AGENDA NO.131.01	
Proposal No.	SIA/OR/MIS/275332/2022
Date of application	06.07.2023
File No.	275332/95-MIS/07-2022
Project Type	Proposal for fresh EC
Category	B
Project/Activity including Schedule No.	8(a) Building and Construction projects
Name of the Project	Proposal for grant of EC for Building and Construction project of Diamond City Cuttack" Residential Apartment along with Commercial Building Project Located at Plot No2340, 2340/3563, 2343, 2333/5410, 2343/5411, 2344, 2334/6142, 2346/5962, 2347, 2347/5956, 2348, 2248/5496, 2248/5497 over built-up area of 54514.323 sqm located in the Village: Pratapnagari, Nuagada, District: Cuttack of M/s. Eastern Estate Construction and Developers Pvt. Ltd of Sri Sanjeev Kumar
Name of the company/Organization	Sri Sanjeev Kumar (Director) M/s Eastern Estates Construction and Developers Pvt Ltd
Location of Project	Village-Barapada, P.O. Garudagaon Tangi, District -Cuttack, Odisha.
ToR Date	
Name of the Consultant	M/s. OCEAO-ENVIRO Management Solutions (India) Pvt. Ltd

Proposal in brief: The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

1. The proposal is for "Diamond City Cuttack" Residential Apartment along with Commercial Building Project Located at Plot No2340, 2340/3563, 2343, 2333/5410, 2343/5411, 2344, 2334/6142, 2346/5962, 2347, 2347/5956, 2348, 2248/5496, 2248/5497 over built-up area of 54514.323 sqm located in the Village: Pratapnagari, Nuagada, District: Cuttack of M/s. Eastern Estate Construction and Developers Pvt. Ltd of Sri Sanjeev Kumar.
2. The project falls under category "B" or activity 8 (a) - Building & Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Eastern Estate Construction & Developers Pvt. Ltd. for Residential Project "Diamond City, Cuttack" on plot area 10,039.85 m^2 /2.48 acres located at Village: Pratapnagari, Nuagada, District: Cuttack, Odisha and total built up area – 54,513.32 m^2. A part of project was approved for the built-up area i.e. 16,161.56 sq.m vide letter PLN-BDP-420/15 and construction was started based on that, which was less than 20,000 sq.m. Now the planning has been revised and the estimated Built-up area is 54,513.32 sq.m (including all FAR, Non-FAR and other services), which is more than 20,000 sq.m area which attracts the EIA notification 2006 and its amendments thereof.
4. **Location and Connectivity** – The proposed site is located at Village: Pratapnagari, Nuagada, District: Cuttack, Odisha. The Geographical co-ordinate of the project site are Latitude: 20°23'31.26"N & Longitude: 85°53'9.06"E. The site is very near to AH 45 (NH 16 Bhubaneswar Road) is approx. 0.06 m in SW direction. Ring Road is approx. 1.92 km in ENE direction. The nearest railway station is New Bhubaneswar Railway Station approx. 5.337 km in West direction from the project site. Biju Patnaik

International Airport is at a distance of approx. 17.284 km in SW direction from the project site. Chandaka-Dampara Wild Life Sanctuary is about 6.9 km in NW direction. Nandankanan Wild Life Sanctuary is about 5.9 km in W direction.

4. The site is coming under Cuttack Municipal Corporation.
5. The plot area of the project site is 10039.85 m^2 (2.48 acres) and estimated built-up area of the project is 54514.323 m^2. Total population of project is 2,425 persons (including Residents + Staff + Visitors).
7. The project facilities will develop 388 Dwelling Units which includes three blocks (2B+S+12), one block (B+S+8), Commercial (S+5) & Club House (2B+2) & other services and amenities.
8. The building details of the Project:

S. No.	Particulars	Details
i)	Total Plot Area (Acres)	2.48
ii)	Total Plot Area (Sq.m)	10039.85
iii)	Total FAR Area (Including Services)	40346.04
iv)	Achieved FAR	4.0
v)	Ground Coverage (Permissible) 40% (sq.m)	4015.94
vi)	Achieved Coverage (Permissible) 38.50% (sq.m)	3865.34
vii)	Non Far (Combined Stilt and Basement built-up area)	12168.261
viii)	Miscellaneous Area (Guard Room, STP, UGT etc.)	2000
ix)	**Total Built-up Area (3+8+9)**	**54514.323**
x)	Green belt Area (sqm) (25% of total plot area) – **Revised in ADS**	2514.85 Sq.m (25% of Total Plot Area)
xi)	Paved Open Green & Avenue Green area (sq.m) (13% of total plot area)	1305.18
xii)	Road and Open Area	1857.38
xiii)	No. of DU	388.0
xiv)	Total Project Cost (Land + Development Cost)	75 Crores
xv)	No. of DG sets for Backup (KVA)	1x62.5+2x400
xvi)	Total Power Requirement KVA	2300.0
xvii)	Maximum Height of Building (m)	46

9. **Water Requirement** – The total water requirement will be 280 KLD. The fresh water requirement will be approx. 180.5 KLD, which will be provided by Bhubaneswar Municipal Corporation. The project will generate approx. 235 KLD of wastewater. The wastewater will be treated in onsite STP of 280 KLD capacity. Treated wastewater will be re-used for flushing, landscaping, floor & car washing. Surplus treated effluent will be discharged to external sewer with permission i.e.11.5 KLD in non monsoon period.
10. **Total no. of Rainwater Harvesting pits** – 10 nos. for the project.
11. **Power Requirement** - The total power requirement for the Residential Project is 2300 kVA, The Source of Power supply will be from (Odisha State Electricity Board). There will be provision of 3 no. of DG sets of total capacity 862.5 KVA (1×62.5+ 2×400 KVA each) for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion. Provision of solar power for the project are Solar water heater (167.18kVA – 7.2% of total power consumption) and solar street lights (34.5 kVA – 1.5% of total power consumption).
12. **Solid waste Management** - The solid waste generated from the project shall be approx. 591 kg per day. The solid waste will be collected then segregated at source. Adequate number of coloured bins (green, blue & dark grey) separate for biodegradable and non - biodegradable are proposed to be provided at the strategic locations within the site. STP sludge is proposed to be used for horticultural purpose as manure. Landscaping waste/

Biodegradable waste will be composted by Organic Waste Converter 100 sq.m area has been proposed for OWC. Spent oil from DG sets will be sold to CPCB authorised recyclers.

S. No.	Category	Kg per capita per day	Waste generated (kg/day)
i)	Residents	1940 @ 0.5 kg/day	**970**
ii)	Staff	107 @ 0.25 kg / day	**26.75**
iii)	Visitor	281 @ 0.15 kg /day	**42.6**
iv)	Landscape waste	0.8184 @ 0.2 kg/acres	**0.16**
Total Solid Waste Generated			**1039.35 kg/day**

Note: Sludge from STP: 14.68 Kg/day, which will be dried and used as Manure in landscaping.
(Sludge Calculations = (Inlet BOD- Outlet BOD) x WW x 0.25
(= (280 – 30) x 235 x 0.25 = 14.68 Kg/day)

13. **Green Belt – As per ADS submitted, revised Total Greenbelt Area** = 2014.00 Sq.m (Greenbelt) + 500.85 Sq.m (Avenue Plantation) = 2514.85 Sq.m (25% of Total Plot Area).
14. Total Green area including paved green / open area measures 3312 m^2 i.e. 33 % of the total area. In which peripheral green belt including external and internal periphery area is 2007.97 (20 % total area), Open Pavered Green, Terrace Green and Vertical green area is 1003.985 (10 % total area) and Lawn Green Area 301.19 (3% of total area). Total no. of trees proposed = 132 Nos.
15. **Parking Details – Revised parking area** is submitted in ADS i.e. 13109sq.mt. and ECS - 396, 2W - 156, Bicycle-120. Total Parking Area Provided - 10694.10 Sq. Mt / 334 ECS.
16. **Rain Water harvested** through 10 nos. of Rain Water recharging pits.
17. **Fire fighting Installations:** Fire fighting system will be installed as per recommendations of the Fire fighting Officer, Odisha and as per the provisions given in Part-IV of National Building Code of India -2016 and relevant BIS specifications.
18. The project cost is 75 crores and Environmental Monitoring Programme Cost – 241 lakhs, which is approx. 3 % of total project cost.
19. The project proponent along with the consultant **M/s OCEAO-ENVIRO Management Solutions (India) Pvt. Ltd., Ghaziabad, U.P - 201012** made a detailed presentation on the proposal on 03.08.2022. The SEAC decided to take decision on the proposal after receipt of certain information / documents from the proponent followed by site visit of Sub-Committee of SEAC. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Structural Stability certificate from appropriate authority as per CDA guidelines be submitted and vetted from reputed institute with reference to approved original plan and the revised plan approved.	Structural drawings are being vetted by BIT Engineering College, Sindri, and Government of Jharkhand as per CDA guidelines. The final drawings are under process and will submit in the due course of time. Affidavit regarding the same is attached with the reply. PO and Receipt is attached as an **Annexure (a)**.
ii)	Separate two entry and exit gates to be made for residents and commercial.	Commercial area is planned for the person is adding inside the residential project. Although for access control, separate entry/exit gates for commercial with boom barriers are provided. Parking plan with marking of separate entry and exit gates for residents and commercials is attached as **Annexure (b)**.
iii)	Certificate from Charted Civil Engineer how much construction has been made. Construction status with	Civil Engineer certificate is attached as an **Annexure C**.

	reference to original plan and revised plan.	
iv)	Comparative statement in terms of physical features in original plan and present plan.	Comparative area statement in terms of all the salient features is attached as **Annexure (d)**.
v)	Parking in terms of space and ECS for 4 wheelers, 2 wheelers including bicycles be calculated separately for dwellers & visitors (floating population) and also for commercial complex the norm as well and showing it in the layout map & be submitted since provision of 356 ECS against 388 dwelling units proposed.	Detailed parking calculation and parking plan is attached as **Annexure (e)**.
vi)	Detailed calculation of Rain Water Harvesting and Layout showing Rainwater Harvesting pits.	Detailed Rain water harvesting calculations and RWH plan is attached as **Annexure (f)**.
vii)	Layout map showing the treated water fallout to nearest drain and it's distance.	The Distance from our project site to nearest public drain is 30m which falls in the service road of NH-16 on our own cost shall be developed by PP. Drainage Map showing terminal discharge is attached as **Annexure (g)**.
viii)	Layout of internal drainage map and their fallout to external public drain.	Map showing internal drainage and their fallout to external public drain is located at ROW of service road of NH-16 is attached as **Annexure (g)**.
ix)	Copy of permission of the concerned authority of the drain / sewer to discharge the treated water from project to the nearby drain.	NOC from CDA regarding the discharge of the treated water is attached as **Annexure (h)**.
x)	Reduce discharge of treated water to drain.	Revised water balance diagram is attached as **Annexure (i)**.
xi)	A detailed write up with justification as to why this case will not be treated as violation case.	Justification for being non violation case is attached as **Annexure (j)**.
xii)	Traffic study be undertaken at intersecting points with NH from a reputed Institute or vetted by a reputed Institute be submitted.	Traffic study duly vetted by School of Civil Engineering, KIIT Deemed to be University, Bhubaneswar is attached as an **Annexure (k)**.
xiii)	Impact/ effect of change in ground coverage due to revised plan and to be shown in the layout drawing with dimension.	Comparing Area Statement comparing the ground coverage is attached as **Annexure (l)**. According to Old Drawing, Ground coverage is 35% out of 40% of the Total Plot area. There is no significant change in the ground coverage.
xiv)	A comparative statement of original plan vis- a - vis the revised plan with super imposition of the revised one on the original one be submitted.	Comparative area statement attached as annexure (d) and Superimposed plan is attached as **Annexure (m)**.
xv)	Quality of underground water	Test report is attached as **Annexure (n)**.

xvi)	To explore whether Puri canal be source of domestic water since it is at 340 mtrs with provision of WTP.	There is no provision of supply from the Puri canal supply. Henceforth, we have applied to CGWA for fresh water supply dated on 10.11.2021 till the Cuttack municipal Corporation does not start. Application of the same is attached as **Annexure (o).**
xvii)	The PP to submit sabik RoR with kisam, Hal RoR with kissam for the project area to rule out the investment of Forest/DLC land.	Gharbari documents are attached as **Annexure (p)**.
xviii)	To submit the Fire Safety recommendation of the State Government Fire wing.	Fire recommendation is attached as **Annexure (q)**.
xix)	To submit the plan for Ventilation, lightning and air conditioning of lift from lowest basement floor to terrace floor.	Ventilation, lightning and air conditioning plan for lift from lowest basement floor to terrace floor is attached as an **Annexure (r)**.
xx)	Provision of solar power for the project.	Solar water heater (167.18kVA – 7.2%) and solar street lights (34.5 kVA – 1.5%) are proposed all over the project. Calculated Quantum of the project is attached as **Annexure (s)**.

