

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 30TH AUGUST, 2022**

The SEAC met on 30th August, 2022 at 10:30 AM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri B. P. Singh. The following members were present in the meeting.

1. Sri B. P. Singh	-	Chairman
2. Dr. K. Murugesan	-	Secretary
3. Dr. D. Swain	-	Member
4. Prof. (Dr.) H.B. Sahu	-	Member
5. Sri J. K. Mahapatra	-	Member
6. Sri K. R. Acharya	-	Member
7. Prof. (Dr.) B.K. Satpathy	-	Member
8. Prof. (Dr.) P.K. Mohanty	-	Member
9. Dr. K.C.S Panigrahi	-	Member
10. Dr. Sailabala Padhi	-	Member

Draft proceeding of the meeting was finalized by the members through e-mail and also final proceeding of the meeting was confirmed by the members through e-mail. The agenda-wise proceedings and recommendations of the committee are detailed below.

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR EXPANSION AND MODIFICATION OF PROPOSED "DEVELOPMENT OF AN AFFORDABLE HOUSING PROJECT OVER 20.21 ACRES OR BUILT-UP AREA 90111.25 SQM AT CHANDRASEKHARPUR, BHUBANESWAR WITH (G+4) RESIDENTIAL BUILDINGS" " [PRIVATE DEVELOPER PROJECT] AT MOUZA-CHANDRASEKHARPUR, PLOT NO: 321 (P) KHATA NO. 619, BHUBANESWAR, DISTRICT -KHORDHA, ODISHAOF - M/S PARAMITRA SMART INFRA PRIVATE LTD OF SRI RAHUL CHOUDHARY – EC.

1. The proposal is for Environmental Clearance for Expansion and Modification of proposed "Development of an Affordable Housing Project Over 20.21 Acres at Chandrasekharpur, Bhubaneswar with (G+4) Residential Buildings" " [Private Public Partnership] PP Project At mouza-Chandrasekharpur, Plot No: 321 (p) Khata No. 619, Bhubaneswar, District - Khordha, Odishaof - M/s Paramitra Smart Infra Private Ltd.
2. The project falls under category 'B2', 8 (a) Building and Construction project as per MoEF notification of 2006, as amended from time to time.
3. The land comes under Bhubaneswar Development Authority area. The site is located adjacent to the local landmarks, Buddha Jayanti Park and Lumbini Vihar. Total land required for this proposed project is 48359.98 sqm 11.95 Acres. Present Kism of land is U.Y.Yoga.
4. The Proposed Construction of Affordable Housing Project will be over Plot No.: 321 (p) and Khata No.: 619 at Chandrasekharpur, Bhubaneswar, Dist- Khurda, Odisha has been approved by Bhubaneswar Municipal Corporation vide letter no. 11612 on dated 08/04/2019.
5. EC obtained for Plot Area 50694.96 m²(12.527 Ac.) Ground Coverage 18426.09 m² (36.3 % of the Total Plot Area) Total Built-up Area 88217.71 m² , Maximum Height of Building 17.5 meter. Total Nos. of Dwelling Units 2540 Parking Area (Open Parking) 8969.42 m²(10 % of the Total Built up Area) Area of Internal Roads 16,3666.27m²(32.2 % of Total Plot Area) Landscape Area 10654.89 m²(21 % of the Total Plot Area) vide

SEIAA letter No 6155/SEIAA With File no. 75165/32-NCP/O5-2018 On dated 12/10/2018 along with CTE No:5214/IND-II-CTE-6302 On dated 30.05.2019.

6. **After getting the EC, the construction work has been started up to 50 % of the approved built up area at the project site as per building plan approved by Bhubaneswar Development Authority.**
7. Proposed Project Capacity
 - Plot area = 48359.98 sqm 11.95 Acres
 - Proposed Total Built-Up Area increases 88217.71 sqm to 90111.25 sqm.
 - Ground Coverage = Increase from 18426.09 sqm (36.3% of total plot area 50694.96 sqm) to 19126.76 sqm (39.5% of the total plot area 48359.98 sqm).
 - Max building height: 14.7 m (No Change)
 - Total No. of Floors Proposed: EWS (G+4), MAC (G+2), NSC (G+2)
 - Total No. of Blocks Proposed: 64 EWS Block (62 nos. Block type 1 & 2 nos. Block type 2), 2 MAC & 1 NSC
 - Dwelling Units: 2600
 - Increase from earlier proposed 2540 units to 2600 units
8. **After getting the EC, the construction work has been started up to 50 % of the approved built up area at the project site.** . The land has been earmarked for construction of residential building as per Plan approved by Bhubaneswar Municipal Corporation.
9. The proposed site is located at Chandrasekharapur, Bhubaneswar, and Odisha. The Geographical co-ordinate of the project site is: Latitude - 20° 19' 15.23" N & Longitude - 85° 48' 12.66" E. The project site is well connected with Nandan Kanan road which take towards National Highway-16 (Kolkata-Chennai Road). Nandan Kanan road is 1.5 Km from proposed AHP site. The nearest railway station is Bhubaneswar Railway station at a distance of approx 7.4 Km in South East direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 8.3 Km in South direction from project site.
10. The site is located adjacent to the local landmarks, Buddha Jayanti Park and Lumbini Convention. There is no structure or encroachments on the site. The site is easily accessible from Nandan Kanan Road.

11. Environmental Sensitivity

SI. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
i)	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	Not applicable, there is no such areas existing within 15 km buffer zone.

Sl. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
ii)	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	Nuapalli PF- 0.17Km -S Bharatpur PF -0.62 Km -SW Jagannathprasad PF.- 2.15 Km -NNW Chandaka Reserve Forest-7.96 Km – NW Nandan kanan Zoo-7.33 Km-N Daspura RF-6.39 Km-W Bhola RF-7.24 Km-W Dalua PF-6.98 Km-NW Mendhasal RF-8.9 Km-SSW Kuakhai River-5.67 Km-E
iii)	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Yes	Nuapalli PF- 0.17Km -S Bharatpur PF -0.62 Km -SW Jagannathprasad PF.- 2.15 Km -NNW Chandaka Reserve Forest-7.96 Km – NW Nandan kanan Zoo-7.33 Km-N Daspura RF-6.39 Km-W Bhola RF-7.24 Km-W Dalua PF-6.98 Km-NW Mendhasal RF-8.9 Km-SSW Kuakhai River-5.67 Km-E
iv)	Inland, coastal, marine or underground waters	No	Not applicable
v)	State /National boundaries	No	Not present
vi)	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	YES	Nandankanan Road 1.5 km from the project site
vii)	Defence installations	No	Not applicable
viii)	Densely populated or built-up area		Bhubaneswar Approx. 7.5 km from the project site
ix)	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Institute: <ul style="list-style-type: none"> • DAV Public School -1.5 Km-NE. • Koustav Institute of Technology - 2.6 Km - NE • College of Engineering, Bhubaneswar-2.5Km - NE • Bhubaneswar Medical Research Institute-1.4Km- E • Kalinga Hospital - 1.6 Km - SE • Hemlata Cancer Hospital-1.25 Km
x)	Areas containing important, high quality or scarce resources. (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)		Central Institute of Freshwater Aquaculture (CIFA) 14.78 km -S

Sl. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
xi)	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)		Mancheswar Industrial area 3.31 km EEN
xii)	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	Yes	<p>Earthquakes The site falls under the Zone III as per the Seismic Zone Map of India and is thus Moderate to lower damage risk zone. Adequate measures will be taken during the construction of the project.</p> <p>Cyclone Odisha state is prone to cyclone and other similar severe weather conditions. The building will be designed accordingly considering such extreme conditions.</p> <p>Flood The project will be designed adequately for taking care for seasonal</p>

12. The width of the main entrance to the plot is more than 06 mtrs. If compound wall is constructed then the entrance gate shall fold back against the compound wall of the premises. If the main entrance at the boundary wall is built over, the minimum clearance shall be 05 mtrs.

13. The height of the proposed Residential Buildings (Block-Type-1 & Type-2) will be 14.70 mtrs, proposed Multi-Purpose Amenities Center building will be 9.45 mtr and Neighbourhood Shopping Complex will be 9.6 mtr above the ground level.

14. As observed from the plan 64 numbers of affordable housing projects, 02 numbers multi-purpose amenities centre and 01 number of neighbourhood shopping complex are proposed to be constructed in 03 patches. Provision of Open Spaces for individual blocks as shown in the plan varies between 02 to 04 mtrs. Besides, there is provision of 06 mtrs wide Open Space all around individual patches has been shown in the plan. But, as per Bhubaneswar Development Authority (Planning and Building Standards) Regulations, 2018, open space required around the individual blocks are as follows: -

15. Front-04 mtrs., Rear-03 mtrs., Left-2.5 mtrs., Right-2.5 mtrs

16. **Seismic Zone:** Zone- The project falls under seismic zone-III as per IS1893 (Part-1):2002 indicating Moderate to lower damage risk zone. The buildings will be designed as earthquake resistant and comply with the required IS specifications.

17. Area details

- **Area:** 11.95 Acres. (48359.98 sqm)
- **Purpose:** Affordable Housing Project at Chandrasekharpur.
- **Mouza:** Plot no. 321 (P), Khata No. 619, Chandrasekharpur.
- **Existing Approach Road:** 18M (North & South) & 45M (East).

