



सत्यमेव जयते

File No.: 459097/11-MIN/01-2024

Government of India

Ministry of Environment, Forest and Climate Change

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

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Dated 08/06/2025



To,

SRI SAGAR KUMAR RAY  
S/o- Purna Chandra Behura  
Village/Town-MIG-19, Ps-Laxmisagar, Bhubaneswar, Dist-Khordha-751006  
olagadatartolsand2022@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, Odisha vide proposal number SIA/OR/MIN/459097/2024 dated 17/01/2024 for grant of prior Environmental Clearance (EC) to the project of Olagada Tartol Mahanadi Sand Sairat over an area of 20.00 Acres or 8.09 Ha having Khata No. 377,336, Plot No. 1270,1123 in village Olagada and Tartol under Tirtol Tahasil of Jagatsinghpur District, Odisha in favour of Sri Sagar Kumar Ray, the successful bidder/lessee 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.	EC24B0107OR5510586N
(ii) File No.	459097/11-MIN/01-2024
(iii) Clearance Type	Fresh EC
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals,1(a) Mining of minerals Proposal for Fresh EC of Olagada Tartol Mahanadi Sand Sairat over an area of 20.00 Acres or 8.09 Ha having Khata No. 377,336, Plot No. 1270,1123 in village Olagada and Tartol under Tirtol Tahasil of Jagatsinghpur District, Odisha.
(vii) Name of Project	JAGATSINGHAPUR, ODISHA
(ix) Location of Project (District, State)	SEIAA, odisha
(x) Issuing Authority	No
(xii) Applicability of General Conditions	No

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 Reports, Public Hearing Proceeding were submitted to the SEIAA, Odisha 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 10.03.2025. The minutes of the meeting and all the project documents are available on the PARIVESH portal which can be accessed from the PARIVESH portal by scanning the QR Code above. Brief description of the project is as under:
5. Details of the minerals 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 1 (Part A and B) in the reports and as presented during SEAC are annexed to this EC as Annexure (2).
6. The SEAC, in its meeting held on 10/0/3, based on information submitted viz: Form 2 (Part A, B and C), EIA & EMP report , Public Hearing Proceeding etc. & clarifications provided by the project proponent and after detailed deliberations on all technical aspects and compliance thereto furnished by the Project Proponent, recommended the proposal for grant of Environment Clearance under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of Specific and Standard EC conditions as detailed in the point below.
7. The SEIAA, Odisha has examined the proposal in 202<sup>nd</sup> meeting held on 29.05.2025 in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the SEAC and hereby accords Environment Clearance for the instant proposal of Olagada Tartol Mahanadi Sand Sairat over an area of 20.00 Acres or 8.09 Ha having Khata No. 377,336, Plot No. 1270,1123 in village Olagada and Tartol under Tirtol Tahasil of Jagatsinghpur District, Odisha to Sri Sagar Kumar Ray, the successful bidder/lessee under the provisions of EIA Notification, 2006 and as amended thereof subject to compliance of the Specific and Standard EC conditions as given in Annexure (1).

#### Stipulations

Sl.	Descriptions	Stipulation
(i)	Lease Area:	20.00 Acres or 8.09 Ha. (i). The PP shall maintain safety and stability of Riverbanks i.e. 3 meter or 10% of river width whichever is more for protection of river bank and
(ii)	No Mining Zone:	(ii). 7.5-meter safety zone from all sides of lease boundary. (iii). No stream should be diverted for the purpose of sand mining. No natural water course and/ or water resources are obstructed due to mining operations.
(iii)	Maximum Depth of Mining:	0.43 meter as per Annual rate of Replenishment Study (ARRS) report
(iv)	Method of Mining:	The method of mining shall be as per the approved Mining Plan.
(v)	Permitted Quantity:	9036 cum/annum as per ARRS report for the F.Y. -2025-26 (one year) or expiry of lease period whichever is earlier.
(vi)	Validity Period of EC:	The EC is valid for 5 years from date of lease execution or expiry of lease period whichever is earlier.
(vii)	ARRS report	The Annual Rate of Replenishment Study (ARRS) is to be conducted through ORSAC empanel agency or NABET Consultant as per the prescribed guidelines and the PP shall submit the report latest by 31 <sup>st</sup> December, 2026.

