

**Ministry of Environment & Forests  
(IA Division)**

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**SUMMARY RECORD OF 1<sup>st</sup> MEETING OF THE RECONSTITUTED COMMITTEE OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF MINING PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.**

The 1<sup>st</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 November 21<sup>st</sup> -23<sup>rd</sup>, 2012. The list of participants is annexed.

The Committee welcomed the new Members of the present, reconstituted Expert Appraisal Committee and recognized and acknowledged the knowledge, expertise and valuable contributions made by the outgoing Members of the earlier EAC. The Committee also reviewed its own role and commitment for technically sound, fair and transparent recommendations in accordance with the set Rules and Practices. After welcoming the Committee Members, discussion on each of the Agenda Items was taken up ad-seriatim. With the approval from the Competent Authority, two additional agenda items at 2.51 and 2.52 have been considered.

**Item No. 1:**

**1.1 Confirmation of the minutes of the 30<sup>th</sup> Meeting.**

The Minutes of the 30<sup>th</sup> Meeting were confirmed as circulated and corrected.

**2.1 Hiyona Limestone Mine of Sri. K. K. Anand (18.21 ha) for enhancement of production capacity from existing 45,000 TPA, to 1,80,000 TPA near Village Hiyona, Tehsil Paonta Sahib, District-Sirmour, Himachal Pradesh (Consultant: Enkay Enviro Services Pvt. Ltd.)-EC**

The Proposal was for renewal of mine lease and enhancement of production of limestone from 45,000 TPA to 1,80,000 TPA. The mine lease area is 18.21 ha. No forestland is involved. The Project has been considered as category 'A' Project because of its location within 10 km interstate boundary.

The Proposal for TOR was considered in the EAC meeting held on

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December 17-19, 2008. Terms of Reference were issued from Ministry of Environment & Forests, New Delhi vide their letter no. J-11015/ 447/ 2008-IA.II (M) dated 05.02.09. Base line data collection and Analysis was undertaken in the post-monsoon period. All parameters were found within the permissible limits. Water quality parameters were also found within permissible limits. Public Hearing was conducted on 10.08.2011 chaired by ADM, Sri Lokendra Chauhan and representatives of Himachal Pradesh State Pollution Control Board. The Mining Lease was granted in favor of Sh. K. K. Anand in 1963, extended from time to time, the present M.L. validity being 07.10.2003 to 03.10.2023. The Scheme of Mining including Progressive Mine Closure Plan has been approved by IBM vide letter no. 614 (2)/MS-B-33/ 97 – DDN dated 09.06.2011.

A letter has been obtained from Divisional Forest Officer, Renuka Ji Forest Division, District Sirmour (Himachal Pradesh) vide letter 300 dated 16.04.2012 stating that "There is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger / Elephant Reserves (existing as well as proposed) located within 10 kms of the mining lease of Hiyona Limestone Mine of Sh. K. K. Anand, situated at village Barbas, tehsil – Paonta Sahib, District Sirmour, Himachal Pradesh. An authenticated list of flora and fauna has been obtained from the Divisional Forest Officer, Renuka Ji Forest Division, District Sirmour (Himachal Pradesh) vide letter dated 16.04.2012. Land includes Ghasani land – 12.36 ha and Waste land – 5.85 ha. Total cost of the Project is Rs. 5 Crores. Method of mining will be open cast semi-mechanized. Daily water demand will be 15.0 KLD which will be availed from the nearby springs. Interstate Boundary between Himachal Pradesh and Uttrakhand is 9.0 km, E.

Based on the information/clarifications submitted and discussions held, the Committee recommended the Project for environmental clearance subject to specific condition as follows:

1. Proponents should keep the loose solids separated from flowing water and to prevent flow of effluents to nearby areas outside the leasehold. These paved drains along with arrangements for Over Burden Dumps and their drainage may be clearly depicted on a contoured map of the mining area.

## **2.2 Palashkhedi White Clay Mine (5330 TPA, on 39.837 ha) of M/s Smt Shikha Upadhyay, at Village-Palashkhedi, Tehsil- Bhainsdehi, District Betul, Madhya Pradesh (Consultant: M/s. Creative Enviro Services)–EC**

The Proposal is for opening of a mine afresh (which is reported to have been worked earlier by some other lessee) for production of 5330 TPA of white clay at village- Palashkhedi, Tehsil- Bhainsdehi Dist. Betul (MP) which is a

Government Wasteland located at 21°22'28" N - 77°36'20" E, 21°22'35" N - 77°36'17" E, 21°22'21" N - 77°35'43" E and 21°22'31" N - 77°35'43" E. Opencast manual mining method is proposed using hand tools. The mine lease area is 39.837 ha. Expected life of mine is 29 years. It has been considered as Category 'A' because of inter-state boundary at a distance of 0.1 km.

The Project was considered by the EAC for issue of TOR during its meeting on September 21-23, 2011 and the Committee prescribed TORs for undertaking detailed EIA study which were issued vide letter no. No. J-11015/123/2011-IA.II (M) New Delhi dated 25.10.2011.

From the EIA/EMP now submitted, it is noted that 0.618 ha area has been excavated during past mining activities by previous lessee and under the present Proposal, about 2.205 ha area will be excavated and no reclamation is proposed in that period. About 1.0 ha area is proposed to be covered under plantation within the lease period. The Committee observed that the Green Belt development shall be completed within the next couple of years and green cover shall include stabilized O.B. Dumps. Presently no dump has been observed and during the lease period 0.32ha will be covered under OB dumps. Vehicular traffic density is 2744 vehicles at present, which will be increased to 2746 after the proposed activity. Ambient air quality data was collected from 1<sup>st</sup> December, 2011 to 29<sup>th</sup> February, 2012. Samples were collected continuously for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. It was observed that the concentrations of these pollutants were well below the ambient air quality standards for residential and rural areas. The general ground water table is not very deep and it is found 20m to 25m below the surface level. The groundwater assessment has been on the basis of collected field data with supporting available secondary data using GWRE Committee norms. Net ground water availability is about 10132 hams. The stage of ground water development is about 22%. As per the above data the study area comes under safety zone.

The Public hearing was conducted on 20.04.2012. Public Hearing panel was chaired by ADM Betul and Regional Officer MPPCB, Bhopal. 58 people attended the meeting. Issues raised by the public were related to labor wages, compensatory plantation, provisions for compensation for workers injured during accident, damage to crops, damage to river and nalla, employment to local people etc. Accordingly mitigation measures were adopted by the Proponent such as providing direct and indirect employment to local people, compensatory plantation of 1410 trees in 1 ha area, group insurance to workers in case of accidents; water will be used for drinking purpose only; hence no pollution of water bodies etc. is anticipated.

Based on the information/clarifications submitted by the Proponent and the discussions held, the Committee recommended the Project for environmental

clearance subject to the following special condition:

1. A Green Belt shall be developed forthwith within the next three years all around the periphery of the lease hold.

**2.3 Ingani Jharan Iron Ore and Manganese Ore Mine of M/s. Sri Bikash Chandra Deb (B.C. Deb), Dadwan Cahmakpur District, Keonjhar, Orissa (0.60 MTPA, 0.075 MTPA respectively)-EC**

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

**2.4 Alathiyur Limestone Beneficiation Plants of Madras Cements Ltd. Villages - Manakudayan & Adanakurichi Taluk –Sendurai, Ariyalur District, Tamil Nadu State (10.926 ha; Capacity – 2.40 MTPA)-EC**

Madras Cements Ltd (MCL's) annual overall production is raised to 14.45 MTPA of cement with the recent expansion of their Govindapuram Cement Plant near Ariyalur. M/s. Madras Cements Limited (MCL), is operating Alathiyur limestone mine (south block mines) Environmental clearance was obtained from MoEF vide Ir J - 11015/16/2001-1A dated 16.10.02. Entire lime stone produced from this mine caters to part needs of the Alathiyur Cement Plant, located about 1.50 kms from the lease area.

In these mining lease areas, while the top layers of limestone formations meet the quality standards of 11 to 14% SiO<sub>2</sub> content for cement manufacture, in the lower layers, the limestone is of lower grade which cannot be utilized for cement manufacture directly. To overcome this handicap, MCL has planned to install the Beneficiation Plant of 2.40 MTPA (2 x 200 TPH) throughput capacity within the M.L area of Alathiyur Limestone Mine (South Block). No additional land is required. Setting up of Beneficiation Plant would enhance the limestone reserves, minimize mine rejects and provides suitable raw material feed for cement manufacture on a sustainable way. Modified Scheme of Mining incorporating the Beneficiation Plant was approved by IBM vide letter no TN/ALR/LST/MS-515-SZ dated 8.10.2012. Terms of Reference (TOR) from MOEF were issued vide Ir no J-11015/131/2011-IA.II (M) dtd 20th Sep 2011.

