PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 13TH JUNE 2023

The SEAC met on 13th June 2023 at 10:30 AM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri Sashi Paul. The following members were present in the meeting.

1.	Sri Sashi Paul	-	Chairman (through VC)
2.	Dr. K. Murugesan	-	Member Secretary
3.	Dr. Chittaranjan Panda	-	Member
4.	Prof. (Dr.) H.B. Sahu	-	Member (through VC)
5.	Er. Fakir Mohan Panigrahi	-	Member (through VC)
6.	Prof. (Dr.) B.K. Satpathy	-	Member
7.	Prof. (Dr.) Abanti Sahoo	-	Member (through VC)
8.	Dr. Ashok Kumar Sahu	-	Member(through VC)
9.	Dr. Rabi Narayan Patra	-	Member (through VC)
10.	Shri Jayant Kumar Das	-	Member
11.	Dr. K.C.S Panigrahi	-	Member (through VC)

Draft proceedings of the meeting was finalized by the members through e-mail and final proceedings 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 OF M/S CREATIVE ESTCON PVT. LTD. FOR CONSTRUCTION OF PROPOSED RESIDENTIAL APARTMENT (EB+S+14) AND COMMERCIAL COMPLEX (B+G+4), BUILDING LOCATED AT PLOT NO-15,16,17,18 & 18/553 OVER A BUILT-UP AREA 25641.60 SQM LOCATED IN MOUZA- NIMIDIHA, TAHASIL- KUJANGA, PARADEEP, DIST- JAGATSINGHPUR OF SMT RAJALAXMI PATRA - EC

1. This proposal is for Environmental Clearance of M/s Creative Estcon Pvt. Ltd. for construction of proposed Residential Apartment (EB+S+14) and Commercial Complex (B+G+4) Building located at Plot No-15,16,17,18 & 18/553 over a built-up area 25641.60 sqm located in Mouza- Nimidiha, Tahasil- Kujanga, Paradeep, Dist-Jagatsinghpur of Smt Rajalaxmi Patra.
2. **Category**: The proposed project falls under Category B under Schedule in Item no. 8(a)-Building and construction as per EIA Notification, 2006 and its subsequent amendments.
3. Building plan has been provisionally approved by Paradip Development Authority, Paradip vide letter no.45/PDAP, Dt. 03.02.2023.
4. **Location and connectivity**: The proposed Residential & Commercial Building project site is located at Plot No.15, 16, 17, 18 & 18/553, Mouza- Nimidiha, Tahasil- Kujanga, Paradeep, Dist-Jagatsinghpur, Odisha. The location of the project area can be seen in Survey of India Open Series No. F45U11 & F45U12 and bounded by Latitude 20° 18' 43.67'' N, Longitude 86° 36' 44.00" E. The project site is well connected with Paradeep - Chandikhol Road i.e. National Highway-53 which is adjacent to the proposed project site. The nearest railway station is

Paradeep Railway Station at a distance of 3.5 km from project site. The nearest Airport is Biju Patnaik International Airport Bhubaneswar which is approximately 85.0 km from the site.

5. **Area requirement**: Total plot area is 5627.17 sqm. Total Built up area is 25641.60 sqm.

Particular	**Proposed**	**Permissible**
Project Name	Proposed Residential Apartment (EB+S+14) and Commercial Complex (B+G+4)	
Plot Area	5627.17 sqm	--
Ground Coverage	2184.80 sqm (38.83 %)	--
Total Built up Area	25641.60 sqm	--
Total FAR Area	17376.00 sqm	--
FAR	3.09	--
Maximum Height	45 meter	--
Road & Paved Area	1600.0 sqm	--
Parking Area	5549.5 sqm	5546.32 sqm
Green Belt Area	1153.5 sqm (20.5%)	1125.4 sqm (20%)
Power/Electricity Requirement & Sources	1428.0 KW	-
DG sets	500 KVA (2 Nos.)	--
Fresh Water requirement & Sources	93.0 KLD Source-Ground Water	--
Sewage Treatment & Disposal	STP Capacity 130 KLD	--
Total Dwelling Unit	196 Nos. (3 BHK-28 Nos., 2BHK-112 Nos., 1BHK-56 Nos.)	--
Solid Waste Generation	513.4 kg/day	
Estimated Population-Residential, Floating/visitors	952 nos.	--
Estimated Population-Commercial, Floating/visitors	300 nos.	--

6. **Water requirement:** During operation phase water will be sourced from Ground Water. Fresh make up of 93.0 KLD will be required for the project which will be sourced from Ground Water. It is expected that the project will generate approx. 118.5 m3/day of wastewater. The wastewater will be treated in the STP of capacity of 130 m3/day provided within the complex. Out of which 112.5 m3/day will be recycled within the project for flushing (49.0 m3/day), landscaping (8.0 m3/day), Dust Suppression (4.8 m3/day), STP loss (6.0 m3/day) & 50.7 m3/day will be discharge to drain in case of non-monsoon period and 58.7 KLD in Monsoon period.

Sl. No.	Description	Total Population	Per Capita Consumption (ltr/day)		Water Requirement (KLD)		
					Domestic	Flushing	Total
1.	**Residential**	952 nos.	Fresh (90)	Flushing (45)	85.7	42.8	128.5
2.	**Commercial**	300 Nos.	Fresh (25)	Flushing (20)	7.5	6.0	13.5
Total					**93.2≈ 93.0**	**48.8≈49.0**	**142.0**

7. **Wastewater generation and treatment:** The major source of wastewater includes the grey water from kitchens, bathrooms and black water from toilets. It is expected that the project will generate approx. 118.5 m3/ day of wastewater. Wastewater will be treated in STP of capacity 130 KLD provided within the complex.

8. **Solid waste management:** During Operation**,** from the hotel complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/person/day, which will be about 428.4 kg/day. The generated solid waste from the hotel complex will be segregated as biodegradable and non-biodegradable. 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.

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residential Population	952@ 0.45 kg/day	428.4
2.	Floating Population	300 @ 0.15 kg/day	45.0
3.	STP Sludge	--	40.0
	Total		**513.4**

9. Waste disposal: As the site is coming under Municipal Corporation development area all the solid waste generated will be handed over to an approved vendor. Treated waste water shall be used for gardening purpose within the premises after maintaining the waste disposal standard.

10. **Rainwater harvesting**: 08 nos. of rainwater harvesting pits at selected locations is proposed which will catch the maximum run-off water from the area. The recharge pit of 4.0 m dia and 1.5 m effective depth is constructed for recharging the water. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore.

11. **Greenbelt**: An adequate greenbelt 1153.5 sqm (20.5% of the plot area) or plantation around the project will be developed. This will minimize the effects of air pollution, noise pollution and soil erosion inside the area. The plantation matrix adopted for the green belt development includes pit of 0.3 m x 0.3 m size with a spacing of 2 m x 2 m. Multi-layered plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt. Local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.

12. **Firefighting measures**: Firefighting system will be installed as per recommendation of the Fire Prevention Officer, Odisha and as per the guideline of NBC (part-4). The firefighting system

comprises of Hose Reel, Down Comer, Automatic operated electric Fire Alarm system, Terrace Tank, Extinguisher and Fire Hydrant System, Automatic Fire Sprinklers system. Safe Evacuation route for building residents should be cleared marked to ensure safety of residents during any emergency.

13. **Power requirement:** The daily power requirement for the proposed Residential-cum-Commercial building Project is preliminarily assessed as 1428 KW source from State Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of DG set having 500 KVA (2 Nos.) capacity for power back up in the proposed project.

14. **Solar energy:** 40 Nos. of Solar Street Light poles of 2.88 KW capacities is directly connected with Solar Panel. 72.42 KW Solar energy generated from 35 nos. of PV Panels is distributed to Grid with proper agreement.

15. **Parking details**: Total Parking Area provided for the proposed project is 5549.5 sqm.

Parking Area Provided			
Basement Parking			3705.8 sqm
Stilt Parking			963.7 sqm
Open Parking			880.0 sqm
Total Parking	--	--	**5549.5 sqm**
Equivalent Car Space Provided			
	Area(sqm)	**Area/ECS**	
Open Parking	880.0	25	35 ECS
Stilt Parking	963.7	28	34 ECS
Basement Parking	3705.8	32	116 ECS
Total Parking Provided			**185 ECS**
Total ECS provided in Residential Building			150 ECS
Total ECS provided in Commercial Building			35 ECS

16. **Project cost**: Estimated cost for Environmental Management of the proposed project is 175 lakhs (Capital cost) and 24 lakhs (recurring cost).

17. **Environment Consultant**: The Environment consultant **M/s Centre for Envotech and Management Consultancy Pvt. Ltd. Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

Considering the information furnished and the presentation made by the consultant, **M/s Centre for Envotech and Management Consultancy Pvt. Ltd. Bhubaneswar** along with the project proponent, the SEAC recommended the following:

A. **The proponent may be asked to submit the following for further processing of EC application:**

a) Land schedule and kisam of land as per Sabik record.

b) Traffic Study Report to be submitted duly vetted by institute of repute.

c) Detailed calculation of greenbelt with breakup and dimensions.

d) Detailed drainage plan, internal drainage details, discharge point, drainage permission with supporting documents applied for NOC for drainage from concerned authority.

e) Permission/NOC from appropriate authority for laid down of drainage pipe in 50meters of land that connects from proposed site to public drain along with permission from the National Highway Authority of India (NHAI).

f) Parking details for residential, commercial, EWS and for visitors in terms of percentage (%) as well as area.

g) Note on safe handling of plastic wastes and solid waste management.

h) Detailed break-up of solar power to be generated, consumed, including capacity of PV cell capacity, showing details of appliances to be connected and the percentage of solar energy added total power demand.

i) Certificate for structural stability.