- **Zone: Kisam:** Unnat Yogana Yogya
- **Total No. of Floors Proposed:** EWS (G+4), MAC (G+2), NSC (L.G+G+2)
- **Total No. of Blocks Proposed:** 64 EWS Block (62 nos. Block type 1 & 2 nos. Block type 2), 2 MAC & 1 NSC
- Total 9961.57 m² (20.6% of total plot area) has been provided.

18. Building Configuration

S. No.	Particulars	Area (in m2)
i)	Plot Area	48359.98 sqm 11.95 Acres
ii)	Total Built Up Area (Proposed)	90111.25 m ²
iii)	Total Proposed Ground Coverage (39.5 % of the Total Plot Area)	19126.76 m ²
iv)	Landscape Area (21.5 % of the Total Plot Area)	10155.5 m ²
v)	Total Parking Provided (Open Parking 20.6 % of the project area)	9961.5742m ²
vi)	Road Area (Internal-6M) (19% of the total plot area)	9116.05 m ²
vii)	Maximum height of building	14.7 mt
viii)	Total No. of Dwelling Units	2600 Units
ix)	No. of Floors	Total No. of Floors Proposed: EWS (G+4), MAC (G+2), NSC (G+2)
x)	No. of Blocks	Total No. of Blocks Proposed: 64 EWS Block (62 nos. Block type 1 & 2 nos. Block type 2), 2 MAC & 1 NSC
xi)	Total Project Cost	Existing-95 Cr + proposed 95 Cr =190 Cr

19. The power supply shall be supplied by TPCODL, Bhubaneswar. The Maximum Demand Load is estimated at 3155 KW. There is provision of Power backup for this residential project which will be through 1X250 KVA. The proposed DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion
20. During construction phase, approx 10 KLD of water will be required which will be provided by private water tanker from the nearby suppliers. The waste water generated from human settlements will be collected in a septic tank and soak pits.
21. The daily fresh water requirement for total will be approximately 973 KLD which will be met through PHED. NOC for Water Supply & Sewerage connection to proposed **Affordable Housing Project** at Chandrasekharpur for Economic Weaker Section of the Society over plot No. - 321 (P), Mouza - Chandrasekharpur, Bhubaneswar has been granted vide letter no. **10267 on Dated 06.09.2018** from Office of the Executive Engineer P.H. Division-II, Bhubaneswar.
- Total Fresh Water requirement is 973 m³/day.
 - Total Flushing Water requirement is 542 m³/day.
 - Total Water requirement is 1515 m³/day (fresh water + flushing water).
 - Waste water generate is 1213 m³/day.

- Treated water recovered is 970 m³/day
 - Reuses of treated water 970 m³/day (during Dry Season) and during monsoon season 92 m³/day of surplus treated waste water discharge to nearest municipal drain.
22. The site comprises of approx. 10155 sqm of land as a green belt with open space and does not support any ecologically threatened vegetation. However, a multilayered peripheral greenbelt of native plant species will be developed, which will enhance the aesthetic value of the region and also provide an excellent habitat for various faunal groups.
23. Trees like Azadirachta indica, Cassia fistula, Terminalia arjuna, Butea monosperma etc. and flowering and ornamental plants have been proposed to be planted inside the premises. Parks will also be developed by the management. The suggested plant species consisting of large trees, small trees and green lands will be planted.
24. The solid waste of the Affordable Housing project will be segregated into biodegradable waste and non-biodegradable. Biodegradable waste and non-biodegradable waste will be collected in separate bins. The MSW and recyclable wastes will be handed over to Govt. authorized agency. Proper guidelines for segregation, collection and storage will be prepared as per Municipal Solid Wastes (Management and Handling) Rules, 2000 and amended Rules, 2016.
25. During the operation phase, waste will comprise domestic waste. The solid waste generated from the project shall be mainly MSW (Municipal solid waste) approx. 6903 kg/day, following arrangements shall made at the site in accordance to Municipal Solid Wastes (Management and Handling) Rules, 2000 and amended Rules, 2016.
26. The total biodegradable solid waste will be 2760 kg/day and total non-biodegradable solid waste will be 4141 kg/day. This will be collected in separate-colored bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste.
27. Energy Conservation
- **SOLAR PANEL SIZING (IN KW) AND SOLAR POWER GENERATION**
 - For energy conservation, there will be 75 nos. of Solar Lighting poles (@72 Watt)
 - has been proposed for Street & common area solar lighting, so
 - Energy conservation by using Solar Street Lighting = 75 x 72 = 5400 watt =5.4 KW
 - Energy conservation by using Solar lighting for common area = 200 KW
 - Total Energy Conservation= (200+ 5.4) KW= 205.4 KW
 - Total Energy saving = 205.4/3155 = 0.0651 x 100 = 6.5 %
28. **Cost Detail: Existing- ` 95 Cr + proposed- ` 95 Cr = ` 190 Cr**
29. **EMP COST: Capital Cost: ` 188 Lakh & Recurring Cost= ` 5.55 (In lacs)**
30. The project proponent along with the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent.

- i) Self-certificate that no construction has been made in proposed four towers bearing number 5,6,7,8. Construction status of the original plan approved vis- a- vis the approved revised plan also.
- ii) Comparative matrix on relevant environmental parameters e.g. impact on STP, Green belt, Fire tender roads etc on expansion. Whether existing system can accommodate the proposed expansion?
- iii) Reduce discharge of treated water to drain by utilising in green belt plantation.
- iv) Detailed calculation on solar energy existing and proposed.
- v) Continuous greenbelt to be made. A detailed report and layout on green belt existing and proposed.
- vi) Comparative statement for all physical features between existing and proposed expansion.
- vii) Compliance Report to previous EC conditions duly certified by Regional Office, MoEF&CC, Bhubaneswar.
- viii) Structural stability certificate from NIT/ IIT with endorsement from BDA as per the bye laws of the BDA with reference to original approved plan and revised approved plan in view of increase in number of blocks.
- ix) Traffic study undertaken as stated be vetted and submitted with decongestion plan as & if necessary.
- x) The PP to submit sabik RoR with kisam, Hal RoR with kisam for the project area to rule out the involvement of Forest/DLC land.
- xi) To submit a Fire Safety Certificate for the operating towers and utilities and Fire Safety recommendation for the remaining construction.
- xii) To submit the plan for Ventilation, lightning and air conditioning of lift from lowest basement floor to terrace floor.
- xiii) Provision of solar power for the entire project with location of installation of photovoltaic frames and utilisation of solar power for the common area to be marked in the layout plan.
- xiv) To submit a bio-diversity register for the 12 acres project area as per the provision of biodiversity Conservation Act, 2003 along with a write up on the improvement in conservation of biodiversity.
- xv) To submit the Energy Conservation efforts made in the project as per bureau of Energy efficiency under Energy Conservation Act, 2002.
- xvi) To submit the original NoC from CGWA VIS-A-VIS the actual consumption of water along with the permission letter and agreement with the State Government Water Resource Department.
- xvii) Distance between the towers/ blocks be indicated vis - vis the guidelines for the same.
- xviii) Ground coverage of both original approved plan and revised plan approved of the total plot area vis - a- vis the guidelines/ norms.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S UTKAL REALTORS PVT. LTD. FOR PROPOSED CONSTRUCTION OF PRIVATE HOUSING PROJECT OVER PLOT NO.: 292,293,294,295,296,298,295/687, KHATA NO - 352/237, 352/236, 352/322, 352/238 OVER AN REVISED BUILT-UP AREA 52257.17 SQM AT PAHAL, BHUBANESWAR. DIST- KHURDA OF SRI PRAKASH CHAND BHURA - MOD EC.

1. The proposal is for Modification of Environmental Clearance for Proposed Construction of Private Housing Project over Plot No.: 292,293,294,295,296,298,295/687, Khata No - 352/237, 352/236, 352/322, 352/238 over an revised built up area 52257.17 sqm at Pahal, Bhubaneswar, Dist- Khurda of Sri Prakash Chand Bhura.
2. M/s Utkal Realtors Pvt. Ltd. has awarded for Development of Private Housing Project 2.08 Acres of land at Plot No.: 292,293,294,295,296,298,295/687 Khata No- 352/237, 352/236, 352/322, 352/238, Near NH-16 Road, Pahala, Bhubaneswar, Odisha-751021.
3. The proposed site is located at Pahal, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is: Latitude - 20° 20' 26.60" N & Longitude - 85° 53' 04.07" E. The project site is well connected with National Highway-16 (Jharpokharia-Chennai Road). The nearest railway station is Bhubaneswar Railway station at a distance of approx 10.6 Km in South West direction. The nearest airport is Biju Pattnaik International Airport Bhubaneswar at a distance of approx. 13.4 Km in South-West direction from project site. The site is located adjacent to the local landmarks, Haridaspur Mosque, Jagannath Temple, Pahala Etc. There is no structure or encroachments on the site. The site is easily accessible from NH-16 Road.

