

**MINISTRY OF ENVIRONMENT & FORESTS  
(IA DIVISION)**

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**SUMMARY RECORD OF 17<sup>th</sup> MEETING OF THE RECONSTITUTED COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF MINING PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.**

The 17<sup>th</sup> Meeting of the Reconstituted Expert Appraisal Committee for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment and Forests was held during **February 24-25, 2014**. The list of participants is annexed.

After welcoming the Committee Members, discussion on each of the Agenda Items was taken up ad-seriatim.

**Item No. 1:**

**1.1 Confirmation of the minutes of the 16<sup>th</sup> EAC Meeting.**

The Minutes of the 16<sup>th</sup> Meeting of EAC held during **January 27-28, 2014** were confirmed and circulated.

**Agenda Item No. 2:**

**(2.1) Mining of Sand Stone and Bajri by M/s. Golden Karamjot Stone Crusher located at village & P.O Riyali, Tehsil - Fatehpur, Distt.- Kangra Himachal Pradesh (21-07-84ha)(80000 MTPA) (Consultant: M/s IDMA Laboratories Ltd)-Environmental clearance.**

The proposed mining site is located near the Beas River on its old terrace falling in Mauza Reyali, Tehsil Fatehpur, and District Kangra of Himachal Pradesh. The Latitude and Longitude of the site is: Latitude: 31° 59' 21.4" N to 31° 59' 35" N; Longitude: 75° 49' 00.1" E to 75° 49' 3.5"E. The proposal was considered by the Expert Appraisal Committee in its Meeting held during 25<sup>th</sup>-27<sup>th</sup> April, 2011 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TORs were issued by MoEF vide letter no. J-11015/19/2011-IA.II (M) Dated 20<sup>th</sup> May, 2011.

The mine lease area is 21.0784 ha which is private owned land. Mine lease approval is dated 16-3-2010 vide Letter no. Udyog-Bhu (Khani-4) Laghu-344/09 and mining plan is approved by State Mining Department, Himachal on 30.03.2013 vide letter no. Udyog –Bhu (Khani-4) Laghu -289/08 -11751.

It is reported by the PP that mining will be open cast manual. The project is confined to extraction of sand, stone & bajri from the terrace of river Beas. Sand mining will be carried out up to a depth of 4 m below ground level, by using hand tools like shovel, pan, and sieve etc. No drilling, blasting and mining machinery shall be deployed. It is reported by the PP that Total Geological Reserves are about 15,52,500 Metric Tonnes and Movable Reserves 12,32,500 Metric Tonnes. The life of mine is 16 Years.

The material is sorted manually at mining site and sand is separated from stone and bajri. Stone and bajri shall be transported to the crusher for crushing and Sand will be sold in the open market. Mining will be carried out only during day time and will be

completely stopped during the Monsoon season. Silt & clay generated during the mining process will be treated as waste. This will be used as a spread on areas along the peripheral safety zone and waste dumps indicated in mining plan, for plantation purpose. It was reported by the PP, that solid waste generation will be 60,000 tonnes during mining plan period, 46,000 tonnes silt and 14,000 tonnes clay. It was reported by the PP that the water requirement for the mining activity such as water sprinkling on the haulage roads and green belt development will be met from local water bodies by tankers and drinking water will be provided by bore well present at the crusher site. Total water required is an average of 2.7 KLD and 3.4 KLD during peak demand of water.

It was reported by the PP that there is no national Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger /Elephant Reserves (existing as well as proposed) within 10 km of mine lease area. However, study area has schedule- I species.

Baseline studies were carried out during non monsoon season (March-May) 2011. All the parameters for water and air quality were within permissible limits. The Public Hearing for the Proposed Project was conducted at Village Riyali on 15.05.2013. The PH was chaired by Mr. R.K. Sharma, Additional Deputy Collector (ADC), Kangra. The proponent informed that the chairman of the public hearing is of the level of ADM as per EIA Notification, 2006. The issues raised during public hearing were also considered and discussed during the meeting, which inter-alia, included that there should not be any traffic congestions, air pollution control measures shall be adopted by carrying out plantation, sprinkling of water etc. As per the villager's requirements, it was informed by the PP that they would give preference to locals for employment; health issues and providing education etc. These have been incorporated in the Project Plan with budgetary provisions.

The cost of the project is Rs. 7 lakh. Project proponent informed that 1.95 Lakh capital cost & 1.08 lakh for Environmental protection measures and CSR activity. It was reported by the PP that there is no court case/litigation pending against the project and no violation.

After detailed deliberation and discussions the Committee decided to **defer the proposal** to be brought back to the Committee after the following information is submitted:

- (i) The meteorological data collected for the proposal is same as of other three proposals, therefore one month baseline data shall be collected afresh and submitted.
- (ii) Site specific conservation plan for the Schedule-I species shall be submitted with budgetary provisions.
- (iii) Details regarding occupational health and CSR plan shall be submitted.
- (iv) Information on geological reserves based on UNFC classification shall be provided.
- (v) Revised 'Questionnaire' shall be submitted.
- (vi) Flood details for last 5 years shall be provided.

- (vii) Details of number of crushers located in study area and impact of crushers on nearby agriculture land and mitigation measures proposed shall be furnished.
- (viii) Details of court case, if any, shall be submitted.

**(2.2).Mining of Sand Stone and Bajri by M/s Himachal Stone Crushing Co. located at village & P.O. - Riyal, Tehsil - Fatehpur, Distt.- Kangra (H.P)(18-45-97ha)(80,000MTPA) (Consultant: M/s IDMA Laboratories Ltd.)-Environmental clearance.**

The proposed mining site is located near the Beas River on its old terrace falling in Mauza Riyali, Tahsil Fatehpur, and District Kangra of Himachal Pradesh. The Latitude and Longitude of the site is: Latitude: 31° 59' 35" N to 31° 59' 43" N; Longitude: 75° 48'52.6"E to 75°49'3.5"E. The proposal was considered by the Expert Appraisal Committee in its Meeting held during 25<sup>th</sup>-27<sup>th</sup> April, 2011 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TORs were issued by MoEF vide letter no. J-11015/17/2011-IA.II (M) Dated 20<sup>th</sup> May, 2011.

The mine lease area is 18.4597ha which is a private own land. Mine lease approval on dated 16-3-2010 vides order no. Udyog – Bhu (Khani - 4) Laghu – 303/08 – 11439 dated 08- 01- 2010 for a period of fifteen years and mining plan approved by State Mining Department, Himachal on 30-3-2013. It is reported by the Project Proponent (PP) that the mining will be open cast manual. The project is confined to extraction of sand, stone & bajri from the terrace of river Beas. Sand mining will be carried out up to a depth of 5 m below ground level, by using hand tools like shovel, pan, and sieve etc. No Drilling, blasting and mining machinery shall be deployed. It is reported by the PP that Total Geological Reserves are about 22,72,500 Metric Tonnes and Movable Reserve 13,68,300 Metric Tonnes. The life of mine is 15 Years.

The material is sorted manually at mining site and sand will be separated from stone and bajri. Stone and bajri shall be transported to the crusher for crushing and Sand will be sold in the open market. Mining will be carried out only during day time and will be completely stopped during the Monsoon season. Solid waste generation will be 60,000 tonnes during mining plan period, tailings is 46,000 tonnes silt and 14,000 tonnes clay within the project area. It was reported by the PP that the water requirement for the mining activity such as water sprinkling on the haulage roads and green belt development will be met from local water bodies by tankers and drinking water will be provided by bore well present at the crusher site. Total water required an average 3.8 KLD and 4.65 KLD during peak demand of water. As, per working cum environmental plan the working will not intersect the ground water table.

It is reported by PP that no national Parks , Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) with in 10 km of mine lease area. However, study area has schedule-I species.

Baseline studies were carried out during non monsoon season (March-May) 2011. All the parameters for water and air quality were reported to be with Permissible limits. The Public Hearing for the Proposed Project was conducted at Village: Riyali on 10.05.2013. The PH was chaired by Mr. R.K. Sharma, Additional Deputy Collector (ADC), Kangra. The proponent informed that the chairman of the public hearing is of the

level of ADM as per EIA Notification, 2006. The issues raised during public hearing were also considered and discussed during the meeting, which inter-alia, included that there should not be any traffic congestions, air pollution control measures shall be adopted by carrying out of plantation, sprinkling of water etc. As per the villager's requirements, it was informed by the PP that they would give preference to locals for employment; health issues and providing education etc. These have been incorporated in the Project Plan with budgetary provisions.

The cost of the project is Rs. 7 lakh. Project proponent informed that 1.95 Lakh capital cost & 1.08 lakh for Environmental protection measures and CSR activity. It was reported by the PP that there is no court case/litigation pending against the project and no violation.

After detailed deliberation and discussions the Committee decided to **defer the proposal** to be brought back to the Committee after the following information is submitted:

- (i) The meteorological data collected for the proposal is same as of other three proposals, therefore one month baseline data shall be collected afresh and submitted.
- (ii) Site specific conservation plan for the Schedule-I species shall be submitted with budgetary provisions.
- (iii) Details regarding occupational health and CSR plan shall be submitted.
- (iv) Information on geological reserves based on UNFC classification shall be provided.
- (v) Revised 'Questionnaire' shall be submitted.
- (vi) Flood details for last 5 years shall be provided.
- (vii) Details of number of crushers located in study area and impact of crushers on nearby agriculture land and mitigation measures proposed shall be furnished.
- (viii) Details of court case, if any, shall be submitted.

**(2.3).Enhancement of Tantra Iron Ore Mining Project and Beneficiation plant of M/S Korp Resources Pvt Ltd. located at village – Tantra Distt.- Sundergarh, Orissa (72.56ha) (1.20,000TPA to 2,40,000TPA) (Consultant: Sun consultancy and Services)-Environmental clearance.**

The proposal is for Opencast Tantra Iron Ore Mine with proposed production of 800 TPD (2,40,000 Tonnes /Annum ROM Iron Ore) along with Iron Ore Beneficiation Plant of capacity 1.0 MTPA and a crushing and screening plant by M/s. Korp Resources Pvt. Ltd. At: Tantra, Post: Tensa Dist: Sundargarh, Odisha within the coordinates 21<sup>o</sup>52'40" to 21<sup>o</sup>52'48" E Latitude and 85<sup>o</sup> 10'14" to 85<sup>o</sup>11'03" N Longitude in topo-sheet no. 73-G/1.

The proposal was considered by the Expert Appraisal Committee in its meeting

held during 28-30<sup>th</sup> September, 2010 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TORs were issued by MoEF vide letter no. J – 11015/236/2010-IA.II (M) dated 25<sup>th</sup> October, 2010. The proponent submitted its application for seeking environmental clearance after conducting public hearing to the Ministry on 12<sup>th</sup> October, 2012. Earlier EC was granted to the project for production capacity of 0.12 MTPA vide letter no. J-11015/1008/2007-IA.II (M) dated 04.06.2009.

The mine lease area is 72.56 ha. The leasehold contains a forest land of 8.984 hectare and forest land (DLC) with waste land of 63.576 hectare. The Mining plan is approved by IBM vide Letter No. MS/OTFM/41-ORI/BHU/2012-13 dated 19.04.2013. Final Forest Clearance has been obtained over 69.041 ha forest land vide letter no F.No.8-108/2008-FC dated 14<sup>th</sup> June 2010.

It is reported by the PP that the mine working will be Opencast, semi-mechanized with deep hole drilling and blasting. The benches are made at 6 meter height with proportionate width. The ROM ore raised is to be processed by using dry screening and crossing to produce ores of different grade. The mine is to be worked in general shift during day light hours. Iron Ore of different sizes like 5-18mm, 10-30mm, 10-40mm & fines will be generated. The crossing and screening is to be done inside the lease area. The low grade fines and the sub grade ore which amounts to 60 % of the total reserve will be beneficiated by the beneficiation plant of 1.0 MTPA. To improve the quality of sub-grade ore a wet beneficiation plant is proposed to be installed with latest technique so as to maximise the recovery with limited use of water. In this process in addition to the gravity separation high magnetic separators will be utilised for effective recovery.

It was reported by the PP, that solid waste generation will be about 98 Lakh m<sup>3</sup> during the life of mine (25 years) which will be entirely utilised for backfilling and reclamation of the area. The waste / tailings will be generated from the proposed beneficiation plant is in dry form which will also be utilised for backfilling/reclamation.

Total water requirement of the mines is about 524m<sup>3</sup>/day. Out of which 464m<sup>3</sup> is required for beneficiation and 60m<sup>3</sup>/day for mining activity. The permission for water extraction has been sought from Department of Water Resource of the State Government and Rs. 2,50,000 have been deposited on 29.01.2013 for using 0.2483 cusec water.

The highest surface level of the mining is 840m AMSL and the lowest level of the mining lease 705m AMSL. The upper surface of the water level is 600m AMSL. The ultimate depth of the quarry will be 792m AMSL. The ground water is at a depth of 192m below the highest depth of working so, there will be no intersection of ground water.

It was reported by the PP that there is no Wild Life Sanctuary/Tiger Reserve/National Park/Schedule I species etc. from 10 km of the mine lease boundary. The Project site is located 3.2km South from the Sarkunda RF, Tohra RF is at 2.8 km North West, Khajurdih is at 8.5 km South-East; Kathmal RF is at a distance of 7.9 km North-North East.

Baseline studies were carried out during winter season November' 2010 to January' 2011. All the parameters for air quality, water quality, noise and soil were reported to be within permissible limits. The Public Hearing for the Proposed Project was conducted at Tantra Village on 12.10.2012. The PH was supervised & presided by Sri Sidheswar Naik, OAS-I (JB), Project Administrator, I.T.D.A., Bonai. The proponent

informed that the President of the public hearing is of the level of ADM as per EIA Notification, 2006. The issues raised during public hearing were also considered and discussed during the meeting, which inter-alia, included that there should not be any discharge of effluent from the mine lease area, air pollution control measures to be adopted, raising of plantation, sprinkling of water etc. As per the villager's requirements, it was informed by the PP that they would support construction of village roads, local employment; health issues, providing education, and assistance in vocational training etc. These have been incorporated in the Project Plan with budgetary provisions.

The capital cost of the proposed project is about Rs.13.95 crores where as the recurring cost is about Rs. 0.05 crores per annum. The capital cost for implementation of EMP in the proposed project will be about Rs. 0.50 crores with a recurring cost of Rs. 0.05 crores per annum. It was reported by the PP that there is no court case/litigation pending against the project and no violation.

After detailed deliberation and discussions the Committee decided to **defer the proposal** to be brought back to the Committee after the following information is submitted:

- (i) Certified Compliance report of R.O. shall be submitted.
- (ii) A detailed study on the traffic density and load shall be submitted.

