PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 15TH JULY, 2022

The SEAC met on 15th July, 2022 at 10:30 AM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri B. P. Singh. The following members were present in the meeting.

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

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

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. ARYANS INFRASTRUCTURE PRIVATE LIMITED FOR PROPOSED LB+UB+G+12 FLOORS (BLOCK-A & BLOCK-B) RESIDENTIAL BUILDING APARTMENT OVER PLOT NO-177, KHATA NO-166/273 OVER BUILT-UP AREA OF 21813.54 SQM AT MOUZA- ARAKHAKUDA ORAPA, TELENGAPENTH, CUTTACK DISTRICT OF OF SRI MAHADEV PATI - EC

1. The proposal is for Environmental Clearance of M/s. Aryans Infrastructure Private Limited for Proposed LB+UB+G+12 floors (Block-A & Block-B) residential building apartment over plot no-177, Khata No-166/273 over built-up area of 21813.54 sqm at Mouza- Arakhakuda orapa, Telengapenth, Cuttack District of of Sri Mahadev Pati (Director).

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. The proponent Smt. Sarmistha Kar has proposed a LB+UB+G+12 residential building apartment (Block-A & Block-B) over an land of 4613 m^2 (1.139Ac.) on plot no-177, Khata No-166/273 and total built-up area is 21813.54 sqm

4. **Location and Connectivity** - The proposed site is located at Arakhuda Orapa Telengapentha by the side of Puri-canal road in Cuttack of Odisha. The Geographical coordinates of the project site is: Latitude 20° 23’ 12.10” N to 20° 23’ 14.21” & Longitude 85° 53’ 1.92” E to 85°53’ 4.64” E and featured under Toposheet F45T15. Nearest NH is National Highway-16 is at a distance of 0.24 Km. The Cuttack Railway Station at a distance of about 8.5 km. The SCB medical college and hospital is at a distance of 9.2km from the project site. The Biju Patnaik International Airport at a distance of about 16.8 km from the project site.

5. The Building Details of The Project:

   Building Height = 39m
   Building length = 35.49m

Building width = 24.99m

No of Towers = 2,
Block A has - 3BHK(38Flats) and 4BHK(13 Flats)
Block B has - 3BHK(25Flats), 1BHK(25Flats) and 2BHK(25 Flats)
No of floors = 12
No. of Dwelling Units: 126

6. **Statutory clearances obtained are –**

Sl. No.	APPROVALS/NOCS	Status	Letter No.	Remarks
1.	Cuttack Municipal Corporation	Applied and recommended for approval by BP&DP committee		
2.	Land Ownership	0.4613 ha Gharbari Land is in the name of PP.	Plot No- 177, Khata No:166/71	Land is in possession
3.	TPCODL(Tata Power Central Odisha Distribution Limited) approval.	Applied and Approval Obtained	TPCODL/CED/TECH/No.-40th, Dt-06.01.2022	NOC has been obtained.
4.	Fire NOC	Fire safety Recommendation obtained.	RECOMM1101020022022000446 has obtained on Dt- 27.01.2022	Certificate to be obtained after completion of construction work.
5.	Ground water NOC from CGWA	Approval Received	CGWA/NOC/INF/ORIG/2022/14774 for 71m³ /day fresh water.	Valid from 13.03.2022 to 12.03.2027
6.	Structural Stability Report	Obtained from Er. Siddharth Das(Structural Design Consultant, REGD No-RTP/DTP (ST. ER)-18312019)	Ref. No-SRD/AIPL/5, Dt-11.05.2022	
7.	AIRPORT AUTHORITY CLEARANCE	Approval has been obtained.	Ref No-AAI/BBS/ATM/NOC/141-CERT/03 of 2022, Dt-1102.2022.	

7. **Power requirement:** The daily power requirement for the proposed complex is preliminarily, estimated as 746 KW source from Tata Power Central Odisha Distribution Limited (TPCODL). The NOC letter with letter No. 1636, dtd.20.11.2021 from TPCODL. In order to meet emergency power requirements during the grid failure, there is provision of one nos. of DG set having 400KVA capacities for power back up in the residential building Project. Solar energy to be generated by 56 nos. of solar panels per day = 66KW.

8. **Water requirement:** Fresh make up of 60KLD will be required for the project which will be sourced from Ground water. It is expected that the project will generate 30 KLD of wastewater which will be treated in STP of capacity 100 KLD. Treated water will be fully utilised during Non Monsoon Period and 11m3/day will be discharged to drain during Monsoon Period.

9. **Rain Water harvested** through 5 nos. of Rain Water recharging pits. .

10. **Fire fighting Installations:** Fire fighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the provisions given in Part-IV of National Building Code of India -2016 and relevant BIS specifications.

11. **Parking -** Adequate parking space of 5713.87 m^2 /173 ECS is provided in Lower Basement, Upper Basement and open space.

12. **Green Belt Development:** An adequate greenbelt on area of 922.75sq.m. (20.01% of the plot area) and landscape area of terrace of 200 sqm. above will be developed..

13. **Solid Waste Management:** Solid Wastes generated during Operation Period: From the residential complex solid waste in form of food waste from kitchen and miscellaneous Municipal Solid waste will be generated @ 0.45 kg/capita/day, which will be about 618 x 0.45 kg/day = 278 kg/day and 4kg/day of STP sludge will be generated. The total solid waste generated will be 282 Kg/day. The generated solid waste from the residential will be segregated as biodegradable and non-biodegradable. The total biodegradable solid waste will be 40% of total solid waste i.e. 111 kg/day and total non-biodegradable solid waste will be 60% of total solid waste i.e. 167 kg/Day. This will be collected in separate coloured bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste. Solid waste from sweeping and Dry Garbage containing non-biodegradable wastes like polythene bags, metal, ceramic Waste, glass etc. shall be stored in separate garbage bin and disposed through Cuttack Municipality Corporation.

14. The estimated project cost is ` 55 Crores.

15. The project proponent along with the consultant **M/s Global Tech Enviro Experts Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Global Tech Enviro Experts Pvt. Ltd., Bhubaneswar** the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by site visit of Sub-Committee of SEAC.

i) Layout map showing the treated water fallout to nearest drain and it's distance.

ii) Layout of internal drainage map and their fallout to external public drain.

iii) Layout showing Rainwater Harvesting pits, DG sets, STP, greenbelt.

iv) Copy of permission of the concerned authority of the drain / sewer to discharge the treated water from project to the nearby drain.

v) Parking in terms of space and ECS for 4 wheelers, 2 wheelers including bicycles be calculated separately for dwellers & visitors (floating population) the norm as well and showing it in the layout map & be submitted.

vi) Copy of Traffic Study vetted by repute institute be submitted.

vii) Break up of greenbelt of plot area in terms of plantation and landscape.

viii) Brief justification/calculation about 7KLD of water in evaporation, 25KLD of water in HVAC.

