

**GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IMPACT ASSESSMENT DIVISION)
NON-COAL MINING SECTOR**

SUMMARY RECORD OF 31st MEETING OF THE RECONSTITUTED COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The 31th meeting of the Reconstituted Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during **May 14-15, 2018**. The list of participants is annexed. After welcoming the Committee Members, discussion on each of the Agenda Items was taken up ad-seriatim.

(1.1) Deliberation & Circulation on the Minutes of the 30th EAC Meeting:

The Minutes of the 30th Meeting of EAC held during April 23-24, 2018 were circulated to the members of the Committee. The members made brief deliberations on the proposals placed in the last meeting and approved the same.

(1.2) Finalization of Standard EC conditions for Non-coal mining sector projects

The Member Secretary placed the draft of Standard EC Conditions after incorporating the suggestion received from the various committee members. The Committee deliberated on the same and finalized the Standard EC Conditions which is placed as **Annexure-III**.

Consideration of EC/TOR Proposals

(2.1). Renewal of mine lease of Ball Clay, China Clay, Red & Yellow Ochre mine with enhancement of production capacity from 2,415 TPA to 1,25,000 TPA by M/s Raw Products Plasters and Fertilizers (Mines), located at village Indo Ka Bala & Chani, Tehsil-Kolayat, District-Bikaner, Rajasthan (MLA-123.80ha) (F. No. J-11015/25/2014-IA.II (M); Proposal No. IA/RJ/MIN/22656/2013) (Consultant: JM Enviro Net Pvt. Ltd.)-Consideration of Environmental Clearance

The proposal of M/s Raw Products Plasters & Fertilizers (Mines) is for Renewal of Mining lease of Ball clay, China Clay, Red & Yellow Ochre Mining Project () with enhancement of production capacity from 2,415 TPA 1,25,000 TPA (99,774.60 TPA Ball clay, China Clay, Red & Yellow Ochre and 25,225.40 TPA Sub-grade & Rejects). The mine lease area is located at Villages: Indo Ka Bala & Chani, Tehsil: Kolayat, District: Bikaner Rajasthan in ML Area of 123.80

ha. The mine lease area falls between Latitude of 27° 53'02.31" N to 27° 53' 57.06" N and Longitude of 72° 58' 53.47" E to 72° 59' 59.60" E. Mine lease falls within the Survey of India Toposheet No. 45 A/13. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

The proposal of ToR was earlier considered by the EAC in its meeting held during March 20th-21st, 2014 wherein the Committee recommended for grant of ToR. The Ministry has issued Terms of Reference (ToRs) for the preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP), vide letter no.J-11015/25/2014-IA.II (M), dated 5th May 2014. Extension of Validity of ToR was granted by Ministry, vide letter dated 04th July, 2016. The PP has submitted the EIA/EMP report on line to the Ministry for appraisal after conduction of public hearing.

Project Proponent reported that the total mining lease area is of 123.80 ha. Out of the total lease area, 16.06 ha area is private land and 107.74 ha is Government land. Mining lease was granted in favor of M/s Raw Products Plasters & Fertilizers (Mines) for mineral yellow & red ochre & china clay over an area of 123.80 ha by State Govt. of Rajasthan, vide order no F4(2)Khan/Gr.4/74, dated 01.06.1974 for a period of 20 Years from the date of registration. The agreement was executed on 16.01.1979 and registered on 07.04.1979. Thus, the period of lease was from 07.04.1979 to 06.04.1999. Application was submitted to Govt. of Rajasthan on 25.07.1988 for inclusion of mineral Ball Clay in said lease area. Govt. of Rajasthan sanctioned their consent for inclusion of mineral ball clay in lease area vide their order no F2.21493/Khan/Gr.2/88, dated 03.03.1989. The first Renewal applied for period of 20 years (07.04.1999 to 06.04.2019) dated 28.03.1998 but this Renewal Application was rejected by the State Govt. of Rajasthan vide Order no. DMG/BK/CC-6/F.1 (1) 3/98/2094 dated 11.11.1999. The Order dated 11.11.1999 was set aside in R.A No.25(9)2000-RC-I by the Revisioning Authority, vide order dated 31.12.2001 with direction to the State Govt. to verify the papers already submitted by the revisionist and consider renewing the mining lease. The said renewal application was again rejected by order dated 21.10.2008 on the sole ground of non-submission of Environmental Clearance. The Order dated 21.10.2008 was set aside in R.A No.25(3)/2009-RC-I by the Revisioning Authority vide order dated 12.08.2011 with direction to the State Govt. to verify the papers already submitted by the revisionist and consider renewing the mining lease. Government of Rajasthan, Directorate of Mines & Geology vide their letter DMG/Bikaner/CC-7/P1(1)03/98(Renewal)/2672 dated 29.07.2014 also submitted that lease renewal is pending due to non-submission of Environmental Clearance. Letter was submitted to Department of Mines & Geology, Govt. of Rajasthan on 09.05.2018 regarding renewal of mining lease. Letter received from Office of Department of Mines & Geology, Bikaner vide their letter no ME/Bikaner/ML/2/1973 Revised 3/1998/161 dated 09.05.20018 which states that further proceeding of renewal of mining lease is pending due to non-availability of Environmental Clearance and mining lease will be renewed after submission of Environmental Clearance of mine.

The Mining Plan with Progressive Mine Closure Plan was approved by Superintending Mining Engineer Mines & Geology Department, Bikaner vide letter No. SME/BKN/CC-III/M.P/M.L-3/98 (Old ML-2/73/2435) dated 03.05.2016. The Ball clay, China Clay, Red & Yellow Ochre production capacity per annum will be 0.125 million TPA. Estimated life of mine will be ~24 years. Total excavation details of first five years are as per below:

Year	Total Excavation (tonnes)	Over burden (Tonnes)	ROM (Tonnes)		
			Marketable Production	Sub-grade & Rejects	Total
I	254992.35	130000	99993.88	24998.47	124992.35
II	254393.25	129675	99774.60	24943.65	124718.25
III	254393.25	129675	99774.60	24943.65	124718.25
IV	254393.25	129675	99774.60	24943.65	124718.25
V	254675.00	129675	99774.60	25225.40	125000.00
Total	1272847.10	6,48,700	499092.28	125054.82	624147.10
Total excavation will be maximum in first year i.e., 254992.35 tonnes including 130000 tonnes OB 99993.88 tonnes marketable production of mineral and 24998.47 tonnes sub grade and rejects					

The mining activity will be carried out by opencast semi mechanized method in which benches will be formed and the Ball Clay, China Clay; Red & Yellow Ochre will be mined out. The mineral clay bed is basically soft and easily extractable by small capacity excavator. Hence, drilling & blasting is not required. The excavation of the clay will be done with the help of small capacity excavator and stacked separately. The mineral ball clay will be broken up to required size by hammering and removal of foreign material of iron oxide coating attached with some Ball clay lumps. Transportation of material will be done by tippers & dumpers to the Ceramic Industry. Mining will not intersect ground water table at conceptual stage. About 3446895 tonnes Overburden generated at the conceptual stage which will be partially dump & remaining will be backfilled at the excavated area and same will be rehabilitated by plantation. There will be no OB dumps outside the mine lease area.

Project Proponent reported that at the conceptual stage, out of total mine lease area (i.e. 123.80 ha), 22.08 ha area will be excavated, out of which 12.58 ha will be backfilled & reclaimed with plantation and remaining 9.50 ha area will be converted into water reservoir. Around 0.80 ha area will be used as a road & 0.35 ha are will be under built up area. Around 59.72 ha area will remain undisturbed. The overall greenbelt development/Plantation will be done on 53.43 ha area including 5.0 ha area along 7.5 barrier zone, 26.85 ha on safety barrier along the road and nallah & 12.58 ha on backfilled area and 9.0 ha on waste dump. The trees will be planted @2000 saplings per ha of land. Total water requirement for this mining project will be 10 KLD which will be sourced from nearby Villages and Mine sump as and when developed. Total manpower required for this project will be 87 persons including skilled, unskilled and semi-skilled staff.

State Forest Department, vide letter no. F () Vividh/MVA/99-2000/5401, dated 30.12.1999 has confirmed that No forest land is involved within the mining lease area. There is no National Park, Wildlife Sanctuary, and Biosphere Reserve, Wildlife Corridors, Tiger/Elephant Reserves

etc. within 10 km radius of the Mine site. Letter for the same along with authenticated Location Map has been obtained from State Forest Department vide letter no. S. No. F () Survey/2016-17/534 dated 24.01.2017. Authenticated list of flora and Fauna has been obtained from State Forest Department, vide letter no. F () Survey/2016-17/7172 dated 28.09.2016. Two schedule-I faunal species i.e. *Gazella bennettii* (Chinkara) and *Felislybica* (Desert Cat) are found in the study area. Conservation Plan for the same has been prepared in consultation with State Forest and Wildlife Department. Department of Mines & Geology, Government of Rajasthan, vide letter no. ME/Bikaner/ML/03/1998/343 dated 6.09.2016 has confirmed that ML area does not fall under Aravali range. District Survey Report has been submitted which has been deliberated by the Committee.

The primary baseline data for site specific micro meteorology data, ambient air quality, water quality, noise level, soil and flora & fauna was collected. The baseline monitoring results of ambient air, surface water, soil, ambient noise level and ground water have been reported and the same were compared with respective prescribed standards viz. NAAQS-2009 (for air monitoring), IS:10500-2012 (for ground water & surface water) and ambient noise limits prescribed by CPCB. PM₁₀ & PM_{2.5} for all the AAQM stations were found between 63.4 to 85.2 µg/m³ and 27.8 to 44.3 µg/m³ respectively. The concentrations of SO₂ were found to be in range of 5.7 to 10.2 µg/m³. The concentrations of NO₂ were found to be in range of 13.7 to 22.5 µg/m³. Noise levels varied from 52.1 to 58.3 Leq dB (A) during day time and during night time noise levels ranged from 41.0 to 44.3 Leq dB (A) and are within the respective ambient noise limits. The analysis result for soil shows that soil is slightly alkaline in nature and soil texture is sandy loam. The impact prediction carried through modeling indicated maximum incremental concentrations w.r.t. PM₁₀ as 0.61 µg/m³.

Public hearing was conducted on 09.06.2017 at Atal Seva Kendra, Village – Chani, Tehsil Kolayat, District Bikaner, Rajasthan. The Public Hearing was presided over Shri Yashwant Bhakar, District Additional Collector (Administration). Shri R K Mandawat, Regional Officer, Rajasthan State Pollution Control Board, Bikaner was also present during the hearing. The issues raised during Public Hearing were also considered and discussed during the meeting, which inter-alia, included employment, maintenance of religious pond at village Indo ka Bala, Development of Playground at Village Indo ka Bala and problem of toilets and furniture in school. Issues raised during public hearing were considered and properly addressed during the meeting. Budgetary allocation for implementation of commitments made during public hearing has been included in ESC plan. An amount of Rs. 10.0 Lacs/- has been earmarked towards ESC (For five years).

State Govt. of Rajasthan vide letter dated 13.04.2017 has provided the authenticated production details of ball clay since 1979 and also mentioned that PP has not produced the mineral china clay, Red & Yellow Ochre during 1979-2000. PP has not increased the production after 1994 w.r.t. base year of 1993-94. The mine is closed since 2000. The Committee deliberated the issues.

Total cost of the Project is Rs. 50 Lakhs/-. Capital Cost for Environmental Protection Measures is Rs. 1.5 Lacs/- & Recurring cost is Rs. 1.0 Lacs/annum.

The Committee, after detailed deliberations, **deferred** the proposal and sought the following requisite information:-

- (i). Government of Rajasthan may be asked to submit the valid lease documents and current status of lease whether it is valid or not.
- (ii). Two schedule-I faunal species i.e. *Gazella bennettii* (Chinkara) and *Felislybica* (Desert Cat) are found in the study area. Conservation Plan for the same has been prepared. The Committee deliberated the conservation plan and is of the view that budget for conservation plan needs to be adequately increased for its implementation. Proof of submission of conservation plan also needs to be submitted.
- (iii). PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc. Plant species needs to be revised.
- (iv). PP submitted the details of budget allocation for implementation of commitments made during public hearing which has been included in ESC plan. The Committee noted that the Ministry has recently issued a circular vide no. 22-65/2017-IA.III, dated 1st May 2018 on Corporate Environment Responsibility (CER). Accordingly, PP needs to submit the details of budget and its activities as per the said Circular.

(2.2). Expansion of production capacity of Silica Sand and Masonary Stone mine of M/s Shubhash Chand Mukesh Chand from 25,000 TPA of Silica Sand to 21,50,000 TPA (Masonry Stone – 17,00,000 TPA with 2,00,000 TPA in crushed form & Silica Sand – 4,50,000 TPA) and installation of Primary (2 Nos.) & Secondary Crushers (2 Nos.) in M.L. area of 124.63 Ha located at Village – Bhondagaon and Jagjivanpur, Tehsil–Weir, District–Bharatpur, Rajasthan [Proposal No. IA/RJ/MIN/65078/2017; File No. J-11015/142/2016-IA.II(M)]– Re-Consideration of EC

The proposal of M/s Shubhash Chand Mukesh Chand is for Expansion of production capacity of Silica Sand and Masonary Stone mine from 25,000 TPA of Silica Sand to 21,50,000 TPA (Masonry Stone – 17,00,000 TPA with 2,00,000 TPA in crushed form & Silica Sand – 4,50,000 TPA) and installation of Primary (2 Nos.) and Secondary Crushers (2 Nos.) in M.L. area of 124.63 Ha. The mine is located at Village –Bhondagaon and Jagjivanpur, Tehsil – Weir, District – Bharatpur, Rajasthan. The Mining lease area reportedly falls in Survey of India Topo sheet No. 54E/4 and 54F/1 and lies between Latitudes 27°00'03"N to 27°01'26"N and Longitudes 77°07'26"E to 77°08'35"E. The elevation range of the lease is 308m – 220m above MSL. The area falls in Seismic zone-II.

The Proposal was earlier placed before the EAC in its meeting held during December 21-22, 2017 wherein the Committee deliberated on the proposal and deferred it in view of multiple issues requiring examination at MoEF&CC and further deliberations in EAC. The following information/ clarification were asked by the Committee:

- (i). Inclusion of Crusher related aspects in the EIA report (as deliberated in the meeting

held during December 2017);

- (ii). Submission of year-wise production details of the OB/ rejects (masonry stone) sold under STP and copies of all Consents (CTE/ CTO) obtained since start of mining operations.
- (iii). Ministry may invite Clarification from State Mining Department on issuance of STP and charging Royalty for a mineral not included in concession agreement.
- (iv). Ministry may examine the issue related to non-requirement of EC for working on OB/ waste/ reject as decided by State Govt. of Rajasthan
- (v). Conduct fresh public hearing based on the revised draft EIA report wherein the approved mining scheme dated 30.05.2017 is adequately reflected
- (vi). Submission of actual sectional plan clearly stating the mine working vis-a-vis mine elevation and intersection of groundwater table
- (vii). Submission of a letter from DFO stating 'No Forest land' in the mine lease, in line with Committee's recommendations made in July, 2017 EAC meeting
- (viii). Consultant to be warned from furnishing misleading information and making vague assessments with a letter be written to QCI-NABET
- (ix). PP to calculate GLCs based on worst case scenario (i.e. 0% pollution control measures) and accordingly, present the impact of mitigation measures.
- (x). PP to present separate action plans with budgetary aspects for ESC, Occupational Health Plan and Green belt development and plantation.
- (xi). PP to submit feasible mine reclamation plan
- (xii). The Committee took note of the Compliance Report of MoEF&CC R.O. Lucknow dated 08.11.2017 and noted that major issues have been reported in the report w.r.t. permission of State Govt. for diversion of land from agricultural use to non-agricultural use (Specific Condition ii), utilisation of top soil (Specific Condition iii), progress report of OB dump (Specific Condition iv), data on groundwater level and quality (Specific Condition ix), reason for change in mining method from manual mining involving blasting to opencast mechanised using heavy machineries (General condition i), submission of air quality monitoring report (General condition iv), submission of noise quality monitoring report (General condition vii) and copy of news paper advertisement (General condition xvii). The Committee asked the PP to submit the latest status of compliance in respect of the observations made by MoEF&CC R.O.
- (xiii). The Committee specifically noted that the PP has changed its method of mining

without Ministry's prior approval and hence, Ministry may examine whether it amounts to violation of EIA Notification, 1994/ 2006.

The proposal was further placed before the Committee in its meeting held during February 26-27, 2018 wherein the Committee noted that they had received a complaint on the multiple issues related to the project. Accordingly, the Committee **deferred** the proposal and suggested that the Ministry may first examine these issues raised in the complaint and afterward the proposal may be placed before the EAC.

Based on the examination of the complaint the proposal is placed before the EAC meeting. The views of the Ministry on the multiple issues related to the project and mentioned in the complaint are as below:

- (i). It is observed from the submission of year-wise production details of the OB/ rejects (masonry stone) that the overburden has been sold under STP. The Assistant Mining Engineer Roopwas, District Bharatpur, vide his letter no 2018/175 dated 23/01/2018 informed that their office issued the permit (Special permission) for transport of overburden from 16.10.2015 to 13.09.2017 and the total quantity was 6,00,000 MT under Rajasthan Mineral Concession Rule 2017.

It is noted that the Ministry has granted EC on 21.10.2005 for mining of Silica Sand @ 25,000 TPA. The EC inter-alia mentioned that a total of 23,200 m³ [i.e. about 60,320 tonnes] of solid waste will be generated up to 2015 i.e. in 10 years. Mine plan, approved by IBM in 1996, inter-alia, has also mentioned that about 28016 tonnes waste will be generated during 1st five years.

Further, the specific conditions no. (iv) of EC mentioned that the overburden (OB) dumps should be stacked at earmarked dump sites only and should not be kept active for long period. Proper terracing of OB dumps should be carried out so that the overall slope will come down to 28 degrees. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self sustaining. Progress report should be submitted to the Ministry of Environment and Forests and its Regional Office on six monthly basis.

In this instant case, PP has violated the EC condition as well as excavated more over burden/solid waste as per EC & mine plan. Moreover, they had sold the overburden from 16.10.2015 to 13.09.2017 with a total quantity was 6,00,000 MT. PP did not seek the amendment in the EC. **Thus, the PP has violated EIA Notification by excavating more over burden/solid waste which was not mentioned in EC/Mine Plan. In view of the above, PP needs to submit the application under the Violation Notification issued on 14.03.2017 for further examination by the Committee dealing the violation cases.**

- (ii). It is alleged that the Public hearing has been conducted based on the revised draft EIA report wherein the mining scheme has been approved on dated 30.05.2017 after the Public Hearing. The Assistant Mining Engineer, district Bharatpur, vide letter 06.01.2018 clarified that in the Draft modified mining plan and Approved modified mining plan the production capacity of Silica is 45,00,000 MTPA & Masonry Stone 17,00,000 MTPA is the same. Thus, there is no material change in the production. Therefore, there is no material change in Draft modified mining plan and Approved modified mining plan.
- (iii). In the EC No.J-11015/75/2004-IA.II(M) dated 21.10.2005, it was clearly mentioned that the working will be open cast by manual method involving blasting. Besides this, the condition no.(i) of General condition of EC stipulates that No change in mining technology and scope of working should be made without prior approval of the MoEF&CC. As per EC compliance report submitted by RO, Lucknow it was observed at site that the mining is fully equipped with modern machineries and equipment's. Thus the PP has violated the EC conditions. The Ministry may take action against the PP under section 19 of EPA, 1986 for violating the EC conditions.
- (iv). EC condition: Permission from the competent authority should be obtained for drawl of ground water, if any. During RO MoEF&CC visit it was found that the PP has not obtained permission from CGWA for drawl of ground water. However, as per provided documents and statement of PA that the application to CGWA has been applied in compliance of Hon'ble NGT order. The Ministry may take action against the PP under section 19 of EPA, 1986 for violating the EC conditions.
- (v). EC condition: Crusher should be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive emission from crushing operations. During RO MoEF&CC visit it was found that all crushers were situated at open area. Huge dust load was found in and around the crusher point, during visit. No proper water sprinkler was provided. However, sprinkler as well as dust controls measures at project premises. However, crushers were not found in operational Condition during visit.
- (vi). Ministry has granted EC on 21.10.2005 for mining of Silica Sand @ 25,000 TPA in the MLA of 384ha. However, PP has reduced the mine lease area to 124.63ha. PP has started the mining activities without amending the EC granted by the Ministry. Mine Plan inter-alia mentioned about the details of activities viz. opening of pit, excavation, storing, overburden management, plantation etc. in the specified area of the lease. It is non-compliance of EC conditions and the Ministry may take necessary action in this regard.
- (vii). The Ministry has issued two show-cause notices under section 5 of the E(P) Act, 1986 on 03.01.2013 & 26.04.2013 for non-submission of six monthly compliance reports to the Regional Office/Ministry. PP has never replied to the Ministry. Moreover, mentioned

that they had not received as their mine was not in operation. It is non-compliance of EC conditions and the Ministry may take necessary action in this regard.

- (viii). The Complainant mentioned that there are discrepancies in the PFR & EIA Report with regard to land use. This may be deliberated by the EAC.
- (ix). The Complainant mentioned that there is other non-compliance of EC conditions viz. exceeded depth of pits beyond 12 m, concealed the facts of existence of high tension line in the lease area; excavated 0.5ha of the grazing land. Ministry may take necessary action in this regard.

Ministry informed the Committee that the PP has violated the provisions of the Environment (Protection) Act, 1986. The Committee, therefore, **deferred** the proposal noting that **a separate Committee has been constituted for dealing with the projects involving violation of EPA, 1986 vide notification issued by the Ministry on 14.03.2017.**

(2.3). Proposal of M/s Tulsi Mines & Minerals for expansion of production capacity of soapstone from 15,000 TPA to 74,630 TPA (ROM) and proposed production capacity of Dolomite @ 3,14,500 TPA (ROM) and Quartzite @ 3,28,540 TPA (ROM) in the MLA of 50.3840ha, located Near Village- Rawat Kheda, Tehsil- Jahazpur, District-Bhilwara, Rajasthan (Consultant: J. M EnviroNetPvt. Ltd.) [F. No. J-11015/341/2005-IA.II(M), Proposal No. IA/RJ/MIN/29772/2015]- Re-Consideration of EC

The proposal of M/s Tulsi Mines & Minerals is for expansion of production capacity of soapstone from 15,000 TPA to 74, 630 TPA (ROM) and proposed production capacity of Dolomite-3,14,500 TPA (ROM) and Quartzite- 3,28,540 TPA (ROM) in the MLA of 50.3840ha (ML No. 39/84). The mine is located near Village Rawat Kheda, Tehsil Jahajpur, District Bhilwara, (Rajasthan). Study area falls between 25°35'22.89" N to 25°35'54.39" N and 75°14'12.7" E to 75°14'55.44" E on Survey of India Toposheet No. 45 O/2, 45 O/6. The Project is located in Seismic zone-II. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

The proposal of EC was earlier considered by the Expert Appraisal Committee in its meeting held during 26th – 27th February, 2018 wherein the EAC deferred the proposal and sought following requisite information:-

- (i).PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc.;
- (ii). Detailed alternative route for transportation of minerals needs to be submitted;
- (iii). Agreements with Hospital/health facility w.r.t. injury/accidents of mine workers;

- (iv). Detailed safety measures of workers needs to be provided;
- (v). Analysis of silica needs to be carried out; and
- (vi). DSR as per the provisions of the EIA Notification 2006 amended on 15.01.2016.

Based on the information submitted by PP on 13.04.2018, the proposal is considered by the EAC in the present meeting. PP has submitted the following information/clarification which is as under:-

- (i). PP has submitted that length of mine lease area is about 2.94 ha. 7.5 m width on lease periphery will be developed with greenbelt in three-layer system leaving gap of 3 m. Thus an area of about 2.00 ha will be covered under Green Belt with 4000 Plants. Following plant species like *Mango (Mangifera indica)*, *Jamun (Syzygium cumini)*, *Khair (Acacia catechu)*, *Kaner (Nerium indicum)*, *Gum arabic tree (Acacia Senegal)*, *Sitaphal (Annona Squamosa)*, *Gugal (Commiphora wightii)*, *Shatut (Morus alba)*, *Neem (Azadirachta indica)*, *Pipal (Ficus religiosa)* etc. will be planted in consultation with State Forest Department. The Committee deliberated the issues.
- (ii). Alternate route via village(s) Rawat Khera and Khajuri for transportation of mineral was submitted. The Committee deliberated the alternate route and mentioned that PP shall use this route for transportation of mineral. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centres. The Committee deliberated the issues.
- (iii). With regard to Agreements with Hospital/Health facility w.r.t. injury/accidents of mine workers; it was submitted that agreement w.r.t. injury/accidents of mine workers has been done with hospital. Copy of the same was submitted. The Committee deliberated the issues.
- (iv). With regard to Detailed safety measures of workers: Hazards and sources along with their anticipated impacts, preventive measures & control measures was submitted by the PP. The Committee deliberated the issues.
- (v). With regards to Analysis of silica: it was submitted that analysis of silica has been done and the report was submitted which is deliberated by the EAC.
- (vi). DSR as per the provisions of the EIA Notifications 2006 amended on 15.01.2016 was submitted by the PP. The Committee deliberated the issues.

The Committee deliberated the proposal and based on the information submitted by PP, the Committee **recommended** the Proposal for grant of Environmental Clearance for expansion of production capacity of soapstone from 15,000 TPA to 74,630 TPA (ROM) and proposed production capacity of Dolomite @ 3,14,500 TPA (ROM) and Quartzite @ 3,28,540 TPA (ROM).

The Committee also **recommended additional specific conditions** viz. (i) No mining activities will take place until the permission of the State Government as per Law for diversion of land use change as applicable is obtained. (ii) The Proponent shall install online Ambient Air Quality Monitoring System and there should be system for display of digital AAQ data within 03 months at least at three locations as per wind direction. Online provisions of pH and turbidity meters at discharge points of STP and ETP and also at water storage ponds in the mining area may be made. Project Proponent should display the result digitally in front of the main Gate of the mine site. (iii) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities. (iv) PP shall run an awareness campaign on sanitation for women and utilization of Sanitary Napkin and also to distribute the Sanitary Napkin/pads to the women and provide the training for proper disposal. (v) The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centers.

(2.4). Guda Clay mine of M/s Harish Clays with enhancement of production capacity from 60,000 TPA to 2,50,000 TPA (ROM) in MLA of 284.20ha, located at village -Guda, Tehsil Kolayat, District Bikaner, Rajasthan (Consultant: M/s Udaipur Min Tech Pvt. Ltd., Udaipur) [F. No. J-11015/163/2014-IA.II (M); Proposal No. IA/RJ/MIN/23186/2014]- Re-Consideration of EC

The proposal of M/s Harish Clays is for enhancement of production capacity from 60,000 TPA to 2,50,000 TPA (ROM) in respect of Guda Clay mines in M L area of 284.20 ha. The mine is located at Villages – Guda, Tehsil- Kolayat, District Bikaner, Rajasthan. The mine lease area falls between latitudes of N 27° 53' 4.01"– N 27° 53' 46.54"and longitudes of E 72° 48' 45.99" – E 72° 50' 7.78" in Survey of India Topo-sheet no. 45A/13. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/DSS.

The Proposal was earlier placed before the EAC in its meeting held during **February 26-27, 2018** wherein the Committee, after detailed deliberations, **deferred** the proposal and sought the following requisite information/clarification:-

- (i). Based on DSS the Committee noted that the PP had worked on mine lease boundaries. In this regard, comments/Report from DGMS needs to be submitted;

- (ii). Authenticated list of Flora and Fauna from the State Forest Department needs to be provided;
- (iii). PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc.;
- (iv). Certificate from DFO w.r.t. TOR 10 needs to be submitted;
- (v). Certificate from State Govt. w.r.t. TOR 17 (Aravali Range) needs to be submitted;
- (vi). DSR as per the provisions of the EIA Notification 2006 amended on 15.01.2016; and
- (vii). PP has submitted the conservation plan for only one schedule I species namely Chinkara. However, the Conservation plan for Common Indian Monitor schedule I species have not prepared; PP needs to revise the Conservation plan for both the schedule I species including Common Indian Monitor along with the budgetary provisions and documentary proof for submission of conservation plan to CWLW .

In this context, the PP had submitted information vide its letter dated April 25, 2018 and accordingly the proposal is re-considered by the EAC in this meeting. PP has presented the point wise reply and the gist is as follows:-

- (i). Report from DGMS on status of mine workings along northern lease boundary of Guda Clay Mine was obtained vide letter no. AJR/DMS/2018/2418, dated 13/04/2018. According to the report, northern lease boundary of Guda Clay Mine is adjoined along with Shanta Sales Corporation Ball Clay, fire Clay and Ochre Mine (08/1996) of M/s Shanta Sales Corporation. Being favorable Geo mining condition both the mines have worked in past along with common boundary leaving a safety barrier of 7.5 m each. The Committee deliberated the report.
- (ii). Authenticated list of Flora and Fauna has been obtained from the State Forest Department, Govt. of Rajasthan, vide letter no. F()survey/DCF-II-B/2017-18/7293, dated 09/04/2018. The Committee deliberated the authenticated list of Flora and Fauna.
- (iii). Green Belt Development has been developed along the periphery of the lease and Plan is submitted by PP. Presently 0.5 Ha of periphery area is developed into Greenbelt. Every year about 1 Ha of area is proposed to be developed into green belt by planting about 11500 saplings of local species like Neem, Khejri, Amla, Anar, Nimbu, Ber, Kikar, Pilu, Siras, Rohida etc. Total periphery area under plantation is proposed to be 5.5 Ha in the next three years. The Committee deliberated the Green Belt Development plan.

- (iv). Certificate from DFO w. r. t. TOR 10 (Forest land) has been obtained vide letter no. F () survey/DCFB/2017-18/7511 dated: 20/04/2018. The Committee deliberated the certificate and as per the certificate, the lease area of Guda Clay Mine does not fall under Forest land.
- (v). Certificate from State Govt. w. r. t. TOR 17 (Aravalli Range) has been obtained vide letter no. ME/BIKA/ML/07/1993/135, dated 10/01/2018. The Committee deliberated the certificate and as per the certificate, the Guda Lease area does not fall under Aravalli region.
- (vi). District Survey Report for Bikaner Region as per the provisions of the EIA Notification 2006 amended on 15/01/2016 has been submitted. The Committee deliberated the DSR.
- (vii). The Conservation Plan for Indian Gazelle and Common Indian Monitor is forwarded by the DFO, Bikaner, vide letter no. F () survey/2017-18/7499; dated 19/04/2018 and submitted to CWLW, Jaipur for approval. The DFO approval letter and CWLW submission receipt along with the updated conservation plan has been submitted by PP. The Committee deliberated the updated conservation plan for Indian Gazelle and Common Indian Monitor.

PP vide letter dated 14.05.2018 has also made the commitment of Rs. 10.00 Lakhs (2018-19), Rs. 10.70 Lakhs (2019-20), Rs. 10.70 Lakhs (2020-21), Rs. 11.50 Lakhs (2021-22), and Rs. 11.50 Lakhs (2022-23) for expenditure of various activities on education, health hygiene, and social activities as per the Ministry's circular no. 22-65/2017-IA.III, dated 1st May 2018 on Corporate Environment Responsibility (CER). The Committee deliberated the issues.

The Committee deliberated the proposal and based on the information submitted by PP, the Committee **recommended** the Proposal for grant of Environmental Clearance for expansion of production capacity of Clay mine from 60,000 TPA to 2,50,000 TPA (ROM).