The PP has submitted a Certified environmental compliance report which furnishes the varied measures taken by the Company in protecting the environment. MCL has a well laid out integrated environmental management system inbuilt into their Project workings to ensure compliance with environmental standards as laid down. Public Consultation was held on 02.05.2012. The Public Hearing was presided over by the District Collector, Trichy. District Environment Engineer, TNPCB along with 70 local people

attended the event. Issues raised include (i) medical facilities (ii) drinking water (iii) job opportunities (iv) increase in the CSR activity (v) protection of ground water. Action was taken by the Proponent on these issues and necessary budgetary provisions for these have been made. The activities included conducting health camps, drilling of new bore wells (at a cost of Rs. 10 lakhs), providing employment opportunities to local people, increased CSR budget of Rs. 32.00 lakhs and necessary measures for protection of groundwater.

Based on the presentation made and information submitted by the Proponent, the Committee recommended the Project for environmental clearance.

**2.5 Bhuredi (K 12) Sand/Moram Mining Project of M/s. Sri Dilip Kumar Singh for renewal of mining lease for Sand/Moram extraction of 13,00,000 TPA (205.95 ha) on Ken River, Bhuredi & Duredi, Tehsil Banda, District Banda, Uttar Pradesh-(Consultant: Grass Roots Research and Creation India (P) Ltd. -TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with a Pre-feasibility Report.

Proposed mine is for extraction of Sand/Moram with a capacity of 13,00,000 TPA, in the lease area of 205.95 ha on river Ken. This is a fresh application for Environmental Clearance. Total cost of the Project is 80 Lakhs. The Project is in between Latitude: 25°28'16.09"N to 25°25'19.52"N Longitude: 80°18'41.68"E to 80°17'20.88"E. Mining will be by opencast method, along the centre of the river bed keeping both the shores unaffected. The mining activity will be confined to the river bed. Sand/Moram will be loaded directly into trucks/dumpers. For this purpose local people will be hired, and hence no temporary sites for housing will be required. Total water requirement is 7 KLD, for drinking and dust suppression purpose. This water will be secured from nearby village. The quantity of domestic solid waste generated by the labour at site will be insignificant. Ganchha Reserved Forest is about 4 km in SSE direction. Protected Forest (Dense Babul) is about 13 km in NW direction. Interstate boundary between Madhya Pradesh & Uttar Pradesh is about 150 meters in SSW direction. Nearest settlements are Duredi (0.5 km) and Bhuredi (0.5 km).

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
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 (eco friendly mine plan), EIA report 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.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
15. Impact of the project on the wildlife in the surrounding and any other

- protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
  18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
  19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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.
  20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
  23. Air quality modeling 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 modeling 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
24. 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.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.

35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.6 Devla Jakham - II Soapstone Mine [Old M.L. No. 03/92 & New M.L. No. 10/2012] Soapstone 22,500 M.T/anum (62.04 ha) of M/s Associated Soapstone Dist. Co. Pvt. Ltd. Village Devla, Tehsil Dhariawad, District Pratapgarh, Rajasthan-TOR**

The consideration of the Proposal was deferred on the request of Project Proponent.

**2.7 Sitapuram Limestone of M/s Zuari Cements Ltd at Village Dondapadu and Revooru, Mandal Mallacheruvu, District Nalgonda, Andhra Pradesh State (558.71 ha)-TOR**

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

**2.8 Gudipadu Captive Limestone Mine of M/s. BMM Cements Limited at Gudipadu Village, Yadki Mandal Anantpur District, Andhra Pradesh of (454.59 ha) for 1.0 MTPA Limestone production (Consultant: B.S. Envi-Tech Pvt. Ltd)-TORs.**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Proposal is for renewal of production of 1.0 MTPA of limestone from Gudipadu Limestone Mine covering an extent of 502.619 ha located near Gudipadu village, Yadiki Mandal, Anantpur District, Andhra Pradesh State. Proponent has obtained TOR in August, 2008 and conducted Public Hearing for the Proposal. Due to various reasons, the Proposal was delayed. The present Proposal is for the same mine, but the area of the mine stands reduced to 454.59 ha. The TOR validity expired in August, 2012 and the baseline data collected being > 3 years old, it is proposed to obtain fresh TOR for the mining

lease. During the deliberations, the Proponent had been directed by the Committee to submit a single page note on the Public Hearing, its proceedings already completed for this project. Vide letter dated 22.11.2012 Proponent explained that the Public Hearing was completed on 25.8.2009, within stipulated time and the project was welcomed by one and all. However, they wish to prepare the Fresh EIA with latest season data for final appraisal. However, the Committee did not considered the request of the Proponent for exemption of Public Hearing and decided to give fresh TOR. Project is in Category 'A'. The mine is located between 77°58'02" to 78°00'27" E and 15°06'11" to 15°07'01"N at an average elevation of 412 m above MSL. The Rayalacheruvu Railway Station is 17.3 kms from the mining area. The Project is interlinked with Cement & coal based captive power plant (Clinker Production: 0.66 MTPA, Cement Production: 0.95 MTPA, Power: 25 MW). No forest land is involved. No habitation is present in the area. The terrain of the mine is gently sloping towards south and south-east with an altitude of 447 m (max.) in northern part and 380 m (min) in SE corner with a surface relief of 67 m. Nearest River is Pedda Venka (7.6 km) and Penna (15.2km). Owk Reserve Forest is 6.7 km and Yadiki Reserve Forest is 7.9 km away.

Mining method involves drilling & blasting, excavation by hydraulic excavators and transport to crusher by dumpers. About 1.6 m<sup>3</sup>/day of domestic sewage is generated from the toilets and other areas which will be treated in septic tanks. About 1m<sup>3</sup>/day of plant effluent will be discharged after removing oil and grease. No perennial streams exist in the mining area. The requirement of water in mine is 45 m<sup>3</sup>/day. This requirement will be met initially from bore well, and after development of mine pit, switchover to mine pit water will be done. The entire mining lease area of 454.8 Ha is barren land. Since, the land in the mining lease area is rocky, no use is made thereof. Expected noise levels will be 80-90 dB (A).

Based on the information furnished and presentation made, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 1994 onwards 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 coming 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 High Resolution
5. Imagery/toposheet should be provided.
6. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
7. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
8. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
9. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
10. Issues relating to mine safety based on subsidence study should be detailed. The proposed safeguard measure in this regard should also be provided.
11. 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.
12. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
13. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted.
14. Details of the land for OB dump 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.
15. High Resolution Satellite Imagery of the proposed area clearly showing the land use and other ecological features of the study area (core and buffer zone) should be furnished.
16. 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, or otherwise, based on land use classification (revenue record) as also in terms of the definition of forest as pronounced in the judgement of the Hon"ble Supreme Court of India in the matter of T.N. Godavarman Vs. Union of India. In the event of any 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.
17. 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). A copy of the forestry clearance should also be furnished.
  18. Implementation of status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
  19. 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.
  20. The vegetation in the RF / PF area with necessary details should be given.
  21. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including on the elephant population and details furnished.
  22. A confirmation may be adduced, duly authenticated by the competent authority in the State Government to the effect whether the project falls in Aravalli and whether it is covered by the order of the Hon“ble Supreme Court dated 8.4.2005 in the contempt petition (c) 412/2004 in writ petition 202 of 1995 in the matter of Godavarman vs Union of India.
  23. 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, if any, 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.
  24. A detailed biological study for 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 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.
  25. Impact, if any, of change of land use should be given.
  26. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared

- accordingly integrating the sectoral programme of line departments of the State Government.
27. One season (non-monsoon) primary baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
  28. The mineralogical composition of PM10 particularly for free silica should be given.
  29. Air quality modeling 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 modeling 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.
  30. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  31. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  32. Details of water conservation measures proposed to be adopted in the project should be given.
  33. 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.
  34. 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.
  35. Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
  36. Details of rainwater harvesting proposed, if any, in the project should be provided.

37. 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.
38. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
39. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
40. Impact on local transport infrastructure due to the project should be indicated.
41. 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
42. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
43. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
44. Phase-wise plan of greenbelt development, 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.
45. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of preplacement medical examination and periodical medical examination schedules should be incorporated in the EMP.
46. Public health implication 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 allocation.
47. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.

48. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
49. 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.
50. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
51. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH process again with the revised documentation.

The EIA report should also include (i) surface plan of the area indicating contours

of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.9 Maton Rock Phosphate Mine of M/s. Hindustan Zinc Limited (143.13 ha) at Village: Maton Udaipur, Rajasthan for Expansion in production capacity from 0.18 MTPA to 1.0 MTPA of rock phosphate ore with beneficiation plant of 1.0 MTPA (Consultant: Vimta Labs Ltd.)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The proposed expansion is envisaged to supply rock phosphate to Hindustan Zinc's proposed green field Zinc Smelter & Phosphoric Acid Plant at Zawar, Udaipur located 40 kms away or for 3<sup>rd</sup> party sale in open market. A separate Application has been made seeking prior EC for the proposed Zinc Smelter-Phosphoric Acid Plant before the Industry Committee IA-I vide F. No J-11011/555/2011-IA-II (I). Environmental Clearance was granted for 0.18 MTPA vide letter no. J-11015/169/2009-IA.II(M) 17<sup>th</sup> March, 2010. The land (229.55ha) proposed to be acquired is primarily private agricultural land and government land. There will be production of Rock Phosphate ore by mechanized open cast mining. The ore shall be crushed in a crusher installed on surface. As already envisaged, Mine Waste rock generated shall continue to be stored over ground in earmarked area. Plantation shall be carried out on inactive benches of waste dump on maturity. Used and waste oil generated shall be sold to registered recyclers.