ix) Certificate of Structural Stability for the building be submitted.

x) Copy of GPA.

xi) Revisit the Rain water harvesting calculation by taking 160mm of rainfall.

xii) Kisam of the land as per Haal & Sabik record from appreciate Revenue Authority and land records in favour of the PP to be submitted.

xiii) Structural Stability certificate from appropriate authority as per CDA guidelines be submitted.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S HARSHPRIYA CONSTRUCTIONS PVT LTD FOR PROPOSED CONSTRUCTION OF RESIDENTIAL-CUM-COMMERCIAL BUILDING (LB+UB+G+14) BLOCK A,(LB+UB+STILT+15) BLOCK-B, LB+UB+G+4 (BLOCK-C) AND G+2 (BLOCK-D) OVER BUILT-UP AREA OF 50991.911 SQM AT PATIA, BHUBANESWAR, KHORDHA DISTRICT OF SRI CHETAN KUMAR TEKARIWAL - EC

1. The proposal is for Environmental Clearance of M/s Harshpriya Constructions Pvt Ltd for Proposed Construction of Residential-cum-Commercial building (LB+UB+G+14) Block A,(LB+UB+STILT+15) Block-B, LB+UB+G+4 (BLOCK-C) and G+2 (BLOCK-D) over built-up area of 50991.911 sqm at Patia, Bhubaneswar, Khordha District of Sri Chetan Kumar Tekariwal.
2. As per EIA Notification dated 14th Sept, 2006, as amended from time to time; this project falls under Category "B", Project or Activity 8(a) Building and Construction projects (EIA Notification dated 14th Sep, 2006 as amended on 2009).
3. M/s Harshpriya Constructions Pvt. has proposed Residential-cum-Commercial Building on land of 2.07 Acres at Plot No.: 1140, 1141, 1141/4157, 1142, 1142/2350, 1143, 1146, 1147, 1138, 1148, 1146/2198 & 1161.
4. **Location and Connectivity –** The proposed site is located at Baramunda, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is Latitude - 20° 16' 18. 08" N & Longitude - 85° 48' 16. 49" E. and the area comes under Survey of India Toposheet No-73H/11, 73H/12, 73H/15 & 73H816.The project site is well connected with National Highway NH-16. The nearest railway station is Bhubaneswar Railway station at a distance of approx 4.1 Km in East direction. The nearest airport is Biju Pattnaik Airport at a distance of approx. 2.4 Km in East direction from project site.
5. The building details of the Project:

Particular	Existing (As per EC)	Expansion	Permissible
Project Name	Proposed (LB+UB+G+9)Block A, (LB+UB+G+4)Block -B (UB+G+4)Block-C and (G+1)Block-D Storied Residential-cum-Commercial with Multiplex Building	Proposed Construction of Residential-cum-Commercial building (LB+UB+G+14) BLOCK-A,(LB+UB+STILT+15) Block-B, LB+UB+G+4(BLOCK-C) and G+2 (BLOCK-D).	
Plot Area	7809.200 sqm	8400.37 sqm	--
Ground Coverage	3135.373 sqm(40.15%)	3276.144 sqm (39 %)	
Built up Area	26812.79	50991.911 sqm	--
FAR Area	2.446	4.490	--
Maximum Height	32m	52.5 m	--

Road & Paved Area	2647.32	3360.15 sqm	--
Parking Area	7711.11 sqm	11179.84 sqm	30% of Residential & 50 % Commercial Area
Green Belt Area	1590.0 sqm	1764.07 sqm (21%)	(20 % of Plot area)
Power/Electricity Requirement & Sources	1467	TPCODL - 2559 KW, Solar - 280 KW, Total - 2839KW	--
No. of DG sets	2 x 500 KVA	3x750 KVA	--
Water requirement & Sources	115 KLD	156 KLD (Fresh)	--
Sewage Treatment & Disposal	180 KLD	STP Capacity 230 KLD	--
Estimated Population-Residential, Floating/visitors	2350 nos	Residential – 1660 nos. Commercial- 40 nos. Floating- 170 nos.	--

6. **Water Requirement** – Fresh Water consumption for the Residential People 1660 @ 90 lpcd = 149.4 m^3/day, Flushing for Residential People 1660 @ 45 = 74.7 m^3/day, Fresh Water Consumption for Floating People will be 170 nos @ 30 = 5.1 m^3/day, Flushing for Floating People will be 170 @ 15 lpcd = 2.55 m^3/day, Fresh Water Consumption for Commercial People will be 40 nos @ 30 = 1.2 m^3/day, Flushing for Commercial People will be 40 @ 15 lpcd = 0.6 m^3/day, for Landscaping the required water will be 7.06 m^3/day.

Total Water requirement

Sl. No.	Description	Total Population	Per Capita Consumption (ltr/day)	Water Requirement (KLD)		
				Domestic	Flushing	Total
1.	Residential	1660 nos	135	149.4	74.7	224.1
2.	Floating	170 nos	45	5.1	2.55	7.65
3.	Commercial	40 nos	45	1.2	0.6	1.8
			TOTAL	**155.7 ≈ 156.0**	**77.85 ≈ 78.0**	**233.55 ≈ 234.0**

Table for Wastewater Calculations

Details	Water (KLD)
Water requirement for domestic purpose	156.0
Wastewater generated from domestic use (@ 80 % of domestic water requirement)	146.15
Water requirement for Flushing Purpose	78.0
Wastewater generated from Flushing (@ 95 % of flushing requirement)	74.1

Total Wastewater generated	**146.15+74.1 = 220.25 KLD**
STP Loss (5 % of wastewater generation)	**11.01**
Recycled water form STP @ 95 % of wastewater generated	**209.24**

7. Rain Water will be harvested through 35 nos. of Rain Water recharging pits.
8. **Power Requirement** - The total consolidated electrical load estimate for proposed project is about 2839 KW. Power generated from Solar is 279.6 KW from 250 nos. of PV solar panels. Power backup incase of grid failure will be by 3 nos. of DG sets of 750 KVA capacities.
9. **Solid waste Management -** From the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.4 kg/capita/day, which will be about 1660 x 0.45 = 747 kg/day. Waste generated from Commercial people will be @ 0.15 kg/capita/day, which will be about 40 x 0.15 = 6 kg/day. Around 110 kg/day of STP sludge will be generated. Sludge will be used as manure in landscaping. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate colored beans. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste.

S. No.	Category	Counts (heads)	Waste generated
1.	Residents	1660 @ 0.45 kg/day	747.0
2.	Commercial	40 @ 0.15 kg/day	6
3.	Road sweeping	170 @ 0.1 kg/day	17.0
4.	STP sludge		110
TOTAL SOLID WASTE GENERATED			**880 kg/day**

10. **Green Belt**- Green belt will be developed over an area of 1764.07 sqm which is 21.0 % of the plot area; by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.
11. **Parking Details –** Total parking area allocated to the project is 11179.84 m^2/ 318ECS.
12. The project cost is ` 75 crores.
13. The proponent along with the consultant **M/s. Centre for Envotech & Management Consultancy Pvt. Ltd. Bhubaneswar** made a detailed presentation on the proposal.