20. The proposed site was visited by the sub-committee of SEAC on 14.11.2022. Following are the observations of the sub-committee and proponent needs to submit relevant documents as below:
    i. Structural Stability certificate vetted from reputed institute.
    ii. Separate two entry and exit for four wheelers, 2 wheelers including bicycles for dwellers & visitors and also for commercial complex.
    iii. Detailed calculation of Rain Water Harvesting and layout showing Rainwater Harvesting pits.
    iv. Separate Parking for residents, guests and commercial
    v. Lay out map for entire drainage system for planned four blocks including commercial unit
    vi. Copy of permission of the concerned authority of the drain / sewer to discharge the treated water from project to the nearby drain.
    vii. Traffic study be undertaken at intersecting points with NH from a reputed Institute or vetted by a reputed Institute be submitted.
    viii. Fire fighting plan to be submitted along with fire safety recommendation.
    ix. Details of solar power calculation, generation and use in % of total power.
    x. Permission for drawing ground water from concerned authorities.
    xi. Location, Source and utilisation/ disposal of STP effluents.
    xii. Details of solar power calculation, generation and use in % of total power
    xiii. Details of Land documents, Kissam, conversion, etc., if any.
    xiv. Stack height vs building height may be furnished.
    xv. Layout for green belt.

21. The proponent has already submitted most of the information and documents as desired by the sub-committee of SEAC. However, they need to submit the following information as desired by the sub-committee of SEAC.
    a) Separate Parking for residents, guests and commercial
    b) Permission for drawing ground water from concerned authorities.
    c) Stack height of DG Set vs building height may be furnished.
    d) Layout for green belt.

22. The Committee opined the following:

i. The proponent has clarified that a part of project was approved for the built-up area i.e. **16,161.56 sq.m** vide letter PLN-BDP-420/15 and construction was started based on that, which was less than 20,000 sq.m. The current construction is 1673.84 sq.m till date which is based upon old drawing and does not exceed the permissible limit approved. Now the building plan has been revised and approved by CMC vide letter no.1130 (PLG)BP/CMC dated 13.06.2022 over plot area 2.48 acre with the estimated built-up area 54,513.32 sq.m (including all FAR, Non-FAR and other services), which is more than 20,000 sq.m area which attracts the EIA notification 2006 and its amendments thereof. The project proponent claims that it will not be treated as a violation case as they have started constructed activity for the project having built-up area less than 20,000 m^2 as per the building plan approved for built-up area of 16,161.56 sq.m. However, they have not submitted copy of building plan approval letter for built-up area of 16,161.56 sq.m. Moreover, justification given by the proponent is silent about whether the proposed project of built-up area 54,513.32 sq.m will be constructed over the foundation made by the project for the built-up area of 16,161.56 sq.m. If, this will be the fact, than the project proponent had taken building plan approval for built-up area less than 20,000 m^2 just to avoid Environmental Clearance when the actual built-up area 20,000 m^2. Hence, the project proponent needs to submit certificate from the CDA that the proposed project of built-up area 54,513.32 sq.m will not be constructed over the foundation made by the project for the built-up area of 16,161.56 sq.m and this will be separate project within the same premises.

23. The SEAC in its meeting dated 13.01.2023 decided to take decision on the proposal after receipt of following information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Separate Parking for residents, guests and commercial	Parking breakup with its drawings are attached as an **Annexure I**.	Parking plan along with Parking area calculation is attached as Annexure-1
2.	Permission for drawing ground water from concerned authorities.	Permission for drawing ground water from CGWA has already been applied and it is in advanced stage under process which is likely to be obtained within 10-15 days. Also, we had submitted the ground water abstraction charges for withdrawing the ground water to CGWA, details of abstraction charges is attached as an **Annexure II**.	Application for Issue of NOC to Abstract Ground Water (NOCAP) is in process and details of abstraction charges is attached.
3.	Stack height of DG Set vs building height may be furnished.	Stack height if DG Set will be 6 m above the tallest building Total height of the stack = Height of the building up to terrace level of the tallest tower + Height of the stack above roof level. Our tallest building height = 39.9 m (up to terrace level)	Complied.

		Hence, Total stack height of DG set = 39.9 m +6 m = 45.9 m	
4.	Layout for green belt.	Total Green belt area is 2,079.76 sqm which is 20.66% of the total Plot area i.e 10,067.37 sq.m. The Layout for green belt is attached as an **Annexure III.**	Greenbelt plan is attached as Annexure-III indicating break up of total green belt area of 2089.76 sqmt out of 10067.37 sqmt.
5.	Copy of building plan approval letter for built-up area of 16,161.56 sq.m.	Copy of building plan approval letter for built-up area of 16,161.56 sq.m is attached as an **Annexure IV.**	Building plan approval letter from CDA is attached as Annexure IV.
6.	Certificate from the CDA that the proposed project of built-up area 54,513.32 sq.m will not be constructed over the foundation made by the project for the built-up area of 16,161.56 sq.m and proposed project will be a separate project within the same premises.	Note is attached as **Annexure V.**	Chronological history/background for the residential project "Diamond City" Cuttack is attached as Annexure V. It concludes from the note that the planning of the project was revised, the construction has been stopped and revised drawing were submitted for obtaining building permission and Environment Clearance for plot area 2.48 acres and built-up area of 54,513.3 sq.m. **Under Annexure V the documents mentioned as Appendix c, d & e are blank pages i.e. NOC**

			from Prachi Division regarding Culvert Completion, Affidavit, vetted structural safety stability.

24. The SEAC observed that the **Annexures** as mentioned in the ADS have not been furnished.
25. The SEAC in its meeting held on dated 27-03-2023 decided to take decision on the proposal after the proponent upload the ADS once again along with all the **Annexures** as mentioned in ADS in addition to the following compliances:
26. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The green belt is about 15% and including avenue plantation it is 20%, needs revision.	Total Green Area has been revised to 25% of the total plot area including greenbelt and avenue plantation. ❖ Total Plot Area is 10067.37 sq.m. (100 %) ❖ Total Green area is 2514.85 Sq.m. (25 %) Revised Landscape Plan is attached as **Annexure I.** **BREAKUP: -** Greenbelt Plantation = 2014.00 Sq.m (20% of Total Plot Area) — 1 Row Plantation / 2 Row Plantation / 3 Row Plantation — Total Plants: 500 No. Avenue Plantation Area = 500.85 Sq.m (5% of Total Plot Area) — Podium Green Ornamental Plants — 20 No. Total Greenbelt Area = 2014.00 Sq.m (Greenbelt) + 500.85 Sq.m (Avenue Plantation) = 2514.85 Sq.m (25% of Total Plot Area)	complied
2.	Who is the owner of the land space between culvert and gate needs to be clarified and required documents in support of its use to be provided.	**OWNERSHIP OF LAND** • Land space between culvert and gate belongs to Irrigation Department. It is a revenue road having a Khatiyan no 1028, Plot no 2368 falling in village - Pratapnagri,	complied

		Nuagada, Cuttack, Odisha. (Land title documents is attached as **Annexure II**). • NOC have been obtained for using the approach road along with the culvert for general purpose of public vide letter no. 1748 dated 12.04.2022. NOC letter is attached as **Annexure-IIA**	
3.	The proposal looks like a violation case as the PP has already constructed as per previous approval and on the same building, they are proposing to increase the floors after FAR etc. were revised by CDA and revised plan made. This practice of approval of revised plans after construction needs to be avoided by building authority which is not done. Thus, structural certificate responsibility has to be with the building plan approving authority to consider its safety and stability.	• As per earlier clarification submitted to SEAC, Odisha, humbly we would like to resubmit that - Since, our earlier building plan approval Built-up area was 16,161.56 sqm. which was less than 20,000 sq.m, and EC, and NOC from PCB was also not applicable for the same, therefore, we have not violated any norms pertaining to EIA notification, 2006 and its amendments. Circumstantially, as our project came under preview of EIA Notification we applied for the Environment Clearance. Chronological events for the project was submitted with earlier ADS reply dated on 13.03.2023. However, we are herewith attaching all the Annexures once again for your kind perusal **(Earlier Reply Enclosed as Appendix-X)** • Also, it is kindly stated that, a partial construction of the structure has been constructed and the structure which has been designed by SEPL conforms the Standards/Codes of Practices of IS-456 (COP of Plain and Reinforced Concrete), IS-875 (COP of Design Loads for Building and Structure), IS-1893 (Criteria for Earthquake Resistant Design) and National Building code. • Further, as per CDA guidelines vetting of structural safety drawings has been done by appropriate authority i.e. (BIT Sindri Dhanbad, Jharkhand). Verification Certificate from BIT Sindri Dhanbad, Jharkhand vide letter no BITS/MAT/229-06-22/TM, dated 29.06.2022 is attached as **Annexure-III**. • An affidavit has also been submitted with earlier ADS stating the current foundation laid for one of the blocks can bear the load of the current proposed planning. Affidavit is attached as **Annexure IV**. Kindly accept our submission and grant us Environment Clearance at the earliest.	-

2. **Whether SEAC recommended the proposal** – The proposal was placed in the SEAC meeting held on 19.06.2023 and the SEAC **recommended** the proposal for EC valid for 10 years with below mentioned specific conditions.

a) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
b) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
c) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.
d) The proponent shall obtain permission from concerned Fire Safety Authority.
e) Trees located within the project area shall be transplanted to alongside the boundary green development area.
f) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
g) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
h) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.
    a. The PP need to obtain necessary structural stability compliance/certificate from CDA as the authority has permitted 8 storied building over already constructed building (initially permitted for 4 storied).

Decision Of Authority: Returned/Rejected

The Authority observed that some of the documents uploaded along with the application & the compliance furnished to the ADS/EDS by SEAC are not available in the Parivesh portal. After detailed deliberation on the matter, the Authority decided the following:

1. The PP is required to ensure that all documents attached to the application as well as compliance to ADS/EDS by SEAC are visible in the portal. Alternatively, the PP may apply afresh in Parivesh 2.0 portal along with all documents and ADS/EDS compliance.
2. The building plan approval for already constructed area of 16161.56 Sqmt needs to be submitted along with occupancy certificate from Cuttack Development Authority (CDA), CTE/CTO from SPCB.
3. Permission from Water Resource Dept. to be submitted for using the Culvert for the residential project.
4. A drainage plan for discharging treated water and storm water into the natural nallah/waterbody along with permission letter from the concerned Authority may be submitted along with the application.
5. The time series google earth map of the KML file as on May 2023 shows that construction activities have been taken up in the NE side of the Plot. The SPCB is requested to furnish a site inspection report regarding violation if any in terms of MoEF & CC,GoI Om F.No-IA3-22/10/2022-IA.III{177258} dated 29.03.2022.