An additional 300 KLD of water is required (present 200 KLD) to cater to the expanded capacity. The additional requirement is proposed to be extracted from ground with in the mine lease or outside through bore wells. During the life

of the mine, about 2.5 MT of tailing is estimated to be generated. The tailings will be stored in an Engineered Tailing dam. Total fresh water requirement is 600 cum/day for mining, 3,100 cum/day for ore beneficiation. Ground water extraction will be 200 cum/day. Surface water sourcing will be 3,500 cum/day from the captive sewage treatment plant. Project is located at 24°32'15" N to 24°33'25" N and 73°47'16"E to 73°47'45"E. Archaeologically important sites in Udaipur city, temples and forts are within 10 km in NW direction. No protected areas are located within 10 km radius of Project site. 22 Reserve Forests are located within 10 km of Project site. Ahar seasonal river is 0.7 km, Udaisagar Reservoir is 1.4 km and Bagdara Talav is 4.4 km from Project site. There is no schedule-I species in the core zone. **Committee instructed to submit the Supreme Court Order, 2010 that the Project site is not a part of Aravalis. Only after submission of this order, the TORs will be issued.**

Based on the information furnished and presentation made, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 1994 onwards 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 coming 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 High Resolution
5. Imagery/toposheet should be provided.
6. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
7. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
8. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
9. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
10. Issues relating to mine safety based on subsidence study should be detailed. The proposed safeguard measure in this regard should also be provided.
  11. 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.
  12. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
  13. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted.
  14. Details of the land for OB dump 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.
  15. High Resolution Satellite Imagery of the proposed area clearly showing the land use and other ecological features of the study area (core and buffer zone) should be furnished.
  16. 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, or otherwise, based on land use classification (revenue record) as also in terms of the definition of forest as pronounced in the judgement of the Hon“ble Supreme Court of India in the matter of T.N. Godavarman Vs. Union of India. In the event of any 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.
  17. 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). A copy of the forestry clearance should also be furnished.
  18. Implementation of status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
  19. 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.
  20. The vegetation in the RF / PF area with necessary details should be given.

21. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including on the elephant population and details furnished.
22. A confirmation may be adduced, duly authenticated by the competent authority in the State Government to the effect whether the project falls in Aravalli and whether it is covered by the order of the Hon“ble Supreme Court dated 8.4.2005 in the contempt petition (c) 412/2004 in writ petition 202 of 1995 in the matter of Godavarman vs Union of India.
23. 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, if any, 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.
24. A detailed biological study for 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 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.
25. Impact, if any, of change of land use should be given.
26. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
27. One season (non-monsoon) primary baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
28. The mineralogical composition of PM10 particularly for free silica should be given.

29. Air quality modeling 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 modeling 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.
30. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
31. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
32. Details of water conservation measures proposed to be adopted in the project should be given.
33. 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.
34. 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.
35. Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
36. Details of rainwater harvesting proposed, if any, in the project should be provided.
37. 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.
38. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).

39. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
40. Impact on local transport infrastructure due to the project should be indicated.
41. 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
42. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
43. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
44. Phase-wise plan of greenbelt development, 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.
45. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of preplacement medical examination and periodical medical examination schedules should be incorporated in the EMP.
46. Public health implication 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 allocation.
47. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
48. Detailed Environmental Management Plan to mitigate the environmental impacts which, should inter-alia, also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the Project.
49. 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.
50. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
51. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH process again with the revised documentation.

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

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary

action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.10 Gandhigram Iron Ore/Blue Dust Mine (Iron ore Beneficiation plant) for production capacity from 90,000 Ton/year to 3,00,000 Ton/ year (7.310 ha) in Village Gandhi gram, Tehsil Sihora, Dist. Labalpur -Madhya Pradesh (Consultant: M/s. Enviro Techno Consultant) - TOR.**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

This Proposal is for mining of Laterite, Yellow Ochre & Iron Ore / Blue dust. The mine is located between 23°21'37" to 23°21'41"N and 80°02'24" to 80°02'35"E. EC is already obtained from MP, SEIAA for Mining and Beneficiation. Capacity of Mining remains the same @ 81,000 MTPA. No Forest land is involved. Tailing pond and recovery tanks shall be made to recover the water from tailings. Almost 85% water shall be recycled in the process. The solid waste shall be scrapped out and sold out to bricks makers in the vicinity. This is a Notified industrial area hence no private land is required. 240m<sup>3</sup>/day water is required which will be obtained from bore well. Mine waste (Blue Dust) shall be taken for beneficiation and discards in the form of waste shall be sold to bricks manufacturers. 0.1 ton/year municipal waste (domestic and or commercial wastes) will be generated. Areas which are important or sensitive for ecological reasons are not present in the Project area. Total cost of the Project is less than Rs. 3.0 Crores. During the processing, about 30 to 40% tailing is generated of total blue dust feeding to the Plant. Water used for beneficiation will be in closed circuit and will not be allowed to go out. Solid waste will be allowed to settle in the settling tanks and will be periodically scrapped out of the tanks and dumped at a designated place. No protected area is within 10 km radius of the Project site. No forest land is involved.

Based on the information furnished and presentation made, the Committee prescribed the TORs for undertaking detailed EIA study, which are as follows:

1. The alternate sites considered for the Beneficiation Plant, the relative merits and demerits and the reasons for selecting the proposed site may be furnished.
2. All corner coordinates of the mine lease area, duly superimposed on High Resolution Imagery/topo sheet should be provided.

3. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
4. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
5. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
6. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
7. Details of the technology and process involved in the project may be given.
8. The study area will comprise of 10 km zone around the project area and the data contained in the EIA such as waste generation etc should be for the life of the project.
9. Size distribution of the iron ore with percentage weight (Particulate size analysis) shall also be done to assess the source of fugitive dust emission of the ore feed to the plant.
10. Measures to manage the oversize waste from the feed ore shall be provided.
11. Details of the solid waste to be generated and its management should be described. The State of the art technology in this regard and supporting documents and literature in support thereof, to show that such a technology is being adopted successfully in other parts of the World or in the country anywhere, should be given. The related environmental issues associated with such technology, including the incremental requirement of power in adopting such technology vis-a-vis other technologies, should also be discussed in the EIA report. Management of fines and mitigation measures to control these fines from getting airborne should also be discussed.
12. Land use of the study area should be indicated delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
13. In view of the location of the proposed plant within 10 km of the wildlife sanctuary, requisite prior clearance from Standing Committee of the National Board for Wildlife should be obtained and copy furnished.
14. The land requirement should be optimized and furnished.
15. Land use plan of the project area should be prepared to encompass pre-operational, operational and post operational phases.
16. Location of the proposed plant w.r.t. the source of raw material and mode

- of transportations of the ore from mines to the beneficiation plant should be brought out.
17. Treatment of runoff water/affluent from the fines/waste dump should be described.
  18. Estimation of the fines going into the washings and its management should be made.
  19. Details of the equipment, settling pond etc. should be provided.
  20. Detailed material balance should be provided.
  21. Source of raw material and its transportation should be indicated. Steps proposed to be taken to protect the ore from getting air borne should be furnished.
  22. Management and disposal of tailings/filter press cake and closure plan of the tailing pond, if any, after the project is over should be given.
  23. Biological as well as health impact of fines and other dust generated in the plant should be studied with reference to National and International Standards (WHO and ILO standards including CPCB norms). The proposed mitigation measures with EMP should also be provided.
  24. 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. Necessary clearance, if any, 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.
  25. A detailed biological study for 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 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.
  26. R&R plan / compensation details for the project affected people, if any, should be given.
  27. Collection of one season (non-monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna should be carried out and included in the EIA report. Site-specific meteorological data should also be collected and included in the EIA report. 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 down wind direction and location of sensitive receptors. There should be atleast one AAQ monitoring station within 500 m of the project area. The baseline data already collected could be utilized provided it meets the monitoring