The Committee also **recommended additional specific conditions** viz. (i) Project proponent shall implement Corporate Environment Responsibility (CER) as per the Ministry's circular no. 22-65/2017-IA.III, dated 1st May 2018. PP shall committed the expenditure of Rs. 10.00 Lakhs (2018-19), Rs. 10.70 Lakhs (2019-20), Rs. 10.70 Lakhs (2020-21), Rs. 11.50 Lakhs (2021-22), and Rs. 11.50 Lakhs (2022-23) towards the various activities on education, health hygiene, and social activities on Corporate Environment Responsibility (CER). (ii) No mining activities will take place until the permission of the State Government as per Law for diversion of land use change as applicable is obtained. (iii) The Proponent shall install online Ambient Air Quality Monitoring System and there should be system for display of digital AAQ data within 03 months at least at three locations as per wind direction. Online provisions of pH and turbidity meters at discharge points of STP and ETP and also at water storage ponds in the mining area may be made. Project Proponent should display the result digitally in front of the main Gate of the mine site. (iv) Proponent shall appoint an

Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities. (v) PP shall run an awareness campaign on sanitation for women and utilization of Sanitary Napkin and also to distribute the Sanitary Napkin/pads to the women and provide the training for proper disposal. (vi) The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centres.

(2.5). Sindwari, Ramakhera, Satkhanda Block– B Limestone Mine of M/s Dalmia Cement (Bharat) Limited with production capacity of 3.0 Million TPA (ROM) with installation of crusher capacity of 500 TPH, located in Village (s) – Ravliya, Bhavliya, Bhopali, Cherliya, Mangrol and Sindwari, Tehsil – Nimbahera, District –Chittaurgarh, Rajasthan in MLA of 474.50 Ha (File No. J-11015/38/2018-IA.II; Proposal No. IA/RJ/MIN/73471/2018) (Consultant: Enkay Enviro Services Pvt. Ltd.) - Consideration of TOR

The proposal of M/s Dalmia Cement (Bharat) Ltd. (DCBL) is for Sindwari, Ramakhera, Satkhanda Block – B Limestone AUCTION BLOCK with production capacity of 3.0 Million TPA (ROM). The Mining Lease is located at Village(s) – Ravliya, Bhavliya, Bhopali, Cherliya, Mangrol and Sindwari, Tehsil – Nimbahera, District- Chittaurgarh, Rajasthan in MLA of 474.50 ha. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS. The ML area falls in Survey of India Toposheet No. G43U10 (45 L/10). DGPS Coordinates of the corner points as per the Tender Document is tabulated below:-

Pillars	Latitude	Longitude
1	24°43'28.01216"	74°38'52.59332"
2	24°43'27.78710"	74°37'20.04389"
3	24°42'28.45132"	74°37'20.22314"
E	24°42'28.45132"	74°38'52.59332"

Project Proponent reported that M/s Dalmia Cement (Bharat) Limited (DCBL) has been declared as the "Preferred Bidder" under Rule 9(4) (b) (iii) of The Mineral (Auction) Rules, 2015 for the grant of a Mining Lease for Sindwari, Ramakhera and Satkhanda Block- B for

Limestone over an area of 474.50 Ha in Village(s) – Ravliya, Bhavliya, Bhopali, Cherliya, Mangrol and Sindwari, Tehsil – Nimbahera, District- Chittaurgarh, Rajasthan through e-auction conducted by Government of Rajasthan. The Government of Rajasthan has issued a Letter of Intent in favour of M/s Dalmia Cement (Bharat) Ltd., vide letter no. P. 5(2) Khan/ Group – 2/ 2017 dated 29.08.2017 under Rule 10(2) of Mineral (Auction) Rules’ 2015 for grant of the mining lease for the said Block in Chittaurgarh district.

Project Proponent reported that there is no Forest land within the ML area. However, the ML area consists of 32.3355 ha Charagah Land (pasture land) which shall be used for mining after providing equivalent land along with prescribed cost for raising goacher bhoomi (pasture land) as per Revenue Notification No.F10(3)Revenue-6/2001/19 dated 31.05.2017 of State Govt. of Rajasthan. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger Reserves, Elephant Reserves or Eco-Sensitive Zones within the 10 km of the project site. There are few Reserve forests within the buffer area and Kalkaliya RF is the nearest about 4.5 Km, NW. Gambhiri River and reservoir are located about 5.8 Km, E & 6.4 Km, SE respectively. Murliya Reservoir is about 0.28 Km, S from the proposed mine site.

Project Proponent reported that the probable reserve of limestone are 11.64 Million Tonnes under UNFC code 122, besides, the pre-feasibility limestone resources of 10.66 Million Tonnes under (UNFC code 222) and Inferred resources of 83.595 Million Tonnes. DCBL proposes a peak production of 3.0MTPA (ROM) (1.8 MTPA Limestone) from the proposed mine. Conventional Opencast fully mechanized mining method will be adopted which includes drilling, blasting, loading, transportation and crushing. It is non-captive mine. Limestone from this mine is envisaged to cater a part requirement of the proposed cement plant of a subsidiary company of DCBL “Rajputana Properties Pvt. Ltd.” (RPPL) at Mangrol, Tehsil - Nimbahera (5.0 MTPA capacity). Part of the limestone produced from the block would be sold to other cement plants or other industries. Based on the present exploration, it is estimated that upto conceptual stage about 0.111 million m³ soil, 0.257 million m³ waste/ shale and 3.36 million m³ Siliceous Limestone shall be generated, which shall be stacked separately at earmarked places. The top soil will be utilized for plantation. Waste/shale will be utilized for mine road/ramp development/ backfilling or may be sold to third party. Part of the siliceous limestone will be used by selectively blending after up gradation (if feasible) or may be sold to third party.

PP reported that about 83 KLD water will be required which will be met by ground water or from nearby water sources after obtaining necessary permission from the competent authority. Domestic waste water will be channelized into septic tank followed by soak pit. Wastewater from workshop will be used for greenbelt/dust suppression after oil & grease trap. The capital Investment cost is estimated as Rs. 223.33 Crore including land cost of about Rs. 150 Crores.

The Committee, after detailed deliberations, **recommended** the proposal for prescribing Term of Reference (ToR) as per **Annexure-I** for Sindwari, Ramakhera, Satkhanda Block– B Limestone Mine of M/s Dalmia Cement (Bharat) Limited with production capacity of 3.0 Million TPA (ROM) with installation of crusher capacity of 500 TPH, located in Village (s) –Ravliya, Bhavliya, Bhopali, Cherliya, Mangrol and Sindwari, Tehsil – Nimbahera,

District –Chittaurgarh, Rajasthan in MLA of 474.50 Ha with following additional conditions: -

- (i). Details of Encroachment in Charagah Land (pasture land) must be included;
- (ii). Crusher needs to be located close to major mineralized area so that less pollution due to transportation;
- (iii). There are 324 Project Affected Families, Detailed R&R plan needs to be submitted;
- (iv). Details of mitigation measures needs to be submitted for irrigation canal passing through mine lease area need to be submitted; and
- (v). Details of mitigation measures needs to be submitted for nala passing through mine lease area need to be submitted.

(2.6). Badampahar Iron Ore Mine of M/s Lal Trades & Agencies Pvt. Ltd. for enhancement of Iron Ore from 0.72 Million TPA to 1.5 Million TPA, located at villages of Dhangurimuta, Dudhijharan and Badampahar RF, Tehsil Kusumi, District Mayurbhanj, Odisha (MLA 129.610 ha; Proposal No. IA/OR/MIN/73392/2018) (Consultant: Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar)-Consideration of TOR

The Proposal of M/s Lal Trades & Agencies Pvt. Ltd. is for enhancement of Iron Ore from 0.72 Million TPA to 1.5 Million TPA. The mine is located at villages of Dhangurimuta, Dudhijharan and Badampahar RF, Tehsil Kusumi, District Mayurbhanj, Odisha in the MLA of 129.610 ha. The lease area fall in Latitude: 22°03'52.87"- 22°05'09.53" North, Longitude: 86°06'33.81" - 86°08'24.81" East and covered in Survey of India Topo Sheet No. 73J/4. The area is marked by undulating hills with altitudes varying from 395m to 830m above MSL. General slope of the area is towards north. Badampahar, the nearest railway siding, is located at a distance of 0.4 km from the lease area. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

The total lease area is 129.610 Ha. Out of total area 129.610 ha, 117.840 ha is forest land, 10.990 ha is safety zone area and rest 0.780 ha is non-forest land comprising Government land and Private land. Forest clearance for 117.840 ha has already been obtained by the Ministry, vide letter F.No.8-11/2004-FC, dated 14th June 2007 and 27th July 2009 excluding the safety zone forest area of 10.990 Ha. The Environmental Clearance has obtained from MoEF for production of Iron ore 0.72 MTPA vide letter. no. J-11015/1180/2007-IA.II (M), dated 09-04-2010. CTO was also obtained with validity up to 31-03-2020. The supplementary leased deed was executed on 20th December, 2016 and the Lease validity is up to 26th May 2020. Mining Scheme was approved by IBM vide letter No-MS/OTFM/53-ORI/BHU/2014-15, dated 27.03.2015 for expansion of Iron Ore Production from 0.72 MTPA to 1.5 MTPA.

Project Proponent reported that the mine is in operation since 1970. Presently the mine is in operation with due compliance of the Hon'ble Supreme Court Order dated 02.08.2017 in W.P.(C) No-114/2014. The details are as follows:

S. No	Issues	PP's submission
1	Compliance of Order dated 02.08.2017 in CWP no. 114/2014 of Hon'ble Supreme Court.	In pursuance of the Supreme Court order dated 02.08.2017 in CWP no. 114/2014, the Mining Officer, Baripada has raised the demand notices no. 3428/Mines dated 13.12.2017 and 2968/Mines dated 09.11.2017 and the project proponent has deposited INR 91,17,65,540.00 (Rupees Ninety one crore seventeen lakhs sixty five thousand five hundred forty only) and INR 2,87,746.00 (Rupees Two lakhs eighty seven thousand seven hundred forty six only).
2	Details of demand if any raised by Dept. of Mining and Geology, Govt. of Odisha.	The details of demands raised by the Dept. of Mining and Geology, Govt. of Odisha vide demand notices no. 3428/Mines dated 13.12.2017 and no. 2968/Mines dated 09.11.2017 for INR 91,17,65,540.00 (Rupees Ninety one crore seventeen lakhs sixty five thousand five hundred forty only) and INR 2,87,746.00 (Rupees Two lakhs eighty seven thousand seven hundred forty six only) respectively.
3	Details of payment, if any made to Dept. of Mines and Geology, Govt. of Odisha	The Proponent has made the payment as demand raised based on the Hon'ble Supreme Court order with an amount of INR 91,17,65,540.00 (Rupees Ninety one crore seventeen lakhs sixty five thousand five hundred forty only) vide online Treasury Challan Ref. No. 27DDFEAE7D dated 28.12.2017 and INR 2,87,746.00 (Rupees Two lakhs eighty seven thousand seven hundred forty six only) vide online Treasury Challan Ref. 27DE0DFE75 Dated 29.12.2017.
4	Validity of mine lease.	The Government has executed the Supplementary Lease Deed on 20.12.2016 which is valid up to 26.05.2020.
5	Status of Mine whether working or not	The mine is in operation with due compliance of the Hon'ble Supreme Court Order.

6	Details of the past production of mines since its inception, duly authenticated by Dept. of Mines and Geology, Govt. of Odisha.	The details of the past production figure from 1970 to till current year is duly authenticated by the Mining Officer, Baripada has been submitted by the PP.
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The mining operations will be through semi mechanized opencast mining system, involving shovel-dumper combinations, deep hole drilling and blasting. The total water requirement will be 132 m³ /day for mining, green belt, dust-suppression and drinking water purposes. The water required will be sourced from the bore well and rain water harvesting pond. Permission for 300m³/day of ground water has already been obtained. PP reported that an area of 86.157 hectares land is already degraded / utilized for mining, dumping, office, road, green belt etc. An area of 118.62 hectares (excluding safety zone area 10.99 hectares) is anticipated to be degraded / utilized at the end of the conceptual planning period. In the post mining stage out of 118.62 ha of mined out area, Reclamation-of 105.696 ha (back-filling & plantation) and 12.924 ha by rehabilitation /plantation will be carried out.

PP reported that the power demand for the mine is estimated to be 642 KVA comprising 475 KVA for mines and 167 KVA for office and establishment purpose. The power requirement will be met from the State grid and backup power from DG Sets. All required amenities/facilities required for the mining activities like site office, rest shelter, VTC, Canteen etc., are available at the site. These facilities will be suitably upgraded for the expansion. The proposed mine expansion is expected to generate about 775 no of direct and 1500 no indirect employment. The total project cost for the mine expansion for plant and machinery and preoperative expenses are expected to be Rs. 35.5 crores. The Project proponent reported that the Similipal Wildlife Sanctuary is at a distance of 6.1 km from the outer SE boundary of the lease area, for which NBWL clearance has obtained, vide letter no. 3250/1WL-SSP-108/2016, dated 26.04.2016. Kunkijharan Nala is flowing at a distance of 5.5 km (E) from the lease area. Kharkhai River 6.8 km (SE), JalpaNadi 8.0 km (W) and Kanu Nadi 7.35 km (NW) are found in the 10 km buffer zone of mine area. EC compliance report has submitted for approval on 10.11.2017 for period from 01.04.2017 to 30.09.2017 to Regional Director of MoEF&CC, Bhubaneswar.

The total geological resource as on 31.03.2018 for Iron is 18.460 million tonnes and the mineable reserve is 16.330 million tonnes. It estimated that about 1.61 million tonnes mineral rejects will be generated during life of the mine, which will be blended with high grade iron ore. There will be about 2.60 million tonnes (1.00Mm³) of waste from mines is to be likely generated during the life of the mine. About 0.698 Mm³ of waste dump generated shall be dumped at existing dump no. D-1, D-2, D-3, D-4, D-4A and D-5 and 0.185 Mm³ of waste shall be dumped at proposed dump no. 6.and balance 0.115 Mm³ will be backfilled in Champajharan-A, B & C quarries. As per the field position the Iron ore has been exhausted within the part of Champajharan-A, B & C quarries and accordingly backfilled has been carried out in the exhausted part of the quarries of Champajharan-A, B & C area from 2015-16

onwards as a part of the reclamation. Existing depth of working is up to RL 828m (as on 31.03.2015). Ultimate depth of working will be 683m RL. No intersection of ground water table is expected in the conceptual stage for iron ore quarry. The life of the iron ore mine is estimated to be 13 years (from 31.03.2015).

The Member Secretary has informed the Committee that the Ministry of Mines, vide Notification No.S.O.2817 (E) dated 22nd November, 2010 had appointed a Commission of Inquiry consisting Justice M.B. Shah, retired Judge of the Supreme Court of India, for the purpose of making an inquiry in to mining of iron ore and manganese ore in contravention of the provision of various Statues and the rules and regulations issued there under, in various States including the State of Odisha. In view of Justice Shah Commission report (2013), the Ministry of Environment, Forest and Climate Change (MoEF&CC) has entrusted the work to CSIR-NEERI to conduct a Carrying Capacity Study with an objective to develop (i) a sustainable development plan for mining activities in the impact area of about 1000 sq.km. in the State of Odisha and (ii) an environmental management plan for current as well as future developmental scenario.

CSIR-NEERI conducted the study encompassing collection of primary data for various environmental components (viz. air, noise, water, soil/land, biological and socio-economic aspects), collection and analysis of environmental quality data by different mines in the region, modeling for transport scenario and infrastructure need assessment, and meetings/workshops with different stakeholders (like Department of Steel & Mines, Directorate of Mines, IBM-HQ & Regional Office, SPCB, GSI, MoEF&CC, State Forest Dept. etc. as well as senior executives from respective mines). NEERI has submitted the report along with the recommendations. **The Committee deliberated the recommendations and is of the view that the recommendation of CSIR-NEERI report on carrying capacity study may be included in the TOR condition w.r.t. mining proposal of Iron Ore and/or manganese in the State of Odisha.**

Based on the information submitted and presentation made by PP, the proposal was **recommended for Standard TOR with a specific conditions as recommended by CSIR-NEERI on carrying capacity study as per Annexure II. PP shall also submit the details of final mine closure plan in the EIA/EMP Report.**

(2.7). Mining of Building Stone (Minor Mineral) with production capacity of 9,00,000 TPA of Stone in the Mine Lease Area of 19.69 ha by M/s Greenstone Rock Products Pvt. Ltd., located at Survey Nos. 113 pt., 146/4A-5 pt., Balal Village & Panchayat, Vellarikundu Taluk, Kasargod District, Kerala (Consultant–M/s Environmental Engineers & Consultants Pvt. Ltd.)- Consideration of EC category 'B 2' project

The proposal of M/s Greenstone Rock Products Pvt. Ltd. is for Mining of Building Stone (Minor Mineral) with production capacity of 9,00,000 TPA of Stone in the Mine Lease Area of 19.69 ha. The mine is a new Building Stone mining project. The mine is located at Survey Nos. 113 pt., 146/4A-5 pt., Balal Village & Panchayat, Vellarikundu Taluk, Kasargod District, Kerala. The geographical co-ordinates of the lease area are

Latitude (N): 12°24'18.06" to 12°24'30.63" and Longitude (E): 75°16'53.42" to 75°17'15.35" and is covered by Survey of India Toposheet No. 48P/7. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/DSS.

This is a category "B 2" project as per the provisions of the EIA Notification, 2006 as amended on 15.01.2016. The Project is to be dealt at SEIAA, Kerala. Since the tenure of SEIAA, Kerala has expired therefore the proposal has been considered in the MoEF&CC. Project Proponent has informed that there is no pending application with SEIAA/SEAC for this proposal.

The Member Secretary informed to the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding the prohibition of mining activity in the ESA identified by the HL WG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is not a part of the list. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any;

Project Proponent has informed that Letter of Intent was issued by the State Government of Kerala, vide letter no. 3568/M3/2015, dated 17.10.2015 for mining of stone in the MLA of 19.69 ha. Eco-friendly Mining Plan for mining of stone (minor mineral) has been approved by Mines and Geology Department, Government of Kerala, vide letter no. 3568/M3/15 dated 30.10.2015. Project Proponent has submitted the details of other mines including lease area located within 500m of the mine lease area duly authenticated by the Mining Department of the State Govt. vide letter no. DOK/2088/M/2015 dated 19.10.2015. PP has obtained a letter under RTI from State Forest Department; vide dated 20-01-2018 which confirmed that there is no forest land is involved in the lease area.

The total Mining Lease area of 19.69 ha which is private land. No forest land is involved. Mining will be carried out through semi-mechanized open-cast method using drilling, blasting of small diameter holes and loading of mineral by tyre mounted excavator. Out of the total 19.69 ha lease area, about 18.3888 ha area will be excavated (16.501 ha Reclaimed by plantation & 1.8878 ha convert into pond). The remaining area of 1.1512 ha which is left for stripping limits along the periphery will also be developed with Green belt/plantation. It was reported by the project proponent that at the conceptual stage, total waste material will be sold to road construction vendors. The estimated total water requirement is 17 KLD in which 2 KLD is for domestic which would be sourced from open well, 12 KLD for dust suppression system in mine as well as ancillary units and 3 KLD for plantation purposes and will be sourced from storm water pond. Ultimate working depth is 380 m. MSL (mining will not intersect ground water table level). Ground water table is 1.3 m to 3.5 m BGL (Post Monsoon & Pre Monsoon). Life of mine is 17 years with the production capacity of 9,00,000 TPA.

Project Proponent reported that there is no National Park, Wild Life Sanctuary, Habitat for Migratory Birds, Tiger Reserve, Elephant Reserve, Bio-sphere Reserve located within 10 km radius of the mine lease. Project Proponent has informed that the mine site is not located in the Critically Polluted area as identified by CPCB etc. There are no Resettlement and Rehabilitation issues involved in this project.

Project Proponent reported that excavated material is transported by 15T trucks/tippers to the crusher unit proposed to be installed within the complex for further processing. The top soil of 45,287 cu.m. will be generated from the mining operations, which shall be properly stacked separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation as part of eco-restoration. About 35,442 cu.m. of overburden will be generated throughout the mine life. These wastes shall be utilized within the pit for laying of haul roads. At the end use, OB can be reutilized as soil base for plantation. At the end of life of mine, the reclaimed area will be suitably planted (about 17,600 trees will be planted in the lease area). The main aim of the green belt development is to restore the ecosystem to its original form to a maximum possible extent by designing the green cover with the same native species. The sewage to a tune of 1.6 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. To avoid the dust generation from the drilling operations, wet drilling methods will be adopted. Periodical monitoring of ambient air, noise, water & waste water quality in and around the lease area will be carried out. The workers will be provided with personal protective equipments i.e., earmuffs, earplugs and dusk masks. Periodic health/medical checkups for all the workers as per Factories Act will be done to ascertain good health and safety.

The total cost of the project is Rs. 25.0 Crore. The Project Proponent has earmarked Rs. 23.0 Lakhs per annum as recurring cost towards Environmental protection measures. PP has earmarked Rs. 26.72 Lakhs per annum as recurring expenses, an amount of Rs. 33.35 Lakhs as non-recurring expenses has been earmarked towards Socio-economic Welfare measures for the nearby village. Proponent has informed that there is no court case /litigation pending against the project.

The Committee, after detailed deliberations, **deferred** the proposal and sought the following requisite information: -

- (i). The Member Secretary informed the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding prohibition of mining activity in the ESA identified by the HLWG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is not a part of the list. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any;

- (ii). Details of type of rock and geology, method of mining, machinery details, blasting details etc. needs to be provided;
- (iii). Details of haulage roads, slope at different sections needs to be provided;
- (iv). Details of Occupational health along with budgetary provisions needs to be elaborated;
- (v). All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, 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).
- (vi). 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 State Government. A Certificate from the Competent Authority in the State Forest Department should also be provided, confirming the involvement of forest land, if any, in the project area.
- (vii). PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc. Plant species needs to be revised;
- (viii). Test Reports of Free Silica Concentration need to be submitted;
- (ix). Details of connectivity from mine to crusher and its transportation plan needs to be elaborated; and
- (x). The Committee noted that the Ministry has recently issued a circular vide no. 22-65/2017-IA.III, dated 1st May 2018 on Corporate Environment Responsibility (CER). Accordingly, PP needs to submit the details of budget and its activities as per the said Circular.

(2.8). Mining of Building Stone (Minor Mineral) with production capacity of 90,000 TPA of Stone in the Mine Lease Area of 5.1070 ha by M/s Malayoram Rock Products Pvt. Ltd., located at Sy. Nos. 242/P, Valayam Village, Vadakara Taluk, Kozhikode District, Kerala (Consultant-M/s Environmental Engineers & Consultants Pvt. Ltd.)- Consideration of EC category 'B 2' project

The proposal of M/s Malayoram Rock Products Pvt. Ltd. is for Mining of Building Stone (Minor Mineral) with production capacity of 90,000 TPA of Stone in the Mine Lease Area of 5.1070 ha. The mine is a new Building Stone mining project. The mine is located at Sy. Nos. 242/P, Valayam Village, Vadakara Taluk, Kozhikode District, Kerala. The geographical co-ordinates of the lease area are Latitude (N): 11°47'04.24" to 11°46'56.04" and Longitude (E): 75°43'39.73" to 75°43'27.77" and is covered by Survey of India Toposheet

No. 49M/9. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

This is a category "B 2" project as per the provisions of the EIA Notification, 2006 as amended on 15.01.2016. The Project is to be dealt at SEIAA, Kerala. Since the tenure of SEIAA, Kerala has expired therefore the proposal has been considered in the MoEF&CC. Project Proponent has informed that there is no pending application with SEIAA/SEAC for this proposal.

The Member Secretary informed to the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding the prohibition of mining activity in the ESA identified by the HL WG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is not a part of the list. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any;

Project Proponent has informed that Letter of Intent was issued by the State Government of Kerala, vide letter no. 7826/M3/2017 dated 18-08-2017 for mining of stone in the MLA of 5.1070 ha. Eco-friendly Mining Plan for mining of stone (minor mineral) has been approved by Mines and Geology Department, Government of Kerala, vide letter no. DOZ/M-1819/17 dated 23-08-2017. Project Proponent has submitted the details of other mines including lease area located within 500m of the mine lease area duly authenticated by the Mining Department of the State Govt. vide letter no. DOZ/M-1819/17 dated 23-08-2017. PP has obtained a letter under RTI from State Forest Department; vide dated 11-05-2018 which confirmed that there is no forest land is involved in the lease area.

The total Mining Lease area of 5.107 ha which is private land. No forest land is involved. Mining will be carried out through semi-mechanized open-cast method using drilling, blasting of small diameter holes and loading of mineral by tyre mounted excavator. Out of the total 5.107 ha lease area, about 4.3810 ha area will be excavated (4.2389 ha. Reclaimed by plantation & 0.1421 ha convert into pond). The remaining area of 0.5766 ha. which is left for stripping limits along the periphery will also be developed with Green belt/plantation and 0.1494 ha area for drainage. It was reported by the project proponent that at the conceptual stage, total waste material will be sold to road construction vendors. The estimated total water requirement is 16 KLD in which 2 KLD is for domestic which would be sourced from open well, 12 KLD for dust suppression system in mine as well as ancillary units and 2 KLD for plantation purposes and will be sourced from storm water pond. Ultimate working depth is 310 m. MSL (mining will not intersect ground water table level). Ground water table is 1.5 m to 3.5 m. BGL (Post Monsoon & Pre Monsoon). Life of mine is 12 years with the production capacity of 90,000 TPA.

Project Proponent reported that there is no National Park, Wild Life Sanctuary, Habitat for Migratory Birds, Tiger Reserve, Elephant Reserve, Bio-sphere Reserve located within 10 km. radius of the mine lease. Project Proponent has informed that the mine site is not located

in the Critically Polluted area as identified by CPCB etc. There are no Resettlement and Rehabilitation issues involved in this project.

Project Proponent reported that excavated material is transported by 15T trucks/tippers to the crusher unit proposed to be installed within the complex for further processing. The top soil of 24,095 cu.m. will be generated from the mining operations, which shall be properly stacked separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation as part of eco-restoration. About 15,333 cu.m. of overburden will be generated throughout the mine life. These wastes shall be utilized within the pit for laying of haul roads. At the end use, OB can be reutilized as soil base for plantation. At the end of life of mine, the reclaimed area will be suitably planted (about 4,800 trees will be planted in the lease area). The main aim of the green belt development is to restore the ecosystem to its original form to a maximum possible extent by designing the green cover with the same native species. The sewage to a tune of 1.6 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. To avoid the dust generation from the drilling operations, wet drilling methods will be adopted. Periodical monitoring of ambient air, noise, water & waste water quality in and around the lease area will be carried out. The workers will be provided with personal protective equipments i.e., earmuffs, earplugs and dusk masks. Periodic health/medical checkups for all the workers as per Factories Act will be done to ascertain good health and safety.

The total cost of the project is Rs. 3.5 Crores. The Project Proponent has earmarked Rs. 9.0 Lakhs per annum as recurring cost towards Environmental protection measures. PP has earmarked Rs. 5.05 Lakhs per annum as recurring expenses, an amount of Rs. 5.25 Lakhs as non recurring expenses has been earmarked towards Socio-economic Welfare measures for the nearby village. Proponent has informed that there is no court case /litigation pending against the project.

The Committee, after detailed deliberations, **deferred** the proposal and sought the following requisite information:-

- (i). The Member Secretary informed the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding the prohibition of mining activity in the ESA identified by the HLWG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is not a part of the list. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any;
- (ii). Details of type of rock and geology, method of mining, machinery details, blasting details etc. needs to be provided;
- (iii). Details of haulage roads, slope at different sections needs to be provided;

- (iv). Details of Occupational health along with budgetary provisions needs to be elaborated;
- (v). All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, 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).
- (vi). 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 State Government. A Certificate from the Competent Authority in the State Forest Department should also be provided, confirming the involvement of forest land, if any, in the project area.
- (vii). PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc. Plant species needs to be revised;
- (viii). Test Reports of Free Silica Concentration need to be submitted;
- (ix). Details of connectivity from mine to crusher and its transportation plan needs to be elaborated; and
- (x). The Committee noted that the Ministry has recently issued a circular vide no. 22-65/2017-IA.III, dated 1st May 2018 on Corporate Environment Responsibility (CER). Accordingly, PP needs to submit the details of budget and its activities as per the said Circular.

(2.9). Mining of Building Stone (Minor Mineral) with production capacity of 2,50,000 TPA of Stone in the Mine Lease Area of 8.2140 ha. by M/s Triphy Granites, located at Sy. No. 274, Thirumittacode II Village, Pattambi Taluk, Palakkad District, Kerala (Consultant–M/s Environmental Engineers & Consultants Pvt. Ltd.)- Consideration of EC category 'B 2' project

The proposal of M/s Triphy Granites is for Mining of Building Stone (Minor Mineral) with production capacity of 2,50,000 TPA of Stone in the Mine Lease Area of 8.2140 ha. The mine is a new Building Stone mining project. The mine is located at Sy. No. 274, Thirumittacode II Village, Pattambi Taluk, Palakkad District, Kerala. The geographical co-ordinates of the lease area are Latitude (N): 10°42'45.91" to 10°42'32.20" and Longitude (E): 76°09'56.26" to 76°09'43.96" and is covered by Survey of India Toposheet No. 58B/2. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

This is a category "B 2" project as per the provisions of the EIA Notification, 2006 as amended on 15.01.2016. The Project is to be dealt at SEIAA, Kerala. Since the tenure of SEIAA, Kerala has expired therefore the proposal has been considered in the MoEF&CC.

Project Proponent has informed that there is no pending application with SEIAA/SEAC for this proposal.

The Member Secretary informed to the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding the prohibition of mining activity in the ESA identified by the HL WG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is not a part of the list. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any;

Project Proponent has informed that Letter of Intent was issued by the State Government of Kerala, vide letter no. 9466/M3/2017 dated 30-10-2017 for mining of stone in the MLA of 8.2140 ha. Eco-friendly Mining Plan for mining of stone (minor mineral) has been approved by Mines and Geology Department, Government of Kerala, vide letter no. DOP/2130/2017/A1 dated 22-12-2017. Project Proponent has submitted the details of other mines including lease area located within 500m of the mine lease area duly authenticated by the Mining Department of the State Govt. vide letter no. DOP/2130/2017/AI dated 09-11-2017. PP has obtained a letter under RTI from State Forest Department, vide letter no. T-3790/2018 dated 11-05-2018 which confirmed that there is no forest land is involved in the lease area.

The total Mining Lease area of 8.2140 ha which is private land. No forest land is involved. Mining will be carried out through semi-mechanized open-cast method using drilling, blasting of small diameter holes and loading of mineral by tyre mounted excavator. Out of the total 8.2140 ha lease area, about 7.1329 ha area will be excavated (3.4362 ha. Reclaimed by plantation & 3.6967 ha. convert into pond). The remaining area of 0.9404 ha. which is left for stripping limits along the periphery will also be developed with Green belt/plantation and 0.1407 ha area for drainage. It was reported by the project proponent that at the conceptual stage, total waste material will be sold to road construction vendors. The estimated total water requirement is 16 KLD in which 2 KLD is for domestic which would be sourced from open well, 12 KLD for dust suppression system in mine as well as ancillary units and 2 KLD for plantation purposes and will be sourced from storm water pond. Ultimate working depth is 50 m. MSL (mining will not intersect ground water table level). Ground water table is 2.0 m. to 4.0 m BGL (Post Monsoon & Pre Monsoon). Life of mine is 12 years with the production capacity of 2,50,000 TPA.

Project Proponent reported that there is no National Park, Wild Life Sanctuary, Habitat for Migratory Birds, Tiger Reserve, Elephant Reserve, Bio-sphere Reserve located within 10 km. radius of the mine lease. Project Proponent has informed that the mine site is not located in the Critically Polluted area as identified by CPCB etc. There are no Resettlement and Rehabilitation issues involved in this project.