**(2.4).Yadwad Limestone Mines of M/s Dalmia Cement (Bharat) Ltd., Village Yadwad and Kunnal, Distt. Belgaum Karnataka (1157.26ha)(4.30 MTPA) (Consultant: M/s B.S. Envi Tech Pvt. Ltd., Hyderabad)-Environmental clearance.**

The proposed project is located at Yadwad (Gokak) & Kunnal (Ramdurg) Village, Gokak & Ramdurg Tehsil, Belgaum District, Karnataka. The Mining lease area falls on Survey of India Toposheet No. 47P/4 bounded by the co-ordinates, Latitudes: N 16°09'58" - 16°13'21"; Longitudes: E 75°10'43" - 75°12'11". The proposal was considered by the Expert Appraisal Committee in its Meeting held during 8-9<sup>th</sup> April, 2009 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. MoEF prescribed the TOR for the proposed project vide letter no. J-11015/36/2009-IA.II dated 30<sup>th</sup> April 2009. The same TOR was reiterated by MoEF with increased lease area (1228.63 ha) vide letter no F.No.J-11015/36/2009-IA.II(M) dated 13.07.2012 with validity till 12.07.2014.

The proposed project is a captive mine for DCBL's cement plant being established near Yadwad Village, Gokak Taluk, Belgaum District, Karnataka. Area of the mining lease is 1228.63 Ha. The entire area is non-forestland. As per the revenue record, Patta lands: 1162.58 ha and Govt. land: 66.05 ha. The land use pattern of the core zone is Agricultural land 1158.89 ha, Roads: 3.69 ha and Water Body: 66.05 ha. The Mining plan is approved by IBM vide Letter MP/BLG/GOA – (KNT)/LST – 278 – SZ/1032 dated 12.07.2013 for 1223.78 ha.

The mine working will be carried out by conventional opencast fully mechanized mining method. The mining will involve drilling, blasting, loading and transportation of the excavated material. The height of the benches will be maintained at about 9.0 m. The diameter of drill hole will be approx 150 mm. Deep hole blasting will be carried out with slurry explosives/ANFO. Electric delay detonators with detonating fuse will be used. Non-electric initiation system (NoNel) of blasting with shock tube detonators in combination with noise trunk delays will also be used.

The total estimated mineable reserves are 69.14 million tonnes. Life of mine is approximately 19 years at the proposed rated production of about 4.3 MTPA. A total of 8.45 million m<sup>3</sup> of reject including topsoil will be handled during the life of the mine. About 7.1 million m<sup>3</sup> of reject generated will be used for backfilling an area of 24 ha to an average height of 30 m.

The requirement of water in the mine will be approximately 500 m<sup>3</sup>/day. This requirement is proposed to be met from the resource of the integrated cement plant/water harvesting of mine pit after development. Mining is envisaged upto a depth of 39 m bgl (548 m RL) and will not intersect the ground water table as the general water table in the area is at a depth of about 120 m below ground level (bgl). Hydrogeology study has been carried out by M/s Hydro Geo Survey Consultant, Jodhpur.

It was reported by the project proponent that there are no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors or Tiger/Elephant Reserves within 10 km of the mine lease and there are no Schedule – I species recorded in the study area.

Baseline studies were carried out during post monsoon season (September-November) 2012. The Public Hearing for the project was conducted in survey no. 365 and 369 of mining area, 0.5 kilometer from Hosakote road, Yadwad village, Gokak Taluk, Belgaum District, Karnataka on 20.09.2013. The Public Hearing was conducted under the Chairmanship of Shri N. Jairam, Deputy Commissioner and District Magistrate, Belgaum District. The issues raised during public hearing were also considered and discussed during the meeting which inter alia, included cement plant construction, land acquisition/compensation, employment and CSR activities. A budgetary provision of Rs. 275 lakhs has been made under CSR to meet the requirements raised during PH. The Capital cost of the proposed project is Rs 72 Crores. An amount of Rs. 30 Lakhs is earmarked for implementation of the environmental management plan. Recurring Cost for Environment protection is estimated to be Rs 11.20 Lakhs per annum.

Pursuant to Karnataka Gazette Notification No DMG/AML/ADV/07-08 dated 18.01.2007 and 22.05.2007, application of DCBL is considered for grant of ML over 1228.63ha. Smt. Shobha Chikkud, applied over an area of 4.85 ha for limestone mineral covering the above notified area and a grant notification was issued. The Hon'ble High Court passed an order on 04.10.2009 directing DMG to execute the lease which was challenged by DCBL before Hon'ble High Court. The Hon'ble High Court, in its interim, ordered to maintain status-quo until final orders.

As per the DMG's letter no. DMG:MLS:384 AML 07: 11-12/13834 dated 24.02.2012, mining plan for 1228.63 ha mine was prepared and submitted to IBM on 24.05.2012 for approval. However, based on a subsequent communication from DMG to IBM vide letter no DMG:MLS/Supt/2012-13 dated 27.05.2013, the mining plan is approved for the area 1223.78 ha excluding the area under litigation which is pending before Hon'ble High Court of Karnataka.

After detailed deliberation and discussions the Committee decided to **defer the proposal** to be brought back to the Committee after the following information is submitted:

- (i) A plan for maintaining 60 meter barrier either side from Doda Halla Nalla with protection measures like green belt etc.

- (ii) There is inconsistency in 'Total Area' mentioned in TOR, PH and EIA report; clarification on limestone production capacity 4.734 MTPA or 4.3 MTPA and mine lease area 1228.63 or 1223.78 ha.
- (iii) Legal status of lease area and the court case pertaining to the part of the lease.
- (iv) Submission of Certified and translated copy of Letter of MLA of the Taluk in English Language.
- (v) Baseline data of post monsoon season for month of October-December should.
- (vi) Permission for withdrawal of Water from Ghatprabha River.
- (vii) R&R Plan with respect to private homestead and agriculture land.

**(2.5).Sand, Stone and Bajri of M/s Krishna Stone Crusher located at village Riyali Tehsil Fatehpur, District Kangra, H.P. (13-00-76ha) (Capacity: 50,000MTPA) (Consultant: IDMA Laboratories Ltd., Haryana) Environmental clearance.**

The proposed mining site is located near the Beas River on its old terrace falling in Mauza Riyali, Tahsil Fatehpur, and District Kangra of Himachal Pradesh. The Latitude and Longitude of the site is: Latitude: 32° 01' 21.2" N to 32° 01' 11.6" N; Longitude- 75° 48' 38.9" E to 75° 48' 38"E. The proposal was considered by the Expert Appraisal Committee in its Meeting held during 25<sup>th</sup>-27<sup>th</sup> April, 2011 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TORs were issued by MoEF vide letter no. J-11015/20/2011-IA.II (M) Dated 20<sup>th</sup> May, 2011.

The mine lease area is 13.0076ha which a private owned land. Mine lease has been granted on dated 16-3-2010 vides Letter no. order no. Udyog – Bhu (Khani - 4) Laghu – 289/08 – 8946 dated 18- 11- 2009 and mining plan approved by State Mining Department, Himachal on 06.09.2012. It is reported by the Project Proponent (PP) that the mining will be open cast manual. The project is confined to extraction of sand, stone & bajri from the terrace of river Beas. Sand mining will be carried out up to a depth of 2 m below ground level, by using hand tools like shovel, pan, and sieve etc. No Drilling, blasting and mining machinery shall be deployed. It is reported by the PP that Total Geological Reserves are about 8, 77,500 Metric Tonnes and Movable Reserve 3, 78,000 Metric Tonnes. The life of mine is 7.6 Years.

The material is sorted manually at mining site and sand is separated from stone and bajri. Stone and bajri shall be transported to the crusher for crushing and Sand will be sale in the open market. Mining will be carried out only during day time and will be completely stopped during the Monsoon season. Silt & clay generated during the mining process will be treated as waste. This will be used as a spread on areas along the peripheral safety zone and waste dumps indicated in mining plan, for plantation purpose. It was reported by the PP, that solid waste generation will be 34,400 tonnes during mining plan period, tailings is 26,500 tonnes silt and 7,900 tonnes clay within the project area.

It was reported by the PP that the water requirement for the mining activity such as water sprinkling on the haulage roads and green belt development will be met from local



water bodies by tankers and drinking water will be provided by bore well present at the crusher site. Total water required an average 1.5 KLD and 2.3 KLD during peak demand of water. As, per working cum environmental plan the working will not intersect the ground water table.

It was reported by the project proponent that no national Parks , Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) with in 10 km of mine lease. However, schedule I species is found in study area.

Baseline studies were carried out during non monsoon season (March-May) 2011. All the parameters for water and air quality were found to be with Permissible limits. The Public Hearing for the Proposed Project was conducted at Village: Riyali on 14.05.2013. The PH was chaired by Mr. R.K. Sharma, Additional Deputy Collector (ADC), Kangra. The proponent informed that the chairman of the public hearing is of the level of ADM as per EIA Notification, 2006. The issues raised during public hearing were also considered and discussed during the meeting, which inter-alia, included that there should not be any traffic congestions, air pollution control measures shall be adopted by carrying out plantation, sprinkling of water etc. As per the villager's requirements, it was informed by the PP that they would give preference to locals for employment; health issues and providing education etc. These have been incorporated in the Project Plan with budgetary provisions.

The cost of the project is Rs. 6.2 lakh. Project proponent informed that 1.95 Lakh capital cost & 1.08 lakh for Environmental protection measures and CSR activity. It was reported by the PP that there is no court case/litigation pending against the project and no violation.

After detailed deliberation and discussions the Committee decided to **defer the proposal** to be brought back to the Committee after the following information is submitted:

- (i) The meteorological data collected for the proposal is same as of other three proposals, therefore one month baseline data shall be collected afresh and submitted.
- (ii) Site specific conservation plan for the Schedule-I species shall be submitted with budgetary provisions.
- (iii) Details regarding occupational health and CSR plan shall be submitted.
- (iv) Information on geological reserves based on UNFC classification shall be provided.
- (v) Revised 'Questionnaire' shall be submitted.
- (vi) Flood details for last 5 years shall be provided.
- (vii) Details of number of crushers located in study area and impact of crushers on nearby agriculture land and mitigation measures proposed shall be furnished.
- (viii) Details of court case, if any, shall be submitted.

**(2.6).Metabodeli Iron Ore Mining Project with production capacity of 0.20 MTPA of M/s Jayswal Neco Industries Ltd. located at Pakhanjur, District Kanker, Chattisgarh (50.00ha) (Consultant: Srushti Sewa, Nagpur) Re-consideration of Environmental Clearance.**

The Proposal was considered by the Expert Appraisal Committee in its meeting held during 3-4th February, 2009 for prescribing TOR. The TORs were issued by MoEF vide letter No. J-11015/512/2008-IA.II(M) dated 25th February,2009. The Proposal is for production of 0.20 MTPA iron ore from 50.00 ha mine lease area. The mine lease is located adjacent to another lease of the proponent measuring 25.0 ha, for which environmental clearance has already been obtained. The two leases will be amalgamated in future. The proposal is for iron ore mining for captive consumption of its Siltara Integrated Steel Plant located 250 kms away from the mine. Total lease area is forest land. Out of total lease area 40.00 ha will be excavated; an area of 5.00 ha will be kept for waste dump, 1.00 ha for infrastructure, 2.00 ha for roads etc. Method of mining will be semi-mechanised.

The mineable reserve is 3.79 MT. Life of mine is 13 years. The iron ore presence is in highest contour of 540 m MSL and which continues upto contour level of 420 m MSL, hence the ore is continuous i.e. upto a contour level of 420 m. Ground water table is at 390 m above MSL. There will be no groundwater intersection. Water requirement will be 80 KLD, which will be met from ground and surface water. As stated by PP, there is no National Park/Sanctuary located within 10 km radius of the Project site and also no relocation and rehabilitation of population will be involved. Cost of the Project is Rs. 7.5 Crores.

In accordance to the TOR issued by MoEF, the Proponent submitted an EIA/EMP Report to the Ministry vide letter No. JNIL/SPD/MINE/2010-150 dated 28.07.2010. The Proposal was considered by the Committee in its meeting held during 20-22 October, 2010 for environmental clearance. Based on the presentation made and discussions held Committee sought following additional information:

- (i) The BHQ area should not be used for dumping and accordingly the mine plan should be revised.
- (ii) The Mine Plan/Life of the mine should be supported by adequate exploration/reserve estimates.
- (iii) The EIA should be for the lease period/conceptual period.
- (iv) Detailed biological studies should be carried out.
- (v) A plan for welfare of tribal population to be submitted.
- (vi) Wildlife Conservation Plan should be provided.
- (vii) Common facilities of the adjoining mine should be integrated in approved mine plan.
- (viii) The impact of the mining on the river near ML area to be provided.
- (ix) Necessary forest clearance should be obtained.

It was decided that the Proposal may be brought back after requisite information as above is submitted. The Proposal was further placed before the EAC in its meeting held during 25-27th April, 2011. The Proposal was deferred because the Proponent did not attend the meeting. On request of PP the project was further considered in EAC meeting held during April 16-18 2013. It was informed by PP that with regard to Forest clearance the proposal vide letter No. F-5-15/2010/10-2 dated 04.01.2013 from

Department of Forest, State Govt of Chhattisgarh has been forwarded to MoEF for necessary forest clearance.

During the meeting PP clarified/informed:

- (i) The BHO area will not be used for dumping waste. The waste material/rejects generated in the mining operation will be back-filled in the fully excavated float ore area. The mining plan has been revised and approved by IBM accordingly on 10-01-2012.
- (ii) Since the complete leasehold area falls in forest land, therefore minimum exploration has been done to avoid damages to forest area. However, it is was proposed to drill 27 no. of boreholes and 11 no. of pits conforming to the requirements of UNFC classification as directed by Indian Bureau of Mines during the first year of operation itself.
- (iii) EIA has been prepared for the entire lease period i.e 30 years.
- (iv) Detailed report on the Biological survey and conservation plan prepared by Professor M. L. Naik was submitted.
- (v) A Tribal Development Plan is included in EIA/EMP report. The company has already taken up the Tribal Developmental Program under the CSR activities such as:
  - a. ITI training – 24 Tribal Males
  - b. Nursing Training – 10 Tribal Female
  - c. Medical Check up and distribution of free medicines
  - d. Income Generation Programs like bee keeping
  - e. Road – 28 km
  - f. Drinking water facility – 12 hand pumps in 5 villages
  - g. Cultural and Sports programs
- (vi) The Wildlife Conservation Plan prepared in consultation with DFO, West Bhanupratappur Division District Kanker Chhattisgarh has been incorporated in EIA report.
- (vii) The common facilities such as explosive magazine, rest shelter, urinals, approach road, canteen etc. has been is proposed to be used by both the mines. The same has been incorporated in revised approved mining plan.
- (viii) The impact of mining along with mitigating measures on drainages is incorporated in EIA report.
- (ix) The State Govt. of Chhattisgarh forwarded application to MoEF for necessary forest clearance.

Based on the information furnished, presentation made and discussions held, the Committee recommended the Project for environmental clearance subject to submission of the Wildlife Conservation Plan prepared by State Govt. and the following additional conditions: (i) The PP shall relocate the Over Burden dumping in the mine lease area based on the availability of reserves found on further exploration after the FC is granted. This is to ensure that O.B. is not dumped on mineral bearing area, (ii) Extra care for controlling of storm water shall be done, (iii) Paved drainage management and detailed water management plan shall be worked out before starting any mining activity.