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

i) Proof of foundation already done with certification of safety of modified building plans from the appropriate authority and BDA.

ii) EC obtained earlier in 2020 and this is a modified proposal. Reason for modification of such proposal and comparative statement of all parameters of earlier EC and present proposal (modified) is to be submitted.

iii) Extent of construction done as per EC obtained and any construction activity have been carried out for modified proposal.

iv) Copy of Structural safety stability certificate.

v) Documents of Power of Attorney.

vi) Revise Traffic Study Report.

vii) EC compliance of earlier EC duly certified by Regional MOEF & CC to be submitted.

viii) Structural Certificate as per BDA guidelines be submitted against the original approved plan for which EC was granted and also for the modified revised approved plan

ix) Discharge of waste water to the natural drain is stated to be 92.64 KLD which works out to 60 percent of proposed drawl of ground water and is too high after estimated re-use 76 KLD of waste water as proposed by way of Ac and car washing which is again looks very high.

In view of above, water consumption, recycling, re-use of waste water etc. be re calculated with the basis, re visited and water balance be resubmitted.

x) Permission letter from appropriate authority of drain for discharge of such huge quantity of treated waste water be submitted.

xi) Rain water harvesting and recharging thereof need to be minimum 50percent of ground water drawl as per CGWA norm.

xii) Detail calculation of all the parameters be submitted.

xiii) Basis with calculation for selection of no of DG sets and capacity (s) thereof be submitted.

xiv) Rain water harvesting and no of recharging pits be re calculated based on maximum hourly rain fall in last 30 years and suitable retention time.

xv) A write- up be submitted as to why this proposal shall not be considered as a Violation.

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S RIVER FRONT DEVELOPERS PVT. LTD FOR PROPOSED RESIDENTIAL CUM COMMERCIAL APARTMENT [INTEGRATED ENVELOPE 3B + GF (COMMERCIAL) UPPER STILT +FIRST FLOOR (AMENITY FLOOR)+ SF (SERVICE FLOOR)+ 4 TOWERS OF 22 MULTI STORIED RESIDENTIAL APARTMENT BUILDING OVER CDA ALLOTTED DRAWING PLOT NO. 713,714,715,716,717,718,719 CORRESPONDING TO REVENUE PLOT NO. 94/2145, 95 (P), 98 (P) OVER AN BUILT-UP AREA 98706.93SQM OF MOUZA BIDAYDHARPUR UNDER SECTOR-8, BIDANASI PROJECT AREA IN FAVOUR OF SRI MANOJ KUMAR SAHOO - EC

1. The proposal is for Environmental Clearance of M/s River Front Developers Pvt. Ltd for Proposed Residential Cum Commercial Apartment [Integrated envelope 3B + GF (commercial) upper stilt +First Floor (Amenity Floor)+ SF (service floor)+ 4 towers of 22 multi storied residential apartment building over CDA allotted drawing plot no. 713,714,715,716,717,718,719 corresponding to Revenue plot no. 94/2145, 95 (P), 98 (P) over an built-up area 98706.93sqm of Mouza Bidaydharpur under Sector-8, Bidanasi project area in favour of Sri Manoj Kumar Sahoo .
2. As per EIA Notification dated 14th Sept, 2006, as amended from time to time; this project falls under Category “B”, Project or Activity 8(a) Building and Construction projects (EIA Notification dated 14th Sep, 2006 as amended on 2009).
3. M/s River Front Developers Pvt. Ltd has proposed The proposed development is a Residential Cum Commercial project [Integrated envelope 3B + GF (commercial) upper stilt +First Floor (Amenity Floor)+ SF (service floor)+ 4 towers of 22 multi storied residential apartment building

over CDA allotted drawing plot no. 713,714,715,716,717,718,719 corresponding to Revenue plot no. 94/2145, 95 (P), 98 (P) in Khata no – 330 of Mouza Bidaydharpur under Sector-8, Bidanasi.

4. M/S. River Front Developers Pvt. Ltd. has obtained the land possession about 2.43 Acres. Proposed Built-up area-98706.93 m2 FAR Area:- 68396.9 m2 (6.95)At present the land is a barren land. The land has been earmarked for construction of residential building as per Plan approved by Cuttack Municipal Corporation.
5. **Location and Connectivity –**The Geographical co-ordinate of the project site is Latitude: 20°28'26.35"N and Longitude: 85°49'43.35"E and the area comes under Survey of India Toposheet No- 73H/11, 73H/12, 73H/15 & 73H816. The site is located close to Cuttack-Naraj-Athagarh Road which connects to Ring Road at Subhash Chandra Bose Sqaure, the Ring Road then connects to NH-16 at Link Road Square (covering a total of 10.5 km by road). And the site is approximately 12 km (by road) from Cuttack Railway Station. The nearest airport is Biju Pattnaik Airport at a distance of approx. 24 Km from project site.
6. The building details of the Project:
    - The project will be developed on the land measuring 9837.44 Sqmt or 2.43 Ac or 0.98338 Ha.
    - Plot Area = 2.43 Acres (9837.44 Sqm) As Per The Submitted Document
    - Plot Area as Per Plan = 9837.44 Sqm
    - Total Construction Area = 98706.93 Sqm
    - Total Built-Up Area = 68396.9 Sqm (FAR Area)
    - Total FAR = 6.95
    - Area Permissible For Ground Coverage=3939.1 Sqm
    - Total Ground Coverage Area Provided = 3924.4 Sqm
    - Total Ground Coverage In Percentage = 39.85 %
    - Total Parking Area Provided = (31.68 %) Of The Far Area
    - No. Of Blocks = 1
    - TOTAL NOS OF TOWER PROVIDED FROM THE HEIGHT OF 17.2m OF THE BLOCK For Residential Purpose = 4 Nos
    - No. Of Floors = Basement B1 + Basement 02 + Basement 03 + Commercial+ Upper Stilt For Parking + Amenity Floor + Service Floor + 22 Floors Of Residential Required Society Area for 440 Units = 440 Sqm.
    - Society Area Provided = 440.12 Sqm.
7. **Water Requirement** – Total Fresh Water requirement is 224 m3/day. Total Flushing Water requirement is 116 m3/day. Total Water requirement is 340 m3/day (fresh water + flushing water). Waste water generate is 272 m3/day treated in STP of capacity 300KLD. Treated water recovered is 218 m3/day. During non monsoon period there is zero discharge and in monsoon period, 24KLD discharge to drain.