Project Proponent reported that excavated material is transported by 15T trucks/tippers to the crusher unit proposed to be installed within the complex for further processing. The top soil of 78,033 cu.m. will be generated from the mining operations, which

shall be properly stacked separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation as part of eco-restoration. About 34,499 cu.m. of overburden will be generated throughout the mine life. These wastes shall be utilized within the pit for laying of haul roads. At the end use, OB can be reutilized as soil base for plantation. At the end of life of mine, the reclaimed area will be suitably planted (about 4,376 trees will be planted in the lease area). The main aim of the green belt development is to restore the ecosystem to its original form to a maximum possible extent by designing the green cover with the same native species. The sewage to a tune of 1.6 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. To avoid the dust generation from the drilling operations, wet drilling methods will be adopted. Periodical monitoring of ambient air, noise, water & waste water quality in and around the lease area will be carried out. The workers will be provided with personal protective equipments i.e., earmuffs, earplugs and dusk masks. Periodic health/medical checkups for all the workers as per Factories Act will be done to ascertain good health and safety.

The total cost of the project is Rs. 3.25 Crore. The Project Proponent has earmarked Rs. 23 Lakhs per annum as recurring cost towards Environmental protection measures. PP has earmarked Rs. 6.75 Lakhs per annum as recurring expenses, an amount of Rs. 5.85 Lakhs as non recurring expenses has been earmarked towards Socio-economic Welfare measures for the nearby village. Proponent has informed that there is no court case /litigation pending against the project.

The Committee, after detailed deliberations, **deferred** the proposal and sought the following requisite information:-

- (i). The Member Secretary informed the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding the prohibition of mining activity in the ESA identified by the HLWG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is not a part of the list. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any;
- (ii). Details of type of rock and geology, method of mining, machinery details, blasting details etc. needs to be provided;
- (iii). Details of haulage roads, slope at different sections needs to be provided;
- (iv). Details of Occupational health along with budgetary provisions needs to be elaborated;
- (v). All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, 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).

- (vi). 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 State Government. A Certificate from the Competent Authority in the State Forest Department should also be provided, confirming the involvement of forest land, if any, in the project area.
- (vii). PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc. Plant species needs to be revised;
- (viii). Test Reports of Free Silica Concentration need to be submitted;
- (ix). Details of connectivity from mine to crusher and its transportation plan needs to be elaborated; and
- (x). The Committee noted that the Ministry has recently issued a circular vide no. 22-65/2017-IA.III, dated 1st May 2018 on Corporate Environment Responsibility (CER). Accordingly PP needs to submit the details of budget and its activities as per the said Circular.

(2.10). Mining of Building Stone (Minor Mineral) with production capacity of 2,50,000 TPA of Stone in the Mine Lease Area of 6.8976 ha by M/s Petra Crushers, located at Sy. Nos. 58/3-1, 58/3-3, 58/3-5, 58/3-6, 59/1-1, 59/3, 59/5, 82/1, 83/4, 86/4, 87/1, 87/2, 92/3-1, 92/3-2, 92/3-4, 92/3-5, Kootickal Village & Panchayat, Kanjirappally Taluk, Kottayam District, Kerala. (Consultant-M/s Environmental Engineers & Consultants Pvt. Ltd.)- Consideration of EC category 'B 2' project

The proposal of M/s Petra Crushers is for Mining of Building Stone (Minor Mineral) with production capacity of 2,50,000 TPA of Stone in the Mine Lease Area of 6.8976 ha. The mine is a new Building Stone mining project. The mine is located at Sy. Nos. 58/3-1, 58/3-3, 58/3-5, 58/3-6, 59/1-1, 59/3, 59/5, 82/1, 83/4, 86/4, 87/1, 87/2, 92/3-1, 92/3-2, 92/3-4, 92/3-5, Kootickal Village & Panchayat, Kanjirappally Taluk, Kottayam District, Kerala. The geographical co-ordinates of the lease area are Latitude (N): 09°39'20.75" to 09°39'03.75" and Longitude (E): 76°53'40.44" to 76°54'01.91" and is covered by Survey of India Toposheet No. 58C/14. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

This is a category "B 2" project as per the provisions of the EIA Notification, 2006 as amended on 15.01.2016. The Project is to be dealt at SEIAA, Kerala. Since the tenure of SEIAA, Kerala has expired therefore the proposal has been considered in the MoEF&CC. Project Proponent has informed that there is no pending application with SEIAA/SEAC for this proposal.

The Member Secretary informed to the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding the prohibition of mining activity in the ESA identified by the HL WG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is a part of the list. The project site is in Kootickal village and which is in the list. MoEF vide O.M. dt. 20-12-2013 while accepting the recommendations of HLWG report directed all concerned State Governments to demarcate the boundaries of ESA. MoEF published the draft Notification on Western Ghats dt. 04-03-2014 inviting suggestions and objections from the stakeholders. In the list published along with the draft Notification, Kootickal village in which the project site is located is not in the list. This draft Notification was re-published by MoEF&CC on 27-02-2017 and in the list re-published along with the draft Notification, Kootickal village in which the project site is located is not in the list. In view of the above situation, the PP approached Hon'ble High Court of Kerala with a plea to consider the application for Environmental Clearance by SEIAA Kerala / MoEF and both were respondents in the said case. The Hon'ble High Court of Kerala vide Judgment dt. 20-02-2018 directed SEIAA Kerala / MoEF to consider the application of the PP for Environmental Clearance. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any.

Project Proponent has informed that Letter of Intent was issued by the State Government of Kerala, vide letter no. nil dated nil for mining of stone in the MLA of 6.8976 ha. Eco-friendly Mining Plan for mining of stone (minor mineral) has been approved by Mines and Geology Department, Government of Kerala, vide letter no. 10653/M1/2015 dated 19-12-2015. Project Proponent has submitted the details of other mines including lease area located within 500m of the mine lease area duly authenticated by the Mining Department of the State Govt. vide letter no. 682/DOY/ML/2015 dated 20-03-2015. PP has obtained the letter from State Forest Department, vide no. T-E1-1158/18 dated 11-05-2018 which has confirmed that there is no forest land is involved in the lease area.

The total Mining Lease area of 6.8976 ha which is private land. No forest land is involved. Mining will be carried out through semi-mechanized open-cast method using drilling, blasting of small diameter holes and loading of mineral by tyre mounted excavator. Out of the total 6.8976 ha lease area, about 6.8976 ha area will be excavated and Reclaimed by plantation and also be developed with Green belt/plantation. It was reported by the project proponent that at the conceptual stage, total waste material will be sold to road construction vendors. The estimated total water requirement is 16 KLD in which 2 KLD is for domestic which would be sourced from open well, 12 KLD for dust suppression system in mine as well as ancillary units and 2 KLD for plantation purposes and will be sourced from storm water pond. Ultimate working depth is 380 m. MSL (mining will not intersect ground water table level). Ground water table is 1.0 m. to 3.0 m. BGL (Post Monsoon & Pre Monsoon). Life of mine is 8 years with the production capacity of 2,50,000 TPA.

Project Proponent reported that there is Idukki Wildlife Sanctuary located within 10 km. radius of the mine lease and the application for Wildlife Clearance was submitted at MoEF&CC vide proposal no. FP/KL/QRY/2421/2018 dt. 28-03-2018 and the acknowledgment

was submitted along with the application. Project Proponent has informed that the mine site is not located in the Critically Polluted area as identified by CPCB etc. There are no Resettlement and Rehabilitation issues involved in this project.

Project Proponent reported that excavated material is transported by 15T trucks/tippers to the crusher unit proposed to be installed within the complex for further processing. The top soil of 58,630 cu.m. will be generated from the mining operations, which shall be properly stacked separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation as part of eco-restoration. About 20,693 cu.m. of overburden will be generated throughout the mine life. These wastes shall be utilized within the pit for laying of haul roads. At the end use, OB can be reutilized as soil base for plantation. At the end of life of mine, the reclaimed area will be suitably planted (about 7,000 trees will be planted in the lease area). The main aim of the green belt development is to restore the ecosystem to its original form to a maximum possible extent by designing the green cover with the same native species. The sewage to a tune of 1.6 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. To avoid the dust generation from the drilling operations, wet drilling methods will be adopted. Periodical monitoring of ambient air, noise, water & waste water quality in and around the lease area will be carried out. The workers will be provided with personal protective equipments i.e., earmuffs, earplugs and dusk masks. Periodic health/medical checkups for all the workers as per Factories Act will be done to ascertain good health and safety.

The total cost of the project is Rs. 8 Crore. The Project Proponent has earmarked Rs. 13 Lakhs per annum as recurring cost towards Environmental protection measures. PP has earmarked Rs. 16.53 Lakhs per annum as recurring expenses, an amount of Rs. 6.65 Lakhs as non recurring expenses has been earmarked towards Socio-economic Welfare measures for the nearby village. Proponent has informed that there is no court case /litigation pending against the project.

The Committee, after detailed deliberations, **deferred** the proposal and sought the following requisite information:-

- (i). The Member Secretary informed to the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding prohibition of mining activity in the ESA identified by the HL WG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is a part of the list. The project site is in Kootickal village and which is in the list. MoEF vide O.M. dt. 20-12-2013 while accepting the recommendations of HLWG report directed all concerned State Governments to demarcate the boundaries of ESA. MoEF published the draft Notification on Western Ghats dt. 04-03-2014 inviting suggestions and objections from the stakeholders. In the list published along with the draft Notification, Kootickal village in which the project site is located is not in the list. This draft Notification was re-published by MoEF&CC on 27-02-2017 and in the list re-published along with the draft Notification, Kootickal village in which the project site is located is not in the list. In view of the above situation, the PP approached Hon'ble High Court of Kerala with a

plea to consider the application for Environmental Clearance by SEIAA Kerala / MoEF and both were respondents in the said case. The Hon'ble High Court of Kerala vide Judgment dt. 20-02-2018 directed SEIAA Kerala / MoEF to consider the application of the PP for Environmental Clearance. In this context, the Committee suggested that the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any.

- (ii). Details of type of rock and geology, method of mining, machinery details, blasting details etc. needs to be provided;
- (iii). Details of haulage roads, slope at different sections needs to be provided;
- (iv). Details of Occupational health along with budgetary provisions needs to be elaborated;
- (v). All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, 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).
- (vi). 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 State Government. A Certificate from the Competent Authority in the State Forest Department should also be provided, confirming the involvement of forest land, if any, in the project area.
- (vii). PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc. Plant species needs to be revised;
- (viii). Test Reports of Free Silica Concentration need to be submitted;
- (ix). Details of connectivity from mine to crusher and its transportation plan needs to be elaborated; and
- (x). The Committee noted that the Ministry has recently issued a circular vide no. 22-65/2017-IA.III, dated 1st May 2018 on Corporate Environment Responsibility (CER). Accordingly, PP needs to submit the details of budget and its activities as per the said Circular.

(2.11). Mining of Building Stone (Minor Mineral) with production capacity of 2,40,000 TPA of Stone in the Mine Lease Area of 5.3810 ha by M/s Palathra Constructions Pvt. Ltd., located at Survey Nos. 401/5-2, 403/1, 403/1-1, 403/2, 403/2-2-1, 403/2-3, 403/2-2, 404/1, 404/2, 404/2-6, 405/1, 406/5, Chengalam East Village, Kottayam Taluk, Kottayam

District, Kerala (Consultant–M/s Environmental Engineers & Consultants Pvt. Ltd.)- Consideration of EC category 'B 2' project

The proposal of M/s Palathra Constructions Pvt. Ltd. is for Mining of Building Stone (Minor Mineral) with production capacity of 2,40,000 TPA of Stone in the Mine Lease Area of 5.3810 ha. The mine is for expansion of the existing project with proposed mine lease area of 5.3810 ha. (2.0766 ha. + 3.3044 ha). The existing project was accorded with Environment Clearance vide Order No. 835/EC4/2713/2015 dated 07-05-2016 by SEIAA, Kerala with mine lease area of 2.0766 ha with a production capacity of 50,000 TPA. The proposed mine is located at Survey Nos. 401/5-2, 403/1, 403/1-1, 403/2, 403/2-2-1, 403/2-3, 403/2-2, 404/1, 404/2, 404/2-6, 405/1, 406/5, Chengalam East Village, Kottayam Taluk, Kottayam District, Kerala. The geographical co-ordinates of the lease area are Latitude (N): 09°37'47.15" to 09°37'36.91" and Longitude (E): 76°42'46.13" to 76°42'36.71" and is covered by Survey of India Toposheet No. 58C/10. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

This is a category "B 2" project as per the provisions of the EIA Notification, 2006 as amended on 15.01.2016. The Project is to be dealt at SEIAA, Kerala. Since the tenure of SEIAA, Kerala has expired therefore the proposal has been considered in the MoEF&CC. Project Proponent has informed that there is no pending application with SEIAA/SEAC for this proposal.

The Member Secretary informed to the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding the prohibition of mining activity in the ESA identified by the HL WG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is not a part of the list. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any;

Project Proponent has informed that Letter of Intent was issued by the State Government of Kerala, vide letter no. 10406/M3/2017, dated 13-03-2018 for mining of stone in the MLA of 5.3810 ha. Eco-friendly Mining Plan for mining of stone (minor mineral) has been approved by Mines and Geology Department, Government of Kerala, vide letter no. 2892/DOY/ML/2017 dated 10-04-2018. Project Proponent has submitted the details of other mines including lease area located within 500m of the mine lease area duly authenticated by the Mining Department of the State Govt. vide letter no. 2892/DOY/ML/2017 dated 23-04-2018. PP reported that they have obtained a letter under RTI from State Forest Department, vide no. E1-1156/18 dated 10-05-2018 which has confirmed that there is no forest land is involved in the lease area.

The total Mining Lease area of 5.3810 ha which is private land. No forest land is involved. Mining will be carried out through semi-mechanized open-cast method using drilling, blasting of small diameter holes and loading of mineral by tyre mounted

excavator. Out of the total 5.3810 ha lease area, about 2.8207 ha area will be excavated (1.6645 ha Reclaimed by plantation & 1.1562 ha convert into pond). The remaining area of 0.4883 ha which is left for stripping limits along the periphery will also be developed with Green belt/plantation, 0.1070 ha area for drainage and 1.9650 ha. area left as non-mineable area. It was reported by the project proponent that at the conceptual stage, total waste material will be sold to road construction vendors. The estimated total water requirement is 5 KLD in which 1 KLD is for domestic which would be sourced from open well, 2 KLD for dust suppression system in mine and 2 KLD for plantation purposes and will be sourced from storm water pond. Ultimate working depth is 75 m. MSL (mining will not intersect ground water table level). Ground water table is 1.2 m. to 5.0 m. BGL (Post Monsoon & Pre Monsoon). Life of mine is 5 years with the production capacity of 2,40,000 TPA.

Project Proponent reported that there is no National Park, Wild Life Sanctuary, Habitat for Migratory Birds, Tiger Reserve, Elephant Reserve, Bio-sphere Reserve located within 10 km radius of the mine lease. Project Proponent has informed that the mine site is not located in the Critically Polluted area as identified by CPCB etc. There are no Resettlement and Rehabilitation issues involved in this project.

Project Proponent reported that excavated material will be used in the construction and PWD road works. Building construction and other infrastructural facilities are the areas, where the material will be consumed. The top soil of 8,953 cu.m. will be generated from the mining operations, which shall be properly stacked separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation as part of eco-restoration. About 4,476 cu.m. of overburden will be generated throughout the mine life. These wastes shall be utilized within the pit for laying of haul roads. At the end use, OB can be reutilized as soil base for plantation. At the end of life of mine, the reclaimed area will be suitably planted (2,153 trees will be planted in the lease area). The main aim of the green belt development is to restore the ecosystem to its original form to a maximum possible extent by designing the green cover with the same native species. The sewage to a tune of 0.8 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. To avoid the dust generation from the drilling operations, wet drilling methods will be adopted. Periodical monitoring of ambient air, noise, water & waste water quality in and around the lease area will be carried out. The workers will be provided with personal protective equipments i.e., earmuffs, earplugs and dusk masks. Periodic health/medical checkups for all the workers as per Factories Act will be done to ascertain good health and safety.

The total cost of the project is Rs. 4.5 Crores. The Project Proponent has earmarked Rs. 9.0 Lakhs per annum as recurring cost towards Environmental protection measures. PP has earmarked Rs. 10.40 Lakhs per annum as recurring expenses, an amount of Rs. 10.30 Lakhs as non recurring expenses has been earmarked towards Socio-economic Welfare measures for the nearby village.

Proponent has informed that there is no court case /litigation pending against the project.

The Committee, after detailed deliberations, **deferred** the proposal and sought the following requisite information:-

- (i). The Member Secretary informed the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding prohibition of mining activity in the ESA identified by the HLWG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is not a part of the list. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any;
- (ii). Details of type of rock and geology, method of mining, machinery details, blasting details etc. needs to be provided;
- (iii). Details of haulage roads, slope at different sections needs to be provided;
- (iv). Details of Occupational health along with budgetary provisions needs to be elaborated;
- (v). All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, 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).
- (vi). 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 State Government. A Certificate from the Competent Authority in the State Forest Department should also be provided, confirming the involvement of forest land, if any, in the project area.
- (vii). PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc. Plant species needs to be revised;
- (viii). Test Reports of Free Silica Concentration need to be submitted;
- (ix). Details of connectivity from mine to crusher and its transportation plan needs to be elaborated;
- (x). The Committee noted that the Ministry has recently issued a circular vide no. 22-65/2017-IA.III, dated 1st May 2018 on Corporate Environment Responsibility (CER).

Accordingly, PP needs to submit the details of budget and its activities as per the said Circular; and

- (xi). The existing project was accorded with Environment Clearance vide Order No. 835/EC4/2713/2015 dated 07-05-2016 by SEIAA, Kerala with mine lease area of 2.0766 ha with a production capacity of 50,000 TPA. Accordingly, PP needs to submit the (a) certified copy compliance of earlier EC conditions from the RO of the MoEF&CC/SPCB as per provision of the EIA Notification, 2006 as amended on 15.01.2016, (b) Copy of CTE/CTO; and (iii) Production details since inception of mine which is duly authenticated by the State Mines and Geology Department.

(2.12). Proposed Limestone Mine of M/s ACC Ltd. with production capacity of 3.9 Million TPA and waste/topsoil 2,25,000 CuM per Annum (Maximum) with installation of Crusher with 1000 TPH, located at Villages – Bidiyadih, Bohardi, Bhurkunda & Godadih, Tehsil – Masturi, District – Bilaspur, Chhattisgarh (MLA 582.962 ha) (File No. J-11015/45/2018-IA.II(M); Proposal No. IA/CG/MIN/74798/2018) (Consultant: JM Enviro Net Pvt. Ltd.)- Consideration of TOR

The proposal of M/s ACC Limited is for Limestone Mine with Production Capacity of 3.9 Million TPA of limestone and topsoil/waste @ 2,25,000 Cu.M. per annum (Maximum) with installation of Crusher 1000 TPH. The mine lease is located at Villages – Bidiyadih, Bohardi, Bhurkunda & Godadih, Tehsil – Masturi, District - Bilaspur Chhattisgarh in the ML Area 582.962 ha. The mine lease area falls between Latitude of 21° 45' 30.50" to 21° 54' 8.67" N and Longitude of 82° 14' 2.99" to 82° 21' 38.95" E Mine lease falls within the Survey of India Toposheet No.64 K/5 in core zone.

Project Proponent reported that earlier the Application for obtaining Environmental Clearance was submitted to MoEF&CC dated January 12th, 2010. The proposal of ToR was earlier considered by the EAC in its meeting held during May 17th- 18th, 2010 wherein the Committee recommended ToR. The Ministry has issued Terms of Reference (ToRs) for the preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP), vide letter no.J-11011/27/2010-IA-II, dated 22.06.2010. Draft EIA/EMP Report with a request letter was submitted to CECB for conduction of Public Hearing dated 27.04.2013. The project was not executed due to some unavoidable circumstances and poor condition of demand of cement in Eastern market. The validity of ToR got expired therefore; the company applied for the fresh proposal on 28.04.2018.

The total mining lease area is 582.962 ha. Out of total mining lease area, 77.795 ha is Government Land and 505.167 ha is private land. An order regarding grant of mining lease was issued in favor of M/s. ACC Limited vide letter no. F- 3-86/2007/12(1) dated 10.08.2009 by Dept. of Mineral Resources, Chhattisgarh Government. Mining Lease deed was executed in favor of M/s ACC Ltd. for an area of 582.962 ha vide letter no. 2047/ML/2009 dated 21.10.2009 for 30 years. A letter regarding extension of mining lease period from 30 to 50

years has been issued by Collector Bilaspur, Chhattisgarh vide letter no. 1928/ML/SN/2015 dated 27.10.2015.

The Method of Mining will be Open Cast Working with formation of benches by fully mechanized means by deploying Heavy Earth Moving Machineries. The formations encountered in the area comprises of soil, Shale, Shaly Limestone, Massive Limestone, Dolomitic Limestone & Dolomite. The Mechanized method of opencast mining with deep hole blasting and secondary breaking by Hydraulic breaker, (if required) will be adopted. The Shovel-Dumper combination will be used for loading and transport of run of mine material and development activity. The excavated limestone will be transported to the proposed crusher of 1000 TPH capacity to be installed within lease area. Crushing process will involve Screening & Wobbler activities. The crushed limestone will be supplied to the proposed Cement plant and to Jamul Cement Plant by covered conveyor belt or through road transportation by dumpers. The dozer will be used for leveling & compacting of overburden dump as well as face preparation & road maintenance. Total water requirement will be 330 KLD. This requirement will be met initially from the nearby water source, Lilagar River situated around 0.5 km East of proposed site. Commitment Charges payment letter from water Resource Department has been given for 1.58 MCM vide their letter no. 6208 dated 08.12.2017 in respect to issue of permission for withdrawal. ACC limited has deposited the Commitment Charges to the Water Resource Department vide Receipt Letter. 469 dated 24.01.2018 and the issue of permission for withdrawal of water from Lilagar River is under process. Once the Mine pits are formed, it will be used for collection of rain water under rain water harvesting. Power will be sourced from Chhattisgarh State Power Distribution Company in initial stage till the inception of Captive Power Plant. 2.5 MW will be required to operate crusher, Lighting and dewatering pump.

Project Proponent reported that No National Park, Wild Life Sanctuary, Biosphere Reserve, Tiger Reserve, Wildlife Corridor, Reserved & Protected Forest etc. exists within 10 km radius of study area. The total cost of project is Rs. 125 Crores/- including crusher. The Capital Cost for Environment Protection is Rs. 12.5 Crores/ with Recurring cost of Rs. 1.0 Crore per annum/. No litigation is pending against the project in the court. The expected employment generation from the project is for 56 persons.

The Committee, after detailed deliberations, **deferred** the proposal and sought the following requisite information:-

- (i). Details of mitigation measures to prevent the impact of seasonal nalla may be provided;
- (ii). The proposed area is agricultural land and having one seasonal crop growing paddy crop.
- (iii). Committee noted that proposed mine lease having isolated patches and has about 1730 corners and has the concerned that How the PP will ensure the movement of minerals, access to the villagers, transport plan etc.? Details need to be submitted.

(2.13). Mining of Building Stone (Minor Mineral) with production capacity of 5,01,557 TPA of Stone in the Mine Lease Area of 8.0563 ha by M/s Aiswarya Granites, located at Sy. Nos. 118/p, 117/7-2, 117/7-3, 117/5-2, 120 of Elamad Village,

Kottarakkara Taluk, Kollam District, Kerala (Consultant–M/s Environmental Engineers & Consultants Pvt. Ltd.)- Consideration of EC category 'B 2' project

The proposal of M/s Aiswarya Granites is for Mining of Building Stone (Minor Mineral) with production capacity of 5,01,557 TPA of Stone in the Mine Lease Area of 8.0563 ha. The mine is a new Building Stone mining project. The mine is located at Sy. Nos. 118/p, 117/7-2, 117/7-3, 117/5-2, 120 of Elamad Village, Kottarakkara Taluk, Kollam District, Kerala. The geographical co-ordinates of the lease area are Latitude (N): 08°52'55.89"N" to 08°52'34.81"N" and Longitude (E): 76°49'55.60"E to 76°49'42.98"E" and is covered by Survey of India Toposheet No. 58D/13. The PP presented the KML file during the presentation to indicate the location of mine lease on Google Earth/ DSS.

This is a category "B 2" project as per the provisions of the EIA Notification, 2006 as amended on 15.01.2016. The Project is to be dealt at SEIAA, Kerala. Since the tenure of SEIAA, Kerala has expired therefore the proposal has been considered in the MoEF&CC. Project Proponent has informed that there is no pending application with SEIAA/SEAC for this proposal.

The Member Secretary informed to the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding the prohibition of mining activity in the ESA identified by the HL WG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant LOI/MLA is not a part of the list. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any;

Project Proponent has informed that Letter of Intent was issued by the State Government of Kerala, vide letter no. 4003/M3/2018 dated 12-04-2018 for mining of stone in the MLA of 8.0563 ha. Eco-friendly Mining Plan for mining of stone (minor mineral) has been approved by Mines and Geology Department, Government of Kerala, vide letter no. 1314/DOQ/S2/2018 dated 21-04-2018. Project Proponent has submitted the details of other mines including lease area located within 500m of the mine lease area duly authenticated by the Mining Department of the State Govt. PP has obtained the letter under RTI from State Forest Department, vide no. PC2-2487/2018 dated 11-05-2018 which confirmed that there is no forest land is involved in the lease area.

The total Mining Lease area of 8.0563 ha which is partially Government land (7.8103 ha.) with NOC from the District Collector and partially private land (0.246 ha.). No forest land is involved. Mining will be carried out through semi-mechanized open-cast method using drilling, blasting of small diameter holes and loading of mineral by tyre mounted excavator. Out of the total 8.0563 ha lease area, about 6.542 ha area will be excavated (4.648 ha Reclaimed by plantation & 1.894 ha convert into pond). The remaining area of 1.0077 ha. which is left for stripping limits along the periphery will also be developed with Green belt/plantation, 0.2606 ha. area for drainage and 0.246 ha. as non-mineable area. It was reported by the project proponent that at the conceptual stage, total waste material will be sold to road construction vendors. The estimated total water requirement is 6 KLD in which

2 KLD is for domestic which would be sourced from open well, 2 KLD for dust suppression system in mine and 2 KLD for plantation purposes and will be sourced from storm water pond. Ultimate working depth is 40 m. MSL (mining will not intersect ground water table level). Ground water table is 1 m. to 5.0 m. BGL (Post Monsoon & Pre Monsoon). Life of mine is 6 years with the production capacity of 5,01,557 TPA.

Project Proponent reported that there is no National Park, Wild Life Sanctuary, Habitat for Migratory Birds, Tiger Reserve, Elephant Reserve, Bio-sphere Reserve located within 10 km. radius of the mine lease. Project Proponent has informed that the mine site is not located in the Critically Polluted area as identified by CPCB etc. There are no Resettlement and Rehabilitation issues involved in this project.

Project Proponent reported that excavated material is transported by 15T trucks/tippers to the crusher unit proposed to be installed within the complex for further processing. The top soil of 96,208 cu.m. will be generated from the mining operations, which shall be properly stacked separately at pre-determined place and subsequently will be utilized in spreading over reclaimed areas for plantation as part of eco-restoration. About 48,104 cu.m. of overburden will be generated throughout the mine life. These wastes shall be utilized within the pit for laying of haul roads. At the end use, OB can be reutilized as soil base for plantation. At the end of life of mine, the reclaimed area will be suitably planted (about 5,655 trees will be planted in the lease area). The main aim of the green belt development is to restore the ecosystem to its original form to a maximum possible extent by designing the green cover with the same native species. The sewage to a tune of 0.8 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. To avoid the dust generation from the drilling operations, wet drilling methods will be adopted. Periodical monitoring of ambient air, noise, water & waste water quality in and around the lease area will be carried out. The workers will be provided with personal protective equipments i.e., earmuffs, earplugs and dusk masks. Periodic health/medical checkups for all the workers as per Factories Act will be done to ascertain good health and safety.

The total cost of the project is Rs. 6 Crores. The Project Proponent has earmarked Rs. 9 Lakhs per annum as recurring cost towards Environmental protection measures. PP has earmarked Rs. 5 Lakhs per annum as recurring expenses, an amount of Rs. 5 Lakhs as non recurring expenses has been earmarked towards Socio-economic Welfare measures for the nearby village. Proponent has informed that there is court case /litigation pending against the land in which the project is proposed, vide WP no. Civil 10132 of 2018, High Court of Kerala.

The Committee, after detailed deliberations, **deferred** the proposal and sought the following requisite information:-

- (i). The Member Secretary informed the Committee that the Ministry has issued the directions under Section 5 of the Environment (Protection) Act, 1986, vide letter No. 1-4/2012 - RE (Pt), dated 13.11.2013 regarding prohibition of mining activity in the ESA identified by the HLWG and provided a list (State-wise, District-wise and Taluk-wise village). The Committee noted that the instant

LOI/MLA is not a part of the list. However, the Ministry may seek the comments from concerned Division of the Ministry w.r.t. ESA identified by the HLWG and its further development, if any;

- (ii). Details of type of rock and geology, method of mining, machinery details, blasting details etc. needs to be provided;
- (iii). Details of haulage roads, slope at different sections needs to be provided;
- (iv). Details of Occupational health along with budgetary provisions needs to be elaborated;
- (v). All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, 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).
- (vi). 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 State Government. A Certificate from the Competent Authority in the State Forest Department should also be provided, confirming the involvement of forest land, if any, in the project area.
- (vii). PP needs to submit the detailed Green Belt Development plan on periphery of the lease along with type of plantation etc. Plant species needs to be revised;
- (viii). Test Reports of Free Silica Concentration need to be submitted;
- (ix). Details of connectivity from mine to crusher and its transportation plan needs to be elaborated;
- (x). The Committee noted that the Ministry has recently issued a circular vide no. 22-65/2017-IA.III, dated 1st May 2018 on Corporate Environment Responsibility (CER). Accordingly, PP needs to submit the details of budget and its activities as per the said Circular;
- (xi). Certificate from Department of Mines and Geology stating that no mining is currently carried out at project site by the project proponent. Also, the certificate should state that there was no mining in the proposed site by the project proponent in the past;
- (xii). Proponent has informed that there is court case /litigation pending against the land in which the project is proposed, vide WP no. Civil 10132 of 2018, High Court of Kerala. The details of court case and its status need to be submitted by the PP.

(2.14). Silica Sand & Masonary stone mining along with Processing, Crushing, Sizing, Grinding, Washing and beneficiation with proposed production capacity of 79,00,000 TPA (ROM) by M/s Shivalik Silica, located Near village – Agawali, Tehsil - Bayana, District - Bharatpur Rajasthan (MLA 49.56 ha & ML No. 2/93 (old M.L. No L/73) (File No. J-11015/50/2018-IA.II(M); Proposal No. IA/RJ/MIN/73413/2018)(Consultant: M/s Ramji Mine Environment-Consideration of TOR

The Proposal of M/s Shivalik Silica is for Silica Sand & Masonary stone mining along with Processing, Crushing, Sizing, Grinding, Washing and beneficiation with proposed production capacity of 79,00,000 TPA (ROM) in the MLA of 49.56 ha. The mine is located at near village Agawali, Tehsil: Bayana, District: Bharatpur, Rajasthan. The area has been marked on Toposheet No. 54E/8,54F/5& the coordinates of mine site is Latitude -27°00' 1.45" N to N 27°00' 21.38"N&Longitude -77°19' 43.08"E to 77°20'27.12"E. This is a Category B1 project and is being considered at Ministry as SEIAA Rajasthan in not in place.