On submission of Wildlife Conservation Plan project was again placed in EAC meeting during 25<sup>th</sup> -27<sup>th</sup> September 2013. The proposal was deferred as the Proponent did not attend the meeting. On request of PP the project was further considered in present EAC. The conservation plan was discussed during the meeting and it was informed by the PP that diversion of 57 ha of protected forest land has been granted by MoEF vide letter No. F. No. 8-16/2013-FC dated 22.10.2013. Based on discussion held the Committee **recommended** the Project for grant of environmental clearance with the following additional conditions: (i) The PP shall relocate the Over Burden dumping in the mine lease area based on the availability of reserves found on further exploration after the FC is granted. This is to ensure that O.B. is not dumped on mineral bearing area, (ii) Extra care for controlling of storm water shall be taken, (iii) Paved drainage management and detailed water management plan shall be worked out before starting any mining activity

**(2.7).Mining of Chrome Ore and Beneficiation Plant of M/S JSL Ltd., located at village - kaliapanim, District Jajpur, Orissa (89.00ha) (enhancing the capacity of COBP plant from 36,000 TPA to 60,000TPA; Existing capacity being 1,00,000 TPA of Chromite ore and 36,000 TPA COBP plant) ( Consultant: Srushti Sewa, Nagpur)-Re-consideration of Environmental Clearance.**

The proposal is for enhancement of production capacity of Chrome Ore Beneficiation Plant (COBP) from 36,000 TPA to 60,000 TPA by M/s Jindal Stainless Limited, located at village Kaliapani & Forest Block 27, Tehsil Sukinda, District Jajpur, Odisha. The Latitude and Longitude of the site is 21° 01' 12" N to 21° 02' 46" N and 85° 45' 42" E to 85° 47' 16" E.

The proposal along with "enhancement of production of chrome ore from 0.1 million TPA to 0.215 million TPA" was considered by the Expert Appraisal Committee in its meeting held during 20-22<sup>nd</sup> January, 2010 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TORs were issued by MoEF vide letter no. J-11015/369/2009-IA.II(M) dated 15<sup>th</sup> February, 2010.

The mine lease area is 89.00 ha, which include 24.24 ha of forestland. 22.80 ha of forest land was diverted vide letter no.8-68/2000-FC/2327(F), dated 5<sup>th</sup> July,2001 from MoEF (F C Division). The Mining Scheme is approved by IBM vide Letter No. 314(3)/2011-MCCM(CZ)/MS-58, dt. 02.05.2012 and is valid till 31<sup>st</sup> March, 2017. The earlier EC was granted by MoEF for production capacity of 0.10 MTPA of chrome ore vide letter no. J-11015/12/2000-IA.II(M) dated 13.02.2001 and further additional conditions were stipulated to the project vide letter dated 16.11.2009.

The method of mining will continue to be open cast as mentioned in the prior EC granted on 13.02.2001. JSL has already been operating a chrome ore beneficiation plant since 2003, with an annual capacity of producing 36000 tonnes of chrome concentrate and had accumulated considerable quantity of tailing assaying around 20% Cr<sub>2</sub>O<sub>3</sub>. During the mining of the ferruginous chromite ore having Cr<sub>2</sub>O<sub>3</sub> of around 28-30% (for the existing beneficiation plant) a considerable quantity of very low grade material containing Cr<sub>2</sub>O<sub>3</sub> of around 15% is produced incidentally and staked separately. Keeping in view the conservation of mineral, JSL approached Institute of Mineral and Material Technology (IMMT), Bhubaneswar, to develop a commercially viable beneficiation technology to recover the chrome values from such very low grade ore/tailings.

Based on the laboratory investigations carried out by IMMT, Bhubaneswar during 2007, on the COBP tailings and very low grade ore, a common process flow-sheet was developed. The developed beneficiation technology includes both tabling and froth flotation process. The new plant (COBP2) will run at a feed rate of 20 TPH and a feed grade of 17 to 19% Cr<sub>2</sub>O<sub>3</sub>. The output (Chrome Concentrate) will be 4 TPH. The concentrate and tailing grade will be +46% and less than 10% Cr<sub>2</sub>O<sub>3</sub> respectively.

Solid waste generation will be 43,36,225 cum during the current mining scheme period, tailings with less than the threshold value will be 2,25,000 Cum. The solid waste and tailings will be dumped in the existing dump and partly backfilling of the mined out quarry. Water requirement for both COBP1 and COBP2 will be 600 M<sup>3</sup>/day which will be met with from the pit water. 85 m<sup>3</sup>/day of fresh water will be required for which approval from Central Ground Water Authority has been sought.

In accordance to the TORs issued by MoEF, baseline studies were carried out during winter season from December, 2009 to February, 2010. Further, as suggested by the EAC in its meeting held during January 19 -21, 2011. The Public Hearing was conducted at Kaliapani Village on 31.08.2010. The PH was chaired by Sri Srikanta Nayak, Additional District Magistrate, Jajpur. The issues raised during public hearing were also considered and discussed during the meeting, which inter-alia, included that there should be an ETP of adequate size, prevention of pollution caused due to dust from the mining activity, Mine discharge water on cultivation purpose after treatment instead of directly discharging to the Nallah, Regular Water Sprinkling for dust suppression at haulage roads and approach to the Mine, Provision of Common fund for health care / hospital facilities / Ambulance for the local people, Priority to Local people for Employment in Mines, Infrastructural development facilities for nearby Anganbadi school, etc., Construction of Pucca Road /Repair of Roads near the mine. As per the villager's requirements, it was informed by the PP that they would give preference to local employment and take initiatives for peripheral development, occupational health and other issues concerning environment.

The estimated capital cost of the project is Rs 13.25 crores. There is no court case/litigation pending against the project and no violation.

The proposal was placed in the EAC meeting held during January 19 -21, 2011 the Committee sought following additional information:

- (i) The details of the land acquired / to be acquired outside the mine lease area for any activity of the project should be furnished. It should inter-alia include, extent of land, its ownership, its land use, the modus of acquisition, the purpose for which it will be utilized, distance from the mine lease, R&R involved, if any etc. It may also clearly be shown whether it has been reflected in the approved mine plan. The mine plan should take into account the total area of the land to be utilized in the project.
- (ii) It may be clarified whether any forestry clearance is required for the forestland in the safety zone. The confirmation in this regard from the competent authority should be provided.
- (iii) The AAQ data for one month should collect afresh and the data so collected should be compared with the already collected data.
- (iv) The water balance taking into account the total water requirement for the project, its source, recirculation and reuse of water, rainwater harvesting proposed, if any, should be provided.

- (v) The approval from the competent authority regarding pumping of groundwater should be provided.
- (vi) Report of the detailed hydro-geological study reported to have been carried out should be provided.
- (vii) In the details of the first order streams passing through the mine lease area which are likely to be affected due to the project and its impact on the hydrology of the area should be given.
- (viii) Analysis of water quality with specific reference to chromium content should be carried out through an accredited lab and results furnished.
- (ix) Quantity of waste to be generated and its management with specific reference to the number of dumps, their height, location and area should be given.
- (x) Details of tailing pond in term of its location with respect to COB plant, area, adequacy for the life of the plant keeping in view the quantity of tailing to be generated along with its closure plan should be given.
- (xi) Details of ETP along with analysis of treated effluents to be generated should be provided.
- (xii) The detailed biological study as per TOR no (xxviii) be redone and details furnished.
- (xiii) Action plan to address the issues raised during public hearing should be given.
- (xiv) Occupational health impacts and their mitigation based on identification of hazards especially with regard to Hexavalent chromium (Cr<sup>+6</sup>) should be given.
- (xv) Details of EMP cost and CSR should be given separately.

On submission of the information, the proposal was reconsidered in the present meeting. The PP has submitted following point wise reply:

- (i) Not Applicable: (Presently at this time, we are requesting to consider the expansion only for Chrome Ore Beneficiation Plant-2 (COBP-2). Mining expansion would be considered at latter stage after obtaining the required land with a fresh application for Environmental Clearance)
- (ii) As per the Forest (Conservation) amendment Rules, 2004 (published in Gazette of India: Extraordinary on 3rd February, 2004 and Corrigendum on 9th February, 2004). Safety Zone for mining operation.

Para 4.11 says "Forest area required for safety zone for mining operations should not be part of the forest area proposed for diversion. However, it should be indicated separately in the proposal. Such area will have to be fenced at the cost of the project authority. Further, project authority will have to deposit funds with the Forest Department for the protection and regeneration of such safety zone area and also will have to bear the cost of afforestation over one and a half times of the safety zone area in degraded forest elsewhere. (See Annexure-xxiv)"

In view of the above, forest clearance is not required for the forestland in the safety zone.

- (iii) PP had collected one month AAQ data of the lease and buffer zone for the month of February –March 2011 and it is found that except the lease area

where some variation observed in PM<sub>10</sub> ranging maximum to 17 mg/m<sup>3</sup>, rest all the data are almost equivalent to the previous data.

- (iv) The water balance taking into account the total requirement of water for the project, its source, recirculation and reuse of water and the report on rainwater harvesting was submitted.
- (v) The approval /NOC for with drawl of 1030 cum/day from CGWA vide letter no. 21-4(246)/SER/CGWA/2010-2492 dated 03.11.2010.
- (vi) A hydro –geological report was submitted.
- (vii) There are no streams passing or laying inside the lease area. One seasonal drain generated nearby the eastern boundary shall be utilized for the mining activity. However, the downstream user will not be affected due to mining. It may have positive impact by pouring the treated mine pit water into it, by which they may be benefited.
- (viii) The water sample from Damsala nala (both upstream & downstream) and nearby surface water body has been collected and analyzed at M/s IMMT(CSIR Laboratory), Bhubaneswar. From the analysis report, it is observed that the result are well within the permissible limits for inland surface water.
- (ix) Not Applicable, as presently the Mines capacity expansion proposal is dropped.
- (x) The tailing ponds are very big in size to accommodate Minimum 15 days of tailings and water. Since both the tailing ponds will be alternatively used, each being used for one month and cleared in the immediate following month. Hence, capacity of ponds will be more than adequate, with which proposed Chrome Ore Beneficiation Plant-2 (COBP-2) can be operated without any difficulty.
- (xi) Water from mine pit is pumped to a common pucca setting/ receiving tank. Then, the water is channelized to the treatment plant through a pucca drain. A PVC tank containing FeSO<sub>4</sub> solution and a PVC tank containing alkali is placed on effluent discharge channel. Estimated quantity of FeSO<sub>4</sub> solution is continuously added and gets mixed with effluent by passing through mixing chamber comprising multiple baffles (concert Cr<sup>+6</sup> to Cr<sup>+3</sup> as Cr(OH)<sub>3</sub> 2Fe(OH)<sub>3</sub>. This is removed as sludge in the sedimentation tank through sludge removal & later is disposed to waste dump. Then water passes through the clarifier, where a special type of biological species (floating plants) will be cultivated which will act as a bio-filter for certain heavy metals along with any remaining traces of Cr<sup>+6</sup>. Analysis report of treated effluent was also submitted.
- (xii) The biological study was carried out during the month of February 2011. Study was carried out in both core and buffer zones. The lease area of 89 ha is considered as core zone and the area around 10km. radius of the core zone over 314 Sq. Km. considered as buffer zone. For the study squares (15 m × 15m) are indentified in grid interval of 500 m and enlisted each and every flora and fauna. For the core zone 4 plots were taken for the study. The secondary data source such as consultation with local villagers

for the nocturnal movement of animals was referred. No Schedule-I fauna is found in the study area.

- (xiii) The list of authenticated flora and fauna from DFO, Cuttack was submitted.
- (xiv) An action plan to addressing the issues raised by the public was submitted.
- (xv) As per the National Institute for occupational Safety and Health (NIOSH), occupational health related to hexavalent chromium are lungs cancer, eye contact with chromic acid, reparatory tract irritation, skin ulcer (prolonged skin contact).

As per report of PME conducted for our employees during 2011 do not show any evidence of hexavalent chromium related diseases. Few MPE reports are enclosed as Annexure-I. The test reports of urine of our chromite mines workers (enclosed as Annexure-J) do not reflect presence of Hexavalent chromium in the urine and hence no such types of diseases are inferred. Chromium present in chromites ore is not originally hexavalent, but the high temperature involved in the process result in oxidation the convert the trivalent chromium to hexavalent chromium. Major industrial sources of hexavalent chromium are chromate pigments (dyes & paints), chrome plating, particle released during smelting of ferrochrome ore, fume from welding stainless steel, impurities present in Portland cement. Hexavalent chromium in the present context found in water only, which ranges from 0.029 to 0.045 mg/l in surface water source. there are several ways to educe exposure to hexavalent chromium varying from operation to operation. The profound approach to reduce the hexavalent chromium in water is chemical treatment. The effluent treatment plant is being operated at mine site based on know-how from NEERI, Nagpur.

After detailed deliberation and discussions the Committee decided to **defer the proposal** to be brought back to the Committee after the following information is submitted:

- (i) Clarification as to why 3 years time was required (for submission of information sought by EAC in its meeting held during January 19 -21, 2011) shall be given.
- (ii) Fresh baseline data for the one month shall be collected and re-submitted.
- (iii) Certified Compliance report of earlier EC from R.O. including compliance to air and water consents shall be submitted.
- (iv) The mining of dump shall be incorporated into the mine scheme and approval shall be taken from IBM.
- (v) Low grade chrome ore utilization potential and proposal for R&D study shall be submitted.
- (vi) Point wise details of action plan on public hearing comments/suggestions shall be provided.
- (vii) A report on studies (R&D, pilot) done for extraction of Ni from Ni bearing waste shall be given.

**(2.8). Sukinda Mines of M/s Indian Metals & Ferro Alloys Ltd located at village kaliapani, Tahasil - Sukinda, District - Jajpur, Odisha(116.76ha)(3.51 LTPA ROM Chromite) (Consultant: Bhagavathi Ana Labs Ltd.)-Amendment to Environmental Clearance.**



The Proposal is for extension of Environmental Clearance (EC) Validity from 01.04.2014 to 03.09.2029 for 3.51 LTPA Chrome Ore (116.76 Hacts), keeping the same level of Production and Mine Lease area as there is no increase in area, production capacity & also no change in technology.

Sukinda (Opencast) Chromite Mine is located at village: Kaliapani, Sukinda Taluk, Jajpur District, Odisha. Point-wise compliance of prior EC has been submitted to MoEF, vide Letter. No: IMFA/SMC/13/2321, Dated 19.11.2013. The mining lease area is 116.76 ha which is Govt waste land. The lease has been granted up to 03.09.2029. The scheme of mining for the period 2014-15 to 2018-19 has been approved by IBM vide letter no: 314(3)/2012-MCCM(CZ)/MS-56, dated: 31<sup>st</sup> July 2013.