8. Rain Water will be harvested through 30 nos. of Rain Water recharging pits.
9. **Power Requirement** - Total electrical load for the project during operation phase 4431KW. Incase of emergency, power backup is provided through DG Set is 1000 KVA (2X500KVA). Total Solar Panel to be installed - 5% of the total load i.e. 4434 KW x 5% = 221.7 KW or say 220 KW (880 Panel of 250Watts each).
10. **Solid waste Management -** The solid waste generated from the project shall be approx. 1125 kg/day. The total biodegradable solid waste will be 739 kg/day and total non biodegradable solid waste will be 386 kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate colored beans. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste. Biodegradable waste will be treated in a Organic Waste converter having capacity of 750 kg /Day.
11. **Green Belt**- Green belt will be developed over an area of 1969.87 sqm which is 20.02% of the plot area; by using the local species.
12. **Parking Details –** Total parking area allocated to the project is 21674.64 m^2/ 677ECS.
13. The project cost is ` 190 crores and EMP cost - ` 115 Lakh & Recurring Cost is ` 3.1 lacs.
14. The proponent along with the consultant **M/s. Visiontek Consultancy Services Pvt. Ltd. Bhubaneswar** made a detailed presentation on the proposal.

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

i) Revisit water balance and submit with backup calculation.
ii) Traffic Study Report vetted from repute institute to be submitted.
iii) Layout of internal drainage map and their fallout to external public drain.
iv) Layout showing Rainwater Harvesting pits, DG sets, STP, greenbelt.
v) Copy of permission of the concerned authority of the drain / sewer to discharge the treated water from project to the nearby drain.
vi) Permission from WR deptt. for drawl of ground water.
vii) Explore the possibility source of water from Kathajodi River for the project.
viii) Reduce the quantity of water required for the project.
ix) Structural Stability Certificate procured from CDP approved planners as per CDA by law and one copy to be submitted to WR deptt.
x) Cost of Solar Installation to be calculated and EMP budget and to be resubmitted.
xi) Mitigation measures suggested for disaster management plan with Funds allocated towards it.
xii) Increase no. of tree plantation to reduce discharge of treated water to drain.
xiii) Determining the High Flood Level and submission of soil testing report along with it.

ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S NATIONAL ENTERPRISES FOR ENHANCEMENT IN PRODUCTION OF IRON ORE FROM 0.41 MILLION TPA TO 3 MILLION TPA ROM WITH TOTAL EXCAVATION OF 4.073 MILLION TPA (ROM OF 3 MILLION TPA + 1.073 MILLION TPA WASTE) AND SETTING UP A 100 TPH JIGGING & WASHING PLANT, TWO MOBILE JAW CRUSHERS OF 200 TPH CAPACITY EACH, TWO MOBILE CONE CRUSHERS OF 200 TPH CAPACITY EACH & TWO VIBRATORY DRY SCREEN PLANTS OF 200 TPH CAPACITY EACH IN SANINDPUR IRON & MANGANESE MINES OVER AN AREA OF 70.917 HA. IN VILLAGE- SANINDPUR OF SRI CHARANJIT SINGH GREWAL - TOR

1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. The project falls under category "B" or activity 1 (a) - Mining of Minerals under EIA Notification dated 14th September 2006 as amended from time to time.
3. Raikela iron ore mine over an area of 67.586 Ha was initially executed in favor of Smt. Geetarani Mohanty for a period of 20 years w.e.f. 02.07.1991. Subsequently, the lease was transferred in favour of M/s Geetarani Mohanty, a registered firm bearing Registration No 5/92 (Cuttack) on 13.01.1993 with prior approval of the State Govt.
4. Sanindpur Iron & Manganese Mines over an area of 75.00 hectares was initially granted in favour of M/s National Enterprises for a period of 20 years vide proceeding No-6717/MG, dated 24.04.1980.
5. The lease was executed on 10.09.1980 for a period of 20 years i.e. up to 09.09.2000.
6. Subsequently, the Dept. of Steel & Mines, Govt. of Odisha granted 1st RML over an area of 70.917 Ha. in favour of M/s National Enterprises vide proceeding No- lll(B)SM-17-1219/SM, dated 25.01.2001. As per MMDR Amendment Act, 2015 the lease is valid up to 09.09.2030. The supplementary lease deed was executed on 21.05.2021.
7. The DFO, Bonai had issued show cause for violating the section 2 of FC Act 1980 and requested to stop mining within DLC land vide letter No. 4344/6F on dated 22.08.2009.
8. Mining operation within lease area was stopped by the Deputy Director of Mines, Koira from 26.08.2010 on the ground of non-maintenance of environmental clearance as required under EIA Notification 2006.
9. Later, the mining operation within the lease area restarted in June, 2021 only after obtaining the permission from the DDM, Koira vide letter no. 1786/Mines, dated 20.05.2021.
10. The Environmental Clearance for production level of 0.41 million TPA of Iron ore has been obtained from MoEF vide letter no J-11015/375/2008-IA.II(M), dated 28.06.2013.
11. Stage-II Forest Clearance has also been obtained vide MoEF & CC letter No. 8-10/2015-FC, dated 06.10.2020 over an area of 54.399 ha. (including safety zone of 6.841 ha.).
12. Consent to Operate has been issued by SPCB, Odisha vide order No. 5118/IND-I-CON-5633, dated 26.03.2021 and valid up to 31.03.2022. Later the validity of CtO was extended till 31.03.2023 vide letter no. 5136/IND-I-CON-5633 on 30.03.2022.

13. The last Review of Mining Plan was approved by the Regional Controller of Mines, IBM, Bhubaneswar vide letter No-RMP/A/24-ORI/BHU/2019-20, dated 14.11.2019.

14. This modification of Review of Mining Plan is prepared for enhancement of production form 0.41 million TPA to 3 million TPA due to change in working proposals for the balance plan period from 2022-23 to 2024-25 and approved by IBM Regional Office, Bhubaneswar vide letter no. MRMP/A/36-ORI/BHU/2021-22, dt. 23.03.2022.

15. **Location and Connectivity**: The lease area is featured in Toposheet No 73 G/5 bounded by latitude 21^0 54' 37.00683" N to 21^0 55' 16.43478" N and longitude 85^0 18' 25.71442" E to 85^0 19' 08.30766" E. The mining lease area is accessible from Koida town through 8 km long all weather road. Barbil, the nearest railhead of SE railway is situated at a distance of 30 km in NE direction and Barsuan railway siding is at a distance of 35 km in SW direction. Full-fledged market facilities, postal and medical facilities are available at Koida.

16. **Topography** - The Lease area is basically in hill slope of a NW-SE trending hill. No seasonal or perennial nala in the ML area. The highest altitude is 665 mRL and lowest elevation is 595mRL. Surface runoff water flows along the natural slopes into Suna Nadi/ Kundra nala in eastern side of the lease area..

17. **Reserves** - Geological reserve of 31.94 million tons and Mineable reserves of 15.65 million tons have been assessed for the iron ore in the lease area.