APPROVED BY

Member Secretary, SEIAA | **Member, SEIAA** | **Chairman, SEIAA** 16.8.2023

AGENDA NO.131.02	
Proposal No.	SIA/OR/INFRA2/427306/2023
Date of application	30.06.2023
File No.	427306/511-INFRA2/06-2023
Project Type	Proposal for fresh EC
Category	B
Project/Activity including Schedule No.	8(a) Building and Construction projects
Name of the Project	Proposal for grant of Environment Clearance of Proposed Residential Project [B+S+12 multi storied Residential apartment with one block of B+G+3 Storied Commercial and G+2 Storied Community Hall] over Revenue Plot No. 1380 & 1390 of Mouza Nuahat, Thana - Cuttack Sadar No-45, Tahasil-Cuttack Sadar No- 273, Dist-Cuttack. Odisha of M/s. Laxmi Infra Venture (P) Ltd.
Name of the company/Organization	Laxmi Infra Venture Private Limited
Location of Project	Mouza Nuahat,Thana - Cuttack Sadar No-45,Tahasil-Cuttack Sadar No- 273,Dist-Cuttack.Odisha of M/s. Laxmi Infra Venture (P) Ltd.
ToR Date	
Name of the Consultant	M/s. OCEAO-Enviro Management Solutions (India) Pvt. Ltd

Proposal in brief: The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

1. This is a proposal for Environment Clearance of M/s Laxmi Infra Venture (P) Ltd. for Proposed Residential Project [B+S+12 multi storied Residential apartment with one block of B+G+3Storied Commercial and G+2 Storied Community Hall] in Revenue Plot No. 1380 & 1390 located in Mouza - Nuahat, Thana - Cuttack Sadar No-45, Tahasil-Cuttack Sadar No-273,Dist-Cuttack, Odisha over built-up area of 81955.983 sqm of Rajesh Kumar Nayak (Director).
2. The project falls under category "B" or activity 8 (a) - Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Laxmi Infra Venture (P) Ltd. proposes for Proposed Residential Project [B+S+12 multi storied Residential apartment with one block of B+G+3 Storied Commercial and G+2 Storied Community Hall] in Revenue Plot No. 1380 & 1390 located in Mouza - Nuahat, Thana - Cuttack Sadar No-45, Tahasil-Cuttack-Sadar No-273, Dist-Cuttack, Odisha over built-up area of 81955.983 sqm. The geographical coordinates are Latitude: 20° 22' 21.56" N and Longitude: 85° 53' 29.27" E. The nearest railway station is Cuttack Railway Station approx. 9.05km from the project site and Biju Pattanaik International Airport is at a distance of approx. 14.96km from the project site. The site is located close to NH-16/AH-45 Road at 0.12km and 1.20km from SH 60. Site is flat land with average elevation of 337 m AMSL. Nearby sensitive places are: handaka Reserve Forest is at a distance of 11.5 km and Nandankanan Zoo is at a distance of 7.5 km. Nearest water bodies are Kathajori River is at 8.34 km, Serua River is at 2.76 km and Kuakhai River is at 1.91 km and Puri Canal is at 0.53 km.

4. The site is coming under development plan of Cuttack Development Authority. M/S Laxmi Infra Venture (P) Ltd. has obtained the land possession about 5.612 Acres. Proposed Built-up area-81965.983 m^2.
5. **Power requirement:** The power supply will be supplied by TPCODL (TP CENTRAL ODISHA DISTRIBUTION LIMITED). Grand total electrical load for the project during operation phase 3433.46 KW. For Residential Buildings =3788.69 KW /D.G Set =380 KVA - 2Nos & 250 KVA - 1No and For Commercial Annex Building =630 KVA/D.G Set =625 KVA -1 Nos. Solar Panel will be installed @ 5% of the total load is 171.6728 KW, and 536 solar panels will be installed.
6. **Water requirement:** Total Fresh Water requirement is 256 m3/day. Total Flushing Water requirement is 131m3/day. Total Water requirement is 387m3/day (fresh water + flushing water). Waste water generate is 310 m3/day. Treated water recovered is 248m3/day. Reuses of treated water 248 m3/day (during Dry Season) and during monsoon season 50 m3/day of surplus treated waste water discharge to Municipal Drain.
7. **Waste water details:** The project will generate approx. 310 KLD of wastewater. The wastewater will be treated in an onsite STP of 340 KLD capacity.
8. Total 34 Rain Water Harvesting pits will be constructed at different locations.
9. **Parking Requirement**: Total parking area provided are for Residential - 15501.024 sqm and for Commercial – 1625.673 sqm and for visitors - 1607.38 sqm will be provided.
10. **Fire fighting Installations:** Fire fighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).
11. **Green Belt Development:** Total green and open area measures 4800.00 sqm (approx. 21% of total area). Trees like Azadirachta indica, Cassia fistula, Terminalia arjuna, Butea monosperma etc. and flowering and ornamental plants have been proposed to be planted inside the premises. Parks will also be developed by the management. The suggested plant species consisting of large trees, small trees and green lands will be planted.
12. **Solid Waste Management:** During the operation phase, the solid waste generated from the project shall be mainly MSW (Municipal solid waste) approx. 1687 kg/day. The total biodegradable solid waste will be 965 kg/day and total non-biodegradable solid waste will be 722 kg/day. This will be collected in separate colored bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste. STP sludge, which is periodical in nature is proposed to be used for horticultural purpose only after removal of oil & grease. Horticultural Waste is proposed to be composted and will be used for gardening purposes.
13. The cost of the project is Rs. 110 Crores.
14. The Environment consultant **M/s Visiontek Consultancy Services PVT. LTD., Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 07.05.2022.
15. The SEAC in its meeting held on dated 07.05.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by site visit by the sub-committee of SEAC.

16. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i.	Internal drain network with dimension in the unit layout to be submitted along with dimensions and its connectivity.	**Details of Waste water management** We will treat the wastewater of the residential Township in well-designed sewage treatment plant having capacity of 340 KLD (MBBR Type). Excess Treated Water **During rainy season 50 KLD of treated waste water will be discharge to nearest Drain as per recommendation of CMC.** The entire common sewage network running all over the project site will handle the sewage from all the units within and is to be setup using 150mm diameter Stoneware pipes/ HDPE pipes. The estimated waste water effluent for treatment within the project site to handle the load. The effluent network shall connect all the units of the project through 150mm diameter HDPE pipes. The pipelines have been designed keeping in mind the requirements per the National Building Code and to operate on natural gravitational flow under the effect of the gradient of 6.0m difference available within the site. They are of sufficient capacity to handle the sewage / effluent within the project site. The proposed pipeline network, along the Master Plan,
ii.	Start and fall out the outside drain to which the treated water will be discharged to be intimated including the permission of the authority of the drain to take the additional load	NOC for water supply and Sewage Connection to the proposed project is granted from the PHD & CMC vide letter no11288 on dated 30.09.2021 and Memo No. 684 BP/CMC, Cuttack on dated 05.04.2022 respectively. Permission letters are attached as **Annexure-2**.
iii.	Solar calculation details with generation and consumption in terms of % of total power. And detail calculation of 536 solar panels to be submitted.	**ABSTRACT OF LOAD FOR SOLAR POWER OF NUAHAT HIGH RISE** 1. Total M.D. of Project in KW = 3433.46 Kw 2. Solar Panel to be installed @ 5% of the total load 5% 3. Total Solar Power 171.6728 Kw
Sl. No.	**Information Sought by SEAC**	**Compliance furnished by the proponent**

i.	Internal drain network with dimension in the unit layout to be submitted along with dimensions and its connectivity.	**Details of Waste water management** We will treat the wastewater of the residential Township in well-designed sewage treatment plant having capacity of 340 KLD (MBBR Type). Excess Treated Water **During rainy season 50 KLD of treated waste water will be discharge to nearest Drain as per recommendation of CMC.** The entire common sewage network running all over the project site will handle the sewage from all the units within and is to be setup using 150mm diameter Stoneware pipes/ HDPE pipes. The estimated waste water effluent for treatment within the project site to handle the load. The effluent network shall connect all the units of the project through 150mm diameter HDPE pipes. The pipelines have been designed keeping in mind the requirements per the National Building Code and to operate on natural gravitational flow under the effect of the gradient of 6.0m difference available within the site. They are of sufficient capacity to handle the sewage / effluent within the project site. The proposed pipeline network, along the Master Plan,
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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	exits for the same. Parking in terms of ECS as per the norm for both 4wheelers and 2 wheelers compatible with space provided & no of residential units (for residents), visitors and floating population for commercial complex to be	Parking details and layout plan showing parking area given as **Annexure-5**
vii.	Detail Traffic study report to be submitted from an	Traffic study report is given in **Annexure-6**

<table>
<tr><td></td><td>viii.</td><td>Copy of Power of Attorney of Laxmi Infra for ownership of the private lands.</td><td colspan="5">Copy of Power of Attorney of Laxmi Infra for ownership of the private lands is attached as Annexure-7.</td></tr>
<tr><td></td><td>ix.</td><td>To rework for reducing the number of DG sets from proposed 4 nos. by increasing the capacity.</td><td colspan="5">Load Assessment Statement for D.G set selection of NUAHAT High Rise Apartment, CUTTACK.</td></tr>
<tr><td></td><td></td><td></td><td>SL. NO.</td><td>LOCATION</td><td>DG BACK UP POWER IN WATT</td><td>TOTAL UNIT</td><td>TOTAL WATT</td></tr>
<tr><td></td><td></td><td></td><td colspan="2">LIVING FLOOR</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td>1</td><td>1BHK Dwelling Unit</td><td>300</td><td>96</td><td>28800</td></tr>
<tr><td></td><td></td><td></td><td>2</td><td>2BHK Dwelling Unit</td><td>500</td><td>72</td><td>36000</td></tr>
<tr><td></td><td></td><td></td><td>3</td><td>3BHK Dwelling Unit</td><td>500</td><td>108</td><td>54000</td></tr>
<tr><td></td><td></td><td></td><td>4</td><td>4BHK Dwelling Unit</td><td>600</td><td>36</td><td>21600</td></tr>
<tr><td></td><td></td><td></td><td></td><td>SUB TOTAL</td><td></td><td></td><td>140400</td></tr>
<tr><td></td><td></td><td></td><td></td><td>In kW</td><td></td><td></td><td>140.4</td></tr>
<tr><td></td><td></td><td></td><td colspan="2">Diversity Factor</td><td></td><td></td><td>0.8</td></tr>
<tr><td></td><td></td><td></td><td colspan="2">M.D Load in kW=</td><td></td><td></td><td>112.32</td></tr>
<tr><td></td><td></td><td></td><td colspan="2">Common Area</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td colspan="2">Total M.D of Common Area</td><td></td><td></td><td>543.9</td></tr>
<tr><td></td><td></td><td></td><td colspan="2">Total Load in kW=</td><td></td><td></td><td>656.22</td></tr>
<tr><td></td><td>Sl. No.</td><td>Information Sought by SEAC</td><td colspan="5">Compliance furnished by the proponent</td></tr>
</table>