The mining lease consists of two Bands, namely Band I & Band II. Heavy Earth Moving Machineries and deep hole blasting has been adopted for mining. At present, open pit mining is in progress in Band I and the current extraction rate is 3.51 LTPA. The opencast mining in Band-I will continue upto 2019-20 when the ultimate pit limit reaches 30mRL. After that opencast mining in Band II shall be commenced. Opencast mining in Band II shall be continued upto 2025-26 when it's ultimate pit limit reaches 46mRL. No beneficiation is proposed. During the period from 2014-15 to 2018-19, approx. 33.75 Lakh CuM of overburden shall be generated. This volume of overburden can be accommodated in the existing dump yard. After 2018-19, the carrying capacity of existing waste dump yard shall be 10.61 Lakh cum. Beyond the proposed scheme period to conceptual end of opencast working in Band I and Band II, it is calculated that approx. 1.87 L CuM of overburden shall be generated during opencast mining of Band I and 67.64 L CuM of overburden during opencast mining of Band II. 1.87 L CuM of overburden to be generated from opencast mining of Band I shall be accommodated in the existing dump yard. Opencast mining of Band II shall generate 67.64 L cum of overburden, out of which 8.74 L cum of overburden shall be accommodated in the existing dump yard and remaining 58.90 L cum of overburden shall be back filled in the mined out areas of Band I. The mined out area of Band I can accommodate about 60.10 L cum of overburden.

The overburden generated is being stacked at earmarked dump site only. The total height of the dump is kept maximum at 60m. The dump consists of three stages, with each stage having 20 m height, so that the overall slope does not exceed 28 degree. The OB dump is vegetated with native species to prevent erosion and surface run off. In critical areas geo textiles, coir matting, grass thatching etc are being adopted to stabilise the dump. Garland drains, retaining walls have been constructed all around the dump yard.

It was reported by PP that there are no wild life sanctuaries, tiger reserves, National Parks etc within 10 km radius of lease area. No schedule - I species are spotted in the mine lease area. In the study area, four horned antelope, mouse deer, great Indian hornbill, common pea fowl and python were spotted. The Wild Life Conservation Plan is prepared & a sum of Rs.23.35 lakh has been deposited with DFO, Cuttack, Govt of Odisha, towards implementation of WMP on 29<sup>th</sup> May 2010. There is no court case / litigation pending against the project.

The Proposal is for extension of Environmental Clearance (EC) Validity from 01.04.2014 to 03.09.2029 for 3.51 LTPA Chrome Ore (116.76 ha), keeping the same level of Production and Mine Lease area as there is no increase in area, production

capacity & also no change in technology.

Environmental Clearance for production of 3.51 LTPA by opencast method was approved vide letter no. J-11015/346/2007-IA.II (M) dated 18<sup>th</sup> June 2008 for a period up to March 2012 with a special condition for submission of approved Mining Plan for working beyond March 2012. The Ministry of Environment & Forest had accorded extension of Environmental Clearance vide letter No. J-11015/346/2007-IA.II(M) dated 22<sup>nd</sup> May 2012, for continuation of production of 3.51Lakh Tonnes Per Annum (LTPA) of Chromite ore by opencast method for captive use up to 31<sup>st</sup> March 2014.

For considering grant of Environmental Clearance beyond March 2014, MoEF had sought firmed up proposals for management of overburden / waste and which is to be reflected in the Mine Plan / Mine Scheme. In this regard, PP informed that approval of Mine Scheme from IBM has been obtained with the compliance of the modified special condition.

PP informed that common boundary dumping along with firmed up proposal of management of OB/waste for whole life of opencast mine has been incorporated in the 3rd Scheme of Mining (2014-15 to 2018-19) along with PMCP and has been approved by IBM on 31st July 2013. Permission for dumping of overburden within 7.5 meter of common boundary between Kaliapani Chromite Mine of M/s Balasore Alloys Ltd. (BAL) and Sukinda Mines (Chromite) of M/s IMFA has been granted by DGMS on 13.02.2013. This would facilitate increase of dump capacity by another 14.5 L CuM.

After detailed deliberation and discussions the Committee **recommended** the proposal for extension of EC with the condition that the Monitoring of dump with reference to safety and stability shall be done on six monthly basis and report submitted to the Regional Office of MoEF. All precautions as recommended by DGMS should be implemented. Reclamation plan for dead dump areas should be periodically implemented and report submitted to the Regional Office.

**(2.9) M/s. Mysore Minerals Ltd. located at Nandhihalli, in Arsikere taluk, in Hassan Distt. Karnataka(121.41ha) (Expansion of Production from 0.12LTA to 0.45 LTA Raw Clay (i) 0.01 to 0.0765 LTA china Clay (ii) 0.03 to 0.157 LTA Aluminious Clay (Consultant: M/s Ramky Enviro Engineers Pvt. Ltd.) Amendment of Environmental Clearance.**

The Proposal was **deferred** as the Project Proponent did not attend the meeting.

**(2.10) Manganese mine of M/s K. Sambashiva Rao located at Village Jamdapur Mandal, Distt. Adilabad, Andhra Pradesh. (52.50ha) (Production of 2000 Cum/year)-TOR**

The Proposal was **deferred** as the Project Proponent did not attend the meeting.

**(2.11) Mica Mining of M/s Seetharama Mining Co. located at Turimerla Village, Sydapuram Mandal, SPSR Nellore District, Andhra Pradesh(53.59ha) (Production Capacity Crude Mica (1%) 620.3 TPA, Scrap Mica (7%) 4347.3TPA, Quartz (1%) 775.6TPA, Feldspar (15%) 10,702.3 TPA Waste (76) 23,572.6TPA (Pioneer Enviro Laboratories and Consultant Pvt. Ltd., Hyderabad)-TOR.**

The Mine Lease area is located in Sy. Nos. 295, 296, 300, 490A, 492 to 499, 508 to 512, and 515 to 517, Turimerla Village, Sydapuram Mandal, SPSR Nellore District, Andhra Pradesh. The Mine Lease Area lies between Longitude 79° 43' 17.0" to 79° 43' 59.2" E & Latitude 14° 16' 48.6" to 14° 17' 14.7" N. The Project is located in seismic zone-III. It was reported by PP that no wild life sanctuaries, tiger reserves, National Parks etc are located within 10 km radius of lease area.

It was informed by PP that the underground mining commenced since the year 1956. The underground mining resulted in generation of limited waste dumps which have not masked the surface exposures and surface manifestation of NNW-SSE to near N-S to NNE-SSW trending pegmatite veins. The existing dump occupies an area of 0.60 Ha and the area required during the scheme period is 0.16 Ha which is located at N638–N714 AND E 808 –E835. The maximum height of the dump will be 3 m. The sub grade material dump has been designated at N880-N960 and E890-950.

There was an earlier grant of mining lease under the Madras Mining Manual for a period of 30 years in favour of Shri. D. Narayana Reddy, the founder of Seetharama Mica Mine. Shri. D. Narayana Reddy died in 1947 and the Lease was inherited by his daughters. The controller of the mining lease regularized the above mining lease in such a manner that it had expired on 29/10/1960. First renewal of the mining lease was granted vide G.O.Ms. No. 30 dated 6/1/196 and R.Dist.1051/60. Dated 30/06/1960 for 20 years in favour of the proprietrix smt. A. Sudharsanamma, M. Sulochanamma and A. Jayalakshamma over an extent of at 136.67 Acres. Next lease was transferred in favour of Seetharama Mining Company as per G.O. M.s. NO. 848 and ref. No. RAI No. 11019/72 dated 1/11/1972. The second renewal of the lease was done by G.O. M.s.No.223, dated 1/5/1980 for a period of 20 years. The present management had applied for renewal of the lease on 01/09/1999, one year before the expiry of the lease period. The Government of Andhra Pradesh vide G.O. No. 575 Ind. & Comm. (m.1) Department dated 27/11/2001 has sanctioned 3rd renewal of mining lease duly including Quartz & Feldspar for a further period of 20 years.

It is proposed to commence mining by opencast manually and other than fully mechanized method. At present it is proposed to deploy excavator and wheel loader for removing and loading the mica pegmatite ore and waste rock.

Water required for dust suppression to prevent fugitive dust emissions, greenbelt development and for domestic purpose will be 10 cum/day. The water requirement will be met from the bore well. It is reported by the project proponent that there is no court case/litigation pending against the project. The estimated cost of the project is Rs. 65 Lakhs.

It was noted that this is a case of **violation** of E(P)A, 1986 as mine operated from 2001 onwards without obtaining environmental clearance. Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I with additional TOR (i) Nature of over burden and inter burden shall be analysed and reported.

**(2.12) Silica Sand Mine of M/s Sri Kumaraswamy Silica Mines located at SPSR Nellore District, Andhra Pradesh. (136.944 ha) (Capacity 3.40 TPA) (Consultant: B.S. Envi-Tech(P) Ltd)- TOR.**

The Mine Lease area is a part of the Survey of India Toposheet No. 66/B/4. The site falls between North Latitude 14° 10' 36.19" to 14° 11' 42.511" and East Longitude 80° 03' 09.04" to 80° 04' 02.50" with an average altitude of 08 m above MSL. The proposal is for production of 3,40,000 TPA of Silica Sand from ML of 136.944 ha adopting digging, scooping, spreading, screening, collecting in baskets and Loading in to trucks. Mining lease letter no. G. O. Ms. No. 263 dated 30-07-1998 is valid up to 04-09-2015.

Water requirement is 2m<sup>3</sup>/day (max) and the same will be purchased from local sources. No waste generation from the mine is expected. It is reported by the project proponent that no court case/litigation is pending against the project. It was reported by PP that there are no wild life sanctuaries, tiger reserves, National Parks etc. within 10 km radius of lease area. The estimated Capital Cost of the project is Rs. 10 Lakhs.

It was noted that this is a case of **violation** of E(P)A, 1986 as mine operated from 2005-2013 without obtaining environmental clearance. Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I.

**(2.13). Quartzite Mine of M/s Sri Janardan Singh Proprietor Smt. Shanti Devi, located at village Shitalpur, Post Dariyapur, District Munger, Bihar (6.87 ha) (25,500 TPA) (Consultant: Grass Roots Research & Creation India(P) Ltd.)-TOR**

The Mine Lease area is located at Village Shitalpur, Post Dariyapur, District Munger, Bihar. The Mine Lease area lies between Latitude 25°22'10.00" N to 25°22'15.00" N and 86°31'44.00" E to Longitude 86° 31' 49.00" E. The Project is located in seismic zone-IV. It is 'A' category project due to the location of Bhimbandh Wild Life Sanctuary at distance 1.1 km in ESE direction from mine lease area.

The Mining Lease was granted over an area of 6.87 Ha in Village: Shitalpur, P.O. Dariyapur, District: Munger(Bihar). The proposed rate of production is 25,500 Tonnes per annum of Quartzite. The estimated project cost is Rs.90 lakhs. The expected life of mine is 28 years. Extraction of Quartzite will be done by opencast manual method. Mining plan is approved under letter vide no. Ran./Mun/QTZT/MP-08/2-12-13 dated 19/11/2012.

Total water requirement will be 5.04 KLD. This water will be supplied from the bore well from nearby villages. In the proposed mining scheme, the applicant will utilize western part of the area for dumping soil & sub grade mineral. Before dumping the soil & sub grade mineral in the area, the barrenness of the area will be proved by drilling in the area. It is reported by the project proponent that there is no court case/litigation pending against the project. The estimated cost of the project would be around Rs 90 Lakhs. In addition, there will be annual recurring cost for EMP implementation.

It was noted that this is a case of **violation** of E(P)A, 1986 as mine operated from 2001-2013 without obtaining environmental clearance. Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I.

**(2.14). Quartz mines M/s Geomin Minerals Located at village Chinnapanayunapali, Chandrasekarapurammandal, Prakasar District, Andhra Pradesh (67.113ha) (14.250TPA)- TOR.**

The Mine Lease area is located in Sy. Nos. 9, 10 & 11 (P) of Chinnapanayunipalli Village, Chandrasekarapuram Mandal, Prakasam District, Andhra Pradesh. The point representing Mine Lease Area is Longitude 79° 08' 29.0" E & Latitude 15° 09' 36.2" N. The Project is located in seismic zone-II.

The open cast mining of Quartz is by semi mechanized method with jack hammer drilling and blasting. Major operations are envisaged manually with limited mechanization. The tippers and trucks will be used for transportation of Quartz. The working will be started at top of the deposit right on head of the mineral with minimal side burden removal, and the benches will be pushed by keeping 1.5 M bench height and more than 1.5 M width as per the DGMS stipulations. Drilling and blasting is proposed. It is proposed to extract 14,250 TPA of Silica sand.

About 960m<sup>3</sup> of side burden and 1,425 m<sup>3</sup> of sub-grade quartz is anticipated. This will be stored on the western side of the M.L. area over an area of 9,414m<sup>2</sup> to a height of 0.5m. Industries & Commerce (M. II) Department, Govt. Andhra Pradesh has issued Letter of Intent vide Memo. No. 20289 / M.II-2/98-1 dated 11-12-1998.

Water required for dust suppression to prevent fugitive dust emissions, greenbelt development and for domestic purpose will be 25 cum/day. The water requirement will be met from the ground water. Only source of waste water generation will be sanitary waste water which will be treated in septic tank followed by soak pit

It is reported by the project proponent that there is no court case/litigation is pending against the project. It was reported by PP that there are no wild life sanctuaries, tiger reserves, National Parks etc located within 10 km radius of lease area. The estimated cost of the project is Rs. 30 Lakhs.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I.

**(2.15).Mining of Sand, Stone and Bajri by M/s Nandi Stone Crusher located at village Pali, Tehsil Nurpur, Distt- kangara Himanchal Pradesh (8.64ha)(80000 metric tons /Year)-Extension of Validity of TOR.**

The Proponent received TOR from the MoEF vide letter no. J-11015/213/2011-IA.II (M) dated 28.12.2011, which was valid up to 27.12.2013. The Project Proponent vide Letter dated nil received in the Ministry on 27.12.2013 requested to extend the validity of the TORs. It was informed by PP that public hearing has been held on 11.10.2013 and report of public hearing is still awaited therefore they anticipated delay in submission of final EIA Report to MoEF.

Based on the information furnished and discussions held, the Committee **recommended** extension of the validity of TOR as per MoEF O.M. no. J-11013/41/2006.IA.II(I) dated 22.03.2010 for additional one year i.e. from 27.12.2013 to 27.12.2014.

**(2.16). M/s VSL Mining Company Pvt. Ltd. located at village Nandibandi, Hospet taluk, district Bellary, Karnataka (24.05 acres)(1.6 MTPA) (Consultant: Global Environment and mining Services, Karnataka) -Extension of Validity of TOR.**

The Proponent received TOR from the MoEF vide letter no. J-11015/74/2011-IA.II (M) dated 29.07.2011, which was valid up to 28.07.2013. The Project Proponent vide Letter dated 26.12.2013 requested to extend the validity of the TORs; as the public hearing is not yet conducted and they anticipated delay in submission of final EIA Report to MoEF.

Based on the information furnished and discussions held, the Committee **recommended** extension of the validity of TOR as per MoEF O.M. no. J-11013/41/2006.IA.II(I) dated 22.03.2010 for additional one year i.e. from 28.07.2013 to 28.07.2014.