Project Proponent reported that the Mining Lease was granted in favour of Smt. Veena Joshi w/o Shri R.S. Joshi by Department of Mines & Geology, Bharatpur, Govt. of Rajasthan on 12/11/1973 and lease agreement was executed on dated 07/05/1974 for an area of 165.72 Ha & M.L. No- 1/73 for 20 years. The 46.95 Ha area was surrender on dated 26/11/1976, thus the total remaining mining lease area is 118.77 Ha. The First renewal of mining lease was applied on dated 05/05/1993 as per rules of State Government the mining lease was entered at new number 2/93. On dated 19/02/2004 Smt. Veena Joshi W/o Shri R.S. Joshi is expired and Incidentally Mining Operation was stopped vide dated 16-05-2004 & decided to get EC from MoEF & CTE from RSPCB. The M.L. No. 2/93 is mutated in favour of Shri Madhup Joshi legal heir of Late Smt. Veena Joshi on dated 25-06-2005 & Rider agreement was effected from dated 02-07-2005 & Memorandum was issued on dated 07-04-2005 and Shri Yogeshh Mittal was appointed as power of attorney holder behalf of Shri Madhup Joshi. Project Proponent surrender a part of lease area (47.07 Ha) to Department of Mines & Geology, Govt. of Rajasthan & retained lease area is 71.70 ha. The Project Proponent get Environment Clearance vide letter no. J-11015/163/2006-IA.II (M) dated 17-05-2007 from MoEF for the Lease area of 71.70 Ha and The Renewal of Mining Lease was done on dated 10-10-2007 & Agreement was executed on dated 07-11-2007 & the total remaining lease area is 49.56 ha. After that the lease was transferred in favor of M/s Shivalik Silica (Partner Ship Firm) on dated 21/02/2008 by ME Bharatpur and further the Project Proponent get the transfer of EC in the name of M/s Shivalik Silica for the lease area 49.56 Ha from MoEF&CC vide letter no. J-11015/163/2006-IA.II (M) dated 07-07-2017. The lease period has been extended up to 6th May, 2024 by Govt. order dated 27/02/2015 and a rider agreement of for extension of mining lease period was executed on dated 27.12.2017 by the Department of Mines and Geology, Roopwas, Bharatpur.

The Mining lease area is 49.56 ha. The mine working in the area will be carried out by mechanized and semi-mechanized open cast method of mining. Mining will be confined to 130mts (130 mRL) (UPL). The highest altitude in the area is 281 mRL and lowest is 190 mRL. At the end of 5 years & at the conceptual stage of the life of mine total excavated area will be 33.10 & 34.20 ha. Total water requirement is 106 M³/day (Drinking – 6 M³/day, Dust

Suppression- 80 M³/day, Mine operation- 10 M³/day & Green Belt- 10 M³/day). The water requirement shall be/is being met through Ground water (Existing Tube well in the lease area). Application for abstraction of water has been submitted on line on 01.04.2017 before the CGWA. Total mineable reserve is 64970573 Tonnes. The proposed production capacity is @7900000TPA the life of mine comes out to be 8.22 years. PP reported that there is no National Park, Wild Life sanctuaries, Biosphere Reserves, Tiger Reserves, and Wildlife Corridors etc. within 10 km radius. The cost of the project is 10.0 Crore.

The Department Mines and Geology, Govt. of Rajasthan, vide letter dated 27.03.2016 has submitted the production details from 1974 to 2017. The production details of mineral silica during 1993-94 were 1926.820 tonnes. PP has enhanced the production capacity during 1995-1996, 1998-99, 1999-2000, 2000-01, 2001-02, 2002-03, & 2003-04 with respect to the base year of 1993-94. Further, PP has obtained the EC on 17-05-2007 for 2,03,400 TPA and never enhanced the production after grant of EC in 2007.

Ministry informed the Committee that PP had enhanced the production capacity without EC and in light of the Common Cause Judgment pronounced by the Hon'ble Supreme Court on dated 02.08.2017 this is a case of violation. The Committee, therefore, **deferred** the proposal noting that **a separate Committee has been constituted for dealing with the projects involving violation of EPA, 1986 vide notification issued by the Ministry on 14.03.2017.**

(2.15). Sarah Kishnayat Ball Clay, Fire Clay, Red & Yellow Ochre Mine lease of M/s Deepak Mineral Industries for enhancement of production capacity from 20,000 TPA to 3,00,000 TPA (ROM) in the mining lease area of 69.59 ha, located Near Village Sarah Kishnayat, Tehsil- Kolayat, District – Bikaner, Rajasthan in favor of (F. No. J-11015/19/2018-IA. II (M); Proposal No. IA/RJ/MIN/71765/2017) (Consultant: M/s Udaipur Min-Tech Pvt. Ltd.)– Consideration of TOR

The proposal of M/s Deepak Mineral Industries is for mining of Ball Clay, Fire Clay, Red & Yellow Ochre Mine with enhancement of production capacity from 20,000 TPA to 3,00,000 TPA (ROM) in the mining lease area of 69.59 ha. The mine lease area is located at near Village-Sarah Kishnayat, Tehsil – Kolayat, District -Bikaner. The mining area is located between 27°55'35.70" N to 27°55'50.44" N Latitudes and 72°57'11.77"E to 72°57'54.45"E Longitudes on Toposheet No. 45 A/13. The Project is located in Seismic zone-II. The proposal of ToR was earlier placed before the EAC in its meeting held during 22-23rd March, 2018 wherein the Committee deferred the proposal as they did not receive the documents.

Project Proponent reported that the proposal M/s Deepak Mineral Industries is partnership firms the partner are (1) Sh. Mohit Daga (2) Sh. Rohit Daga (3) Sh. Dinesh Kakra 4) Smt. Puspa Devi Asopa. Originally the lease was sectioned vide order no. F-1(83) Khan/Gr-2/83 on date-30 .08.1983 in favor of Shri Dhanrajbothra over an area of 448.21 ha for a period of 20 years w.e.f. 16.10.1985. The mining lease was transferred to M/s Deepak Mineral Industries, vide Govt. of Rajasthan order no. F-3 (43) Khan/Group-2/ 91 dated 02.11.1991 for the same area of 448.21 ha. The first renewal of lease sanctioned vide Govt.

order no. DMG/Bika/CC-6/P-(1) 21/04(R)/584 on dated 04.04.2007 and registered on 19.04.2007 over an area of 69.59 ha.

Project Proponent reported that method of mining will be opencast and semi-mechanized. Excavation will be carried out up to a maximum depth of 218 MRL (22m) from surface of deposit. The total water requirement is 8.0KLD including water demand for domestic purpose, dust suppression and plantation development which shall be met by hired tankers. No ground water interception during the mining operations is envisaged as ground water table 80bgl to 90m bgl. The cost of the Project is Rs. 70.0Lakh/- the Proponent has earmarked Rs.7.0 Lac towards Environmental Protection Measures. Rs. 5.0 Lac has been earmarked towards CSR activities.

The Environmental clearance was accorded by Ministry, vide letter no. J-11015/269/2005-IA II (M) on dated 26.07.2006 for production capacity of 20,000 TPA of Ball Clay. Now Lessee has applied for enhancement the production from 20,000 TPA to 3,00,000 TPA.

The Department Mines and Geology, Govt. of Rajasthan, vide letter dated 23.01.2018 has submitted the production details from 1985 to 2017 Ball Clay, Fire Clay, Red & Yellow Ochre. The production details of mineral during 1993-94 were 2778 tonnes. PP has enhanced the production capacity during 1995-1996 to 2005-06 with respect to the base year of 1993-94. Further, PP has obtained the EC on 26.07.2006 for production capacity of 20,000 TPA of Ball Clay.

Ministry informed the Committee that PP had enhanced the production capacity without EC and in light of the Common Cause Judgment pronounced by the Hon'ble Supreme Court on dated 02.08.2017 this is a case of violation. The Committee, therefore, deferred the proposal noting that a separate Committee has been constituted for dealing with the projects involving violation of EPA, 1986 vide notification issued by the Ministry on 14.03.2017.

(2.16). Shingcha-Gamnon Chromite Mine of M/s Rourkela Minerals Company Private Limited (ROMCO) with production capacity of 9100 TPA (ROM), located at Village-Shingcha-Gamnon, Ukhrul District, Tehsil - Kamjong Chassad Sub-Division, Manipur State (MLA 85 ha) (File No. J-11015/250/2016-IA-II(M); Proposal No. IA/MN/MIN/61224/2016) (Consultant: M/s ERM India Private Limited)- Consideration of TOR

The proposal of M/s Rourkela Minerals Company Private Limited (ROMCO) is for Shingcha-Gamnon Chromite Mine with Production Capacity of 9100 tons per annum in the mine lease area of 85 ha. The mine is located in Shingcha- Gamnom village, in Ukhrul district of Manipur State and is featured in Topo-sheet No. 83 K/8. The granted lease is bounded between Longitude 94°26'46" - 94°27'30" and Latitude 25°00'39" - 25°01'21".

Total ML area is 85.0 ha and entire area is unclassified Govt. land. During the plan period 9.07 ha and during conceptual period 27.09 ha land will be used for various mining purpose. The ML area is devoid of any forest land or agricultural land; entire land is categorised as unclassified Govt. land. The Geological Probable reserve of float ore zone is estimated to be 79,959 tones and proved reserve is 1272 tones. Therefore, the total geological reserve is 81231 tones and mineable reserve is also 81231 tones. The production capacity of the mine is 9100 tons per annum. Based on current exploration data, the life of the mine is 9 years. The operation of mine will be fully manual by opencast method of mining with an objective to produce 9100 (maximum) tones per annum. Dumper/ trippers will be utilized for shifting ore and overburden to respective sites. Drilling and blasting will be conducted to dislodge the OB and ore body. During plan period, 28444 m³ of mine overburden and inter-burden will be generated. During conceptual period, 33854 m³ of mine overburden and inter-burden will be generated. It is proposed that at the end of 5 year plan period 4.07 ha and 8.90 ha at the end of conceptual period will be degraded for quarry purpose. At the end of life mine, the broken up area will be reclaimed and rehabilitated. The average water requirement is 6.5 KLD and peak demand is 10.25 KLD. Water will be sourced from ground water. Project Cost is estimated to be 5 crores during Plan period.

The Proposal was earlier considered by the EAC in its meeting held during January 30-31, 2017 wherein the Committee noted that Government of Manipur has served a notice for cancelation of lease. Project Proponent also reported that they had filed a Court case before the Hon'ble Guwahati High Court Imphal Bench w.r.t. for extension of lease. The Committee deliberated at length and **deferred** the proposal and the same may be considered after submission of valid LOI/Lease which is the basis of application for TOR.

Now, PP has submitted a letter of Govt. of Manipur, vide dated 3rd April 2018 which is inter-alia mentioned that the mine lease application is valid; accordingly, the proposal is considered in this meeting. The Committee noted that the letter of Govt. of Manipur is not clear. The Committee deliberated the LOI/Lease issues and is of the view that the PP needs the clear LOI/Lease from the State Govt. of Manipur which is **the basis of application for TOR and rejected the proposal in present form.** The proposal may be considered after taking clear LOI/Lease from the State Govt. of Manipur.

(2.17). Lunghar Chromite Mines of M/s Sarvesh Refractory Pvt. Ltd. with production Capacity of 10,531 tons per annum (ROM), located at Village: Shirohi-Lunghar, Ukhrul District, Manipur State (MLA 132.781 ha) (File No. J-11015/63/2017-IA-II(M); Proposal No. IA/MN/MIN/60912/2016) (Consultant: ERM India Private Limited)- Consideration of TOR

The proposal of M/s Sarvesh Refractory Pvt. Ltd. is for Lunghar Chromite Mine with production capacity of 10,531 TPA (ROM). The mine is located at villages Sirohi and Lunghar under district Ukhrul of Manipur in the mine lease is 132.781 ha. The ML area is featured in the toposheet No. 83 K/8. The Lease area bounded by Longitudes and Latitudes as; Pillar No: A: 94°28'12.04" E & 25° 09'35.98"N; Pillar No: B: 94°28'40.13" E & 25° 09'37.07"N; Pillar No: C: 94°28'45.48" E & 25°08'44.54"N; and Pillar No: D: 94°28'16.42" E & 25° 08'43.62"N.

Total ML area is 132.781 ha and entire area is unclassified Govt. land. During the plan period 10.10 ha and during conceptual period 29.20 ha lands will be used for various mining purpose. It is proposed that at the end of 5 year plan period 5.10 ha and 10.19 ha at the end of conceptual period will be degraded for quarry purpose. At the end of life mine, the broken up area will be reclaimed and rehabilitated. The Geological Proved reserve of exposed ore bodies is estimated to be 1134. The geological probable reserve of float ore zone is estimated to be 91674 tones. Therefore total demonstrated reserve (Proved and Probable reserve) is 92,808 tones. The production capacity of the mine is 10531 tons per annum. Based on current exploration data, the life of the mine is 9 years.

The operation of mine will be fully manual by opencast method of mining with an objective to produce 10531 (maximum) tones per annum. Dumper/ trippers will be utilized for shifting ore and overburden to respective sites. Drilling and blasting will be conducted to dislodge the OB and ore body. During plan period, 33552 m³ of mine overburden and interburden will be generated. During conceptual period, 37588 m³ of mine overburden and interburden will be generated. The average water requirement is 6.5 KLD and peak demand is 10.25 KLD. Water will be sourced from ground water. Project Cost is estimated to be 5 crores during Plan period.

The Proposal was earlier considered by the EAC in its meeting held during January 30-31, 2017 wherein the Committee noted that Government of Manipur has served a notice for cancelation of lease. Project Proponent also reported that they had filed a Court case before the Hon'ble Guwahati High Court Imphal Bench w.r.t. for extension of lease. The Committee deliberated at length and **deferred** the proposal and the same may be considered **after submission of valid LOI/Lease which is the basis of application for TOR.**

Now, PP has submitted a letter of Govt. of Manipur, vide dated 3rd April 2018 which is inter-alia mentioned that the mine lease application is valid; accordingly, the proposal is considered in this meeting. The Committee noted that the letter of Govt. of Manipur is not clear. The Committee deliberated the LOI/Lease issues and is of the view that the PP needs the clear LOI/Lease from the State Govt. of Manipur which is **the basis of application for TOR and rejected the proposal in present form.** The proposal may be considered after taking clear LOI/Lease from the State Govt. of Manipur.

(2.18). Proposed Kesla-II Limestone of M/s Dalmia Cement Bharat Ltd. with production capacity of 4.0 Million TPA (ROM) with crusher capacity of 1000 TPH, located in villages Nahardih, Kharora, Kesla and Bardih, Tehsil Tilda, District Raipur, Chhattisgarh (ML Area 357.067 ha) [(Proposal No. IA/CG/MIN/72578/2018; File No. J-11015/13/2018-IA. II(M)] (Consultant: Enkay Enviro Services Pvt. Ltd.) – Re-Consideration of TOR

The proposal of M/s Dalmia Cement Bharat Ltd is for production capacity of 4.0 Million TPA (ROM) with crusher capacity of 1000 TPH in the MLA of 357.067 ha. The mine lease is located in villages Nahardih, Kharora, Kesla and Bardih, Tehsil Tilda, District Raipur, Chhattisgarh. The mining lease area falls in Survey of India Topo sheet no. the Latitudes and

Longitudes of mine lease area is 21°24'47.752" to 21°26'09.246" and 81°55'45.216" to 81°56'54.195".

The total mining lease area is 357.067 ha comprises of 42.424 ha Govt. land & 314.643 ha Private land. The Government of Chhattisgarh has issued Letter of Intent (LOI), vide letter no. F 3-21/2016/12, dated 22.06.2017 under Rule 10(2) of the Mineral (Auction) Rules, 2015 for grant of Mining Lease for the e-auctioned block in Raipur district.

The method of mining will be Opencast fully mechanized which inter-alia includes drilling, blasting, loading, crushing & transportation to proposed interlinked cement plant. Impact crusher of 1000 TPH capacity is proposed to be installed within the lease area. The limestone will be stacked near the crusher and fed to crusher with suitable blending with sub-grade limestone as per requirement in the cement plant. PP reported that based on the present exploration, at the conceptual stage, out of the total ML area about 121 ha area will be excavated out of which about 30 ha area will be backfilled and about 91 ha area will be converted into water reservoir with proper fencing. Greenbelt area shall be developed in 7.5 m safety barrier all around the MLA. There is no National Park, Wildlife Sanctuary Eco-Sensitive Zone or Reserved Forest within 10 km radius from the proposed mine. However, there are two protected forests namely Khaulidabri PF about 0.25 km towards W and Mohrenga PF about 5.7 km towards NW. The nearest town Kharora (NP) is about 1 km, SW and Tehsil Town Tilda is about 18 km, NW. Nearest Airport is at Raipur about 32 km, SW. Nearest Highway is State Highway-9 about 2.8 km SE.

The proposal was earlier placed before the EAC in its meeting held February 26-27, 2018 wherein the Committee noted that the Government of Chhattisgarh has issued Letter of Intent (LOI), vide letter no. F 3-21/2016/12, dated 22.06.2017 with certain conditions. One of the conditions is to take approval of mine plan within six months time. PP informed that they had submitted the draft mine plan. However the same was rejected by the IBM. In view of the above, the Committee wants to know the basis of rejection of mine plan. The Committee deliberated the issues w.r.t. mine plan.

Based on the information submitted and presentation made by PP, the proposal was **recommended** for Standard TOR with additional conditions that PP needs to submit the detailed R&R plan in the EIA/EMP report as there are PAFs in the proposed lease.

2.19: Sand Mining Project at "Nagla Rangran Block/ YNR B 14" over an area of 89.48 ha. with modified production capacity of 38,60,000 TPA instead of 39,00,00 TPA located at Village- Nagla Rangran, Tehsil-Radaur, District- Yamuna Nagar, Haryana by M/s Tirupati Earth & Project Works Pvt. Ltd. (File No: J-11015/76/2017-IA-II (M); Proposal No IA/HR/MIN/66798/2017; Consultant: Vardan Environet)

The proposal of M/s Tirupati Earth & Project Works Pvt. Ltd is for production of 38,60,000 TPA Sand from "Nagla Rangran Block/ YNR B 14" in Yamuna River Bed having mining lease area of 89.48 Ha located at Village- Nagla Rangran, Tehsil Radaur, District- Yamuna Nagar, Haryana. The mine lease area falls in the Survey of India Topo-Sheet No. H43R1, H43R5, H43L4, H43L8. The latitudes and longitudes of the Mine lease fall between Latitude: - N 29° 58' 10.0 " to N 29° 59' 0.0 " and Longitude: - E 77° 13' 32.0" to E 77° 14' 19.00".

2. The project falls under Schedule 1(a) of mining and is a Category- "A" project as per EIA notification 14th September 2006 (amended time to time) as the Mining lease area is more than 50 Ha.

3. The Project Proponent applied online vide proposal no **IA/HR/MIN/66798/2017** for prescribing Term of Reference (ToR) and submitted the Form-1 and Pre-Feasibility report. The proposal was considered & recommended for prescribing term of reference in EAC Meeting held on 29-30 August, 2017 and ToR was issued on 14.09.2017.

4. The Proponent applied for grant of EC online on 13.04.2018 and submitted the EIA Report after conducting the Public Hearing.

5. The proponent mentioned that the LOI over an area of 89.48 ha of Mining lease has been granted by the Director General, Department of Mines & Geology, Haryana vide memo no.- DMG/ HY/ Cont/ Nagla Rangran Block/ YNR B 14/ 2017/ 2654 dated 16.06.2017 for a period of 9 years. The lease area lies on riverbed of Yamuna River in District- Yamuna Nagar (Haryana). The Proponent also submitted the District Survey Report for Sustainable Sand Mining for District Yamunanagar.

6. The proponent mentioned that the mining activity will be carried out by open cast semi-mechanized method without drilling and blasting. Light weight excavators will be used for digging and loading of mineral in tippers. No OB/ waste material will be produced. The total water requirement will be 165 KLD (Domestic: 7 KLD, Dust Suppression: 125 KLD and Plantation: 33 KLD).

7. The PP submitted that Mining Plan and Progressive Mine Closure Plan of this proposed mining lease area is approved by Director General of Mines and Geology Department on dated 01/04/2018 with production capacity of 39,00,000. For compliance of ToR granted by MoEF&CC, modified mining plan was submitted to Director General of Mines and Geology Department on dated 03.03.2018 with modified production capacity of 38, 60,000, Haryana (Copy enclosed as Annexure-III-B).

7. The Project Proponent reported that there is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, and Tiger/Elephant Reserves/ Critically Polluted areas/Aravali located within the radius of 10 km of the mine lease area. In this regard the proponent submitted LR No. 1741 dated 9.08.2017 received under RTI Act, 2005 from Forest Department, Haryana. In the same letter the list of flora and fauna is also provided. The PP submitted that there are three Schedule-1 species in the study area in its letter submitted to APPCF (Wildlife), Panchkula, Haryana on 22.12.2017. The amount earmarked for the conservation plan is 10.0 Lakh. **The Committee noted that in the EIA Report at table 3.24 only one schedule-1 species is mentioned viz. Indian peafowl but in the letter sent to APPCF (Wildlife), Panchkula, Haryana three schedule -1 species are mentioned.**

8. The Primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post Monsoon season i.e. October to December, 2017. The monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of December 2017 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples. **The Committee deliberated the baseline data and observed that after commencing of the mining operation there is a significant increase in value of PM10 & PM2.5 and even in the control case scenario the value is exceeding the standard limit. The Committee thus was of the view the production quantity needs to be reduce significantly.**

9. Proponent submitted that Level of service (LOS) will decrease from Excellent to Poor.

10. The proponent submitted that public hearing for the proposed project of "Nagla Rangran Block YNR/B-14" of M/s Tirupati Earth and Project works Pvt. Ltd. was held under Chairmanship of Shri Vijay Kumar Siddappa, I.A.S., Deputy Commissioner, Yamuna Nagar at the mine site, on dated 03.04.2018 at 11:00 AM as per the EIA Notification dated 14th September 2006, as amended by the Ministry of environment and Forest, New Delhi. The press notification indicating the date, time and venue of the public hearing was published in Daily newspaper i.e. The Tribune dated on 02.03.2018 by Regional Officer, Panchkula with project details inviting suggestions, views, comments and objections from the public regarding proposed 38,60,000 TPA production capacity of Sand (Minor mineral). The issues raised during public hearing were also deliberated during the meeting which includes CSR, plantation, compensation to land owners, charity for temple, construction of pukka road, education for youth, control of pollution, socio-economic benefit, provisions for health of workers. The commitments made during PH by PP are Rs 28 Lakh/annum is proposed under CSR, total 45000 during the 5 years is proposed, preference will be given to local in employment and around 1000 person will get direct and indirect employment form the projects, motarable road shall be constructed, plantation along the road side and on 30 ha land outside the mining lease area, compensation of land owner as per prevailing rules and on mutually agreeable rates, Rs 10 lakh/annum shall be allocated for Occupational Health & Safety of the workers. PP reported that there is no court case or litigation pending against this project in any court of law [P.27 Ch-2 EIA].

11. The Proponent submitted that budget earmarked for EMP shall be ₹ 54 Lakh (Capital Cost) and ₹ 38 Lakh (Recurring Cost /annum). The Proponent submitted that total 5 persons shall be engaged for implementation of EMP. The total cost of the project shall be ₹ 9.5 Cr and shall give direct & indirect employment to 1000 persons.

12. The proposal was considered in EAC Meeting held on 14-15 May, 2018. Based on the discussion held and information submitted the Committee has following observations:

a) The Committee noted that during the meeting the PP submitted that the mining plan submitted to the Committee is the approved mining plan for 38, 60,000 TPA. On perusal of the EIA report the Committee observed that consultant has made false statement that mining plan submitted is the modified mining plan for 38,60,000 TPA, but in actual the PP has applied for modification in the mining plan for reduction in the capacity on 30.03.2018 a copy of the same is as Annexure-IIIB to the EIA Report. The Committee observed that due care was not taken while preparing the EIA Report as it is evident from chapter no 1 where date of approval of mining plan was wrongly mentioned as 24.12.2018 instead of 01.04.2018.

b) The Committee also observed the public hearing was done on 03.04.2018 i.e. prior to approval of the modified mining plan and thus, the ToR point no 5 is not complied with. PP did not submit any document as a proof that mining plan placed in the public hearing is the same which is currently under submission for the approval of the competent authority. The Committee was of the view that in case draft of modified mining plan was submitted during the PH, then letter from concerned authorities needs to be submitted that the Mining Plan submitted during the public hearing is the same which is submitted for approval of the Department of Mining & Geology and there is no change in the same.

c) The Committee observed that in the Mining Plan submitted by the PP, the year-wise plan and section is not provided rather a single plan showing the working from 1st to 5th Year was provided. Due to this it is difficult to ascertain that in which year which portion of mining lease will be worked out.

d) The Committee observed that total water requirement previously mentioned by PP was 70 KLD (Domestic: 10 KLD, Dust Suppression: 40 KLD and Plantation: 20 KLD). The PP now increased the water requirement is 165 KLD (Domestic: 7 KLD, Dust Suppression: 125 KLD and Plantation: 33 KLD). The PP did not submit any documents pertaining to permission from CGWA for withdrawal of Ground water and also did not specify the reason for increasing the quantity of the water.

e) The Committee observed that in EIA report PP submitted that there is only one schedule-1 species present within the study area and a conservation plan of Rs 10 Lakh is proposed and submitted to APPCF (Wildlife), Panchkula, Haryana. The Committee noted that there in the letter submitted to APPCF (Wildlife), Panchkula, Haryana in which three schedule-1 species were mentioned but in EIA Report only one schedule-1 species is shown. In addition to this in the EIA report submitted by the same consultant for the adjacent mining lease of M T Karhera Block/ YNR B 13 three schedule-1 species were mentioned (Indian Peafowl, Indian panther, and Monitor Lizard). Thus, there is discrepancy in the information mentioned by the consultant in the EIA Report.

f) The Committee observed that GLC for ambient air quality for PM₁₀ and PM_{2.5} is more than prescribed NAAQS standards even in the controlled scenario. The Committee also noted that there are other mining leases adjacent to this mining lease and thus forming a cluster situation and would have impact due to transportation of the mineral. The Committee also noted that as per DSR the demand of the mineral is less.

g) The Committee noted that all the pages in the EIA Report are not page numbered and thus ToR point no 46 (a) is not complied with.

h) The Committee noted that PP was unable to show the exact area where mining would be carried out. The Committee was thus of the view that PP should ascertain the area of mining after considering all the factors viz. production from other mining leases, pollution load due to mining activity, impact of transportation due to mining activity, taking into account the Sustainable Sand Mining Management Guideline 2016, restriction on mining as per mineral concession rule of the concerned State and as per condition provided in the LoI.

j) The Committee also noted that the same consultant recently prepared the EIA/EMP Report for the mining project for the adjacent mining leases and during the appraisal

of those projects the Committee asked the PP to submit the baseline data in respect of initial level of the mining lease and methodology for conducting Replenishment study. The Committee was of the view that the consultant & PP was very well aware about the documents to be submitted to EAC for appraisal of sand mining project but still requisite documents are not submitted. The Committee observed that non submission of requisite documents not only delay the process of appraisal of the project but also affects the decision making at all levels.

k) Clear copy of advertisements published in national daily and regional vernacular daily needs to be submitted.

13. Based on the discussion held, presentation made and documents submitted by the PP the Committee was of the view that as all the ToR points are not complied with, approved modified mining plan is not placed before the committee and it is still under submission to Department of Mining & Geology, Haryana. The Committee thus was of the view that due to aforementioned reasons the proposal should be **returned in the present form**. The Committee was of the view that PP should revise the EIA Report and submit the following documents:

- a) The Proponent should collect the baseline data in respect of initial level of the mining lease. For this permanent bench marks (BM) needs to be established at prominent location preferably close to mining leases in question and should have precisely known relationship to the level datum of the area, typically mean sea level. The entire mining lease should be divided suitably in the grids of 25 Meter x 25 Meters with the help of sections across the width of river and along the direction of flow of the river. The levels (MSL & RL) of the corner point of each grid need to be recorded. Each Grid should be suitably numbered for identification. PP should identify grids which will be worked out and grids which will come under no mining zone i.e. safety barriers from the river bank, safety barrier at lease boundary, restrictions as per condition of LoI/Mining Lease deed, restriction as Mineral Concession Rule of the Concerned State, restrictions as per sustainable sand mining management guidelines 2016 etc. The PP should ascertain the level of the river bed with the help of sections drawn across the width of the rivers and along the direction of flow of the river and based on this define the depth of mining of each grid. The PP should provide a detailed map and table clearly showing the grid wise material availability, dimension of grid, location of grid (latitude & longitude of the corner points), level of grid (AMSL and RL), depth of mining in each grid, grids left under no mining zone etc.
- b) PP should suitably name each section line. Section Plan for both sections drawn across the river and along the direction of the river needs to be submitted. Each Section should have level on vertical axis and distance from the bank of river on horizontal axis. For the section along the direction of the river the levels to be shown on vertical axis and distance from upstream to downstream should be shown on horizontal axis.
- c) The PP should prepare the modified Mining Plan based on the above survey. The information sought above needs to be a part of the mining plan. In the mining plan year wise production plan should be prepared in three plates for each year. Plat-1 show the mine working for the pre-monsoon period (1st APR- 30th June), Plate-2

should show the status of the mine after the replenishment and no working should be proposed in this period (1th July-15th Sep) as the mining lease area needs to be left for the replenishment of the river bed mineral and plat-3 show the mine working after replenishment of the river bed i.e. post monsoon period (16th-31st March).

- d) PP should specifically mention in the mining plan that in the subsequent scheme of mining/review of mining plan, the year wise data pertaining to replenishment study (all five years) shall be provided which include the level (AMSL & RL) of river bed recorded before and after the monsoon, year wise replenishment quantity, all plan & sections of the replenishment study for the past five years.
- e) The PP should also submit a kml file wherein the above-mentioned grid plans is superimposed on the satellite imagery.
- f) PP should also submit an undertaking to the effect that each year after the replenishment study the plan & section shall be submitted to concerned Department of Mining & Geology of the State for verification and official record.
- g) The methodology for conducting replenishment study needs to be mentioned in the modified mining plan. PP should ensure that plan and section that will be submitted to EAC should be in proper scale.
- h) PP should submit a letter from the concerned authorities that mining plan submitted during the public hearing is same which is under submission for the approval to the competent authority.
- i) Detailed traffic plan needs to be submitted clearly mentioning the number of trucks to be deployed, number of trips during the day, road that will be used for the transportation of mineral, impact of transportation on the nearby area, mitigative measures to be adopted, the plan on the suitable scale needs to be submitted clearly road network of the existing mining leases and also of the other mining lease within the study area to ascertain the cumulative impact of the transportation. The PP should optimize the production & transportation requirement by taking into account the traffic density due to other mining projects.
- j) PP should optimize the production requirement based on the data collected above; the GLC of various pollutants should be well within the prescribed NAASQ Standards limit, reduces the water consumption, reduce the traffic density on the roads, after taking into consideration the pollution load of the other mining leases in the study area.
- k) Application seeking approval of concerned authorities for withdrawal of the ground water if any for the project.
- l) Revised EIA after compliance of all the TOR conditions and after making necessary changes as suggested by the EAC.
- m) PP should submit the List of schedule-1 species duly authenticated by forest department. Proof of submission of the wildlife conservation plan for all the schedule-1 species present in the study area to APPCF(Wildlife), Panchkula,

Haryana as date of submission is not mentioned in the letter annexed in the EIA Report. A copy of conservation plan submitted to APPCF(Wildlife), Panchkula, Haryana.

n) PP should submit the illegible copies of all the annexures, certificates, reports etc.