B. **The proposed site shall be visited by Sub-Committee of SEAC to verify the followings**

i) Environmental settings of the project site.

ii) Construction activity, if any started at the site.

iii) Road connectivity to the project site.

iv) Drainage network at the site.

v) Discharge point for discharge of treated water and distance of the discharge point from the project site.

vi) Any other issues including local issues.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. EVOS BUILDING PVT. LTD. FOR GROUP HOUSING PROJECT "EVOS ALCHEMY" OVER A BUILT-UP AREA 2,68,099.4 SQM LOCATED AT MOUZA - RAGHUNATHPUR, THANA - CHANDAKA, TAHASIL - BHUBANESWAR, DISTRICT - KHURDA OF SRI KALINGA KESHARI RATH – EC

1. This proposal is for Environmental Clearance of M/s. EVOS Building Pvt. Ltd. for Group Housing Project "Evos Alchemy" over a built-up area 2,68,099.4 sqm located at Mouza Raghunathpur, Thana - Chandaka, Tahasil - Bhubaneswar, District - Khurda of Sri Kalinga Keshari Rath.
2. **Category**: The project falls under category “B” or activity 8 (b)-Township and Area Development project under EIA Notification dated 14th September 2006 as amended from time to time.
3. **TOR details**: Terms of Reference (TORs) has been granted by SEIAA vide file no SIA/OR/INFRA2/417664/2023 dated 11th May,2023.
4. NOC letter has been obtained from DFO, Chandaka, Bhubaneswar vide letter no 1154 dated 03.02.2023.

5. **Location and connectivity**: The project site is located Mouza- Raghunathpur, Thana-Chandaka, Tehsil-Bhubaneswar, District- Khurda, Odisha on a land measuring 2.799 ha or 27,994.03 m^2. The project site is located at Plot No. 2159/2582, 2159/3516, 2160, 2161, 2164, 2165, 2165/3513, 2166, 2167, 2170, 2173, 2173/2558, 2174, 2201, 2201/2555, 2202, 2203, 2204, 2204/3512, 2205, 2205/3667, 2206, 2206/5386, 2206/4080, 2206/4080/5402, 2206/4080/5403, 2208, 2208/2790, 2208/3451, 2209, 2210, 2210/3400, 2211, 2211/5361, 2211/3619, 2212, 2212/5363, 2212/4671, 2213, 2213/5362, 2213/3620, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, Khata No. 913, 729/1024, 913, 913, 729/3916, 729/1108, 729/1023, 729/142, 729/209, 729/1366, 729/1365, 729/67, 729/1210, 220, 729/1364, 729/1212, 729/1213, 729/1365, 729/1021, 729/4057, 729/2211, 729/4057, 729/4003, 729/1661, 729/4028, 729/4029, 190 729/671, 729/952, 729/3410, 190, 729/1777, 592, 592, 729/3192, 729/1012, 729/1012, 729/3199, 592, 592, 729/1155, 267, 729/4017, 729/4017, 729/1844, 729/3855, 57, 57, 729/3922, 729/3926, Mouza- Raghunathpur, Thana- Chandaka, Tahasil-Bhubaneswar, District-Khurda, Odisha. The geographical co-ordinates of the centre of project site are 20°22'21.11"N & 85°49'59.90"E. The project site is well connected by a 30 m wide road. NH-16 is approx. 6.0 km in East direction. The nearest railway station is Bhubaneswar Railway Station approx. 0.8 km in NNE direction from the project site and Biju Patnaik International Airport is at a distance of approx. 12.5 km in SSW direction from the project site.

6. The proposed project is approved by Bhubaneswar Development Authority (BDA) vide Application No: 22439-2023-RR, Scrutiny Date:22/03/2023.Other statutory clearances has been obtained.

7. **Project details**: The project has four blocks i.e. four towers i.e., Tower 1 (3BHK + 4BHK), Tower 2(3BHK + 4BHK), Tower 3 (3BHK + 4BHK) and Tower 4(3BHK + 4BHK). Total Built up area for the project will be 2,68,099.4 sqm. The total population of project after proposed will be 5,302 persons (Residents + Staff + Floating population).

8. **AREA STATEMENT:** The plot area is 2.799 ha (27,994.03 m^2).The detailed area statement as follows:

S. No.	PARTICULARS	AREA (SQ.M.)
1.	Total Plot area	27,994.03
2.	Net Plot Area	27,528.36
3.	Road affected area	465.67
4.	Permissible Ground coverage (@40% of the net plot area)	11,011.34
5.	Proposed Ground coverage (@39.81% of the net plot area)	10,959.10
6.	Permissible F.A.R (@6.0 of the Net plot area)	1,65,170.16
7.	Proposed F.A.R (@ 5.95 of Net plot area)	1,63,871.47
8.	Non F.A.R (Balcony, Parking, etc.)	1,04,227.93
9.	**Total Built-up Area (7 + 8)**	**2,68,099.4**
10.	Height of the Building (m)	151
11.	Landscape area (22.50 % of Net plot area)	6195.14 Hardscape Area= 36% Soft scape Area= 64%

9. **Water requirement**: The total water requirement approx. 704 KLD out of which total domestic water requirement is 674 KLD. The total fresh water requirement is approx. 443 KLD which will be met from ground water augmented with rain water. It is expected that the project will generate approx. 614 KLD of wastewater. The wastewater will be treated in an onsite STP of 736 KLD capacity. The treated effluent will be reused for flushing and horticulture. Surplus treated effluent will be discharged to external sewer with prior permission from Department.

Domestic Water Requirement	**674 KLD**
• Fresh water	443 KLD
• Total Flushing water	259 KLD
• STP Filter Back Wash	29 KLD
Waste water [@80% fresh + 100% flushing]	355+259 = 614 KLD
STP Capacity	**736 KLD**

10. **Rainwater:** Peak hourly rainfall has been considered as 140 mm/hr. A recharging pit of 6m x 3m x 3.5m depth is constructed for recharging the water. Inside the recharge pit, a recharge bore is constructed having adequate diameter and depth. The bottom of the recharge structure will be kept 5 m above this level. Total of 8 Rain Water Harvesting pits are proposed for artificial ground water recharge.

11. Parking details: As per Bhubaneswar development authority bye-laws, total parking required is 1650 ECS and total parking proposed is 1702 ECS**.** Total No. of Parking for Residents = 1547 ECS .10% of total Parking proposed for visitors parking = 155 ECS. Total No. of Parking = 1547 + 155 =1702 ECS.

Parking Proposed for residential area	=63808.90 m^2
Parking for Visitors (10% of Parking Proposed)	=6,380.90 m^2
Parking for EV (30% of Parking Proposed)	=19,142.67m^2
Total Covered Parking	= 62,190.44 m^2
Total Open to Sky Parking	=1618.46 m^2

12. **Power requirement**: The power supply will be supplied by State Electricity Board. The requirement load for the project will be 6142 kVA. There is provision of 2 nos. of DG sets total 750 kVA capacity for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

13. **Solid waste generation**: During the operation phase, waste will comprise of domestic and horticultural waste. The solid waste generated from the project shall be approx. 2508 kg per day (@ 0.5 kg per capita per day for residents, @ 0.15 kg per capita per day for the visitor, 0.25 kg per capita per day for the staff and landscape waste @ 0.2 kg/acre/day) and STP sludge.

S. No.	Category	Norms (Kg/capita/day)	Waste generated (kg/day)
1.	Residents (4610)	@ 0.5 kg/day	2,305
2.	Staff (231)	@ 0.25 kg/day	58
3.	Visitors (461)	@ 0.15 kg/day	69
4.	Landscape waste (1.53 acre)	@ 0.2 kg/acre/day	0.31
5.	STP sludge	Waste water x 0.35 x B.O.D difference/1000	76
	TOTAL SOLID WASTE		**2508 kg/day**

14. **Green area**: Total green area measures 6,195.14 m^2 i.e. (22.5% of Net plot area). Evergreen tall and ornamental trees have been proposed to be planted inside the premises. No. of trees required = 1 tree/80 sq.m. of plot area =6,195.14 /80 = 77.43 say 77 Nos. Total no. of trees proposed = 77. The plantation matrix adopted for the green belt development includes pit of 0.3 m × 0.3 m size with a spacing of 2 m x 2 m.
15. **Traffic details:** The forecasted V/C ratio after 10 years is 0.73 (LOS C without proposed project) and 0.74 (LOS C with proposed project) for the studied considering requisite traffic growth. The project itself would not hinder the traffic flow. However, the natural traffic flow will be very high on this road after 10 Years.
16. **Project cost**: Total Cost (Land + Development) of the proposed project will be INR 1137 Crore.