**(2.17).Renewal of mine lease and enhancement of production from 0.033 million TPA to 0.1 million TPA of limestone (Minor Mineral) by M/s Habibur Rehman, located near village - Borunda, Tehsil – Bilara, District –Jodhpur Rajasthan (100.0 ha)- (Consultant: Enkay Enviro Services Pvt. Ltd.)- EC consideration**

The proposal is of renewal of mine lease and enhancement of production from 0.033 million TPA to 0.1 million TPA of limestone (Minor Mineral). The mine lease is located near village - Borunda, Tehsil – Bilara, District – Jodhpur Rajasthan.

The Terms of Reference (TOR) were issued by the Ministry vide letter no. J-11015/107/2009.IA.II (M), dated 09.07.2009 for undertaking detailed EIA study. The Proponent submitted the EIA/EMP Report to the Ministry for seeking Environmental Clearance after conducting public hearing. The proposal has been earlier considered for Environmental Clearance (EC) in the 20<sup>th</sup> Meeting of Expert Appraisal Committee held during October 19-21, 2011 wherein the consideration of the proposal was deferred at the request of the PP as they are in the process of appointing a new consultant.

The mine lease area is 100.0 ha, out of which 51.32 ha is Govt. waste land and 48.68 ha is private land. The Mining Plan along with Progressive mine closure plan has been approved by SME, Department of Mining and Geology, Jodhpur, Rajasthan vide letter no. 10175-10179/SME/JDR dated 03.07.2013. The mining lease was originally granted in favour of Habibur Rehman and the lease deed was registered on 05.05.1980. The first renewal was granted by State Mining Department vide letter no. F.8 (20)Khan/Gr.2/90 dated 27.08.1990 for the period of 10 years from the date of 05.05.1990. Thereafter, the State Government vide an office order dated 26.08.1996, extended the renewal period for another ten years i.e. up to 04.05.2010. A rider agreement was also signed between the lessee and the State Govt. The second renewal application for 20 years has been submitted for approval before the State Govt. Authorities on dated 04.05.2009. PP informed that the renewal of lease is pending with State Govt. for want of EC.

The mining will be done by open– cast semi-mechanized method. The mining activities will be carried in only one block. The height and width of the benches will be 6.0m and 10-15 m respectively and slope of the faces will be kept at 15° to vertical. Mineral production during the first five year will be 5,00,434 tonnes. The generated

waste of 3,57,280 cum will be utilized to backfill the pit. Backfilling will start after 11<sup>th</sup> year.

Proponent reported that there is no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Wildlife corridor, Tiger/Elephant Reserves etc. exist within the study area (10 km radius of the mining lease boundary). The mine site does not fall in Aravalli Hills and accordingly a confirmation duly authenticated by the State Government has been obtained vide letter dated 28.04.2011.

The Baseline studies were carried out during the Pre-Monsoon Season 2009 (March, April & May, 2009). To confirm the earlier monitoring again, one month monitoring in post- monsoon (October, 2013) was carried out. The Committee noted that the base line data is old and was of the view that the Proponent needs to monitor the fresh base line Ambient Air Quality monitoring data for two months i.e. April-May 2014 and compared with the earlier data and accordingly amend the EIA/EMP report.

The Public Hearing (PH) for the proposed expansion project was conducted on dated 04.05.2010 at Tehsil Head Office, Bilara, District–Jodhpur. The PH was chaired by Shri S. K. Sharma, Additional District Collector, Jodhpur. The representative from SPCB was present. The issues raised during public hearing were discussed during the meeting, which inter-alia, included the priority to local people in employment, blasting, maintenance of plants, CSR activity etc. These have been incorporated in the action plan with budgetary provisions. The Committee noted that the action plan on the issues raised during the PH were not adequate and was of the view that PP needs to submit the action plan on the issues raised in PH with budgetary provisions.

The cost of the project is Rs. 1.0 Crore. The Proponent has earmarked Rs. 6.0 lakhs towards Environmental Protection Measures as capital cost and Rs. 3.0 lakhs as recurring cost. Proponent reported that there is no court case/litigation pending against the project.

The Committee noted that it is a **violation case** as the PP has mined out limestone without prior environmental clearance since 2001-02 to 2012-13. The mine is closed since 31.12.2013. The Committee desired that the actions on violation may be taken as per existing Rules.

After deliberations, the Committee sought the following additional information:

- (i) PP needs to monitor the Ambient Air Quality data for two months i.e. April - May 2014;
- (ii) The Committee noted that the Latitudes and Longitudes are wrongly reported in the documents such as Mine Plan & EIA/EMP Report and PP needs to verify and submit the correct Latitudes and Longitudes;
- (iii) Report on Compliance of consents of Air and water of Rajasthan PCB needs to be submitted;
- (iv) Details of R&R with regard to TOR condition no. 10 to be submitted;
- (v) Revised Questionnaire needs to be submitted w.r.t. S. No. 4 and R&R etc.;

- (vi) Details of plantation proposed and photograph of green belt development; and
- (vii) Details of action plan on the issues raised during PH with budgetary provisions.

The Committee decided to **defer the proposal** to be brought back to the Committee after the aforesaid information is submitted in the form of an Addendum to the EIA/EMP Report.

**(2.18). Samarnaka Quartz and Feldspar mine with production of 1,20,000 TPA of Feldspar and 30,000 TPA of Quartz by M/s Shri Rajendra Kumar Chandaliya, located at village-Samarnaka, District-Rajasamand, Rajasthan. (Consultant: APEX Mintech Consultants, Udaipur, Rajasthan)-Reconsideration of EC**

The proposal of M/s Shri Rajendra Kumar Chandaliya is for opening of new Samarnaka Quartz and Feldspar mine with production of 1,20,000 TPA of Feldspar and 30,000 TPA of Quartz. The mine is located at Village Samarnaka, District-Rajasamand, Rajasthan.

The Terms of Reference (TOR) were issued by the Ministry vide letter no. J-11015/1030/2007.IA.II (M), dated 25.06.2008 for undertaking detailed EIA study. The Proponent submitted the EIA/EMP report to the Ministry for seeking environmental clearance after conducting public hearing. The proposal was earlier considered in the EAC meeting held during October 19-21, 2011 wherein the Committee sought information/clarification. The Proponent has submitted the information vide letter dated 25.11.2013.

The proposal is for opening of a new mine for production of 0.15 million TPA of quartz and feldspar put together (quartz 30,000 TPA and feldspar 1,20,000 TPA). The mine lease area is 42.5910 ha. No forestland is involved. It was reported that Tadgarh Rawoli Wildlife Sanctuary is located within 10 km of the mine lease. The said project was transferred from SEIAA as it becomes category 'A' project due to its location within 10 km of the sanctuary. Life of the mine is 40 years.

Mine working will be opencast semi-mechanized involving drilling and blasting. It is estimated that 8,50,000 m<sup>3</sup> of OB will be generated during the mine life. It was stated that the area does not fall in Aravali. A certificate from Mining Engineer, Govt. of Rajasthan was submitted in this regard. Water requirement for the project is estimated as 8 kld, which will be obtained from surface water and groundwater. The ultimate working depth will be 10 m bgl (650 mRL). The groundwater table is reported to vary between 630 – 635 mRL. Mine working will not intersect groundwater table. At the end of the mine life, an area of 14.9645 ha will be covered under plantation. The baseline AAQ data showed the levels to be within permissible limits. Public hearing has been held on 3.10.2008. The issues raised during public hearing were also considered and discussed during the meeting. It was reported that there is no court case pending against the project.

The Committee in its meeting held during October 19-21, 2011 sought the following information/clarification: -



- (i) Wildlife Conservation Plan should be prepared and submitted.
- (ii) NOC from Chief Wildlife Warden for locating the project within 10 km of the sanctuary.
- (iii) Clearance from Standing Committee of National Board for Wildlife for locating the project within 10 km of the sanctuary.
- (iv) Filled in Questionnaire providing relevant information against each Question.
- (v) Occupational health issues to be addressed properly and details furnished.
- (vi) Coordinates of the site to be rechecked and reconfirmed.

The Proponent has submitted the information vide letter dated 25.11.2013. The Committee deliberated the information submitted by the PP and noted that the applicant submitted conservation plan for getting permission from the Wild Life Department, Govt. of Rajasthan and the proposal was considered in 30<sup>th</sup> meeting of Standing Committee of NBWL. The proposed site is 7 km away from the notified boundary of Todgarh Raoli Wildlife Sanctuary, Rajasthan.

The PP has not filled the Questionnaire adequately with respect to serial no. 4,23,24,30 & 31 and the Committee was of the view that revised Questionnaire to be submitted. The Committee noted that the base line data is old and was of the view that the Proponent needs to monitor fresh base line Ambient Air Quality monitoring data for one month i.e. March 2014 and compared it with the earlier data and accordingly amend the EIA report.

**The deficiencies in the documents particularly not filling the information in the Questionnaire and collecting baseline data without following the guidelines as prescribed was taken seriously by the Committee and the Consultant was advised to prepare the documents for appraisal with due compliance of manuals, standards, Office memoranda and guidelines issued by the Ministry from time to time. The Committee noted that due to such deficiencies, the appraisal of projects is delayed.**

After deliberations, the Committee sought the following additional information: -

- (i) Proponent needs to monitor fresh base line Ambient Air Quality monitoring data for one month i.e. March 2014 and compare it with the earlier data and accordingly amend the EIA Report;
- (ii) The PP has not filled the Questionnaire adequately with respect to serial no. 4,23,24,30 & 31 and the Committee wanted that revised 'Questionnaire' be submitted; and
- (iii) Details of measures to be adopted for Occupational health issues be provided.

The Committee decided to **defer the proposal** to be brought back to the Committee after the aforesaid information is submitted in the form of an Addendum to the EIA/EMP Report.

**(2.19). Renewal of Rakha mining lease and enhancement of production from 0.3 million TPA to 3.0 million TPA of Copper Ore (ROM) by M/s Hindustan Copper Limited, located at village (s) Kumirmuri, Roam, Murgaghutu, Tentuldanga, Matigara, Kulamara, Ichra, Tehsil – Ghatsila, District East Singhbhum, Jharkhand (785.091 ha) (Consultant CEG Ltd. Jaipur, Rajasthan) Reconsideration of EC**

The proposal of M/s Hindustan Copper Limited is for renewal of Rakha Mining Lease and enhancement of production from 0.3 million TPA to 3.0 million TPA of Copper Ore (ROM). The mine lease area is located near village(s) Kumirmuri–Roam–Murgaghutu–Tentuldanga–Matigara–Kulamara–Ichra, Tehsil–Ghatsila, District- East Singhbhum, Jharkhand. The Latitudes and Longitudes of mine lease area are 22° 36' 46''N to 22° 39' 50''N and 86° 21' 19''E to 86° 24' 13''E respectively on the Survey of India Toposheet No. 73 J/6. The proposal was earlier appraised in the EAC meeting held during November 20-22, 2013 wherein the Committee deferred the proposal for want of additional information. The Proponent has submitted the information with regard to wild life conservation plan, Revised Questionnaire, Details of R&R issues and Details of Action plan. Accordingly the proposal is considered in the present meeting.

The proposal was considered by the Expert Appraisal Committee in its meeting held during 23-25 January, 2012 to determine Terms of Reference (TOR) for undertaking detailed EIA study. The TORs was issued by MoEF vide letter no J-11015/269/2011-IA.II (M) dated 28<sup>th</sup> February, 2012. The proponent submitted the EIA/EMP report to the Ministry for seeking environmental clearance after conducting public hearing.

Mine working will be by mechanized underground method using Room and Pillar, Horizontal cut and Fill and Post Pillar stoping method. The Rakha Mining Lease was granted in favour of M/s Hindustan Copper Limited for an area of 785.091 ha and was executed on 29.08.1971. The mining lease validity over an area of 785.091 ha has expired on 28.08.2011 and Hindustan Copper Limited has submitted the application for renewal of Rakha Mining Lease on 26-07-2010 over an area of 785.091. The PP informed that the highest production of copper ore from the lease was 2,77,088 tones, achieved in the year 1992-93. There has not been any increase in production after EIA Notification of 1994. Presently the mine is closed and mine working was suspended w.e.f. 07.07.2001.

Out of the total mine lease area of 785.091, 283.732 ha is Forest land and 501.359 is Non-Forest Land. The stage I Forest diversion permission has been accorded by Ministry of Environment and Forest vide letter no. 8-65/1993-FC dated 17.09.2012 for diversion of 184.80 ha (including 36.90 ha of Forest Land for surface right). Proponent informed that the recommendation for Stage II FC has been forwarded from Govt. of Jharkhand to the Ministry of Environment and Forest for consideration. Application for diversion of remaining forest land has been submitted vide letter no. HCL/ICC/G-14/2013/06 dated 06.08.2013. The expected life of mine will be 20.7 years. Total water requirement of the project will be 330 KLD which will be sourced from recycled mine water.

The baseline data was generated for the period during the summer season for March 2012 to May 2012. The Committee examined the same and deliberated on the impacts arising from the underground mining of base metal ore; and found by and large, the baseline line data collected was within the permissible limits as prescribed by CPCB.

The Public Hearing was conducted on 17<sup>th</sup> November, 2012 under the chairmanship of Additional District Magistrate (Law & Order), East Singhbhum, District, Jharkhand. The representative of Regional Office from Jharkhand State Pollution Control Board was also present. Main issues raised during Public Hearing were related to local employment etc. The Committee discussed the issues raised during public hearing. The Committee was of the view that the PP needs to submit the details of Action plan raised during Public Hearing with budgetary provisions.

It was reported by PP that no National Parks, Wildlife Sanctuaries, Tiger Reserves within 10 km radius of the mining lease boundary. One Schedule I species namely *Python molurus* was reported. Accordingly, a Conservation Plan for Schedule I species has been prepared. The total cost of the project is 516.42 Crores. Proponent reported that there is no court case/ litigation pending against the project.

After deliberations, the Committee in its meeting held during November 20-22, 2013 sought the following information: -

- (i) Revised species specific wild life conservation plan;
- (ii) Revised Questionnaire;
- (iii) List of flora and fauna to be authenticated by Head Quarters of State Forest Department;
- (iv) Details of R&R issues;
- (v) Details of Action plan raised during Public Hearing with budgetary provisions;
- (vi) Details of water quality report w.r.t. S No. 29 of questionnaires; and
- (vii) Status of water approval of 330 KLD.

The Proponent has submitted the information with regard to wild life conservation plan, revised questionnaire, authenticated list of flora and fauna by the Head Quarters of State Forest Department, details of R&R issues and Details of Action plan raised during Public Hearing with budgetary provisions. The Proponent has informed that water approval is under consideration.

The Committee deliberated on the information submitted by the Proponent and based on the presentation made and discussion held, the Committee **recommended** the proposal for environmental clearance for renewal of Rakha Mining Lease and enhancement of production from 0.3 million TPA to 3.0 million TPA of Copper Ore (ROM) with additional specific conditions that (i) mining shall not commence without necessary permissions for drawl of water; (ii) Proponent shall not commence the mining activity with-out dewatering of mine and treatment of water as per prescribed standards; (iii) Continuous monitoring of radioactive elements such as Radon should be undertaken till entire mine is dewatered. Periodic monitoring of any adverse impact of Radon and its daughter products on any worker should be included in the Occupational Health Monitoring Programme; (iv) Mitigation measures such as well-designed ventilation network within underground mine, provision of Personal Protective Equipment should be ensured and necessary training and awareness programs for mine workers should be undertaken; (v) Continuous monitoring of pH of Mine water should be done and Reports furnished; and (vi) The required precautions with respect to Sulphide Ores and Lead should be undertaken.