4. Building Details of The Project:

Particular	Area as per EC	Revised	Permissible
Project Name	Proposed Housing Project (Residential Use Type)		
Plot Area	8457.86 sqm	8457.86 sqm	--
Ground Coverage	2875 sqm (34 %)	3313.35 sqm (39.2 %)	--
Total Built up Area	30990.21 sqm	58737.31 sqm	--
FAR	23257.91 sqm (2.74)	39846.96 sqm (4.711)	23259.11 sqm (2.75)
Maximum Height	59.45 mtr (Residential) 16.80 mtr (Commercial)	83.5 mtr (Tower-A) 83.5 mtr (Tower-B&C)	--
Road & Paved Area	2368.15 sqm	2368.15 sqm	--
Parking Area	7709.50 sqm (30 % of Residential FAR Area + 50 % of commercial FAR Area)	13384.48 sqm	(30 % of Residential FAR Area)
Green Belt Area	1691.50 sqm (20% of Plot area)	1701 Sqm (20.11% of total plot area).	1691.50 sqm (20% of Plot area)
Power/Electricity Requirement & Sources	1056 KW	1682.17 KW Source: TPCODL	--
No. of DG sets	2 x 500 KVA	1 x 750 KVA	--
Fresh Water requirement & Sources	75 KLD Source-Ground Water	133 KLD Source-Ground Water	--
Sewage Treatment &	STP Capacity	STP Capacity	--

Particular	Area as per EC	Revised	Permissible
Disposal	110 KLD	180 KLD	
Estimated Population	700 nos.	1428 nos.	--

5. REQUIREMENT FOR THE PROJECT:

- **Area requirement:** For this project- 8457.86 sqm (2.08 Acres) of land is required, which has already been acquired.
- **Power requirement:** The daily power requirement for the proposed Private Developer Project is preliminarily assessed as **1682.17 KW** source from TPCODL of Odisha State Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of 1 no. of DG set having 750 KVA (1 No.) capacities for power back up in the Private Housing Project.
- **Water requirement:** Fresh make up of 133 m³/day will be required for the project which will be sourced from Ground Water Source.

6. Solid waste Generation:

S. No.	Category	Counts (heads)	Waste generated
1.	Residents	1428 @ 0.45 kg/day	642.6 kg/day
3.	Floating population in residents	140 @ 0.15 kg/day	21 kg/day
5.	STP sludge(S in Kg=Q*0.01*0.05 Where, Q = Quantity of waste water generated in Ltr)		85 kg/day
Total Solid Waste Generated			748.6 kg/day Say 749 kg/day

- The project proponent along with the consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal.
- The project proponent has intimated during presentation that they have not yet started any construction activity for the project including proposal for modification of EC.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar**, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent.

- Structural Stability certificate from appropriate authority as per BDA guidelines be submitted and also for revise plan also with corresponding studies made for both approved original plan and revised approved plan.
- Certificate from chartered civil engineer about construction made for both approved original plan and revised approved plan.
- Comparative statement in terms of physical features in original plan and present plan.
- Compliance Report to Previous EC conditions duly certified by Regional Officer of MoEF & CC.
- Permission from Water Resources deptt. For usage of ground water in commercial complex.

- vi) Approval from Fire Safety Dept. for 6m fire tender corridor for high rise building of 40m height.
- vii) As per BDA norms, is ground coverage for the project is 35% of total area?
- viii) Ground coverage of both original approved plan and revised plan approved of the total plot area vis- a - vis the guidelines/ norms
- ix) Impact and effect of change in ground coverage with reference to the original approved plan and the revised plan.
- x) In view of significant changes in approved plan and increase in population from 700 to 1428, the requirements be recast with reference to water, power, parking in terms of space and ECS, waste water discharge, STP and its capacity, rain water harvesting and recharging with back up calculation be revisited and resubmitted including number and capacity of DG sets& basis of it etc.
- xi) Tower wise break up of built-up area of approved original plan and revised plan approved as well.
- xii) Distance between the towers as per the original plan approved and revised plan approved against the guidelines/ norms for the same.
- xiii) Fresh traffic study through a reputed Institute or study to be vetted by a reputed Institute in view of significant changes in population and the vehicles there of at intersecting points with public road/ NH/ SH.
- xiv) Letter from Appropriate authority to take additional load of treated waste water discharge

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR ODASINGA AND KEUTABHUIN SAND CLUSTER (ODASINGA SAND QUARRY- 140.457 HA AND KEUTABHUIN SAND QUARRY - 35.289 HA), TOTAL CLUSTER AREA 175.746 HA IN VILLAGE ODASINGA AND KEUTABHUIN OF PURUNA MANTIRI GRAM PANCHAYAT UNDER ATHMALLIK TAHASIL OF ANGUL DISTRICT OF TAHASILDAR, ATHMALLIK- TOR.

1. The proposal was considered by the committee to determine the “Terms of Reference (ToR)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. The project falls under category “B” or activity 1 (a)-Mining of Minerals under EIA Notification dated 14th September 2006 as amended from time to time.
3. The proposed project is for mining of river bed sand from Odasinga and Keutabhuin Sand Cluster (Odasinga Sand Quarry- 140.457 Ha And Keutabhuin Sand Quarry – 35.289 Ha), Total Cluster Area 175.746 Ha in village Odasinga and Keutabhuin of Puruna Mantiri Gram Panchayat under Athmallik Tahasil of Angul District of Odisha.
4. The above mentioned Quarry lease for minor mineral (River sand) has been proposed to be granted by the Tahasildar, Athmallik to the applicant (successful bidder) for minor mineral (River Sand) for the period of five years (Annexure-I) after the completion of due auction process on obtaining Environment Clearance from SEIAA, Odisha.
5. The project site is located in Survey of India Toposheet no. F45S/6 and Odasinga Sand Quarry is bounded between the latitudes of 20°42'52.1"N to 20°43'53.8"N and longitudes of 84°29'22.4"E to 84°30'29.4"E and Keutabhuin Sand Quarry is bounded between the

latitudes of 20°43'47.7"N to 20°44'25.1"N and longitudes of 84°29'02.9"E to 84°29'32.3"E. The lease area of Odasinga sand quarry is in Khata no: 173, Plot no: 1829-1835 Kissam: Nadi and the lease area of Keutabhuin Sand Quarry is located in Khata No. 7, Plot no: 25/P Kissam: Nadi.

6. Mining plan has been approved by the Government of Odisha, Office of the joint director, Geology, Zonal Survey, Dhenkanal who has approved the mining plan vide letter No. 1251/DZ for Odasinga Sand Quarry and vide letter No. 1241/DZ for Keutabhuin Sand Quarry on dtd. 20th November, 2020. As per EIA Notification 2006 and subsequent amendments the proposal is coming under category 'B1' and requires environmental clearance from SEIAA, Odisha.
7. The rate of proposed production will be maximum up to 350000 Cu.m per annum in Odasinga Sand Quarry and maximum up to 80004 Cu.m per for Keutabhuin Sand Quarry.
8. The total requirement of water will be 11.5 KLD. Out of which only 4.5 KLD of water to be used for domestic purpose; 7 KLD towards green belt development and dust suppression. Electricity will not be used as the mining operation will be done in day time. Trucks & Dumper will be used for transportation. So the approximate quantity of the fuel/Diesel used per day is 2000 Ltr/day.
9. There is total 103 nos personal engaged in the mining operation include 8 nos management and supervisory person, 27 nos Semi-Skilled worker, 8nos Skilled worker and 90 nos Unskilled Worker.
10. The approximate cost of the project is estimated approximately Rs.80 Lakhs for 5 years.
11. The Environment Consultant **M/s Kalyani Laboratories Pvt. Ltd. Bhubaneswar** along with the proponent made a detailed presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Kalyani Laboratories Pvt. Ltd. Bhubaneswar**, the SEAC prescribed the following specific ToRs in addition to standard ToRs in cluster approach as per **Annexure-A** for conducting detailed EIA study.

- i) Certificate from the concerned Tahasildar about the geo-coordinates of other mines located within 500 meter from the periphery of the lease boundary.
- ii) Certificate from the concerned DFO about the distance of the nearby Wildlife Sanctuary and Notified Eco-Sensitive Zone if any.
- iii) Distance of all nearby mines in Topo map with geo coordinates i.e. latitudes and longitudes of mines.
- iv) Area of the safety zone with dimensions and geo-co-ordinates w.r.t lease boundary.
- v) Any approach road existing or will be constructed?
- vi) Mitigation measures to be taken to ensure not to disturb free flow of river.
- vii) Distance of the river bank / embankment form the lease boundary. It is a river bank or embankment?
- viii) Any ramp existing or will be constructed on the river bank / embankment for movement of vehicles to reach the nearest road.

- ix) Distance of the village road / city road / district road / public road for the river bank / embankment. Is this road single road / double road?
- x) No. of village (s) and name of village (s) or the city (s) or urban place (s) or semi urban place (s) through which the sand carrying vehicles will ply and the distance of it from the river bank or embankment.
- xi) Whether schools / colleges / hospitals / health centers / bus stops / religious places existing nearby and if so, the distances of it from the bank or the road through which the vehicle will ply or existing alongside the road?
- xii) Any plantation done in the safety zone or embankment in case of an existing mines and if so, the area of plantation, number of species.? If not, the plan for it to arrest bank erosion.
- xiii) Any stone packing in the river bank / embankment existing in case of existing mines and if not, the plan for it.
- xiv) Whether, any alternative mine exists or explored or can be explored if this mine is otherwise found unsuitable? Please furnish details.
- xv) (a) Whether permission taken or will be taken from Water Resource Authority or the concerned Authority of the roads to be used for plying of vehicles loaded with sand or empty vehicles for the same after the river bank.
(b) Responsibility of perennial perpetual maintenance of these roads and the mechanism for the same.
- xvi) No and type of vehicles to be used daily and the frequency for the purpose of transportation and the time and duration of such transportation. Whether permission taken or will be taken for the appropriate authority for the purpose.
- xvii) Intersection point of the haulage roads with the main SH / NH / public road and the traffic density study at appropriate locations by domain expert with remedial measures for decongestion and road safety.
- xviii) (a) Any bridge (road / rail) existing and the distance of it from the lease boundary.
(b) Any culvert or small bridge will be used by the plying vehicles carrying the sand minerals.
- xix) Any High Transmission Electric line existing and if yes, the distance of the same from the boundary of the lease.
- xx) Any legal litigations pending before the Hon'ble Court or NGT, if so, detailed case no. along with a write up on the legal matter and present status.
- xxi) Water consumption quantity to be justified with water balance and it is expected to be of uniform basis for the quarries.
- xxii) Different areas of plantation should be indicated in map.
- xxiii) Estimation of sand in the quarries should be done after flood situation is over, not at the time of flood situation
- xxiv) Mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - B**. Lay out of Progressive Mine Closure Plan shall also be incorporated in the Mining Plan.

xxv) Name, address and lease area of all the mines in cluster is to be submitted.

