

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 20TH NOVEMBER 2023**

The SEAC met on 20th November 2023 at 10:30 AM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri Shashi Paul. The following members were present in the meeting.

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|------------------------------|---|-----------------------|
| 1. Sri Shashi Paul | - | Chairman (through VC) |
| 2. Dr. K. Murugesan | - | Member Secretary |
| 3. Dr. Rabi Narayan Patra | - | Member (through VC) |
| 4. Dr. Chittaranjan Panda | - | Member |
| 5. Prof. (Dr.) H.B. Sahu | - | Member (through VC) |
| 6. Prof. (Dr.) Abanti Sahoo | - | Member (through VC) |
| 7. Er. Fakir Mohan Panigrahi | - | Member (through VC) |
| 8. Prof. (Dr.) B.K. Satpathy | - | Member |
| 9. Er. Kumuda Ranjan Acharya | - | Member |
| 10. Shri Jayant Kumar Das | - | Member (through VC) |
| 11. Dr. Ashok Kumar Sahu | - | Member |
| 12. 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 OF ENVIRONMENTAL CLEARANCE OF M/S M G MOHANTY (PATABEDA IRON AND MANGANESE MINES) FOR PATABEDA IRON AND MANGANESE MINES FOR EXPANSION OF PRODUCTION OF IRON ORE FROM 180000 TPA TO 572305 TPA ALONG WITH CRUSHING AND SCREENING PLANTS OVER AN AREA OF 19.425 HA LOCATED AT VILLAGE PATABEDA UNDER KOIRA TEHSIL IN SUNDARGARH DISTRICT OF SHRI RAJIV LOCHAN MOHANTY-EC

1. This proposal is for environmental clearance of M/S M G Mohanty (Patabeda Iron and Manganese Mines) for Patabeda Iron and Manganese Mines for expansion of production of iron ore from 180000 TPA To 572305 TPA along with crushing and screening plants over an area of 19.425Ha located at village - Patabeda under Koira Tahasil in Sundargarh District of Shri Rajiv Lochan Mohanty.
2. **Category:** This is a Category – B project which falls under schedule 1(a) - Mining of Minerals as per the EIA Notification 2006 and amendments thereafter.
3. **Mining Lease details:** Initially, Patabeda Iron & Manganese mining lease was granted over 19.425 ha. on 03.04.1986 to M/s M.G. Mohanty for a period of 20 years by Department of Steel & Mines, Govt of Odisha. M/s M.G. Mohanty is a partnership firm, having its registered office at 2A, Forest Park, Bhubaneswar-751009, District-Khordha, Odisha. Sri Rajib Lochan Mohanty is the Managing Partner and lawful attorney of M/s M.G. Mohanty, Since the mining lease have been extended for 50 years in all total w.e.f 03.04.1986 to 02.04.2036 as per section 8A (3) of Mines

and Minerals (Development and Regulation) Amendment Act, 2015. So, Supplementary lease deed has been executed on 01.08.2016. Total lease area comprises of 19.425 ha., out of which, 16.507ha is of forest land and 2.918ha is of non-forest land.

Particulars	As per EC granted on 09.01.2007	Proposed for expansion
Method of Mining	Opencast semi-mechanized method involving blasting with single shift basis.	Open cast fully-mechanized mining method with double shift basis.
Production Capacity	1, 80, 000 TPA	5, 72, 305 TPA (542625 TPA iron ore from Excavation + 29680 TPA Saleable iron ore from re-handling of dump)
Water requirement	15 KLD	30 KLD
Solid waste	1802 m ³ / month	319916 Ton/ Plan period
Mineral Beneficiation	There is one no. of Crushing unit of 120 TPH & one mobile screening unit of 250 TPH exists in the lease area. (CTO obtained)	Additionally, one mobile crusher of 250 TPH and 250 TPH mobile screening unit are proposed.
Project cost	2.0 Cr.	20.0Cr.

4. Earlier, environmental clearance for production of 0.18 MTPA of iron ore has been obtained vide letter no - J-11015/41/2006-IA.II (M) on dated 09.01.2007 from MoEF& CC, Govt. of India.
5. **TOR Details:** Terms of Reference (TOR) was issued by SEIAA, Odisha vide proposal no. – SIA/OR/MIN/77960/2022 on dated 03.11.2022.
6. Modification to the review of mining Plan has been approved by the Indian Bureau of Mines, Bhubaneswar on 16.03.2022 for a period from 2022-23 to 2025-26 by the Indian Bureau of Mines, Bhubaneswar.
7. Site specific wildlife conservation plan has been approved 01.07.2009. The recent additional water demand will be sourced from nearby Ground water source. So, NOC for drawl of ground water has been obtained from CGWA for 30 KLD. Consent to operate for operation of mine has been obtained from SPCB, Odisha, which is valid till 31.03.2026.
8. Total lease area comprises of 19.425ha., out of which, 16.507ha is of forest land and 2.918ha is of non-forest land. Out of total forest land, 15.622 ha has been accorded forest clearance vide no: 5-ORC039/2007-BHU on dated 17.08.2009 and the rest safety zone of 0.885 ha has been applied for FC as per OM vide no - FC-11/151/2022-FC on dated 07.11.2022.
9. **Public hearing details:**Public hearing conducted successfully on 09-05-2023 at 10:00 A.M at Football Play Ground of Patabeda Village under Koira Block of Sundargarh District. Issues raised during public hearing were air pollution and mitigation measures, water pollution and management, blasting & ground vibration, plantation & soil erosion, employment and peripheral development issues.Total Rs 300.0 lakhs will be spent towards Public hearing demand under CER Activities in 5 years.