While EC can be accorded, the Committee was of the view that there are 4-5 mines of the Proponent which were closed and now are in the process of being re-opened. The underground mines are filled with water and treatment and utilization of mined out water is necessary with effluent treatment system of desired capacity and technology. A sub-Committee of EAC comprising the officer of MoEF may visit the sites and submit a report on water treatment, utilization and prospects of achieving zero discharge as a follow up of EC given.

**(2.20). Ramnagar Limestone Deposit with production capacity of 0.25 million TPA by M/s Jaiprakash Associates Ltd., located at village Ramnagar, District-Satna, Madhya Pradesh (169.728ha) (Consultant: Vimta Labs Limited, Hyderabad)- Reconsideration of EC**

The proposal of M/s Jaiprakash Associates Limited proposes to set up limestone mining operation with a production capacity of 0.25 MTPA at Ramnagar village, Rampur Baghelan Tehsil, Satna District, Madhya Pradesh to meet the partial requirement of the existing Jaypee Rewa Cement Plant. The geographical Co-ordinates of the proposed mine lease area lie between Latitudes: 24° 36' 31" N to 24° 37' 36" N and Longitudes: 81°03' 48" E to 81°04'59" E on Toposheet no: 63 H/2, D/14.

The proposal was considered by the Expert Appraisal Committee (Mining) in its meeting held during March 17-19, 2010 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TORs were issued by the Ministry vide letter no. - J-11015/19/2010-IA-II (M), dated 28<sup>th</sup> April 2010. The proponent submitted the EIA/EMP Report to the Ministry for seeking environmental clearance after conducting public hearing.

The proposal was earlier considered by the Expert Appraisal Committee in its meeting held during September 21-23, 2011. The Committee observed that the notice for conduct of public hearing was published in the newspaper on 15.3.2011 for holding the public hearing on 20.4.2011. The public hearing was however, postponed to 23.4.2011 for which the public notice was made in the newspaper on 20.4.2011. In view of the same, the Committee referred back the matter to MoEF for taking a decision regarding validity of public hearing before considering the proposal further. The consideration of the proposal was therefore deferred. In this context, the MoEF has decided that the Public Hearing is not valid in terms of the provisions of the EIA Notification 2006. The Ministry has communicated to the PP vide letter dated 13.03.2012 to conduct the Public Hearing afresh as per the provisions of the EIA Notification 2006. In response to MoEF Letter dated 13<sup>th</sup> March 2012, the Public hearing was re-conducted on 18<sup>th</sup> October 2012 and accordingly, the PP has submitted the revised EIA/EMP Report and the same was received in the Ministry on 03.12.2013.

Total mine lease area is 169.728ha, out of which, 129.977ha is Agricultural land, 8.082ha is waste land and 31.669ha is Govt. land. No forest land is involved. The scheme of mining along with progressive mine closure plan has been approved by Indian Bureau of Mines Central Zone, Ministry of Mines vide letter no. No 314(3)/2007-MCCM(C)/MP-17, dated 10<sup>th</sup> August 2007. The Limestone Mine was allocated to M/s JAL vide ref. no. 3-43/2003/12/1, dated 27<sup>th</sup> August, 2008 from Mineral Resources Department, Government of Madhya Pradesh.

Mining will be done by fully mechanized opencast method. The mining process involves drilling & blasting, loading and transportation of the excavated material. Mineable reserves as per the mine plan are about 15.80 MT with mineral reserves of

about 11.06 MT. The overburden generated for first five years will be about 7.50 Lakh m<sup>3</sup> with a stripping ratio of 1:1.24 (LS to OB). The proposed working will be by putting 100-153 mm dia DTH holes by Wagon drill machine & blasting by ANFO & Booster charge with detonator. Overall pit slope will be 45°. The blasted material will be loaded by Excavator in Dumper of 30 MT & transported to Crushing Plant situated at Jaypee Rewa Cement Plant located at distance of 10.7 km away from the mine.

Proponent reported that the Ultimate working depth of the mine will be 37 m bgl. Mine will be intersecting with ground water table during mining operations. The water requirement for the project is estimated as 75 m<sup>3</sup>/day which will be met from water reservoir developed within the mine-pit. Initially, water will be sourced from the operating Naubasta Mine which is located at 16 km. Recycled water will be used for sprinkling on haulage road for dust suppression.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant Reserves etc. existing within the study area (10 km radius of mining lease boundary). There are four reserve forests in the study area. One schedule-I species i.e. Peafowl was reported within the study area. Conservation plan has been prepared. The Committee noted that the budget is not provided in the conservation plan and was of the view that the PP needs to submit the revised conservation plan with adequate budgetary provisions to protect the schedule-I species.

The baseline data was generated from Pre-monsoon season i.e. March 2010 to May 2010. The basic parameters of environmental attributes air, water, soil and noise are well within the limits as prescribed by the CPCB. The Committee noted that the base line data is old and was of the view that the Proponent needs to monitor the fresh base line Ambient Air Quality monitoring data for two months i.e. April-May 2014 and compare it with the earlier data and accordingly, amend the EIA report. The analysis of water quality for the above months of nearby fresh water streams should also be included in the EIA/EMP report.

The Public Hearing was conducted on 18<sup>th</sup> October 2012 under the Chairmanship of Shri S.N. Tiwari, SDM and representative of Collector Satna. The representative of Madhya Pradesh Pollution Control Board was present. Major issues raised during public hearing were related to employment, education, environmental protection measures and CSR activities. The issues raised during Public Hearing were discussed and action plan has been prepared by the Proponent. The Committee noted that the Chairman is the rank of SDM and as per the Environmental Impact Assessment (EIA) notification 2006, the District Magistrate/District Collector/Deputy Commissioner or his or her representative not below the rank of Additional District Magistrate assisted by a representative of SPCB or UTPCC shall supervise and preside over the entire public hearing process. The Committee deliberated the issues and was of the view that Proponent need to submit the rank of officer who chaired the Public Hearing from the SPCB and District Collector of Satna.

The total cost of the project is Rs. 10 Crores. The cost on environment protection measures will be Rs. 155.3 lakhs with a recurring cost of Rs. 34.5 lakhs per annum. It is proposed to incur Rs. 0.5 Crores on CSR activities. Project proponent reported that there is no court case / litigation pending against the proposed project.

After deliberations, the Committee sought the following additional information: -

- (i) The Committee noted that the base line data is old and was of the view that the Proponent needs to monitor the fresh base line Ambient Air Quality monitoring data for two months i.e. April-May 2014 and compare it with the earlier data and accordingly, amend the EIA Report. The analysis of water quality for the above months of nearby fresh water streams should also be included in the EIA/EMP report.
- (ii) Proponent needs to submit the rank of officer who chaired the Public Hearing from the SPCB and District Collector of Satna;
- (iii) The Committee noted that the budget is not provided in the conservation plan and was of the view that the PP needs to submit the revised conservation plan with adequate budgetary provisions to protect the schedule-I species;
- (iv) Detailed Action plan needs to be provided with budgetary provision on issues raised during the public hearing;
- (v) Details of first order stream; and
- (vi) Details of TORs 11 in respect to isopleth with better resolution need to be submitted.

The Committee decided to **defer the proposal** to be brought back to the Committee after the aforesaid information is submitted in the form of an Addendum to the EIA/EMP Report.

**(2.21).Ochre, White Clay, Laterite & Bauxite Mine with production capacity of Laterite & Bauxite 30,000 TPA and Ochre/White Clay 10,000 TPA) by M/s Rakesh Agencies, located at village – SidhaKothar Tehsil Majhgawan, District – Satna, Madhya Pradesh (16.187ha)-(Consultant: Greencindia Consulting Private Limited, NCR, Ghaziabad, U.P.)-TORs**

The Mine Lease area is located at Sidha Kothar Village, Satna District Madhya Pradesh and lies between Latitude 24°52'31" to 24°52'46" North and Longitude 80°54'57" to 80°55'25" East. The Project is located in Seismic Zone III. It is category 'A' project as the site is located within 10 km radius of Madhya Pradesh, Uttar Pradesh state boundary. The interstate boundary is about 7 km north of the Mine Lease area.

The proposed project is opencast semi mechanized for extraction of Ochre, White Earth/Clay, Laterite and Bauxite by developing benches of 3m height and width 10-15 m. It has been proposed to produce approximately 40,000 TPA of Ochre, White Earth/Clay, Laterite and Bauxite (Laterite & Bauxite: 30,000 TPA, White Clay & Ochre: 10,000 TPA). Total water requirement for the mining lease area is 10 KLD. This water will be supplied from bore wells of the nearby area.

The area under reference is Government revenue land and the State Government of M.P. earlier granted mining lease to Smt. Gayatri Devi Bansal, for mining of minerals Ochre, White Clay & Laterite for 10 years from 19.08.1978 to 18.08.1988. The mining lease was renewed for 20 years period w.e.f.19.08.1988-18.08.2008. Lease was transferred from Smt. Gayatri Devi Bansal to M/s Rakesh Agencies on 26.10.2002 vide letter no. F 3-36/89/12/2, transfer deed was executed on 08.11.2002 for rest of the period i.e. till 18.08.2008. Mineral Bauxite was also discovered in the ML area and hence Bauxite was added in the ML vide State Govt. letter no. F 3-36/89/12/2 dated

30.01.2003. Supplementary Agreement was made on 13.03.2003. Renewal of lease was applied one year prior to expiry of mine lease on 06.08.2007 for 20 years for minerals Ochre; White Clay, Laterite & Bauxite. It is reported by the project proponent that there is no court case/litigation pending against the project. The estimated cost of the project is Rs. 1.0 Crore.

The Committee noted that this is a **violation case** as mining activity was continued after the lease fell due for renewal in 18.08.2008 i.e. from 2008-2011 and also enhanced the production without obtaining prior environmental clearance. Mine is closed since 01.04.2011. MoEF may take actions on violations as per OM dated 12.12.2012 and 27.06.2013.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I with additional TORs that EIA/EMP Report should reflect on mandatory use of personnel protecting devices like foot ware, goggles and hand gloves etc.

**(2.22). Black Granite Mine of M/s. Tamil Nadu Minerals Limited, located at Kaveripuram village, Mettur Taluk, Salem District, Tamil Nadu (31.35 ha) (Consultant: ABC Techno Labs, Tamil Nadu)-TORs**

The proposal of M/s. Tamil Nadu Minerals Limited is for Black Granite Mining with production capacity of 202 m<sup>3</sup> per annum of granite. The mine is located in S.F. No. 133 (part) of Kaveripuram Village, Mettur Taluk, Salem District. The area lies in the northern latitude of 11°53'59" and eastern longitude of 77°43'53" on Survey of India Toposheet no. 58E/89 & 13.

The mine lease area is 32.35ha. It is noted that the proposal was transferred from the SEIAA, Tamil Nadu as the mine site is located within interstate boundary of Tamil Nadu and Karnataka and treated as Category 'A' project. The method of mine is opencast semi-mechanized. Life of mine is 30 years. It was reported by PP that no National Parks, Wildlife Sanctuaries, Tiger Reserves within 10 km radius of the mining lease boundary. Water requirement is 2.6KLD for domestic usages (1.6 KLD) and dust suppression (1 KLD).

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I with additional TORs to furnish (i) Details of precautions to protect the water reservoir; (ii) copy of NOC from the Irrigation Department; (iii) Details of solid waste management; (iii) studies on cumulative impacts of other mines located within study area, and (iv) Details of measures to be taken for provision and use of protective footwear, goggles and other personal protective equipment while working in a Granite Mine and corresponding Occupational Health Issues associated therewith.

**(2.23). Bhivdoni Quartz and Quartzite deposit Minewith production capacity 20,000 TPA by M/s Flex Minerals, located at village Bhivadoni tehsil – Sausar, Dist.–Chhindwara, Madhya Pradesh (90.067 ha)-TORs**

The Proposal was **deferred** as the Project Proponent did not attend the meeting.

**(2.24). Krishna Limestone Mine with production capacity of 4.55 Lakh TPA by M/s Krishna Mines, located at village-Ramaiyanpatti, Taluk & District-Tirnelveli, Tamil Nadu (31.092h a) (Consultant: Creative Engineers & Consultant, Chennai)-TORs**

The proposal is of M/s. Krishna Mines for Limestone production capacity of 4.55 Lakh TPA in the M.L. area of 31.092 ha covered under RC.NO.8480/MM4/2002 (NEW)/G.O.M.S. NO.1081 (OLD) and is in operation since 1963. The mine lease is located at village-Ramaiyanpatti, Taluk & District-Tirunelveli, Tamil Nadu. The Latitudes and Longitudes of the site are 8° 47' 40" to 8° 48' 00" N & 77° 40' 7" to 77° 40' 33" E and falls within the Survey of India Toposheet No. 58H/9.

It is a category 'A' project due to presence of Gangaikondan Spotted Deer Sanctuary notified under the Wild Life Protection (Act), 1972 within 10 km of study area. Government of Tamil Nadu vide G.O. No. 150, dated 01.10.2013 has declared Gangaikondan Reserved Forests as 'Gangaikondan Spotted Deer Sanctuary' and notified under the Wild Life Protection (Act), 1972.

The mine lease area is 31.092ha and the original mine lease granted on 10.05.1963 for 20 years and second time renewed for 10 years which is valid up to 27.01.2013. PP has applied for renewal for mine lease to the State Govt.

The Committee noted that it is case of **violation** as Proponent had enhanced the limestone mining capacity and mined out limestone from 1993-94 to 2012-13 without prior environmental clearance. MoEF may take actions on violations as per OM dated 12.12.2012 and 27.06.2013.

Mining is fully mechanized opencast method to produce limestone using conventional drilling and blasting method. Hydraulic shovel is engaged to remove the blasted limestone & load into trucks and transported to India Cement's plant through dedicated road. Total Water requirement is 60 KLD and will be sourced from mine sump and bore well. The life of the mine is about 23 years.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I with additional TORs to furnish (i) Primary Surveys and Conservation Plans to be prepared should pay special attention to Spotted Deer and also include cumulative impacts on the sanctuary of other mines located within study area, and (ii) Necessary clearance should be obtained from the Standing Committee on Wild life of the NBWL.

**(2.25). Bharu Gypsum mine with enhancement of production capacity from 20,000 TPA to 92,000 TPA of Gypsum by M/s Rajasthan State Mines & Minerals Limited, located near village-Bharu, Tehsil & District-Bikaner, Rajasthan (312.73 Ha)-TORs**

The proposal of M/s Rajasthan State Mines & Minerals Limited is for enhancement of production capacity from 20,000 TPA to 92,000 TPA of Gypsum. The mine lease is located near village-Bharu, Tehsil & District – Bikaner, Rajasthan. The Latitudes and Longitudes of the site are 28°12'30.8" N to 28°13'32.95"N and 73 °11'30.55"E to 73 °12'50.75"E respectively and falls within the Survey of India Topo sheet No. 44H/4.