The Committee is also of the view that the Consultant to be warned for misleading the Committee by providing wrong information during the presentation, not taking due care while preparing the EIA Report, submitting the pre-mature proposal without requisite information for appraisal of the project for grant of EC, not submitting the approved modified mining plan, not compiling all the conditions prescribed in ToR with a letter be written to QCI-NABET for necessary action.

2.20: Limestone mining project with production capacity 60000 TPA from Mining Lease area of 3.10 Ha located at Mauza Shamah Pamta, Tehsil Paonta sahib, District Sirmaur, Himachal Pradesh by M/s Smt. Savita Chauhan (File No: J-11015/422/2015-IA-II (M); Proposal No IA/HP/MIN/31442/2015; Consultant: Shivalik Solid Waste Management Limited)

The proposal of **M/s Smt. Savita Chauhan** is for production of situated 60,000 TPA Limestone from mining lease area of 3.10 Ha located at Mauza Shamah Pamta, Tehsil Paonta sahib, District Sirmaur, Himachal Pradesh. The mine lease area falls in the Survey of India Topo-Sheet No. 53F/10 & F/6 (old), E44J2 & J6 (New). The latitudes and longitudes of the Mine lease fall between Latitude: - 30°35'35.60"N to 30°35'39.51"N and Longitude: - 77°42'21.36"E to 77°42'24.90"E.

2. The project falls under Schedule 1(a) of mining and is a Category- "B" project as per EIA notification 14th September 2006 (amended time to time) as the Mining lease area is less than 50 Ha. Further, as per EIA notification, 2006, "Any project or activity specified in Category 'B' is treated as Category 'A', if located in whole or in part within 5 km from the boundary of (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) **inter-State boundaries and international boundaries**". In the instant case the project is located within 5 KM of interstate boundary of Uttarakhand and Himachal Pradesh and thus the project is considered as Category 'A' project.

3. The proposal was considered in EAC Meeting held during December 21st-22nd, 2015 and committee recommended for prescribing standard Term of Reference (ToR) for preparing EIA/EMP Report. The ToR was issued vide letter No J-11015/422/2015-IA-II (M) dated 8.01.2016.

4. The Proponent applied for grant of EC on 18.10.2016 and submitted the EIA/EMP report. The Proposal was considered in EAC Meeting held on November 23rd-25th, 2016 and committee deferred the proposal as EIA Report was not of good quality. The PP submitted the revised EIA Report on 07.05.2018 and proposal was placed in EAC Meeting held on May 14th -15th, 2018.

5. The Project Proponent submitted that the mining lease was granted on 16.06.1986 in favor of Smt. Savita Chauhan for a period of 20 years. The PP applied for renewal of mining lease on 04.06.2005 and State Government vide letter No 492 dated 8.06.2006 stated that the lessee is at liberty to carry put mining operations in accordance with the provision of Rule 24A (6) i.e. the period of that lease shall be deemed to have been extended by a further period till the state government passes order thereon. The State Government vide letter dated Udyog-Bhu (Khani-4) Major-139/05-369 dated 05.04.2014 issued passed the order for renewal of mining lease from due date i.e. 16.06.2006 for a period of 20 years i.e. till 15.06.2026.
6. The Proponent submitted the Mining Plan duly approved by IBM vide letter no 614(2)/MSB-75/99-DDN dated 24/9/2015. The Proponent submitted that method of mining will be semi-mechanized opencast method with drilling & blasting. The material will be excavated by using excavator and loading is both mechanized and manual. The project proponent submitted that proposed project activity will be carried out from the Hill Slope. Inter-burden Waste will be generated is 1500 m³ per year and 78 (maximum) m³ top soil will be generated per year during operation of mine. The total water requirement will be 5.2 KLD (drinking and domestic purposes is 1.6 KLD and for dust suppression 3.6 KLD).
7. The Project Proponent submitted that there is no Wildlife sanctuary, National Park, Biosphere Reserves, and Migratory Routes for fauna, exists within 10 km radius of mining lease area. In this regard PP submitted the letter no 696 dated 23.05.2015 issued by District Forest officer (DFO), Sri Renuka Forest Division, District Sirmour, Himachal Pradesh. The PP submitted that there is no forest land involved in the mining lease area and submitted the LR No 5603 dated 23.12.2016 issued by DFO, District Sirmour (H.P). The PP also submitted the LR No 1650 dated 15.07.2015 issued by DFO, Sri Renuka Forest Division, District Sirmour, Himachal Pradesh thereby submitting the list of flora and fauna. As per the list there is one schedule-1 species 'leopard' is present in the study area. The PP submitted the conservation plan for the schedule-1 species and the budget approved is Rs 8 lakh/annum.
8. The Primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post Monsoon season i.e. December 2015 to February 2016. The monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of December 2015 to February 2016 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples.
9. Proponent submitted that there is no change in Level of service(LOS) due to this project.
10. The proponent submitted that public hearing for the proposed project was held under Chairmanship of Add. Deputy Commissioner, Sirmaur at the mine site, on dated 22.08.2016 at 3:00 PM as per the EIA Notification dated 14th September 2006, as amended by the Ministry of environment and Forest, New Delhi. The press notification indicating the date, time and venue of the public hearing was published in Daily newspaper i.e. Indian Express dated on 15.07.2017 & Danik Jagran by Member Secretary, HPSPCB with project details inviting suggestions, views, comments and objections from the public regarding proposed 60,000 TPA production capacity of Limestone. The issues raised during public hearing were also deliberated during the meeting which includes scientific mining, landslide issues, green belt development, compensation for loss due to mining, construction of check dams, etc. PP reported that there is no court case or litigation pending against this project in any court of

law. The PP submitted that the budget earmarked from Enterprise Social Commitment is ₹ 5.0 Lakh for five years.

11. The Proponent submitted that budget for EMP will be 7.8 Lakh (Capital) & 5.5 Lakh (recurring).

12. Based on the discussion held and documents submitted the Committee **recommended** the proposal of M/s Smt. Savita Chauhan for grant of Environmental Clearance for production of 60,000 TPA Limestone from mining lease area of 3.10 Ha located at Mauza Shamah Pamta, Tehsil Paonta sahib, District Sirmaur, Himachal Pradesh.

13. The Committee also recommended the following **additional specific conditions**:

- a) The instant Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, as may be applicable.
- b) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- c) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- d) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate, as applicable, from the Himachal State Pollution Control Board.
- e) The proponent should regularly monitor the dump slopes and ensure that it should not be than 28° . Proper terracing should be provided to reduce the ultimate slope of the dumps. Retention wall of sufficient strength needs to be erected to arrest the waste material in case of slope failure.
- f) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti-snake venom including all other paramedical safeguards may be ensured before initiating the mining activities;
- g) PP shall run an awareness campaign on sanitation for women and utilization of Sanitary Napkin and also to distribute the Sanitary Napkin/pads to the women and provide the training for proper disposal;
- h) Project Proponent shall carry out vibration studies well before approaching any such habitats or other buildings to evaluate the zone of influence and impact of blasting on the neighborhood. Within 500 meters of such sites vulnerable to blasting vibrations, avoidance of use of explosives and adoption of alternative means of mineral

extraction. A provision for monitoring of each blast should be made so that the impact of blasting on nearby habitation and dwelling units could be ascertained. The covenant of lease deed under Rule 31 of MCR 1960 provides that no mining operations shall be carried out within 50 meters of public works such as public roads and buildings or inhabited sites except with the prior permission from the Competent Authority.

- i) The Project Proponent shall install 4 numbers of the Solar Street Lights for the nearby villages.
- j) The Budget earmarked for the implementation of EMP i.e. 7.8 Lakh (Capital) & 5.5 Lakh (recurring) should be kept in a separate bank account and same needs to be audited annually. The implementation report along with photographs and audited statement needs to be submitted to concerned regional office of MoEF&CC annually before 1st July every year.
- k) The budget earmarked for the Enterprise Social Commitment/ Corporate Environmental Responsibility of ₹ 5.0 Lakh for five years needs to be kept in a separate bank account and same needs to be audited annually. The implementation report, audited statement of the same along with photographs, purchase documents etc. needs to be submitted to concerned regional office of MoEF&CC annually before 1st July every year.

2.21: Mining of Boulder, Gravel and Sand Minor Minerals at Rattewali Block/PKL B 10 over an area of 45.00 ha. with production capacity of 19, 00,000 TPA located at Village- Rattewali, Tehsil- Barwala District- Panchkula, Haryana by M/s Tirupati Roadways (File No: J-11015/75/2017-IA-II (M); Proposal No IA/HR/MIN/66257/2017; Consultant : Vardan Environet)

The proposal of M/s Tirupati Roadways is for production of 19,00,000 TPA M/s Tirupati Roadways from "Rattewali Block/PKL B 10" in Yamuna River Bed having mining lease area of 45.0 Ha located at Village- Rattewali, Tehsil- Barwala District- Panchkula, Haryana. The mine lease area falls in the Survey of India Topo-Sheet No. H43K14 & H43L2. The latitudes and longitudes of the Mine lease fall between Latitude: - N 30° 38' 33" to N 30° 39' 24.6 " and Longitude: - E 76° 59' 17.50" to E 76° 50' 00.00".

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "B1", Project as the mining lease area is less than 50 Ha. Further, as per EIA notification, 2006, "Any project or activity specified in Category 'B' is treated as Category 'A', if located in whole or in part within 5 km from the boundary of (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries". In the instant case the Khol Hai Raitan Wildlife Sanctuary is within 1.98 km from the mine lease boundary and thus the project is considered as Category 'A' project.

3. The Project Proponent applied online vide proposal no **IA/HR/MIN/66257/2017** on 18.07.2018 for prescribing Term of Reference (ToR) and submitted the Form-1 [and Pre-Feasibility report. The proposal was considered & recommended for prescribing term of reference in EAC Meeting held on 29-30 August, 2017 and ToR was issued on 14.09.2017.

4. The Proponent applied for grant of EC online on 27.04.2018 and submitted the EIA Report after conducting the Public Hearing and the proposal is now placed in EAC Meeting held on 14-15 May, 2018.

5. The proponent mentioned that the LOI over an area of 45.0 ha of Mining lease has been granted by the Director General, Department of Mines & Geology, Haryana vide memo no.-DMG/ HY/ Cont/ Rattewali Block/ PKL B 10/ 2017/ 2658 dated 16.06.2017 for a period of 7 years. The lease area lies on riverbed of Dudgarh in District Panchkula (Haryana). The Proponent also submitted the District Survey Report for Sustainable Sand Mining for Districts Panchkula.

6. The proponent mentioned that the mining activity will be carried out by open cast semi-mechanized method without drilling and blasting. Light weight excavators will be used for digging and loading of mineral in tippers. No OB/ waste material will be produced. The total water requirement will be 120 KLD (Domestic: 3.5 KLD, Dust Suppression: 86.5 KLD and Plantation: 30 KLD). The proponent submitted that application for withdrawal 120 KLD ground water has already been submitted to CGWA on 24.04.2018. The total cost of the project is 7.0 Cr and shall give direct employment to 90 persons. **The Committee observes that as all the operations are mechanical means the Method of mining may be considered as Mechanized Open-Cast Method. The Committee also observes that previously the total water requirement was mentioned as 40 KLD (Domestic: 5 KLD, Dust Suppression: 20 KLD and Plantation: 15 KLD) and the same has been increased to 120 KLD but the justification for increase in quantity of the water is not submitted by the PP.**

7. The PP submitted that Mining Plan and Progressive Mine Closure Plan of this proposed mining lease area is approved by Director General of Mines and Geology Department vide memo no. DMG/HY/MP/Rattewali Block/PKL/B-10/2017/405 on dated 24/01/2018 with production capacity of 19, 00,000 Tonne.

8. The Project Proponent reported that there is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, and Tiger/Elephant Reserves/ Critically Polluted areas/Aravali located within the radius of 10 km of the mine lease area. However, Khol Hai Raitan Wildlife Sanctuary lies at the distance of 1.98 Km in N direction. In this regard the proponent submitted LR No. 5113 dated 19.09.2017 received under RTI Act, 2005 from Forest Department, Haryana. In the same letter the list of flora and fauna is also provided. The PP submitted that there are three Schedule-1 species in the study area viz. Leopard, Indian peafowl and Indian Python and their conservation plan (Rs. 15 Lakhs) has been prepared and submitted to APCCF Panchkula Haryana for their approval on 22.12.2017. **The Committee observes that annexure attached by PP in respect of list of schedule-1 species is not illegible and PP should submit a letter from Forest Department Clearly Mentioning the list of schedule -1 species present in the study area.**

9. The Primary baseline data for specific micro-meteorology data, ambient air quality, waste quality, noise level, soil and flora & fauna has been collected during Post Monsoon season i.e. October to December, 2017. The monitoring results of ambient air, surface water, soil, ambient noise and ground water for the month of December 2017 have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples. **The Committee deliberated on the baseline data and observed that after commencing of the mining operation there is a slight increase in the value of PM₁₀ & PM_{2.5} as compared to NAAQS even in the control case**

scenario. The Committee observed that the wind rose diagram in the EIA Report is not correct and copied from the other report prepared by same consultant.

10. The Proponent submitted that LOS value from the proposed mining will change i.e. LOS value for NH-73 will remain same 'Excellent' and LOS value for SH-1 will change from 'Excellent' to 'Very Good'.

11. The Project Proponent reported that public hearing for the proposed project of "Rattewali Block PKL / B-10" of M/s Tirupati Roadways was held under Chairmanship of Mr. Mukulkumar HCS, Additional Deputy Magistrate, Panchkula at the mine site, on dated 17.04.2018 at 3:00 PM as per the EIA Notification dated 14th September 2006, as amended by the Ministry of environment and Forest, New Delhi. The press notification indicating the date, time and venue of the public hearing was also published in the newspaper by Regional Officer, Panchkula with project details inviting suggestions, views, comments and objections from the public regarding proposed 19,00,000 TPA production capacity of Boulder, Bajri and Sand (Minor mineral). The issues raised during public hearing were also deliberated during the meeting which includes provision of road for transportation of mineral, provision for dust suppression employment, social welfare, compensation to land owners, installation of crusher, maintenance of roads. The commitments made during PH by PP are Rs 21 Lakh/annum is proposed under CSR, Rs 18 Lakh (Capital Cost) for construction of roads and Rs 4 Lakh/annum for maintenance of roads, preference will be given to local in employment and around 400-500 person will get direct and indirect employment from the projects, motarable road shall be constructed, plantation of 22000 trees in five years, compensation of land owner on mutually agreeable rates, PP reported that there is no court case or litigation pending against this project in any court of law. **The Committee observed that name of the newspaper in which advertisement was published in the regional language is not submitted by the PP.**

12. The Proponent submitted that budget earmarked for EMP shall be ₹ 44 Lakh (Capital Cost) and ₹ 30.5 Lakh (Recurring Cost /annum). The Proponent submitted that total 5 persons shall be engaged for implementation of EMP. The total cost of the project shall be ₹ 7.0 Cr and shall give direct & indirect employment to 400-500 persons. **The Committee was of the view that proponent should provide the number of direct employment to be given from this project.**

13. Based on the discussion held and information submitted the Committee has the following observations:

a) The mining lease is on non-perennial river bed and due to this additional condition was prescribed in the ToR granted for this project. The PP did not conduct the replenishment study and prepared mining plan get it approved from DMG and conducted public hearing. As the replenishment study was not conducted, the basic purpose of the appraisal and decision making process was failed. Thus, the committee was of the view that proposal submitted by the PP is pre-mature at this stage, and without replenishment study report it is difficult to ascertain the quantity of the mineral that could be allowed for the extraction. The Committee takes it seriously that consultant and PP was aware of the facts that replenishment study, initial level of the mining lease and sections at regular interval are required for the appraisal of the project still they did not conduct the replenishment study and submitted a pre-mature proposal to the Committee.

b) In the approved Mining Plan submitted by the PP the year-wise plan and sections are not provided rather a single plan for five years is provided. This shows that PP has assumed that the total material that will be extracted will be replenished every year. The Committee

noted that quantity of the material that will replenish in non-perianal Rivers can only be ascertained after the actual replenishment study. Further, the possibility of river bed material to replenish exists only during the rainy season i.e. tentatively between July-Sep but the production plan enclosed in the mining plan is on financial year basis i.e. from 1st April – 31st March. Thus, after the monsoon there must be some excavation from Sep to March of the next year and section can't be up to 3 meter depth for the entire mining lease. The committee was thus of the view that PP needs to prepare the mining plan based on the actual replenishment study, after taking into account the guidelines issued by MoEF&CC for Sustainable Sand Mining Management Guidelines, 2016, after considering the pollution load due to adjacent mining leases in the study area and after carrying out traffic study. The Plan and sections in the mining plan needs to be prepared separately for each year.

c) The total water requirement previously mentioned by PP was 40 KLD (Domestic: 5 KLD, Dust Suppression: 20 KLD and Plantation: 15 KLD). The PP now increased the water requirement is 120 KLD (Domestic: 3.5 KLD, Dust Suppression: 86.5 KLD and Plantation: 30 KLD). The Committee was of the view that PP should optimize the water requirement based on the actual production that could be possible considering the aforementioned factors.

d) The Committee observed that GLC for ambient air quality for PM10 and PM2.5 is more than prescribed standards even in the controlled scenario. The Committee thus was of the view that PP should optimize the production requirement based on the replenishment study, impact due to other mining leases in the area and other factor as specified in SL No b above.

e) The Committee also noted that ToR point no 46 (a) is not complied with as all the pages in the EIA Report are not numbered.

f) The Committee observed that Wind rose diagram provided in the EIA Report is not correct as same has been copied from other EIA Report of some other project prepared by the same consultant.

g) The type of material mentioned by PP for excavation is Boulder, gravel and sand. The Committee observed that PP did not submit the sieve analysis report and quantity of each material type available in the mining lease. The Committee was of the view that PP should provide the rate of royalty of each type of mineral as per Haryana Govt. and in case rate of royalty is different than availability & extraction of each mineral type needs to be provided in the mining plan and EIA Report.

14. Based on the presentation made and documents submitted by PP the Committee was of the view that proposal should be **returned in the present form** due to aforementioned shortcomings in the EIA Report and as all the TOR Points are not complied with. The Committee was of the view that for appraisal of this project following documents are required along with the revised EIA Report.

- a) The Proponent should collect the baseline data in respect of initial level of the mining lease. For this permanent bench marks (BM) needs to be established at prominent location preferably close to mining leases in question and should have precisely known relationship to the level datum of the area, typically mean sea level. The entire mining lease should be divided suitably in the grids of 25 Meter x 25 Meters with the help of sections across the width of river and along the direction of flow of the river. The levels (MSL & RL) of the corner point of each grid need to be recorded. Each Grid should be suitably numbered for identification. PP should identify grids which will be worked out and grids which will come under no mining zone i.e. safety barriers from the river bank, safety barrier at lease boundary, restrictions as per condition of LoI/Mining Lease deed,

restriction as Mineral Concession Rule of the Concerned State, restrictions as per sustainable sand mining management guidelines 2016 etc. The PP should ascertain the level of the river bed with the help of sections drawn across the width of the rivers and along the direction of flow of the river and based on this ascertain the depth of mining of each grid. The PP should provide a detailed map and table clearly showing the grid wise material availability, dimension of grid, location of grid (lat & long of the corner points), level of grid (AMSL and RL), depth of mining in each grid, grids left under no mining zone.

- b) PP should suitably name each section line. Section Plan for both sections drawn across the river and along the direction of the river needs to be submitted. Each Section should have level on vertical axis and distance from the bank of river on horizontal axis. For the section along the direction of the river the levels to be shown on vertical axis and distance from upstream to downstream should be shown on horizontal axis.
- c) The modified Mining Plan should be prepared based on the actual replenishment study, above mentioned survey and all the information sought above needs to be a part of the mining plan. In the mining plan year wise production plan should be prepared in three plates for each year. Plat-1 shows the mine working for the pre-monsoon period (1st APR- 14th June), Plate-2 should show the status of the mine after the replenishment (as per actual replenishment study) and no working should be proposed in this period (15th June-1st Oct) as the mining lease area needs to be left for the replenishment of the river bed mineral and plat-3 show the mine working after replenishment of the river bed i.e. post monsoon period (2nd Oct-31st March).
- d) PP should specifically mention in the mining plan that in the subsequent scheme of mining/review of mining plan, the year wise data pertaining to replenishment study (all five years) shall be provided which include the level (AMSL & RL) of river bed recorded before and after the monsoon, year wise replenishment quantity, all plan & sections of the replenishment study for the past five years.
- e) PP should also submit an undertaking to the effect that each year after the replenishment study the plan & section shall be submitted to concerned Department of Mining & Geology of the State for verification and official record.
- f) The PP should also submit a kml file wherein the above mentioned grid plans is superimposed on the satellite imaginary.
- h) PP should submit the detailed replenishment study report.
- i) PP should ensure that plan and section that will be submitted to EAC should be in proper scale.
- j) Detailed traffic plan needs to be submitted clearly mentioning the number of tucks to be deployed, number of trips during the day, road that will be used for the transportation of mineral, impact of transportation on the nearby area, mitigative measures to be adopted, the plan on the suitable scale needs to be submitted clearly road network of the existing mining leases and also of the other mining lease within the study area to ascertain the cumulative impact of the transportation. The PP should optimize the production & transportation requirement by taking into account the traffic density due to other mining projects.
- k) PP should optimize the production requirement based on the data collected above; the GLC of various pollutants should be well within the prescribed NAASQ Standards

limit, reduces the water consumption, reduce the traffic density on the roads, after taking into consideration the pollution load of the other mining leases in the study area.

- l) Clear illegible copy of Advertisement published in national daily and vernacular daily for conduction public hearing needs to be submitted with name of newspaper and date of publication.
- m) All documents, certificates, and reports provided in EIA report should be illegible.
- n) List of schedule-1 species duly authenticated by State forest department clearly mentioning the number of schedule-1 species present in the study area and proof of submission of conservation plan to concerned chief wildlife warden.
- o) Number of persons to be employed directly in the project.
- p) Revised EIA after compliance of all the TOR conditions and after making necessary changes as suggested by the EAC.

The Committee is also of the view that the Consultant to be warned for misleading the Committee by providing wrong information, not taking due care while preparing the EIA Report, submitting the pre-mature proposal without requisite information for appraisal of the project for grant of EC, not compiling all the conditions prescribed in ToR with a letter be written to QCI-NABET for necessary action.

2.22: Mining of Limestone with production capacity 21000 TPA from Mining lease area 33.215 Ha located at Village Dostpur and Bhedanti Tehsil Narnaul, District - Mahendragarh, by M/s Gandhi Lime Traders. (File No: J-11015/48/2018-IA-II (M); Proposal No IA/HR/MIN/73990/2018; Consultant: Vardan Environet)-ToR Regarding.

The proposal of **M/s Gandhi Lime Traders** is for production of 21000 TPA of Limestone from Mining lease area 33.215 Ha located at Village Dostpur and Bhedanti Tehsil Narnaul, District - Mahendragarh. The mine lease area falls in the Survey of India Topo-Sheet No. H43K14 & H43L2. The latitudes and longitudes of the Mine lease fall between Latitude: - N 27° 50' 40.3" to N 27° 51' 15.3 " and Longitude: - E 76° 04' 54" to E 76° 05' 11.5".

2. The Project Proponent applied online on 04.04.2018 for prescribing Term of Reference (ToR) and submitted the Form-1 and Pre-Feasibility report.

3. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "B", Project as the mining lease area is less than 50 Ha. Further, as per EIA notification, 2006, "Any project or activity specified in Category 'B' is treated as Category 'A', if located in whole or in part within 5 km from the boundary of (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries". In the instant case interstate boundary of Haryana/ Rajasthan, which lies at the distance of ~50 m in South direction from the mine lease and thus the project is considered as Category 'A' project.

4. The proponent mentioned that the application for the mining lease was made on 18.11.1983 and the state Government, after approval of the Central Government accorded sanction for the grant of "Letter of Intent" to M/s Gandhi Lime Traders favour. The sanction of the state Govt. was conveyed to M/s Gandhi Lime Traders vide memo no.Glg/Hy/E-918/7761 on dated 22.07.1999 wherein PP was directed to submit the copy of approved mining plan within 6 months. On submission of the approved mining plan, the sanction for grant of mining lease was conveyed to M/s Gandhi Lime Traders vide memo dated 30.01.2003. M/s Gandhi Lime traders was directed to execute lease deed on model Form-K appended to Mineral Concession Rule, 1960, first copy on non-judicial stamp papers worth 2, 50,000. However, M/s Gandhi Lime Traders failed to execute the lease deed on the plea that stamp duty was calculated on higher side. The state government on their failure to execute the lease deed, revoked the sanction of the mining lease was conveyed to them vide memo dated 11.11.2004. Aggrieved by revocation of sanction for the grant of mining lease, M/s Gandhi Lime Traders challenged the order of the state Govt. by filling a revision application as-per provision of the section 30 the Mines & Mineral (D&R) Act, 1957 read with rule 54 of the Mineral Concession Rule, 1960 before the Govt. of India in the Ministry of Mines. The central Govt., vide their order dated 06.09.2010 set aside the order dated 11.11.2014 of the state Govt. and remanded the case to the state Govt. for deciding the matter afresh, afforded them an opportunity of hearing. The Central Govt. observed that the State Govt. may give one more opportunity to M/s Gandhi Lime Traders to execute the lease deed at production rate of the Indian Bureau of mine approved Mining Plan. In light of above orders the matter was again considered by state Govt. and it has been decided that M/s Gandhi Lime traders may be given an opportunity to execute the lease deed for mining of Lime Stone on the basis of average production 21000 T/annum approved by the Indian Bureau of Mines, but M/s Gandhi Lime traders will be liable to pay Stamp duty on the sum calculation at the present rate of royalty on Lime Stone. The Central govt. made amended in the Mines and Minerals (D&R) Amendment Act, 1957 vide Ordinance dated 15.01.2015 which became an Act on 27.03.2015, has provided that the period of lease for mineral other than coal, lignite and atomic minerals, on and from the date of commencement of mines and Mineral (D&R) Amendment Act, 2015, so in view of this amendment in Act, the lease period for M/s Gandhi Lime Traders shall be 50 yrs, and accordingly the stamp duty will also be charged. After that M/s Gandhi Lime traders were directed to executed the lease deed prescribed Form, first copy of Stamp Paper worth Rs. 8,40,000/- in respect of area of 33.215 ha in village Dostpur & Bhedanti in district Mahendergarh for mining of Lime Stone against the issued letter from Director, Mines & Geology, Haryana vide memo No. Glg/Hy/E-918/4508 on dated 8/8/2017. Further M/s Gandhi Lime Traders has been submitted form K for execution and registration of mine lease deed on 07.12.2017 and Lease deed has been registered vide letter no. 1965 on dated 21.02.2018 by the District mining Officer, Mines & Geology Department Narnaul.

6. The proponent mentioned that the mining activity will be carried out by open cast mechanized method with drilling and blasting. The excavators/backhoe shall be used for extraction & loading of the mineral and transportation shall be carried out by deploying dumper inside the mining lease and tippers of 25 Tonne capacity for mineral transportation outside the mining lease. The PP submitted that for production of 21,000 TPA of limestone around 23,400 TPA O.B/Alluvium needs to be handled every year. The total water requirement will be 40 KLD (Domestic: 5 KLD, Dust Suppression: 20

7. The Project Proponent reported that there is no requirement of clearance under Forest Conservation Act, 1980 and Wildlife Protection Act, 1972. The Proponent submitted that total project cost will be ₹ 2.0 Crore and will provide employment opportunity for 11 persons.

8. The Proposal is considered in EAC Meeting held on May 14th -15th, 2018. The Committee deliberated on the proposal and documents submitted by PP as was of the view that as per section 10A (2) (c) MMDR, Act, 2015 *"where the Central Government has communicated previous approval as required under sub-section (1) of section 5 for grant of a mining lease, or if a letter of intent (by whatever name called) has been issued by the State Government to grant a mining lease, before the commencement of the Mines and Minerals (Development and Regulation) Amendment Act, 2015, the mining lease shall be granted subject to fulfilment of the conditions of the previous approval or of the letter of intent within a period of two years from the date of commencement of the said Act"* but in the instant case the lease was executed after 11.01.2017. The Committee was of the view that before considering the proposal clarification from the State Government needs to be obtained in this regard. The Committee therefore **returned the proposal in the present form** and asked the Ministry to seek comments of state government in this regard and after receiving the comments of state government examine the proposal in the Ministry and accordingly communicate **the PP to apply afresh if lease is valid**.

2.23: River Sand (Minor Mineral) Mining Project in River Yamuna in Gata No. 1/1, for Production of (9, 47,368TPA), from ML Area 52.63 Ha located at Village: Dariya Baramad, Tehsil: Sadar, District: Saharanpur, Uttar Pradesh by M/s Prime Vision Industries Private Limited. (File No: J-11015/49/2018-IA-II (M); Proposal No IA/UP/MIN/73380/2018; Consultant: M/s Udaipur Min-Tech. Pvt .Ltd)-ToR Regarding.

The proposal of M/s Prime Vision Industries Private Limited is for production of 947368 TPA of Sand (Minor Mineral) from River Yamuna in Gata No. 1/1, from ML Area 52.63 Ha located at Village: Dariya Baramad, Tehsil: Sadar, District: Saharanpur, Uttar Pradesh. The mining lease area is located on Survey of India Topo-Sheet no. 53 F/8 & 53 G/5. The area falls between Latitude - 30°4'24.04"N to 30°5'12.12"N Longitude - 77°22'0.47"E to 77°21'54.89"E.

2. The PP applied online for grant of ToR on 01.04.2018 and submitted the Form-1, Pre-feasibility Report, and copy of Letter of Intent (LoI). As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project as the mining lease area is more than 50 Ha.

3. The Proposal is considered in the EAC Meeting held during May 14th -15th, 2018. During the presentation on analyzing the KML file the Committee noted that mining lease is falling partly in the Haryana and partly in the Uttar Pradesh. The Committee also noted that large numbers of agricultural fields are within the mining lease area and major portion of the mining lease is falling on the bank of the river. Based on the discussion held and documents submitted the Committee **rejected** the proposal due to aforementioned reasons.

2.24: River Bed Sand/ Morram Mining Project at Yamuna River with production capacity of 2929473 TPA from mining lease area 108.499 ha located Near Village- Dhaurahra Khadar, Tehsil- Rajapur & District- Chitrakoot, Uttar Pradesh in favor of M/s Jai Mata Di Packaging. (File No.: J-11015/25/2018-IA. II (M); Proposal No. IA/UP/MIN/72663/2018; Consultant: M/s Overseas Min-Tech Consultants)-ToR Regarding

The proposal of the M/s Jai Mata Di Packaging is for Mining of River Sand/morram for production of 16,27,485 m³/ 2929473 TPA of Sand/Morrum from the Yamuna river bed, the total mining area of 108.499 ha located at Village Dhaurahra Khadar, Tehsil- Rajapur & District- Chitrakoot, Uttar Pradesh. The applied area forms a part of Survey of India topo-sheet no. 63G/02, 63G/03. The lease is located at following latitude and longitudes: Latitude: 25°30'00.39"N to 25°30'38.64"N Longitude: 81°07'09.46"E to 81°08'00.12"E.

2. The PP applied online for grant of ToR on 02.02.2018 and submitted the Form1, Pre-feasibility Report, and copy of Letter of Intent. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project or Activity 1(a) as the Mining lease area is more than 50 Ha.

3. The proposal was considered in EAC Meeting held during March 22nd -23rd, 2018 wherein the Committee deferred the proposal and sought the following additional information:

- a) Correct KML file, in case wrong KML file was submitted, so that the location of ML can be confirmed.
- b) Map of ML authenticated by the State Government.