		SELECTION OF DIESEL GENERATOR SET
		Total Overall M.D. of Project in KW = 656
		M.D. in KVA for 0.8 p.f lag = 820
		Required Transformer Rating in KVA for 85% Capacity 965
		1000 KVA
		Specification of D.G Set =380 kVA - 2Nos & 250 kVA - 1No , Silent D.G set as per BS 6 & Latest CPCB Norms with Electronic Governor and Synchronization Compatibility for Residential area
		SELECTION OF DIESEL GENERATOR
		Total M.D. of Project in KW = 403
		M.D. in KVA for 0.8 p.f lag = 503
		Required Transformer Rating in KVA for 85% Capacity utilization= 592
		625 KVA
		Specification of D.G Set =625 kVA -1 Nos, Silent D.G set as per BS 6 & Latest CPCB Norms with Electronic Governor and Synchronization Compatibility For Commercial purpose
x.	Water analysis water from public supply and need of Water Treatment Plant.	Water analysis report of PHD water supply is meets to standard of Drinking water so there is no need of water treatment plant. Analysis report

xi.	Permission from W.R department as there is a provision of commercial use.	There is Permission from W.R department for use of existing road of Nakhara distributaries canal embankment road connected to Plot no. 1390 from the Existing Culvert connected to NH-16. NOC from WR Department is attached as **Annexure-9.** Permission under sub-Section (3) of the Section-16 of the Odisha Development Authority Act 1982)(Orissa Act, 1982) is here by granted in favour of Sri Baman Charan Swain represented through GPA holder Sri Rajesh Kumar Nayak, M.D. of M/s Laxmi Infra Venture (P) Ltd. for construction of 4 blocks of B+S+12 multi storied residential apartment, 1 Block of B+G+3 Commercial building and 1 block of G+2 storied Club house building plan for project "Fresh living" over revenue plot no. 1390 & 1380, Khata no. 498/111, Mouza- Nuahat, Cuttack, under Cuttack Municipal Corporation area on dated 05.04.2022. Letter from CMC is attached as **Annexure 10.**
Sl. No.	**Information Sought by SEAC**	**Compliance furnished by the proponent**
xii.	Basis of calculation of nos. of people for club house and commercial complex, consumption of domestic and flush water thereof and revisiting water balance as and if required.	Detail calculation of water requirement for proposed project is given in **Annexure-1.**
xiii.	Compliance of provision of structural stability study as laid down in bye law of Development Authority.	Structural Stability certificate is Given **Aneexure-11.**

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 for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – A** in addition to the following specific conditions.

3. Whether SEAC recommended the proposal – The proposal was placed in the SEAC meeting held on 19.06.2023 and the SEAC recommended the proposal for EC valid for 10 years with below mentioned specific conditions.

   a) "Khatian" (Patta after Mutation) for the entire land from the appropriate Revenue Authority with 'Kisam' as Gharabari shall be obtained along with ownership before which construction work shall not start. The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.

b) The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of Sewage and treated effluent to the nearest drain without which the Proponent will not start construction work. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
c) The proponent shall use solar energy of 5% as proposed.
d) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.
e) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
f) All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.
g) However, the Sub-Committee of SEAC will visit the site within 3 months from the date of issue of Environmental Clearance to verify the progress of the project as well as conditions stipulated in Environmental Clearance. However, either during the visit of the SEAC Sub-committee and/or at any time, if it is noticed that stipulated conditions on which EC is granted is not in place or found otherwise, steps will be taken for revocation of EC granted.

Decision of Authority: ADS

After detailed deliberation in the matter, the Authority decided to seek clarification on the following:
1.The PP shall submit a drainage plan for discharging treated water and storm water into the natural nallah/waterbody along with permission letter from the concerned Authority.

APPROVED BY

Member Secretary, SEIAA **Member, SEIAA** **Chairman, SEIAA**

AGENDA NO.131.03	
Proposal No.	SIA/OR/RIV/403660/2022
Date of Application	06.06.2023
File No.	403660/02-RIVB1/06-2023
Project Type	ToR
Category	B1
Project/Activity including Schedule No.	1(c)-River Valley Projects
Name of the Project	Proposal of ToR for proposed Kharag Hydroelectric Project (HEP) 63 MW on River Kharag a tributary of Tel River, in Mahanadi Basin in District-Khandhamal (FL-3.174Ha, FC application:-FP/OR/OTHERS/9/2020 dated 19/10/2020)
Name of the company/Organization	Applicant: Odisha Hydro Power Corporation Ltd.; Sri.Laxmidhar Bahera; Dy. General Manager
Location of Project	Village- Kudelkia, Tahasil-Baliguda, District-Khandhamal

Proposal in brief:

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

(i). This proposal is for Terms of Reference for obtaining Environmental Clearance for Kharag Hydroelectric Project (HEP) 63 MW (3x21 MW) over an area 129.59 ha. the project is in Kandhamal district of Odisha on river Kharag, a tributary of Tel River, in Mahanadi Basin of Sri Laxmidhar Behera.

(ii). Location and connectivity: The proposed site of the project is located in Kandhamal district of Odisha on river Kharag, a tributary of Tel River, in Mahanadi Basin. The barrage site is located near Kudelkia village and lies in the Barakuma Reserve Forest. Geo Coordinates of the barrage axis site are approximately 20^0 18' 8.27" N Latitude and 83^0 51' 39.70" E Longitude. The powerhouse site is located near Doka village. Geo Coordinates of the powerhouse site are approximately 22^0 22' 53.33" N Latitude and 83^0 49' 46.74" E Longitude. The barrage site is approachable by road from Baliguda via Barakhaman to Junagan to Selgura to Keramaha leading to Kudelkia. The nearest Rail head is at Bolangir and Bhawanipatna. The nearest airport is at Bhubaneswar. Baliguda is 288 Km away from Bhubaneswar (connected with NH-16, NH-57 & SH-1) and 80 Km away from Phulbani on SH-1 (all weather SH road). Barakhaman Panchayat is connected to Baliguda with 8.5 Km long all weather village road. Kudelkia village is connected to Barakhaman Panchayat by a 10 Km long all weather village road, which is damaged at few locations. Doka village is connected to Kudelkia village by a 8 Km long PMGSY road. This road passes through 3 nos. of small culverts, 2 nos. of small concrete bridges and 2 nos. of small metallic bridges.

(iii). Complete Odisha state is falling in 2nd zone of seismicity as per the IS code and therefore construction on proposed project is safe.

(iv). Project details: Installed capacity of each power project (Kharag-I, Kharag-II, Kharag-IIA & Kharag-III), for which PFRs are prepared, was 24 MW (i.e. < 25 MW), therefore, power potential studies were carried out based on 75% dependable years. WAPCOS carried out studies for merging four projects into single stage considering 90% dependable year for which the Installed Capacity has been estimated as 63 MW. If the studies are based on 75% dependable inflows IC works out to be 111 MW, which is not as per guidelines. As installed capacity of Kharag HEP in Single Stage Development works out more than 25 MW, therefore, power potential studies in

Single Stage Development need to be carried out based on 90% dependable year inflows(As per CEA guidelines 2015).

(v) Salient features of the project:

DESCRIPTION	DETAIL
State	Odisha
District	Kandhamal
River	Kharag
Catchment area	1495 ha
Design flood return period (1 in 50 years)	5000 m³/s
Maximum Water Level (MWL)	El. 501 m
Full Reservoir Level (FRL)	El. 499.30 m
Minimum Draw Down Level (MDDL)	El. 497.0 m
Live Storage Capacity	0.857 Mcum
Gross Storage Capacity at FRL and MDDL	1.807 and 0.950 Mcum
Type of structure	Concrete barrage
Number of bays	12 including 2 number sluice bays
Height of barrage above river bed level	13.3 m
Barrage Service Gate Opening Size	12×9.3 m
Type	Vertical Lift Slide Type
Hoist	Electrically Operated Rope Drum Hoist
Head Race Tunnel	8.78 KM long, D-shaped, 5 meter dia
Submergence Area at FRL	44.84 ha
Desilting chamber type	Underground (twin chamber)
Barrage Under Sluice Gates Opening Size	12×11.3 m
Type	Vertical Lift Fixed Wheel Type
Hoist	Electrically Operated Rope Drum Hoist
Turbine Type	Vertical Axis Francis
Rated Net Head	215.23 m
Design discharge	10.91 cumec/unit
Speed	600 rpm
Draft Tube Gate Opening Size	4×1.6 m
Type	Vertical Lift Fixed Wheel Type
Hoist	Electrically Operated Rope Drum Hoist
Normal Tail Water Level	El. 273.05 m
Maximum Tail Water Level	El. 278.7 m
Minimum Tail Water Level	El. 272.5 m
Type and location of power house	Surface, right side of river

Installed capacity	63 MW
Design discharge	32.74 cumec
Rated net head	215.23 m
Rated speed	600 rpm
Generator rating	21 MW/24.7 MVA
Generation voltage	11 KV
No. of Bays	7 Nos. (3 nos. GT Bays, 1 no. SAT Bay, 2 no. Line Bay, 1 no. Bus Coupler)
Rating of generator step up transformer	28 MVA, 11 kV/132 kV, 3-PHASE
Distance from nearest sub-station at saintala	50 km
Design energy	233.5 mu

(vi). Land requirement:

S. No.	Type of Land	Area (ha)
1.	Forest Land	71.078
2.	Revenue/Government Land	35.036
3.	Private/Leased Land	23.476
	Total	129.6

Zone	Project Appurtenance	Approximate Area (ha.)
1	Head Works (Diversion Structure, Barrage)	5.7
2	Reservoir Area upto MWL (El.502m) from dam axis	50.5
3	Construction Equipment, Aggregate Processing Plant and Material Storage Plant	5.5
4	Approach Road, Batching and Mixing plant	1.25
5	Intake and Desilting chamber	1.0
6	Water conductor system Notional Requirement	10
7	Explosives Magazine	0.3
8	Office and Colony Area	6.3
9	Dispensary, Material TestingLaboratory, Ware House, Storage, Repair Facility and Workshop	4
10	Surge Shaft to Powerhouse area, Switchyard, Construction Equipment, Batching and Mixing Plant & Storage of EM package Equipment	8.0
11	Aggregate Processing Plant and Material Storage area	4.75
12	Work shop Fabrication yard	2.00
13	Contractor and Labour Colony area	3
14	Borehole Land Requirement for 11 no. Boreholes	4.29
	Total	**106.59**

(vii). Hydrology: Proposed project is located on Kharag River and the source of water for this scheme is proposed Kharag Barrage (CA is 1495 sq km). Kharag river is a tributary of Tel river in Mahanadi basin. Design Flood (return period 1 in 50 years) is 5000 m³/s. It has been envisaged to construct a Barrage on Kharag River near Kudelkia village in Kandhamal district with a gross storage capacity of 1.807 Mcum at Full Reservoir Level (FRL) 499.30m and submergence area as 44.84 ha. Gross Storage Capacity at MDDL would be 0.950 Mcum. Live Storage Capacity would be 0.857 Mcum. The Monthly observed discharge data of 38 years from 1979-80 to 2016-17 has been used for hydrology Studies.90% dependable year for the study is taken as 1988-89. Total Discharge for 3 Units would be 32.74 m³/sec.

(viii). A reinforced concrete barrage about 14.50m above the riverbed and about 18.0 m above the deepest foundation level is proposed to divert a design flow of 32.74m³/s through a 5.0m diameter D-shaped, 10.9 km long water conductor system, comprising Power Intake Structure, Desilting Basin, Head Race Tunnel on the right bank of Kharag river, with its headportal downstream of desilting basin and tail portal near surge shaft. A surge shaft of 13 m dia. is proposed at the end of Head Race Tunnel. A pressure Shaft about 712m long is proposed to take off at the bottom of this shaft up to Valve House. Beyond the Valve House, 3.25 m diameter penstock of length of 1.33 km feeds three Francis Turbines driven generating units to be housed in a surface Powerhouse located on the right bank of river Kharag. The project is a run of the river scheme with a total installed capacity of 63 MW (3x21 MW) utilizing a gross head of 225.48m (Net head 215.23m) to generate 233.5 GWh of energy in an Average year. The tail water will be discharged through a tail pool back to river Kharag.