- protocol.
28. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area and results furnished in the EIA report. 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 modeling 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. The modelling should also take into account the impact due to operation of generator sets to meet the emergency power requirement for the project.
  29. Details of maximum inventory of fuel for the generator sets to be stored at site, if any, and its associated risk analysis in the worst case scenario should be given. The risk contours should be plotted on the location map.
  30. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should also be indicated.
  31. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  32. Details of water conservation measures proposed to be adopted in the project should be furnished.
  33. Impact of the project on surface water and groundwater should be assessed and necessary safeguard measures, if any required, should be provided.
  34. Details of rainwater harvesting proposed, if any, in the project should be provided.
  35. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided.
  36. Impact on local transport infrastructure due to the project should be studied and results provided. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be given. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  37. Details of the infrastructure facilities to be provided for the workers should be detailed.
  38. Phase-wise plan of greenbelt development, plantation and compensatory afforestation should be furnished, clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should also be given.
  39. Occupational health impact of the project should be furnished. Details of pre-placement medical examination and periodical medical examination

- schedules should be incorporated in the EMP.
40. Public health implication 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 allocation.
  41. Measures of socio economic influence to the local community proposed to be provided by project proponent should be given. As far as possible, quantitative dimension should be given.
  42. Detailed environmental management plan to mitigate the environmental impacts due to the project should be furnished.
  43. Detailed plan for dismantling of the existing unit should be given which inter-alia should address the environmental issues relating thereto.
  44. The mine plan may be got modified and approved to provide for location of the proposed plant within the existing mine lease and the use of mined out area, if any, proposed for disposal of waste / filter cake.
  45. Public hearing points raised and commitment of the project proponent on the same should be given in the EIA.
  46. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof should be given in the EIA report.
  47. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points are also to be followed:-

- a) All documents to be properly referenced with index and continuous page numbering.
- b) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- c) Where the documents provided are in a language other than English, an English translation should be provided.
- d) The Questionnaire for environmental appraisal of industrial projects as devised earlier by the Ministry shall also be filled and submitted.
- e) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry, should also be followed.
- f) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H.

process) will entail conducting the PH again with the revised documentation.

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

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

### **2.11 Expansion in production capacity of Iron Ore Beneficiation Plant of M/s. Jain Mines & Minerals Pvt. Ltd from 90,000 ton/year to 3,00,000 ton / year in Notified Industrial Area Hargarh, Tehsil Sihora, District Jabalpur, Madhya Pradesh State (Consultant: M/s. Enviro Techno Consult) -TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Proposal is expansion in production capacity of Iron Ore Beneficiation plant from 90,000 ton/year to 3,00,000 ton /year in Notified Industrial Area Hargarh, Tehsil Sihora, Distt. Jabalpur, Madhya Pradesh. As the expanded capacity is more than 0.1 Million Ton per annum the Project falls under category 'A'. The total land of 2.429 ha is already allotted to the company by Madhya Pradesh Audyogic Vikas Nigam Jabalpur for the proposed Plant. The Plant is located between 23°29'09"N and 80°06'54"E. Approximately 8016 sqm area is proposed for greenbelt out of 24,290 sqm. Total 150 m<sup>3</sup>/day fresh water is required. Total cost of the Project is Rs.3.0 Crores. Environment Protection Cost is 60 lacs. Nearest National Highway is 6.8 km. nearest Railway station is Sihora at 8 km. No eco-sensitive areas are located within 10 km radius of the Project. No forest land is involved. Hargarh Reserve Forest 1.8 km and Dhanwahd Reserve Forest is 6 km away. Nearest River is Hiren River at the distance of 0.8 km. During the operation phase the solid waste shall be generated in the form of discards which shall have approx 17-20 % of Fe contents shall be dried on a RCC platform and sold out to the nearby brick-manufacturers and used for backfilling of abandoned mines. Domestic effluent will be very low i.e. only 1.5 kld and shall be treated in septic tank and soak pit. Estimated quantity of discards shall be approximately 2,00,000 tons/annum. The beneficiation process does not

generate any hazardous waste. The Total land is in industrial area hence, no Rehabilitation & Resettlement Plan is required.

Based on the information furnished and presentation made, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. The alternate sites considered, the relative merits and demerits and the reasons for selecting the proposed site may be furnished.
2. All corner coordinates of the mine lease area, duly superimposed on High Resolution Imagery/topo sheet should be provided.
3. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
4. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
5. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
6. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
7. Details of the technology and process involved in the project may be given.
8. The study area will comprise of 10 km zone around the project area and the data contained in the EIA such as waste generation etc should be for the life of the project.
9. Size distribution of the iron ore with percentage weight (Particulate size analysis) shall also be done to assess the source of fugitive dust emission of the ore feed to the plant.
10. Measures to manage the oversize waste from the feed ore shall be provided.
11. Details of the solid waste to be generated and its management should be described. The State of the art technology in this regard and supporting documents and literature in support thereof, to show that such a technology is being adopted successfully in other parts of the World or in the country anywhere, should be given. The related environmental issues associated with such technology, including the incremental requirement of power in adopting such technology vis-a-vis other technologies, should also be discussed in the EIA report. Management of fines and mitigation measures to control these fines from getting airborne should also be discussed.

12. Land use of the study area should be indicated delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
13. In view of the location of the proposed plant within 10 km of the wildlife sanctuary, requisite prior clearance from Standing Committee of the National Board for Wildlife should be obtained and copy furnished.
14. The land requirement should be optimized and furnished.
15. Land use plan of the project area should be prepared to encompass pre-operational, operational and post operational phases.
16. Location of the proposed plant w.r.t. the source of raw material and mode of transportations of the ore from mines to the beneficiation plant should be brought out.
17. Treatment of runoff water/effluent from the fines/waste dump should be described.
18. Estimation of the fines going into the washings and its management should be made.
19. Details of the equipment, settling pond etc. should be provided.
20. Detailed material balance should be provided.
21. Source of raw material and its transportation should be indicated. Steps proposed to be taken to protect the ore from getting air borne should be furnished.
22. Management and disposal of tailings/filter press cake and closure plan of the tailing pond, if any, after the project is over should be given.
23. Biological as well as health impact of fines and other dust generated in the plant should be studied with reference to National and International Standards (WHO and ILO standards including CPCB norms). The proposed mitigation measures with EMP should also be provided.
24. 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. Necessary clearance, if any, 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.
25. A detailed biological study for 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 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.

26. R&R plan / compensation details for the project affected people, if any, should be given.
27. Collection of one season (non-monsoon) primary baseline data on ambient air quality, water quality, noise level, soil and flora and fauna should be carried out and included in the EIA report. Site-specific meteorological data should also be collected and included in the EIA report. 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 down wind direction and location of sensitive receptors. There should be atleast one AAQ monitoring station within 500 m of the project area. The baseline data already collected could be utilized provided it meets the monitoring protocol.
28. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area and results furnished in the EIA report. 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 modeling 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. The modelling should also take into account the impact due to operation of generator sets to meet the emergency power requirement for the project.
29. Details of maximum inventory of fuel for the generator sets to be stored at site, if any, and its associated risk analysis in the worst case scenario should be given. The risk contours should be plotted on the location map.
30. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should also be indicated.
31. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
32. Details of water conservation measures proposed to be adopted in the project should be furnished.
33. Impact of the project on surface water and groundwater should be assessed and necessary safeguard measures, if any required, should be provided.
34. Details of rainwater harvesting proposed, if any, in the project should be provided.
35. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided.
36. Impact on local transport infrastructure due to the project should be studied and results provided. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load

- should be given. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
37. Details of the infrastructure facilities to be provided for the workers should be detailed.
  38. Phase-wise plan of greenbelt development, plantation and compensatory afforestation should be furnished, clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should also be given.
  39. Occupational health impact of the project should be furnished. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
  40. Public health implication 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 allocation.
  41. Measures of socio economic influence to the local community proposed to be provided by project proponent should be given. As far as possible, quantitative dimension should be given.
  42. Detailed environmental management plan to mitigate the environmental impacts due to the project should be furnished.
  43. Detailed plan for dismantling of the existing unit should be given which should inter-alia address the environmental issues relating thereto.
  44. The mine plan may be got modified and approved to provide for location of the proposed plant within the existing mine lease and the use of mined out area, if any, proposed for disposal of waste / filter cake.
  45. Public hearing points raised and commitment of the project proponent on the same should be given in the EIA.
  46. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof should be given in the EIA report.
  47. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points are also to be followed:-

- a) All documents to be properly referenced with index and continuous page numbering.
- b) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- c) Where the documents provided are in a language other than English, an English translation should be provided.
- d) Questionnaire for environmental appraisal of industrial projects as devised earlier by the Ministry shall also be filled and

- submitted.
- e) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry, should also be followed.
  - f) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

