31/10/2021.
5. **TOR details:** Terms of Reference (TORs) was granted by SEIAA vide letter no 4125/SEIAA dated 02/03/2022.
6. **Public hearing details:** Public hearing was held on 09.11.2022 at 11.00 AM in Grampanchayat Office, Khandava under Kashinagar tahasil in Gajapati district in reference to the proposed Purutiguda Sand Mine. Issues raised during public hearing hearing are sand mining from the river bed, safety and security in the lease area to avoid accidents, transportation of sand, control of noise during sand mining and sand transportation, dust suppression measure, protection of environment, road development, plantation, utilization of DMF fund for peripheral development of village.
7. **Location and connectivity:** Purutiguda Sand Quarry is a new proposed project located at Village: Purutiguda, Khata No. 522, Plot No. 1285, Tehsil: Kashinagar, District: Gajapati, Odisha. Total mining area is 5.539 ha bearing Khata No. 522, Plot No.1285 in SOI Toposheet No: 65N/13 bounded by Latitude N18°57'15.58"to 18°57'27.18"N and Longitude E83°49'26.59" to 83°49'33.20"E. The area is approachable by fair weather road. The applied area is about 150 km away from Visakhapatnam International Airport, Andhra Pradesh Airport. The nearest railway station is at Bansdhara Hault Railway Station 1.5 Km from the site. Nearest Bridge Bansdhara Bridge is 15 km, SE and nearest River Embankment is about 3 km, S and nearest railway bridge is 0.7Km from the project site. Nearest Reserve is Forest Vallarha Reserve Forest which is 2Km, W from the project site.
8. **Baseline summary:** Baseline study of the study area was conducted during pre-monsoon from 1st March 2022 to 31st May 2022 for Purutiguda Sand Quarry.
  - a) Air quality: The concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> for all the 9 AAQM stations were found between 52.7 to 88.9 µg/m<sup>3</sup> and 23.7 to 45.30 µg/m<sup>3</sup> respectively. The concentrations of SO<sub>2</sub> and NO<sub>x</sub> were found to be in range of range of 7.90 to 15.10 µg/m<sup>3</sup> and 11.20 to 27.2 µg/m<sup>3</sup> respectively.

- b) Noise study: Ambient noise levels were measured at 9 locations around the Mine site. Noise levels varied from 44.4 dB (A) Leq to 54.8 Leq dB (A) during day time 36.1 (A) Leq to 44.6 Leq dB (A) during night time.
- c) Ground water: The ground water analysis for all the 8 sampling stations shows that pH varied from 7.29 to 7.49, total hardness varied from 260 mg/l to 520 mg/l & total dissolved solids varied from 153.4 mg/l to 242 mg/l. The water samples contain chloride 13.8 mg/l to 26.4 mg/L, Ca from 27.2 mg/l to 90.5 mg/l, Magnesium varies from 16.52 mg/l to 58.1 mg/l.
- d) Soil analysis: Samples collected from 8 identified soil locations indicate pH value ranging from 7.29-7.61. Organic Matter ranges from 0.25% -0.55% in the soil samples. Nitrogen is found to be in moderate amount as it ranges from 116 mg/kg- 161 mg/kg and Phosphorous in less amount i.e. from 32 mg/kg- 52 mg/kg, whereas the Potassium is found to be ranging from 115 mg/kg - 135 mg/kg.
9. **Replenishment Study:** UAV/Drone method was used to survey the area for Replenishment Survey. The calculated Mineable reserve of Post-Monsoon survey and the Mineable reserve in Pre-Monsoon are taken for comparing the amount of sand replenished. The sand deposited in the lease area in this monsoon season is exceeded by 43% i.e. 21652 CuM of the amount of sand in the Pre-Monsoon Replenishment Study report. So, the final mineable reserve of the lease area is said to be 50832 CuM.
10. **Total production and reserves:** It is proposed sand quarry mine having lease area of 5.539 ha with proposed production capacity of 50,000 m<sup>3</sup> /year of sand (2,50,000 cum for 5 years). The geological reserve and mineable reserve of Purutiguda Sand quarry 66692 Cum and 57442 Cum respectively.
11. **Mining method:** Proposed method of mining would be opencast manual mine. Sand shall be exploited manually and loaded in Truck & Tractors. Ground water table would not be intersected by the proposed mining. Mining shall be carried out without adoption of drilling & blasting. The extracted sand shall be loaded into tractor trolleys manually & dispatched to various parties. Mined out material will be loaded into the dumpers manually and will be sent for commercial use as per the demand of the market. It will be transported by Covered trucks / dumpers to its final destination. No overburden or top soil will be generated as the area lies in river bed. The present level of the lease area is 65 mRL. During plan period, the quarry floor will be 63 mRL or up to water table whichever is less in Purutiguda Sand quarry.
12. **Water Requirement:** The total water requirement for the project estimated to be 25 KLD for mining, spraying, greenbelt development and domestic uses and will be sourced from the nearby available water source and drinking water will be sourced from tanker water.