18. **Production Details:** Based on the exploration input it is planned to produce ROM of 3 million tons iron ore per annum form the lease area along with a 100 TPH Jigging & Washing Plant for Beneficiation of low grade iron ore, two 200 TPH capacity jaw crusher, two 200 TPH cone crusher & two 200 TPH capacity vibratory dry screening plant each within the mines. The only existing quarry will expand in all direction as well as depth wise to produce iron ore.

19. **Mining Method** - Open cast mechanized method of mining on two shift basis with drilling & blasting is proposed to excavate the iron ore to gradually achieve the production target. Drilling and blasting will be adopted for loosening of hard rock mass both by Core drilling machine along with compress drill. Height and width of the benches will be maintained at 9m & 10m respectively; The slope of individual bench will be 800 and overall slope of the pit will be 420. Benches will be formed in a top downward manner.

20. Life of the mine is 6 years.

21. **Waste Generation and Management** - No top soil will be generated in the mining process as the top surface is lateritic. During the 4th year of mining, backfilling will be started to reclaim 29.32 ha, balance 12.301 ha. will be converted to water body with accumulated rain water. Total 8,96,280m3 waste will be generated during life of the mines; The generated waste material will be dumped in Dump-III, which is already spread over 3.65 ha. Conceptually the dump occupies 5.951 ha. and maintain the height upto 37m in five tires. 50% of the waste material will be used in backfilling of mined out area and balance to be used in road maintenance.

22. **Plantation**- During the conceptual period, 73,300 nos. of plants will be planted on the backfilled area of 29.32 ha. Apart from it, 7.367 ha of the conceptual dump area will be terraced & plantation will be developed on each terrace; 2.212 ha of road, 2.137 ha of mineral storage yard & 1.57 ha of infrastructure area will left as such for public used.

23. **Water Requirement** - The peak water requirement shall be 75 m3/ day for mining related activity & 44 m3/ day as make up water for Jijgging & Washing Plan and shall be met from the Suna river & ground water source with due permission.
24. **Power Requirement -** The supply of electrical energy for the mine site shall be received from TPWODC. The power requirement for the mining complex (including office) shall be 1000 KVA.
25. **Manpower -** The mining activity shall generate direct employment opportunity for 104 persons & 20 more in Jigging & Washing Plant and most of them shall be fulfilled by the locals.
26. **Project Cost** - The project cost is estimated to be Rs. 40 crores and there is a budgetary provision of Rs. 4 crores as capital cost towards environmental protection measures; whereas Rs 80 lakhs will be spent annually towards regular maintenance & recurring activities.
27. The Environment Consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** along with the proponent made a detailed presentation on the proposal before the Committee.

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

i) Dump management and tailing management of proposed expansion.

ii) Details of De-reservation of gochhar and agricultural lands as per district administration.

iii) Certified Compliance Report to previous EC, CTO conditions.

iv) Moving inventory average of iron sub grade, tailings, OB till end of plan period.

v) Details of Broken up area prior to 1998 and year wise production.

vi) Details of violation made and case.

vii) Details of green belt and non-mineral zone plantation, species planted supported by photographs.

viii) Site specific wildlife management plan to be submitted.

ix) No surface runoff water goes to Suna Nala.

x) Refer to rules to Occupational Health Act 2020.

xi) Remedial measures taken for traffic due to proposed expansion.

xii) Details of Rain water Harvesting system existing and proposed and how it will reduce the dependency on ground water.

xiii) Layout map showing storage, OB dump and utilization.

xiv) Details of NEERI recommendations and its implementation programmes.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR SUNDARPUR STONE QUARRY WITH PROPOSED EXCAVATION OF 10000 CUM/YEAR OF STONE OF TAHASILDAR, CHHATRAPUR HAVING AN AREA OF 5.058 HA. LOCATED AT KHATA NO. 1469, PLOT NO. 10609/A, VILLAGE: SUNDARPUR, TAHASIL: CHHATRAPUR, DISTRICT: GANJAM OF TAHASILDAR CHHATRAPUR – EC

1. This is a proposal for Environmental Clearance of Sundarpur Stone Quarry with proposed excavation of 10000 CuM/year of stone of Tahasildar, Chhatrapur having an area of 5.058 Ha. Located at Khata No. 1469, Plot No. 10609/A, Village: Sundarpur, Tahasil: Chhatrapur, District: Ganjam of Tahasildar Chhatrapur.
2. The project falls under Category "B1", or activity 1 (a) - Mining of Minerals under EIA Notification dated 14th September 2006 as amended from time to time.
3. Standard Terms of Reference for this project was issued by MoEF on dated 03.04.2021videproposal no File No.60636/72-MINB1/02-2021.
4. Public Hearing was conducted on dated 09.03.2022 at Plot No. 10520, Khata No. 400, Mouza- Sundarpur which is adjacent to Sundereswari Temple. Public Hearing issues raised are plantation for protection of environment, water sprinkling in transportation roads for dust suppression, issues of soil erosion due to mining, dust pollution due to blasting, local employment, traffic congestion due to transportation, generation of fly rocks due to blasting, damage of houses due to blasting.
5. Baseline data collection was during 01 Dec 2020 to 28 Feb 2021.
6. **Location and Connectivity** - The proposed mining project is for stone Quarry stone mining located in village Sundarpur under Chatrapur Tahasil of Ganjam District, Odisha, over an area of 5.058 Ha or 12.500Acres. The lease area is bounded by Latitude: 19° 23' 32.8"N To 19° 23' 43.1"N Longitude: 84° 54' 29.2" E To 84° 54' 35.9" E. It is a part of area covered in the Survey of India Toposheet No. 65J/14. The lease area is located at a distance of 11.4 km from Tahasil Chatrapur. Village Sundarpur is at a distance of 3km from to the mining area. District Ganjam is at a distance of 40.8km. Chatrapur is the nearest place from the lease area for all infrastructure facilities like hospital, school, bus service, market. The Chatrapur Railway Station is at a distance 9.7 kms from the lease area. NH-16 is at a distance of 12.4 km and SH-36 is at a distance of 34m from the lease area. There is no national park, wild life sanctuary, eco sensitive areas and industrial area situated within 10Kms radius of the lease area.
7. The Mining Plan of the Mining Project has been approved by Joint Director Geology, South Zone, Berhampur, Odisha on dated 17.12.2020.
8. **Reserves** - The total geological reserve has been estimated as 792582cum. And mineable reserve is 593525cum.
9. **Production** - The Mine proposed to produce total 50000 Cu.m of stone/road metal during Plan Period and 10000cum/annum.
10. **Employment Potential** - A total of 15 workers (Skilled, Semi-skilled and Un-skilled- 12nos.& Mines Manager/Mine Permit Manager-3nos) will be employed during mining operation.
11. **Water Requirement** - 5 KLD of water will be required for drinking, domestic purpose and for dust suppression. Water will be withdrawn from tube wells from nearby village.