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

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

### **2.12 Mahabir Manganese Mine Project of M/s. Vijay Kumar Ojha at Village Barabaljori, Tahsil Noamundi, West Singbhum District, (21.246 ha) Jharkhand (Consultant: Grass Roots Research & Creation India (P) Ltd)-TOR-**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Mahabir Manganese Mine is situated near village Barabaljori, Tahsil Noamundi, West Singbhum District of Jharkhand over an area of 21.246 hectares. The mining lease was granted to Sri Gyanchand Jain, of Chaibasa, Jharkhand which was leased since 22.01.1971, was later transferred to Sri Vijay Kumar Ojha w.e.f. 01.04.1990 by virtue of an indenture made on 22.04.1990 between Sri Gyanchand Jain, Sri Vijay Kumar Ojha and the State Govt. of Bihar for the unexpired period of the original lease i.e. till 21.01.1991. The Lessee has submitted the renewal application to the District Mining officer, Department of

Mines & Geology, Government of Jharkhand, Ranchi. The application for 2<sup>nd</sup> renewal of mining lease was made by the lessee on 23.03.1990 for a period from 22.01.1991 to 21.01.2011. The lease was deemed to be granted as per rule 24(6), MCR, 1960. The 3<sup>rd</sup> RML was applied by the lessee on 17.12.2009 for the period of 22.01.2011 to 21.01.2031. The mining plan pertaining to the last lease period was approved by IBM vide letter no. CAL/SB/Mn/MP-241 dated 23.12.1992 under rule 24 (A), MCR, 1960 for the grant of RML. The proposed rate of production was 8500 MTPA of Manganese and the production details from 1990 to 2011 have been furnished. The estimated Project cost is Rs. 2 Crores. The expected life of mine is 8 years. Mine is closed since 20.01.2011. Since the Project is located within 10km radius of interstate boundary as per EIA Notification 2006, and its amendments dated 1<sup>st</sup> December 2009 and 4<sup>th</sup> April 2011, Project falls under Category 'A'. Total area of land is 21.246 ha.

This land is Government land. Open cast mining method will be used. The mine lease area is located between 22°09'56" to 22°10'21.2"N and 85°27'42.4" to 85°28'3.6"E. Karo River is 5 km in the west direction. Water required for drinking and operations is 25 KLD. With the production of ore, considerable quantity of waste will be generated during this period. The waste will be mainly shale, laterite and rejects with threshold value of Mn. below 10%. Waste will be dumped temporarily at the designated dump yard. When the working quarry will be exhausted, the entire waste will be used for backfilling and soil will be spread over it. Rehabilitation and Resettlement is not applicable. No protected areas and eco-sensitive areas are located within 10 radius of the Project site. No forest land is involved.

Based on the information furnished and presentation made, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
2. Status of compliance of the earlier EC conditions along with supporting documents and photographs should be submitted.
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 High Resolution Imagery/topo sheet should be provided.
5. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
6. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of

the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

7. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
8. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
9. 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.
10. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
11. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
12. Details of the land for OB dump 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.
13. High Resolution Satellite Imagery of the proposed area clearly showing the land use and other ecological features of the study area (core and buffer zone) should be furnished.
14. 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, or otherwise, based on land use classification (revenue record) as also in terms of the definition of forest as pronounced in the judgement of the Hon'ble Supreme Court of India in the matter of T.N. Godavarman Vs. Union of India. In the event of any 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 Committee.
15. 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). A copy of the forestry clearance should also be furnished.
16. Implementation of status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
17. Impact of the project on the wildlife in the surrounding and any other

- protected area and accordingly detailed mitigative measures required should be worked out with cost implications and submitted.
18. The vegetation in the RF / PF area with necessary details should be given.
  19. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including on the elephant population and details furnished.
  20. Location of the proposed plant w.r.t. the source of raw material and mode of transportations of the ore from mines to the beneficiation plant, and outbound movement of the products should be provided.
  21. Details of the technology and process involved in the project may be furnished.
  22. Proposed treatment of runoff from the fines/waste dump should be provided.
  23. Estimation of the fines going into the washings and its management should be given.
  24. Details of the equipment, settling pond etc. should be provided.
  25. Detailed material balance should be provided.
  26. Source of raw material and its transportation should be given. Steps proposed to be taken to protect the ore from getting air borne should be given.
  27. Management and disposal of tailings and closure plan of the tailing pond, if any, after the project is over, should be provided.
  28. Size distribution of the iron ore with percentage weight shall also be done to assess the source of fugitive dust emission of the ore feed to the plant.
  29. Measures to manage the under size / over-size waste from the feed ore shall be provided.
  30. Details of the solid waste to be generated and its management should be outlined. Adequacy of the tailing pond for the life of the beneficiation plant should be provided with supporting data and documentation. Design and capacity of tailing pond should be such as to guard against overflow from the tailing pond during heavy rainfall. The provision of lining, nature of lining with supporting permeability studies should also be provided.
  31. 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, if any, 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.
  32. A detailed biological study for 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 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.
33. Impact of change of land use should be given.
  34. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
  35. 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 data so collected 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 PM<sub>10</sub> particularly for free silica should be given.
  36. Air quality modeling 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 modeling 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.
  37. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  38. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  39. Details of water conservation measures proposed to be adopted in the project should be given.
  40. 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.
  41. 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.
42. Details of first order stream, if any passing through lease area and modification/ diversion proposed, if any and the impact of the same on the hydrology should be brought out.
  43. Details of rainwater harvesting proposed, if any, in the project should be provided.
  44. 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.
  45. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
  46. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
  47. Impact on local transport infrastructure due to the project should be indicated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) should be worked out, indicating whether it is capable of handling the increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
  48. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
  49. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
  50. Phase-wise plan of greenbelt development, 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.
  51. Occupational health impact of project should be anticipated and preventive measures initiated. Health impacts of Manganese Poisoning to be considered at top priority. Preventive measures for Manganese Poisoning is followed as per the international standards. Details in this

- regard should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
52. Public health implication 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 allocation.
  53. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
  54. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
  55. 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.
  56. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
  57. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any made in the basic scope and project parameters

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

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

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.13 Bijouli Stone Mines of M/s. Sri Raveen Mehta for production of 24,000 cum per annum of stone ballast or khand boulders at Village Bijauli, Tehsil Jhansi, District Jhansi, Uttar Pradesh – TOR.**

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

**2.14 Digara Gitti Ballast and Khanda Boulders Mines of M/s. Sri Vijay Kumar Saraogi at Village Digara, Tehsil, Jhansi District Uttar Pradesh -TORs**

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

**2.15 Sand/Moram mining of M/s. IVRCL Ltd. at Arji No. 01, Lot No. 1 & 2 Bhagwa, Tehsil-Robertsganj, Sonbhadra, Uttar Pradesh -TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in

the prescribed format (Form-1) along with Pre-feasibility Report.

The proposed sand/moram mining at Arazi No 01 Lot No.1 & 2, Village Bhagwa, Tehsil Robertsganj, Dist, Sonbhadra, Uttar Pradesh has been leased to IVRCL Ltd. The cost of the Project is 40,000 Rs per day. The mine lease area is located on the river bed of Son River, which is a major River in central India. Rihand River is approximately 1 km south west direction. The total mining capacity has been targeted @ 260 m<sup>3</sup> per day to be extracted and transported to clients directly from the mining site. Son River is an important right bank tributary of the Ganges. The river originates at an elevation of 600m at Sonbhadra in the Maikala range of hills in Madhya Pradesh. The total catchment area of the basin is 71,259 Sq.km. Project is located within 10 km radius of Kaimur Wildlife Sanctuary. Clearance under the Forest (Conservation) Act, 1980 was obtained vide order No. 4851//OBRA/15-NOC dated 18<sup>th</sup> June, 2008. Production will be mostly manual. Solid waste will be generated from domestic and operational sources especially workers involved in sand mining Project at site. Domestic waste will be approximately 12 kg, considering 35 workers at site. Solid Waste Management will be done as per MSW rule 2000. About 375 liters of fresh water is required per day, which will be availed through private water suppliers. 300 liters of domestic waste water during the mining activity will be managed through provisions of septic tanks and soak pits. The mining site is located at 24°32'07.26" N & 83°01'01.38"E.

Based on the information furnished and presentation made before the Expert Appraisal Committee (EAC) for mining Project, the Committee recommended the rejection of Proposal due to the following reasons:

1. Proponents were not able to produce correct map showing the location of Wildlife Sanctuary from the Project site, they were asked to get authentic copy of map showing location of Wildlife Sanctuary.
2. Proponent did not submit the letter from the Chief Wildlife Warden saying that the Project site is not located within 1 km radius of the Wildlife Sanctuary.
3. List of other ecologically sensitive areas in the vicinity of the Project and exact distance from the Project site, authenticated by Chief Wildlife Warden was not produced.