ITEM NO. 04

PROPOSAL FOR EXTENSION OF ENVIRONMENTAL CLEARANCE FOR PRODUCTION OF GRAPHITE ORE OF 11520 MTPA AND OPERATION OF 50 TPH CAPACITY OF BENEFICIATION PLANT IN RESPECT OF GANDABHALI GRAPHITE MINE OVER 20.234 HA AT VILLAGE - GANDABHALI IN THE DISTRICT OF NUAPADA OF SRI PRAMOD KUMAR AGARWAL - MOD EC.

1. The proposal is for Extension of Environmental Clearance for production of Graphite ore of 11520 MTPA and operation of 50 TPH capacity of beneficiation plant in respect of Gandabahali Graphite Mine over 20.234 ha at village – Gandabahali in the district of Nuapada of Sri Pramod Kumar Agarwal
2. Gandabahali Graphite mines over an area of 20.234 Ha is located in vill: Gandabahali, Tahasil Khariar, Dist: Nuapada, Odisha.
3. Environment clearance for the project was granted vide letter no: 558/SEIAA-79/11 dated 16.02.2013 for Gandabahali Graphite Mines over an area of 20.234 Ha for production of 11,250 TPA graphite and installation of common graphite beneficiation plant of 50 TPH.
4. The EC was granted for 5 years i.e. upto 16.02.2018. As per MoEF & CC circular J-11011/15/2012-IA(II)M dated 20.03.2015 the validity of EC will be for 30 years irrespective of mining lease renewal. The project proponent made the application for extension of EC as per above MoEF & CC circular.
5. The compliance to EC conditions has been properly addressed and six-monthly compliance report has been submitted at SEIAA, Odisha and MoEF & CC regional office along with monthly environmental monitoring reports.
6. As per the enquiry raised by SEIAA, Odisha regarding involvement of DLC land within the lease area, the DFO, Nuapada confirmed that DLC land of 0.085 Ha exists within the lease area.
7. The project was placed before Hon'ble SEAC, Odisha on 12.12.2018 for consideration for extension of EC. The Committee asked the proponent to submit the revised mining plan and revised lease document for the retained area.
8. In compliance to the queries raised, the lessee has surrendered DLC land of 0.085 Ha from the lease area and Final mine closure plan has been approved and certificate issued by Department of Steel and Mines Department, Govt. of Odisha.
9. The review mining plan has been approved by Department of Steel and Mines, Govt. of Odisha after surrendering DLC land of 0.085 Ha and retaining area of 20.149 Ha.
10. Further regarding the validity of lease document, All mining leases granted before the commencement of the Mines and Minerals (Development and Regulation) Amendment Act, 2015 shall be deemed to have been granted for a period of fifty years. So the validity of lease for Gandabahali 20.234 has deemed to be extended upto 30.10.2047.
11. During the initial EC application, there are four mining lease exists consecutively in the area and the project proponents proposed for individual beneficiation plan for each mines.
12. However during the consideration of project for EC, looking into pollution potential of the beneficiation plant the then Hon'ble SEAC, Odisha suggested to operate a single

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beneficiation plant which will cater the beneficiation need of all four mines located nearby.

13. In this regard it was decided to install the beneficiation plant within the lease hold area of at Gandabahali Graphite Mine over 20.234 hectares with its full capacity (50 TPH / 70,000 TPA)
14. The plant obtained separate consent to operate for its operation.
15. The Director of Mine vide letter No. 11074, dated. 17.12.2015 allowed for transportation and beneficiation of graphite ore from adjacent leases to the plant situated within the lease hold area of Gandabahali Graphite Mine over 20.234 hectares
16. In this regard the lessee made again the application complying to the ADS raised for grant for extension of EC for the above said project.
17. The Environment Consultant **M/s Kalyani Laboratories Pvt. Ltd. Bhubaneswar** along with the proponent made a detailed presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Kalyani Laboratories Pvt. Ltd. Bhubaneswar**, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent.

- i) Letter from the Steel and Mines Department, Govt. of Odisha that lease period is deemed to be extended upto 2047.
- ii) Reason for not operation of the mines since 2017 and a certificate to this effect shall be obtained from the concerned mining officer.
- iii) Certified compliance to conditions stipulated in earlier EC from the Regional Office, MoEF&CC, Bhubaneswar.
- iv) Year-wise production details duly certified by Mining Officer.
- v) Copy of EC obtained earlier from SEIAA, Odisha for this project in which Beneficiation plant is part of the mining activity.
- vi) Kisam of the land and conversion of the same for the purpose.
- vii) Compliance to CTE/ CTO conditions from SPCB.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR BUDURA SAND BED AREA IS OVER 14.826 ACRES OR 6.00 HECTARES IN VILLAGE BUDURA, TAHASIL KASHINAGAR, DISTRICT GAJAPATI OF SMT. JANAKI DEVI MISHRA – EC.

1. This proposal is for obtaining the “Environmental Clearance (EC)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter. As per EIA notification 2006 and subsequent amendment the proposal is coming under Category B1 and requires environmental clearance.
2. The proposed sand quarry is on river bed of Banshadhara River at village Budura, under Tahasil - Kashinagar, in Dist- Gajapati, Odisha, over an area of 6.0 Ha or 14.826 Acres of Tahasildar, Kashinagar, (On Behalf of Successful Bidder). The quarry lease has been proposed to be granted by the Tahasildar – Kashinagar, Gajapati to the Successful

Bidder for minor mineral (River Sand) for five years. The Mining plan prepared on behalf of successful bidder has been approved by the Joint Director of Geology south Zone, Berhampur, vide letter no- 1050/SZ on dated : 30.10.2021.

3. The Budura Sand Bed is on Khata No. 225, Plot No. 188 & 189 of Nadi Kissam located in village Budura in Tahasil Kashinagar in Gajapati District of Odisha. The mining lease area is listed as an identified sand minor mineral in the DSR page no – 5, Serial no – 20 of the Gajapati district . Budura Sand Bed is a minor mineral project for extraction of river sand. The average production is proposed to be 50,000 cum/year and 2,25,000 cum is the total production during the plan period. This sand would be mainly used for civil works in major projects and infrastructures development so as to meet the market potential.
4. The lease area under discussion is featured in Survey of India Topo Sheet No – 65N/13 and is bounded between the Latitude -18°52'45.28" N to 18°52'45.29" N & Longitude – 83°50'37.56" E to 83°50'46.83"E. The Lease area is located at 4.53 km from Kashinagar in SE direction, 49.33kms from the District Headquarters Gajapati and 260kms from the State Capital Bhubaneswar. Kashinagar Railway station is the nearest railway station located at a distance of 4.2 kms from the lease area. Nearest Road bridge is at a distance of 15 kms from the mining lease. SH-2 road connecting to the lease area with the village – Budura is at distance of 5.10 meters.
5. The quarry lease area lies over Banshadhara River bed and drainage of the region is dendritic. General flow direction of river is from North to South.
6. Power Requirement will not be required for operations as the mining will be worked out during day time only. Minimal power required for office shall be taken from the general electric supply of the area.
7. Employment Generation from the project is 65 nos. of people. Indirect employment through creation of shops/ stalls, hired vehicles, etc. also can be generated to full fill the day to day requirements of the mining personals.
8. The project is categorized under Category-B1(as Lease area>5Ha) in the Schedule under item 1(a) in the EIA notification, 2006 and its subsequent amendments.
9. The project proponent along with the consultant **M/s P & M SOLUTION, Noida** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s P & M Solution, Noida**, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – C** in addition to the following specific conditions.

- i) Revised mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - B**.
- ii) Regular replenishment study to be conducted and report to be submitted.
- iii) Provision of Bio-toilet shall be made at the site.
- iv) 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.

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

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR TALAB STONE QUARRY-1A OVER AN AREA OF 5.44 ACRES / 2.20 HA. BEARING KHATA NO. 751, PLOT NO. 1443 (P) IN TALAB VILLAGE OF SAMBALPUR TAHASIL, DIST-SAMBALPUR, ODISHA OF SRI NIRAJ KUMAR AGARWAL (SUBMITTED UNDER CLUSTER APPROACH WITH TOTAL CLUSTER AREA 12.606 HA. CONSISTING OF 5 STONE QUARRIES)- EC.

The proponent did not attend the meeting. Earlier, they have missed twice to attend the meeting. The SEAC decided to return the proposal to SEIAA, Odisha.

ITEM NO. 07

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR BALANDA STONE QUARRY 10 OVER AN AREA 4.856HA LOCATED AT VILLAGE- VILLAGE- BALANDA, TAHASIL: LATHIKATA, DISTRICT: SUNDARGARH OF SRI PREM SAHU – EC.