10. Location and Connectivity: The proposed mines is located at Mouza – Patabeda, Tahasil – Koira, in Dist – Keonjhar, Odisha with Khasra no/Compartment no – 24/202, 24/203, 24/204, 26/197, 26/198, 26/199, 26/201, 27/189, 27/190, 27/191, 27/200, 27/205, 26/196/248. The site is bounded by Latitude:21°55'45.15980" to 21°56'01.68076"N and Longitude: 85°22'21.57196" to 85°22'35.98813"E, bearing toposheet no. F45 N/5. The mine is accessible from Koira town (on NH-215) in Sundargarh district covering a distance of 17 km all weather road. The mine is also accessible from Joda town in Keonjhar district covering a distance of 27 km consisting of 17 km between Joda & Jaribahal and 10 Km between Jaribahal & the mine. Nearest NH is NH 215 - 9.0 Km; Nearest Railway station is at Barbil – 41 Km; Nearest Railway Siding is at Juruli: 6.5 Km; Nearest Air Port is at Jharsuguda: 150 Km; Nearest Air strip at Tanto @ 12.0 Km; Nearest Water bodies –Kakarpani Nala –1.5 KM – W, Suna Nadi – 3.0km – N , Baitarani River – 6.5 km –E. Nearest Reserve Forest - Siddamath RF –3.0km– NW & Baitarani RF –4km – NE. There is no Wild Life Sanctuary or National Park within the study area of 10 km. However, Karo - Karampada elephant corridor is located at about 15.0 km from the mine lease area

11. Total Production:

Year	Total Handling (t)	ROM Quantity (t)	ROM Quantity Saleable Mineral (t)	Total dump handling (t)	Recovery of Saleable Mineral (t)	Total Saleable (t)	Total Iron Ore to be produced (t)
2022-23	180750	166950	166950	80136	29680	196630	196630
2023-24	548775	431575	429450	80136	29680	459130	461255
2024-25	495850	493050	437550	80136	20440	457990	513490
2025-26	542625	542625	531750	55188	29680	561430	572305
Total		1634200	1565700	295596	109480	1675180	1743680

12. Method of Mining & Mining plan details: Open cast fully-mechanized mining method will be adopted with the deployment of machines like wagon drill, Compressor, Hydraulic excavators & Tipplers etc. Bench height of 10m and minimum width of 10m are proposed to achieve the enhanced production target and the bench slope will be kept nearly vertical (80°) with horizontal. The operations will be on double shift basis with deployment of 100 mm diameter blast hole drills for loosening of hard rock mass, 2.1 m³ capacity excavators for excavation, 2.1 m³ & 1.5 m³ excavator for feeding and loading, 25 tonne to 35 tonne capacity dumpers for transportation of ROM ore to the screening and crushing plant and waste to the waste dump. There is one no. of crushing unit of 120 TPH & one mobile screening unit of 250 TPH exist in the lease area. One more mobile crusher of 250 TPH and mobile screening of capacity 250 TPH are proposed.

13. Land use:

Particulars	Area put on use at start of proposed period(ha)	Land use at the end of proposed period(ha)	Modification
Area under mining	6.5	7.066	
Waste dumping	1.138	1.838	
Mineral Storage	7.065	5.38	
Infrastructure	() 1.048	1.278	

Particulars	Area put on use at start of proposed period(ha)	Land use at the end of proposed Modification period(ha)
Workshop/Administrative building etc.		
Roads	0.824	1.024
Mineral Separation Plant	0.6	0.6
Magazine	0.05	0
Garland drain, Retaining wall, Settling Tank etc.	0.91	0.949
Greenbelt	1.29	1.29
Total	19.425	19.425

14. **Waste generation and management details:** Total 133800 t of OB materials will be generated from ROM and 186116 t of waste from re-handling of dump will be generated during plan period. A total of 68500 t of mineral reject will be generated from the ROM. As re-handling of Dump-1 will be continued in the plan period, dumping of generated waste will be carried out on dump-3. Maximum height of the terrace will be kept 10m and individual terrace slope will be maintained 37° and overall slope will be maintained 28° with the horizontal. No liquid effluent will be generated at mining site. Domestic waste water generated will be treated in septic tank followed by soak pit. This mine is based on zero discharge concepts. Protective measures like retaining wall, garland drain & settling tank have already been built up around the waste dump and quarry. However, maintenance and cleaning work will be continued during this plan period. In addition, retaining wall and garland drain have been proposed for waste dump.

15. **Baseline study details:** Baseline environmental data generation in and around Patabeda Iron & Manganese mines has been carried out during March to May, 2022 (summer season).