#### **2.16 Sand/Moram mining of M/s. IVRCL Ltd. at Arji No. 1762, Lot No. 1, 2 & 3 Patwadh, Tehsil-Robertsganj, Sonbhadra, Uttar Pradesh-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA

Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The proposed sand/moram mining at Arazi No. 1761, Lat. No.3, Village Patwadh, Tehsil Robertsganj, Dist, Sonebhadra, Uttar Pradesh. The mine lease area is located on the river bed of Sone River that is a major river system in central India. The total mining capacity has been targeted @ 390 m<sup>3</sup> per day, which will be extracted and transported to clients directly from the mining site. Sone River is an important right bank tributary of the Ganga River. The river originates at an elevation of 600m at Sonebhadra in the Maikala range of hills in Madhya Pradesh. The total catchment area of the basin is 71,259 Sq.km. Project is located within 10 km from the boundary of Protected Areas notified under the Wild Life (Protection) Act, 1972. Kaimur Wildlife Sanctuary is an Ecologically Sensitive Zone which lies within 10 km radius of the proposed mining area. Therefore the Proposal falls under category 'A'. Production will be mostly done manually. Solid waste will be generated from workers involved in sand mining Project at site. Total waste will be approximately 18 kg, considering 35 workers at site. Solid Waste Management will be done as per MSW rule 2000. About 500 liters of fresh water is required per day, which will be availed through private water suppliers. 400 liters of domestic waste water during the mining activity will be managed through provisions of septic tanks and soak pits. The mining area under consideration falls in Vikas Khand Chopan and Nagwa in Robertsganj Tehsil. Vikas Khand Chopan and Nagwa consist of 93 villages with a population of 2,29,183 and 143 villages with a population of 73, 922 respectively which will provide a large pool of human resources. The Project will incur a total cost of Rs. 20,000 per day, which will include the cost of labor, diesel and transportation.

Based on the information furnished and presentation made before the Expert Appraisal Committee, the Committee recommended rejection of the Proposal due to the following:

1. Proponents were not able to produce correct location map showing distance of Wildlife Sanctuary from the Project site. They were asked to get authentic copy of map showing location of Wildlife Sanctuary.
2. Proponent did not submit the letter from the Chief Wildlife Warden saying that the Project site is not located within 1 km radius of the Wildlife Sanctuary.
3. List of other ecologically sensitive areas in the vicinity of the Project and exact distance from the Project site, authenticated by Chief Wildlife Warden was not produced.

**2.17 Bauxite Mining at Girgaon, Ringewadi, and Mhalsevadi Tehsil Shahuwadi District Kolhapur (95.89 ha) of M/s. Ex–servicemen Welfare Association (Consultant: J.M EnviroNet Pvt. Ltd.) Kolhapur-EC**

The matter was placed before the EAC in its 11<sup>th</sup> meeting held on 18-20 July, 2007. Initially Lease was granted by Government of Maharashtra, for Bauxite over an area of 95.89 ha vide Letter no. MMN-3421/C.R.7845/IND-9, dated 26/10/2009. However, there was a typographical error in the order relating to Survey nos. 102 of Girgaon which was wrongly mentioned as Survey no. 103, instead of S. No. 102 & S .No. 83 was shown under village Girgaon which actually falls in Mhalsavde village. The Association requested the Government of Maharashtra for rectification of the said order and Govt. of Maharashtra issued a fresh order vide order no. MMN- 3421/C.R. 7845/IND-9, dated 3/5/2010 under which, lease was granted for the period of Thirty years. Ministry of Environment and Forest approved ToR vide their letter no. J-11015/366 and 367 /2007-IA-II (II) (M) dated Aug 20, 2007. Based on approved ToR EIA was prepared and submitted to Maharashtra Pollution Control Board Kolhapur for public hearing. The area falls at 16° 50' 36" E and 73° 52' 13" N. Major portion of the lease is not fully explored. Exploration will be done using core drilling in Block-1 only, (village Girgaon, gat no 102). Proposed drill holes will have depth of 15m, average. Drilling will be done in the form of a grid with exploratory drill holes at an interval of 50m, (P1 to P15) in the in-situ zone.

Based on the additional information furnished and presentation made, Committee asked the Proponent to submit the following information.

1. Request letter to MoEF for amalgamation of two leases as the PP desires to have a single EC for the single Mine covering the two adjoining lease holds.
2. Resubmission of the earlier Separate Form-Is and Pre-feasibility Reports as a single amalgamated two leases accordingly.
3. Reasons for delay in getting environmental clearance.

It was decided that the Proposal may be brought back before the Committee for its further consideration after the requisite letter /information as mentioned above is furnished.

**2.18 Expansion of Limestone production from 0.12 MTPA to 0.3475 MTPA over Mine Lease Area of 72.439 ha of Khatkurbahal Limestone & Dolomite Mine of M/s Shiva Cements Ltd. at Village Khatkurbahal, Tehsil- Rajgangpur District- Sundargarh, Odisha (Consultant: S. S. Environics (India) Pvt. Ltd)-EC (As per Hon'ble NGT Order dated 9<sup>th</sup> July, 2012 in Appeal No. 03/2012)**

The Expert Appraisal Committee had considered the Proposal in its meeting held on November 23-24, 2009. Based on the information submitted and presentation made, the Committee had prescribed TORs for undertaking detailed EIA study for the Project vide letter no. J-11015/275/2009-IA.II (M) dated 15<sup>th</sup> December 2009.

Khatkurbahal Limestone & Dolomite Mine of M/s Shiva Cement Limited (SCL) proposes for expansion of lime stone production from 0.12 MTPA to 0.3475 MTPA over mine lease area of 72.439 ha at Village- Khatkurbahal, Tehsil- Rajgangpur, District- Sundargarh, Odisha. The Project Site is located between Latitude 22°16'38" to 22°16'53" N and Longitude 84°27'48" to 84°29'49" E. The date of opening of mine was reported to be 01.04.1998. The mining scheme in this respect has been approved by IBM vide letter no. MS/OTF.MECH/53-ORI/BHU/2008-09 dated 24.03.2009. No Forest land is involved. Mining method will be opencast category-A (Other than Fully Mechanized). The tenure of lease being due to expire on 14.01.2012, the lessee has applied for the renewal of the same on 06.08.2010. Water requirement will be 50 m<sup>3</sup>/day, which will be sourced from the mining pit for dust suppression & green belt. 5 m<sup>3</sup>/day potable water shall be sourced from ground water, for which, permission has been obtained from CGWA. Life of the mine is 53 years. Total cost of the Project is Rs. 3.25 Crores. No schedule-I fauna were found in the study area. No ecologically sensitive area such as National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. is located in core and buffer zone. The generation of intercalated wastes to be excavated in the ensuing four years is computed to be 46,970m<sup>3</sup>. The total waste to be generated is estimated to be 85,140 m<sup>3</sup>. Out of this, around 35% is required to be utilized for construction of approach roads and their maintenance along with the preparation & maintenance of check dams. The source of water for the mine will be from the mine pit as well as from the ground water source. 5m<sup>3</sup>/day portable water shall be drawn from existing bore wells in the nearby villages close to the Mines Office. In addition, 50 m<sup>3</sup>/day shall be sourced from the mining pit. The study area falls in the catchment of Sankh River.

The Proponent received EC clearance for the Cement Plant vide letter no. J-11011/84/2008-IA.II dated 23.5.2011 for expanding the Plant capacity from 0.132 MTPA to 1.05 MTPA. They were awaiting environmental clearance for the captive mines up to a capacity of 0.35 MTPA. After receipt of TOR for the mines as stated above, Proponent submitted EIA/EMP report to Orissa State Pollution Control Board on 13.4.2011 along with fee of Rs. 75,000 for conducting Public Hearing. The delay was mainly on account of data collection and other compliances. The period of mining lease in respect of lime stone being due to expire on 14<sup>th</sup> January, 2012, the Appellant had filed an Application for renewal of the lease but the Mining Authorities intimated the Appellant that the lease

cannot be renewed in the absence of Environment Clearance (EC) to be granted by the MoEF. Appellant approached the Hon'ble NGT on 11<sup>th</sup> January, 2012. The sole grievance of the Appellant was that, though the process of granting EC had duly commenced after award of TOR by MoEF, there have been delays at the State level in completing the procedure. Consequently, the Appellant is subjected to un-surmountable hardship. This Appeal No. 3 of 2012 was disposed of by Hon'ble NGT order dated 1<sup>st</sup> March, 2012 with the following directions:

- a) The Public Consultation which was scheduled on 16<sup>th</sup> March 2012 shall be conducted on the said date without any fail. The Collector, Sundargarh should take adequate steps in this regard.
- b) Based on the Public Consultation report, the Project Proponent shall finalize the EIA/EMP report and submit the Final EIA/EMP Report to MoEF for environmental appraisal within a period of one month.
- c) After receipt of the final EIA report, the MoEF shall deal with it with utmost promptitude and take a decision with regard to EC as per the provisions of law.
- d) The renewal of the mining lease would be subject to the final outcome of the EC.

The Orissa State Pollution Control Board (OSPCB) has filed an application stating that the proceedings of Public Hearing in respect of M/s. Shiva Cement Limited, which was fixed on 16<sup>th</sup> March, 2012 could not be held as there was law and order problem. This fact was intimated to the Secretary, MoEF by OSPCB vide letter dated 27<sup>th</sup> April, 2012. It was also mentioned that about 31 representations/objections have been filed by different persons. From the perusal of these representations it appears that majority of them are in favour of the Project.