12. **Power requirement** - Solar lights will be employed for day to day living purposes. Diesel requirement will be 100liters/day.
13. **Plantation** - Plantation will be raised along both sides of the roads, available vacant spaces and in the lease area. It is proposed for planting 60 nos. of saplings per annum by the lessee in the lease boundary and village approach roads which is to be undertaken in consultation with the concerned authority.
14. Waste will be about 10% of excavation will be generated i.e., 5000cum of waste during the plan period and 1000cum/ annum. Waste will be utilised by the lessee for making of mine road.
15. The total estimated cost of the project is approximately INR `10 lakhs and EMP cost is ` 80000.
16. The Environment consultant **M/s Green Circle INC., Vadodara - 390021 (Gujarat)** along with the proponent has made a detailed presentation on EIA/EMP report.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Green Circle INC., Vadodara - 390021 (Gujarat)**, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent.

(i) Chemical composition of wastes to be generated to be submitted.

(ii) Certified Compliance Report to Previous EC conditions.

(iii) Detailed plan for flying rocks.

(iv) Preventive measures taken for damage of houses due to blasting

(v) Layout of dump and rejects generated, storage area, usage during the plan period.

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KANAKA SAND BED (UNDER CLUSTER APPROACH) (TOTAL CLUSTER AREA – 35.43HA.) IS A SAND MINING PROJECT OVER AN AREA OF 77.123AC./ 31.211HA. LOCATED IN VILLAGE - KANAKA, TAHASIL - PURUSHOTTAMPUR IN DISTRICT – GANJAM OF SRI KRUPASINDHU MUDULI - TOR

1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. The project falls under category "B" or activity 1 (a) – Mining of Minerals projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. Kanaka Sand Bed (under cluster approach) is a sand mining project over an area of 77.123acres/ 31.211Ha. located in villages - Kanaka, Tahasil - Purushottampur in District - Ganjam of Odisha (Total cluster area – 35.43ha.).
4. There is another sand quarry Bhimpur Sand Bed, over an area of 10.425acres/ 4.219Ha, located in Tahasil – Purushottampur, District – Ganjam at 430m. EC has been granted by SEIAA as B2 category vide letter no EC22B001OR143015 on dated 07.05.2022 and located within 500 meters of Kanaka Sand Bed.
5. Kanaka Sand Bed mining lease is over an area of 77.123acres/ 31.211Ha granted by Tahasildar,

Purushottampur to the successful bidder Sri Krupasindhu Muduli, S/o – Sri Jhuriya Muduli, At-Ramakrushna Nagar, 2nd Lane, Lochapada, Berhampur vide letter of Intent no. 1635 dated 04.05.2022 and will be operated after statutory clearances.

6. **Location and Connectivity** - The Kanaka Sand Bed is on Khata no- 472, Plot no- 865, 865/1012, 785/1013 of Nadi Kissam in village Kanaka in Tahasil Purushottampur & District - Ganjam of Odisha. The area under discussion is in Kanaka village and is featured in Survey of India Topo Sheet No –74A/14 & 74A/15. It is bounded between the Latitude -19° 30' 10.47" N to 19° 30' 25.53" N and Longitude – 84° 51' 09.09" E to 84° 52' 07.06" E. The Lease area is located at a distance of 20kms from Ganjam town and 135kms from the State Capital Bhubaneswar. Chhatrapur Railway Station is the nearest railway station located at a distance of 20kms from the lease area. Metal road connecting to the lease area is at distance of 1.51 meters and distance of lease area from village – Kanaka is 1km. SH – 32 is the nearest State Highway which is running within the lease area as connected by bridge. NH 16 is the nearest National Highway at 21.65km. There are no National Parks/Sanctuaries/Tiger-Elephant Reserves as per 'Wildlife Protection Act,1972' within 10 km radius from proposed mine site.
7. The mining lease area is listed as an identified sand minor mineral in the DSR Annexure – I, Serial no – 1, page no – 63, of the Ganjam district. Kanaka Sand Bed is a minor mineral project for exploitation of river sand.
8. Mining Plan was approved vide letter no. 124/SZ dated 25.01.2021 by DGM.
9. **Reserves and Production** - Total Geological Reserve of Kanaka Sand Bed is 564525 cum and Mineable Reserve is 347575 cum. The average production is proposed to be 100400 cum/year and 502000 cum is the total production during the plan period. The sand will be excavated by open cast manual method. Since the depth of sand deposit is 2.5 m, handpicks, spade, hand shovel will be used by labourers for extracting & loading of sand.
10. **Employment Potential** - Total number of employment will be around 89 including Management, Supervisory personnel, Skilled, Semiskilled and Unskilled
11. **Water requirement -** 3 KLD of water will be required for drinking, domestic purpose and for dust suppression. Water will be withdrawn from tube wells from nearby village through water tankers.
12. Green belt shall be developed along the safety zone, roadside & in nearby village after consultation with local villagers with the native tree species. Species likely to be planted are Chakunda, neem etc as per the availability. 2500 nos of saplings will be planted during the plan period.
13. The estimated project cost is ` 80 lakhs and EMP cost is Rs. 670000 and CER cost is Rs. 160000.
14. The project proponent along with the consultant **M/s P&M Solution., Noida -201301 – U.P** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s P&M Solution., Noida -201301 – U.P**, the SEAC prescribed the following specific ToRs in addition to standard ToRs in cluster approach as per **Annexure-A** for conducting detailed EIA study.

i) Certificate from the concerned Tahasildar about the geo-coordinates of other mines located within 500 meter from the periphery of the lease boundary.

ii) Distance of all nearby mines in Topo map with geo coordinates i.e. latitudes and longitudes of mines.

iii) Area of the safety zone with dimensions and geo-co-ordinates w.r.t lease boundary.

iv) Any approach road existing or will be constructed?

v) Mitigation measures to be taken to ensure not to disturb free flow of river.

vi) Distance of the river bank / embankment form the lease boundary. It is a river bank or embankment?

vii) Any ramp existing or will be constructed on the river bank / embankment for movement of vehicles to reach the nearest road.

viii) Distance of the village road / city road / district road / public road for the river bank / embankment. Is this road single road / double road?

ix) No. of village (s) and name of village (s) or the city (s) or urban place (s) or semi urban place (s) through which the sand carrying vehicles will ply and the distance of it from the river bank or embankment.

x) Whether schools / colleges / hospitals / health centers / bus stops / religious places existing nearby and if so, the distances of it from the bank or the road through which the vehicle will ply or existing alongside the road?

xi) Any plantation done in the safety zone or embankment in case of an existing mines and if so, the area of plantation, number of species.? If not, the plan for it to arrest bank erosion.

xii) Any stone packing in the river bank / embankment existing in case of existing mines and if not, the plan for it.

xiii) Whether, any alternative mine exists or explored or can be explored if this mine is otherwise found unsuitable? Please furnish details.

xiv) (a) Whether permission taken or will be taken from Water Resource Authority or the concerned Authority of the roads to be used for plying of vehicles loaded with sand or empty vehicles for the same after the river bank.