(ix). Electro-mechanical: Project has a surface power station with an Installed Capacity of 63MW (3 x 21MW). The powerhouse has three (3) units of Vertical axis Francis turbine-driven generating units, rated for 21MW each. The project shall utilize the plant discharge of 32.74 m3/sec through a rated net head of about 215.23 m for power generation. The generation voltage of 11kV shall be stepped up to 132kV by 28 MVA, 3-phase transformer.

(x). Power evacuation: Power would be evacuated at 132kV level Phulbani pooling station at a distance of 25 KM.

(xi). Catchment area treatment plan: Catchment Area intercepted at the dam site is 1485 sq. km. CAT (Catchment Area Treatment) Plan for proposed dam site will be prepared using Silt Yield Index method. Delineation of sub watersheds in the catchment area. Land use pattern using satellite data, slope map using Survey of India Topo-sheets etc. with ground truth verification will be prepared. Mapping of critically degraded areas based on Integration of Remote Sensing technique, GIS methodology and Silt Yield Index method. Preparation of phase wise Catchment Area Treatment (CAT) Plan using biological and engineering measures for sub-watersheds with very high and high erosion intensity. Estimation of cost required for implementation of CAT plan. Spatial information in each micro watershed shall be earmarked on maps in the scale of 1:50,000.

(xii). Project cost: The estimated hard cost of the project is Rs. 627.75 crores at December, 2018 price level excluding Transmission line cost. Out of this cost, the cost of the civil works is Rs. 456.11 Crores, Cost of H&M Works is Rs. 54.48 Crore and the cost of electromechanical works is Rs. 117.16 Crores. Total escalated cost of above works upto zero date is Rs. 663.07 Crores. IDC and Financing Cost are expected to be Rs. 78.66 Crores on escalated cost. The project cost including IDC & FC is Rs.741.73 Cr. Cost of generation has been worked out on this cost. The cost of generation in the first year of operation is estimated at Rs. 7.88 per kWh and on levelized basis over a 35-year period works out to Rs. 7.37 per kWh.

(xiii). Environment Consultant: The Environment consultant M/s Wapcos Ltd. along with the proponent made a presentation on the proposal before the Committee on 05.07.2023.

(xiv). Any deficiencies/omission have been noticed in the above documents- Nil

2.Whether SEAC recommended the proposal – Yes, in its meeting held on 05.07.2023, the SEAC have prescribed the specific ToRs in addition to standard ToRs for conducting detailed EIA study as follows:

i) **Ecological flow:** The presentation covered a monthly flow series of Khadaga river flow and the generation is calculated on the basis of 90% dependable yield of the Basin at the Barrage location. It is observed from the flow series the river never goes dry during lean months but the flow reduces to as low as 0.9 cusecs. The project proponent explained that provision of ecological flow of 20% during lean months and 30% during monsoon shall be released to the river and power potential has been computed accordingly. Power potential calculation shows there is spill in the barrage only in the month of August and in other months entire river water shall be diverted for power generation. The flow reduction and lean season flow of 20% minimizing to 0.18 cumecs virtually keeps the river dry and may create utter hazard to the aquatic life (flora & Fauna) within the original stretch of river from barrage to tail race. A detailed study of impact on flora and fauna due to flow fluctuation within the intermediate stretch of river (Barrage to Tail race) may be made with Management Plan.

ii) **Excavated mock/soil disposal Plan:** It is proposed to excavate a tunnel of 5.8 m diameter for 9.5 km for diversion of river water to the power house. The quantum of excavated debris may to the tune of 3 lakh cum. Without proper planned disposal of excavated soil the washed silt content with storm water may adversely impact the river regime. The area being mountainous and forest land a detail plan for tunnel muck disposal may be submitted.

iii) **Disposal plan of Silt /sediment from silt excluder at the entry of tunnel:** There is a provision of silt excluder/extractor at the entry of tunnel within the river to the link channel to tunnel. No detailing of silt load of the river and the quantum of silt to be extracted by the silt excluder & plan of disposal is not elaborated in the presentation. Detailed plan for disposal of the extracted silt through silt extractor with calculation of quantity may be provided.

iv) **Riparian rights of downstream users within the intermediate stretch:** During presentation of satellite imagery, it is observed that patches of agricultural land and small hamlets do exist adjacent to the river. The river seems to be the life line of the inhabitants. It is apprehended that induced flow alteration may impact the rights of the users adversely. It is suggested a details study on the riparian rights of the downstream users and impact of flow alteration on the livelihood of the inhabitants adjacent the intermediate stretch of river may be done and mitigation plan may be incorporated in the report.

v) **Wild life management Plan:** Forest land need to be acquired for the project as presented in the PPT presentation. Project proponent is advised to submit forest diversion proposal at the earliest. A detail wild life management Plan of the study area is to be prepared and submitted to Chief Wildlife Warden for approval.

vi) Study of fish migration and provision of fish ladder may be made & submitted.

vii) **Safety and Disaster Management:** It is advised that the Project proponent should get the safety of the structures vetted (Approved) by appropriated authority and same may be incorporated in the report. A disaster management Plan to be prepared in detail and submitted.

viii) **Hydrogeological impact of the project:** The flow alteration of the definite stretch of river Khadaga and virtual dryness of river in lean months due to flow alteration may adversely affect the ground water table of the adjacent area and livelihood of the inhabitants within the study area. It is recommended that a hydrogeological study of the area with impact due to flow alteration on ground water table may be conducted.

- Study report on dam break analysis.
- Soil erosion stability details.

- Analysis on earthquake zone and its classification. Dedicate a portion for it in EIA as a part of DPR.
- Possibility for air quality monitoring during operation phase.
- Permission of PCCF for conducting borewell studies.

ix) The Project clearance could be considered on the ground that the Jurisdiction of The Mahanadi water dispute tribunal (Mahanadi water share of state of Chattisgarh and State of Odisha) does not extend to non-consumptive use of water (diversion of intermediate flow alignment for 9.5 km of river and again release of water without any volume reduction) in the river Basin for power generation. Any future issues could come up, this shall be clarified.

x) Concrete write-up for the finalised area details and an undertaking that the final document won't undergo any change in future.

xi) Comparative note on previous and current plan of the project.

xii) Cumulative Impact of project on carrying capacity and sustainability of Reservoir/ nalahs of catchment area, irrigation facilities due to tapping of water for filling reservoir.

xiii) Alternative sites for various components shall be identified in terms of loss of forest area.

xiv) Impact zone decided prior to base line data generation and accordingly, sampling location shall be finalized. Baseline data as mentioned in Standard ToR shall be collected for preparation of EIA/ EMP report along with soil characteristics which shall be studied at minimum 10 locations. The ground water level at 10 locations shall be measured in project area in all three seasons.

xv) A study shall be carried out on impact of project activity on the aquatic and terrestrial ecosystem, within project area classifying the impact zones (highly impact/low impact zone) based on seasonal variations and covering the aspects related to impacts on aquatic ecosystem/ primary productivity due to quantity of water to be lifted for power generation and thermal stratification. Accordingly, Environment Management plan shall be prepared.

xvi) Sampling locations be located to cover villages situated near the reservoir and around boundary of forest area for collection of baseline data and data to be incorporated in EIA/ EMP report.

xvii) Identify the sand mining/ quarrying sites in submergence area and downstream of reservoir.

xviii) Scope of watershed development in the 10 km radius of the project shall be studied in consultation with expert Govt. institutions/ Indian Council of Agriculture Research (ICAR)and accordingly a detailed Water Shed Development Plan shall be prepared and incorporated in EIA/ EMP report.

xix) Source of construction material and its distance from the project site along with detailed transportation plan for construction material.

xx) A detailed reclamation/ restoration plan of quarrying site/sites be incorporated in the EIA/EMP report.

xxi) Reservoir/ River banks protection plan all along the submergence need to be prepared and incorporated in EIA/ EMP.

xxii) Scope of watershed development in the 10 km radius of the project shall be studied in consultation with Govt. institutions/ Indian Council of Agriculture Research (ICAR) and accordingly a detailed Water Shed Development Plan shall be prepared and incorporated in EIA/ EMP report.

xxiii) MoU for water uses for the project signed and approved by concerned authority shall be submitted.

xxiv) Environmental matrix during construction and operational phase needs to be submitted.

xxv) Matrix formulated on the basis of detailed study and field survey of flora and Fauna methodology used shall be mentioned in the EIA report.

xxvi) Endemic plant and animal species found in the area concerned shall be provided instead listing entire endemic species found in the State.

xxvii) Details of Flora and Fauna reported in submergence area, Nos. of tree along with their density and nomenclature of the tree species required to be felled for reservoir creation and other project component.

xxviii) Impact assessment on the fish diversity based on the hydrological alteration at the water drawing sources shall be studied.

xxix) Stage-I Forest Clearance shall be obtained.

xxx) Explore the possibilities to reduce Forest area for the construction of proposed project, Muck disposal sites should be outside the forest area.

xxxi) Pre-DPR Chapters viz. Layout Map and Power Potential Studies duly approved by CWC/CEA shall be submitted.

xxxii) Undertaking need to submitted on affidavit that regarding no activities has been yet started on the project site and water allocated to this scheme shall not be diverted to other purpose.

xxxiii) Both capital and recurring expenditure under EMP shall be submitted.

xxxiv)The photograph should bear the date, time, latitude & longitude of the monitoring station/ sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyse the samples.

xxxv) Arial view video of project site shall be recorded and to be submitted.

xxxvi)Detailed plan to restore wider roads and convert them into narrow upto10m after construction of the project.

xxxvii)Details of quantity of muck generation component wise and disposal site along with transportation plan and its monitoring to be provided.

xxxviii)Details of Muck Management plan prepared along with estimated cost incorporated in EIA/ EMP report.

xxxix)Techno-economic viability of the project must be recommended from CEA/ CWC.

xl) Declaration by the project proponent by way of affidavit that "No" Inter-state issue/ policy issue is involved with any State in the project.

xli) All the tasks including conducting public hearing shall be done as per the provisions of EIA Notification, 2006 and as amended from time to time. Public hearing issues raised and compliance of the same shall be incorporated in the EIA/ EMP report in the relevant chapter.

xlii) Statement on the commitments (activity-wise) made during public hearing to facilitate the discussion on the CER in compliance of the Ministry's OM F.No.22- 65/2017- IA.III dated 30th September, 2020 shall be submitted.

xliii) Tentative no. of project affected families shall be identified and accordingly appropriate Rehabilitation & Resettlement plan shall be prepared.

xliv) Details of settlement in 10 km area shall be submitted.

xlv) Application to obtain prior approval of Central Government under the Forest (Conservation) Act. 1980 for diversion of forestland required should be submitted as soon as the actual extent of forest land required for the project is known, and in any case, within six months of issuance of this letter.

xlvi) The draft EIA/EMP report prepared as per the Generic Structure (Appendix III of EIA Notification, 2006) incorporating, information as per the Standard ToR, should be submitted to the State Pollution Control Board for conducting Public Consultation as per the provisions stipulated in EIA Notification, 2006. Public Hearing, which is a part of Public Consultation, shall

be held district wise at the site or in its close proximity as prescribed in Appendix (IV) of EIA Notification, 2006. The draft EIA/EMP report is to be submitted to SPCB sufficient before the expiry of the ToR validity so that necessary amendments in EIA/EMP can be undertaken based on public hearing and the same is to be submitted to MoEF&CC before expiry of validity of ToR.

xlvii) All the tasks including conducting public hearing shall be done as per the provisions of Notification, 2006 and as amended time to time. Public hearing issues raised and compliance of the same shall be incorporated in the EIA/EMP report in the relevant chapter

xlviii) Baseline data and public consultation shall not be older than 3 years, at the time of submission of the proposal, for grant of Environmental Clearance.

xlix) In case of any change in the scope of the project such as capacity enhancement, change in submergence, etc.. fresh scoping clearance has to be obtained.