In view of the above, Hon'ble NGT directed MoEF to take a decision as per the EIA Notification 2006 expeditiously. As per the Hon'ble NGT Order, the case was considered in this EAC Meeting.

Based on the information furnished, presentation made and discussions held, the Committee recommended the Project for environmental clearance.

### **2.19 Enhancement of Ore Processing/Beneficiation capacity in Rajhara hill of M/s. SAIL, District- Durg, Chattisgarh-EC**

This Project was already taken up in the meeting of July 2012, and has inadvertently been included in the Agenda; hence not considered.

### **2.20 Ganua Iron & Manganese Mines of Sri Pawan Kumar Ahluwalia Mining Lease area of 86.886 Ha in Village Gonua and Patabeda**

**Tehsil: Koira, Dist: Sundargarh, Odisha for expansion from 0.36 million TPA to 1.2 million TPA of Iron Ore with Mobile Screening & Crushing Plant and Renewal of Mining Lease-(Consultant: Environment Research and Services (India) Pvt. Ltd)-EC**

The mining lease area is 86.886 ha and the validity of lease was up to 4<sup>th</sup> October, 2010. It is an Open Cast Mine with mechanized method of mining. The lessee has submitted the application vide letter dated 25<sup>th</sup> June, 2008 for renewal of ML for further period of 20 years w.e.f. 5<sup>th</sup> October 2010. The lease area comprises of 76.882 ha of Khasra Forest area and 10.004 ha of non forest area. Forest clearance has been obtained for 54.40 ha vide letter no. 8-47/93- FC dated 7/9 Aug 1996 from MoEF. Environmental Clearance for the production was obtained vide letter No. J-11015/201/2005 IA.II (M) dated 7<sup>th</sup> October, 2005 from MoEF. CTO was obtained from OSPCB on 7<sup>th</sup> April 2007. Original mineral raising capacity was 0.36 MTPA for Iron Ore and 60,000 TPA for Manganese ore. TOR was issued on 19<sup>th</sup> August, 2010 for expansion of production with other facilities and renewal of lease. EIA/EMP was prepared during Post Monsoon Season 2010. Environmental Baseline data was well within the prescribed norms. Public Hearing was held on 4<sup>th</sup> April 2010. Additional District Magistrate, Rourkela and Regional Officer, OSPCB conducted the Public Hearing. Public Hearing proceedings were sent to MoEF by OSPCB on 10<sup>th</sup> May, 2012. Issues raised by the public were related to employment, drinking water, infrastructure, medical facilities etc. These issues were considered by the Proponents in the Action Plan with sufficient budgetary allocation. Application for grant of EC was submitted to MoEF on 9<sup>th</sup> June, 2012. The Project Proponent will implement the said expansion Proposal at an estimated total capital cost of about Rs. 20.00 Crores. Towards Pollution Control measures the expenditure will be Rs. 2.00 Crores approximately.

As Informed by the Project Proponent this is a violation case. Based on the information furnished and presentation made, the Committee recommended the Proposal for environmental clearance.

**2.21 Tetla Stone Mine of M/s. Mahavir Vintrade Private Limited at Tetla Village under P.S./Block-Potka in Singbhum East District, Jharkhand State (25.495 ha) (Consultant: Visiontek Consultancy Services (P) Ltd.) –TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

Tetla Stone Mines of M/s. Mahavir Vintrade Private Limited over an area of 25.4957 ha is situated at Tetla Village, P.S. Potka in Singhbhum East District of Jharkhand. The mining lease was first granted in favour of M/s. Prime Alloy Steel Pvt. Ltd. by Government of Jharkhand vide order No. 1996/Mines, dated 22.06.2007 for a term of 10 years. The said mining lease was then transferred in the name of M/s. Mahavir Vintrade Private Limited by Government of Jharkhand vide Order No. 1180/Mines, dated 26.05.2010 and was executed on 28.09.2010. The same lease is going to expire on 06.09.2017. As per EIA Notification this Project falls under category 'B'. But as no SEAC has been formed in Jharkhand State the Project requires prior environmental clearance from the Ministry of Environment & Forests.

The method of mining shall be opencast mechanized on a single shift basis with the deployment of Dozer, rock breaker, excavator, jack hammer drill, compressor and dumpers. Open cast mechanized mining shall be carried out with a production rate of 10,00,000 MT per annum of finished dolerite stone of required size. There will be a generation of about 63,446.64 cum of inter-burden waste (soil mixed with morrum and rock debris) during the conceptual period of mining. This waste will be used for reclamation of a portion of mined out area reached below surface level up to 178 mRL. No waste dump will exist over the area. Total water requirement for the Project will be 11m<sup>3</sup>/day. This requirement will be met from surface/ground water source. Total man power deployment will be 49. The Project area is located at 22°38'15.9" to 22°38'43.77" N and 86°10'47.65" to 86°11'25E". No forest land is involved. There is no human settlement within the mining lease hold area. No sewage/effluent will be generated except domestic effluents locally, which will be treated in septic tanks and soak pits. Life of the mine is 15.32 years. Total Project cost is Rs 20 Lakhs.

Request of the PP for Exemption of Public Hearing and Categorization as B2 could not be accepted by the Committee for want of adequate justification.

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
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 (eco friendly mine plan), EIA report 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.
4. The terms and conditions imposed, if any, by the Competent Authority in

- the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
  6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
  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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
  11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
  13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
  16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
  18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within

- 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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.
  20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
  23. Air quality modeling 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 modeling 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
  24. 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.
25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

## **2.22 Khesmi Stone Quarry of M/s Shri Kamal Kumar Agrawal at Village- Khesmi Alias Purnanagar, Tehsil-Debipur Khesmi, District**

**Koderma (2.064 ha), Jharkhand (Consultant: Envomin Consultant (Pvt.) Ltd) on the direction of the Hon'ble Supreme Court.**

The Proposal was considered and examined by the Committee on the directions of the Hon'ble Supreme Court on bringing all mines within the fold of prior EC, irrespective of their M.L. size. Thus, the present proposal, though of less than 5 ha lease area (and hence not covered under the September, 2006 Notification), was appraised with the objective of recommending summary issuance or denial of EC by MoEF. For this purpose, the proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Committee approved this proposal on the basis that the size of the mine; production rate, the mineral mined and the eco-sensitivity of the area are such that the operation of the mine will have negligible impact on the surroundings. However, it would be desirable that the PP also submits a eco-friendly Mine Plan outlining the mining method and the measures proposed to be taken for protection of the environment around the mine.

For the same reason of size of the leasehold and environmental impact being negligible, there will not be any need for issue of TORs, nor any formal EIA/EMP being prepared in the instant case, nor will it be necessary for the PP to go for a Public Hearing. These prescribed exemptions are recommended by the Committee in the instant case, which will make the Project Proponent eligible for getting the EC forthwith.

Committee also observed that the PP has also prepared a Mine Plan by Certified RQP. The Committee recommended the project subject to submission of the aforesaid Mine Plan duly approved by the Competent Authority.

The EAC was of the view that MoEF needs to take a policy decision on whether such kinds of proposals need to be given TORs, do they have to conduct Public Hearing and submit EIA/EMP Report.

**2.23 Domchanch stone quarry of M/s. Kamal Pravat Stone (2.226 ha) with production capacity of 17000 m<sup>3</sup>/annum of Dolerite (Hard Stone) mine at Village-Domchanch, Tehsil-Koderma, District Koderma, Jharkhand (Consultant: Envomin Consultant (Pvt. Ltd) on the direction of the Hon'ble Supreme Court).**

The Proposal was considered and examined by the Committee on the directions of the Hon'ble Supreme Court on bringing all mines within the fold of prior EC, irrespective of their M.L. size. Thus, the present proposal, though of less than 5 ha lease area (and hence not covered under the September, 2006 Notification), was appraised with the objective of recommending summary

issuance or denial of EC by MoEF. For this purpose, the proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Committee approved this proposal on the basis that the size of the mine; production rate, the mineral mined and the eco-sensitivity of the area are such that the operation of the mine will have negligible impact on the surroundings. However, it would be desirable that the PP also submits a eco-friendly Mine Plan outlining the mining method and the measures proposed to be taken for protection of the environment around the mine.

For the same reason of size of the leasehold and environmental impact being negligible, there will not be any need for issue of TORs, nor any formal EIA/EMP being prepared in the instant case, nor will it be necessary for the PP to go for a Public Hearing. These prescribed exemptions are recommended by the Committee in the instant case, which will make the Project Proponent eligible for getting the EC forthwith.

Committee also observed that the PP has also prepared a Mine Plan by Certified RQP. The Committee recommended the project subject to submission of the aforesaid Mine Plan duly approved by the Competent Authority.

The EAC was of the view that MoEF needs to take a policy decision on whether such kinds of proposals need to be given TORs, do they have to conduct Public Hearing and submit EIA/EMP Report.