(b) Responsibility of perennial perpetual maintenance of these roads and the mechanism for the same.

xv) No and type of vehicles to be used daily and the frequency for the purpose of transportation and the time and duration of such transportation. Whether permission taken or will be taken for the appropriate authority for the purpose.

xvi) Intersection point of the haulage roads with the main SH / NH / public road and the traffic density study at appropriate locations by domain expert with remedial measures for decongestion and road safety.

xvii) (a) Any bridge (road / rail) existing and the distance of it from the lease boundary.

(b) Any culvert or small bridge will be used by the plying vehicles carrying the sand minerals.

xviii) Any High Transmission Electric line existing and if yes, the distance of the same from the boundary of the lease.

xix) Any legal litigations pending before the Hon'ble Court or NGT, if so, detailed case no. along with a write up on the legal matter and present status.

xx) Water consumption quantity to be justified with water balance and it is expected to be of uniform basis for the quarries.

xxi) Different areas of plantation should be indicated in map.

xxii) Estimation of sand in the quarries should be done after flood situation is over, not at the time of flood situation

xxiii) Mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - B**. Lay out of Progressive Mine Closure Plan shall also be incorporated in the Mining Plan.

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

ITEM NO. 07

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR UPPALADA STONE QUARRY - IX (4.750HA./11.737AC.) , UPPALADA STONE QUARRY - VIII (5.90HA./14.578AC.), UPPALADA STONE QUARRY - IV (4.928HA./12.177AC.) & UPPALADA STONE QUARRY -I (4.900 HA. / 12.107 ACRES) (SUBMITTED UNDER CLUSTER APPROACH OF TOTAL AREA - 39.811HA.) LOCATED IN VILLAGE - UPPALADA, TAHASIL- PARALAKHEMUNDI IN GAJAPATI DISTRICT OF SRI JAGANBABU JILLUDIMUDI, SMT. GUNNA KOMALI, SRI ANNI GOPAL RAO, SRI. G. VENKATA RAMANA - TOR

1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. Uppalada Stone Quarries - IX, VIII, IV, and I is a stone cluster mining project applied for "Terms of Reference (ToR)" is located in village - Uppalada, Tahasil- Paralakhemundi in Gajapati district, Odisha.
3. The category of the project is 1(a) – Mining of Minerals under Category "B1" as per EIA Notification, 2006 & its amendments as total lease area > 5ha.
4. This present proposal is for Environment Clearance for Uppalada Stone Quarry – IX (ML- 4.75ha.), Uppalada Stone Quarry – VIII (ML- 5.90ha.), Uppalada Stone Quarry – IV (ML- 5.90ha.) and Uppalada Stone Quarry – I (ML- 4.90ha.) under total cluster area 39.811 Ha. of 7 stone quarries. There are 7 stone quarries which are under total cluster area of 39.811 Ha. i.e. The distance of Uppalada-I Stone Quarry from other quarries are Uppalada-II Stone Quarry (300m), Uppalada-III Stone Quarry (490m), Uppalada-IV Stone Quarry (550m), Uppalada-V Stone Quarry (550m), Uppalada-VIII Stone Quarry (140m), Uppalada-IX Stone Quarry (550m) located in Tahasil– Paralakhemundei, District – Gajapati.
5. Details of 7 Stone Quarries under total cluster area of 39.811 Ha. and status of mines is given in Table:

Sl. No.	Name of Quarry	Lease Area	Land Schedule	Kissam	Status of Mine
1.	Uppalada-I Stone Quarry	4.90 Ha.	Khata No- 376 Plot No - 1370,1372	Parbat-II	EC applied
2.	Uppalada-II Stone Quarry	8.94 Ha.	Khata No- 376 Plot No - 1371	Parbat-II	Operating Mine
3.	Uppalada-III Stone Quarry	5.90 Ha.	Khata No- 376 Plot No - 1726	Parbat-II	Operating Mine
4.	Uppalada-IV Stone Quarry	4.928 Ha.	Khata No- 376 Plot No - 1724	Parbat-II	EC applied
5.	Uppalada-V Stone Quarry	4.490 Ha.	Khata No- 376 Plot No - 1723/2	Parbat-II	Operating Mine
6.	Uppalada-VIII Stone Quarry	5.90 Ha.	Khata No- 376 Plot No - 1725	Parbat-II	EC applied
7.	Uppalada-XI Stone Quarry	4.75 Ha.	Khata No- 376 Plot No - 1726/1	Parbat-II	EC applied

6. **Location and Connectivity** - The area under discussion is featured in Survey of India Topo Sheet No – E45G1 and is bounded between the Latitude -18° 49' 25.46" N to 18° 49' 33.49" N , Longitude – 84° 10' 00.28" E to 84° 10' 07.38" E. The lease area is located at a distance of 1.1 km from village Uppalada and at a distance of 10 kms from Paralakhemundi, 18.0 kms from the District Headquarters Gajapati and 235.0 kms from the State Capital Bhubaneswar. Paralakhemundi Railway station is the nearest railway station located at a distance of 11 kms from the lease area. Nearest Road bridge is at a distance of 1km from the mining lease area. Metal road connecting to the lease area and with the village – Uppalada is at distance of 0.46 km. SH – 34 is the nearest State Highway at a distance of 0.8kms. Major district road is at distance of 0.8 km. NH-5 is the nearest National Highway which is at a distance of 25 km.

7. The name and address of the successful bidders for the individual 6 mines within the cluster is given in table below:

Quarry. No.	Area of the Mines (Ha)	Name of the Lessee
1.	Uppalada Stone Quarry -I	Sri. G Venkata Ramana, S/o- G. Lakshminarayana, At/Po- Seri Street, Paralakhemundi, Dist- Gajapati, Odisha
2.	Uppalada Stone Quarry -IX	Sri. Jilliudimudi Jagan Babu, S/o- J. Rama Rao, At/Po- Big Brahmin Street, Paralakhemundi, Dist- Ganjam, Odisha
3.	Uppalada Stone Quarry-IV	Sri. Anni Gopal Rao, At- Paralakhemundei, Dist- Gajapati
4.	Uppalada Stone Quarry -VIII	Smt. Gunna Komali, W/o- Gunna Koteswar Rao, At/Po- Tekelli, Dist- Srikakulam, Andhra Pradesh

8. The details of Total Production of Uppalada Stone Cluster during plan period is applied for EC

Plan Period	Name of Quarry	Useable Rock (cum)	Waste (cum)
5 Years	Uppalada-IV Stone Quarry	25920	2880
5 Years	Uppalada-VIII Stone Quarry	10800	1200
5 Years	Uppalada-IX Stone Quarry	20250	2250