Table: Environment monitoring cost (operational phase)

S. No.	Particulars	Parameters	Frequency	Approx. Recurring Cost / Annum (INR Lakh)
1.	Ambient Air Monitoring	$PM_{2.5}$, PM_{10} , SO_2 & NO_2 & CO	Half Yearly (24 hr average samples)	3
2.	Stack Emission Monitoring	$PM_{2.5}$, PM_{10}, SO_2, NO_2, HC, CO	Every Six Month	3
3.	Treated Effluent Monitoring	pH, BOD, COD, Oil, Grease & Total Suspended solids	Daily	3
4.	Noise Level Monitoring	24 Hrs. Noise Level	Half Yearly (Hourly day and night time Leq levels)	2
5.	Ground Water Monitoring	Drinking water specification as per IS10500	Half Yearly	3
TOTAL				**14**

Table: Environment management plan (operational phase)

DURING OPERATION PHASE		
COMPONENT	**CAPITAL COST (INR LAKH)**	**RECURRING COST (INR LAKH/YR)**
Sewage Treatment Plant	68	17
Rain Water Harvesting System	12	3
Solid Waste Management	5	1.25
Environmental Monitoring	0	9
Green Area/ Landscape Area	4	1
Others (Energy saving devices, miscellaneous)	10	2.5
TOTAL	**99**	**33.75**

TOTAL EMP BUDGET		
COMPONENT	**CAPITAL COST (INR LAKH)**	**RECURRING COST (INR LAKH/YR)**
During Construction Phase	50	15.5
During Operation Phase	99	33.75
TOTAL	**149**	**49.25**

17. **Environment Consultant**: The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd, Noida** along with the proponent made a presentation on the proposal before the Committee.

Considering the information furnished and the presentation made by the consultant, **M/s Grass Roots Research & Creation India (P) Ltd, Noida** along with the project proponent, the SEAC recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

a) Land schedule and kisam of land as per Sabik record.

b) Water balance details in Monsoon and Non Monsoon Period.

c) Recent data to be included in traffic study report.

d) Layout of greenbelt area and furnish the details after finding possibility in increasing greenbelt area up to 20% excluding landscape as the present documentation reveals green area is 22.5% (greenbelt + landscape).

e) Find the possibility for installation of two organic waste converter with interconnection in between them.

f) Proposal to increase in usage of treated waste water in premises by segregating grey water and black water and its usage for plantation and car washings and thereby reducing quantity of discharge to drain.

g) Height of the building is 151 meter and hence, permission status from Airport Authority of India (AAI).

h) RL of the bottom of the rainwater discharge pit as well as RL of ground water table during rainy and summer season.

i) Detail plan of drainage for discharging excess treated sewage water.

j) Source of water for use during construction phase.

B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

i) Environmental settings of the project site.

ii) Construction activity, if any started at the site.

iii) Road connectivity to the project site.

iv) Drainage network at the site.

v) Discharge point for discharge of treated water and distance of the discharge point from the project site.

vi) Any other issues including local issues.

ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S PENGUIN TRADING AND AGENCIES LTD FOR SARGUNA DECORATIVE STONE DEPOSIT OVER AN AREA 3.680 HA LOCATED IN VILLAGE SARGUNA, BINIKA TEHSHIL OF SUBARNAPUR DISTRICT OF SRI RAMAN RASHMI NAYAK - EC

1. This proposal is for Environmental Clearance of M/s Penguin Trading and Agencies Ltd. for Sarguna Decorative stone Deposit over an area 3.680 ha. located in village - Sarguna, Binika Tahasil of Subarnapur District of Sri Raman Rashmi Nayak.
2. **Category**: As per EIA Notification 2006 and subsequent amendment, the proposed project falls under Category B2 under item 1(a) - Mining of Minerals.
3. The mining lease was granted in favour of M/s Penguin Trading & Agencies Ltd. over an area of 9.093acres or 3.68 ha. in village - Sarguna No. 30 under Binika Tahasil of Subarnapur District, Odisha.
4. Letter of Intent was granted vide letter no 5935 dated 05.08.2021 which is valid for 30 years and the proposed project site doesn't fall under DLC land as certified by DFO, Subarnapur vide memo no 1760/3F dated 15.04.2023.
5. There are no existing / operating mines within 500m and 1km around the lease area and the same has been certified by Tahasildar.
6. Modified checklist is approved by Mining Officer & Tahasildar.

7. Mining plan was approved by Additional Director of Mines, Bhubaneswar, Odisha vide letter no 8093 dated 21.09.2022.
8. **Location and connectivity**: The applied M.L. area is located towards northern - west side of village - Sarguna of lease area in khata no. 193 & Plot no 944/P. The land is Abada Ajogya Anabadi category and kissam is pathar chattan. The proposed project comes under the Survey of India Toposheet No. E44 R166 (64O/16). It is bounded by geo coordinates - Latitude N 21° 05' 02.03" to N 21° 05' 10.02" and Longitude E 83° 46' 53.60" to E 83° 47' 02.90". The Murmuri Nala is flowing Northern side off the lease area at distance of 2.5 km. The Singhijuba Reserve Forest boundary passes at distance of 2.14km from western side of the applied M.L area. The said area is coming under Non-forest land. The highest and lowest elevations of the area are 161 mRL and 149 mRL respectively. Overall slope of the area is due north.
9. **Total reserves and production**: As estimated, geological reserve is 78,905 cum and mineable reserve is 49,755 cum. Volume of recoverable decorative stone for 5 years is 6800 cum.

Year	Volume of Rock Zone	Volume of Blocks (20%)	Volume of saleable (10%)	Volume of waste (70%)
	(m^3)	(m^3)	(m^3)	(m^3)
1st Year	12500	2500	1250	8750
2nd Year	13000	2600	1300	9100
3rd Year	13500	2700	1350	9450
4th Year	14000	2800	1400	9800
5th Year	15000	3000	1500	10500
Total	68000	13600	6800	47600

10. **Mining method**: Mining lease area is spread over an area of 3.680 Ha. The mining operation shall be in semi-mechanized method to achieve the production level.
11. **Water requirement**: The water requirement in ML area will be 3.6KLD, The project will not consume any fresh water except for drinking, dust suppression and plantation. Rainwater harvesting in quarry pits by natural percolation method is proposed for the present project.
12. **Power requirement:** Minimal power required for office shall be taken by using D.G set (Capacity 225 KVA).
13. **Greenbelt:** It is proposed to develop a green belt in and along the periphery of the quarry lease area during the plan period. 194 number of saplings each year (970 numbers for 5 years) along the safety zone will be planted in area of 6050 sqm. (Species to be planted are Amla, Neem, Mango, Gamhari, Kasi, Bahada, Jamun, and Bamboo).

Year	Area to be planted (m^2)	No. of Saplings	Type of species to be Planted	Location
1st Year	1210	194	Amla, Neem, Mango,Gamhari, Kasi, Bahada, Jamun, and Bamboo	Along the Safety Zone
2nd Year	1210	194		
3rd Year	1210	194		
4th Year	1210	194		
5th Year	1210	194		
Total	6050	970		

14. **Solid waste management**: 47600 cum of waste will be generated during total plan period. About 40% of the generated waste will be utilized for maintenance and construction of the haul road, approach and existing roads in the surrounding areas periodically. Therefore, a total of 19040 cum of waste will be utilized for construction and maintenance of roads and remaining 28560 cum of waste will be dumped in the proposed temporary waste dump in the earmarked site of the lease. During the plan period, retaining walls and garland drains will be constructed for the proposed dump. In the first-year programme, retaining wall of dimension - 384 m x 0.75 m x 1m and garland drain of dimension - 370m X 0.5m x 0.5m will be constructed. Settling tank will be constructed to arrest the wash off water.
15. **Manpower:** Total number of employees in the proposed mine will be around 20.
16. **Project cost:** Estimated project Cost for this mine is Rs 2 crores. Estimated cost for environmental management is Rs.5.6 Lakhs / annum.

SL NO.	PROPOSED ACTION PLAN	EXPENSES PER YEAR (IN RS.)
1	Air Pollution Measures	90000
2	Water Pollution Measures	60000
3	Noise Pollution Measures	30000
4	Green Belt (Plantation)	70000
5	Maintenance of Mining Equipments & Vehicles	200000
6	Environmental monitoring	50000
7	Health Check Up and Drinking Water Provision	60,000
		Rs. 5,60,000Annum

17. **Environment Consultant**: The Environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

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

    a) Copy of approved DSR after inclusion of proposed identified sairat source to be submitted. EC to be considered once DSR is approved.

    b) Layout of dump, stack, garland drain, settling pond along with their capacity details.

    c) Explore the possibility for usage of waste (fine sand) generated, for manufacture of sand.

    d) Detailed note on water management - water source, permission to be obtained/granted for using in mining purposes, plan to discharge the waste water and its treatment.

    e) The waste water will be generated while cutting granite, which is loaded with fines/silt, hence the project proponent shall suggest mitigation measures to protect the nearby nala from siltation due to surface runoff. Detail plan for surface water management also needs to be submitted.

    f) KML file shows already mining activity has been carried out earlier and hence, copy of Environmental Clearance for the same if obtained earlier.

ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR BAURIAKAN SAND QUARRY ON RIVER BAURIAKAN, OVER AN AREA OF 9.55 HA./23.60 ACRE IN VILLAGE LATAHARAN, UNDER KAKATPUR TAHASIL OF PURI DISTRICT OF MRS SAKUNTALA KABU - EC

1. This proposal is for Environmental Clearance for Bauriakan Sand Quarry on River Bauriakan over an area of 9.55 Ha. /23.60 Acres in village - Lataharan, under Kakatpur Tahasil of Puri district of Mrs Sakuntala Kabu.
2. **Category**: As per EIA Notification 2006 and subsequent amendment, the proposed project falls under Category B2 under item 1(a) - Mining of Minerals.
3. **TOR details**: Terms of reference has been granted by SEIAA, Odisha vide letter no 9682 dated 23.11.2020.
4. Mining plan was approved by Deputy Director Geology, Bhubaneswar vide letter no 661/19, 4822/DZ dated 06.07.2020.
5. The lease has been granted by Tahasildar Kakatpur for five years to the successful bidder vide letter no. 4667 Dated.19.11.2018.
6. **Public hearing details**: Public hearing was conducted on 02.06.2022 at 11.00 A.M near Jouban Danda in Lataharan Mouza under Lataharan G.P under Kakatpur Tahasil of Puri District. Issues raised during public hearing are damage to river embankment, dust pollution, loss of trees, safety of school children due to sand transportation and flood due to damage of

river embankment etc. Total expenses to be incurred for action plan of public hearing is 4.10 lakhs.