8. The SEIAA, Odisha reserves the right to stipulate additional conditions, if found necessary.
9. 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. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

10. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
11. The EC is valid for 5 years from date of lease execution or for the lease period whichever is less.
12. General Instructions:
  1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of SEIAA website where it is displayed.
  2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.
  3. The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.
  4. Action plan for implementing EMP and environmental conditions along with a responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in a separate account and not to be diverted for any other purpose. Six monthly progress of implementation of the action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
  5. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
  6. The Regional Office of MoEF & CC, Bhubaneswar, SPCB, Odisha and the lease granting Authority shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
  7. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
13. This issue with an approval of the Competent Authority.

**Copy To**

1. Additional Chief Secretary, Forest, Environment & Climate Change Dept., Government of Odisha for information.
2. Member Secretary, State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-8, Bhubaneswar for information.
3. The Director of Mines, Steel & Mines Dept, Govt. of Odisha Bhubaneswar for information.
4. Additional Principal Conservator of Forests, Integrated Regional Office (IRO), Ministry of Environment & Forests, A-31, Chandrasekharpur, Bhubaneswar for information.
5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi-110032 for information.
6. Chairman/Member/Member Secretary, SEIAA for information.
7. Member Secretary, SEAC, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for information.
8. Collector & DM, Jagatsinghpur, Sub-Collector, Jagatsinghpur, Deputy Director of Mines, Jjapur, DFO, Kendrapara , RO, SPCB, Paradeep, Tahasildar, Tartol/Mining Officer, Jagatsinghpur for Information and necessary action.

## Specific EC Conditions for (Mining Of Minerals)

## 1. Specific Condition

S. No	EC Conditions
1.1	<p>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&amp;CC, Govt. of India shall be adhered to in execution of Mining as per <b>Annexure-D</b>.</p> <p>b) Sand extraction shall be limited to quantity and depth as per replenishment study report for only the first year of mining. Regular replenishment study as per guidelines to be conducted and report to be submitted.</p> <p>c) Provision of Bio-toilet shall be made at the site.</p> <p>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 &amp; W.R. Department Government of Odisha as well.</p> <p>e) 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>f) The Project proponent shall follow Sustainable Sand Mining Guidelines, 2020.</p> <p>g)The proponent shall provide Bio- toilet for the workers.</p> <p>h) Project Proponent shall not disturb the water course during mining</p>
1.2	<p><b>A. ENVIRONMENTAL CONDITIONS AND SAFEGUARDS WHICH NEED TO BE COMPLIED WITH BY THE TAHASILDAR/MINING OFFICER BEFORE LEASE AGREEMENT:</b></p> <ul style="list-style-type: none"> <li>• <b>Boundary Demarcation:</b> - 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.</li> <li>• <b>Digital Map:</b> -A digital map (in KML format as well as PDF version) showing GPS coordinates of all boundary pillars duly countersigned by the Tahasildar/Mining officer shall be submitted to SEIAA, Odisha through email at seiaaodisha@gmail.com.</li> <li>• <b>Intimation of EC:</b> -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. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board and web site of the Ministry of Environment, Forest and Climate</li> </ul>