- **Ambient Air Monitoring** - Ambient Air Quality was monitored at the eight (8) locations, during the monitoring season with the frequency of monitoring for 2 days per week at each sampling station. The AAQ analysis indicates that the concentration of PM₁₀ varied from 52 to 80 µg/m³, PM_{2.5} from 31 to 50 µg/m³, SO₂ from 4.3 to 17.5 µg/m³, NO_x from 9.2 to 21.0 µg/m³ and Benzene, BaP, Ni, As, & Pb were found below detection limit.
- **Ambient Noise level** - Noise monitoring was carried out at 8 locations as per the standard prescribed by CPCB. Noise level varies from 42 to 71 dB (A) during Day time and 36 to 67 dB (A) during Night time, which are below the prescribed limits of CPCB.
- **Water Quality Status** - Water quality sampling was carried out at 8 locations as per the CPCB standards out of which 4 locations were of Surface Water & 4 locations were of Ground water.
- **Surface water Quality** - pH values varied between 7.05 to 7.21 while Turbidity varies from 0.03 to 5.9 NTU, Dissolved Solids varied from 158 to 258 mg/L, Dissolved oxygen varies from 5.2 to 6.8 mg/L, BOD varied from <1 to 3.0 mg/L and Chloride values varied between 8.0 to 12.0 mg/L. Iron values varied from <0.05 to 0.543 mg/L and Nitrate values varied from 1.05 to 1.93 mg/L..

- **Ground water Quality** - pH values varied between 6.90 to 7.61 while Turbidity ranged from 0.5 to 4.98 NTU. Dissolved Solids varied between 132 to 266 mg/l and total hardness varied from 89 to 161 mg/l. Chloride values varied between 9 to 16.0 mg/l. Calcium values varied between 15.0 to 36.0 mg/l, Zinc values varied from 0.050 to 0.261 mg/l & Lead, Copper, Manganese, Fluoride, Mercury, have been observed below detection limit.
- **Soil Characteristic** - Soil samples were collected once during study period from 4 locations within the study area. The bulk density of soil samples varies from 1.2 to 1.8 gm/cm³; while porosity varies from 34 to 42.5 %. Potassium ranges from 0.04 gm/cm³ to 0.18 gm/cm³, Sulphate ranges from 0.01 gm/cm³ to 0.02 gm/cm³, Nitrogen ranges from 0.07 gm/cm³ to 0.1 gm/cm³ and SAR ranges from 0.59 gm/cm³ to 0.75 gm/cm³.

16. Total water requirement & wastewater management: The total water requirement will be 30 KLD comprising 20 KLD for mining & dust Suppression, 5 KLD for greenbelt and 5 KLD for domestic use. No liquid effluent will be generated at mining site. Domestic waste water generated will be treated in septic tank followed by soak pit. Mine will be operated in 'Zero Discharge of liquid Effluent'.

17. Power requirement: The power requirement for the mining complex (including office) shall be around 50 KW. The supply of electrical energy for the mine site shall be sourced from TPWODL and 3.08 KW from Solar system, which has already been installed. Apart from it, around 1000 litres of diesel will be consumed for running the mines vehicles per month.

18. Rainwater harvesting details: Three numbers of settling ponds of capacities 1472 m³, 1176 m³ and 858 m³ has been constructed to arrest the surface runoff water in side lease area. A big catch pit of 55m length x 20m width and depth varying 5m to 10m has been constructed outside lease area for storage of rainwater. Additional garland drain of 280 m and retaining wall of 110m proposed for expansion.

19. Greenbelt details: A Green belt over 1.290 ha. has been developed by planting native species in consultation with the local DFO around the ML area. Over 1.411 ha. of land of existing dump slope, land between dump, pit and road has been planted with native plant species. A total of 18738 plants has been planted. A total of Rs 37.30 lakhs has been spent for plantation.

20. Employment details: Directly 138 persons and indirectly more than 300 people will be employed by the project.

21. Project cost: Total Cost of the Project is RS. 2000.0 Lakhs. EMP capital cost is RS. 50.0 Lakhs, and Recurring Cost is RS. 50.0 Lakhs and CSR Cost is 300.0 Lakhs.

SI No	Particulars	Capital Cost (in Lakhs)	Recurring cost (in Lakhs)
1	AIR POLLUTION CONTROL		
	Mobile water sprinkler	12.0	5.0
	Fixed water sprinkler	5.0	1.0
	Dry fog system for crusher & Screen	15.0	2.0
	Maintenance of Wheel Washing Facility	-	1.0

Sl No	Particulars	Capital Cost (in Lakhs)	Recurring cost (in Lakhs)
	EMC Manpower		10.0
	Misc.		1.0
	Sub-Total	32.0	20.0
2	WATER POLLUTION CONTROL		
	Construction of retaining wall/garland drain, check dam & Settling Pond	8.0	3.0
	Construction of water harvesting pond	4.0	1.0
	Maintenance of ETP & STP		3.0
	Misc.		3.0
	Sub-Total	12.0	10.0
3	NOISE POLLUTION CONTROL		
	PPE, Lubrication etc.	--	2.0
4	ENVIRONMENTAL MONITORING	--	10.0
5	PLANTATION	6.0	5.0
6	OCCUPATIONAL HEALTH MANAGEMENT	--	3.0
	Sub-Total	6.0	20.0
	Grand Total	50.0	50.0