1. The proposal is for Environmental Clearance for Balanda stone quarry 10 over an area 4.856ha located at village- Village– Balanda, Tahasil: Lathikata, District: Sundargarh of Sri Prem Sahu.
2. Balanda stone quarry 10 mine is located at Balanda, Tahasil- Lathikata, District- Sundargarh, State-Odisha (Khata no.-504, Plot no.- 1899p) over an area of 4.856 ha. The proposed project is in cluster situation as nine quarry (1, 2, 3, 5, 6, 7, 8, 9 & 10) are within 500 m radius & total lease area becomes greater than 5 ha i.e, 37.915 ha. So, as per the EIA notification 2006 and its subsequent amendment, proposed project fall in category B1. The project has been proposed by Sri. Prem Kumar Sahu. The lease of Balanda Stone Quarry 10 has been allotted to Sri. Prem Kumar Sahu for quarrying of stone (minor mineral) by the Tahasildar Lathikata vide letter no.- 3350 dated 06.10.2020 for 5 years. Mining Plan has been approved by Dy. Director, Geology, Joint Director Geology, Sambalpur vide Memo no. 614 dated 13.04.2021. The proposed production is 12,081.4 cu.m/annum of stone by opencast semi-mechanized method with adoption of drilling & blasting. The estimated project cost is Rs 65 Lakhs. As per EIA notification 2006 and its subsequent amendment thereof proposed project fall in category B1.

3. PROJECT DESCRIPTION

- **Location:** Khata No. 504, Plot No. 1899p, Village – Balanda, Tahasil: Lathikata, District: Sundargarh, State: Odisha
- **Topo sheet No-** F45G11, F45G12, F45G15, F45G16
- **Latitude:** 22°11'15.52"N to 22°11'29.54"N
- **Longitude:** 84°44'46.96"E to 84°44'52.52"E
- **Proposed Production –** 12,081.4 cum/year of stone
- **Railway Station –** Kalunga Railway Station, approx. 3.5 km in North direction.
- **Airport -** Ranchi Airport, approx. 140 km in North direction.
- **Highway- SH-10,** approx. 5.7 km in North direction.
- **Nearest river embankment is** Langmohan River at a distance of 1.2 to 1.7 Km. in NW
- **Dwargam village** at approx. 400 m in north direction.

- Sagjor Reserve Forest, approx. 1.5 km in West direction.

4. RESERVE

Geological Reserves	10,28,786.9 cu.m
Mineable reserve	5,19,409.8 cu.m

- About 19 persons will be given employment to the people of nearby villages.
- There is requirement of approx. 6.2 KLD water for this project. 0.2 KLD will be for drinking/domestic purpose which will be taken from nearby source/ water tanker.
- Mining will be carried out by opencast semi-mechanized method with adoption of drilling & blasting. Handling of rock mass will be done both manually & by excavators. Loosening of rock mass will done by drilling & blasting. In order to prevent haphazard excavation of pits and suitable blending of ore, the excavation has been proposed at one place. In mine, proposed height is 6m & width of bench is more than 6m.
- There will be generation of about 8962.6 cu.m. (3243.8 cu.m/annum) of waste during plan period. This waste will be dumped in the North side which will cover an area of 70 sq.m. (0.007 ha) & dump height will be max. 8m. This waste generated will be used for road construction & maintenance.
- Baseline data on ambient air quality, water quality, noise level, soil, flora and fauna Site-specific meteorological data have been collected for pre- monsoon season during March, 2021 to May, 2021.
- The Public Hearing has been conducted on 04.05.2022 at Gotidhara field of Balanda G.P under Lathikata Tehsil of District Sundargarh, Odisha under the supervision of Addl. District Collector, Panposh, Sundargarh.
- Plantation will be done in mining lease approach road. About 1800 number of trees will be planted along approach road & at other place after consultation with the local authorities.
- Estimated cost of the project is Rs. 65.0 lakh.
- About 2% of the project cost will be used for the development of the social infrastructure of the area.
- About Rs. 10.8 lakhs (Capital), Rs. 4.90 lakhs (recurring)
- The project will prove beneficial to the people as the company has already agreed to provide infrastructural facilities to the villagers like educational facilities, medical facilities, Transportation facilities, water supply etc. which will improve the socio-economic environment of the area.
- The project proponent along with the consultant **M/s ATMOS Sustainable Solutions Pvt. Ltd., Noida (U.P)** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s ATMOS Sustainable Solutions Pvt. Ltd., Noida (U.P)**, the SEAC decided to take decision on the proposal after receipt of the following from the proponent:

- Details of the leases present in the cluster.
- Kisam of land and certificate from concerned DFO/Tahasildar that there is no involvement of DLC/forest land in the lease area and lease cluster.

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- iii) Exact distance of the lease and cluster boundary from the nearest wildlife sanctuary / Eco-sensitive zone.
- iv) Status of complaints/ court cases/legal action regarding to leases in cluster along with a detailed write up indicating case no., purpose of the case etc.
- v) Previous EC details of all the leases present in cluster.
- vi) Lease wise and Year wise production of all the leases in cluster in past.
- vii) Details of explosives to be used and its storage area and its management.
- viii) Details of silt management, water logging management and Waste Water Management, besides discharge / disposal management with SOP / mechanism of water accumulated during rainy season in mines pit.
- ix) Study report on ground water of that area and mitigation measures taken for non-contamination of ground water due to mining.
- x) Details of Zero discharge proposal.
- xi) Slope study report to be undertaken both for mine and OB / waste dump by domain expert and blasting study as well.
- xii) Details of waste management i.e. composition and nature of waste generated, tabulated form showing year wise waste generation, usage and storage i.e. complete waste / dump / OB management.
- xiii) Status of physical condition and maintenance of approach roads. NOC and maintenance of approach road from concerned authority.
- xiv) Total Plantation should be carried out within 2-3 years and maintenance to be continued in remaining years. Trees present in mining area should be uprooted & transplanted in safety zone.
- xv) Sludge disposal from ETP and settling tanks, rain water harvesting and usage /recharge / recycling of it to reduce the use of ground water.
- xvi) Detailed proposal for Rain water Harvesting and water balance (both monsoon and non-monsoon).
- xvii) Occupational Health Study report, including identification of occupational health hazards for employees as well as neighboring habitation, remedial measures for it and periodical health checkups, at least once in six months by occupational health expert.
- xviii) Detailed surface runoff management plan.
- xix) Proceedings of public hearing to be submitted and actions proposed to be taken in physical terms for the environmental issues raised.
- xx) An undertaking that they will not touch the ground water table in next 10 years.
- xxi) Mining activity will affect the bio-diversity of the area. How bio-diversity of the area will be managed during mining activity? Study to be carried out about damage to bio-diversity during mining activity.
- xxii) Details of the CSR activity by Leases of Cluster.

ITEM NO. 08

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR NARANAPUR MAHANADI SAND QUARRY OVER AREA OF 5.40 HA FOR PRODUCTION OF 7,000 CU.M/ANNUM AT KHATA NO.-156, PLOT NO. - 1053, VILLAGE- NARANAPUR, TAHASIL- BARAMBA, DISTRICT- CUTTACK OF SMT MAMATA SAMANTA – EC.

1. The proposal is for Environmental Clearance for Naranapur Mahanadi Sand Quarry over area of 5.40 ha for production of 7,000 cu.m/annum at Khata No.-156, Plot No. – 1053, village- Naranapur, Tahasil- Baramba, District- Cuttack of Smt. Mamata Samanta.
2. The project falls under category “B” or activity 1 (a)-Mining of Minerals under EIA Notification dated 14th September 2006 as amended from time to time.
3. Naranapur Mahanadi Sand Quarry is located on dry river bed of river Mahanadi at Khata No. – 156, Plot No.-1053, Village-Naranapur, Tahasil: Baramba, District: Cuttack, State: Odisha over an area of 5.40 ha or 13.35 acres. The project has been proposed by Smt. Mamata Samanta. The quarry lease has been allotted to Smt. Mamata Samanta, for quarrying of sand (minor mineral) by the Tahasildar Baramba vide letter no. 1184 dated 06/04/2021 for 5 years. Mining Plan has been approved by Deputy Director, Directorate of Geology, Bhubaneswar vide Memo no GXVII (g)- 862/19 7427/ DG dated 12.11.2020. The proposed production is 7,000 cum /year. The estimated project cost is Rs 80 Lakhs. As per EIA notification 2006 and its subsequent amendment thereof proposed project fall in category B1.

4. PROJECT DESCRIPTION:

- **Location:** Khata No. 156, Plot No.-1053, Village-Naranapur, Tahasil: Baramba, District: Cuttack, State: Odisha
- Topo sheet No- F45T11, F45T7
- Latitude: 20°23'21.6"N to 20°23'26.9"N
- Longitude: 85°25'47.0"E to 85°26'02.8"E
- Proposed Production – 7,000 cum/year of Sand.
- Railway Station – Begunia railway station, approx. 22.5 km in SE Direction..
- Airport - Biju Patnaik International Biju Patnaik International Airport, Bhubaneswar, approx. 44 km in NE direction.
- Highway- NH-65, approx. 4.5 km in NE direction..
- Nearest bridge - Gopinathpur Road Bridge, Mahandi River at a distance of approx. 5.3 km in SW direction.
- Banarsingha village, approx. 1.0 km in NE direction.
- Belaparha Reserve Forest, approx. 3.0 km in NW direction.