S. No	EC Conditions
	<p>Change (<a href="http://www.parivesh.nic.in">www.parivesh.nic.in</a>). A copy of the advertisement may be forwarded to the concerned MoEF&amp;CC Regional Office for compliance and record.</p> <ul style="list-style-type: none"> <li>• <b>Condition by Collector:</b> - Any other condition(s) the Collector &amp; Chairman, District Environment Impact Assessment Authority (DEIAA), may impose in the interest of protection and safeguarding the local environment.</li> <li>• <b>Compliance report for Transfer of EC:</b> - Any transfer of EC to a PP/Lessee shall be considered by SEIAA, Odisha only after receipt of the full compliance report through Tahasildar/Mining Officer concerned of the above environmental conditions and safeguards.</li> </ul> <p><b>Other conditions/NOC:-</b> 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>
1.3	<p><b>B. ENVIRONMENTAL CONDITIONS AND SAFEGUARDS WHICH NEED TO BE COMPLIED ON FIELD AFTER THE LEASE AGREEMENT</b></p> <ol style="list-style-type: none"> <li>1. <b>Maximum permissible depth:</b> This Environmental Clearance is given with the condition that maximum depth of digging of sand shall be <b>0.43 m</b> as per ARRS report. Any flouting of this restriction shall make this EC liable to cancellation.</li> <li>2. <b>Maximum permissible quantity:</b> Maximum yearly quantity of extraction from the quarry shall not exceed the annual limit as specified above under stipulation in Table 'A stipulations'-sl. A(v) i.e. <b>9036 cum/annum as ARRS report</b> for the F.Y. 2025-26 (one year) or expiry of the lease period which ever is earlier with average depth of 0.43 meter subject to modification of Mining Plan (approved by the competent authority). The method of mining shall be as per the approved Mining Plan. Any flouting of this quantitative restriction shall make this EC liable to cancellation.</li> <li>3. <b>Annual Replenishment Rate Study of Sand:</b> -The Project Proponent shall carry out Annual Rate of Replenishment Study (ARRS) of sand by ORSAC empanel agency or NABET Consultant as per prescribed drone method of MoEF &amp; CC, Govt. of India 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 and submit the report to SEIAA, Odisha latest by <b>31<sup>st</sup> December, 2026</b>. 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. PP shall carry out Annual Rate of Replenishment Study (ARRS) through ORSAC empanel agency in every year and submit the report to SEIAA, Odisha during submission of EC compliance with attaching real-time geo-coordinating photographs both pre and post monsoon data collection time.</li> <li>4. <b>No change in the mining plan without prior approval of SEIAA:</b> - 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 the 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.</li> <li>5. <b>Environmental Management Plan:</b> 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 a separate account and shall be spent according to the plan proposed in EMP. The PP will implement the EMP with a budgetary allocation of Rs. 1.45 lakh (Capital Cost) &amp; Rs. 0.75 Lakh/annum (Recurring Cost) and Rs.0.40 Lakh/annum (CER Budget) has been incurred for action plan of public hearing commitment during Public Hearing. Year wise progress of implementation of EMP shall be reported to the SEIAA, Odisha and OSPCCB along with the compliance report. The Tahasildar/ Mining Officer shall ensure the compliance of this condition along with all lease holders of his jurisdiction.</li> </ol>

S. No	EC Conditions
	<p><b>6. Common Forum for EMP:-</b> All the individual quarry lessee holders coming under the Tahasil may create a common forum in coordination with the Tahasildar/ Mining Officer and contribute funds to it for grading, compaction and maintenance of haulage road, provision of water spray on the village road to control particulate matter (dust particles) pollution in surrounding air during transportation from the quarry, and provision of thick, multilayer and a continuous green belt around the lease area excluding the entry and exit gate for prevention of environmental pollution and noise during mining activity.</p>

**Standard EC Conditions for (Mining of minerals)**

**1. Statutory Compliance**

S. No	EC Conditions
1.1	The Project Proponent shall inform the SEIAA, Odisha for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred. PP needs to apply for transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.
1.2	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
1.3	This Environmental Clearance (EC) is subject to orders/ judgment of Honble Supreme Court of India, Honble High Court, Honble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
1.4	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
1.5	The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change ( <a href="http://www.parivesh.nic.in">www.parivesh.nic.in</a> ). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
1.6	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
1.7	A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
1.8	The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area."

S. No	EC Conditions
1.9	The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
1.10	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
1.11	The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.

## 2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
2.2	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories. Monitor fugitive emissions in the plant premises.
2.3	Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

## 3. Noise Monitoring And Prevention

S. No	EC Conditions
3.1	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
3.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

## 4. Noise And Vibration Monitoring And Prevention

S. No	EC Conditions
4.1	The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.
4.2	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
4.3	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.

### 5. Energy Conservation Measures

S. No	EC Conditions
5.1	Provide LED lights in their offices and residential areas.
5.2	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;

### 6. Waste Management

S. No	EC Conditions
6.1	Kitchen waste shall be composted or converted to biogas for further use.(to be decided on case to case basis depending on type and size of plant)
6.2	The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.