S. No.	Particulars	Quantity (KLD)	Source
i)	Dust Suppression (on haul roads etc)	5.0	Water will be sourced from nearest available source.
ii)	Green Belt Development/ Plantation	5.0	
iii)	Drinking/Domestic & Sanitation	15.0	
Total		25.0	

13. **Waste Water Management:** No liquid waste will be generated from mining activities. A small amount of domestic wastewater from office toilet will be discharged into the soak pits/septic tank.

14. **Greenbelt/ Plantation:** Greenbelt will be developed along haul road. Plantation will be done along haul road and in villages nearby. Native Species like Teak, Mango, Jammu, Jhaun, Neem etc. will be preferred for the plantation. 50 plants per year will be planted as per the plantation program.

Year	Number of saplings purposed	Location	Type of saplings
1st Year	50	Plantation is carried out safety zone of the lease area (river bank areas)	Teak, Mango, Jammu, Jhaun, Neem etc.
2nd Year	50		
3rd Year	50		
4th Year	50		
5th Year	50		
Total	250		

15. **Man power Requirement:** Total man power of 65 people will be required for the proposed project. Mine workers will be engaged from the nearby villages.

Designation	Number of persons (Purutiguda Sand Quarry)
Supervisory Personnel/ Statutory Personnel	5
Skilled laborers (Operator and Helper)	20
Semi-skilled Laborer	20
Unskilled Laborer	20
Total	65

16. **Project cost:** The total budget for Environment Monitoring Program for the proposed project is Rs. 30,000 per year. Corporate Environmental Responsibility (CER) budget includes a cost of 4 lakhs. Apart from the other expenses, Salary for labour and office staff will be kept around 2Lakh per annum and for documentation purposes around 2Lakhs per annum. Total project cost is Rs.25 lakhs. Capital Cost for EMP is Rs. 1,45,000. Recurring cost of EMP is Rs. 75,000 per annum.

S.no	Particulars	Capital Cost	Annual Recurring cost
i)	Pollution Control	55,000	20,000
ii)	Pollution Monitoring	25,000	10,000
iii)	Afforestation along Approach Road and maintenance of Approach Road	35,000	25,000
iv)	Occupational health and safety	30,000	20,000
	Total	1,45,000	75,000

17. **Environment Consultant:** The Environment consultant M/s Green Circle, Inc., Gujarat along with the proponent made a presentation on the proposal before the Committee on 23.06.2023.

18. The SEAC in its meeting held on dated **12.06.2023** 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:

<b>Sl. No.</b>	<b>Information Sought by SEAC</b>	<b>Compliance furnished by the proponent</b>
i)	Revised replenishment study along with section wise details, reduced level, and summary.	Revised replenishment study along with section wise details, reduced level, and summary is attached.
ii)	Justification as per production plan how manual method of mining will be done.	Justification as per production plan is attached as an annexure- I.

19. The Committee observed and recommended the following:

- I) Two different methods are used for Pre and Post Monsoon study which are not comparable. Besides this following other discrepancies are noticed and hence, replenishment study report is rejected.
  - a) Date of second survey i.e. post monsoon survey as per previous report was 5.03.23 (Mentioned in table 7) but in the clarifications submitted it is 30.12.22.
  - b) As per 1st report Geological reserve is 31802cum and Movable reserve is 29180cum. However, in the clarification report submitted now Geological reserve has changed to 70710cum and Movable reserve has changed to 48466 cum (which is even higher than Geological reserve as per previous report.
  - c) In Clarifications submitted now in table 4 and table 5 for calculation of Geological Reserve and Movable Reserve 13 sections are shown However the depth of sand in these sections is shown varying from 25 meter to 43 meter which looks unrealistic.
  - d) In table 7 of clarification report submitted now 16 grid points are shown (though no corresponding graphical or pictorial representation is shown. As per this table RL is shown from 61.3 to 63.7 meter but in first report in second survey plain height is 58.5 meter.
  - e) In the first report as per second survey Geological reserve is 54738.312 cum and movable reserve is 50831.934 cum. However in the clarification report submitted now as per second survey the Geological reserve is 97338 cum and movable reserve is 71117 cum.
  - f) Proposed extractable sand as per first report was 21652 cum but as per clarification report submitted now it is 42668cum.
  - g) 16 grid points shown in table 7 and related pre and post monsoon RLs worked out and its average is not at all used for any of the calculations. Its relevance is not clear.