22. Environment Consultant: The Environment consultant M/s **Srushti Seva Private Limited, Nagpur** 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 Srushti Seva Private Limited, Nagpur** along with the project proponent, the SEAC decided to take the decision on the proposal after receipt of the following from the proponent:

- i) The present proposal is for expansion in production of Iron ore whereas the material storage area and magazine area has been reduced and no area is proposed. Justify how the proposed area will be adequate for the proposed material storage and magazine and submit the layout showing the storage area, magazine area with area dimensions.
- ii) Details of previous rejects/wastes generated from previous production. Total proposed quantity of sub ore/waste is being planned to sell in the proposed expansion to be duly certified from Director of Steel and Mines.
- iii) Copy of mining plan and Consent to Operate indicating the approval of the selling/re handling the overburden/wastes.
- iv) Details of Over Burden (OB) generated in previous mining and its management. Further, explain the process of separation of sub ore from wastes, commercial utilization of collected sub ore after separation and its management.
- v) Detailed note on dump management, void area management and OB dumping.
- vi) Revised wildlife conservation plan along with its extension up to closure of mines duly certified by concerned DFO.
- vii) Detailed note on parking plaza for enhanced production and its management along with travel road radius for bigger truck movements. Further, submit a copy of permission from

Director of Steel and Mines, Govt. of Odisha declaring to use the parking as a part of the Mining lease area.

- viii) Details of surface RL and bottom RL of Mining lease area.
- ix) Detailed note on how OB will be used in back filling with its management and the quantity of saleable product to be sold.
- x) Compliance report of TOR points.
- xi) SOP for collection of samples for Air and Water.
- xii) Compliance to NEERI recommendations.
- xiii) The PP may submit the current status of Settling pond, analysis of settled solids, generation of fines/tailings and its management.

ITEM NO. 02

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S. OU INFRA PROJECTS PRIVATE LIMITED FOR RESIDENTIAL APARTMENT PROJECT "9 BOULEVARD" OVER A BUILT-UP AREA 1,49,879.37 M² AT MOUZA-RAGHUNATHPUR, TEHSIL-BHUBANESWAR DISTRICT-KHURDA OF SRI SIDDHARTH SEKHAR MOHAPATRA- EC

1. This proposal is for Environmental Clearance of M/s. Ou Infra Projects Private Limited for residential apartment project "9 Boulevard" over a built-up area 1,49,879.37m² At Mouza-Raghunathpur, Tahasil-Bhubaneswar District-Khurda of Sri Siddharth Sekhar Mohapatra.
2. **Category:**The project falls under category "B" or activity 8 (a)-Building & Construction Project under EIA Notification dated 14th September 2006 as amended from time to time.
3. **Project details:** The project was earlier granted Environmental Clearance for Plot area of 13,618.57 m² (3.365 acres) and Built-up area = 36,025.25 m² from (SEIAA), Odisha vide Reference No. 2587/SEIAA dated 15.11.2014. Further, the company name was changed from M/s M. J. Accretion Pvt. Ltd. to M/s. OU Infra projects Pvt. Ltd. in year 2021. Subsequently, Transfer of Environmental Clearance was done through SEIAA, Odisha vide File No.: SIA/OR/MIS/299810/2023 dated 27.09.2023. Certified Compliance Report has been obtained from MoEF CC, IRO (Bhubaneswar) vide Letter No. 109-1147/EPE/ dated 30.08.2023. As a part of proposed Expansion, the Plot area has become 19,929.30 m² (4.925 acre), and the total Built-up area will be 1,49,879.37 m².
4. **Location and connectivity:** The project is located at Mouza- Raghunathpur, P.S. Nandankanan, No.- 14, Tahasil- Bhubaneswar, District- Khurda, Odisha. The geo co-ordinates of the project is Latitude: 20°22'38.85"N and Longitude: 85°49'48.34"E. The nearest Highway is NH-16 which is 6 km in East direction from the project site, NH-316A is 6.8 km towards ESE direction, NH-316 is 8.8 km towards SSE direction, & Nanadakanan Road Site connecting road is adjacent to the project site in west direction. The nearest Railway Station being Bhubaneswar New Junction Station is about 0.5 km (East) away from the project site. Biju Patnaik International Airport is at 13.3 km (S) from project site.
5. **Building details:** The project comprises of the following facilities: Residential Dwelling Units (528 nos.), Community Facilities and Swimming Pool. There will be two towers i.e., Block A = 3BHK + 4BHK + 5BHK (180 Dwelling units), Block B = 3BHK + 4BHK + 5BHK (348 Dwelling units) with

Commercial and common amenity area. The maximum height of the Tower 103.5 m. The total plot area is 19,929.30 sqm and net plot area is 17,883.89 sqm. Total Built up area for the project will be 1,49,879.37 sqm.