### 7. Green Belt And Emp

S. No	EC Conditions
7.1	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
7.2	The PP shall plant <b>250 nos. of tree species</b> like Banyan (Ficus benghalensis), Peepal(Ficus religiosa), Neem (Azadirachta indica), Jamun(Syzygium cumini), Mango(Mangifera indica), Karanj(Pongamia pinnata), Arjun(Terminalia Arjuna), Jackfruit (Artocarpus heterophyllus), Siris ( Albizia lebbeck), etc.. as part of tree plantation campaign " <b>Ek Ped Maa Ke Naam</b> " and the details of the same shall be uploaded in the MeriLiFE Portal ( <a href="https://merilife.nic.in">https://merilife.nic.in</a> ).The PP shall submit

S. No	EC Conditions
	the status of plantation during every six-months (06) compliance of EC conditions with geo-coordinating photographs.
7.3	The PP shall implement the EMP with budget provision of <b>Rs.1.45 Lakh (Capital Cost), Rs. 0.75 Lakh (Recurring Cost)</b> as proposed in the EMP report during EC application

## 8. Transportation

S. No	EC Conditions
8.1	No Transportation of the minerals shall be allowed in case of roads passing through villages/habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers. [If applicable in case of road transport].
8.2	<p><b>Transport Safeguards:</b></p> <ul style="list-style-type: none"> <li>No transportation of the minerals shall be allowed on any road passing through villages/habitations without prior explicit permission.</li> <li>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 the 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.</li> <li>Project proponents shall ensure that the transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and traffic density.</li> <li>Vehicles hired for transportation of minor minerals from the site should be in good condition and should have pollution check certificates 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.</li> <li>The vehicles shall not be overloaded and shall be covered with Tarpaulin. The Tahasildar/ 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.</li> <li>Water spraying should be made on the village road to control particulate matter (dust particles) pollution in surrounding air during transportation from the quarry. Garland drain shall be constructed on the hill slope to arrest downward flow of particulate matter with rainwater.</li> </ul>

## 9. Public Hearing And Human Health Issues

S. No	EC Conditions
9.1	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
9.2	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

## 10. Corporate Environment Responsibility

S. No	EC Conditions
10.1	The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.
10.2	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
10.3	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

## 11. Miscellaneous

S. No	EC Conditions
11.1	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
11.2	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
11.3	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
11.4	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the

S. No	EC Conditions
	company.
11.5	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponents website permanently.
11.6	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
11.7	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.
11.8	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.
11.9	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
11.10	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
11.11	<b>The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.</b>
11.12	No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Odisha..
11.13	The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
11.14	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.
11.15	The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
11.16	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned

S. No	EC Conditions
	Regional Office, Central Pollution Control Board and State Pollution Control Board.
11.17	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.
11.18	Concealing factual data failure to comply with any or submission of false/ fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11.19	The SEIAA,Odisha or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

## 12. Corporate Environment Responsibility (Cer)

S. No	EC Conditions
12.1	The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.

## 13. Mining Plan

S. No	EC Conditions
13.1	<p><b>No Working Zone:</b> - The lessee shall ensure that no sand mining is carried out in the areas as specified below: -</p> <ul style="list-style-type: none"> <li>• During the rainy season;</li> <li>• Within the water channel or stream flow area throughout the year;</li> <li>• Mining shall not be undertaken in a mining lease located in 200-500 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.</li> <li>• The mining or any ancillary activity shall not in any way disturb the flow pattern of the river water during the non-monsoon period.</li> <li>• No stream shall be diverted for the purpose of sand mining and no natural water course shall be obstructed.</li> <li>• Sand mining operations shall not affect the existing sources for irrigation / drinking water / industrial purposes.</li> </ul>

S. No	EC Conditions
	The natural sand dunes, if any, near or surrounding the lease area shall not be disturbed.
13.2	<p><b>Other Environmental Conditions:</b> -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> <ul style="list-style-type: none"> <li>• The Tahasildar/ Mining Officer shall take adequate measures to prevent unauthorized mining;</li> <li>• The project proponent should carry out river bed sand mining manually by engaging local laborers to check over exploitation of sand at the source;</li> <li>• The lessee shall ensure safety of human life and livestock from accidents in case the village / any habitation is very near the mining lease area.</li> <li>• 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.</li> </ul>