5 Years	Uppalada - I Stone Quarry	16470	1830
Total	**4 Nos. Quarries**	**73440**	**8160**

9. **Method of Mining** - The Uppalada Stone mining is an open cast stone mine from where the stone (road metal) will be excavated by conventional method of opencast semi mechanized and on single shift basis. Benches will be formed and worked in a top to downward manner. Because of presence of hard and competent rock mass, drilling and blasting will be performed for loosening of the rock mass.A standard equipment selection has been made in respect of major earth moving machines consisting of Driller, Compressor, Hydraulic excavator, Rock Hammer and tipper. Development or excavation will be carried out by both drilling and blasting by the use of Driller and explosives. Height and width of the benches will be kept at 5m each. Overall pit slope angle will be 45° with the horizontal.
10. **Employment Potential** - Total number of employment will be around 18 + 16 + 7+ 17= 58. (For All Quarry Sites of Uppalada) including Management, Supervisory personnel, Skilled, Semiskilled and Unskilled.
11. **Water Requirement** - 16 KLD of water will be required for drinking, domestic purpose and for dust suppression. Water will be withdrawn from tube wells from nearby village through water tankers.
12. **Plantation** - Green belt shall be developed along the Safety zone of the lease area with the native tree species. The plantation proposal has been given to plant around 2275 saplings over an area of 0.89 ha in the auctioned area. Species likely to be planted are Teak, Acasia Neem, Jamun etc as per the availability. Spacing between the saplings will be kept 2.5 meters x 2.5 meters only. (Plantation has been given 2500 Plants/hac.).
13. The estimated project cost is ` 2.4 crores and EMP cost is 42.575 lakhs and CER cost is 4.80lakhs.
14. The project proponent along with the consultant **M/s P&M Solution., Noida -201301 – U.P** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s P&M Solution., Noida -201301 – U.P**, the SEAC prescribed the following specific ToRs in addition to standard ToRs in cluster approach as per **Annexure – C** for conducting detailed EIA study**.**

i. Installation of STP of adequate capacity and requisite design.
ii. Traffic study by domain expert in haulage road and intersecting point with state highway (SH-10) located at 1.3 km distance.
iii. Green belt in safety zone of each mine and all-round the clusters to be confirmed with details.
iv. Arrangement of pipeline sprinkling (permanent water line) to be explored and confirmed.
v. Silt management and detailed plan for the same to arrest /remedy of silt ingress to surrounding agricultural lands.
vi. Kisam of land to be submitted.
vii. Safety measures during blasting including provision of warning to be submitted.

ITEM NO. 08

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR CHANDANIA STONE QUARRY OVER AN AREA OF 11.825 ACRES OR 4.785 HECTARES BEARING KHATA NO. 117, PLOT NO. 83 IN VILLAGE CHANDANIA, TAHASIL KUKUDAKHANDI, DISTRICT - GANJAM STATE ODISHA SUBMITTED UNDER CLUSTER APPROACH WITH TOTAL CLUSTER AREA 42.258 HECTARES WITH CONSISTING OF 9 STONE QUARRIES OF SRI PREM PATRO – TOR

The project proponent did not attend the meeting. The proposal is deferred to next meeting.

ITEM NO. 09

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR RENGITIPALLI - A STONE QUARRY (56.157 AC./ 22.726 HA.), RENGITIPALLI - B STONE QUARRY (33.716 AC./13.644 HA.), RENGITIPALLI-D STONE QUARRY (10.875 AC./4.401 HA.) & RENGITIPALLI-E STONE QUARRY (12.00 AC./ 4.856 HA.) IN THE VILLAGE RENGITIPALLI UNDER TAHASIL KODALA IN DISTRICT GANJAM, STATE ODISHA SUBMITTED UNDER CLUSTER APPROACH WITH TOTAL CLUSTER AREA 68.899 HECTARES WITH CONSISTING OF 5 STONE QUARRIES OF SRI JUTI KRUSHNA PANDI & SRI BHAGABAN PARIDA - TOR

The project proponent did not attend the meeting. The proposal is deferred to next meeting.

Secretary, SEAC

ANNEXURE – A

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

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

11. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

12. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given. Proposal for Common Non-Mineralized Zone for dumping of rejects / OB.

13. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.

14. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.

15. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.

16. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

17. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.

18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.

19. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details

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

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

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

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

44. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.

45. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.

46. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

47. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

48. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.

49. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.

50. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.

51. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

52. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

53. Detailed environmental management plan (EMP) to mitigate the environmental impacts

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

54. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

55. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

56. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

57. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.

58. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

59. Besides the above, the below mentioned general points are also to be followed

    a) All documents to be properly referenced with index and continuous page numbering.

    b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.

    c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.

    d) Where the documents provided are in a language other than English, an English translation should be provided.

    e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.

    f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J- 11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

    g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

    h) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

60. **This Terms of References (TORs) is valid for a period of four years from the date of issue of TORs for submission of the EIA/EMP report after conducting public hearing.**

Environmental Scientist, SEAC

Annexure - B

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

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

Environmental Scientist, SEAC

TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY IN CLUSTER APPROACH AND INFORMATION TO BE INCLUDED IN THE EIA/EMP REPORT FOR UPPALADA STONE QUARRY - IX (4.750HA./11.737AC.) , UPPALADA STONE QUARRY - VIII (5.90HA./14.578AC.), UPPALADA STONE QUARRY - IV (4.928HA./12.177AC.) & UPPALADA STONE QUARRY -I (4.900 HA. / 12.107 ACRES) (SUBMITTED UNDER CLUSTER APPROACH OF TOTAL AREA - 39.811HA.) LOCATED IN VILLAGE - UPPALADA, TAHASIL- PARALAKHEMUNDI IN GAJAPATI DISTRICT OF SRI JAGANBABU JILLUDIMUDI, SMT. GUNNA KOMALI, SRI ANNI GOPAL RAO, SRI. G. VENKATA RAMANA – TOR.

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

and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.

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

20. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.

21. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).

22. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

23. One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season) ; December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.

24. Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

25. Environment Impact Assessment / Environment Management Plan document shall be in accordance with the provisions & generic structure stipulated in the EIA Notification 2006 dated 14.09.2006 & subsequent amendments.

26. EIA-EMP document shall be based on the maximum achievable mineral extraction of the mine and according to the impact of mines in cluster (within 500m) of the said mine.

27. EIA-EMP document shall include complete profile of the all the Project Proponent, implementing organization of mines in cluster (within 500m) of the said mine.

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

water should also be obtained and copy furnished.

44. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.

45. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.

46. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

47. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

48. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.

49. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.

50. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.

51. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

52. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

53. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.

54. Public Hearing points raised and commitment of the Project Proponent on the same along

with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

55. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

56. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

57. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.

58. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

59. Besides the above, the below mentioned general points are also to be followed

    a) All documents to be properly referenced with index and continuous page numbering.

    b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.

    c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.

    d) Where the documents provided are in a language other than English, an English translation should be provided.

    e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.

    f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J- 11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

    g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

    h) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

    i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

60. **The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report.**

Environmental Scientist, SEAC