7. **Location and connectivity**: The lease area is in survey of India topo sheet no. (73L/4 & 73L/8) & between latitude of $20^0$02'03.7N to $20^0$02'09.4''N and longitudes of $86^0$14'18.6''E to $86^0$14'24.2''E bearing Khata no. 1608 and plot no 1780 and 1690(P). Nearest Railway station is Puri Railway Station at a distance of 47 Km from the project site. The nearest road is Kakatpur-Astaranga road located at a distance of 4.5 Km. The haul road from the lease will connect to Dahanikhia village Road through a distance of 80m that connecting to Kakatpur- Astaranga road. The site is well connected to NH-60 & SH-43 at a distance of 16 Km & 5.2 Km. Nearest airport is Bhubaneswar airport at a distance of 80 Km from the mining lease area. There is no human settlement within the lease area. Nearest River Embankment is 0.5 Km and nearest Railway bridge / road bridge Talada Bridge is 0.80 Km away from the project site.

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

Table: Yearwise production of sand

Sl. No.	Year	Production plan (cum)
1.	1st	10,000
2.	2nd	10,080
3.	3rd	10,060
4.	4th	10,020
5.	5th	10,050
Total		**50,210**

Category	Surface Area (m2)	Thickness of the deposit (m)	Volume of the Excavation sand at 100% incidence (m3)
Geological Reserve	95506	2m	131012
Mineable reserve	25105	2m	50210

9. **Baseline study**: Base line study was carried out during December 2020 to February 2021

PERIOD	March 2021 to May 2021	Applicable Standards
AAQ PARAMETERS AT 8 LOCATIONS	PM2.5 –20.8 to34.5 µg/cu.m	60 µg/cu.m
	PM10 – 35.2 to 67.3 µg/cu.m	100 µg/cu.m
	SO2 – 5.3 to 10.4 µg/cu.m	80 µg/cu.m

	NOx –10.3 to 22.4 µg/cu.m	80 µg/cu.m
Ground water Quality at 6 Location	pH – 7.0 to 8.0	6.5 to 8.5
	Total Hardness – 16-212 mg/l	600 mg/l
	Chloride - 20 to 260 mg/l	250 mg/l
	Fluorides – 0.19 to 0.90 mg/l	1.5 mg/l
	TDS – 140-600 mg/l	1000 mg/l
	Heavy metals (Cd <0.001, As <0.001, Hg<0.0005) mg/l	Heavy metals (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 3 locations	pH – 5.5 to 6.2	
	Dissolved Oxygen – 6.0 to 6.8 mg/l	
	Biochemical Oxygen Demand – < 1 mg/l	
	Chemical Oxygen demand – < 5 mg/l	
Noise at 8 locations	Day (dBA Leq) 32.4 to 48.6	55
	Night (dBA Leq) - 25.6 to 36.4	45
Soil Quality at 4 locations	pH – 6.7 to 7.2, Potassium – 161.3 to 241.9 Kg/ Ha, Phosphorous – 19.6 to 28.3 Kg/ Ha, Nitrogen – 377 to 477 Kg/Ha, Electircal Conductivity- 440 to 600 ms/Cm	

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

Area in m2	Pre monsoon RL in m	Post Monsoon RL in m	Difference in RL in m
58843	10.05	10.54	0.49

11. **Mining method**: Mining shall be undertaken manually to extract sand, mainly through an open pit spread over the river course devoid of water or nominal water that may be encountered below. Mining will be done with manual excavation & loading into trucks/ tractors and transported from Devi River sand bed to the users/destination through trucks/tractors. The mining will be undertaken on single shift basis.
12. **Water requirement**: Water requirement for the project will be 3 KLD. For drinking & domestic purpose, water requirement will be 1 KLD, water requirement for Green belt development and dust suppression will be 2 KLD. Ground water will be used for drinking and domestic purpose whereas surface water will be used for green belt development and dust suppression.

Sl. No.	Activity	Requirement of water (KLD)
1.	Domestic Purpose	2.0
2.	Greenbelt Development	0.5
3.	Water sprinkling for dust suppression during transportation of material & finished product	0.5
Total		3

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

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

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

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

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

Table- Environmental management cost

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

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

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

a) Revised Replenishment study report along with correct figures as there is gross mistake in figures used for calculation of volume of sand.

b) Relook on the action plan of public hearing and find the possibility to cover all the issues raised during the public hearing.

c) Layout map of road connectivity to the site.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. LAXMI INFRA VENTURE (P) LTD FOR PROPOSED S1+S2+S3+10 FLOORS (BLOCK-A & B) AND S1+S2+S3+18 FLOORS (BLOCK-C & D) MULTI-STORIED RESIDENTIAL APARTMENT BUILDING (MIG CATEGORY), OVER PLOT NO-2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866, OVER AN BUILT-UP AREA –38015.17 M2 KHATA NO-1330/9654 MOUZA-PANDARA, BHUBANESWAR, DIST-KHURDHA BY GPA HOLDER M/S. LAXMI INFRA VENTURES PVT. LTD. REPRESENTED BY SRI RAJESH KUMAR NAYAK - EC

1. This proposal is for Environmental Clearance of M/s. Laxmi Infra Venture (P) Ltd for Proposed S1+S2+S3+10 floors (Block-A & B) and S1+S2+S3+18 floors (Block-C & D) Multi-storied Residential Apartment building (MIG Category), over Plot No-2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866, over an Built-up Area – 38015.17 m^2, Khata no-1330/9654 Mouza-Pandara, Bhubaneswar, Dist- Khurdha by GPA Holder M/s. Laxmi Infra Ventures Pvt. Ltd. represented by Sri Rajesh Kumar Nayak.
2. **Category**: As per EIA Notification 2006 and subsequent amendment, the proposed project falls under Category B under Item 8(a) Building and Construction projects.
3. The proposed project has been approved by Bhubaneswar Municipal Corporation vide letter no 57693 dated 09.12.2022.
4. **Statutory clearances**:

S.No.	Particulars	Letter No. / Application No.
1.	Fire Safety Recommendation No. Application No.	RECOMM1204130012023001025 FSR1204130012023000004
2.	NoC from TPCODL	TPCODL letter No. 4308 on dated 07th 2022
3.	NoC for Own Water Supply & Sewerage Connection System	PHD Division, Bhubaneswar letter no. 176 on dated 07/01/2023
4.	Height Clearance NoC from AAI	BHUB/EAST/B/102121/629810
5.	NoC for Ground Water Abstraction	CGWA/NOC/INF/ORIG/2023/18149 on dated 11/04/2023
6.	Approval letter from BMC	BP-BMC-2022-06-21-004957 Letter No-57693/dated 19/09/2022
7.	Structural Stability Certificate	Registration no. RTP/DTP(ST.ER)-092/2018 Valid upto 10/05/2024

8.	Permission for construction of V.R Bridge at RD 13.95 Km. of Lingipur Distributary, Mouza - Pandra for access to Plot No. 2807, 2808, 2810, 2798, 2799 over Sabak Khata No. 426, Hal Khata No. 297 Mouza - Pandra, Tahalil - Bhubaneswar,	Letter no. -6908/we on dated 27/11/2019

5. **Location and connectivity**: The area is located in Survey of India Topo sheet No. F45T15 bearing Plot No-2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866, Khata no-1330/9654. Geographical coordinates for the project site are latitude of $20^0$18'15.37N and longitude - 85^0 52' 28.11''E. The kisam of the plots are Ghrabari. The project site is at a distance of 5.2 Km-W from NH-16/AH-45, 1.20 Km –E from Nandankanan Road. Site is flat land with average elevation of 20-21m AMSL. Project site is well connected with New Hitech Road which connects to NH-16 at the distance of 62 m. North direction. Proposed project site also connects to NH-316 (Bhubaneswar-puri Highway) at Pandara Square about 1.3 km-SW to the project site. Vanivihar Railway station is 2.55 Km - SSW away from Project site. Mancheswar Railway Station is 3.61 km away in North-West. Bhubaneswar railway station is 5.27 km away in South-West. Biju Patnaik International Airport 8.34 km in South West. Nearest water body is Gangua Nala at 0.24km. Nearest assess to building as per the plan, the proposed building abuts on a road of width 12.19 mtrs. at front side of the proposed building, which shall be made as per Rule-31 of Odisha Development Authorities (Planning and Building Standards) Rules, 2020. Besides, a culvert has been shown in the proposed building plan, the same shall be of width 12 mtrs for access to the premises.
6. 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.
7. **Area details**: Plot area of project is estimated to be 7104.23 sqm**,** or 1.755 Acres or 0.7104 Ha. & the Built up Area is estimated to be 38015.17 **sqm.**

AREA STATEMENT	
Particulars	**Area (in m^2)**
TOTAL PLOT AREA	7104.23
Ground Coverage Required(40% of plot area)	2841.7
Area Of Ground Coverage Achieved (39.83% of plot area)	2829.75
STILT FLOOR-1	
BUILT UP AREA	2781.93
EXEMPTION AREA (FIRE TOWER)	129.24
STILT FLOOR-1 AREA FOR FAR	2652.69
BLOCK-A,B,C &D SERVICES AREA (EXEMPTION AREA IN PARKING)	36.46
STILT FLOOR-1 PARKING AREA	2616.23
STILT FLOOR-2	
BUILT UP AREA	2781.93
EXEMPTION AREA (FIRE TOWER)	129.24
STILT FLOOR-2 AREA FOR FAR	2652.69