### Additional EC Conditions

1. The replenished quantity of sand **9036 cum/annum** with depth of mining **0.43 meter** as per ARRS report is approved for the F.Y. 2025-26 (one year) or expiry of the lease period which ever is earlier with average depth of 0.43 meter subject to modification of Mining Plan (approved by the competent authority). The method of mining shall be as per the approved Mining Plan.
2. The EC is valid for 5 years from date of lease execution or for the lease period whichever is less.
3. The PP is required to carry out the Annual rate of replenishment study (ARRS) through ORSAC empanel agency in subsequent years and submit the report to SEIAA, Odisha.
4. The Annual Rate of Replenishment Study (ARRS) is to be conducted through ORSAC empanel agency or NABET Consultant as per the prescribed guidelines and the PP shall submit the report latest by **31<sup>st</sup> December, 2026**.
5. **The PP shall implement the EMP with budget provision of Rs.1.45 Lakh (Capital Cost), Rs. 0.75 Lakh (Recurring Cost) as proposed in the EMP report during EC application.**
6. The PP shall plant **250 nos. of tree species** like Banyan (Ficus benghalensis), Peepal(Ficus religiosa), Neem (Azadirachta indica), Jamun(Syzygium cumini), Mango(Mangifera indica), Karanj(Pongamia pinnata), Arjun(Terminalia Arjuna), Jackfruit (Artocarpus heterophyllus), Siris (Albizia lebbeck), etc.. as part of tree plantation campaign "**Ek Ped Maa Ke Naam**" and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>).The PP shall submit the status of plantation during every six-months (06) compliance of EC conditions with geo-coordinating photographs.
7. The compliance of EC conditions of said quarry shall be monitored by DEIAA, concerned lease granting Authority either Mining Officer or Tahasildar, RO, SPCB, Odisha and Integrated Regional Office of MoEFCC, Bhubaneswar as per MoEF & CC, Govt. of India S.O. 141(E) in EIA Notification dated 15.01.2016.
8. The Project Proponent shall upload/submit six monthly EC compliance in the Parivesh Portal of MoEF & CC., Govt. of India only failing which the EC is liable to be revoked.

**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 is a proposal of Sri Sagar Kumar Ray, Lease Holder for Environmental Clearance of mining of Sand from Olagada Tartol Mahanadi Sand Sairat over an area of 20.00 Acres or 8.09 Ha having Khata No. 377,336, Plot No. 1270,1123 located in Village- Olagada and Tartol Tahasil- Tirtol, District- Jagatsinghpur.
2. **Category:** As per the EIA notification 2006 and its subsequent amendments, proposed project falls in category B under schedule of Item 1(a)-Mining of minerals.
3. Quarry lease has been awarded to Sri Sagar Kumar Ray S/o-Sri Purna Chandra Behura, by Tahasildar of Tirtol for 5 years via letter no. 2433 dated 02/12/2021.
4. The mining plan was approved by Deputy Director Geology, Authorized officer, Directorate of Geology, Bhubaneswar vide letter no.5469/DG and date.15.09.2021.
5. Mining lease is an identified sairat source in the DSR page No.20, Sl.no.12, Annexure. I and the mine is an existing Mine.
6. **TOR details:** Terms of Reference (TOR), was issued by SEIAA, Odisha, vide proposal No.-SIA/OR/MIN/71464/2022 and letter No.4585/SEIAA on dated 19.05.2022.
7. **Public hearing details:** Public hearing was conducted on 25.11.2022 at Bana Gachha Thakur Padia, Tahasil- Tirtol, Dist-Jagatsinghpur at 10.30 AM. Issues raised during public hearing are covering of sand loaded transporting vehicles to control air pollution, prevention of sand spillage, availability of sand at concessional price. An amount of Rs. 40,000(CER Budget) has been incurred for action plan of public hearing.
8. **Location and connectivity:** The proposed project is located at Khata no-377,336, Plot No-1270,1123 in Olagada & Tirtol village under Tirtol Tahasil of Jagatsinghpur district bounded by Latitude: N20°18'54.13"to 20°19'10.53"N and Longitude: E86°20'31.03" to 86°21'06.28"E bearing Toposheet no 73L/7. The Nearest railway station is Nimakana Railway Station at a distance of 4km from the project site and nearest airport is Biju Pattanaik international Airport, Bhubaneswar is at about 56 km from the project site.
9. **Total Reserves and proposed production:** As estimated, the proposed production is 23300cum/Year and total production is 116500cum.