5. RESERVE

• Geological Reserves	• 43,894 cu.m
• Mineable reserve	• 36,280 cu.m

6. BASIC REQUIREMENTS FOR THE PROJECT

- **Manpower:** About 12 persons will be given employment to the people of nearby villages.
- **Water:** There is requirement of approx. 3.5 KLD water for this project will be taken from mine water tanker or nearby village.

7. Mining will be done by manual method without adoption of drilling & blasting. Since the depth of sand deposit is 1.7 m, handpicks, spade, hand shovel will be used by laborers for extracting & loading of sand. The proposed mined out areas will gradually get filled up by river sands transported with water from upstream direction. The proposed mined out areas will gradually get filled up by river sands transported with water from upstream direction.
8. This is RBM project not involving waste generation. The sand is directly loaded in trucks/trolleys etc. and sent to markets. Thus, no waste dump sites are needed to such projects.
9. Baseline data on ambient air quality, water quality, noise level, soil, flora and fauna Site-specific meteorological data have been collected for pre- monsoon season during March to May, 2021.
10. The public hearing has been conducted on 27.12.2021 at Multipurpose flood shelter Centre near D.B.N.T. Nodal Bidyapitha, Bangarsingha under Bangarsingha gram panchayat, Baramba Tehsil of District Cuttack, Odisha.
11. During public hearing all village were in support of this project
12. Provision of expenditure for the development work of their village
13. Mine manager ensures that 2 % of project cost is allocated as CER budget which will be used for development works like educational kits, books, sports kits distribution, Organization of medical camp & financial support in the schools of the village.
14. Plantation will be done in mining lease approach road. About 600 number of trees will be planted along approach road & at other place after consultation with the local authorities.
15. Estimated cost of the project is Rs. 80.0 lakh.
16. About 2% of the project cost i.e, 1.6 lakh will be used for the development of the social infrastructure of the area.
17. About Rs. 5.34 lakhs (Capital), Rs. 3.66 lakhs (recurring)
18. The project will prove beneficial to the people as the company has already agreed to provide infrastructural facilities to the villagers like educational facilities, medical facilities, Transportation facilities, water supply etc. which will improve the socio-economic environment of the area.
19. The project proponent along with the consultant **M/s ATMOS Sustainable Solutions Pvt. Ltd., Noida (U.P)** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s ATMOS Sustainable Solutions Pvt. Ltd., Noida (U.P)**, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – C** in addition to the following specific conditions.

- i) Revised mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - B**.
- ii) Regular replenishment study to be conducted and report to be submitted.
- iii) Provision of Bio-toilet shall be made at the site.

- iv) 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.
- v) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.
- vi) NOC of BDO of Panchayat for usage of haulage road/Panchayat Road.
- vii) Safety measures should be taken for protection of River Embankment.

ITEM NO. 09

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR GANGIJODI SAND QUARRY OVER AN EXTENT OF 5.06 HA., AT BRAHMANI RIVER, GANGIJODI VILLAGE, KAMAKHYANAGAR TAHASIL, DHENKANAL DISTRICT OF TAHASILDAR KAMAKHYANAGAR – EC.

1. This is proposal for Environmental Clearance for Gangijodi Sand Quarry over an extent of 5.06 ha., At Brahmani River, Gangijodi village, Kamakhyanagar Tahasil, Dhenkanal District of Tahasildar Kamakhyanagar.
2. Gangijodi Sand Quarry project at Brahmani River over an area of 12.50 acres/ 5.06 Ha. at Gangijodi village, Kamakhyanagar Tahasil , Dhenkanal district , Odisha.
3. Category of the Project under EIA Notification dated 14th September 2006 is B1.
4. The Tahasildar of Kamakhyanagar issued letter to get approved mining plan and obtaining Environmental clearance vide letter no.819 Dt.19/02/2020 after district collector, Dhenkanal approval of New Sand Mine leases and Successful Bidder name will be selected after auction
5. The mining plan was approved by Joint Director of Geology, Zonal Survey, Dhenkanal, Odisha vide Letter No. 417/DZ/Dt 29.04. 2020.
6. Terms of Reference (TOR), was issued by SEIAA, Odisha, vide proposal Letter Ref. No. ToR F.No. 3011/SEIAA dated: 28.09.2021
7. Public Hearing (date and place) Public Hearing was conducted on 12.05.2022 at 11.0 AM at Nearby Gangijodi Chhak ,Gangijodi Village, Khamakhyanagar Tahasil ,Dhenkanal District, Odisha. News Paper advertisement was given about the sand mining at Gangijodi inviting comments, Views, objections and suggestions from public on The Times of India and The Sambad on 06.04.2022.
8. The area under discussion is featured in Survey of India Topo Sheet No – 73 H/5 and is bounded between the Latitude - 20° 46' 47.34" N to 20° 46' 57.73" N and Longitude – 85° 26' 26.40" E to 85° 26' 37.52" E. The lease area is located at a distance of 1.4 km from village Gangijodi and at a distance of 19.7 kms from Kamakhyanagar, 19 kms from the District Headquarters Dhenkanal and 69 kms from the State Capital Bhubaneswar. Hindol Road Railway station is the nearest railway station located at a distance of 2.20 kms from the lease area. Nearest Road Bridge is at a distance of 1.86 km from the mining lease area. Katcha road connecting to the lease area and with the village – Gangijodi is at distance of 1.85 km. SH – 64 is at 29.11km and the nearest major district road is at distance of 2.60 km. NH- 42 is the nearest National Highway which is at a distance of 2.60 km.
9. The total geological reserve has been estimated as 202400 Cum. Similarly, the mineable reserve of river bed sand is worked out to be 104383 Cum. The project has been proposed

for a total production of 91050 Cum of Sand from this Quarry. During the plan period maximum of 18210 Cum of sand will be produced per annum by Open Cast Manual mining method. Excavation & loading of sand into the dumpers and trucks/tractors will be done manually.

10. As per the replenishment study, Minable area is 43493 Sq.m. Pre-Monsoon and Post-Monsoon Standard Elevation are 47.0 and 48.0 respectively. Difference in Elevation is 1.0. Estimated Annual replenishment Volume is 43,493 m³ or 69588.8 Tonnes. However, the Minable Reserve as per approved Mining Plan is 104383 m³ at highest mRL 48.0. The Annual proposed production is 18210 cubic meters. Since the mining is not done yet estimated Replenishment reserve pre monsoon period is 21,746.5 m³. The excavation may be replenished in one to two years during the subsequent flood/rainy season due to irregular monsoon in the State of Odisha
11. Water Requirement – The total water requirement will be 2.5 KLD for different purposes like Domestic, Dust suppression, plantation purposes.
12. Power Requirement - No use of electric power as the operation will be done in day time.
13. However solar lights will be used for day to day living purposes.
14. Employment Potential: Total number of employees will be around 13 in the mine.
15. Issues raised during public hearing of this project are Dust Suppression and crop damage due to Air pollution, Traffic control to avoid road accidents, Provision for repair and maintenance of village roads, Construction of permanent relief camp at Jharashi village and development of the village temple.
16. Greenbelt plantation will be by planting 50-500 saplings of suitable species per annum by the lessee in vicinity of the river bank, haulage roads and near village.
17. The baseline data was collected for the winter season i.e. October to December 2020 in the 10 km study area.
18. The project cost is estimated to be Rs. 40.0 lakhs and there is a budgetary provision of Rs.2.5 lakhs as capital cost and Rs.6.0 Lakhs as recurring cost towards environmental protection measures.
19. The project proponent along with the consultant **M/s Rightsource Industrial Solutions Pvt. Ltd., Noida (U.P)** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Rightsource Industrial Solutions Pvt. Ltd., Hyderabad (Telangana)**, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – C** in addition to the following specific conditions.

- i) Revised mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - B**.
- ii) Regular replenishment study to be conducted and report to be submitted.
- iii) Provision of Bio-toilet shall be made at the site.
- iv) 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.

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

ITEM NO. 10

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KULEI SAND QUARRY OVER LEASE AREA OF 50 ACRES/20.234 HA. AT KULEI, TAHASIL- PARJANG, DISTRICT-DHENKANAL OF TAHASILDAR, PARJANG – EC.