6. Detailed area statement of the project:

S. No.	Particulars	Existing (As per EC accorded) (m ²)	Expansion (m ²)	Post Expansion (m ²)
1	Total Plot Area	13,618.57 (3.365 Acre)	6310.73 (1.559 Acre)	19,929.30 (4.925 Acre)
2	Net Plot Area	13,101.28	4,782.61	17,883.89
3	Permissible Ground Coverage (@40% of net plot area)	5,240.512 (@40% of net plot area)	1,913.044	7,153.556 (@40% of net plot area)
4	Proposed Ground Coverage	4,860.12 (@37.1% of net plot area)	2,195.61 (@45.91% of net plot area)	7,055.73 (@39.45% of net plot area)
5	Permissible FAR	36,028.52 (@2.75 of net plot area)	71,274.82	1,07,303.34 (@6 of net plot area)
6	Proposed FAR	36,025.25 (@2.749 of net plot area)	70,997.01	1,07,022.26 (@5.98% of net plot area)
	Residential FAR	35,214.04	70,890.11	1,06,104.15
	Commercial FAR	811.21	106.9	918.11
7	Non-FAR area	9,535.71	33,321.4	42,857.11
	Stilt area	4,466.21	9,702.62	14,168.83
	Basement area	5,069.50	13,670.31	18,739.81
	Service Area	NIL	9,888.83	9,888.83
	Club House Service Area	NIL	59.64	59.64
8	Built-up Area	45,560.99*	1,04,318.38	1,49,879.37
9	Landscape Area	2,725.70 (21% of the Net Plot area)	651.41	3,377.11 (@18.88 % of Net Plot Area)
10	Maximum Height of the Building (m)	49.50	54.0	103.50
11	No. of Dwelling unit	180	348	528

7. **Water Requirement and waste water generation:** The total water requirement will be met from Ground water source which is approx. 489 KLD. Total domestic water requirement is 474 KLD, out of which freshwater requirement is approx. 312 KLD & flushing water will 162 KLD. The project will generate approx. 412 KLD of wastewater. The wastewater will be treated in an onsite STP of 563 KLD capacity. The treated effluent will be reused for flushing & horticulture partly. Surplus treated effluent will be discharged to external sewer.

	Description	Occupancy	Rate of water demand (LPCD)		Total Water Requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total
A.	Domestic Water						
	• Residents	3,378	90	45	304.02	152.01	456.03
	• Staff (Maintenance, Communities & Commercial, etc.)	200	25	20	5	4	9
	• Visitors (Communities & Commercial, etc.)	612	5	10	3.06	6.12	9.18
					312.08 KLD say 312 KLD	162.13 KLD say 162 KLD	474.21 KLD say 474 KLD
Total Domestic Water = 474 KLD							
B.	Make-up water for Swimming Pool	15.0 x 6.50 m			1 KLD		
C.	Horticulture	3,377.11 m ²	4 l/sqm		14 KLD		
Grand Total (A+B+C) = 489 KLD							

Domestic Water Requirement	474 KLD
• Fresh	312 KLD
• Flushing	162 KLD
Waste water [@80% fresh + 100% flushing]	250 + 162= 412 KLD
STP Capacity (20 % higher than waste water)	563 KLD

S. No	Description	Value as per earlier EC (KLD)	Expansion (KLD)	Total Quantity (EC accorded +Expansion) (KLD)
1.	Total water demand	182.7	306.3	489
2.	Domestic Water Demand	150.6	323.4	474
3.	Fresh water	115.4	196.6	312
4.	Flushing water	50.2	111.8	162
5.	Waste water	132.48	279.52	412
6.	STP Capacity	150	+350	563

8. **Rainwater harvesting details:** Total of 8 Rainwater Harvesting pits are proposed for artificial ground water recharge.
9. **Parking Proposed:** Total parking proposed is 551(Basement)+461(Stilt)+198 (Surface) = 1,210 ECS
10. **Power Requirement:** The power supply will be supplied by State Electricity Board. The requirement load for the project will be 3,728 kVA. There is provision of 2 nos. of DG sets total 1500 kVA capacity (i.e. 2 x 750 kVA) for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

	EC accorded	Expansion	Total (EC accorded + Expansion)
Power Requirement	1,460 kW	+2,268 kW	3,728 Kw
D.G sets	1 x 750 kVA	+1 x 750 kVA	1500 kVA (2 x 750 kVA)

S. No.	DESCRIPTION	SAVINGS (kVA)
1.	Solar based Lighting will be done in the common areas, stair cases, landscape areas, signage, entry gates and boundary walls etc. (5% from total power load) Norms for Rooftop PV systems Installation: Solar power back of a minimum generation capacity of 5% of the connected load (OR) 20 Watts/sq.feet on available roof space, whichever is less.	86.4 kVA
2.	LEDs will be used in all dwelling units.	85 kVA
3.	Outdoor and common are lighting shall be LED	15 kVA
Total Energy Saved		186.4 kVA
Total Power load = 3,728 kVA Energy saved through various provisions =186.4 kVA TOTAL ENERGY SAVING = 10 %		

11. **Solid waste generation:** The total solid waste generation will be 1,888 kg/day as per the following table.