BLOCK-A,B,C &D SERVICES AREA (EXEMPTION AREA IN PARKING)	81.62
STILT FLOOR-2 PARKING AREA	2571.07
STILT FLOOR-3	
BUILT UP AREA	2688.11
EXEMPTION AREA (FIRE TOWER)	129.24
STILT FLOOR-3 AREA FOR FAR	2558.87
BLOCK-A,B,C &D SERVICES AREA RAMP & SOCIETY AREA(EXEMPTION AREA IN PARKING)	264.55
STILT FLOOR-3 PARKING AREA	2294.32
NET FAR AREA (BLOCK -A)	3836.36
NET FAR AREA (BLOCK -B)	4811.13
NET FAR AREA (BLOCK -C)	9503.97
NET FAR AREA (BLOCK -D)	10194.6
TOTAL NET FAR AREA(including stilt floor-1,2 &3 service area)	28346.06
GRAND TOTAL B.U.A	**38015.17**
FAR	3.99
Total No Of Dwelling Units	223
NO Of Recharge pit(Required)	21
NO Of Recharge pit(provided)	25
Plantation Required @1 Tree Per every 80sqm of plot area	109
SOCIETY AREA (REQUIRED)	223
SOCIETY AREA (PROVIDED)	231.37

8. **Water requirement:** Total water requirement of the project is expected to be 180 KLD approximately; out of which fresh water requirement is 120KLD. Domestic: 120 KLD and Flushing: 60 KLD. The source of water is PHED for which PP has obtained No objection certificate from PHD, Bhubaneswar vide letter no. 176 on dated 07.01.2023. There is also provision for groundwater for standby for which PP has applied to CGWB and got the NOC from CGWB vide NOC no. CGWA/NOC/INF/ORIG/2023/18149 with Date of Issuance: 11/04/2023 which is valid up to 10/04/2028.
9. **Waste water generated and its management**: The total waste water generated is 144KLD which will be treated in STP of capacity 160KLD. Treated water recovered is 115KLD which will be used in Gardening – 40KLD, DG Set cooling – 15KLD and 60 KLD in Flushing water. The PP has mentioned there is a provision for zero discharge concept in Dry season.
10. For Rainy season, the fresh water requirement of 120 KLD will decrease from 120 KLD to 30 KLD by availing it from roof top storm water collection - 90KLD and 30KLD from Bore well/supply water. Discharge to nearest Drain will be 40 KLD.
11. **Greenbelt:** About 100 trees of 8 types of species (Neem, Peepal, Mango, Shisham, Sirish, Babool, Gulmohar or local plants as per the advice of forest officers) will be planted both inside the project area and all along the boundary to create a boundary of greenery.

Area Component	Area in Sqm
Total Plot area (sqm)	7104.23
Green area required@ 20 % of Plot area (sqm)	1,420.84
Green area provided@ 22.43% of Plot area (sqm)	1952.35
Required number of trees @ 1 tree per 80 sq.m. of plot area	89 trees
Number of trees Proposed (No. of trees planted in around the road and peripheral boundary line)	110

12. **Solid waste management :** The solid waste generated from project will be mainly domestic in nature and the quantity of the waste will be 0.614 Ton/day. Solid wastes generated will be segregated into biodegradable 0.246 T/Day (waste vegetables and foods etc.) and Non-biodegradable or recyclable 0.368 Ton/day (papers, cartons, thermo-col, plastics, glass etc.) Components will be collected in separate bins. The biodegradable organic wastes will be treated inside the premises by OWC (Organic Waste Converter) of capacity to treat 250 kg/day. Recyclable and non-recyclable wastes will be disposed through Govt. approved agency
13. **Power requirement**: The power supply shall be supplied by TPCODL. The maximum demand load is estimated at 1341 KW or 1578 KVA. Permission for Electrical supply to the proposed project site is received from office of the Divisional Manager (Electrical) through Letter No:-4308 on dated 07/---/2022.There is provision of Power backup for the residential project will be through DG sets of total capacity. 1 Nos. 250KVA+1 Nos. 320 0KVA, 415Volts DG Sets with acoustic enclosure with DG Synchronisation with DG Set Stack of 65 m.
14. **Solar energy details**:

Total Connected Load in kW	1734.2 KW
Solar Power Required in kW @ 5% of the Connected Load	86.7KW
Solar Power In kW to be generated by Roof Top Solar Panels	87KW
No. of Solar panels required (300W to 400W capacity)	62NOS
SUGGESTED SOLAR SYSTEM: 62 Nos. of Solar Panels suitable for 87 KW LOAD	

15. **Waste management**: Around 2 KLD effluent will be generated which will be treated in septic tank followed by soak pits.27 kg/day solid waste (peak) will be generated during construction phase and will be disposed through waste handling agency.
16. **Parking details**:

Facilities	Area in Sqm
Parking Area Required(25% Of B.U.A)	7086.51
Parking Area (Provided)	7332.82
Covered Parking(In Stilt Floor-1 (Block-A+B+C+D)	2616.23
Covered Parking(In Stilt Floor-2 (Block-A+B+C+D)	2571.07
Covered Parking(In Stilt Floor-3 (Block-A+B+C+D)	2294.32
Stack Parking	103.5

Open Parking	458.35
Visitor's Parking Required@10% Of Total Parking)	708.64
Visitor's Parking (Provided)	710.65
Electric Charging Point(Required @30% Of Total Parking)	2413.04
Electric Charging (Provided)	2400
Total parking Area (Provided)	8043.47
Total Car Parking No.S (Provided)	250
Total Bike Parking No.S (Provided)	175

17. **Project cost**: Estimated cost of the project is 76.50 Cr. EMP Capital Cost is 91 Lakh and Recurring Cost /Annum is 3.1 Lakh

Table: EMP cost

Source	Capital Cost (In Lacs)	Recurring Cost (In lacs)
Landscaping	10	0.5
Rain Water Harvesting	10	0.2
Solid Waste Management	8	0.5
STP	50	1.2
Acoustic Enclosure & DG Set Stack	10	0.2
Environmental Monitoring	3	0.5
Total	**91**	**3.1**

18. **Environment Consultant**: The Environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

Considering the information furnished and the presentation made by the consultant, **M/s Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar** along with the project proponent, the SEAC recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

a) Permission letter for constructing approach road bridge over Prachi Canal for transportation.

b) Permission from BMC to use nearest public drain to discharge treated water.

c) Undertaking by the Project Proponent to use PHED water when available to the area and extraction of water from groundwater should be minimal.

d) Relook at the possibility to increase parking area as per the parking norms and calculation of parking area should be given in percentage as well as area wise.

e) Details of solar power generation and consumption.

f) Relook at the water discharge calculation.

g) Revisit the water balance for Dry season as there is deficit of 29KLD and according to the Project Proponent in dry season a Zero Liquid Discharge concept will be obtained.

h) RL of the bottom of the rainwater discharge pit as well as RL of ground water table during rainy and summer season.

i) Detail plan of drainage for discharging excess treated sewage water.

j) Source of water for use during construction phase.

B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

i) Environmental settings of the project site.

ii) Construction activity, if any started at the site.

iii) Road connectivity to the project site.

iv) Drainage network at the site.

v) Discharge point for discharge of treated water and distance of the discharge point from the project site.

vi) Any other issues including local issues.

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. PENGUIN TRADING AND AGENCIES LTD FOR DANGARAPADA-1 DECORATIVE STONE DEPOSIT (16.389 HA.), DANGARAPADA-2 DECORATIVE STONE DEPOSIT (6.24 HA.) & DANGARAPADA-3 DECORATIVE STONE DEPOSIT (14.921 HA.) OVER TOTAL AREA OF 37.55 HA. LOCATED AT VILLAGE DANGARAPADA, TITILAGARH TEHSIL OF BALANGIR DISTRICT OF SRI RAMAN RASHMI NAYAK - TOR

1. This proposal is for Terms of Reference for Environmental Clearance of M/s. Penguin Trading and Agencies Ltd for Dangarapada-1 Decorative Stone Deposit (16.389 Ha.), Dangarapada-2 Decorative Stone Deposit (6.24 Ha.) & Dangarapada-3 Decorative Stone Deposit (14.921 Ha.) over total area of 37.55 ha. located at village Dangarapada , Titilagarh Tehsil of Balangir District of Sri Raman Rashmi Nayak.
2. **Category**: As per EIA Notification 2006 and subsequent amendment, the proposed project falls under Category B2 under item 1(a) - Mining of Minerals.
3. The letter of intent (LOI) for grant of mining lease is issued vide letter No.$\frac{5947}{\text{SM}-\text{MC2}-\text{MC}-0054-2021}$/ SM, Bhubaneswar, Dt.05.08.2021 for Dangarapada 1, No.$\frac{5939}{\text{SM}-\text{MC2}-\text{MC}-0052-2021}$/ SM, Bhubaneswar, Dt.05.08.2021 for Dangarapada 2, No.$\frac{5943}{\text{SM}-\text{MC2}-\text{MC}-0053-2021}$/ SM, Bhubaneswar, Dt.05.08.2021 for Dangarapada 3.
4. There is no Forest and DLC land in the lease area, which is approved by DFO, Bolangir Forest Division Letter No.-2166/4F-Misc and Dated 15.03.2023.
5. Modified checklist is approved by Mining Officer & Tahasildar on 24.04.2023.
6. There are no existing / operating mines in 500m and 1000m around the lease area and the same is certified by Tahasildar on 03.03.2023.