1. The proposal is for Environmental Clearance for Kulei Sand Quarry over lease area of 50 Acres/20.234 Ha. at Kulei, Tahasil- Parjang, District- Dhenkanal of Tahasildar, Parjang.
2. Kulei Sand Quarry project at Brahmani River over an area of 50 acres/ 20.234 Ha. at Kulei village, Parjang, Tahasil , Dhenkanal district , Odisha.
3. Category of the Project under EIA Notification dated 14th September 2006 is B1.
4. The Tahasildar of Parjang issued letter to get approved mining plan and obtaining Environmental clearance vide letter no.754 Dt.11/03/2020 after district collector, Dhenkanal approval of New Sand Mine leases and Successful Bidder name will be selected after auction
5. The mining plan was approved by Joint Director of Geology, Zonal Survey, Dhenekanal, Odisha vide Letter No. 743/DZ/Dt 08.06. 2020.
6. Terms of Reference (TOR), was issued by SEIAA, Odisha, vide proposal Letter Ref. No. ToR F.No. 291/SEIAA dated: 02.02.2021
7. Public Hearing was conducted on 28.09.2021 at 11.0 AM at at Government Upper Primary School, Kulei village (Khata No.390, Plot No.3175) in the district of Dhenkanal. News Paper advertisement was given about the sand mining at Kulei inviting comments, Views, objections and suggestions from public on The Times of India and Samaja on 24.08.2021. Issues raised during public hearing of this project are Dust Suppression, water pollution control, Afforestation Programme, Local Employment opportunities, Provision for repair and maintenance of village roads, Strict adherence of Sand mining guidelines.
8. The area under discussion is featured in Survey of India Topo Sheet No –73H/5 and is bounded between the Latitude -20° 58' 23.43" N to 20° 58' 44.26" N, Longitude– 85° 15' 33.99" E to 85° 15' 55.77" E. The lease area is located at a distance of 1.1 km from village Kulei and at a distance of 9.0 kms from Parjang, 50.0 kms from the District Headquarters Dhenkanal and 98.0 kms from the State Capital Bhubaneswar. Talcher Railway station is the nearest railway station located at a distance of 8 kms from the lease area. Road Bridge is at a distance of 7 km.
9. The total geological reserve has been estimated as 105878 Cum. Similarly, the mineable reserve of river bed sand is worked out to be 53178 Cum. The project has been proposed for a total production of 53180 Cum of Sand from this Quarry. During the plan period maximum of 10636 Cum of sand will be produced per annum by Open Cast Manual mining method. Excavation & loading of sand into the dumpers and trucks/tractors will be done manually.
10. As per the replenishment study, Movable area is 110788 Sq.m. Pre-Monsoon and Post-Monsoon Standard Elevation are 59.6 and 60.0 respectively. Difference in Elevation is 0.4. Estimated Annual replenishment Volume is 44,315.2 m³ or 70904.32 Tonnes. However, the Movable Reserve as per approved Mining Plan is 53178 m³ at highest

mRL 60.0. The Annual proposed production is 10636 cubic meters. Since the mining is not done yet estimated Replenishment reserve pre monsoon period is 22157.6 m³. The excavation may be replenished in one to two years during the subsequent flood/rainy season due to irregular monsoon in the State of Odisha

11. Water Requirement – The total water requirement will be 2.5 KLD for different purposes like Domestic, Dust suppression, plantation purposes.
12. Power Requirement - No use of electric power as the operation will be done in day time. However solar lights will be used for day to day living purposes.
13. Employment Potential: Total number of employees will be around 18 in the mine.
14. Greenbelt plantation will be by planting 500 saplings of suitable species per annum by the lessee in vicinity of the river bank, haulage roads and near village.
15. The baseline data was collected for the winter season i.e. October to December 2020 in the 10 km study area.
16. The project cost is estimated to be Rs. 60.0 lakhs and there is a budgetary provision of Rs.2.5 lakhs as capital cost and Rs.6.0 Lakhs as recurring cost towards environmental protection measures.
17. The project proponent along with the consultant **M/s Rightsource Industrial Solutions Pvt. Ltd., Noida (U.P)** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Rightsource Industrial Solutions Pvt. Ltd., Hyderabad (Telangana)**, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – C** in addition to the following specific conditions.

- i) Revised mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - B**.
- ii) Regular replenishment study to be conducted and report to be submitted.
- iii) Provision of Bio-toilet shall be made at the site.
- iv) 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.
- v) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.

ITEM NO. 11

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR BRAHMANI RIVER SAND QUARRY, PANIGENGUTIA OVER TOTAL LEASE AREA OF 13.98 ACRES/ 5.66 HA. AT PANIGENGUTIA, TAHASIL- PARJANG, DISTRICT- DHENKANAL OF THE TAHASILDAR, PARJANG – EC.

1. The proposal is for Environmental Clearance for Brahmani River Sand Quarry, Panigengutia over total lease area of 13.98 acres/ 5.66 Ha. at Panigengutia, Tahasil- Parjang, District- Dhenkanal of the Tahasildar, Parjang
2. Panigengutia Sand Quarry project at Brahmani River over an area of 13.98 acres/ 5.66 Ha. at Panigengutia village, Parjang, Tahasil, Dhenkanal district, Odisha.

Proceedings of SEAC meeting held on 30.08.2022

Environmental Scientist, SEAC

3. Category of the Project under EIA Notification dated 14th September 2006 is B1.
4. The Tahasildar of Parjang issued letter to get approved mining plan and obtaining Environmental clearance vide letter no.494 Dt.13/02/2020 after district collector, Dhenkanal approval of New Sand Mine leases and Successful Bidder name will be selected after auction
5. The mining plan was approved by Joint Director of Geology, Zonal Survey, Dhenekanal, Odisha vide Letter No. 472/DZ/29.04. 2020.
6. Terms of Reference (TOR), was issued by SEIAA, Odisha, vide proposal Letter Ref. No. ToR F.No. 10257/SEIAA dated: 17.12.2020
7. Public Hearing was conducted on 14.09.2021 at 11.0 AM at Panigengutia village in the district of Dhenkanal. News Paper advertisement was given about the sand mining at Panigengutia inviting comments, Views, objections and suggestions from public on The Times of India and Samaja on 11.08.2021. Issues raised during public hearing of this project are Air pollution control during sand transportation through village road, Traffic control near school while sand transportation through narrow village road to avoid road accidents. Safety of embankment due to sand mining and safety of culvert /Bridge constructed over canal and local nalla. Repair and maintenance of village roads.
8. The area under discussion is featured in Survey of India Topo Sheet No – 73H/5 and is bounded between the Latitude -20° 48' 15.06" N to 20° 48' 25.00" N, Longitude–85° 22' 43.80" E to 85° 22' 53.61" E. The lease area is located at a distance of 0.3 km from village Panigengutia and at a distance of 15.0 kms from Parjang, 30.0 kms from the District Headquarters Dhenkanal and 90.0 kms from the State Capital Bhubaneswar. East Coast Railway station is the nearest railway station located at a distance of 2.5 kms from the lease area. Nearest Road Bridge is at a distance of 4.21 km from the mining lease area. Kaccha road connecting to the lease area with the village – Panigengutia is at distance of 0.05 km. SH –63 is the nearest major district road is at distance of 30.0 km. NH-42 is the nearest National Highway which is at a distance of 3.0 km.
9. The total geological reserve has been estimated as 124520 Cum. Similarly, the mineable reserve of river bed sand is worked out to be 65434 Cum. The project has been proposed for a total production of 65000 Cum of Sand from this Quarry. During the plan period maximum of 13000 Cum of sand will be produced per annum by Open Cast Manual mining method. Excavation & loading of sand into the dumpers and trucks/tractors will be done manually.
10. As per the replenishment study, Movable area is 49571 Sq.m. Pre-Monsoon and Post-Monsoon Standard Elevation are 48.9 and 50.0 respectively. Difference in Elevation is 1.1. Estimated Annual replenishment Volume is 54528.1m³ or 87,244.96 Tonnes. However, the Movable Reserve as per approved Mining Plan is 65434 m³ at highest mRL 50.0. The Annual proposed production is 13000 cubic meters. Since the mining is not done yet estimated Replenishment reserve pre monsoon period is 44613.9 m³. The excavation may be replenished in one to two years during the subsequent flood/rainy season due to irregular monsoon in the State of Odisha
11. Water Requirement – The total water requirement will be 2.5 KLD for different purposes like Domestic, Dust suppression, plantation purposes.
12. Power Requirement - No use of electric power as the operation will be done in day time.

13. However solar lights will be used for day to day living purposes.
14. Employment Potential: Total number of employees will be around 13 in the mine.
15. Greenbelt plantation will be by planting 500 saplings of suitable species per annum by the lessee in vicinity of the river bank, haulage roads and near village.
16. The baseline data was collected for the winter season i.e., October to December 2020 in the 10 km study area.
17. The project cost is estimated to be Rs. 10.0 lakhs and there is a budgetary provision of Rs.2.5 lakhs as capital cost and Rs.6.0 Lakhs as recurring cost towards environmental protection measures.
19. The project proponent along with the consultant **M/s Rightsource Industrial Solutions Pvt. Ltd., Noida (U.P)** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Rightsource Industrial Solutions Pvt. Ltd., Hyderabad (Telangana)**, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – C** in addition to the following specific conditions.

- i) Revised mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - B**.
- ii) Regular replenishment study to be conducted and report to be submitted.
- iii) Provision of Bio-toilet shall be made at the site.
- iv) 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.
- v) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.


Secretary, SEAC

TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY IN CLUSTER APPROACH AND INFORMATION TO BE INCLUDED IN THE EIA/EMP REPORT

1. Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
2. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
3. Name and area of other mines within 500 meter of the lease area.
4. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
5. All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
6. Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
7. Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
8. It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
9. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
10. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.

11. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
12. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given. Proposal for Common Non-Mineralized Zone for dumping of rejects / OB.
13. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
14. Status of forestry clearance for the broken-up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
15. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
16. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
17. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
19. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details

furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

20. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.
21. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
22. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
23. One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season) ; December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
24. Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
25. Environment Impact Assessment / Environment Management Plan document shall be in accordance with the provisions & generic structure stipulated in the EIA Notification 2006 dated 14.09.2006 & subsequent amendments.