S. No.	Description	Occupancy	Waste Generated (kg/capita/day)	Waste Generated (kg/day)
1.	Domestic Solid Waste			
	Residents	3,378	0.5	1689
	Staff	200	0.25	50
	Visitors	612	0.15	91.8
2.	Horticultural Waste (0.82 acre)	@ 0.2 kg/acre/day		0.243
3.	STP Sludge	Waste water x 0.35 x B.O.D difference/1000		56.83
Total Solid Waste Generation = 1,887.873 say 1,888 kg/day				

12. **Greenbelt:** Total green area measures 3,377.11 m² i.e. 18.88% of the net plot area which will include Plantation area=2,026.26 m² (11.33%) + Lawn area=1,350.85 m² (7.55%). No. of trees required 224 Nos. Total no. of trees proposed is 250 Nos.

13. **Project cost:** Total Project cost is INR 256 Cr. Including land and development cost. EMP cost includes capital cost of 81.5 lakhs and recurring cost of 24.85 lakhs.

EMP COMPONENT	EMP CAPITAL COST (INR LAKH)	EMP RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	50	6
Rain Water Harvesting Pits	15	3
Solid Waste Management	3.5	5
Environmental Monitoring	0	10
Green Area/ Landscape Area	3	0.75
Others (Energy saving devices, miscellaneous)	10	0.15
Total	81.5	24.85

14. **Environment Consultant:** M/sGrass 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., 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:

- i) Clarification regarding the discrepancy/mismatch in plot/built up area in previous EC and proposed application.
- ii) Copy of document showing By-Laws that there should be 15% of total plot area for greenbelt. Further, the project proponent shall increase the greenbelt percentage up to 20%.

- iii) Copy of permission from Chief Engineer, Drainage for treated waste water discharge into the nearby drain.
- iv) Copies of all clearances such as CTE, CTO from Pollution Control Board and other clearances obtained from the approved authorities.
- v) Calculate the Parking Area in Percentage format.
- vi) Detailed note on the Chronology of events from the previous proposal to the current proposed.
- vii) Comparative table showing all environmental parameters of existing and proposed project.
- viii) Status of the project in regard to how much has been constructed as per Previous EC and what is proposed as per Revised proposal.
- ix) Distance certificate from Eco-Sensitive Zone (ESZ) and Sanctuary from concerned DFO.
- x) Present status of the existing project.

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

- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site and extent of construction activity.
- iv) Road connectivity to the project site.
- v) Drainage network at the site.
- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Any other issues including local issues.

ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S BIVAB DEVELOPERS PRIVATE LIMITED FOR CONSTRUCTION OF B1+B2+G+11 STORIED RESIDENTIAL AND B1+B2+G+8 STORIED COMMERCIAL BUILDING OVER AN BUILT-UP AREA 66662.28 SQ. MT. LOCATED AT: SIPASURUBILI, DIST - PURI OF SRI BINAY KRISHNA DAS - EC

1. This proposal is for Environmental Clearance of M/s. Bivab Developers Private Limited for construction of B1+B2+G+11 storied residential and B1+B2+G+8 storied commercial building over a built-up area 66662.8 sq.mt. located at: Sipasurubili, Dist - Puri of Sri Binay Krishna Das.
2. **Category:** This project falls under Category "B", Project or Activity 8(a) - Building and Construction projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
3. **Location and connectivity:** The project site is located at Plot no. 605, 606, 607, 608 & 609, Mouza- Sipasurubili, Dist- Puri, Odisha. The geo coordinates of the project are: Latitude and Longitude of 4 corners of the site (19° 47' 28.1" N, 85° 46' 57.7" E), (19° 47' 26.7" N, 85° 46' 53.9" E), (19° 47' 31.5" N, 85° 46' 52.4" E) and (19° 47' 32.4" N, 85° 46' 55.3" E) at four corners respectively. The project site lies adjacent to NH-316, 6 km from Sri Jagannath Temple of Puri, 1km from Sea Beach of Puri, 177m from Dhaudia River (Nua Nai), 1.18 km from Dhaudia River

Confluence with Sea and 1.07 km from Bay of Bengal. The site is well connected with Bus Stand of Puri at 8.3 km, 7.3 km from Railway Station of Puri, 34.5 km from Sun Temple of Konark and 63 km from Biju Patnaik International Airport of Bhubaneswar. The project site is covered under Survey of India Toposheet no. 74E/13 and kism of the land is designated as Gharbari.

4. The project site is not located within the Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC and CRZ area.
5. Total Plot area measures 15909.93m² (3.93 acre) and the proposed built-up area is 66662.28 m². The project comprises of: Residential Area and Commercial Block.
6. Composition of Composition of Residential Area
 - 3 Blocks : with 12 Floors (G+11).
 - 1 Block : with 11 Floors (G+10).
 - Total no. of Dwelling Units: 332
 - Studio Apartment: 44 nos.
 - 1 BHK: 180 nos.
 - 2 BHK: 108 nos.
7. Broad Facilities for Commercial Block
 - 1 Block with 9 floors (G+8).
 - 44 Shops
 - 3 Banquet Halls
 - Hotel with 68 Guest Rooms
 - Restaurant and Food Court
 - Spa and Gym

8. Area Statement:

S. No.	PARTICULARS	AREA (sq.m.)
i)	Ground Coverage	4702.88
ii)	Open Parking	291.37
iii)	Green Belt	3200
iv)	Set Back	1507.29
v)	Road & Misc.	6208.39
	Total plot Area	15909.93