4. The Proponent vide letter dated 14.04.2018 submitted the above information and the proposal is now considered in EAC Meeting held during May 14th -15th, 2018. During the meeting PP submitted that the revised KML and a map of mining lease duly authenticated by Mining Officer. Based on the discussion held and documents submitted the Committee **recommended** the proposal M/s Jai Mata Di Packaging for prescribing Standard Term of Reference (ToR) as per annexure-1 for production of 2929473 TPA Sand/ Morram from mining lease area 108.499 ha located Near Village- Dhaurahra Khadar, Tehsil- Rajapur & District- Chitrakoot, Uttar Pradesh. The Committee also suggested following additional conditions:

- a) The Proponent should collect the baseline data in respect of initial level of the mining lease. For this permanent bench marks (BM) needs to be established at prominent location preferably close to mining leases in question and should have precisely known relationship to the level datum of the area, typically mean sea level. The entire mining lease should be divided suitably in the grids of 25 Meter x 25 Meters with the help of sections across the width of river and along the direction of flow of the river. The levels (MSL & RL) of the corner point of each grid need to be recorded. Each Grid should be suitably numbered for identification. PP should identify grids which will be worked out and grids which will come under no mining zone i.e. safety barriers from the river bank, safety barrier at lease boundary, restrictions as per condition of LoI/Mining Lease deed, restriction as Mineral Concession Rule of the Concerned State, restrictions as per sustainable sand mining management guidelines 2016 etc. The PP should ascertain the level of the river bed with the help of sections drawn across the width of the rivers and along the direction of flow of the river and based on this ascertain the depth of mining of each grid. The PP should provide a detailed map and table clearly showing the grid wise material availability, dimension of grid, location of grid (lat & long of the corner points), level of grid (AMSL and RL), depth of mining in each grid, grids left under no mining zone.
- b) In addition to the above, PP should suitably name each section line. Section Plan for both sections drawn across the river and along the direction of the river needs to be submitted. Each Section should have level on vertical axis and distance from the bank of river on horizontal axis. For the section along the direction of the river the levels to

be shown on vertical axis and distance from upstream to downstream should be shown on horizontal axis.

- c) The Mining Plan should be prepared based on the above survey and all the information sought above needs to be a part of the mining plan. In the mining plan year wise production plan should be prepared in three plates for each year. Plate-1 show the mine working for the pre-monsoon period (1st APR- 14th June), Plate-2 should show the status of the mine after the replenishment and no working should be proposed in this period (15th June-1st Oct) as the mining lease area needs to be left for the replenishment of the river bed mineral and plate-3 show the mine working after replenishment of the river bed i.e. post monsoon period (2nd Oct-31st March).
- d) PP should specifically mention in the mining plan that in the subsequent scheme of mining/review of mining plan, the year wise data pertaining to replenishment study (all five years) shall be provided which include the level (AMSL & RL) of river bed recorded before and after the monsoon, year wise replenishment quantity, all plan & sections of the replenishment study for the past five years.
- e) PP should also submit an undertaking to the effect that each year after the replenishment study the plan & section shall be submitted to concerned Department of Mining & Geology of the State for verification and official record.
- e) The PP needs to submit the detailed transportation plan clearly showing the transportation route, type of machine used for transportation, impact due to transportation and its mitigation plan.
- f) The PP should also submit a kml file wherein the above-mentioned grid plans is superimposed on the satellite imaginary.

2.25: Kakra-Panna Limestone Mine of M/s Jaykaycem Central Limited located at Villages Kakra, Kamtana, Saptai, Judi, Devri Purohit & Devra, Tehsil Amanganj, District Panna of State Madhya Pradesh (area – 1594.34 Ha to produce : Normative Capacity : 4.0 MTPA Maximum Achievable Capacity : 4.08 MTPA ha.) (File No. J-11015/190/2016-IA.II (M); Proposal No. IA/MP/MIN/58058/2016; Consultant :)

The proposal of M/s Jaykaycem Central Limited is for seeking ToR for conducting EIA studies for Kakra-Panna Limestone Mine with production capacity of 4.08 Million TPA in M.L. area of 1594.34 Ha. The mine lease is located at villages Kakra, Kamtana, Saptai, Judi, Devri purohit & Devra, Tehsil Amanganj, District Panna, Madhya Pradesh. The mining lease area is covered in parts of Survey of India Topo-sheet No. 54 P/15 and bordered by latitudes and longitudes of 24° 19'46.6"N to 24° 22'15.3"N and 79° 56'15.5"E to 79° 59'38.2"E respectively.

2. The PP applied online for grant of ToR on 2.08.2016 and submitted the Form-1 & Pre-feasibility Report. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project as the mining lease area is more than 50 Ha.

3. PP reported that the Government of Madhya Pradesh granted a prospecting License over an area of 3513.75 Ha in Villages Kakra, Kamtana, Saptai, Judi, Devri Purohit & Devra, Tehsil Amanganj, District Panna, M.P. vide order no. F2-41/2010/12/1, Bhopal dated 15.03.2010 for a period of two years i.e. from 14.06.2010 to 13.06.2012. After subsequent scrutiny, the State Government under Rule 27(h) of MCR 1960 recommended the grant of ML over an area of 1594.34 hectares. As per the exemption under Section 6 (1) (b) of MMDR, 1957 by the Central Govt., the State Government, issued the letter on dated 17.03.2016 and 03.05.2016 for completing all the formalities including obtaining EC and execute the deed for a period of 50 years over an area of 1594.34 hectares. Apart from mining operation, the PP reported about installation of Crusher of 1800 TPH within the M.L. area. The Committee noted the same and asked the PP to invariably incorporate the pollution aspects and mitigation measures related operation of Crusher in the proposal.

4. The Proponent submitted that the deposit is proposed to be worked by opencast mining, by adopting a system of deep hole blasting and/or working with the help of heavy machineries for digging, excavation and removal of Ore, over burden and mine reject. The mine shall thus fall under 'A' category of fully mechanized type. All operations of mining, including large dia. (4 ½"/ 6") drilling, deep hole blasting, secondary blasting and/or plaster shooting, excavation, loading & transportation on single shift basis, shall form the complete mining operation. Mining will be carried out by deploying Heavy Earth Moving Machinery (HEMM) such as bull dozers, pay loaders and dumpers. The quarried raw material will be transported to the crusher location by means of tippers and dumpers of matching capacity and from there to the cement plant, using mechanical conveying equipment such as belt conveyors. The oversize queried limestone will be crushed by means of rock breakers before transportation. A limestone crusher of the capacity of 1800 TPH, with bag filters and dust suppression arrangement such as water sprinkling will also be installed for sizing of the mined limestone to be taken to the plant through mechanized conveyor equipment.

5. The Proponent submitted that the top soil and the overburden will be temporarily stacked on surface at the designated places before top soil is used for plantation and overburden in backfilling. Backfilling will be started after second year and the generated OB of approximately 1756104m³ will be used for backfilling the eastern part of the proposed five year working area in such a way that part of the area will be restored to original ground and at the end of five year period, the average depth of backfilled area will be 25-26m. An area of 1280.332 ha will be mined out by the end of the conceptual period and 562.2 ha of area will be back-filled whereas the remaining area admeasuring 752.122 ha will be developed as water body. Optimization of working mine will be adopted with the help of suitable software programmes. Water accumulated in the working mine will be treated and used for dust suppression and plantation to the maximum extent. The liquid waste generated from the office toilets will be treated in the prefabricated package sewage treatment plant.

6. The Proponent submitted that the mining lease of 1594.34 Ha is categorized as single crop, low yield agricultural land and wasteland. PP submitted that project does not require clearance under Forest Conservation Act, 1980 and Wildlife Protection Act, 1972.

7. The proponent submitted that the estimated requirement of water for operation of crusher, suppression of dust, domestic consumption, plantation and green belt development is 230 KLD (crusher operation 100 KLD, Dust Suppression 70 KLD, Plantation 40 KLD and Domestic Use 20 KLD).

8. The Project Proponent submitted that the total project cost will be ₹ 572.58 Cr and generate employment for 300-350 persons.

9. The proposal was previously considered in EAC Meeting held during September 19th -20th, 2016, July 24th -25th, 2017 wherein the Committee deferred the proposal for want of site visit by a sub-committee. The Ministry constituted a sub-committee vide O.M NO J-11015/190/2016-IA.II (M) dated 16.10.2017. The Sub -committee comprising of Prof A.K Bhatnagar (Chairman), Dr. H.V.C. Chary, Scientist 'D', Regional Office Bhopal (Member) and Shri R.R Dongare, Deputy Controller of Mines, IBM, Jabalpur(M.P) (member) visit the project site during 17.04.2018 & 18.04.2018. The Committee submitted its report to the Ministry and the proposal is now considered in EAC Meeting held on May 14th -15th, 2018.

10. The Member Secretary placed the report of the Sub-Committee before the EAC. The Committee observed that the following recommendations are made in site inspection report.

- a) Project affected people of the part of three villages falling within the lease area would need to be relocated in the nearby villages subject to their willingness, with adequate compensation for housing and livelihood, prior to commencement of mining close to the affected village concerned.
- b) Controlled blasting techniques should be adopted in the vicinity of the village boundaries for controlling the flying fragments. Further, periodical review of the ground vibration survey shall be carried out through agencies of repute.
- c) Greenbelt shall be developed around the lease area in the first five years and afforestation/plantation work should be undertaken in phases with edible fodder and medicinal species. The Plantation programme should correlate with the livelihood and income generating programme of the people.
- d) Appropriate rain water harvesting measures to minimize the fresh water consumption shall be implemented during the operation of the mine.
- e) Covered conveyor belt shall be installed for the transfer of limestone from the mine to cement plant.
- f) Adequate measures shall be ensured to prevent contamination of water flowing through the seasonal nalah and PP shall develop plantation along the bank of the nalah and a time targeted action plan shall be submitted as part of the EIA Report.
- g) Proper treatment facility for the wastewater to be generated from the workshop shall be ensured and the treated water shall be reused to minimize the fresh water consumption.
- h) Adequate air pollution control device shall be installed in the crusher house and adequate greenbelt in combination with wind breakers shall be installed in the adjoining area surrounding the crusher house to strengthen the air pollution control measures.

11. The Committee observed that taking into consideration the proposal related to compliance of Ministry's O.M dated 29.10.2014 and the additional mitigation measures

recommended above, the sub-Committee recommended the proposal for prescribing term of references (ToR).

12. The Expert Appraisal Committee (EAC) based on the discussion held, documents submitted and considering the recommendation of the sub-committee **recommended** the proposal for prescribing standard Term of References (ToR) as per Annexure-1. The Committee also suggested the following additional conditions.

- a) The impact due to crusher needs to be mentioned in the EIA report along with the mitigation measures.
- b) The EIA report should be prepared considering recommendation of the Sub-Committee.
- c) Detailed hydro-geological studies of the area need to be submitted.

2.26: Bela Cement Limestone Mine 02 (BCLM - 02), (M.L. Area: 264.095 Ha.) with Limestone Production Capacity of 1.0 Million TPA (ROM) and 1.671 Lakh Cu.M Overburden at Villages Madheypur, Chhijwar & Baheliya, Tehsil- Huzur, District- Rewa, Madhya Pradesh by M/s. UltraTech Cement Ltd. (File No: J-11015/5/2018-IA-II (M); Proposal No IA/MP/MIN/71989/2017; Consultant: J.M. EnviroNet Pvt. Ltd.)-ToR Regarding

The proposal of the M/s UltraTech Cement Ltd for production of 1.0 million TPA of Limestone (ROM) 1.671 Lakh m³ of overburden from Bela Cement Limestone Mine – 01 [M.L. Area: 264.095 Ha] located at Villages Madheypur, Chhijwar & Baheliya, Tehsil- Huzur, District- Rewa, Madhya Pradesh. The mining lease comes under Survey of India Topo-Sheet No. 63 H/2 and falls between Latitude: 24° 31' 38" N to 24° 32' 44" N and Longitude: - 81° 10' 23.5" E to 81° 11' 52" E. The mining lease falls in seismic Zone – II as per IS: 1893 (Part-I): 2002.

2. The proponent submitted that the Letter of Intent of Madheypur, Chhijwar, Baheliya Limestone Mine (ML area 264.095 ha) at villages - Madheypur, Chhijwar, Baheliya, Tehsil - Huzur, District - Rewa (Madhya Pradesh) was issued in the favor of M/s Jayprakash Associates Limited vide letter no F 3-23/2016/12-1 dated 16.12.2016 by Dept. of Mineral Resources, M.P. Government. Mining Plan with Progressive Mine Closure Plan approved from IBM vide letter no MP/Rewa/Limestone/MPLN/G-12/16-17/886 dated 06.03.2017. Mining lease was granted in favor of M/s Jayprakash Associates vide lease grant order no. F-3- 23/2016/12/1 dated 13.04.2017. In the meantime, Jaiprakash Associates Ltd ("JAL") and Jaypee Cement Corporation Ltd. ("JCCL") Business was transferred to UltraTech Cement Ltd (UTCL) by National Company Law Tribunal Bench (NCLTB) at Mumbai on 15.02.2017 in case of UTCL and NCLTB at Allahabad on 02.03.2017 in case of Sellers. Henceforth, the Jaypee Bela Plant and Mines of M/s Jaiprakash Associates Ltd and M/s Jaypee cement Corporation Ltd. along with all the contracts, deeds, approvals, schemes etc. have been transferred to UltraTech Cement Ltd (Unit: Bela Cement Works). An order regarding transfer of lease from M/s Jaiprakash Associates Ltd. to UltraTech Cement Ltd. was issued dated 08.06.2017 by Dept. of Mineral Resources, M.P. Government. Subsequently, a deed for transfer of mining lease has been registered dated 06.07.2017 from State Govt in favor of M/s UltraTech Cement Ltd (Unit: Bela Cement Works) for Bela Cement Limestone Mine – 02 (BCLM – 02) (ML area 264.095 ha) at villages- Madheypur, Chhijwar & Baheliya District – Huzur, Madhya Pradesh

3. The proponent submitted that the method of Mining will be Open Cast Working with the formation of benches by fully mechanized means by deploying Heavy Earth Moving Machineries. The formations encountered in the area comprise of soil, Upper Magnesium Shale (UMS), Upper Grey Limestone (UGL), Middle Shale (MSH), Nodular Shale (NDS), Lower Grey Limestone (LGL), Cherty Limestone (CHL) and Lower Magnesium Limestone (MGL). Out of these formations, UGL & LGL combined with CHL formation has been considered under the category of reserves at this stage. The overlying formations such as Soil, UMS, MSH and NS (reject) have been treated under the category of overburden / inter-burden. It is planned to operate each formation separately as an independent unit. The OB will be handled in the form of Soil and UMS by developing two separate benches. During initial mine opening, mine development will be taken up and OB will be removed to expose limestone formation. During the initial years of mining OB bench will be developed in OBS & UMS. The OB removed from the area shall be put as temporary dump for the first five years of mining.

4. The Proponent submitted that Mining will be by fully mechanized opencast method with deep hole drilling and blasting. The excavation and transportation of mineral will be by deploying Heavy Earth Moving Machineries. The excavated limestone will be transported to the crusher (located in Cement Plant) by dumpers. The total water requirement will be 50 KLD. Out of which the drinking & sanitation water requirement of 10 KLD will be met from ground water (bore wells) and remaining requirement of 40 KLD from rain water stored in mine pit as and when developed.

5. The proponent submitted that the top soil will be stacked separately and will be simultaneously used in the plantation. The waste generated will be stacked separately in the earmarked places and later on backfilled in the mined-out area and reclaimed by plantation. The proponent submitted that no external dumps are proposed in the area. The Domestic wastewater generated from mine office will be disposed of in soak pit via septic tank. Wastewater generated from the workshop will be passed through oil & water separator and after treatment; water will be used for dust suppression.

6. The proponent submitted that there are no National Park, Wild Life Sanctuaries, Biosphere Reserves, Tiger Reserves, and Wildlife Corridors etc. within 10 km radius of the mining lease area within 10km radius and there is no forest land within the mining lease area.

7. The Proponent submitted that the total project cost will be 13.0 Cr and 44 persons will be engaged for the Project. The cost of Environmental Protection will be Rs.0.45 Cr (Capital) and Rs. 0.25 Cr (Recurring).

8. The Proposal was considered for prescribing Term of Reference (ToR) in the EAC meeting held during January 18th -19th ,2018 wherein the Committee deferred the proposal as PP did not attend the meeting. The Proposal was again considered in EAC Meeting held during March 22nd -23rd , 2018 wherein the Committee deferred the proposal for want of following information:

a) Number of villages in the mining lease area.

b) Details pertaining to Project Affected Families viz. number of families, number of household within ML, number persons having land within ML area, cropping pattern, source of livelihood, average annual income of PAFs etc.

9. The Proponent submitted the above information vide their LR No. UTCL/ENV/MUM/2018/38 dated 30.04.2018 and proposal is now considered in EAC Meeting held during May 14th -15th , 2018. During the presentation the PP submitted the following:

a) Number of villages in the mining lease area

The PP submitted that there are 3 revenue villages in the ML area viz. Madhepur, Chhijwar and Baheliya.

b) Details pertaining to Project Affected Families viz. number of families, number of household within ML, number persons having land within ML area, cropping pattern, source of livelihood, average annual income of PAFs etc.

i) The PP submitted that there are total 457 project affected families in the three villages. The number of families having only land within ML area are 425. The total number of families having households in the mining lease area are 10 and number of persons having land and household in the mining lease area are 22.

ii) The PP submitted that the Major Crop grown in the area are Rice, Wheat and Musturd and the data for cropping pattern of district Rewa has been obtained from Jawaharlal Nehru, Krishi Vishwavidhyala Jabalpur, Krishi Vigyan Kendra, Rewa (M.P).

iii) The PP submitted that the source of livelihood in the affected village Madhepur is Agricultural Labor 23%, Cultivator 46%, and Other 31%; in the village Baheliya Agricultural Labor 70%, Cultivator 15% and Other 15%; and in the village Chhijwar is Agricultural Labor 39%, Cultivator 19% and Other 42%.

iv) The PP submitted that employment given in the existing Cement Plant of UTCL and Bela, Rewa (M.P) to the villagers of Madhepur (Company 143, Contractual 178), Chhijwar (Company 19, Contractual 9) and Baheliya (Company 162, Contractual 187).

10. Based on the discussion held and documents submitted the Committee **recommended** the prescribing Standard Term of Reference (ToR) as per Annexure-1 for the proposal of the M/s UltraTech Cement Ltd for production of 1.0 million TPA of Limestone (ROM) 1.671 Lakh m³ of overburden from Bela Cement Limestone Mine – 01 [M.L. Area: 264.095 Ha] located at Villages Madheypur, Chhijwar & Baheliya, Tehsil- Huzur, District- Rewa, Madhya Pradesh.

2.27 Silica sand and Quartzite Mine over an extent of 174.83 ha with production capacity 31,151 TPA, located at Village, Muddanur Mandal, YSR (Kadapa) District, Andhra Pradesh by M/S. SHAIK JAMAL VALI- File No: J-11015/348/2014-IA-II (M); Proposal No IA/AP/MIN/25165/2014; Consultant: -)- Extension of Validity of ToR.

The Committee **deferred** the proposal as PP did not attend the meeting.

(2.28). Mining of Bajri with Revised production capacity (From 32,00,000 TPA to 1037575.49 TPA) by M/s Satya Sawroop Singh Jadaun located at Revenue Villages- Shiyana, Samtipura, Santhu, Sarat, Leta, Raipuria, Rewat, Ranchornagar, Maylawas, Madalpura, Bhagalisindhlan, Deldari, Berath, Nagani, Merauparla, Nabi, Narayanawas, Bhetala, Kander, Kolar, Gol, Chandan, Chipi, Jalore-B, Jalore A, Tadwa, Devda, Dewada, Paharpura, Dhawla, Bagra, Akoli, Keswana, Kuaber, Aelana, Odwada Shivna, Safara, Sumergarh, Raniwadakaba, Mandwala, Meda Nichla, Dangra, Dundsi, Firojpura, Bibalsar, Tehsil Jalore and District Jalore (Rajasthan) (MLA- 5269

ha) (Consultant: M/s Vardan Environet Gurgaon (Haryana)) [File No. J-11015/375/2013-IA.II (M); Proposal no. IA/RJ/MIN/26429/2013-Amendments of Environmental Clearance

The proposal of Shri Satya Swaroop Singh Jadon S/o Shri Bhagwan Singh is for mining of Bajri (Minor Mineral) with revised production capacity (from 32,00,000 TPA to 1037575.49 TPA (ROM). The mine is located at Revenue villages of Tehsil-Jalore, District-Jalore, Rajasthan in the mine lease area of 5269 ha. The mine lease area lies on Sukri, Khari, Bandi and Jawai River bed. The Latitudes and Longitudes of the Lease lies between Latitudes: 25°19'59.444 "N to 25°0'51.138 "N and Longitudes: 72°23'54.75"E to 72°39'23.079"E on Survey of India toposheet numbers 45 C/8, 45 C/12, 45 D/ & 45 D/9.

The proposal of EC was appraised before the EAC in its meeting held during May 27-29, 2015 wherein the Committee recommended the proposal for grant of EC. Based on the recommendation of EAC, the Ministry has granted the Environmental Clearance, vide letter no. J-11015/375/2013-IA.II (M), dated 25.02.2016. In pursuance of directions of Hon'ble Supreme Court dated 16/11/2017, the Ministry has requested the PP to carry out Scientific Replenishment Study and submit the report expeditiously to the Ministry of Environment, Forest and Climate Change for appraisal before EAC. The Ministry, vide letter no. J-11015/375/2013-IA.II (M), dated 14.12.2017, has also kept the Environmental Clearance in abeyance till Scientific Replenishment Study is submitted and further decision is taken by the Ministry on the EC application,

In view order of Hon'ble Supreme Court of India dated 16.11.2017 the PP has engaged Central Mine Planning and Design Institute (CMPDI) to conduct scientific replenishment study and further submit report to MoEF&CC for consideration of grant of EC. PP has now applied amendment in production capacity of existing mining project in view of this scientific replenishment study done by CMPDI.

The Member Secretary has also informed that Government of Rajasthan has issued the Rajasthan Minor Mineral Concession (Amendment) Rules, 2018 on 28th February, 2018 and has amended Rule 5 and 6 of the Rajasthan Minor Mineral Concession Rules, 2017 w.r.t. existing expression "one year", to "thirteen months" i.e. all LOI of minor mineral issued is only **valid up to 31.03.2018**. Government of Rajasthan, vide letter no. 14(4)Mines/Gr.II/2014, dated 9th April 2018, has submitted the status of 82 bajri mining cases. Out of 82 LOIs, 42 LOIs are cancelled/lapsed, 10 LOIs are sanctioned the lease/executed, and 30 LOIs are under stay in the Hon'ble High Court at Jodhpur w.r.t. regard to validity of LOI. The Committee deliberated the issues and is of the view that **Department of Mines and Geology, Government of Rajasthan shall first confirm whether the instant LOI/Lease is valid or not before consideration of the Proposal.**

The Committee has also observed that 19 proposals from the State of Rajasthan were considered by the EAC in its meeting held on 8th January 2018 wherein the Committee has asked the following **information and undertaking** from the State Government of Rajasthan/Project Proponent:

- (i). DMG, State Government to submit demarcated river stretch through latitudes and longitudes (out of the total lease) where river sand/bajri mining can be permitted based on available reserves and Original Ground Level (OGL) at each cross section in consultation with State Irrigation Department;
- (ii). PP and Consultant to submit latitudes and longitudes of the identified cross section, duly authenticated by State Government, which shall be used for replenishment study in future for calculation of replenishment amount/ rate;
- (iii). PP to give undertaking that only Scrapers shall be used for mining to ensure that the mining depth be maintained as 1.0 meters (max.) from Original Ground Level and No other heavy machinery like bucket excavators, JCB machines etc. shall be used which may adversely impact the aquatic biota;
- (iv). State Government of Rajasthan shall regulate the mining operations made by PP and submit report to MoEF&CC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season; and
- (v). State Department of Mines & Geology and PP are required to submit District Survey Report (DSR) in line with provisions made in Ministry's notification dated 15.01.2016.

The Committee noted that State Government of Rajasthan/Project Proponent has not submitted the above mentioned information for **this proposal; therefore the Committee deferred the proposal and suggested the proposal can not be considered without the submission of complete requisite information/undertaking as mentioned above. Further, Department of Mines and Geology, Government of Rajasthan shall first confirm whether the instant LOI/Lease is valid or not before consideration of this Proposal.**

(2.29). **Mining of Bajri with Revised production capacity (From 30,00,000 TPA to 9,04,277.23 TPA) by M/s Shri Anil Joshi located at Revenue Villages- Sindhara, Savidhar, Viyo Ka Golia, Bhinmal C, Borta, Punasa, Nohara, Nimbora, Nimbabas, Nasoli, Navapurachampvtan, Narta, Daspa, Gajipura, Khanda Deval, Kheraborta, Kora, Kodita, Mandoli, Paharpura, Pawali, Bhagal Septa Tehsil Jalore and District Jalore (Rajasthan) (MLA- 2335 ha) (Consultant: M/s Vardan Environet Gurgaon (Haryana)) [File No. J-11015/340/2013-IA.II(M); Proposal no. IA/RJ/MIN/26934/2013-Amendments of Environmental Clearance**

The proposal of M/s Shri Anil Joshi is for mining of Bajri (Minor Mineral) with revised production capacity (from 30,00,000 TPA to 9,04,277.23 TPA (ROM). The mine is located at Revenue villages of Tehsil - Bhinmal, District-Jalore, Rajasthan in mine lease area of 2335ha. The mine lease area lies on Sukari and Bandi River bed. The Latitudes and Longitudes of the Mine Lease area is as 25° 10' 2.27" to 25° 0' 34.18" N and 72°09'57.20" to 72°22'15.91" E the Survey of India Toposheet No. 45 C/8, 45 C/4, 45 D/1 & 45 D/5..

The proposal of EC was appraised before the EAC in its meeting held during May 27-29, 2015 wherein the Committee recommended the proposal for grant of EC. Based on the recommendation of EAC, the Ministry has granted the Environmental Clearance, vide letter no. J-11015/340/2013-IA.II (M), dated 24.02.2016. In pursuance of directions of Hon'ble Supreme Court dated 16/11/2017, the Ministry has requested the PP to carry out Scientific Replenishment Study and submit the report expeditiously to the Ministry of Environment, Forest and Climate Change for appraisal before EAC. The Ministry, vide letter no. J-11015/340/2013-IA.II (M), dated 14.12.2017, has also kept Environmental Clearance in abeyance till Scientific Replenishment Study is submitted and further decision is taken by the Ministry on the EC application,

In view order of Hon'ble Supreme Court of India dated 16.11.2017 the PP has engaged Central Mine Planning and Design Institute (CMPDI) to conduct scientific replenishment study and further submit report to MoEF&CC for consideration of grant of EC. PP has now applied amendment in production capacity of existing mining project in view of this scientific replenishment study done by CMPDI.

The Member Secretary has also informed that Government of Rajasthan has issued the Rajasthan Minor Mineral Concession (Amendment) Rules, 2018 on 28th February, 2018 and has amended Rule 5 and 6 of the Rajasthan Minor Mineral Concession Rules, 2017 w.r.t. existing expression "one year", to "thirteen months" i.e. all LOI of minor mineral issued is only **valid up to 31.03.2018**. Government of Rajasthan, vide letter no. 14(4)Mines/Gr.II/2014, dated 9th April 2018, has submitted the status of 82 bajri mining cases. Out of 82 LOIs, 42 LOIs are cancelled/lapsed, 10 LOIs are sanctioned the lease/executed, and 30 LOIs are under stay in the Hon'ble High Court at Jodhpur w.r.t. regard to validity of LOI. The Committee deliberated the issues and is of the view that **Department of Mines and Geology, Government of Rajasthan shall first confirm whether the instant LOI/Lease is valid or not before consideration of the Proposal.**

The Committee has also observed that 19 proposals from the State of Rajasthan were considered by the EAC in its meeting held on 8th January 2018 wherein the Committee has asked the following **information and undertaking** from the State Government of Rajasthan/Project Proponent:

- (i). DMG, State Government to submit demarcated river stretch through latitudes and longitudes (out of the total lease) where river sand/bajri mining can be permitted based on available reserves and Original Ground Level (OGL) at each cross section in consultation with State Irrigation Department;
- (ii). PP and Consultant to submit latitudes and longitudes of the identified cross section, duly authenticated by State Government, which shall be used for replenishment study in future for calculation of replenishment amount/ rate;
- (iii). PP to give undertaking that only Scrapers shall be used for mining to ensure that the mining depth be maintained as 1.0 meters (max.) from Original Ground Level and No

other heavy machinery like bucket excavators, JCB machines etc. shall be used which may adversely impact the aquatic biota;

- (iv). State Government of Rajasthan shall regulate the mining operations made by PP and submit report to MoEF&CC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season; and
- (v). State Department of Mines & Geology and PP are required to submit District Survey Report (DSR) in line with provisions made in Ministry's notification dated 15.01.2016.

The Committee noted that State Government of Rajasthan/Project Proponent has not submitted the above mentioned information for **this proposal; therefore the Committee deferred the proposal and suggested the proposal can not be considered without the submission of complete requisite information/undertaking as mentioned above. Further, Department of Mines and Geology, Government of Rajasthan shall first confirm whether the instant LOI/Lease is valid or not before consideration of this Proposal.**

(2.30). Mining of Bajri (Minor Mineral) with Revised production capacity (from 22,50,000 TPA to 6,27,201.61 TPA (ROM) by M/s Ranveer Singh Rathore, located at Revenue Villages- Aasana, Unari, Otswala, Komta, Jodvirana, Tura, Denta Kalan, Punrau, Pantheri, Posana, Bavtara, Borwada, Virana, Vishala, Surana, Sayala Chak No.- 2 of Tehsil- Sayala; District- Jalore, Rajasthan (MLA- 3797.588 ha) (Consultant: M/s Vardan Environet Gurgaon (Haryana)) [File No. J-11015/339/2013-IA-II(M); Proposal no. IA/RJ/MIN/26612/2013)-Amendments of Environmental Clearance

The proposal of Shri Ranveer Singh Rathore S/o Sh Bhagirath Singh Rathore is for mining of Bajri (Minor Mineral) with Revised production capacity (from 22,50,000 TPA to 6,27,201.61 TPA (ROM)). The lease is located at Revenue villages of Tehsil – Sayla, District Jalore, Rajasthan in mine lease area of 3797.588 ha. The mine lease area lies on Sukari and Bandi River bed. The lease area falls on the Latitudes 25°10'50.18" to 25°19'56.90"N and Longitudes 72°3'57.14" to 72°23'38.08"E on the Survey of India Toposheet No. 45 C/3, 45 C/4, 45 C/7 & 45 C/8.

The proposal of EC was appraised before the EAC in its meeting held during May 27-29, 2015 wherein the Committee recommended the proposal for grant of EC. Based on the recommendation of EAC, the Ministry has granted the Environmental Clearance, vide letter no. J-11015/339/2013-IA.II (M), dated 25.02.2016. In pursuance of directions of Hon'ble Supreme Court dated 16/11/2017, the Ministry has requested the PP to carry out Scientific Replenishment Study and submit the report expeditiously to the Ministry of Environment, Forest and Climate Change for appraisal before EAC. The Ministry, vide letter no. J-11015/339/2013-IA.II (M), dated 14.12.2017, has also kept Environmental Clearance in abeyance till Scientific Replenishment Study is submitted and further decision is taken by the Ministry on the EC application,

In view order of Hon'ble Supreme Court of India dated 16.11.2017 the PP has engaged Central Mine Planning and Design Institute (CMPDI) to conduct scientific replenishment study and further submit report to MoEF&CC for consideration of grant of EC. PP has now applied amendment in production capacity of existing mining project in view of this scientific replenishment study done by CMPDI.