26. EIA-EMP document shall be based on the maximum achievable mineral extraction of the mine and according to the impact of mines in cluster (within 500m) of the said mine.
27. EIA-EMP document shall include complete profile of the all the Project Proponent, implementing organization of mines in cluster (within 500m) of the said mine.
28. EIA-EMP document shall corer land description of project site (plot/survey / khasara number, village, tehsil, district, state & extent of land involved), of mines in cluster (within 500m) of the said mine.
29. EIA-EMP document shall include deposit conditions working depth mining scheme, details of machinery, backfilling of mine pit with type of blasting, drilling and explosives.
30. The general features such as surface drainage, mineral transportation and process flow of beneficiation plant, power and water supply shall be indicated.
31. The baseline environmental status within 10km radius from the boundary limit of mining lease area (buffer zone) and core zone with respect to air, water, noise and soil shall be covered of mines in cluster(within 500m) of the said mine.
32. Baseline data generation for one season (post monsoon) with respect to air, water, noise and soil shall be generated on the same sampling locations for obtaining EC
33. EIA-EMP document shall include land use pattern including agriculture, forest land, water bodies and settlements.
34. Existence of National Park, Wild Life sanctuary, migratory routes of wild animals within 10 km of mine lease area shall be brought out.
35. Topographical map of study area (core & buffer zone -10 km from the boundary of core zone) showing major topographical features shall be included.
36. EIA-EMP document shall include biological environment (flora and fauna) and socio-economic environment within the study area.
37. EIA-EMP document shall include anticipated impacts on land, air, noise and water environment and the mitigation measures of mines in cluster (within 500m) of the said mine.
38. Environmental Monitoring Programme and the environment management plan shall also be covered measures of mines in cluster (within 500m) of the said mine.
39. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
40. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
41. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
42. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
43. Based on actual monitored data, it may clearly be shown whether working will intersect

groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.

44. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
45. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.
46. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
47. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
48. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
49. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
50. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
51. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
52. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
53. Detailed environmental management plan (EMP) to mitigate the environmental impacts

which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.

54. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
55. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
56. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
57. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
58. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
59. Besides the above, the below mentioned general points are also to be followed
 - a) All documents to be properly referenced with index and continuous page numbering.
 - b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - d) Where the documents provided are in a language other than English, an English translation should be provided.
 - e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J- 11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
 - g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
 - h) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

- i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.
60. **This Terms of References (TORs) is valid for a period of four years from the date of issue of TORs for submission of the EIA/EMP report after conducting public hearing.**

Annexure - B

ESSENTIAL PHYSICAL CRITERIA AS PER ENFORCEMENT AND MONITORING GUIDELINES FOR SAND MINING, JANUARY 2020 OF MOEF&CC, GOVT. OF INDIA

Sl. No.	Essential Criteria	Reference
1.	"No Mining Zone": 1/4th the part of the river width (excluding 3/4th the central part of the river width) on both sides of the river towards the river bank	4.1.1 (Para - e) Page - 16
2.	a) Distance between two clusters : ≥ 2.5 km b) Area of mining lease area in a cluster: ≤ 10 ha.	4.1.1 (Para - k) Page - 19
3.	Concave River Bank : No extraction of sand	
4.	No mining if a) Upstream: Lease is 1 km from major Bridge and high ways or $5(x)$ of the Bridge / public civil structure / water intakes point subject to lease is located at a minimum 250 meter distance. Where x = Span of the bridge. b) Downstream side: Lease is 1 km from the major bridge and Highways Or $10x$ of the bridge / public civil structure / water intake point Subject to lease is located at a minimum distance of 500 meter where x = span of the bridge	4.3 (Para - h) Page - 23
5.	Mining depth : ≤ 3 meter (maximum 3 meter)	4.3 (Para - m) Page - 24
6.	Mining distance from river bank: $1/4^{\text{th}}$ of the river width, But subject to not less than 7.5 meter	4.31 (Para - m) Page - 24
7.	Area for removal of minerals : $\leq 60\%$ of mine lease area	4.3 (Para - s) Page - 25
8.	Minable sand per ha. Available for actual mining : $\leq 60,000$ MT/Annum	
9.	Regular replenishment study and replenishment rate	

STANDARD ENVIRONMENTAL CLEARANCE CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR SAND MINING

Stipulated Conditions:

1. The project proponent should carry out River bed sand mining manually by engaging local laborers in force to check over exploitation of sand at the source.
2. Any change in the plan or quantity to be produced shall require prior approval of SEIAA.
3. There shall be a 'no working zone' to protect the embankment on both sides, road or rail bridge in the vicinity, if any, dam, weir, water intake structure of irrigation or drinking water project, or any cross drainage structure. 10 % of the width of river shall be left intact along the embankments on both sides as 'no mining zone'. Further, no mining shall be allowed within 200 m of any existing structures dam, weir, water intake structure of irrigation or drinking water project, or any cross drainage structure. In case of River Bridge, this no mining zone shall extend upto a minimum stretch of 200 meters from the bridge and it may extend upto 500 meters in sensitive locations. The lease area shall be accordingly curtailed to carve out the actual sand mining area within the leasehold. Exact map of the lease area, and the 'no mining zone' shall be drawn to scale, showing the DGPS coordinates of all corner points, and the location of the bridge, embankment, extraction route & other structures; and such map has to be submitted to SEIAA by the project proponent through the Tahasildar within three months of the date of issue of the EC. The quantum of sand allowed to be extracted will be worked out on the basis of the actual working area.
4. The lease area and the actual working area shall be demarcated on the ground by erecting durable masonry /concrete pillars by the project proponent.
5. The project proponent shall take prior statutory and regulatory clearance as required from the concerned authorities in respect of the project, before carrying out any operation.
6. Mining is not permissible within the water channel or stream flow area. No stream shall be diverted for the purpose of mining and no natural water course shall be obstructed. The mining or any ancillary activity shall not in any way disturb the flow pattern of the river water during the non monsoon period. There shall be no sand mining in the river during the rainy season or when there is flow of water in the river.
7. Sand mining operations shall not affect the existing sources for irrigation / drinking water / industrial purpose.
8. The natural sand dunes, if any, near or surrounding the lease area shall not be disturbed.
9. No transportation of the minerals shall ordinarily be allowed on any road passing through villages/habitations/forest land without prior explicit permission. Transportation

of minerals through existing rural roads can be allowed only by the concerned Govt. Department/BDO and only after required strengthening, such that the carrying capacity of road is increased to handle the sand 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. No movement on any road is allowed on existing village road network without appropriately increasing the carrying capacity of such roads. Project proponent shall ensure that the road may not be damaged due to transportation of the mineral and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and traffic density. Plying of sand extraction trucks may be allowed on roads / path ways passing close to schools, temples, hospitals and such other public places only with prior written permission of competent authority.

10. Vehicles hired for transportation of sand 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.
11. The vehicles shall not be overloaded and shall be covered with Tarpaulin. The Tahasildar may collect an appropriate road maintenance levy from the lessee as part of the lease conditions on the basis of quantum of sand 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 sand trucks.
12. The project proponent shall take all precautionary measures against causing damage to flora and fauna of the locality. The PP shall plant and nurse to full establishment a minimum of 50 number of saplings of native tree species along the approach roads, river banks and in community areas in consultation with the Gram Panchayat.
13. Water spray should be made on the road/extraction paths to control dust emission during transportation of sand.
14. The Project Proponent shall undertake phased restoration, reclamation and rehabilitation of land affected by mining and completes this work before abandonment of mine.
15. Environmental Management Plan (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. Year wise progress of implementation of EMP shall be reported to the SEIAA, Odisha and OSPCB along with the compliance report.
16. The proponent shall take necessary measures to ensure that there is no adverse impact of the mining operations on the human habitation if any, existing nearby.
17. It shall be mandatory for the project management to submit quarterly compliance reports on the status of implementation of the above stipulated environmental safeguards to the SEIAA, Odisha / SPCB, Odisha/ Regional Office of the MoEF&CC, Bhubaneswar, in hard and soft copies on 1st day of January, April, July, October of each calendar year, failing which EC is liable to be revoked.

18. River Bank stabilization shall be made through stone patching. Plantation of adequate number native species on river banks and both sides of haulage roads shall be made.
19. Since NH200, Kuccha Road and temple are only at a distance of 800 mtr, 570 mtr and 500 mtr respectively, all traffic safety measures shall be taken to avoid any kind of accidents.
20. Bio - toilet provision shall be made.
21. As raised during public Hearing and committed by PP, Loknathpur Sasan village road shall not be used for transportation of sand.
22. Stone patching on river bank with plantation in-between and the ramp construction shall be done in consultation with and advice of concerned W.R.Deptt, Government of Odisha.
23. Necessary sprinkling on Haulage Road and Avenue plantation shall be done.
24. 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.
25. The conditions stipulated in the environmental clearance will be closely monitored on the ground by the lease granting authority, i.e. the Tahasildar, 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.
26. 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.
27. A copy of the clearance letter shall be sent by the proponent to concerned Gram Panchayat /Panchayat Samiti /Zilla Parisad /Municipal Corporation / Urban Local Body as the case may be.
28. Project proponent shall obtain Consent to Operate from the OSPCB 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 State Pollution Control Board.
29. The SEIAA, Odisha may revoke or suspend this 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.
30. The Project Proponent (lease holder) shall inform the SEIAA of any change in ownership of the mining lease. In case, there is any change in ownership or mining lease is transferred, then mining operation can be carried out only after transfer of EC as per provisions of the para 11 of EIA Notification, 2006, as amended from time to time.

31. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this environment clearance besides attracting penal provisions in the Environment (Protection) Act, 1986.
32. 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.
33. This Environmental Clearance (EC) is subject to orders/judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
34. 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.