MoEF has earlier accorded environmental clearance vide J-11015/5/1996-IA-II (M), dated 02.07.1996 for annual production capacity of 20,000 TPA of gypsum. The



mine was operated from 1997-1998 to 2002-2003 and enhanced the production of gypsum as prescribed in the EC i.e. 66,090 MT in 1998-1999, 67,700 MT in 1999-2000 and 28,332 MT in 2000-2001. The PP reported that the mining activity was discontinued by the Govt. of Rajasthan in compliance of MoEF OM dated 28.10.2004. The Committee noted that it is case of **violation** as PP had enhanced the production capacity without prior environmental clearance for enhanced production. MoEF may take actions on violations as per OM dated 12.12.2012 and 27.06.2013.

Total mine lease is 312.73ha, out of which 16.72ha is Govt. land and 296.01ha is Private land. No forests land is involved. The Committee noted that the Ministry had earlier prescribed the TORs on 05.02.2008. Public Hearing was conducted on 06.11.2012. Accordingly PP submitted EIA/EMP report on 21.03.2013 and the Ministry vide letter dated 18.06.2013 communicated to PP to apply afresh as the EIA/EMP report was submitted after the expiry of TORs.

Proponent has requested to operate mines at the existing capacity in accordance of environment clearance dated 02.07.1996. The Committee was of the view that the earlier EC is valid and PP may operate with existing capacity as they have mine lease valid up to 28.09.2017, however, the Ministry may take an appropriate view on the matter.

PP also requested to use the Public Hearing proceeding for preparation of EIA/EMP Report as it was conducted recently on 06.11.2012. The Committee deliberated and suggested that one season baseline data should be collected afresh and Public Hearing should also be conducted using the revised draft EIA/EMP (prepared from the fresh TOR).

Mining is proposed by mechanized opencast method to produce gypsum using heavy earth moving machinery like hydraulic shovel but without drilling and blasting. Proponent reported that the Mines Department of Government of Rajasthan had granted mining lease in favour of M/s. Rajasthan State Mines & Minerals Limited (RSMML) vide order no P.15 (10) Khan/Group-1/1996 dated 31.12.2007 for a period of 20 years from the date of working permission i.e. granted in favour of erstwhile Rajasthan State Mineral Development Corporation vide order dated 19.09.1997, therefore the present mining lease period is from 29.09.1997 to 28.09.2017.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** fresh TORs for undertaking detailed EIA study as per Annexure-I

**(2.26). Phulewala Gypsum Mining with production capacity of 48,000 TPA by M/s Rajasthan State Mines & Minerals Limited, located at village Phulewala, Tehsil Gharsana, District Sriganganagar-Tehsil Gharsana, District Sri Ganganagar. (132.75 ha)-TORs**

The proposal is of M/s. Rajasthan State Mines & Minerals Limited (RSMML) for proposed gypsum production capacity of 48,000 TPA in ML area of 132.75 Hectare. The mining lease is located at village Phulewala Tehsil Gharsana District Sriganganagar in State of Rajasthan. The latitudes and longitudes of the site are 28° 58' 10.90" N to 28° 58' 51.30"N and 73 °10' 01.0"E to 73 °11' 22.0"E respectively and falls within the Survey of India Topo sheet No. 44H/1.

MoEF has earlier accorded environmental clearance dated 02.07.1996 for annual production capacity of 50,000 TPA of gypsum. The mine was operated from 1998-1999 to 2003-2004 and enhanced the production of gypsum as prescribed in the EC i.e. 104669 MT in 1998-1999 and 51,600 MT in 1999-2000. The PP reported that the mining activity was discontinued by the Govt. of Rajasthan in compliance of MoEF OM dated 28.10.2004. The Committee noted that it is case of **violation** as PP had enhanced the production capacity without prior environmental clearance for enhanced production. MoEF may take actions on violations as per OM dated 12.12.2012 and 27.06.2013.

Total mine lease is 132.75ha, out of which 4.3ha is Govt. land and 128.45ha is Private land. No forests land is involved. The Committee noted that the Ministry had earlier prescribed the TORs on 25.09.2008. Public Hearing was conducted on 17.12.2012. Accordingly PP submitted EIA/EMP report on 21.03.2013 and the Ministry vide letter dated 27.05.2013 communicated to PP to apply afresh as the EIA/EMP report was submitted after the expiry of TORs.

Proponent has requested to operate mines at the existing capacity in accordance of environment clearance dated 02.07.1996. The Committee was of the view that the earlier EC is valid and PP may operate with existing capacity as they have mine lease valid up to 28.09.2017, however, the Ministry may take an appropriate view on the matter.

PP also requested to use the Public Hearing proceeding for preparation of EIA/EMP report as it has recently conducted 17.12.2012. The Committee deliberated and suggested that one season baseline data should be collected afresh and Public Hearing should also be conducted using the revised draft EIA/EMP (prepared from the fresh TOR).

Mining is proposed by mechanized opencast method to produce gypsum using heavy earth moving machinery like hydraulic shovel but without drilling and blasting. Proponent reported that the Mines Department of Government of Rajasthan had granted mining lease in favour of erstwhile Rajasthan State Mineral Development Corporation (e-RSMDC) vide letter no. P.15 (10)Khan/Goup-1/94 dated 02.11.1998 for a period of 20 years with effect from 29.09.1997. The mining lease is valid up to 28.09.2017.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I

**(2.27). Iron Ore Mine, Quartzite & Feldspar mine with proposed mining capacity of 2.7 million TPA of iron ore and 3.59 million TPA of Quartzite by M/s Ojaswi Marbles & Granites Pvt. Ltd., located near village – Dipas, Tehsil – Neem Ka Thana, Distt.-Sikar, Rajasthan (180.00 Ha) (Consultant: Udaipur Mintech Pvt. Ltd)-TORs**

The proposal is for mining of iron ore with proposed mining capacity of 2.7 million TPA of iron ore and 3.59 million TPA of Quartzite in the mine lease area of 180 ha. Proponent proposes to install a Steel Plant with capacity of 2.0 Lakh TPA and to install a crusher with screening facility for both Iron Ore & Quartzite. The lease area is located near village – Dipas, Tehsil – Neem Ka Thana, Distt.-Sikar, Rajasthan and lies between 27°35'13.3" to 27° 36'22.2" North Latitudes and 75°52'26.5" to 75°53'37.5" East Longitudes and is in Survey of India Toposheet No. 45M/14.

Mining will be by fully mechanized opencast method. The mine lease area is 180.00 ha, out of which 149.0242 ha is Forest land and 30.9758 ha is Govt. waste land & Pvt. Agricultural land. Project Proponent filed application for Forest Diversion for 149.3002 ha (149.0242 ha of the mining area for mining purpose and 0.276 ha. outside lease area for approach road) under FC Act, 1980 to the State Department of Forest & Environment, Govt. of Rajasthan, Jaipur. The cost of project is Rs. 102 Crores. Water requirement is 17 KLD.

PP informed that originally, the applicant has applied for 400 ha area for mining lease on dated 13<sup>th</sup> October 2011, but some part of area falls in Aravalli hills so revised map of 180 ha was submitted on dated 23<sup>rd</sup> November 2011. Firstly, the applicant has applied for mineral iron ore only, but later on they found that mineral Quartzite & Feldspar are also available in that area so they requested the State Govt. to add these minerals in the application along with Iron ore. The Mining Plan with Progressive Mine Closure Plan is under preparation. PP informed that Central Govt. vide letter dated 09.12.2013 has issued NOC for the grant of mining lease for a period of 30 years.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I.

**(2.28). Sindesar Khurd Mine underground with enhancement of production capacity from 2.0 million TPA to 3.75 million TPA (ROM) of Lead–Zinc ore and expansion of Ore beneficiation from 2.0 million TPA to 4.25 million TPA (ROM) by M/s Hindustan Zinc Limited, located at village Sindesar Khurd, Tehsil Relmagra District-Rajsamand, Rajasthan (199.84ha)-TORs**

The proposal of M/s Hindustan Zinc Limited is for Sindesar Khurd Mine with enhancement of production capacity from 2.0 million TPA to 3.75 million TPA (ROM) of Lead–Zinc ore and expansion of Ore beneficiation from 2.0 million TPA to 4.25 million TPA (3.75 million TPA ore will be from SK underground mine and 0.5 million TPA ore from Bamnia Kalan underground Mine). The mine is located at village Sindesar Khurd, Tehsil Relmagra District Rajsamand, Rajasthan.

The Committee noted that earlier Environment Clearance was granted for 2.0 million TPA ore production & beneficiation for Sindesar Khurd underground mine vide letter no. J-11015/1182/2007-IA.II (M) dated 10.08.09.

The mine working will be underground by mechanised method using blast hole stoping with back filling. The mine lease area of the project is 199.84ha. Presently acquired area is 72ha and additional 76.84ha area is to be acquired, which is Government land. No grazing land & agriculture land will be acquired. No forestland is involved. No National Park/Wildlife Sanctuary/Biosphere Reserve etc. is reported to be located in the buffer zone of the mine.

Presently over burden is dumped in a designated area of 3 ha and additional 7 ha of area is required for the dumping of additional waste. The total waste dump area shall be 10 ha after the expansion. The height of the waste dump proposed is 10 to 28 meters. Presently, plantation is raised in an area of 24ha and additional plantation is proposed to be raised in an area of 26ha, thus total area under plantation would be 50ha. The waste generated in the form of tailing due to beneficiation is being pumped to exiting tailing dam of Rajpura-Dariba Mine which is located at 3 km from the mine whereas classified tails are backfilled in underground stopes after mixing with cement from existing

hydraulic fill plant. A paste fill plant is under construction to augment the backfilling capacity and to utilize fine tailings in backfilling in order to maximize ore recovery and overall stability of underground mines. After expansion also, the tailing is proposed to be sent to the existing tailing dam of Rajpura-Dariba Mine. Proponent informed that an additional 4,000 m<sup>3</sup> per day of water is required for proposed expansion, in addition to existing requirement of 8,000 m<sup>3</sup>/day. Additional requirement will be met out from existing Dams of Matrikundia, Mansi Wakal & Gosunda Dam. Mine dewatering due to intersection will also be consumed in the process.

Based on the request made by the Project Proponent w.r.t. collection of base line data to be initiated from March-May 2014, the Committee **agreed** for the same. Total cost of the proposed expansion is estimated to be Rs. 1500 Crores.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I duly adapted and oriented towards underground nature of mining with additional TORs to furnish (i) An EIA/EMP Report should be prepared addressing the impacts of the underground mine project including the aspects of mineral transportation and issues of impacts on hydrogeology, (ii) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working plan/scheme until end of mine life should be reflected on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps should also be included; (iii) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon; (iv) Study on subsidence, measures for mitigation/prevention of subsidence, modeling subsidence prediction and its use during mine operation, safety issues including ventilation and measurement of underground gaseous buildup at regular intervals; (v) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc., impact of blasting, noise and vibrations; (vi) Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be furnished; (vii) Earlier EC compliance report by the Regional Office of MoEF; and (viii) Status of commitments made in the earlier Public Hearing held.

**(2.29). Limestone Mines with production capacity of 4.0 Lakh TPA including magnesia limestone by M/s India Cements limited, located at village - Sethurayanpudur–Taluk & District–Tirunelveli, Tamil Nadu (29.895Ha) (Consultant: Creative Engineers & Consultants)-TORs**

The proposal is of M/s. The India Cements Limited for Limestone production capacity of 4.0 Lakh TPA (including magnesia limestone) in the M.L. area of 29.895 ha. The mine lease is located at Village- Sethurayanpudur, Taluk & District-Tirunelveli Tamil Nadu. The Latitudes and Longitudes of the site are 8° 47' 35" to N 8° 47' 41" N & 77° 39' 35" to E 77° 40' 07" E and falls within the Survey of India Toposheet No. 58H/9.

It is a category 'A' project due to presence of Gangaikondan Spotted Deer Sanctuary notified under the Wild Life Protection (Act), 1972 within 10 km of study area. Government of Tamil Nadu vide G.O. No. 150, dated 01.10.2013 has declared Gangaikondan Reserved Forests as 'Gangaikondan Spotted Dear Sanctuary" and notified under the Wild Life Protection (Act), 1972.

The mine lease area is 29.895ha and entire land is private patta land. The original mine lease granted from 16.06.1970 to 15.06.1990 and first renewal for 10 years which is valid up to 15.06.2000. PP has applied for renewal for mine lease to the State Govt. Project Proponent has informed that the mine is operating since 1970.

The Committee noted that it is case of **violation** as Proponent had enhanced the limestone mining capacity and mined out limestone from 1993-94 to 2012-13 without prior environmental clearance. MoEF may take actions on violations as per OM dated 12.12.2012 and 27.06.2013.

Mining is fully mechanized opencast method to produce limestone using conventional drilling and blasting method. Hydraulic shovel is engaged to remove the blasted limestone & load into trucks and transported to own cement plant through dedicated road. Total Water requirement for this project is 25 KLD and will be sourced from mine sump and bore well. There is no court/litigation is pending against the mining project. The life of the mine is about 20 years.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I with additional TORs to furnish (i) Primary Surveys and Conservation Plans to be prepared should pay special attention to Spotted Deer and also include cumulative impacts on the sanctuary of other mines located within study area, and (ii) Necessary Wild life from the Standing Committee of the NBWL clearance should be obtained.

**(2.30). Limestone mine with production capacity 0.30 Lakh TPA of limestone by M/s. The India Cements limited, located at village Tenkulam, Taluk & District- Tirunelveli, Tamil Nadu (24.965 ha) (Consultant: Creative Engineers & Consultants)-TORs**

The proposal is of M/s. The India Cements Limited for Limestone production capacity of 0.30 Lakh TPA in the M.L. area of 24.965 Ha. The mine lease is located at located at village Tenkulam, Taluk & District- Tirunelveli, Tamil Nadu. The Latitudes and Longitudes of the site are 08° 47' 57" to 08° 48' 16" N & 77° 41' 27" to 77° 42' 06" E and falls within the Survey of India Toposheet No. 58H/9.

It is a category 'A' project due to presence of Gangaikondan Spotted Deer Sanctuary notified under the Wild Life Protection (Act), 1972 within 10 km of study area. Government of Tamil Nadu vide G.O. No. 150, dated 01.10.2013 has declared Gangaikondan Reserved Forests as 'Gangaikondan Spotted Dear Sanctuary" and notified under the Wild Life Protection (Act), 1972.

The mine lease area is 24.965ha. PP has informed that the application for 2nd renewal of this mining lease for a further period of 20 years has been submitted in Form-J on 21.10.1999 to the State Government through The District Collector, Tirunelveli vide letter No. MINES/ML-17/453 dated 21.10.1999. Project Proponent has informed that the mine is operating since 1970.

The Committee noted that it is case of **violation** as Proponent had enhanced the limestone mining capacity and mined out limestone from 1993-94 to 2012-13 without prior environmental clearance. MoEF may take actions on violations as per OM dated 12.12.2012 and 27.06.2013.