9. **Water requirement:** The total water requirement during construction phase is 48 KLD which will be met from Ground water source. Bore well (5 nos.) have been proposed to fulfil the water requirement for which permission has been accorded by CGWA. During operational phase the water requirement is 270 KLD. The source of water during operation phase will be ground water. Out of total requirement of 270 KLD; 50 KLD will be met through fresh water (from ground water) and 220 KLD from recycled treated waste water from STP.
10. **Wastewater details:** The project will generate approx. 232 KLD of wastewater. The wastewater will be treated in STP of 250 KLD capacity which will be used for both commercial and residential units. The treated effluent (approx. 220KLD) will be reused for flushing, floor washing, chiller and

gardening. Hence, there will 100% utilisation of treated waste water. During monsoon season, 30 KLD treated water will be discharged to the NH drain passing adjacent to the plot.

11. **Rainwater harvesting details:** Rain water @ 18360m³ per year will be harvested considering 1500 mm of annual rain fall over Ground Coverage (4700 m², Run Off Coefficient 0.9), Open Parking (291 m², Run Off Coefficient 0.8), Road (8922 m², Run Off Coefficient 0.8), Green Belt (3200 m², Run Off Coefficient 0.2). There will be 12 nos. of recharge pits each having dimension of 4.5 m length X 1.5 m width X 6 m depth. The excess storm water will be diverted through storm water drain to the external drainage system. The entire site shall be sub divided for recharging structures. It has been proposed to provide recharge pits for the desired purpose. Through the internal drainage network rain water will be diverted into percolation chamber to the recharge well.
12. **Parking details:** Total parking area provided will be 17552.77 Sq. Mt. The parking area will be provided in the basement and open parking area. Details of parking break up and ECS is as follows:

Parking Area Break Up

Particulars	Basement - 1	Basement - 2	Open/ Surface Parking	Total	Remarks	ECS (in nos.) (NBC)
Commercial Parking (in m ²)	2095.58	5675.71		7771.29		243
Residential Parking (in m ²)	4559.47	4930.64		9490.11	Residential Parking: 9053.12 Sq. M. Residential Parking (EWS): 436.99 Sq. M.	297
Open Parking/ Surface Parking (in m ²)			291.37	291.37		13
				17552.77		553

13. **Power Requirement:** There will be 2 separate transformer units for the residential and commercial block respectively. The electricity requirement for the project will be supplied from the TPCODL, Puri, Odisha. The total electrical load for the operation is expected to be 2000 KW or 2.5 MVA. For backup power, 2 nos. x 550 KVA DG will be installed within the premises. The solar panels will also contribute to 5% of the total electricity requirement of the project.
14. **Fire fighting Installations:** A peripheral road of 7.5m width having a load bearing capacity of 45 tons has been proposed for any fire emergency. Another 7.5m wide road will be running internally connecting the buildings which will also have a load bearing capacity of 45 tons and the fire tender path will be kept clear of any type of big plantations. 11th floor of every building will have a refuge area towards the external wall of the building where the people wait for the fire fighters in case of any emergency. The width of the staircase has been kept 1.5 m to 2m for easy movement during the time of any emergency. An external fire staircase with fire resistant doors to with stand fire up to 2-3 hours have been proposed for fighting such eventualities. Provision for wet risers and dry risers have all been provided for having sufficient measures to fight fire emergencies.



15. **Solid waste generation:** The waste generated would be approximately 574 Kg per day, including both the residential and commercial units. Out of which 230 Kg (574 x 40%) will be organic waste and 344 Kg. (574 x 60%) will be inorganic waste. Inorganic waste will be disposed through Puri Municipality. Individual waste bins will be installed at approach points for collection of inorganic waste by the Municipal workers and for organic waste a composting yard will be provided at ground floor with a Bio-Mechanical Waste Composter machine. Disposal of solid waste through segregation, collection and treatment and disposal in an environmentally sound manner to minimize the adverse impact on the environment. Segregation of waste in to three streams, Wet (Biodegradable), Dry (Plastic, Paper, metal, wood, etc.) and domestic hazardous wastes (diapers, napkins, empty containers of cleaning agents, mosquito repellents, etc.) and handover segregated wastes to authorized rag-pickers or waste collectors or local bodies.
16. **Greenbelt:** Green belt will be developed over an area of 3200 sq. mt. which is 20% of the total plot area. Total 800 nos. of plants to be planted and the spacing will be 2 m. for trees, 1 m. for shrubs. The plantation mainly will be carried out along the boundary and the open space. It will be 3 tier plantations.
17. **Traffic study** - As per the traffic monitoring carried out on Junction Point of NH-316 & SH-59 the traffic density on the junction will be 69 vehicles per hour equivalent to 72.3 PCU per hour. The Level of service is V/C = 0.06; LOS- A (Excellent). Existing road is found adequate for the present traffic scenario including the additional traffic due to the proposed project. From the study it can be observed that the level of service on the road will remain unchanged due to the proposed the construction project.
18. **Project cost:** Total estimated cost of the proposed project is Rs.112.46 Cr. the capital cost for EMP is Rs.45 Lakh and the recurring cost for EMP is Rs.12 Lakh per annum.