Decision of Authority: Approved

After detailed deliberation in the matter, the Authority approved the issue of Standard ToR along with additional specific ToR subject to the condition that:

1.Application to obtain prior approval of Central Government under the Forest (Conservation) Act, 1980 for diversion of forest land required should be submitted as soon as the actual extent of forest land required for the project is known, and **in any case, within six months of issuance of this letter**.

APPROVED BY

Member Secretary, SEIAA **Member, SEIAA** **Chairman, SEIAA**

16.08.23

AGENDA NO.131.04	
Proposal No.	SIA/OR/MIN/427260/2023
Date of application	13.06.2023
File No.	427260/107-MINB1/06-2023
Project Type	ToR
Category	B1
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposed for ToR for mining of iron ore from Gandhalpada Iron Ore Mine with Production Capacity- 10 MTPA (ROM) with Total Excavation of 18.0 MTPA (ML Area 241.10 ha) Located at Village-Gandhalpada, Guali and Barpada, Tahasil-Barbil , District-Keonjhar
Name of the company/Organization	M/s Tata Steel Mining Limited (TSML); Sri.Pankaj Kumar, Managing Director
Location of Project	Village-Gandhalpada, Guali and Barpada, Tahasil- Barbil , District-Keonjhar

1. Proposal in brief:

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

(i) This proposal is for Terms of Reference for obtaining Environmental Clearance of M/s Tata Steel Mining Limited for Gandhalpada Iron Ore Mine of production capacity 10 MTPA (ROM) with Total Excavation of 18.0 MTPA (ML Area 241.10 ha) Located at Gandhalpada, Guali and Barpada Villages, Barbil Tehsil, Keonjhar District of Sri Pankaj.

(ii) Letter of intent: Government of Odisha, pursuant to the Mines and Minerals (Development & Regulation) Act, 1957 and the Mineral (Auction) Rules, 2015, issued the notice inviting tender dated 7 th July 2021 to commence the auction process for grant of mining lease for Gandhalpada Iron Ore Block located in Keonjhar District of Odisha. The second round of e-auction process was conducted on 22nd Sep 2021 in accordance with the tender document for the said mineral block and Tata Steel Mining Limited (TSML) was declared as the "Preferred Bidder" under Rules 9(4)(b)(iii) of the Mineral Auction Rules, 2015 vide Government of Odisha, Dept. of Steel & Mines, Letter No. MXIII(b)/45/2021/7489/ DM, dtd.25th Sep, 2021. Subsequently, as per Rule 10(1) of Mineral Auction Rules, TSML made payment towards first instalment of upfront payment of Rs 122.41 Crores, dated 16th Oct 2021. Accordingly, pursuant to rule 10(2) of Mineral Auction Rules 2015, Government of Odisha has issued letter of intent (LOI) vide letter no 8728/III(A)/SM-02/2021 dated 28th Oct 2021 for grant of Mining Lease for Gandhalpada Iron Ore block over a period of 50 years to M/S Tata Steel Mining Limited.

(iii) Project details: The proposed mine lease area measuring 241.10 ha is for extraction of Iron Ore. The annual excavation is targeted at 10 MTPA (RoM) corresponding to saleable iron ore. Open cast mechanized mining method is proposed. The ROM will be fed to a crushing/screening plant. The lump ore and fines will be segregated in the Crushing / Screening plant. The proposed use of mineral is for Captive use in Own Industry and for Direct selling to Domestic market.

(iv) Statutory clearances:

Sr.No	Activity	Date

1	Award of Iron Ore Block under Rules 9(4)(b)(iii) of the Mineral Auction Rules, 2015 vide Government of Odisha, Dept. of Steel & Mines, Letter No. MXIII (b)/45/2021/7489/ DM,	28th September 2021
2	TSML made payment towards first installment of upfront payment of Rs 122.41 Crores	14th October 2021
3	Government of Odisha has issued letter of intent (LOI) vide letter no III(A)/SM-02/2021	28th October 2021
Statutory Clearances		
1	Approval of Mining Plan along with Progressive Mine Closure Plan (PMCP) vide Letter No: BBS/KJR/IRON/2198/MP/2022-23	23rd February 2023
2	Submission of Application for Stage-I Forest Clearance for entire forest land 216.875 ha vide Proposal No: FP/OR/MIN/QRY/432630/2023	08th June 2023

(v) Location and connectivity: Gandhalpada Iron Ore Mine of M/s Tata Steel Mining Limited having lease area 241.10 hectares is situated in three villages namely Gandhalpada, Barpada & Guali of Keonjhar Districts, of State Odisha bounded by Latitude: 21°57'13.46" N to 21°58'21.194" N and Longitude: 85°16'44.658" E to 85°18'00.507" E in Toposheet no T73/G5. The mine is well connected by NH-215, which is about 0.80 km in NW. Nearest Railway Station is Jaroli which is about 12.60 Km in E direction. Rourkela Airport at 57 Km NW, Jharsuguda Airport 126.7 km W and Biju Patnaik International Airport, Bhubaneswar is about 196 Km in SSE direction from the project site. The nearest town is Barbil located at a distance of about 17.42 km from the lease area.

(vi) Topography and drainage: The highest and lowest topographic elevations of the study area are 868 m above mean sea level (amsl) along Karo Nadi in the north and 530m amsl on Jhandi Buru covered by Uliburu/Karo RF near Dalmakudar in the NNW. The general slope in the study area is towards north-east. The ML area has moderately undulating terrain in the west to hilly topography in the north, east and south. The drainage pattern in the study area is dendritic to sub-trellis in nature having a drainage density of 2.82 m/sq km. River Sona is a perennial river flowing from South to North at a distance of 3 km in the South-East and it becomes West-East from Malda and finally meets into river Baitarani. River Karo is a perennial river flowing from South to North at a distance of 2 km in the West.

(vii) **Land use details**:

Sl.	Particular	Area put to use at start of year (Ha)			Area put on use at end of plan period (Ha)			Area to be used by the end of Conceptual period (Ha)		
		Forest	Non-Forest	Total	Forest	Non-Forest	Total	Forest	Non-Forest	Total
1	Area under Mining	0	0	0	102.44	0.54	102.98	215.29	22.95	238.24
2	Topsoil stacking	0	0	0	1.43	0.07	1.5	0	0	0
3	Overburden/Waste Dumping	0	0	0	32.97	1.91	34.88	0	0	0
4	Mineral Storage	0	0	0	21.35	10.22	31.57	0	0	0

	Infrastructure (Workshop, Administrative Building etc.)	0	0	0	2.73	5.55	8.28	0	0	0
6	Roads	1.42	0.83	2.25	21.22	1.58	22.8	0	0	0
7	Railways	0	0	0	0	0	0	0	0	0
8	Tailing Pond	0	0	0	0	0	0	0	0	0
9	Effluent Treatment Plant	0	0	0	0.05	0	0.05	0	0	0
10	Mineral Separation Plant	0	0	0	3.58	2.16	5.74	0	0	0
11	Township Area	0	0	0	0	0	0	0	0	0
12	Others (Safety Zone) *	0	0	0	4.15	0.69	4.84	4.84		4.84
13	Others (Existing Road, Buildings, Streams)*	0.41	0.26	0.67	0.41	0.26	0.67	8.58	0.05	8.63
14	Others (Utility Corridor)	0	0	0	2.18	0.7	2.88	2.11	0.75	2.86
	Total	**1.83**	**1.09**	**2.25**	**192.51**	**23.68**	**216.19**	**217.4**	**23.7**	**241.1**

(viii) Reserves: Geological reserves, probable mineable reserves and blocked reserve is 314.372 million ton, 288.629 million ton and 25.74 million ton respectively.

Classification	**Code**	**Quantity (Million Tonnes)**			**Grade**	
		Forest	**Non-Forest**	**Total**	**Forest**	**Non Forest**
A. Mineral Reserve						
Probable Mineral Reserves	**122**	**266.63**	**22.00**	**288.63**	**Fe >= 55%**	**Fe >= 55%**
B. Remaining Resources						
Prefeasibility Mineral Resource	**222**	**12.22**	**13.52**	**25.74**	**Fe >= 55%**	**Fe >= 55%**
Total Mineral Resources (A+B)		**278.85**	**35.52**	**314.37**	**Fe >= 55%**	**Fe >= 55%**

(ix) Year wise production:

Sl No.	Year	Total Handling (T)	Waste Quantity (T)	ROM Quantity (T)	ROM Qty Saleable Mineral (T)	ROM Qty Mineral Reject (T)	OB to Ore Ratio (OB Qty/	Grade Range (%)

							ROM Qty)	
1	Year 1	3200000	200000	3000000	3000000	0	0.07	Fe>45%
2	Year 2	6500000	1500000	5000000	5000000	0	0.30	Fe>45%
3	Year 3	8200000	200000	8000000	8000000	0	0.03	Fe>45%
4	Year 4	13000000	3000000	10000000	10000000	0	0.30	Fe>45%
5	Year 5	18000000	8000000	10000000	10000000	0	0.80	Fe>45%

(x) Method of Mining: The area has remained completely virgin so far and no mining operation was carried out in the past. In consideration of the targeted production level, Gandhalpada iron Ore mine is proposed to operate through Open cast mining with mechanized means, deep hole drilling & blasting followed by shovel dumper combination has been proposed for loading and transportation of the ROM and Waste. Long term mining plan has been made to achieve production of Iron Ore @ 10 MTPA ROM. Currently, the production plan has been made based on the G2 level exploratory data (done by GSI), however, the exploration will be done at G1 level in the phased manner, subsequent to grant of mining lease and after obtaining statutory clearances. Ore will be transported in dumpers to crusher while waste will be transported in dumpers to the earmarked backfilling area/external dump. Due to absence of non-mineralized area (since the entire lease area is covered within ultimate pit), long term mining sequence has been developed to enable space for backfilling. A maximum bench height of 10m will be maintained across the entire pit. In Gandhalpada auction block, the ore is mostly powdery to soft laminated varieties (FINES) with partings of ferruginous shale. Thin layer of Hard Laminated Ore (HLO) (LUMPS) is present on the surface, followed by powdery and soft laminated ore at depth, which are inseparable during dry drilling in most of the cases. In eastern part of the block the ore is mostly powdery to soft laminated varieties with partings of ferruginous shale as intersected in almost all the boreholes. However, an attempt has been made to demarcate the HLO horizon separately wherever considerable thick HLO zone is intersected in the borehole. It is to mention that 4.80m, 14.50m and 23.00m thick hard laminated ore has been intersected at 23.60mbgl, 6.70mbgl and 4.00mbgl (metre below ground level) in borehole OKGB-2, OKGB-11 and OKGB-20 respectively. Life of the mine is 33 years.

(xi) Drilling & Blasting: Drilling and blasting will be required for loosening of the rock mass for ease in excavation. Controlled blasting technique will be adopted to minimize the ground vibration and to avoid flying of rocks. During the blasting, in case of formation of a large boulder, rock breaker will be used for breaking the same to avoid secondary blasting. Drilling will be carried out using 150 mm dia with 3.78 m burden & 5.06 m spacing based on the geological rock characteristics. Considering the disposition of the ore body, it has been estimated that about 80 % (approx.) of planned quantity will require drilling & blasting. Holes will be charged with slurry/emulsion explosives and initiated using electric delay detonators/detonating fuse/NONEL.

Bench Height	10m
Working Bench Width	12m
Ultimate Bench Width	10m
Ultimate Pit Slope	37°
Bench Slope	72°

(xii) Loading & transportation: Blasted material will be loaded with hydraulic excavators of bucket capacity of 2.0 to 5.90 m^3 into dumpers and will be transported to a proposed crushing & screening plant for production of lump & fines. Dumpers of 15/25T capacity would be utilized for shifting of crushed ore to the stack-yard. Marketable ore will be despatched by road through trucks of different capacities and rail. Waste generated will be transported to proposed waste dump.