7. The mining plan of the project has been approved under mineral Concession Rule, 2016 and granite Conservation& Devlopment Rule,1999 vide letter no-MXXII-(b)-06/2022 8097/DM Dt.21/09/2022 for Dangarapada 1,vide letter no-MXXII-(b)-06/2022 8357/DM Dt.29/09/2022 for Dangarapada 2, vide letter no-MXXII-(b)-06/2022 8361/DM Dt.29/09/2022 for Dangarapada 3.
8. **Location and connectivity**: The Proposed mine is situated over an area of 37.55 ha. in village - Dangarapada,Titilagarh Tahasil, in the district of Bolangir of Odisha state. The area featured in Toposheet no.- F 44 X 3(64P/3) bounded by Latitude- N 20° 21' 09.4" " to N 20° 21' 32.10" and Longitude - E 83° 09' 08.0" to E 83°09'07.10". As per the record of revenue the lease area comes under Abada Ajogya Anabadi catogery and of Dunguri Kissam. The nearest railway station is Titilagarh Railway Station(8 km) (SE) & Dangarapada village at 2.5 Km (E) from the project site. The nearest national highway is NH 59 (7.4km) (W). The Barnai reserve forest (0.65km) NE from the project site. There is no wildlife sanctuary in the 10 km radius from the project site. Nearest water bodies are Kankarha jor SW(8.7 km),Dumberbahal Reservoir (3.2km) N, Mathan Pala Reservoir 6.1 km SE, lakhmi Jor 5.4 km (SW),jamuna Jor 3.2 km (S),Lant river (7.8 km) NE.
9. **Topography**: The applied M.L. area is located towards North-Western side of village Dangarapada. Some portions near the northern boundary are covered by soil & alluvium. The highest and lowest elevations of the area above 385.5 mRL (center- east side) and 303.0 (south direction) mRL respectively in Dangarapada 1. The highest and lowest elevations of the area are above 322mRL and 309.5mRL respectively in Dangarapada 2. The slope of the area is from center towards lease boundary. The highest and lowest elevations of the area above 329mRL and 306mRL respectively in Dangarapada 3. Overall slope of the area is due south.
10. **Total reserves, production and waste**: For Dangarapada 1, the project proposes to produce decorative stone @ 7530 cuM/Annum (Maximum) and out of 131040 m³ waste generated in 5 years, 52416 m³ of waste will be utilized for construction and maintenance of roads and remaining 78624m³ of waste will be dumped in the proposed temporary waste dump in the earmarked site. For Dangarapada 2, the project intends to produce decorative stone @ 3000 cuM/Annum (Maximum) and out of 47600 m³ waste generated in 5 years, 19040 m³ of waste will be utilized for construction and maintenance of roads and remaining 28560m³ of waste will be dumped in the proposed temporary waste dump in the earmarked site. For Dangarapada 3, the proposed project intends to produce decorative stone @ 6000 cuM/Annum (Maximum) and out of 105000m³ waste generated in 5 years, 42000 m³ of waste will be utilized for construction and maintenance of roads and remaining 63000m³ of waste will be dumped in the proposed temporary waste dump in the earmarked site.

Table-Salient features of the mine

	Dangarapada 1	Dangarapada 2	Dangarapada 3
ML Area	16.389 ha	6.240 ha	14.921 ha
Elevation(mRL)(lowest-highest)	303-385.5	309.5-322	306-329

Production Capacity	7530 cum/Annum	3000 cum/Annum	6000 cum/Annum
Mining Technology	Opencast Semi-mechanized Method		
Geological Resource	6, 97,545 m^3	108151 m^3	490626 m^3
Mineable Reserve	5,79,588 m^3	71656m^3	349743 m^3
Mining Machineries	Excavators, compressor, jack hammer, Wire-saw Cutting machine, drill rod etc.		
Life of Mine	77 years	24 years	59 years
Blasting	Not Required		

11. **Mining methodology**: Opencast semi-mechanized method will be adopted using machineries such as Excavators, Wire saw cutter, compressor, jack-hammer, drill rod etc. Mining operation is proposed to be in single shift (8 hours). Firstly the weathered zone of 0.5-1.0 m will be scraped from the top. Then, drilling will be carried out by using jack hammers driven by air compressors. Wire saw cutter will be used to detach the stone blocks from the quarry face. Excavation & separation of decorative stone is done in two phases. One phase is removal of stone from the quarry face. The second phase is splitting-sizing-shaping. Cutting and removal of main blocks from the face is done mainly by drilling machine, wire saw cutter, jack hammer & with the help of excavator. Splitting of this size stone is done by jack hammer & excavator for horizontal & vertical cutting. Handling and loading of different sized blocks to stock yard will be done by hydraulic excavator. Excavator and rear dump truck combination will be used for removal of rejected blocks from mine face to dump yard. Transportation of marketable decorative stone blocks will be done by trailers/lorries/trucks to the respective destinations.
12. **Water requirement**: Mining process does not involve any requirement of water. Hence no process water will be generated from the entire three mines. Drinking water will be drawn through bore well from nearby village. The proposed working depth of all the three quarries during the plan periods will not touch the water table. At a rate of 40 litres/head, 800 litres of potable water will be consumed for drinking/day & other purpose. About 800 litres /day of water will be required for plantation

	Dangarapada 1	Dangarapada 2	Dangarapada 3
Stripping Ratio (Saleable Ore: Waste) in CuM:CuM	1:3.5		
Dump slope	80 Degree		
Pit Slope	45 Degree		
Bench Dimension	Height- 3m, width-3 m, Bench slope- 90 degree		

Ultimate Depth	318 mRL	311mRL	303 mRL
Water Table	286 mRL (12 to 15 m depth)		
Recovery Factor of Ore	20% Blocks, 70% Waste & 10% non saleable of total excavated rock mass.		
Water Requirement	6.8 KLD	5.7 KLD	7.7 KLD
Power Requirement	No electrical power shall be required for operations in mine Minimal power required for office shall be taken by using D.G set (250 KVA)		
Manpower	20		
Project Cost	4.8 Crore	2.2 Crore	4.4 Crore

13. **Greenbelt**: It is proposed to develop a green belt over an area of 0.621 Ha. in the safety zone of Dangarapada 1, 0.468 Ha. in the safety zone of Dangarapada 2 mine, 0.650 Ha. in the safety zone of Dangarapada 3 during the plan period. Plantation will be carried out in undisturbed area.

Dangarapada 1 Greenbelt plan

Year	Area to be planted (m^2)	No. of Saplings	Type of species to be Planted	Location
1st Year	1242	200	Amla,Neem, Mango,Gamhari, Kasi, Bahada, Jamun, and Bamboo	Along the Safety Zone
2nd Year	1242	200		
3rd Year	1242	200		
4th Year	1242	200		
5th Year	1242	200		
Total	6210	1000		

Dangarapada 2 Greenbelt plan

Year	Area to be planted (m^2)	No. of Saplings	Type of species to be Planted	Location
1st Year	936	150	Amla, Neem, Mango, Gamhari, Kasi, Bahada, Jamun, and Bamboo	Along the Safety Zone
2nd Year	936	150		
3rd Year	936	150		
4th Year	936	150		
5th Year	936	150		
Total	4680	750		

Dangarapada 3 Greenbelt plan

Year	Area to be planted (m^2)	No. of Saplings	Type of species to be Planted	Location
1st Year	1300	208	Amla, Neem, Mango,Gamhari, Kasi, Bahada, Jamun, and Bamboo	Along the Safety Zone
2ndYear	1300	208		
3rd Year	1300	208		
4th Year	1300	208		
5th Year	1300	208		
Total	6500	1040		

14. **Manpower:** Total number employee in the proposed cluster mine will be around 60.
15. **Project cost**: Estimated cost of the Dangarapada 1 project is Rs.4.8Crore, Dangarapada 2 project is Rs. 2.2 Crore and Dangarapada 3 project is Rs 4.4Crore. Total estimated cost of the Dangarapada cluster is 11.3 crores.

Table-Environmental management cost

SL NO.	PROPOSED ACTION PLAN	EXPENSES PER YEAR (IN RS.) for each mines
1	Air Pollution Measures	100000
2	Water Pollution Measures	80000
3	Noise Pollution Measures	40000
4	Green Belt (Plantation)	80000
5	Maintenance of Mining Equipments & Vehicles	400000
6	Environmental monitoring	100000
7	Health Check Up and Drinking Water Provision	60,000
	TOTAL	8,60,000/ Annum
Grand Total (for the 3 mines)		25,80,000/Annum
Table: BUDGET FOR OCCUPATIONAL HEALTH AND SAFETY OF THE WORKERS		
Items		Recurring cost (Rs.)/Annum for each mines
Health Check Up and Drinking Water Provision		60,000
Total		Rs. 60,000/-
Grand Total (for 3 mines)		Rs. 1,80,000/-

16. **Environment Consultant**: The Environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

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

(i) Details on mining height from the ground level, depth of mining, mining plan figures, water table (depression, elevated or same level) along with present and post mining status comparison along with a condition that Project proponent shall not carry any mining activity below the ground level. RL of ground water table during pre and post monsoon period to be reported along with RL of the surface of the mining site post mining as per the approved mining plan.

(ii) Approved DSR to be submitted.

(iii) Distance of the nearest habitation / village (s) etc. from the lease boundary.