As per Approved Mining Plan	
Geological Reserve	Mineable Reserve
110544	88182

10. **Replenishment study details:** Replenishment Study Report has prepared by Drone method. Pre-monsoon Survey was conducted on 23.06.2023 and Post-Monsoon Survey was conducted on 28.11.2023 and **7651.82001 cum of sand** will be replenished annually. Deposit of sand thickness is 0.4m.
11. **Mining method:** Open cast manual mining method will be adopted for the proposed project with a production capacity of max 23300 m<sup>3</sup>/year.
12. **Water requirement:** 25 KLD is the total water requirement for the proposed project.

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

13. **Baseline study details:** Baseline study of the study area was conducted during pre-monsoon from 1st March 2022 to 31st May 2022 for Olagada Mahanadi Sand Quarry.

- **Air Quality:** PM<sub>10</sub> levels were ranging from 61.2 to 86.5 µg/m<sup>3</sup>. PM<sub>2.5</sub> levels were ranging from 18.6 to 27.7 µg/m<sup>3</sup>. SO<sub>2</sub> levels were ranging from 6.9 to 10.3 µg/m<sup>3</sup>. NO<sub>x</sub> levels were found ranging from 10.4 to 15.4 µg/m<sup>3</sup>.
- **Noise Quality:** The noise levels varied in the study area during day time from 51.2 dB (A) Leq at Nagapura to 63.5 Leq dB(A) at T-Point where Vehicle Movement is Higher which increases the noise level. The night time noise level in the study area is in the range of 32.8 (A) Leq at Nagapura Village to 42.9 Leq dB(A) at T-Point because, because due to surrounding activities of Project site.
- **Ground water monitoring results:** pH ranges from 6.72 to 7.28. TDS in samples ranges from 101 mg/l to 484 mg/l. Total Hardness in the water ranges from 159 mg/l to 269 mg/l. Calcium content in the water ranges from 21.47 mg/l to 40.28 mg/l, Magnesium content in the water ranges from 1.92 mg/l to 6.89 mg/l. Alkalinity in the water samples ranges from 110 mg/l to 231 mg/l. Chlorides range from 9.14 mg/l to 28.93 mg/l.
- **Surface water monitoring results:** All samples were colourless meeting desirable norms (<5 Hazen). All samples meet the desirable standards (pH ranges from 6.98 – 7.86). TDS in samples ranges from 29 mg/l to 98 mg/l. Total hardness in the water ranges from 16 mg/l to 57 mg/l. Calcium content in the water ranges from 3.28 mg/l to 16.38 mg/l, Magnesium content in the water ranges from 1.4 mg/l to 3.97 mg/l, Alkalinity in the water samples ranges from 104 mg/l to 148 mg/l. Chloride ranges from 7.23 mg/l to 9.64 mg/l.
- **Soil monitoring results:** All the samples showed pH in the range from 6.92-7.25. Conductivity of the samples were in the range from 111.2 µmhos/cm – 264.1 µmhos/cm. Moisture were in the range from 3.43% to 10.55%. Organic Carbon ranges from 0.54% - 1.64%. Organic Matter BDL. Phosphorus in the samples ranges from 0.14 mg/kg- 0.62 mg/kg. Total Nitrogen BDL. Potassium in the samples ranges from 150 mg/kg - 299 mg/kg. Calcium in the samples ranges from 48.32 mg/kg - 84.31 mg/kg. Magnesium ranges from 12.45 mg/kg – 53.32 mg/kg. Chloride ranges from 48.32 mg/kg- 84.31 mg/kg.

14. **Greenbelt development:** 50 trees per year will be planted as greenbelt development for the proposed project.

Year	Number of saplings proposed	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. **Manpower requirement:** For the proposed project, 49 persons are required as manpower.

<b>Designation</b>	<b>Number of persons (Olagada Sand Quarry)</b>
Supervisory Personnel/ Statutory Personnel	1
Skilled laborers (Operator and Helper)	8
Semi-skilled Laborer	10
Unskilled Laborer	30
<b>Total</b>	<b>49</b>