20. The SEAC in its meeting held on 31-07-2023 decided that in view of unsatisfactory revised replenishment study report, this proposal is not accepted and it is recommended to return the proposal to SEIAA to take further action.

21. The proposal no. SIA/OR/MIN/418074/2023 was rejected by SEIAA due to unsatisfactory revised replenishment study report.

22. Now, PP has submitted fresh proposal - SIA/OR/MIN/459798/2024 with fresh replenishment study report for the year 2023 taking pre monsoon on 23.07.2023 and post monsoon on 22.12.2023.

23. The SEAC observed the following:

- i) Previous anomalies with respect to Geological reserve and Mineable reserve have been rectified as per the record of Mining Plan.
- ii) Replenishment study has been conducted by drone method in both the cases; pre- and post-monsoon and pre- and post-monsoon timings are appropriate.
- iii) Replenished volume calculation is erroneous.  
i.e., Error: Mineable sand volume (57442 cum) has been multiplied wrongly with difference in elevation (0.9), giving rise to 51698 cum.
- iv) Mineable area (28721 sqm) should be multiplied with difference in elevation (0.9). The result is 25848.9 cum instead of 51698 cum.

24. The SEAC in its meeting held on 06<sup>th</sup> and 07<sup>th</sup> March 2024 decided to reject the proposal for the reason as pointed out at para 23 and PP shall submit revised replenishment study to consider the proposal.

25. The proposal was put up in the 162<sup>nd</sup> meeting of SEIAA held on 03.04.2024. After detailed deliberation in the matter, the Authority decide that the PP is required to clarify the observation of SEAC that the replenishment volume shall be carried out by multiplying the Mineable area (28721 sqm) with the difference in elevation (0.9m) but not with the minable sand volume. Hence, Replenished volume calculation is erroneous.

26. Now the PP has submitted their ADS / clarification for consideration of EC.

27. The SEIAA in its 163<sup>th</sup> meeting held on 18<sup>th</sup> and 19<sup>th</sup> April 2024 decided to referred back the proposal to SEAC for their considered views and recommendation on the revised ARRS report submitted by the PP.

28. The SEAC has gone through the revised replenishment study report and observed the following :

- i) The PP has submitted the revised RS report and has corrected the erroneous calculation done earlier. Hence, the PP may be allowed to extract 25849 m<sup>3</sup> sand as per replenished volume.

Considering the information furnished and the presentation made by the consultant, **M/s Green Circle, Inc., Gujarat** along with the project proponent, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – A** and following specific conditions:

- a) 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 – B**.
- b) 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.
- c) Provision of Bio-toilet shall be made at the site.
- d) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the 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.

- f) No natural water course shall be obstructed or diverted for the purpose of sand mining.
- g) As per Sand Sustainable Guidelines, 2020, the proponent shall ensure that no mining should be allowed below water level.

2. Whether SEAC recommended the proposal –Yes, the proposal was placed in the SEAC meeting held on 05.05. 2024 and the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per Annexure – A and following specific conditions: a) Amended EIA Notification dated 25th 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 – B. b) 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. c) Provision of Bio-toilet shall be made at the site. d) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the 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. f) No natural water course shall be obstructed or diverted for the purpose of sand mining. g) As per Sand Sustainable Guidelines, 2020, the proponent shall ensure that no mining should be allowed below water level.

**Decision Of Authority: Approved**

After detailed deliberations in the matter, the Authority decided **to grant Environmental Clearance** with usual stipulated conditions as applicable for sand quarry.

- Maximum depth of mining 2.2 meter and maximum quantity of extraction shall be limited to **25849 cum per annum** upto the lease period.
- The PP shall submit ARRS study report in subsequent year through an NABET or ORSAC empanelled agency and submit to SEIAA, Odisha.
- The EC is valid till validity of DSR or validity of lease period whichever is earlier.
- 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).
- The Project Proponent (lease holder) shall deposit Rs.3,00,000/-, with the respective District Environment Society for raising 600 plants (minimum @100 trees per Ha) of native species within 2 years in a suitable location adjoining to quarry.

The PP will implement the EMP with a budgetary allocation of Capital Cost for EMP of Rs. 1,45,000. Recurring cost of EMP is Rs. 75,000 per annum