(iv) Details of Waste Management i.e., quantity to be used, stored and the waste composition.

(v) NOC from concerned competent authority for usage of road for transportation of minerals.

(vi) Plantation on both sides of approach road and its maintenance.

(vii) Zero discharge from lease area to be maintained.

(viii) In case village / any habitation is very nearby, plan to ensure safety of human life and livestock from accidents be submitted.

(ix) Number and type of vehicles to be engaged per day and their frequency of plying.

(x) Certificate from the concerned DFO that there is no DLC land involved in lease area. Distance of the mines from the boundary of the Notified Eco-Sensitive Zone / Wildlife Sanctuary if any.

(xi) Certificate from the concerned mining officer that the mine has not operated earlier and this is a new mine.

(xii) NOC of BDO or Panchayat for usage of haulage road/Panchayat Road.

(xiii) Submit detail report on silt management.

(xiv) Mitigation measures taken for pollution generated due to fine particles in the mining process should be addressed.

ITEM NO. 07

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR NIMAPALLI STONE QUARRIES CLUSTER (1,2,3,4,5& 6) PROJECT, OVER AN AREA OF 72.971 ACRES OR 29.528 HECTARES OF TAHASILDAR PURUSHOTTAMPUR IS SITUATED NEAR VILLAGE NIMAPALLI , TAHASIL-PURUSHOTTAMPUR DISTRICT GANJAM OF TAHASILDAR, PURUSHOTTAMPUR – TOR IN CLUSTER APPROACH.

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. This proposal is for Terms of Reference (TOR) of Nimapalli Stone Quarries Cluster (1,2,3,4,5 & 6) project, over an area of 72.971 acres or 29.528 hectares of Tahasildar Purushottampur is situated Near Village Nimapalli , Tahasil- Purushottampur District Ganjam of Tahasildar, Purushottampur.
3. **Category**: The proposed project of under total cluster area 72.971 Acres or 29.528 Ha. of 7 stone quarries and falls under Category- "B" under schedule 1(a)-Mining of minerals as per EIA Notification 2006 & their amendments thereafter.
4. The total cluster is consisting of 7 stone quarries. Out of 7 stone quarries, one has got the TOR (Letter no. 5077/SEIAA Dated 02.08.2022) i.e. Nimapalli Stone Quarry-16 acres and subsequently the DEIAA has been deposited and public hearing was conducted on 12.01.2023 for this stone quarry.
5. The proposed cluster quarry has been allotted to Tahasildar Purushottampur on behalf of Proposed lessee, the lessee through long term quarry lease basis for quarrying of ordinary stone/Stone (minor mineral) by the Tahasildar Purushottampur on behalf of Governorment of Odisha in accordance with the provision of the Minor Mineral Concession Rules (amendment), 2016 through long term quarry lease for the purpose of excavation of construction stone. The current allotment through long term quarry lease basis in the name of Tahsildar Purushottampur for 5 Years**.**
6. **Location and connectivity**: The proposed Nimapalli Stone Quarries Cluster (1, 2, 3,4, 5 & 6) project, of Tahasildar Purushottampur is situated Near Village Nimapalli, Tahasil-Purushottampur District Ganjam, Odisha over an area of 72.971 acres or 29.528 hectares. The proposed site is bounded by Latitude - 19° 26' 54.36" N to 19° 27' 08.38" N and Longitude - 84° 53' 06.51" E to 84° 54' 11.92" E bearing Toposheet No. 74A/15.Nearest Railway line is at Berhampur Railway Station at a distance of 25.50 km in SE, nearest National Highway is NH-326 is at a distance of 1.00 Km in NW. Nearest river embankment is near Palaspur bridge, Ghodahada river at a distance of 4.30 km in NW. Nearest Sanctuary is is at Lakhari valley wildlife sanctuary ata distance of 29.30 km in SW. Nearest reserve forest is Ramagurha Reserve Forest is at a distance of 10.00 Km in SE.
7. There are no ecologically sensitive area such as wildlife sanctuary, bio reserve, etc. coming under 10 km Radius of the proposed lease area.
8. Total production and reserves: The maximum production of construction stone from this Cluster quarries are 99207 cum/annum.

Plan Period	Name of Quarry	Maximum Production (cum)	Waste (cum)
5 Years	Nimapalli-1 Stone Quarry	2700	675
5 Years	Nimapalli-2 Stone Quarry	2295	225
5 Years	Nimapalli-3 Stone Quarry	5031	559
5 Years	Nimapalli-4 Stone Quarry	19584	2176
5 Years	Nimapalli-5 Stone Quarry	12717	1700
5 Years	Nimapalli-6 Stone Quarry	15300	1413

5 Years	Nimapalli (Plot No.896) – Stone Quarry	41580	4620
Total	7 Nos. Quarries	99207	11368

9. **Mining method**: Stone in the quarry area is excavated by conventional method of opencast mining through the formation of safe benches which is semi mechanized and on single shift basis. Benches are formed and worked in a top to downward manner. Because of presence of hard and competent rock mass, drilling and blasting is performed for loosening of the rock mass. Height of the quarry benches are kept at 5m and the Width will be 5m. The individual bench faces are kept nearly vertical (85^0) whereas the overall quarry slope angle (the angle between the line joining the toe of bottom bench and the crest of the top bench with the horizontal) is maintained at around 450 with the horizontal.
10. **Water requirement**: A total 1840 litres per day of water is used per day for the above activities. The water is made available from bore wells exist within the quarry area.

Activity	Calculation	Round off Figure in KLD
Drinking	@ 10 lpcd per labor 184 *10/1000= 1.84 KLD	1.84
Dust suppression	Total haulage road to be water sprinkled = 1620 m 1620* 6m * 0.5 ltr * 2times/1000 = 9.72 KLD	9.72
Plantation	1585 plant in five year @ 2 L/per plant= 1585*2 = 3170/1000 = 3.17 KLD	3.17
Total		14.73 KLD ~ 15.000 KLD

11. **Power Requirement & Supply / Source:** No electricity required at quarry site. Only diesel is used for operating mining equipment only. For which 2 KL of HSD will be used and sourced from local market.
12. **Waste management**: During plan period 11368 cum/annum of waste will be generated from the total cluster area. Considering swell factor as 1.2 the total broken volume will be 13642 cum/annum. For dumping these waste materials a proposed dump has been suggested in the SE part of quarry area covering an area of 0.468 Ha. Around 40% of waste will be utilized in the development mine haulage road. A retaining wall around the dump will be constructed to prevent the wash off of dumps. Around the retaining wall a garland drain and settling tank will be provided to prevent the possible transportation of mine dust or fines.
13. **Greenbelt**: Green belt shall be developed along the boundary of stone quarry area with the native tree species. The plantation proposal has been given to plant around 1585 saplings over an area of 0.680 ha in the auctioned area. Species likely to be planted are Chakunda, neem etc as per the availability. Spacing between the saplings will be kept 2.5 meters x 2.5 meters only.
14. **Manpower requirement**: Total number of employments will be around 184 (For All Quarry Sites of Nimapalli Stone Quarries) including Management, Supervisory personnel, Skilled, Semiskilled and Unskilled. Employment preference will be given to the local villagers. Workers will be instructed with safety measures and safety equipments will also be provided.

15. **Project cost:** The estimated cost of project will be Rs.2 Cr. CER cost is 4.00 Lakhs for Cluster Area.

Sl. No.	Activity	Capital Cost (in Rs.)
1	Health check ups Facility in Nimapalli village.	2,00,000
2	Distribution of Sanitizer and Mask to the villagers of Nimapalli village	25,000
3	Water Storage tank in village Nimapalli	75,000
4	Distribution of educational kits & books in schools (@ Rs. 2,000/ kit)	1,00,000
TOTAL (in life time)		4,00,000

16. **Environment Consultant**: The Environment consultant **M/s P&M Solution, Noida** along with the proponent made a presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s P and M Solution, Noida,** the SEAC prescribed the following specific ToRs in addition to standard ToRs in cluster approach as per **Annexure – B** for conducting detailed EIA study**.**

i. Installation of STP of adequate capacity and requisite design.

ii. Traffic study duly vetted by reputed institution.

iii. Green belt in safety zone of each mine and all-round the clusters to be confirmed with details.

iv. Arrangement of pipeline sprinkling (permanent water line) to be explored and confirmed.

v. Surface runoff management along with the details of settling ponds along with layout. The PP to provide the procedure to be adopted for silt management and SoP for the same to arrest /remedy of silt ingress to surrounding agricultural lands.

vi. The proponent has to explore the feasibility of using one or two quarries as a reservoir to meet the water demand of the mine.

vii. Kisam of land to be submitted.

viii. Safety measures during blasting including provision of warning to be submitted.

ix. Certificate from concerned, DFO that mining activity is not within any notified forest area.

x. Site photographs along with the consultant.

xi. Details of transportation road.

xii. Slope stability study to avoid failure of the benches

xiii. Blasting vibration study and measures against vibration and fly rocks.

xiv. As the project site and its nearby area have high number of Black Buck population, their conservation and safety should be addressed in EIA.

xv. Details of waste management and measures to be taken for it.

xvi. Earlier approved TOR of one quarry shall be rejected.

xvii. RL of ground water table during pre and post monsoon period to be reported along with RL of the surface of the mining site post mining as per the approved mining plans of all the mining leases.