(xiii) Waste generation and management: The iron ore deposits of the area are associated with BHJ, Laterite, lateritic soil and shale. These will be generated from the lease area as waste with iron ore. About 15820 m^3 of top-soil will be generated in the ensuing plan period of 5 years. Total waste generation will be around 145 Million Tonnes at conceptual stage. Due to lack of non-mineralized area, all the waste generated in the current mining plan period will be dumped in temporary waste dump 1, along the southern part of the lease. However, in future, waste generated will be backfilled in the mined-out pits. Total space available for backfilling in stages will be around 50 Million cum, this space will be available in phases. Till such time, waste will be dumped in the temporary waste dump 1 which will be re-handled in future. The proposed temporary waste dump 1 which has been planned upto 580 mRL in the current mining plan period will be further raised upto 610 mRL at the conceptual stage with overall dump height of 80 m. Toe wall and garland drains will be maintained along the dump to avoid any surface run -off. Overall dump slope will be kept below 28°. As the dump is temporary in nature, stabilization of dump will be done through coir matting and vetiver/equivalent grass.

Sl. No.	Year	Dump Id	Type of Dump	Proposed Area (ha)	Height (m)	Total Dump Quantity (m^3)
1	Year 1	Temporary Waste dump 1	External Dump	14.96	8m (upto 538 mRL)	10000
2	Year 2	Temporary Waste dump 1	External Dump	14.96	20m (Two Stages) (upto 550 mRL)	75000
3	Year 3	Temporary Waste dump 1	External Dump	14.96	20m (Two Stages) (upto 550 mRL)	10000
4	Year 4	Temporary Waste dump 1	External Dump	32.93	30m (upto 560 mRL)	1500000
5	Year 5	Temporary Waste dump 1	External Dump	32.93	50m (upto 580 mRL)	4000000

(xiv) Water Requirement: The demand of water for the project has been estimated as per industrial norms. Around 1600 KLD of surface water soureed from Suna River will be used for the mines for water sprinkling and plantation purpose. It is envisaged that to meet the requirement of water for

drinking and domestic purpose, a tune of 200 KLD will be met from ground water. After that mine quarry will collect sufficient water which will meet the industrial demand. However, the potable water demand at mine, mine facilities will be met through ground water by bore wells. Water Demand at Gandhalpada Iron Ore Mine includes water requirement for sprinkling at mine haul roads, service water requirement for dust suppression system, water requirement for Base Work Shop & other miscellaneous purposes. Overall water requirement is 1800 KLD for the mine operations.

(xv) Power Requirement: The total electricity requirement has been estimated to be 10 MW and will be sourced from CESU, Odisha. The electricity will be used mainly in illumination as well as operating processing plant and office building along with other infrastructure area. Around 2% - 5% of power will be sourced by renewable energy means (Solar power). Solar power majorly will be used for streetlight and solar panel in the mine's office will be erected. Six nos. of DG set with 500 KVA capacity has been proposed for standby backup.

(xvi) Transportation of Ore to End user: Transportation of ore outside the mining lease has been proposed through road/rail transportation at the initial stage. A separate road inside the lease upto the loading point will be maintained for safe transportation of ore. Exit road of 0.8 km from the mine lease will be developed to connect NH 520. Trucks carrying ore outside the lease will be 100% covered by tarpaulin to avoid dust emission along the exit road. Moreover, dust suppression outside the lease upto NH 520 will be done at regular intervals to minimize dust generation during road transport. However, to meet the SOTM (Suggested ore transportation mode) as per NEERI recommendations, there is proposal to lay slurry pipeline for transportation of ore upto end customer. The current study has been done for dispatch of product in the form of slurry through slurry pipeline. The study for the slurry pipeline has been done for 7 MTPA capacity (Phase I) ~3.0 MTPA for Kalamang West (Northern Part) and 4.0 MTPA for Gandhalpada Mine. In Phase II the capacity will be augmented to 13.0 MTPA or more to meet the requirement of both Kalamang, Gandhalpada & upcoming mine in the region. In the initial phase the product from Gandhalpada Iron Mine will be conveyed through dump trucks to the wet grinding facility at Kalamang and further dispatch through slurry pipeline. In future a utility corridor has also been proposed for this purpose, within the Gandhalpada lease.

(xvii) Green Belt: Total area proposed for safety zone for initial 5 years would be 4.84 ha and width of the greenbelt along the boundary of project activity is 7.5 m. At the conceptual stage 95.23% of total area will be covered under Plantation. About 12,100 saplings will be planted at initial 5 years for safety zone with fund allocation of Rs 48,40,000.

(xviii) Employment potential: The production of mineral will benefit the State in the form of royalty and dead rent. Apart from this, the project will generate direct and indirect employment to the tune of about 575 persons as well as priority for indirect employment opportunity will be given to nearby villages.

(xix) Project cost: The cost of the project is Rs.731.06 Crore. EMP cost is 58.48 Crore (8%). CSR Cost- Rs. 2.8970 Crores. Public Hearing Commitment- Rs.3.27 Crores.

(xx) Environment Consultant: The Environment consultant M/s Vimta Labs Ltd., Hyderabad along with the proponent made a presentation on the proposal before the Committee. The project proponent has intimated that they have already collected baseline data during October 2022 to December 2022

(xxi) Any deficiencies/omission have been noticed in the above documents- Nil.

2. **Whether SEAC recommended the proposal – Yes**. The SEAC in its meeting held on 05.07.2023 have prescribed the following specific ToRs in addition to standard ToRs for conducting detailed EIA study.
   i) Site specific conservation plan with emphasis on Karo-Karampada Elephant Corridor / Elephant movement areas with due approval of Chief Wildlife Warden.
   ii) Any forest land required outside the lease area for use of transportation route, if so, detailed status of diversion of such forest land is to be submitted.

iii) Details of existing mines and their operational status within 10 kms radius is to be submitted.
iv) The following information to be submitted.
   a) Compliance of mining plan, including waste and OB dump management, mine closure plan etc.
   b) Compliance to Common cause judgment
   c) Status of R&R
   d) Compliance of plantation
   e) Compliance of public hearing issues
   f) Status of complaints/ court cases/legal action
   g) Any other relevant environmental issue / parameter.
   h) The following studies be undertaken by domain experts, viz:
      - Blast vibration study if feasible with trial blasts
      - Socio economic study of the neighbouring habitation
      - Biodiversity study (with special emphasis on RET and endemic species) with audit mechanism.
      - Slope stability study for both mines and OB /waste dumps.
      - Surface runoff management along with rainwater harvesting and ground water recharge include the design of drainage structures.
      - Traffic density study, both inside the mines and at haulage roads, intersecting points of haulage road with public road.
      - Hydrology study: The study findings and the mitigation measures thereof to be submitted

v) RL of ground water during summer and rainy season along with RL of the ground post mining as per the approved mining plan to be reported.

vi) Report the contents of chromium, manganese, and other heavy metal elements such as vanadium, mercury etc. in the ground water samples of the study area.

vii) Cost of the CER calculated shall be utilized for the concerns of the people in terms of health, education, and infrastructure and environment protection. Project Proponent also shall include the budget for the betterment of schools nearby and to facilitate the online education system by providing Wi-Fi connectivity and desktops/tablets.

viii) The project proponent should provide in the EIA Report details of all the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after grant of EC.

ix) The project proponent should submit the revenue plan for mining lease, revenue plan should be imposed on the satellite imaginary clearly demarcate the Govt. land, private land, agricultural land etc.

x) The project proponent should submit the real-time aerial footage & video of the mining lease area and of the transportation route. The project proponent should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The project proponent should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this the project proponent should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Presently in India there are many agencies which are developing forest in short interval of time. Thus, for the plantation activities details of the experts/agencies to be engaged needs to be provided with budgetary provisions.

xi) The project proponent should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle needs to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative

source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.

xii) The project proponent should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this the project proponent should mention the number and designation of person to be engaged for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.

xiii) The project proponent should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance & Corporate Environmental Responsibility. The capital and recurring expenditure to be incurred needs to be submitted.

xiv) The project proponent should submit the measures/technology to be adopted for prevention of illegal mining and pilferage of mineral. The project proponent should submit the detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.

xv) The project proponent should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The project proponent should provide the source of equations used and complete calculations for computing the emission rate from the various sources.

xvi) The project proponent should clearly bring out that what is the specific diesel consumption and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted.

xvii) The project proponent should bring out the awareness campaign to be carried out on various environmental issues, practical training facility to be provided to the environmental engineer/diploma holders, mining engineer/diploma holders, geologists, and other trades related to mining operations. Target for the same needs to be submitted.

xviii) The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC conditions. After perusal of Standard EC conditions if agreed the project proponent should also submit an undertaking by the way of affidavit for Compliance of Standard EC conditions already prescribed by the Ministry vide O.M. No and Specific condition if prescribed by the SEAC/SEIAA, Odisha.

xix) The project proponent should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. The project proponent shall ensure that accreditation of consultant shall be valid during the collection of baseline date, preparation of EIA/EMP report and during the appraisal process. The project proponent and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the SEIAA, Odisha are factually correct and the project proponent and consultant are fully accountable for the same.

xx) The project proponent should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this the project proponent should submit the original test reports and certificates of the labs which will analyze the samples.

xxi) The percentage of iron in the final waste generated and not used as iron ore or its upgradation.

xxii) Compliance to NEERI recommendations.

xxiii) "Zero discharge" management & "Zero Dust Re-suppression" management with SOP be submitted.

xxiv) Internal roads, drain management with network of the drain, retaining walls and settling tanks with ETPs be submitted.

xxv) Details of air quality monitoring stations of the area and additional stations at entry and exit of mines and haulage roads, habitation to be considered.
xxvi) Construction and perennial maintenance of haulage road with details of plantation and the species thereof to be submitted.
xxvii) Parking plaza layout with maximum no. of vehicles and types of vehicles that can be parked with basic amenities and facilities.
xxviii) Forest Clearance details with copy of all Forest Clearance.
xxix) Status of complaints/ court cases/legal action regarding to lease along with a detailed write up indicating case no., purpose of the case etc.
xxx) Copy of lease document.
xxxi) Details of waste management i.e. composition and nature of waste generated, tabulated form showing year wise waste generation, usage and storage.
xxxii) Project Proponent shall consider developing a good nursery in nearby village for production of saplings of 4-6 feet height for planting in safety zone, sides of external haulage roads and distribution among villagers for planting in their private land/ community land. The nursery may be developed by company on their own or in collaboration with forest department. A detailed proposal to this effect shall be submitted. The proponent shall ensure to use organic fertilizer in the nursery.
xxxiii) Comprehensive water management, water balance with water harvesting and its reuse both monsoon and non-monsoon period.
xxxiv) STP plan with design with location in the layout map for domestic waste water treatment.
xxxv) Provision of solar power (percentage wise) with detail plan.
xxxvi) To submit the network with dimension of concrete cement roads inside the mining lease area and haulage road.
xxxvii) To submit parking plaza at entry and exit of the mines with basic amenities.
xxxviii) Plan and SoP to be submitted for water sprinkling inside the mines and outside in haulage road including regular vacuum cleaning and Zero Dust Resuspension system to completely mitigate and arrest fugitive dust emission.
xxxix) Wagon drill blasting must be avoided- to confirm.
xl) Details of grade of Fe to be mined, cutoff grade, management of off grade, quantity of each year wise and the dumping or storage plan of off grade and wastes to be provided.
xli) Total water management including domestic use w.r.t sourcing from borewell, rain water harvesting and recycling of waste water from ETP/STP, both for monsoon and non-monsoon be submitted.
xlii) Measures to be taken for arresting and mitigation of occupational health hazard including identification of the same, both for employees and nearby/surrounding habitation.
xliii) Year wise waste/OB management with reference to generation and utilization in consideration with dynamic movement of inventory indicating dump area and dimension of storage be submitted.
xliv) Details of grades to be produced, to be discarded as waste and dumps and the utilisation plan.
xlv) Details of Trees falling.
xlvi) The road to which the approach road of 3.5 kms as stated to be connected?
xlvii) Permission/ NOC from CGWA as a contingency measure in case of intersection with ground water and the corresponding Disaster Management plan.
xlviii) Details of plan and calculation of consumption of solar power including for water sprinkling vis - a - vis the generation and as percentage of total power demand.
xlix) Site specific wild Life management plan including protection and conservation of Endangered, Threatened and Near Threatened living species along with their categories be identified and submitted with due approval of Chief Wildlife Warden.
l) Rain water Harvesting Pond (s) details with design.
li) Provision of suitable size of sump be planned in the second review of Mining Plan period prior

	to backfilling of Mined out area. The sump will be beneficial for the storage of water for use of Mines and recharge of groundwater Aquifer.
iii)	The proposed land is a forest land. The lease area is covered with 35,000 trees. The PP need to submit concrete plan for how many trees can be transplanted in safety zone and how many trees shall be cut.
iii)	Detail water management plan in the EIA/EMP study as there is provision for transportation of final product in slurry form.
iv)	Ore/heavy metal analysis correlated with the elemental content of the baseline study to be submitted.