16. **Project cost:** The estimated project cost is Rs. 10 lakhs, with EMP Capital Cost of Rs. 1, 45,000 and recurring cost of 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.
18. The SEAC recommended the following:
19. The SEAC in its meeting held on dated **01-02-2024** recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions and following specific conditions:
- (i) 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.
  - (ii) In absence of proper Replenishment Study Report, the SEAC recommended sand for 1<sup>st</sup> year to a capacity of 60% of annual production capacity as approved in the mining plan.
  - (iii) Issues raised in Public Hearing shall be complied by the project proponent.
  - (iv) 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.
  - (v) Provision of Bio-toilet shall be made at the site.
  - (vi) 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.
  - (vii) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.
  - (viii) No natural water course shall be obstructed or diverted for the purpose of sand mining.
  - (ix) As per Sand Sustainable Guidelines, 2020, the proponent shall ensure that no mining should be allowed below water level.
20. The SEIAA in its 157<sup>th</sup> meeting of SEIAA held on 22.02.2024 and 23.02.2024 observed that the PP has proposed the production quantity of sand of 7651 cum/ annum against the approved quantity of 12753 cum/ annum of sand stated to be replenished as per ARRS report. The SEAC recommended for extraction of sand for 1<sup>st</sup> year to a capacity of 60% of annual production capacity as approved in the mining plan which is higher than 7651 cum.
21. After detailed deliberation in the matter, the Authority decided to refer back the proposal to SEAC for re-examination of ARRS report and considered opinion on the same.
22. The SEAC in its meeting held on dated 02-07-2024 observed the following:
- i) SEAC observations as per proceedings dated 01-02-2024 was that the Replenishment Study was not proper.
  - ii) Since it is the 1<sup>st</sup> year mining, SEAC recommended 60% of the quantity as per approved mining plan following all other terms and conditions of sand mining.
  - iii) The matter was discussed again and SEAC reiterates its previous recommendations.

23. The SEIAA in its 177<sup>th</sup> meeting held on dated 28-10-2024 and 29-10-2024 observed that the PP has proposed the production quantity of sand of 7651 cum/ annum against the quantity of 12753 cum/ annum of sand stated to be replenished as per ARRS report. The SEAC recommended for extraction of sand for 1<sup>st</sup> year to a capacity of 60% of annual production capacity as approved in the mining plan which is higher than 7651 cum. After detailed deliberation in the matter, the Authority decided to refer back the proposal to SEAC for re-examination of ARRS report and recommendation the same. Hence, Proposal is Refer-Back to SEAC for Reconsideration.

24. The SEAC observed the following:

ARRS report is not proper and satisfactory due to following:

- a) No benchmark or GCPs are mentioned.
- b) As per report most of the lease area was water logged during pre-monsoon survey as compared to post monsoon survey done. Survey could not be processed in water logged area. How the common safe workable area is calculated and how all elevation data etc are obtained is not clear.
- c) No error report for drone survey is given.
- d) Elevation data shows variation from 6.41 meter to 17 meter which is not at all realistic for the given site.
- e) Page 15 para “Common safe workable area: of the replenishment study report of Olagada Tartol Mahanadi sand sairat over an area of 20.00 Acres or 8.09 Ha. mentions that since most of the lease area was waterlogged during pre-monsoon survey as compared to post-monsoon survey, drone survey could not be processed in waterlogged area. In view of above the replenishment study carried out by drone survey is not considered proper.

25. The SEAC in its meeting held on dated **17-12-2024** decided that the PP may be asked to submit fresh ARRS report and a compliance report to the issues raised in public hearing for considering grant of EC. 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.	The SEAC recommended that the PP may be asked to submit fresh ARRS report and a compliance report to the issues raised in public hearing for considering grant of EC.	Fresh ARRS report is attached as an <b>Annexure no-1</b> & compliance report to the issues raised in public hearing is attached as an <b>Annexure No-2</b> .

26. Any deficiencies/omission have been noticed in the above documents- KML verified. Bridge is located approx..1Km away from downstream.

2. **Deliberation in SEAC Meeting-** The proposal was placed in the SEAC meeting held on 10.03.2025 for consideration of EC. Considering the information / documents furnished by the proponent and presentation made by the consultant M/s Green Circle Inc., Gujarat on behalf of the proponent, the SEAC recommended for grant of Environmental Clearance valid upto lease period with stipulated conditions as per Annexure – C in addition to the following specific conditions for mining of sand of quantity 9036.6277 cum/annum as per Revised Replenishment Study Report:

- 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-D**.
- b) Sand extraction shall be limited to quantity and depth as per replenishment study report for only the first year of mining. 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.