The Member Secretary has also informed that Government of Rajasthan has issued the Rajasthan Minor Mineral Concession (Amendment) Rules, 2018 on 28th February, 2018 and has amended Rule 5 and 6 of the Rajasthan Minor Mineral Concession Rules, 2017 w.r.t. existing expression "one year", to "thirteen months" i.e. all LOI of minor mineral issued is only **valid up to 31.03.2018**. Government of Rajasthan, vide letter no. 14(4)Mines/Gr.II/2014, dated 9th April 2018, has submitted the status of 82 bajri mining cases. Out of 82 LOIs, 42 LOIs are cancelled/lapsed, 10 LOIs are sanctioned the lease/executed, and 30 LOIs are under stay in the Hon'ble High Court at Jodhpur w.r.t. regard to validity of LOI. The Committee deliberated the issues and is of the view that **Department of Mines and Geology, Government of Rajasthan shall first confirm whether the instant LOI/Lease is valid or not before consideration of the Proposal.**

The Committee has also observed that 19 proposals from the State of Rajasthan were considered by the EAC in its meeting held on 8th January 2018 wherein the Committee has asked the following **information and undertaking** from the State Government of Rajasthan/Project Proponent:

- (i). DMG, State Government to submit demarcated river stretch through latitudes and longitudes (out of the total lease) where river sand/bajri mining can be permitted based on available reserves and Original Ground Level (OGL) at each cross section in consultation with State Irrigation Department;
- (ii). PP and Consultant to submit latitudes and longitudes of the identified cross section, duly authenticated by State Government, which shall be used for replenishment study in future for calculation of replenishment amount/ rate;
- (iii). PP to give undertaking that only Scrapers shall be used for mining to ensure that the mining depth be maintained as 1.0 meters (max.) from Original Ground Level and No other heavy machinery like bucket excavators, JCB machines etc. shall be used which may adversely impact the aquatic biota;
- (iv). State Government of Rajasthan shall regulate the mining operations made by PP and submit report to MoEF&CC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season; and
- (v). State Department of Mines & Geology and PP are required to submit District Survey Report (DSR) in line with provisions made in Ministry's notification dated 15.01.2016.

The Committee noted that State Government of Rajasthan/Project Proponent has not submitted the above mentioned information for **this proposal**; **therefore the Committee deferred the proposal and suggested the proposal can not be considered without the submission of complete requisite information/undertaking as mentioned above.** Further, Department of Mines and Geology, Government of Rajasthan shall first confirm whether the instant LOI/Lease is valid or not before consideration of this Proposal.

(2.31). Mining of Bajri (Minor Mineral) with Revised production capacity (From 32,00,000 TPA to 26,03,303.71 TPA) by M/s Satya Sawroop Singh Jadaun located at Revenue Villages- Kotkasta, Ajber, Kibla, Ambatri Uchhmat, Kalapura, Kotda, Gajapura 1/3, Gajapura 2/3, Golana, Chandana, Ghaseri, Chandur, Jaswantpura, Punagkalan, Punagkhurd, Puran, Panseri, Padar, Pawati, Fedani, Bikanwas, Wadabhavji, Somata, Betarana Bhithan, Bhaderda, udtarasilli, Bhutwas Munthala kaba, Malpura, Ratpura, Javiya, Jitpura Jhak, Derdi, Tavab, Tatol, Thur, Delwara, Dantalawas, Dorda, Dhanpura, Dhansachak-2 Rajikawas Rota, Wadka Goga, Ledermer, Bisnoiyio ki dhani, Shivgarh, Shikwada, Bharudi, Gola, Basaradhanji, Rajpura, Ramsin, Serana, Modra, Khanpur Tehsil Jaswantpura and District Jalore Rajasthan (MLA-4710ha) [File No. J-11015/376/2013-IA.II (M); Proposal no. IA/RJ/MIN/26885/2013 - Amendments of Environmental Clearance

The proposal of Shri Satya Swaroop Singh Jadaun S/o Shri Bhagwan Singh is for mining of Bajri (Minor Mineral) with production capacity of 32.0 Lakhs TPA (ROM) of Bajri. The mine is located at Revenue villages of Tehsil- Jaswantpura, District-Jalore, Rajasthan in mine lease area of 4710 ha. The mine lease area lies on Bandi, Rel&Dhani River bed. The lease area falls in the Survey of India Toposheet No. 45 C/8, 45 C/4, 45 D/1 & 45 D/5.

Latitudes	24°47'39.75"N	24°57'50.428"N	25°13'39.954"N	25°3'12.369"N
Longitudes	72°27'54.17"E	72°37'15.439"E	72°24'29.641"E	72°20'7.188"E

The proposal of EC was appraised before the EAC in its meeting held during May 27-29, 2015 wherein the Committee recommended the proposal for grant of EC. Based on the recommendation of EAC, the Ministry has granted the Environmental Clearance, vide letter no. J-11015/376/2013-IA.II (M), dated 25.02.2016. In pursuance of directions of Hon'ble Supreme Court dated 16/11/2017, the Ministry has requested the PP to carry out Scientific Replenishment Study and submit the report expeditiously to the Ministry of Environment, Forest and Climate Change for appraisal before EAC. The Ministry, vide letter no. J-11015/376/2013-IA.II (M), dated 14.12.2017, has also kept Environmental Clearance in abeyance till Scientific Replenishment Study is submitted and further decision is taken by the Ministry on the EC application,

In view order of Hon'ble Supreme Court of India dated 16.11.2017 the PP has engaged Central Mine Planning and Design Institute (CMPDI) to conduct scientific replenishment study

and further submit report to MoEF&CC for consideration of grant of EC. PP has now applied amendment in production capacity of existing mining project in view of this scientific replenishment study done by CMPDI.

The Member Secretary has also informed that Government of Rajasthan has issued the Rajasthan Minor Mineral Concession (Amendment) Rules, 2018 on 28th February, 2018 and has amended Rule 5 and 6 of the Rajasthan Minor Mineral Concession Rules, 2017 w.r.t. existing expression "one year", to "thirteen months" i.e. all LOI of minor mineral issued is only **valid up to 31.03.2018**. Government of Rajasthan, vide letter no. 14(4)Mines/Gr.II/2014, dated 9th April 2018, has submitted the status of 82 bajri mining cases. Out of 82 LOIs, 42 LOIs are cancelled/lapsed, 10 LOIs are sanctioned the lease/executed, and 30 LOIs are under stay in the Hon'ble High Court at Jodhpur w.r.t. regard to validity of LOI. The Committee deliberated the issues and is of the view that **Department of Mines and Geology, Government of Rajasthan shall first confirm whether the instant LOI/Lease is valid or not before consideration of the Proposal.**

The Committee has also observed that 19 proposals from the State of Rajasthan were considered by the EAC in its meeting held on 8th January 2018 wherein the Committee has asked the following **information and undertaking** from the State Government of Rajasthan/Project Proponent:

- (i). DMG, State Government to submit demarcated river stretch through latitudes and longitudes (out of the total lease) where river sand/bajri mining can be permitted based on available reserves and Original Ground Level (OGL) at each cross section in consultation with State Irrigation Department;
- (ii). PP and Consultant to submit latitudes and longitudes of the identified cross section, duly authenticated by State Government, which shall be used for replenishment study in future for calculation of replenishment amount/ rate;
- (iii). PP to give undertaking that only Scrapers shall be used for mining to ensure that the mining depth be maintained as 1.0 meters (max.) from Original Ground Level and No other heavy machinery like bucket excavators, JCB machines etc. shall be used which may adversely impact the aquatic biota;
- (iv). State Government of Rajasthan shall regulate the mining operations made by PP and submit report to MoEF&CC on quarterly basis. It shall also be ensured that levelled cross section is made before the onset of next rainfall season; and
- (v). State Department of Mines & Geology and PP are required to submit District Survey Report (DSR) in line with provisions made in Ministry's notification dated 15.01.2016.

The Committee noted that State Government of Rajasthan/Project Proponent has not submitted the above mentioned information for **this proposal**; therefore the Committee **deferred the proposal and suggested the proposal can not be considered without**

the submission of complete requisite information/undertaking as mentioned above. Further, Department of Mines and Geology, Government of Rajasthan shall first confirm whether the instant LOI/Lease is valid or not before consideration of this Proposal.

(2.32). Amendment in Environmental Clearance of M/s Shree Cement Ltd w.r.t. mention the crushers (5 x 1200 TPH) & ML No. (9/93) issued for expansion of Limestone Production capacity from 19.6 Million TPA to 25.3 Million TPA (34.4 Million TPA (ROM basis) (ML Area – 750 ha, ML No. 9/93), located near Villages – Nimbeti and Jawangarh, Tehsil – Jaitaran, District – Pali, Rajasthan (File No. J-11015/226/2015-IA.II (M); Proposal No. IA/RJ/MIN/56863/2015)-Amendments in EC proposal

The Proposal of M/s Shree Cement Ltd. is for Amendment in Environmental Clearance no. J-11015/226/2015-IA.II (M), dated 11th May, 2017 w.r.t. mention the crushers (5 x 1200 TPH) issued for expansion of Limestone Production capacity from 19.6 Million TPA to 25.3 Million TPA (ML Area – 750 ha, ML No. 9/93). The mine lease is located near Villages – Nimbeti and Jawangarh, Tehsil – Jaitaran, District – Pali, Rajasthan.

The Environmental Clearance was granted by the Ministry, vide letter no. J-11015/226/2015-IA.II(M), dated 11th May, 2017 for expansion of Limestone Production capacity from 19.6 Million TPA to 25.3 Million TPA (34.4 Million TPA (ROM basis) in ML Area of 750 ha (ML No. 9/93). The mine is located near Villages – Nimbeti and Jawangarh, Tehsil – Jaitaran, District – Pali (Rajasthan). The EC was further amended vide letter no. J-11015/226/2015-IA.II (M), dated 27th November, 2017.

PP reported that at 19.6 Million TPA capacity of limestone, 4 Nos. of crushers (4x1200 TPH) have already been installed and for expansion from 19.6 to 25.3 Million TPA limestone, one additional crusher of 1200 TPH was proposed to install. PP has mentioned that as per RSPCB office order no. CD&SCMG(Gen-03)/RSPCB/1235-1271, dt. 24.01.2017, CTE condition no. 23 and CTO condition no. 22, crushers capacities (5 x 1200 TPH) & ML no. (09/93) are to be mentioned in Environmental Clearance along with ML no. However, in the EC, crusher is mentioned but capacities are not mentioned. Therefore, PP requested to amend the EC to mention the crusher's capacities and ML No. as all these information was incorporated in Form-1, EIA/EMP Study Report and Approved Modified Mining Plan submitted to the MOEF&CC while seeking the EC.

The Committee deliberated the issues for inclusion of 5 Nos. of crushers (5x1200 TPH) in the EC. The Committee is of the view that PP first clearly whether PP had made the EIA/EMP report on the basis of impact study of crushers which were installed and yet to be installed within the Mine lease area. The Committee also of the view that PP needs to submit the details of crushers viz. process, technology, pollution load on environment, air pollution control devices installed and its efficiency, analysis of air pollutants and details of impact study etc. **The Committee deferred the proposal and may be considered after the submission of the requisite information as mentioned above.**

(2.33). Transfer of EC from M/s Jai Ram to M/s Marwar Cement Ltd. and amendments in EC w.r.t. use of Minerals for Cement Plant for existing Limestone Mine with production capacity 1,50,000 TPA (MLA: 73.33ha & ML No. 49/93), located at Village-Pundlu, Tehsil-Merta, District- Nagaur, Rajasthan (File No. J-11015/978/2007-I.A. II (M); Proposal No. IA/RJ/MIN/9749/2007)-Amendment in EC

The proposal of M/s. Marwar Cement Limited is for transfer of EC from M/s Jai Ram to M/s Marwar Cement Ltd. and Amendment in EC w.r.t. Change in use of mineral for Cement plant for existing Limestone Mine with production capacity 1,50,000 TPA (M.L. area- 73.33 ha). The mine lease is located Near Village- Pundlu, Tehsil- Merta, District- Nagaur (Rajasthan). The mine lease area falls between Latitude of 26° 30' 36.61" N to 26° 31' 11.50" N and Longitude of 73° 47' 10.79" E to 73° 47' 52.46" E. The study area is located of Survey of India toposheet no 45F/14 & 45F/15.

The Ministry has granted the Environmental Clearance, vide letter no. J-11015/978/2007-IA.II (M), dated 14.03.2011 to M/s Jai Ram for Limestone Mine "Minor Minerals" (M.L. area- 73.33 ha) with production capacity of 1,50,000 TPA, located at Village- Pundlu, Tehsil- Merta, District- Nagaur, Rajasthan.

M/s Marwar Cement Limited (MCL) has submitted the online proposal w.r.t. (i) Transfer of EC from M/s. Jai Ram to M/s. Marwar Cement Ltd. and (ii) Amendment in EC for change in Use of mineral i.e. from 'Minor Mineral' to 'Major Mineral (Cement Grade)'. The PP reported that earlier limestone was used for burning purpose in lime kiln of the area. Now, M/s. Marwar Cement Limited had proposed to set up a cement plant with cement production capacity 1.37 million TPA, Clinker 1.0 million TPA, CPP 18 MW & DG set 5 MW located near village- Ghorawat, Tehsil- Pipar City (erstwhile Bhopalgarh), District- Jodhpur, Rajasthan. Environmental Clearance for the same was granted to MCL vide letter No. J-11011/154/2009-IA. II (I), dated 27.07.2010. MCL has proposed expansion in Cement (1.37 to 2.0 Million TPA), Clinker (from 1.0 to 3.0 Million TPA), & CPP (18 to 25 MW). A ToR letter for the same also has been issued by MoEF&CC to MCL vide letter no. J-11011/ 154/2009-IA. II (I) dated 22.07.2015. In order to cater the limestone requirement for the proposed expansion in cement plant, MCL has proposed Amendment in EC for change in Use of Mineral.

Project proponent reported that initially the mining lease (ML 49/33) for mineral limestone for 73.33 ha has been granted for minor minerals in the name of Shri Jai Ram S/o Hawa Ram Meghwal R/o-Harsolaw, Tehsil Merta, District Nagaur for 10 years from 19.04.1984. Subsequently it was renewed for 10 years and then 20 years till 18.09.2014. The mining lease has been transferred to M/s Vedanta Industries Ltd on 01.02.2011. Letter regarding change in use of mineral from minor mineral to cement grade was issued by State Government of Rajasthan in favor of M/s Vedanta Industries Ltd. vide their letter dated 12.08.2014. The name of company was changed from M/s Vedanta Industries Limited to M/s Marwar Cement Limited and was approved by The Registrar of Companies, Maharashtra, Mumbai vide letter dated 06.02.2014. Letter for name change in lease has been received from Government of Rajasthan vide letter no. P3 (10) Mine/group-2/2013 Jaipur, dated 5th March, 2017. Mining Plan with Progressive Mine Closure Plan was approved by Indian Bureau

of Mines (IBM) in favor of M/s Marwar Cement Ltd. vide letter dated 12.04.2017 for major mineral.

The Committee noted that the transfer of EC proposal from M/s. Jai Ram to M/s. Marwar Cement Ltd. may be examined by the Ministry as per Para 11 of the EIA Notification, 2006.

The Committee deliberated the proposal and based on the information submitted by PP, the Committee **recommended** the Proposal for **amendments in EC w.r.t. use of Mineral from "Minor Mineral" to "Major Mineral (Cement Grade)"** for Cement Plant for existing Limestone Mine.

2.34: Mangampet Barytes Extension Project (Project area – 221.89 Ha) of M/S. APMDC Ltd for a peak production capacity of 0.162 MTPA of Dolomite and 0.969 MTPA of black shale located in Mangampeta & Govindampalli Villages of Obulavaripalli Mandal and Anantarajupeta Village of Koduru Mandal, YSR Kadapa District, Andhra Pradesh. – (File No. J-11015/157/2016-IA-II (M); Proposal No. IA/AP/MIN/53361/2016; Consultant: Creative Engineers & Consultants)-EC Regarding

The proposal is for Mangampet Barytes Extension Project (Project area – 221.89 Ha) of M/S. Andhra Pradesh Mineral Development Corporation (APMDC) Ltd, for the total project area of 221.89 Ha comprising of 114.14 Ha of lease area and 107.75 Ha outside the lease area mainly for dumping of waste and its safety zone towards a peak production capacity of 0.162 MTPA of Dolomite and 0.969 MTPA of Black Shale. The mining lease area is bounded by Latitude N 14° 00' 32.41" to 14° 00' 13.30" and longitude E 79° 18' 28.97" to E 79° 19' 54.13". As per the KML file submitted by the Project Proponent the mining lease is in two parts and between these two parts there is a Mangampet Barytes mining lease which is being operated by ADMDC since 1975.

2. The proposal was considered in EAC Meeting held during February 26th -27th, 2018 wherein the Committee deferred the proposal for want of following information

- a) The mining lease deed/LoI for 221.89 Ha
- b) Approved mining plan for 221.89 Ha needs to be submitted and EIA/EMP report needs to be revised accordingly.
- c) Proof of submission of wildlife conservation plan needs to be submitted.
- d) The activity wise emission rate (clearly defining the quantity of the material to be handled) needs to be mentioned in the EIA report along with Ground Level Concentration of various pollutants, both in worst case scenario and after implementation of the mitigation measure.
- e) Detailed R&R plan needs to be submitted clearly mentioning the compensation to be paid to the project affected families.

3. The proponent submitted the above information online on 06.05.2018 and proposal is now considered in EAC meeting held during May 14th -15th, 2018. During the meeting the PP submitted the following:

a) The mining lease deed/LoI for 221.89 Ha

The PP submitted that Government of Andhra Pradesh, Department of Mines & Geology vide LR No 4020/R5-2/2018 dated 18.04.2018 granted LoI for Barytes, Dolomite & Shale over an area of 221.890 Ha.

b) Approved mining plan for 221.89 Ha needs to be submitted and EIA/EMP report needs to be revised accordingly.

The PP submitted that the Mining Plan is now approved vide letter no 1750/MP-CTR/2018 dated 10.04.2018 over an area of 221.89 Ha. **The Committee observed that the movement of benches as shown in the mining plan is only possible if the PP starts the mining operation from the existing Mangampet Barytes Mine. But in the instant case, it is not possible as both the leases are not amalgamated. The Committee was thus of the view that year-wise production & development planning, direction of movement of the benches thus needs to be changed in the mining plan. The Committee observed that it has already decided by the PP that as of now this mine will operate independently and thus extension project word need not be used in the EIA Report and mining plan and EIA Report should only for the proposed mines.**

c) Proof of submission of wildlife conservation plan needs to be submitted.

PP submitted the LR No 482/2017/WL-1(I) dated 10.10.2017 issued by Principal Conservator of Forests (WL) & Chief Wildlife Warden (FAC), Agathavarapadu, Andhra Pradesh to Member Secretary Non-Coal Mining , MoEF&CCC there by forwarding the approved conservation plan.

d) The activity wise emission rate (clearly defining the quantity of the material to be handled) needs to be mentioned in the EIA report along with Ground Level Concentration of various pollutants, both in worst case scenario and after implementation of the mitigation measure.

The PP submitted that background concentration, Predicted Incremental Concentration and Post Project Concentration of PM₁₀, PM_{2.5}, SO₂ and NO₂ which is well within the prescribed NAASQ Standards. **The Committee observed that PP was asked to submit the activity wise emission rate i.e. loading, transportation, drilling etc. but same is not provided by the PP.**

e) Detailed R&R plan needs to be submitted clearly mentioning the compensation to be paid to the project affected families.

The PP submitted the detailed R&R plan which includes land compensation, compensation for displaced family and compensation for affected families totaling to ₹ 28.23 Cr.

4. The Committee also observed that in the EIA Report budget for Environmental Management Plan is for existing & proposed project. Thus, the PP should provide the EMP budget only for the proposed mine. PP should provide the activity wise budget along with timeline for its implementation.

5. The Committee observed that PP should provide the detailed occupational health surveillance plan. The activity wise budget and time period for its implementation needs to

be provided in the EIA report. The Occupational Plan not only covers the worker working in the mining lease area but it should also cover the nearby community.

6. The Ministry has issued O.M No 22-65/2017-IA.II (M) dated 1.05.2018 pertaining to Corporate Environment Responsibility (CER). PP should provide the activity wise budget for the same along with timeline for its implementation. The PP should ensure that all the issues raised during public hearing should be addressed while finalizing the CER.

7. Based on the discussion held and documents submitted the Committee **deferred** the proposal and was of the view that proposal may be considered after submission of the following documents:

- a) Modified Mining Plan after changing the year-wise production & development planning, direction of movement of the benches and all related plan and section.
- b) The EIA Report needs to be revised as per the mining plan and extension word should be removed from the EIA Report.
- c) PP should provide the EMP budget only for the proposed mine. PP should provide the activity wise budget along with timeline for its implementation.
- d) PP should provide the detailed occupational health surveillance plan. The activity wise budget and time period for its implementation needs to be provided in the EIA report. The Occupational Plan not only covers the worker working in the mining lease area but it should also cover the nearby community.
- e) The Ministry has issued O.M No 22-65/2017-IA.II (M) dated 1.05.2018 pertaining to Corporate Environment Responsibility (CER). PP should provide the activity wise budget for the same along with timeline for its implementation. The PP should ensure that all the issues raised during public hearing should be addressed while finalizing the CER. It is to be noted here that CER is over and above the CSR and activity proposed in the CER should address the issues raised during Public Hearing and as proposed in aforementioned O.M.
- f) Activity wise emission rate i.e. loading, transportation, drilling etc. needs to be provided in the EIA Report for the total material handling i.e. production of mineral, waste and top soil. Accordingly, the GLC needs to be provided in worst case and controlled case scenario.

The meeting ended with vote of thanks to Chair.

[Annexure-I](#)

Standard Terms of Reference (TOR) for Mining Project

- 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) 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.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, 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).
- 5) Information should be provided in Survey of India Toposheet 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.
- 6) 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.
- 7) 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 proposed safeguard measures in each case should also be provided.
- 8) 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.
- 9) 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.
- 10) 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.
- 11) 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.

- 12) 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.
- 13) 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.
- 14) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 15) 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.
- 16) 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.
- 17) 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 alongwith 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.
- 18) 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.
- 19) 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).
- 20) 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.

- 21) 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.
- 22) 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.
- 23) 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.
- 24) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 25) 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.
- 26) 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.
- 27) 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.
- 28) 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.
- 29) 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.
- 30) 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.
 - 31) 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.
 - 32) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
 - 33) 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.
 - 34) 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.
 - 35) 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.
 - 36) 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.
 - 37) 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.
 - 38) 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.
 - 39) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
 - 40) The cost of the Project (capital cost and recurring cost) as well as the cost towards

implementation of EMP should be clearly spelt out.

- 41) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 42) 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.
- 43) 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.

Annexure II

Recommendation of CSIR-NEERI Report on "Carrying Capacity Study for Environmentally Sustainable Iron and Manganese Ore Mining Activity in Keonjhar, Sundargarh and Mayurbhanj districts of Odisha State"

- 1) Department of Steel & Mines, Govt. of Odisha should prepare 5 years' regional plan for annual iron ore requirement from the state, which in turn shall be met from different mines/zones (e.g. Joda, Koira.) in the state. Accordingly, sustainable annual

production (SAP) for each zone/mine may be followed adopting necessary environmental protection measures.

- 2) The expansion or opening of new manganese ore mines may be considered only when the actual production of about 80% is achieved. Further, the mines that have not produced Mn ore for last two years and have no commitment in the current year as well; EC capacity in such cases may be reviewed. The Department of Steel & Mines, Govt. of Odisha shall submit the Annual Report on this issue to the MoEF&CC for further necessary action.
- 3) Analysis of baseline environmental quality data for the year 2014 and 2016 indicates that existing mining activities appear to have little / no potential impact on environmental quality, except on air environment, which was mainly due to re-suspension of road dust. Therefore, all the working mines can continue to operate with strict compliance to monitoring of environmental quality parameters as per EC and CTE/CTO conditions of the respective mine, and implementation of suggested measures for control of road dust and air pollution. Odisha State Pollution Control Board has to ensure the compliance of CTE/CTO. Regional office of the MoEF&CC, Bhubaneswar shall monitor the compliance of the EC conditions. Regional office of the Indian Bureau of Mines (IBM) shall monitor the compliance of mining plan and progressive mine closure plan. Any violation by mine lease holder may invite actions per the provisions of applicable acts.
- 4) Considering the existing environmental quality, EC capacity, production rate, iron ore resources availability and transport infrastructure availability, the share of Joda and Koira sector works out to be 70% and 30% respectively for the existing scenario for the year 2015-16. However, for additional EC capacity, it can be 50:50 subject to commensurate infrastructure improvement (viz. SOTM, pollution free road transport, enhancement of rail network etc.) in the respective regions.
- 5) Continuous monitoring of different environmental quality parameters as per EC and CTE/CTO conditions with respect to air, noise, water (surface & ground water) and soil quality in each region shall be done. The environmental quality parameters should not indicate any adverse impact on the environment. Monitoring within the mines should be done by individual mine lease holders, whereas outside the mine lease area, monitoring should be done by the Govt. of Odisha through various concerned departments/ authorized agencies. Various monitoring/ studies should be conducted through national reputed institutes, NABET/ MoEF&CC accredited laboratories/organizations. The reports submitted by individual mine lease holders and study reports prepared by other concerned departments/agency for each of the regions should be evaluated and examined by SPCB/ MoEF&CC.
- 6) Construction of cement concrete road from mine entrance and exit to the main road with proper drainage system and green belt development along the roads and also construction of road minimum 300 m inside the mine should be done. This should be done within one year for existing mines and new mine should have since beginning. The concerned departments should extend full support; wherever the land does not belong to the respective mine lease holders. The Department of Steel & Mines, Govt. of Odisha should ensure the compliance and should not issue the Mining Permits, if mine lease holder has not constructed proper cement concrete road as suggested above.
- 7) In view of high dust pollution and noise generation due to road transport, it is proposed to regulate/guide the movement of iron and manganese ore material based on the EC capacity of the mines. Accordingly, ore transport mode has been suggested, as given below in Table.

Table : EC Capacity based Suggested Ore Transport Mode (SOTM)

Code	EC	Suggested Ore Transport Mode
SOTM 1	≥ 5 MTPA	100% by private railway siding or conveyor belt up to public railway siding or pipeline for captive mines and 70% for non-captive mines
SOTM 2	Between 3 and <5 MTPA	Minimum 70% by public railway siding, through conveyor belt and maximum 30% by road - direct to destination or other public railway siding or above option
SOTM 3	Between 1 and < 3 MTPA	Minimum 70% by public railway siding and maximum 30% by road - direct to destination or by other public railway siding or above options
SOTM 4	<1 MTPA	100 % by 10/17 Ton Trucks or above options

It is mentioned by State Govt. of Odisha that currently about 45% of the iron ore is despatched using rail network and progressively it will be increased to about 60% by rail/slurry over a period of 5 years, taking into account time required to set up more railway sidings.

In view of present ore transport practices and practical limitations, all the existing mines should ensure adoption of SOTM within next 5 years. New mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years.

However, the State Govt. of Odisha shall ensure dust free roads in mining areas wherever the road transportation of mineral is involved. The road shoulders shall be paved with fence besides compliance with IRC guidelines. All the roads should have proper drainage system and apart from paving of entire carriage width the remaining right of way should have native plantation (dust capturing species). Further, regular maintenance should also be ensured by the Govt. of Odisha.

Transportation of iron & manganese ore through river (jetty) to nearest Sea port (Sea cargo option) may be explored or connecting Sea ports with Railway network from the mines to be improved further so that burden on existing road and rail network and also pollution thereof can be minimized.

Progress on development of dust free roads, implementation of SOTM, increased use of existing rail network, development of additional railway network/conveyor belt/ pipelines etc. shall be submitted periodically to MoEF&CC.

Responsibility: Department of Steel & Mines, Govt. of Odisha; Time Period: 5 Years for developing railway/ conveyor belt facilities

- 8) Development of parking plazas for trucks with proper basic amenities/ facilities should be done inside mine. This should be done within one year for existing mines and new mines should have since beginning. Small capacity mines (in terms of lease area or production) not having enough space within the mine lease areas should develop parking plaza at a common place within the region with requisite facilities.

Responsibility: Individual Mine Lease Holders; Time Period: 1 Year

- 9) Construction of NH 215 as minimum 4 lane road with proper drainage system and plantation and subsequent regular maintenance of the road as per IRC guidelines. Construction of other mineral carrying roads with proper width and drainage system along with road side plantation to be carried out. Responsibility: Department of Steel & Mines with PWD / NHAI Time Period: 2 Years.
- 10) Regular vacuum cleaning of all mineral carrying roads aiming at "Zero Dust Re-suspension" may be considered. Responsibility: PWD / NHAI/ Mine Lease Holders; Time Period: 3 months for existing roads.
- 11) Expansion of existing mines and new mines should be considered after conducting recent EIA Study (as per the provisions of EIA Notification 2006, as amended time to time) with proper justification on demand scenario for iron ore requirement and availability of pollution free transport network in the region. Responsibility: IBM, Department of Steel & Mines and MoEF&CC, New Delhi.
- 12) **Mine-wise Allocation of Annual Production:** In case the total requirement of iron ore exceeds the suggested limit for that year, permission for annual production by an individual mine may be decided depending on approved EC capacity (for total actual dispatch) and actual production rate of individual mine during last year or any other criteria set by the State Govt., i.e. Dept. of Steel & Mines. Department of Steel and Mines in consultation with Indian Bureau of Mines-RO should prepare in advance mine-wise annual production scenario as suggested in Table, so that demand for iron ore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.

Table: Allocation of Production to Different Mines for 5 Years (as per approved Mining Plan)

Mine Lease	EC Capacity (MTPA)	Suggested Annual Production (MT)				
		2016-17	2017-18	2018-19	2019-20	2020-21
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Mine 1	X1					
Mine 2	X2					
Mine 3	X3					
Mine n	Xn					
Total	160 + dX	105	129	153	177	201
<u>Next year allocation = Average of EC Capacity and Last year production</u>						

- 13) **Expansion of Existing Mines having Validity up to 2020:** In view of implementation of MMDR Act 2015, wherein many non-captive mines are expected to be closed by March 2020, total iron ore production scenario has been. It is expected that the non-captive mines having validity till 2020 shall try to maximize their production (limited to EC capacity) in the remaining period. Further, depending upon availability of iron ore resources, these mines may also seek expansion of EC capacity. It may be noted here that total EC capacity of existing 25 working mines having validity upto 2020 is about 85 MTPA, whereas actual production from these mines has been only 44.677 MT (52.6%) during 2015-16 and 57.07 MT (67.1%) during 2016-17. Also, it is expected that these mines would not even be able to achieve ore production as per existing EC capacity till March 2020. Therefore, these existing mines should go for production to

the fullest extent to meet the requisite demand from the State. However, where EC limit is exhausted, application for expansion may be considered. Further, the EC process (i.e. Grant of TOR, Baseline data collection, Mining plan/ scheme approval, Public hearing, preparation of EIA/EMP Report. Appraisal by the EAC and grant of EC) takes about one year time. Under such circumstances, it is suggested that further applications for grant of TOR or grant of EC for expansion of production capacity of the mine should be considered for those existing mines, which have exhausted their capacity subject to consideration of all environmental aspects. Responsibility: Department of Steel & Mines and MoEF&CC, New Delhi.