Mining is fully mechanized opencast method to produce limestone using conventional drilling and blasting method. Hydraulic shovel is engaged to remove the blasted limestone & load into trucks and transported to own cement plant through dedicated road. Total Water requirement for the three leases of Tenkulam is 28 KLD and will be sourced from mine sump or occasionally bore well. There is no court/litigation is pending against the mining project. The life of the mine is about 16 years.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I with additional TORs to furnish Primary Surveys and Conservation Plans to be prepared should pay special attention to Spotted Deer and also include cumulative impacts on the sanctuary of other mines located within study area, and (ii) Necessary Wild life from the Standing Committee of the NBWL clearance should be obtained.

**(2.31). Limestone mine with production capacity 2.52 Lakh TPA (including high magnesia limestone) by M/s The India Cements Ltd., located at village-Ramaiyanpatti, Taluk & District– Tirunelveli, Tamil Nadu (28.430ha) (Consultant: Creative Engineers & Consultants) -TORs**

The proposal is of M/s The India Cements Limited for Limestone production capacity of 2.52 Lakh TPA (including high magnesia limestone) in the M.L. area of 28.430 Ha. The mine lease is located at Ramaiyanpatti Village, Tirunelveli Taluk & District. The Latitudes and Longitudes of the site are 8° 47' 41" to N8° 48' 05" N & 77° 40' 30" to E77° 41' 03" E and falls within the Survey of India Toposheet No. 58H/9.

It is a category 'A' project due to presence of Gangaikondan Spotted Deer Sanctuary notified under the Wild Life Protection (Act), 1972 within 10 km of study area. Government of Tamil Nadu vide G.O. No. 150, dated 01.10.2013 has declared Gangaikondan Reserved Forests as 'Gangaikondan Spotted Deer Sanctuary' and notified under the Wild Life Protection (Act), 1972.

The mine lease area is 28.430ha. PP has informed that the mining lease was originally issued on 18.10.1962 which was valid up to 17.10.1982. The first renewal of mine lease was up to 18.10.1987 and second renewal was up to 17.10.1997. Further, Directorate of Geology and Mining vide letter dated 18.02.2005 has renewed the mine lease for 20 years and valid up to 17.10.2017. Project Proponent has informed that the mine is operating since 1962.

The Committee noted that it is case of **violation** as Proponent had enhanced the limestone mining capacity and mined out limestone from 1993-94 to 2012-13 without prior environmental clearance. MoEF may take actions on violations as per OM dated 12.12.2012 and 27.06.2013.

Mining is fully mechanized opencast method to produce limestone using conventional drilling and blasting method. Hydraulic shovel is engaged to remove the blasted limestone & load into trucks and transported to own cement plant through dedicated road. Total Water requirement for both ML operations (GO no 813 & GO no 526) is 20 KLD and will be sourced from mine sump and bore well. PP reported that there is suit filed in High Court of Madras by the Govt. of Tamil Nadu vide Petition No-32191 of 2012 in WP -29364 of 2005 regarding stamp duty. Hence execution of renewal lease deed is pending. The life of the mine is about 25 years.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I with additional TORs to furnish Primary Surveys and Conservation Plans to be prepared should pay special attention to Spotted Deer and also include cumulative impacts on the sanctuary of other mines located within study area, and (ii) Necessary Wild life from the Standing Committee of the NBWL clearance should be obtained.

**(2.32). Limestone Mine with production capacity 0.36 Lakh TPA (including high magnesia limestone) by M/s The India Cement limited, located at Village-Ramaiyanpatti, Taluk & District – Tirunelveli, Tamil Nadu (7.330ha) (Consultant: Creative Engineers & Consultants) TORs**

The proposal is of M/s The India Cements Limited for Limestone production capacity of 0.36 Lakh TPA (including high magnesia limestone) in the M.L. area of 7.330 Ha. The mine lease is located at Village- Ramaiyanpatti, Taluk & District – Tirunelveli, Tamil Nadu. The Latitudes and Longitudes of the site are 8° 47' 41" to 8° 47' 59" N & 77° 40' 41" to 77° 40' 52" E and falls within the Survey of India Toposheet No. 58H/9.

It is a category 'A' project due to presence of Gangaikondan Spotted Deer Sanctuary notified under the Wild Life Protection (Act), 1972 within 10 km of study area. Government of Tamil Nadu vide G.O. No. 150, dated 01.10.2013 has declared Gangaikondan Reserved Forests as 'Gangaikondan Spotted Dear Sanctuary" and notified under the Wild Life Protection (Act), 1972.

The mine lease area is 7.330ha. PP has informed that the mining lease was originally issued on 31.12.1991 which was valid up to 17.10.1997. The PP has applied for renewal of this lease and worked under deemed extension basis. Project Proponent has informed that the mine is operating since 1992.

The Committee noted that it is case of **violation** as Proponent had mined out limestone from 1993-94 to 2012-13 without prior environmental clearance. MoEF may take actions on violations as per OM dated 12.12.2012 and 27.06.2013.

Mining is fully mechanized opencast method to produce limestone using conventional drilling and blasting method. Hydraulic shovel is engaged to remove the blasted limestone & load into trucks and transported to own cement plant through dedicated road. Total Water requirement for both ML operations (GO no 526 & GO no 813) is 20 KLD and will be sourced from mine sump and bore well. There is no court/litigation is pending against the mining project. The life of the mine is about 25 years.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I with additional TORs to furnish Primary Surveys and Conservation Plans to be prepared should pay special attention to Spotted Deer and also include cumulative impacts on the sanctuary of other mines located within study area, and (ii) Necessary Wild life from the Standing Committee of the NBWL clearance should be obtained.

**(2.33). Limestone Mine with production capacity 0.65 Lakh TPA (including magnesia limestone) by M/s. The India Cements Limited, located at Village-Tenkulam, Taluk & District-Tirunelveli, Tamil Nadu (14.395 ha) (Consultant: Creative Engineers & Consultants) -TORs**

The proposal is of M/s The India Cements Limited for Limestone production capacity of 0.65 Lakh TPA (including high magnesia limestone) in the M.L. area of 14.395ha. The mine lease is located at Village- Tenkulam, Taluk & District- Tirunelveli, Tamil Nadu. The Latitudes and Longitudes of the site are 08° 47' 54" to 08° 48' 16" N & 77° 41' 15" to 77° 41' 28" E and falls within the Survey of India Toposheet No. 58H/9. The land is Poramboke non-forest land leased to ICL.

It is a category 'A' project due to presence of Gangaikondan Spotted Deer Sanctuary notified under the Wild Life Protection (Act), 1972 within 10 km of study area. Government of Tamil Nadu vide G.O. No. 150, dated 01.10.2013 has declared Gangaikondan Reserved Forests as 'Gangaikondan Spotted Deer Sanctuary" and notified under the Wild Life Protection (Act), 1972.

The mine lease area is 14.395ha. PP has informed that the mining lease was originally granted in 1952 and undergone four renewals. The PP has applied for 5<sup>th</sup> renewal of this mine lease on 03.02.1997 and worked under deemed extension basis. Project Proponent has informed that the mine is operating since 1955.

The Committee noted that it is case of **violation** as Proponent had mined out limestone from 1993-94 to 2012-13 without prior environmental clearance. MoEF may take actions on violations as per OM dated 12.12.2012 and 27.06.2013.

Mining is fully mechanized opencast method to produce limestone using conventional drilling and blasting method. Hydraulic shovel is engaged to remove the blasted limestone & load into trucks and transported to own cement plant through dedicated road. Total Water requirement is 28 KLD and will be sourced from mine sump and bore well. There is no court/litigation is pending against the mining project. The life of the mine is about 15 years.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I with additional TORs to furnish Primary Surveys and Conservation Plans to be prepared should pay special attention to Spotted Deer and also include cumulative impacts on the sanctuary of other mines located within study area, and (ii) Necessary Wild life from the Standing Committee of the NBWL clearance should be obtained.

**(2.34). River Bed Bajri (Minor Mineral) mining with production capacity of 6,11,159 TPA by M/s Hadoti Group, located at near village Amajar, Tehsil Ramganjmandi, District-Kota, Rajasthan (307.70 Ha) (consultant: Apex Mintech Consultants, Udaipur)-TORs**

The proposal is of M/s Hadoti Group for River Bed Bajri (Minor Mineral) mining with production capacity of 6,11,159 TPA, located at near village Amajar, Tehsil Ramganjmandi, District-Kota, Rajasthan. The Government of Rajasthan has issued letter of intent vide no. Dir/F2(A.2)Ram/Bajri/2013/640 dated 01.03.2013 for granting a mining lease over an area of 307.70 ha for a period of 5 years subject to environmental clearance under EIA notification 2006.



The Committee noted that the mine lease area is located ~0.5 km from Mukandra Hils (Darrah National Park) and was of the view that the proposal **cannot be considered** as per the direction of the Hon'ble Supreme court order in WP (C) no. 202 of 1995 [T.N. Godavarman Thirumulpad Vs. UoI& Ors.].

**(2.35). Renewal of Narwapahar Mining Lease and enhancement of production from 0.3 million TPA to 0.45 million TPA of Uranium Ore (ROM) by M/s. Uranium Corporation of India Limited (UCIL), located at village (s) Hartopa, Patharchakri, Murgahutu, Rajdoha, Block-Potka, Sub-division- Dhalbhum, District - East Singhbhum, Jharkhand (ML Area of 456.62 ha) (Consultant: M/s. MECON Limited, Ranchi)-ToRs**

The proposal of M/s Uranium Corporation of India Limited (UCIL) is for renewal of Narwapahar Mining Lease and enhancement of production from 0.3 million TPA to 0.45 million TPA of Uranium Ore (ROM). The mine lease is located at village (s) Hartopa, Patharchakri, Murgahutu, Rajdoha, Block-Potka, Sub-division- Dhalbhum, District - East Singhbhum, Jharkhand. The Latitudes and Longitudes of mine lease are 22° 40'N to 22° 45'N and 86° 15'E to 86° 20'E respectively on the Survey of India Toposheet No. 73 J/6.

The total mine lease area is 456.62 ha. Out of total mine lease area, 25.56 ha area is Forest land. Diversion of 40.14 ha Forest land (25.56 ha within lease and 14.58 ha outside lease) have been granted for the project by the Ministry of Environment and Forests, vide letter No. 8-204/85-FC dated 11<sup>th</sup> June 1987. The life of mine is 17 years. The Narwapahar Mining lease was accorded for an area of 456.62 ha for 30 years w.e.f. 27.01.1983. Lease was valid up to 26.01.2013. Application for lease renewal for next 20 years has been made on 13.01.2012. Mine working is by mechanized underground system using Horizontal Cut and Fill (HCF) method and has been developed up to a depth of 380 m.

The Committee noted that the project had received environmental clearance vide letter no. J-11015/13/83/En.2/IA, dated 12<sup>th</sup> November, 1987. Further, Proponent has submitted application for TORs for expansion project and the Ministry of Environment and Forests had prescribed the ToRs for the project on 23.02.2009 for undertaking EIA study. The public hearing could not be conducted owing to the difficult local situation. As per MoEF O.M. dated 22.03.2010, the prescribed ToRs was valid upto 22.02.2013, therefore M/s UCIL had requested MoEF vide letter dated 9<sup>th</sup> August, 2012, for extension of ToRs validity for one year. As the baseline data collected during 2009 was older than three years, UCIL conducted a fresh baseline study during March-May 2013. Further, the MoEF vide letter dated 09.04.2013 has communicated that PP may submit the fresh application for ToRs, as the validity of TORs cannot be extended beyond four years.

Earlier TOR were issued to the project vide MOEF letter no. J-11015/530/2008-IA.II (M) dated 23.02.2009. It was requested by the Project Proponent that they may be allowed to use the baseline data collected by them during March-May, 2013. The Committee deliberated the issues and was of the view that the Proponent needs to collect one month fresh base line data during April 2014 which should be duly incorporated in the EIA/EMP Report.

Based on the information furnished and presentation made by the project proponent and discussions held, the Committee **prescribed** the TORs for undertaking detailed EIA study as per Annexure-I.

The meeting ended with a vote of thanks to the Chair.

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## Annexure-I

S. No.	Terms of Reference (TORs)
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 and mining technology 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 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)	Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large may also be detailed in the EIA report.
6)	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
7)	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.
8)	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.
9)	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.
10)	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.

11)	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.
12)	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.
13)	The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
14)	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.
15)	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, 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 State Wildlife Department/Chief Wildlife Warden under the Wildlife (Protection) Act, 1972 and copy furnished.
16)	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, 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 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.
17)	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.
18)	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).
19)	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 located in the mine lease area will be shifted or not. The issues relating to shifting of Village including their R&R and socio-economic aspects should be discussed in the report.
20)	One season (non-monsoon) primary baseline data on ambient air quality (PM <sub>10</sub> , SO <sub>2</sub> and NO <sub>x</sub> ), 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.
21)	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.
22)	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.
23)	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
24)	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.
25)	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.
26)	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. 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.
27)	Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
28)	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.
29)	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.
30)	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.
31)	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.
32)	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.

33)	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.
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.
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 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 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 clearly be spelt out.

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**List of Participants**

1. Dr. S. Subramaniyan Chairman
2. Dr. L. Ajay Kumar Member
3. Shri P.K. Verdia Member
4. Prof. G.S. Roonwall Member
5. Dr. V.P. Upadhyay Director, MoEF Member Secretary
6. Dr. R. B. Lal, Deputy Director, MoEF
7. Dr. Sonu Singh, Deputy Director, MoEF
8. Representatives of M/s. Golden Karamjot Stone Crusher,
9. Representatives of M/s Himachal Stone Crushing Co. ,
10. Representatives of M/S Korp Resources Pvt Ltd.,
11. Representatives of M/s Dalmia Cement (Bharat) Ltd.,
12. Representatives of M/s Krishna Stone Crusher,
13. Representatives of M/s Jayswal Neco Industries Ltd.,
14. Representatives of M/S JSL Ltd.,
15. Representatives of M/s Indian Metals & Ferro Alloys Ltd.,
16. Representatives of M/s Seetharama Mining Co.,
17. Representatives of M/s Sri Kumaraswamy Silica Mines,
18. Representatives of M/s Sri Janardan Singh Proprietor Smt. Shanti Devi
19. Representatives of M/s Geomin Minerals
20. Representatives of M/s Nandi Stone Crusher
21. Representatives of M/s VSL Mining Company Pvt. Ltd.
22. Representatives of M/s Habibur Rehman
23. Representatives of M/s Shri Rajendra Kumar Chandaliya
24. Representatives of M/s Hindustan Copper Limited
25. Representatives of M/s Jaiprakash Associates Ltd.
26. Representatives of M/s Rakesh Agencies
27. Representatives of M/s. Tamil Nadu Minerals Limited
28. Representatives of M/s Krishna Mines
29. Representatives of M/s Rajasthan State Mines & Minerals Limited
30. Representatives of M/s Ojaswi Marbles & Granites Pvt. Ltd.
31. Representatives of M/s Hindustan Zinc Limited
32. Representatives of M/s India Cements limited
33. Representatives of M/s Hadoti Group
34. Representatives of M/s. Uranium Corporation of India Limited (UCIL)

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