ITEM NO. 08

PROPOSAL OF AMENDMENT ENVIRONMENTAL CLEARANCE OF M/S. JINDAL STAINLESS LIMITED FOR JINDAL CHROMITE MINES (ML AREA 89.00HA) LOCATED IN THE VILLAGE KALIAPANI, TEHSIL-SUKINDA, DISTRICT-JAJPUR OF SRI SABYASACHI MOHAPATRA – MOD EC

1. This proposal is for amendment Environmental Clearance of M/s. Jindal Stainless Limited for Jindal Chromite Mines (ML Area 89.00ha) located in the village Kaliapani, Tahasil-Sukinda, District - Jajpur of Sri Sabyasachi Mohapatra.
2. **Category**: It is an open cast mining with shovel dumper combination. As per new notification no. 3977(E) dated 14.8.2018 mining lease area less than 100 ha. and falls in category "B".
3. **Statutory clearance details:**

Sl. No.	Approval	Letter No	Valid till
1	Mining Plan Approval	BBS/JJP/CR/2174/MPM/2022-23 , Date:17.08.2022	31.03.2026
2	Environment Clearance approval	EC22B001OR115726, date:04.04.2022	03.01.2052
3	Forest Clearance approval	8-68/2000-FC, Date:20.04.2023	03.01.2052
4	Consent to Operate	5413 IND-I-CON-2562 , Date:31.03.2023	31.03.2024
6	CGWA permission for drawl of water for 48 KLD for domestic consumption	CGWA/NOC/MIN/REN/1/2023/7562 Date:28.03.2023	22.02.2025
7	DGMS permission for CBM	180050/SEZ/BBSR Region/Perm/2022/ 238108 , Date:06.06.2022	Till completion of CBM

4. **Amendment justification**: Amendment is sought for incorporating opencast mining operation and allied activities in the 7.5 mtr. of Safety Zone area inside JSL lease (sharing Common Boundary between JSL and TSML) in addition to the opencast mining. It may be noted that the mining will be restricted within JSL lease hold area only. Due to the above said operations there will be no change in production capacity and no change/ increase in Mining Lease area and hence; no increase in pollution load. JSL has made MoU with TSML and BAL for Common Boundary mining in the Safety Zone area of JSL, for which DGMS permission and Mining Plan approval from IBM have already been obtained. Hence the project proponent proposes to carry out Mining operation and allied activities in the 7.5 mtr. Safety Zone area, inside JSL Lease near

common boundary with TSML (i.e. Western boundary of JSL and Eastern boundary of TSML) along with existing provision of common boundary mining with BAL as well as development and production from Quarry 1 & 2 in line with the approved Mining Plan and EC. As per the present approved Mining Plan the total Mineable Reserve is 3.81 Million Tonnes as on 01.04.2022. Around 0.6 Million Tonnes of Chromite Ore is locked up in the benches within 7.5 m of safety zone of mine lease area, which can be extracted by the JSL. Therefore, the company is requesting for the amendment in the Existing Environmental Clearance dated 04.04.2022.

5. **Mine lease**: The mining lease over 89.00 ha. in village Kaliapani & forest block - 27 for chrome ore was executed on 4.1.2002 for 20 yrs i.e. from 4.1.2002 to 3.1.2022. As per section 8A (3) of MM(D&R) Amendment Act 2015, the lease period has been extended for a period of 50 yrs i.e. up to 03.01.2052 (with effect from 04.01.2002) and the supplementary lease deed for extended period has been executed on 08.06.2022.
6. **Mining/Project details**: Mining shall be carried out within 7.5m of the boundary (common with TSML) as per the MOU signed with between M/s. Tata Steel Mining Ltd. (TSML). For this all necessary regulatory approvals to excavate locked up Chromite Ore have already been obtained. TSML & JSL will abide by the guidelines and conditions laid down by the regulatory authorities.
7. Permission under Regulation 111(3) of the Metalliferrous Mines Regulations, 1961 to work within 7.5m of the common boundary between Sukinda Chromite Mine of TSML and Jindal Chromite Mine of JSL has already been obtained from Directorate General of Mines Safety, (DGMS) vide letter no. 180050 SEZ Bhubaneswar Region, Perm/2022/238108 dated 06.06.2022, along with approved Mining Plan by Indian Bureau of Mines.
8. **Location and connectivity:** Jindal Chromite Mine is located at village Kaliapani, Sukinda Tehsil, Jajpur District, Odisha. The Mining Lease falls within the Latitude – 21^0 01' 04.39824" to 21^0 02' 03.53184" (N) & Longitude – 85^0 45' 18.17352" to 85^0 46' 31.69704" (E). It falls on Survey of India Topo Sheet No - F 45 N16.The nearest rail head is TOMKA, which is about 30 km from the Mine lease area. National Highway (NH-200) passes at a distance of 30 km from the lease area; Jajpur district head quarter is about 85 km from the area.
9. **Topography**: The Chromite lease area of JSL is situated in Sukinda valley, with Mahagiri hill range on the southern side is largely covered with alluvium and thick horizons of laterite. The valley lies between the Mahagiri hill (707.69 m) on the south side and Daitari range (782.42 m) on the north side .The area exhibits peneplained topography, marked by linearly disposed mounds of low relief .The maximum elevation in the area is 310 MRL on the southern side, while the minimum elevation is 116 MRL on the north-west portion of the area .The overall slope of the area is from SE to NW.
10. There is no national park, wild life sanctuary, national monuments or places of interest for tourist existing in the lease hold area as well as in buffer zone, as per DFO ,Cuttack Forest Division vide memo no. 2198 dated 27.4.2010.
11. **Reserves**: Total Mineral Resource (Geological Reserve & Resources) is 11.246 Million tonnes and Minable Reserve is 3.8157 Million tonnes.
12. **Production Capacity**: As per existing Environment Clearance (EC22B001OR115726 date 04.04.2022 by SEIAA, Odisha) production capacity is 0.215 MTPA along with 60000 TPA from COBP.
13. **Proposed Mining Method**: The existing opencast mechanised mining method shall be continued for Common Boundary Mining in the safety zone area in Band – 1 (Quarry -1) with M/s

Tata Steel Mining Limited & M/s Balasore Alloy Limited. Mining in Quarry-1 and Quarry-2 within the ML area shall continue, additionally.

Band- 1 (Quarry – 1)

- Mining shall be carried out in safety zone area on a common development programme with adjacent mine of Tata Steel Mining Limited & Balasore Alloy Limited. Both lessees (M/s TSML & M/s JSL) have obtained the permission from concerned regulatory authorities.
- The ore will be excavated in safety zone along common boundary, following safe and scientific mining method keeping in view the conservation and optimum utilisation of minerals.
- The depth of working in Safety Zone area along Common boundary adjoining with M/s TSML will be up to 25 mRL and top being at 140 mRL will be depressed by 115 m.
- The depth of working in Safety Zone area along Common boundary adjoining with M/s BAL. will be up to 32 mRL and top being at 140 mRL shall be depressed by 108 m
- There is no top soil in the proposed mining area. However if top soil is found elsewhere during the course of mining, will be stored and used for plantation purpose.

Band VI (Quarry – 2)

- The floor of the quarry has reached the 122 mRL.
- As per Modification of Mining Plan, mining will be carried out till the ultimate Pit Limit is reached by opencast method of mining. Backfilling and reclamation will be done once the UPL is achieved, with overburden/waste generated from Quarry-1 and Quarry-2 during process of mining.

14. Existing mining method:

Sl. No.	Particulars	Band – I (Quarry-1) (Common boundary mining with TSML & BAL)	Band VI (Quarry -2)
1.	Method of mining	Open cast mining : Fully Mechanised	Open cast mining : Fully Mechanised
2.	Type of ore	Friable chromite ore with intermediate waste and overburden comprising of laterite , silicified chert and ultramafics etc.	Lumpy chromite ore with intermediate waste and overburden comprising of Quartzite and ultramafics etc.
3.	Means of raising	Excavator and dumper combination	Excavator and dumper combination
4.	Bench height and width	Height of the benches are maximum 8m each with minimum 8 m width	Height of the benches are 8m each with width 12m
5.	Overall slope angle	$< 35^0$	$< 35^0$
6.	Size/co-ordinate/floor mRL	Present Quarry-356m X 305 m /E-371806,S-2325734,Top 153 mRL& bottom 57 mRL. Back filled area – 280 m X 230 m/558S to 850S – 800E to 1120E,Top 160 mRL& bottom 70 mRL	Present Quarry – 305 m X 370.5 m/ E-372505, S-2324908, top 305 mRL& bottom 122mRL.

		The common boundary mining will be done from 140 mRL to 25 mRL with TSML and from 140mRL to 32mRL with BAL.	

15. **Water requirement:** Total water required for the proposed project is 815 KLD (48 KLD = ground water + 767 KLD = Mine quarry accumulated water).
16. **Power requirement**: For the proposed project, power requirement is 650KVA.
17. **Manpower:** 395 nos. of persons will be employed for the proposed project
18. **Project cost:** The project cost is Rs. 1900 lakhs .This is not a green-field project. So 1% of the capital investment has been estimated towards CER and Rs. 19.00 lakhs per annum will be spent.
19. The proponent made a presentation on the proposal before the Committee.

Considering the information furnished and the presentation made by the project proponent, the SEAC decided to take the decision on the proposal after receipt of the following from the proponent

a) Submit the Forest clearance to carry out mining in safety zone and further plan for compensation for any kind of damage to the environment.

b) Approval copy from DGMS to carry out mining in safety zone.

c) RL of ground water table during pre and post monsoon period to be reported along with RL of the surface of the mining site post mining as per the approved mining plan.

d) Level of chromium, manganese and other heavy metal elements in the ground water samples of the EIA study area.

MEMBER SECRETARY, SEAC