Decision of Authority: Approved

After detailed deliberation in the matter, the Authority decided to issue Standard ToR and specific ToR as recommended by SEAC.

APPROVED BY

Member Secretary, SEIAA **Member, SEIAA** **Chairman, SEIAA**

AGENDA NO.131.05	
Proposal No.	SIA/OR/MIN/433425/2023
Date of application	21.06.2023
File No.	433425/592-MINB2/06-2023
Project Type	EC
Category	B2
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for grant of EC for Jugalapadar Decorative Stone Mine over an area of 4.350Ha. or 10.75acres in Village - Jugalapadar, Tahasil- Baipariguda, District-Koraput
Name of the company/Organization	Applicant: Sri Gyana Das
Location of Project	Village - Jugalapadar, Tahasil- Baipariguda, District-Koraput

1. Proposal in brief:

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

(i) This proposal is for Environmental Clearance for Jugalapadar Decorative Stone Mine over an area of 4.350Ha. or 10.75acres hectares Village - Jugalapadar, Tahasil- Baipariguda, District-Koraput filed by Sri Gyana Das.

(ii) The Jugalapadar decorative stone mining lease area for decorative stone over an area of 4.350Ha or 10.75 Acres located in the village Jugulapadar under Tahasil Boipariguda, District Koraput, Odisha, was initially granted in favour of Sri P.K Srivastava.

(iii) The applied Mining lease area over 4.350 Hectares or 10.75 Acres in village Jugalapadar, under Boipariguda, Tahasil of Koraput district, Odisha was granted by Department of Steel & Mines, Govt. of Odisha vide Letter No $\frac{1579}{IV(DS)SM-43/2008}$/SM Bhubaneswar, on dated 24.02.2016 in favour of Sri P.K Srivastava for 20 years.

(iv) The Mining Plan along with mine closure plan was approved by Director of Mines, Odisha, Bhubaneswar Memo No- 4493 on dated 13.05.2016 for a period of five years.

(v) The lessee has applied for EC in DEIAA, Koraput, Odisha in 2016 & after considering the proposal the DEAC, Koraput has approved the Environment Clearance vide letter no. 6021/XX-335/16 dated 25.11.2016 in favour of the project proponent Sri Pravat Kumar Srivastava.

(vi) Surface right for permission granted by Office of the Collector, Koraput, Odisha vide Memo No 920/Mines Dated 28.07.2022.

(vii) Location and connectivity: The mining lease area is located in the Survey of India Toposheet no. 64J/5 of latitudes N 18° 45' 46" to N 18° 45' 51" & longitudes- E 82° 23.25" to E 82° 23.42". The land use pattern of the mining lease area comes under the non-forest waste land (Abada Ajogya Anabadi), bearing Khata no-116, Plot no- 28 and Kissam: Pahado. The Nearest railway stations is at Jeypore Railway Station at distance of 22.30km. The Gupteswar road (SH-24) is connected to NH-326 at a distance of 4km. Bergan Bridge on Kurulu River at a distance of 0.9Km. Nearest Airport is Jeypore Airport which is at a distance of 22Km.

(viii) Reserves: As per the estimation the geological reserve is found to be 35080m^3 & Mineable reserve for decorative stone is found to be 21880m^3.

(ix) Mining method: Decorative stone in the applied M.L. area is proposed to be mined out by semi-mechanized opencast mining through the formation of safe benches on single shift basis. Height and width of the benches will be kept at 3m and 5m respectively. Overall pit slope angle will be 31° with the horizontal. The major activities in this quarry are removal of waste materials, block cutting & dressing, loading & transportation of blocks and waste disposal. Hydraulic excavator will be used to remove the weathered rocks / waste associated with the dolerite boulders. Jack-hammer with compressor arrangement will be making holes for line drilling at 15cm to 20 cm interval. Wedges and

feathers will be inserted in these holes and hammered in a calculated sequence for splitting of blocks from the face. After the development of cracks, hydraulic jacks of excavator will be used to push the bigger blocks away from their mother rock mass. Hydraulic excavator will be used for tilting, lifting and loading of the blocks. These blocks will be pushed & loaded in to trailers. This excavator in combination with a rear dump truck will also be used to remove the rejected blocks or mine waste from quarry faces for a short distance. After detaching the blocks from their mother rocks, these are to be shifted from quarry faces to dressing yard/ quarry floor. Pitcher/sledge hammers & chisels of different sizes will be used to have well shaped blocks free from protrusions and irregularities.

(x) Transportation: The decorative stone blocks will be extracted, loaded and transferred from a quarry face to the stone cutting shop/processing plant/port through trailers/lorries/ trucks. Mineral rejects (off-standard blocks of irregular size, with cracks & unacceptable color variation), rubble stone will be transported through tippers to the waste dump as waste/ rejects.

(xi) Production and waste: During the total plan period of five year there has been targeted to excavate 54000 m^3 of rock zone, which will generate 10,800m^3 (20% of total mass) of decorative stone blocks, 2700$m^3$of is under presently non-salable stone (5% of total mass) and remaining 40500m^3 of waste/rejects. Saleable Decorative Stone to waste ratio 10,800 / 40,500 = 1 : 3.75 and saleable decorative stone to presently non-saleable stone = 10,800 / 2,700 = 1 : 0.25.A total of 40500m^3amount of waste rock to be generated during the plan period. These waste rock will be utilized for maintenance of road stack yard etc inside the lease area. Presently Non-saleable materials will be utilized con-currently for construction and maintenance of road in the lease area & will be sold to the local entrepreneurs for use as construction materials or for recovery of small size tiles.

S. No	Particulars	Details
1	Production Plan	Volume of Decorative Stone-2400 (c.u.m)/annum Maximum
2	Altitude of decorative stone exposure	Highest altitude of 623m and the lowest point is at 599m.
3	Maximum depth of the Decorative stone	23 M (399m RL)
4	Grade	Granite gneiss known as Dolerite dykes/ Black Granite.
5	Decorative stone out of total rock mass	20%
6	Generation of waste.	75%
7	Bulk density	2.6 t/m^3
8	Bench height	3 m
9	Bench width	5 m
10	Decorative stone to waste +rejects	1 : 3.75

Year	Volume of excavation	Volume of Waste (75%)	Volume of presently non-saleable stone (5%)	Volume of decorative Stone (20%)
	(m^3)	(m^3)	(m^3)	(m^3)
1st	9,000	6,750	450	1,800
2nd	10,000	7,500	500	2,000
3rd	11,000	8,250	550	2,200
4th	12,000	9,000	600	2,400

5th	12,000	9,000	600	2,400
Total	**54,000**	**40,500**	**2,700**	**10,800**

(xii) Greenbelt: There will be proposed for green belt development over an area of 0.37 Ha. in and along the periphery of the quarry lease area of during the plan period by 925 nos. of saplings for rehabilitation.

Year	Area of Plantation in Ha	No of saplings Planted	Name Of Species Proposed	Location
1st year	0.2	500	Mango, Neem, Mahaneem, Chakunda, Teak, Salapa, Sal, Mahua,	Safety Zone
2nd year	0.17	425		
Sub-Total	**0.37**	**925**		
Conceptual period	0.800	1600	Agave americana, Lantena camara, Odoratus sps, Clystanthus collinus, Wood fordia fruticosa	Dump yard, Stack yard
Plantation along connecting road	0.5 km	500	Mango, Neem, Teak, Simarouba, Chakunda, Jamun, Tamarind	Both side of the connecting road)

(xiii) Water requirement: During the mining operation there is no perennial nala within the lease area. The water will be taken from the nearby bore wells through tankers used for non-domestic purpose. Water from the tube well will be used for domestic consumption and for other purpose the water will be taken from the pond near to the lease area. Total 5.5KLD of water will be utilized for the mine work. Out of total requirement of water 0.5KLD is for domestic purpose and 5KLD for non-domestic purpose. Water will be sourced from local fire tankers.

(xiv) Employment potential: A total of 25-nos. of employed in the mine. There will be 6 nos of Administrative Staffs, 9 no. of Skilled and 5 no. of semi-skilled & 2no of un-skilled workers category in the mine workers.

(xv) Project cost: The cost of the project is Rs 30 lakhs. EMP cost includes a capital cost of 6 lakhs and recurring cost of 4 lakhs.

Table: Cost of EMP (capital cost)

S. N.	Particulars	Cost in Lakh
I.	Pollution Control	
1	Water Tanker	4.00
2	Garland drains & retaining walls around the dump	1.00
	Sub Total	5.00
II.	Occupational Health	
1	Safety equipment& occupational health check up	0.5
	Sub Total	0.5
III.	Green Belt& Miscellaneous	0.5
	Grand Total	6.0

Table: Cost of EMP(recurring cost)

Sl. No.	Particulars	Cost in (Lakhs)
I.	Pollution Control	
1	Regular Water sprinkling in the dust prone areas	1.0

2	Maintenance of garland drain, settling tank & retaining wall	0.5
	Sub Total	1.5
II.	Pollution Monitoring	
1	Air, Water & Noise pollution Monitoring	1.0
	Sub Total	1.0
III.	Occupational Health	
1	PPEs for workers	0.5
2	Regular health check ups	0.5
	Sub Total	1.0
IV.	Green Belt	0.5
	Total	4.0

Table: CSR cost

S. No.	Particulars	Amt. in Lakh of Rs.
1	Repairing of Roads from lease area to village	2.00
2	Repair & Mntc. of tubewells for Drinking Water Provision	1.00
3	Financial Assistance to local school	0.5
4	Gross Plantation in waste land of the village	0.5
	Grand Total	**4.0**

(xvi) 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

(xvii) Whether the DSR has been prepared as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020- **No**

(xviii) Any deficiencies/omission have been noticed in the above documents-Nil

2.Whether SEAC recommended the proposal – Yes. The SEAC in its meeting held on 05.07.2023 have **recommended for grant of Environmental Clearance** upto lease period with stipulated conditions and following additional conditions.

i) Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.

ii) The project proponent shall maintain periodic health check-up records of their employees and ensure use of face mask by workers in crushing and handling sections of the decorative stone quarry for ensuring that working personnel are not affected by silicosis

Decision of Authority: Approved

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

- Maximum quantity of extraction shall be limited to **2400 cum**.
- The validity of EC is for 1st year and 2nd year or validity of DSR or validity of lease period whichever is earlier.
- The Grant of EC for further period will be considered after submission of approved DSR by SEIAA as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020 and also