- 14) **Sustained Iron Ore Production beyond 2020:** Considering the implementation of MMDR Act 2015, total production of iron ore in Odisha State is anticipated to be about 111 MT during 2016-17 (actual production was – 102.663 MT), 136 MT during 2017-18, 146 MT during 2018-19 and 146 MT during 2019-20. Then there will be substantial drop in total production (to the tune of 73 MT during 2020-21 onwards) due to closure of mines, which are valid up to 2020. Therefore, in order to maintain operation/sustained growth of downstream industries, iron ore mining in the region needs to be continued at a sustainable rate. The State Govt. through Department of Steel and Mines should initiate appropriate action to ensure continued availability of iron ore from the region, as per suggested sustainable annual production
- 15) **Reserves Estimation**–Mining Plan and Exploration: Appropriate actions (geo-technical investigation for qualitative and quantitative resource estimation & other preparations for auction of mines), may be initiated taken into account the existing working mines, and the mines which were operational at some point of time (but closed presently due to various reasons). The total iron ore reserves/ resources available within the total lease area of each mine should be estimated by State Govt./NMET/ GSI (or any other approved agency) with respect to: (i) Total lease area of mine (surface), (ii) Maximum depth to which resources could be available, (iii) Resources below the ground water table (if intersected), (iv) Reserves are to be estimated as per UNFC code with respect to quantity and quality (% Fe content), (v) Maximum mining rate and area for auction (after 2020) will be calculated based on total resources available and proposed life of mine leading to closure of mine in a stipulated time period.
Responsibility: Department of Steel & Mines, IBM and GSI; Time frame: 1 year for the mines to be auctioned for next 2 years. The above mentioned organizations shall ensure the compliance with respect to timelines for implementations.
- 16) Depending upon availability of extractable iron ore resources within a mine, mining below the ground water table may be permitted after conducting necessary geological and hydro-geological study by GSI and requisite approval from the CGWB/CGWA (Central Ground Water Board/Authority). This can be explored at least in few mines on trial/pilot basis. Further, within a mine, it will be desirable to operate one pit at a time, and next pit should be opened after extracting maximum possible resources from the first pit, so that the exhausted pit can be used for back filling/ storing of low grade iron ore. However, depending upon the quantity and/or quality of iron/ manganese ore, other mine pits in the same mine lease may also be opened for sustainable scientific mining, as per approved mining plan/scheme of mining by IBM. The Department of Steel & Mines, Govt. of Odisha should initiate the pilot project so that minerals are fully utilized.
- 17) **Commercial Utilization of Low Grade Ore:** R&D studies towards utilization of low-grade iron ore should be conducted through research/academic institutes like IMMT, Bhubaneswar, NML, Jamshedpur, and concerned metallurgical departments in IITs, NITs etc., targeting full utilization of low-grade iron ore (Fe content upto 45% by 2020

and upto 40% by 2025). In fact, life cycle assessment of whole process including environmental considerations should be done for techno-economic and environmental viability. R&D studies on utilization of mine wastewater having high concentration of Fe content for different commercial applications in industries such as cosmetics, pharmaceutical, paint industry should also be explored. Responsibility: IBM, Dept. of Steel & Mines, Individual Mine Lease Holders

- 18) The mining activity in Joda-Koira sector is expected to continue for another 100 years, therefore, it will be desirable to develop proper rail network in the region. Rail transport shall not only be pollution free mode but also will be much economical option for iron ore transport. The rail network and/or conveyor belt system upto public railway siding needs to be created. The total length of the conveyor belt system/ rail network to be developed from mines to nearest railway sidings by 11 mines in Joda region is estimated to be about 64 km. Similarly, in Koira region, total length of rail network/ conveyor system for 8 mines (under SOTM 1 & 2) is estimated to be around 95 km. Further, it is suggested to develop a rail network connecting Banspani (Joda region) and Roxy railway sidings in Koira region. Responsibility: Dept. of Steel & Mines, Govt. of Odisha and Concerned Mines along with Indian Railways. Time Period: Maximum 7 years (by 2025). The Department of Steel & Mines, Govt. of Odisha should follow-up with the concerned Departments and railways so that proposed proper rail network is in place by 2025.
- 19) State Govt. of Odisha shall make all efforts to ensure exhausting all the iron & manganese ore resources in the existing working mines and from disturbed mining leases/zones in Joda and Koira region. The criteria suggested shall be applicable while suggesting appropriate lease area and sustainable mining rate. Responsibility: Dept. of Steel & Mines, Govt. of Odisha
- 20) Large and medium mine leases contribute to better implementation of reclamation and rehabilitation plans to sustain the ecology for scientific and sustainable mining. The small leases do not possess scientific capability of environmentally sustainable mining. Therefore, new mine leases having more than 50 ha area should be encouraged, as far as possible. This will ensure inter-generational resource availability to some extent. Responsibility: Dept. of Steel & Mines, Govt. of Odisha
- 21) **Mining Operations/Process Related:** (i) Appropriate mining process and machinery (viz. right capacity, fuel efficient) should be selected to carry out various mining operations that generate minimal dust/air pollution, noise, wastewater and solid waste. e.g. drills should either be operated with dust extractors or equipped with water injection system. (ii) After commencement of mining operation, a study should be conducted to assess and quantify emission load generation (in terms of air pollution, noise, waste water and solid waste) from each of the mining activity (including transportation) on annual basis. Efforts should be made to further eliminate/ minimize generation of air pollution/dust, noise, wastewater, solid waste generation in successive years through use of better technology. This shall be ensured by the respective mine lease holders. (iii) Various machineries/equipment selected (viz. dumpers, excavators, crushers, screen plants etc.) and transport means should have optimum fuel/power consumption, and their fuel/power consumption should be recorded on monthly basis. Further, inspection and maintenance of all the machineries/ equipment/ transport vehicles should be followed as per manufacturer's instructions/ recommended time schedule and record should be maintained by the respective mine lease holders. (iv) Digital processing of the entire lease area using remote sensing technique should be carried out regularly once in 3 years for monitoring land use pattern and mining activity taken place. Further, the extent of pit area

excavated should also be demarcated based on remote sensing analysis. This should be done by ORSAC (Odisha Space Applications Centre, Bhubaneswar) or an agency of national repute or if done by a private agency, the report shall be vetted/ authenticated by ORSAC, Bhubaneswar. Expenses towards the same shall be borne by the respective mine lease holders. Responsibility: Individual Mine Lease Holders

- 22) **Air Environment Related:** (i) Fugitive dust emissions from all the sources should be controlled regularly on daily basis. Water spraying arrangement on haul roads, loading and unloading and at other transfer points should be provided and properly maintained. Further, it will be desirable to use water fogging system to minimize water consumption. It should be ensured that the ambient air quality parameters conform to the norms prescribed by the CPCB in this regard. (ii) The core zone of mining activity should be monitored on daily basis. Minimum four ambient air quality monitoring stations should be established in the core zone for SPM, PM₁₀, PM_{2.5}, SO₂, NO_x and CO monitoring. Location of air quality monitoring stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board (based on Emission Load Assessment Study). The number of monitoring locations may be more for larger capacity mines and working in larger area. Out of four stations, one should be online monitoring station in the mines having more than 3 MTPA EC Capacity. (iii) Monitoring in buffer zone should be carried out by SPCB or through NABET accredited agency. In addition, air quality parameters (SPM, PM₁₀, PM_{2.5}, SO₂, NO_x and CO) shall be regularly monitored at locations of nearest human habitation including schools and other public amenities located nearest to source of the dust generation as applicable. Further, 11 continuous air quality monitoring systems may be installed in Joida and Koira regions and one in Baripada/ Rairangpur region. (iv) Emissions from vehicles as well as heavy machinery should be kept under control and regularly monitored. Measures should be taken for regular maintenance of vehicles used in mining operations and in transportation of mineral. (v) The vehicles shall be covered with a tarpaulin and should not be overloaded. Further, possibility of 3 using closed container trucks should be explored for direct to destination movement of iron ore. Air quality monitoring at one location should also be carried out along the transport route within the mine (periodically, near truck entry and exit gate). Responsibility: Individual Mine Lease Holders and SPCB.
- 23) **Noise and Vibration Related:** (i) Blasting operation should be carried out only during daytime. Controlled blasting such as Nonel, should be practiced. The mitigation measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented. (ii) Appropriate measures (detailed in Section 5.4) should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone. Further, date, time and distance of measurement should also be indicated with the noise levels in the report. The data should be used to map the noise generation from different activities and efforts should be made to maintain the noise levels with the acceptable limits of CPCB (CPCB, 2000) (iv) Similarly, vibration at various sensitive locations should be monitored atleast once in month, and mapped for any significant changes due to successive mining operations. Responsibility: Individual Mine Lease Holders.
- 24) **Water/Wastewater Related :** (i) In general, the mining operations should be restricted to above ground water table and it should not intersect groundwater table. However,

if enough resources are estimated below the ground water table, the same may be explored after conducting detailed geological studies by GSI and hydro- geological studies by CGWB or NIH or institute of national repute, and ensuring that no damage to the land stability/ water aquifer system shall happen. The details/ outcome of such study may be reflected/incorporated in the EIA/EMP report of the mine appropriately. (ii) Natural watercourse and/or water resources should not be obstructed due to any mining operations. Regular monitoring of the flow rate of the springs and perennial nallas should be carried out and records should be maintained. Further, regular monitoring of water quality of nallas and river passing thorough the mine lease area (upstream and downstream locations) should be carried out on monthly basis. (iii) Regular monitoring of ground water level and its quality should be carried out within the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out on monthly basis. (iv) In order to optimize water requirement, suitable conservation measures to augment ground water resources in the area should be undertaken in consultation with Central Ground Water Board (CGWB). (v) Suitable rainwater harvesting measures on long term basis should be planned and implemented in consultation with CGWB, to recharge the ground water source. Further, CGWB can prepare a comprehensive plan for the whole region. (vi) Appropriate mitigation measures (viz. ETP, STP, garland drains, retaining walls, collection of runoff etc.) should be taken to prevent pollution of nearby river/other water bodies. Water quality monitoring study should be conducted by State Pollution Control Board to ensure quality of surface and ground water sources on regular basis. The study can be conducted through NABL/ NABET approved water testing laboratory. However, the report should be vetted by SPCB. (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated in ETP so as to conform to the discharge standards applicable. (viii) Oil and grease trap should be installed before discharge of workshop effluents. Further, sewage treatment plant should be installed for the employees/colony, wherever applicable. (ix) Mine lease holder should ensure that no silt originating due to mining activity is transported in the surface water course or any other water body. Appropriate measures for prevention and control of soil erosion and management of silt should be undertaken. Quantity of silt/soil generated should be measured on regular basis for its better utilization. (x) Erosion from dumps site should be protected by providing geo-textile matting or other suitable material, and thick plantation of native trees and shrubs should be carried out at the dump slopes. Further, dumps should be protected by retaining walls. (xi) Trenches / garland drain should be constructed at the foot of dumps to arrest silt from being carried to water bodies. Adequate number of check dams should be constructed across seasonal/perennial nallas (if any) flowing through the mine lease areas and silt be arrested. De-silting at regular intervals should be carried out and quantity should be recorded for its better utilization, after proper soil quality analysis. (xii) The water so collected in the reservoir within the mine should be utilized for the sprinkling on hauls roads, green belt development etc. (xiii) There should be zero waste water discharge from the mine. Based on actual water withdrawal and consumption/ utilization in different activities, water balance diagram should be prepared on monthly basis, and efforts should be made to optimize consumption of water per ton of ore production in successive years. Responsibility: Individual Mine Lease Holders, SPCB and CGWB.

- 25) **Land/ Soil/ Overburden Related** (i) The top soil should temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years or as per provisions mentioned in the mine plan/ scheme). The topsoil

should be used for land reclamation and plantation appropriately. (ii) Fodder plots should be developed in the non-mineralised area in lieu of use of grazing land, if any. (iii) Over burden/ low grade ore should be stacked at earmarked dump site(s) only and should not be kept active for long period. The dump height should be decided on case to case basis, depending on the size of mine and quantity of waste material generated. However, slope stability study should be conducted for larger heights, as per IBM approved mine plan and DGMS guidelines. The OB dump should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles should be undertaken for stabilization of the dump. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Proper records should be maintained regarding species, their growth, area coverage etc. (iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine operation, soil, OB and mineral dumps. The water so collected can be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted, particularly after monsoon and should be maintained properly. Appropriate documents should be maintained. Garland drain of appropriate size, gradient and length should be constructed for mine pit, soil, OB and mineral dumps and sump capacity should be designed with appropriate safety margin based on long term rainfall data. Sump capacity should be provided for adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals. (v) Backfilling should be done as per approved mining plan/scheme. There should be no OB dumps outside the mine lease area. The backfilled area should be afforested, aiming to restore the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self-generating. (vi) Hazardous waste such as, waste oil, lubricants, resin, and coal tar etc. should be disposed off as per provisions of Hazardous Waste Management Rules, 2016, as amended from time to time. Responsibility: Individual Mine Lease Holders.

- 26) **Ecology/Biodiversity (Flora-Fauna) Related:** (i) As per the Red List of IUCN (International Union for Conservation of Nature), six floral species and 21 faunal species have been reported to be under threatened, vulnerable & endangered category. Protection of these floral and faunal species should be taken by the State Forest & Wildlife Department on priority, particularly in the mining zones, if any. (ii) The mines falling within 5-10 km of the Karo-Karampada Elephant corridor buffer need to take precautionary measures during mining activities. The forest and existing elephant corridor routes are to be protected and conserved. Improvement of habitat by providing food, water and space for the elephants is required to be ensured to avoid Man-Elephant conflicts. Though as per the records of State Forest Department, movement of elephants in the Karo-Karampada elephant corridor within 10 km distance from the mines in Joda and Koira is not observed, the Forest Department shall further record and ensure that elephant's movement is not affected due to mining activities. (iii) All precautionary measures should be taken during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. Action plan for conservation of flora and fauna should be prepared and implemented in consultation with the State Forest and Wildlife Department within the mine lease area, whereas outside the mine lease area, the same should be maintained by State Forest Department. (iv) Afforestation is to be done by using local and mixed species saplings within and outside the mining lease area. The reclamation and afforestation is to be done in

such a manner like exploring the growth of fruit bearing trees which will attract the fauna and thus maintaining the biodiversity of the area. As afforestation done so far is very less, forest department needs to identify adequate land and do afforestation by involving local people in a time bound manner. (v) Green belt development carried out by mines should be monitored regularly in every season and parameters like area under vegetation/plantation, type of plantation, type of tree species /grass species/scrubs etc., distance between the plants and survival rate should be recorded. (vi) Green belt is an important sink of air pollutants including noise. Development of green cover in mining area will not only help reducing air and noise pollution but also will improve the ecological conditions and prevent soil erosion to a greater extent. Further, selection of tree species for green belt should constitute dust removal/dust capturing plants since plants can act as efficient biological filters removing significant amounts of particulate pollution. Thus, the identified native trees in the mine area may be encouraged for plantation. Tree species having small leaf area, dense hair on leaf surface (rough surface), deep channels on leaves should be included for plantation. (vii) Vetiver plantation on inactive dumps may be encouraged as the grass species has high strength of anchoring besides medicinal value. (viii) Details of compensatory afforestation done should be recorded and documented by respective forest divisions, and State Forest Department should present mine-wise annual status, along with expenditure details. (ix) Similarly, Wildlife Department is also required to record and document annual status of wildlife in the region and should identify the need for wildlife management on regional level. (x) Maintenance of the ecology of the region is prime responsibility of the State Forest and Wildlife Department. They need to periodically review the status and identify the need for further improvement in the region. The required expenditure may be met from the funds already collected in the form of compensatory afforestation and wildlife management. Further, additional fund, if required can be sought from DMF. Responsibility: Individual Mine Lease Holders and State Forest & Wildlife Department.

- 27) **Socio-Economic Related:** (i) Public interaction should be done on regular basis and social welfare activities should be done to meet the requirements of the local communities. Further, basic amenities and infrastructure facilities like education, medical, roads, safe drinking water, sanitation, employment, skill development, training institute etc. should be developed to alleviate the quality of life of the people of the region. (ii) Land outtees and land losers/affected people, if any, should be compensated and rehabilitated as per the national/state policy on Resettlement and Rehabilitation. (iii) The socio-economic development in the region should be focused and aligned with the guidelines/initiatives of Govt. of India/ NITI Aayog / Hon'ble Prime Minister's Vision centring around prosperity, equality, justice, cleanliness, transparency, employment, respect to women, hope etc. This can be achieved by providing adequate and quality facilities for education, medical and developing skills in the people of the region. District administration in association with mine lease holders should plan for "*Samagra Vikas*" of these blocks well as other blocks of the district. While planning for different schemes in the region, the activities should be prioritized as per Pradhan Mantri Khanij Kshetra Kalyan Yojna (PMKKKY), notified by Ministry of Mines, Govt. of India, vide letter no. 16/7/2017-M.VI (Part), dated September 16, 2015. Responsibility: District Administration and Individual Mine Lease Holders.
- 28) **Road Transport Related:** (i) All the mine lease holders should follow the suggested ore transport mode (SOTM), based on its EC capacity within next 5 years. (ii) The mine lease holders should ensure construction of cement road of appropriate width from and to the entry and exit gate of the mine, as suggested in Chapter 10. Further,

maintenance of all the roads should be carried out as per the requirement to ensure dust free road transport. (iii) Transportation of ore should be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/dust takes place. Further, air quality in terms of dust, PM₁₀ should be monitored near the roads towards entry & exit gate on regular basis, and be maintained within the acceptable limits. Responsibility: Individual Mine Lease Holders and Dept. of Steel & Mines

- 29) **Occupational Health Related:** (i) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects periodically. (ii) Occupational health surveillance program for all the employees/workers (including casual workers) should be undertaken periodically (on annual basis) to observe any changes due to exposure to dust, and corrective measures should be taken immediately, if needed. (iii) Occupational health and safety measures related awareness programs including identification of work related health hazard, training on malaria eradication, HIV and health effects on exposure to mineral dust etc., should be carried out for all the workers on regular basis. A full time qualified doctor should be engaged for the purpose. Periodic monitoring (on 6 monthly basis) for exposure to respirable minerals dust on the workers should be conducted, and record should be maintained including health record of all the workers. Review of impact of various health measures undertaken (at an interval of 3 years or less) should be conducted followed by follow-up of actions, wherever required. Occupational health centre should be established near mine site itself. Responsibility: Individual Mine Lease Holders and District Administration (District Medical Officer)
- 30) **Reporting of Environmental Sustainability Achievement:** All the mines should prepare annual environmental sustainability report (ESR), highlighting the efforts made towards environmental protection with respect to different environmental components vis-à-vis production performance of the mine on monthly basis. The data collected as per EC and CTE/CTO conditions should be utilized to prepare the annual sustainability report. The mines performing high with effective environmental safeguards may be suitably recognized/rewarded. "Star Rating Format" formulated by the Ministry of Mines along with environmental sustainability report may be used.
- 31) **Environmental Monitoring Requirements at Regional Level:** Apart from strict compliance and monitoring by individual mine lease holder, there is a need for simultaneous monitoring in each of the regions by competent expert agencies under the guidance/ supervision of concerned regulatory agency. Details of the studies required to be done on regular basis (continuously for 5 years) through responsible agency (organization of national/state repute) and time frame are suggested in Table.

Table: Suggested Environmental Monitoring Requirements and Action Plans at Regional Level

Sr. No.	Study Component/ Action Plan	Responsibility	Monitoring and Reporting Time Frame (Approx.)
1.	Environmental Quality Monitoring with respect to Air, Water, Noise and Soil Quality in each region (Joda, Koira and Baripada/Rairangpur) as per specified frequency shall be done by a third party (preferably Govt.) and/or laboratory approved/ recognized by NABET/ CPCB/	SPCB	Continuous Annually

	<p>SPCB/ MoEF&CC.</p> <p>All the water bodies (rivers, nallas, ponds etc.) shall be monitored. National/State level research/ academic institutes may be involved initially for couple of years to streamline the activity. The report shall be brought out annually by June each year. The study shall be conducted in consultation with MoEF&CC-RO.</p>		
	<u>Installation of online ambient air quality monitor for PM₁₀, PM_{2.5}, SO_x and NO_x within the mine having more than 3 MTPA EC Capacity</u>	<u>Respective Mine Lease Holders</u>	<u>Continuous Annually</u>
	Installation of online ambient air quality monitor for PM ₁₀ , PM _{2.5} , SO _x and NO _x in the Joda and Koira Region (total 11 locations).	SPCB	Continuous Annually
2.	Status of flora and fauna in each of the regions shall be assessed on annual basis. Changes, if any, taking place in the region shall be brought out clearly. The study shall be conducted in consultation with State Forest and Wildlife Department.	State Forest & Wildlife Dept.	Annually in mining zone and once in 3 years in the region
3.	Socio-economic study incorporating developments taking place in each of the region, CSR initiatives made by the mining companies shall be conducted on annual basis. Further, micro level developmental needs shall be clearly brought out in the report for each region. The study shall be conducted in consultation with district administration.	Respective District Administration	Annually
4.	A detailed hydro-geological study in each of the regions shall be conducted in an integrated manner in consultation with Regional Director, Central Ground Water Board. Accordingly, all project proponents shall implement suitable conservation measures to augment ground water resources in the area.	SPCB	Once in 2 years
5.	The State Govt. shall ensure construction and maintenance of dust free common roads/ appropriate rail network for transport of ore from mines to the consumer end.	Dept. of Steel & Mines	12 months for road network and 5-7 years for rail network
6.	<u>Construction and maintenance of dust free roads from respective mine to the main road</u>	<u>Respective Mine Lease Holders</u>	<u>Continuous 6 months</u>

7.	Traffic/road inspection study addressing the condition of traffic/roads leading to different mines and connecting to different railway sidings shall be undertaken on annual basis. Further, detailed traffic study shall be undertaken on every 5 yearly basis to ensure adequacy of road/rail infrastructure in each of the regions. The study can be undertaken through national/ state level research/ academic institute (such as CSIR-CRRI, New Delhi).	Dept. of Steel & Mines	Continuous 6 months
8.	Assessment of land use/ land cover changes in each of the regions, with particular focus on mining areas, afforestation activities, variation in flow path of various water bodies etc. using remote sensing data	ORSAC	Annually
9.	R&D Studies for utilization of low-grade iron ore	Dept. of Steel & Mines through R&D / Academic Institutes	Upto 45% by 2020 and upto 40% by 2025

The data so generated for the region should be made available on the website of Department of Steel & Mines and also at MoEF&CC website, so that it can be effectively utilized by Individual Mine Lease Holders for preparing EIA/ EMP reports. This will meet the requirement for separate one season baseline environmental quality data collection by the individual proponents, if the mine proposed is in the same study region. Further, MoEF&CC (through EAC) can also utilize the data base available in evaluating the proposals for expansion of existing mines or new mines while granting ToR or EC to the mine, taking an holistic view of the region. State Govt. of Odisha should bring out an integrated environmental sustainability report for each of the regions (mainly for Joda and Koia region) incorporating ESR of individual mines and data collected in the region through various agencies, once in 5 years, to plan level of scientific and sustainable mining for the next 5 years.

- 32) Institutional Mechanism for Implementation of Environmentally Sustainable Mining: The present study is not a one-time study, but a process to ensure environmentally sustainable mining activities in the region on long term basis. Looking into the large-scale mining activities and long term perspective for mining vis-à-vis environmentally sustainable mining and upliftment of people of the region, there is a need to create an agency, who will integrate all the aspects relating to sustainable mining in the region on long term basis. It could be a SPV of Govt. of Odisha or a cell within the overall control and supervision of Dept. of Steel & Mines, with members from IBM, GSI, OSPCB, MoEF&CC-RO and other concerned Departments and Mine Owners (EZMA), District Administration. It is found that the strong database available for the region needs to be taken into account to map and establish environmental quality of the region on daily, monthly, seasonal and annual basis. Further, the efforts and initiatives of the mines towards environmental protection as well as upliftment of the people of the region are required to be integrated, and a systematic plan at the block/regional level needs to be framed for the overall benefit of the local society, region, district, state and the country

as a whole. It will be desirable to have proper environmental quality data management and analysis by NEERI or any other agency for next 5 years (six monthly compliance reports followed by field verification) ensuring sustainable mining practices in the region leading to an overall development of the region. District Mineral Funds should be utilized appropriately for various developmental activities/needs of the region. Further, an environmental sustainability report incorporating environmental status of region coupled with social upliftment may be brought out by SPCB or any other authorized agency on annual basis. This report can be used for supporting the regional EIA study, and also need for environmental quality monitoring by individual mine seeking environmental clearance for new mine/expansion of mine, including public hearing. Since, outcome of the above study reports shall be in the overall interest of all the stakeholders (including local population) of the region, further planning for the region shall warrant cooperation and assistance of all the stakeholders (mine operators, industries, transporters, State & Central Government Offices, MoEF&CC, CPCB, SPCB, Dept. of Steel & Mines, IBM, IMD, NGOs and local people) in sharing the relevant data/information/reports/documents etc. to continuously improve upon the environmentally sustainable development plan for economic growth in mining sector as well as for improvement in quality of life of the people of the region.

Annexure-III

Standardization of EC conditions in Non-coal mining sector

A. Specific conditions

To be suggested by the EAC w.r.t. project.

B. Standard conditions

- 1). The instant Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, as may be applicable.
- 2) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- 3) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- 4) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate, as applicable, from the concerned State Pollution Control Board.
- 5) The PP shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation, quantum of mineral and waste. No change in basic mining proposal like mining technology, production, lease area and scope of working (viz. method of mining, overburden & dump management, mineral transportation mode, ultimate depth of mining etc.) shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC.
- 6) The PP shall adhere to Mines Act, 1952, Mines and Mineral (Development & Regulation) Act, 2015 and rules & regulations made thereunder. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines time to time.
- 6) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/ Department of Mining & Geology as required under the provisions of MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of the approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
- 7) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years for the purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
- 8) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be

strictly adhered to maintain the stability of top soil dumps. The topsoil shall be used for land reclamation and plantation.

9) The OB generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.

10) The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.

11) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.

12) The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.

13) The Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.

14) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.

15) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

16) Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A

safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

17) The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame agreed upon. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

18) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.

19) The Project Proponent shall essentially follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA. II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

20) The PP shall The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

21) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

22) No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All

costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.

23) The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

24) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.

25) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

26) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the premining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

27) PP shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezometric installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water

level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

28) The project proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board ,State Pollution Control Board and Central Pollution Control Board clearly showing the trend analysis on six-monthly basis.

29) Quality of polluted water generated from mining operations which include COD in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Dissolved Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The Provisions shall be made for online monitoring of pH, DO, COD, BOD and turbidity at outlet of STP & ETP and water storage ponds. The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

30) PP shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC annually.

31) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

32) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

33) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and

minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.

34) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

35) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

36) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Ha. Adequate budgetary provision shall be made for protection and care of trees.

37) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

38) The project proponent shall undertake all precautionary measures for conservation and protection of endangered fauna during mining operation. A Wildlife Conservation Plan clearly delineating action to be taken for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan shall be submitted to the MoEF&CC & its Regional Office.

39) The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and

necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.

40) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.

41) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Mn Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABL. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure to hazardous materials (Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium,) need to be handed over to the mining department of the state in case the life of the mine is less than 30 years. It would be obligatory for the State Mines departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).

42) The Proponent shall maintained a record of performance indicators for workers which includes a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, b) the Final Chest X-Ray compared with the base line X-Ray should not show any opacities ,c) At the end of their leaving job there should be no Diminution in their Lung Functions FEV1, FVC, and the ratio) unless they are smokers which has to be adjusted, and the effect of age, d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should

have normal range of movement, f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.

43) The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

44) The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 1.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

45) The PP shall implement its CSR programme as per Companies (Corporate Social Responsibility Policy) Rules, 2014 framed under the Companies Act, 2014. The copy of compliance report shall be submitted to the MoEF&CC and its concerned Regional Office as per Act provisions.

46) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization.

47) PP shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

48) PP shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.

49) The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

50) The project proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEF&CC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.

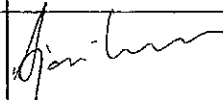
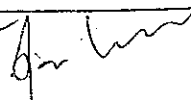

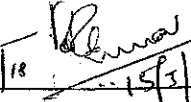
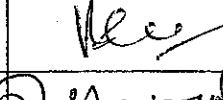
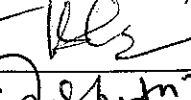
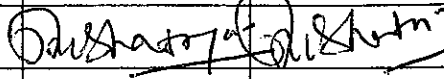
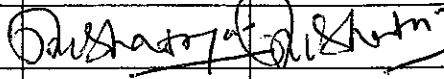
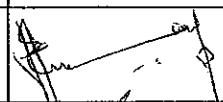
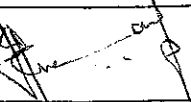



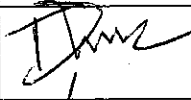



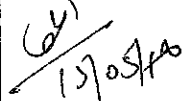
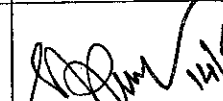

51) The concerned Regional Office, MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.

52) A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.

53) State Pollution Control Board shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.

54) The project authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board and web site of the Ministry of Environment, Forest and Climate Change (www.environmentclearance.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.

LIST OF EXPERT APPRAISAL COMMITTEE (MINING - Non Coal Mining Sector)

Sl. No.	Name and address	Designation	Date:14/05/2018	Date:15/05/2018
1.	Dr. Ajai Kumar B-1302, Bestech Park View Spa, Sector-47, Gurgaon, Haryana	Chairman		
2.	Shri B Ramesh Kumar H-No. 6-1-134/6, Balram Compound, Padmarao Nagar, Secundrabad- 500025, Andhra Pradesh	Member		
3.	Prof. Dr. K.S. Rana Maharana Manzil, 18, Dholpur House, (D.M. Compound), M.G. Road, Agra-1, Uttar Pradesh - 282001	Member		
4.	Prof. A. K. Bhatnagar, JA/4B, Ashok Vihar-I, Delhi - 110052	Member		
5.	Dr. N. C. Karmakar Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi - 221 005, Uttar Pradesh	Member		
6.	Dr. Hemant S. Sahasrabudhe "Utkarsha", LB-53, Housing Board Colony, Laxminagar, Nagpur-440022	Member		
7.	Prof. S. Ramakrishna Rao 50-120-9/1, Tulasi Mani Regency North Extension, Seethammadhara, Visakhapatnam - 530013 Andhra Pradesh.	Member		
8.	Dr. Himanshu Pathak, Professor, Center for Environment Science and Climate Resilient Agriculture, Indian Agricultural Research Institute, New Delhi 110 012	Member		
9.	Dr. AL. Ramanathan Professor, School of Environmental Sciences, Jawaharlal Nehru University. New Mehrauli Road, New Delhi- 110067	Member		
10.	Dr. Tushar Kant Joshi, Laxmikant Niwas, Salan Gaon, Bhagwantpur, Dehradun-248009, Uttarakhand.	Member		
11.	Shri Santosh Gupta, Flat No. 405, Block -B, Gaur Green Vista, Nyaykhand - 1, Indrapuram, Ghaziabad-201014	Member		
12.	Representative of Ministry of Mines Shri. Pushpender Gaur, Dy. Controller of Mines, Ministry of Mines, Shastri Bhawan New Delhi-110001.	Member		
13.	Representative of Indian Meteorological Mr. V.K. Soni, Scientist "E", (Meteorology/Air Pollution), 609, SatMet Building, Mausam Bhawan, Indian Meteorological Department, Lodhi Road, New Delhi-110003	Member		
14.	Representative of Wildlife Institute of India, Dr. (Ms.) Asha Rajvanshi, Wildlife Institute of India, Chandrabani, Dehradun-248001	Member		
15.	Advisor IA-Division (Non Coal Mining) Vayu-305, Indira Paryavaran Bhawan, Ministry of Environment, Forest & CC, Jorbagh Road, Lodhi Road, New Delhi-110003	Member Secretary		

Agenda for 31st EAC Meeting to be held during on **14th May – 15th May, 2018**