Proposed Budgets for Environmental Protection Measures (Capital Cost)

Sl. No.	Particulars	Amount (Rs. in Lakhs)
1	Installation of STP within the project site	20
2	Construction of Rain Water Harvesting structure and recharge pits	8
3	Plantation along the project boundary and transplantation of existing trees in the green belt area	5
4	Construction of Surface Water Drains	4.5
5	Construction of stack for DG sets	3.80
6	Solid waste Management	3.8
Total		45.1

Proposed Budgets for Environmental Protection Measures (Recurring Cost)

Sl. No.	Activities	Allocated Budget (in Rs.)/ Annum
1.	Maintenance of STP	4,00,000/-
2.	Plantation and maintenance of the green belt and avenue plantation	3,00,000/-
3.	Regular maintenance of DG set and monitoring of DG stack	3,00,000/-
4.	Environmental Monitoring	2,00,000/-
Total		12,00,000/-

19. **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, **M/s Kalyani Laboratories 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:

- i) Clarification from District Collector or WATCO indicating that the project location is not coming under sweet water zone.
- ii) The water balance needs to be revised from an expert to justify the amount of water to be re-utilized in the chiller.
- iii) The bottom RL of Rainwater Harvest recharge pits, bottom RL of STP and Ground water table RL during the summer and rainy season. Ensure that the difference between both RLs should be at least 1m gap to prevent seepage.
- iv) Traffic study report vetted by institute of repute.
- v) Mitigation plan for management of sand deposition in drains due to wind action.
- vi) Since, the exit gate is common for both residential and commercial purpose, it needs to be widened to 7.5m.
- vii) NOC from CGWA and permission from the WR Department. Govt. of Odisha for usage of ground water for commercial purposes.
- viii) Location of the project superimposed in CRZ map. Clarification from the CRZ authority that the project is not coming under the CRZ area.
- ix) Structural Stability Certificate from a reputed institute.
- x) Copy of approval of the project by Puri Konark Development Authority (PKDA).
- xi) Permission from NH authorities need to be obtained for utilization of their drain for discharge of excess rainwater.

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

- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site.
- iv) Road connectivity to the project site.
- v) Drainage network at the site.
- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Any other issues including local issues.

ITEM NO. 04

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR GIRISOLA STONE QUARRY WITH PROPOSED EXCAVATION OF 5600 CUM/YEAR OF STONE OF TAHASILDAR CHIKITI HAVING AN AREA OF 20.510 HA. LOCATED AT KHATA NO: 897, PLOT NO: 1, 2, 3, 4, AT- GIRISOLA, TAHASIL - CHIKITI, DISTRICT- GANJAM OF TAHASILDAR, CHIKITI - EC

The SEAC observed that mining lease area is covered with forest growth as seen in KML file. The SEAC decided to consider this proposal for EC after joint verification from forest officials regarding the forest growth and mining activity in proposed lease area.

ITEM NO. 05

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR AMBAPUA SAND QUARRY OVER AN AREA OF 6.377 HA PROJECT IS LOCATED AT KHATA NO. 694, PLOT NO. 01, 71, 71/2179 & 1289, IN VILLAGE AMBAPUA, TAHASIL - BELLAGUNTHA, DISTRICT – GANJAM OF SRI SUNIL KUMAR MOHANTY - EC

The Project Proponent didn't attend the meeting. The project proponent vide letter no: 4825 dated 06/11/2023 has informed that due to some technical issue of Ambapua Sand Quarry, the proposal may be allowed for rejection. The SEAC decided to reject the proposal and return the proposal to SEIAA as per the request from PP.

ITEM NO. 06

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KALINGADOLA SAND BED, OVER AN AREA 6.639 HA, KHATA NO- 270, PLOT NO- 575 AT- KALINGADOLA, TAHASIL- DIGAPAHANDI, DIST- GANJAM OF SRI PRAVA RANJAN MISHRA - EC

The Project Proponent didn't attend the meeting. The project proponent via E-mail on dated 11/11/2023 has informed that as per the decision of SEAC committee, the proposal shall be considered after submission of Replenishment Study Report. Since EDS has not been raised, the Project Proponent has requested to facilitate uploading of the Replenishment Study Report in the portal as discussed in last meeting. The SEAC decided to take decision on the proposal after receipt of Replenishment Study Report.

ITEM NO. 07

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KUSUMI STONE QUARRY OVER AN AREA OF 5.668 ACERS OR 2.294 HECTARES BEARING KHATA NO. 325, PLOT NO. 147/P IN THE VILLAGE KUSUMI, TAHASIL KUKUDAKHANDI IN DISTRICT GANJAM, STATE ODISHA (SUBMITTED UNDER CLUSTER APPROACH WITH TOTAL CLUSTER AREA 11.139 HECTARES WITH CONSISTING OF 5 STONE QUARRIES) OF SRI SURYA NARAYAN SWAR - EC

The Project Proponent didn't attend the meeting. The project proponent via E-mail on dated 15/11/2023 has informed that the proposal consists of 7 stone quarries but the proposal was not applied for the entire cluster. Hence, the proposal may be allowed for rejection. The SEAC decided to reject the proposal and return the proposal to SEIAA as per the request from PP.



MEMBER SECRETARY, SEAC