**2.24 Langaraparas Stone Quarry of M/s. Praveen Kumar Sukhani (2.298 Ha) of production capacity of Hard Stone (Dolerites,) of 10,000 m<sup>3</sup>/annum, at Village– Langaraparas, District–Koderma, Jharkhand (Consultant: Envomin Consultant (P) Ltd) on the direction of the Hon'ble Supreme Court**

The Proposal was considered and examined by the Committee on the directions of the Hon'ble Supreme Court on bringing all mines within the fold of prior EC, irrespective of their M.L. size. Thus, the present proposal, though of less than 5 ha lease area (and hence not covered under the September, 2006 Notification), was appraised with the objective of recommending summary issuance or denial of EC by MoEF. For this purpose, the proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Committee approved this proposal on the basis that the size of the mine; production rate, the mineral mined and the eco-sensitivity of the area are such that the operation of the mine will have negligible impact on the surroundings. However, it would be desirable that the PP also submits a eco-friendly Mine Plan outlining the mining method and the measures proposed to be

taken for protection of the environment around the mine.

For the same reason of size of the leasehold and environmental impact being negligible, there will not be any need for issue of TORs\, nor any formal EIA/EMP being prepared in the instant case, nor will it be necessary for the PP to go for a Public Hearing. These prescribed exemptions are recommended by the Committee in the instant case, which will make the Project Proponent eligible for getting the EC forthwith.

Committee also observed that the PP has also prepared a Mine Plan by Certified RQP. The Committee recommended the project subject to submission of the aforesaid Mine Plan duly approved by the Competent Authority.

The EAC was of the view that MoEF needs to take a policy decision on whether such kinds of proposals need to be given TORs, do they have to conduct Public Hearing and submit EIA/EMP Report.

**2.25 Taratand Stone Quarry of M/s Vimali Devi (2.784 ha) for production of hard stone (dolerite) 5,100 m<sup>3</sup>/annum, at Village–Taratand, G.P. District Domchanch - Koderma, Jharkhand (Consultant: M/s. Envomin Consultant (P) Ltd) on the direction of the Hon'ble Supreme Court**

The Proposal was considered and examined by the Committee on the directions of the Hon'ble Supreme Court on bringing all mines within the fold of prior EC, irrespective of their M.L. size. Thus, the present proposal, though of less than 5 ha lease area (and hence not covered under the September, 2006 Notification), was appraised with the objective of recommending summary issuance or denial of EC by MoEF. For this purpose, the proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Committee approved this proposal on the basis that the size of the mine; production rate, the mineral mined and the eco-sensitivity of the area are such that the operation of the mine will have negligible impact on the surroundings. However, it would be desirable that the PP also submits a eco-friendly Mine Plan outlining the mining method and the measures proposed to be taken for protection of the environment around the mine.

For the same reason of size of the leasehold and environmental impact being negligible, there will not be any need for issue of TORs\, nor any formal EIA/EMP being prepared in the instant case, nor will it be necessary for the PP to go for a Public Hearing. These prescribed exemptions are recommended by the Committee in the instant case, which will make the Project Proponent eligible for getting the EC forthwith.

Committee also observed that the PP has also prepared a Mine Plan by Certified RQP. The Committee recommended the project subject to submission of the aforesaid Mine Plan duly approved by the Competent Authority.

The EAC was of the view that MoEF needs to take a policy decision on whether such kinds of proposals need to be given TORs, do they have to conduct Public Hearing and submit EIA/EMP Report.

**2.26 Sand/Moram Mining of M/s. I.V.R.C.L Limited at Arji No. 312 Ka, Lot no -1, 2, 3 & 4, Village-Beejaura, Tehsil- Robertsganj, Sonbhadra, Uttar Pradesh-TOR**

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

**2.27 Sand/Moram Mining of M/s. I.V.R.C. Limited at Arji No.-01, Lot no -1 & 2, Bhagawa, Tehsil- Robertsganj, Sonbhadra, Uttar Pradesh -TOR**

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

**2.28 Stone Mining of 2,000 cubic meters (2.00 Acres) by Shri Muniraj Singh Arazi No. 1274, Khand-4 Village-Sonvarsa, Tehsil-Bara, District- Allahabad, Uttar Pradesh-TOR**

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

**2.29 Amlor Khadar Sand/Moram Mining from River Ken (57.59 ha) at Village Amlor Khadar, Tehsil, Banda, District, Banda, Uttar Pradesh State [Consultant: Grass Roots Research & Creation India (P) Ltd] –TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Project is for sand/moram mining on river bed. Original period of lease was 13.8.2009 to 12.8.2012. Application for renewal has been submitted on 10.2.2012. The proposed capacity of Sand/Moram extraction is 3 lacs TPA,

the area of the proposed mine is 57.59 ha. Project falls under category 'A'. There will be no change in land use. There is no vegetation or building; hence no clearance of any vegetation, building and land is required. The activity will be confined to the river bed. Mining is by manual means/semi-mechanized if permitted. Sand/Moram will be loaded directly into trucks/dumpers. For this purpose, about 12 local people will be hired hence no temporary sites for housing is required. No waste/effluent will be generated at the mine site. About 3.30 KLD water will be required for drinking and dust suppression purpose. This water will be supplied from nearby villages. Amra Reserve Forest is about 1 km in W direction. Nari Reserve Forest is about 7 km in E direction. Khaire Reserve Forest is about 6 km in SSW direction. Beri Purwa Reserve Forest is about 7 km in SW direction. Amara, Pailani, Nari, Kukwapah and Khaire Reserve Forests are within 5 km radius of the Project site. Chandrawal River is about 2.5 km in North direction. The Project is located at Latitude 25°43'36.73" N to 25°44'18.60" N and 80°21'10.53" E to 80°20'59.24"E. No rehabilitation and resettlement is required. The total cost of the Project would be around Rs.32 lakhs.

As Informed by the Proponent this is a violation case. Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
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 (eco friendly mine plan), EIA report 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.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
16. The vegetation in the RF / PF in the study area, if any, should be indicated.
17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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.
20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
  23. Air quality modeling 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 modeling 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
  24. 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.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and

- whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the

- proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
  - h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

### **2.30 Bhagabanpur Decorative Stone Quarry of M/s. Sri A.N Bakshi (production of 100000 cum per annum Decorative Stone -granite gneiss (40.198 ha) at Village –Bhagabanpur, Tehasil- Berhampur, Distt. Ganjam, Odisha-TOR**

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

### **2.31 Open Cast Mining Activity for Munker Stone Mine of M/s. Rajkumar Khurana at Village Munker, Tehsil Chatarpur, District Palamau, Jharkhand for production of 18,000 TPA of Sandstone (4.047 ha) on the directions of Hon'ble Supreme Court.**

The Proposal was considered and examined by the Committee on the directions of the Hon'ble Supreme Court on bringing all mines within the fold of prior EC, irrespective of their M.L. size. Thus, the present proposal, though of less than 5 ha lease area (and hence not covered under the September, 2006

Notification), was appraised with the objective of recommending summary issuance or denial of EC by MoEF. For this purpose, the proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Committee approved this proposal on the basis that the size of the mine; production rate, the mineral mined and the eco-sensitivity of the area are such that the operation of the mine will have negligible impact on the surroundings. However, it would be desirable that the PP also submits a eco-friendly Mine Plan outlining the mining method and the measures proposed to be taken for protection of the environment around the mine.

For the same reason of size of the leasehold and environmental impact being negligible, there will not be any need for issue of TORs, nor any formal EIA/EMP being prepared in the instant case, nor will it be necessary for the PP to go for a Public Hearing. These prescribed exemptions are recommended by the Committee in the instant case, which will make the Project Proponent eligible for getting the EC forthwith.

Committee also observed that the PP has also prepared a Mine Plan by Certified RQP. The Committee recommended the project subject to submission of the aforesaid Mine Plan duly approved by the Competent Authority.

The EAC was of the view that MoEF needs to take a policy decision on whether such kinds of proposals need to be given TORs, do they have to conduct Public Hearing and submit EIA/EMP Report.

**2.32 Jajraul (Khand-1) Sand/Moram Mining Project of M/s. Mrs. Sangeeta Singh; proposed capacity of Sand/Moram extraction is 1,08,000 TPA (6.56 ha) in Village Jajraul, Tehsil Hasanpur, District J.P. Nagar, State Uttar Pradesh (Consultant: Grass Roots Research and Creation India (P) Ltd. )-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

This is a proposed Project in the capacity of Sand/Moram 1,08,000 TPA in the mine area of 6.56 ha. Original lease period was 9.6.2009 to 8.6.2012. Application for renewal of the lapsed period has been submitted on 12.06.2012. The Project Site is located between Latitude: 28°45'10.32"N to 28°44'56.62"N Longitude: 78°10'30.18"E to 78°10'25.06"E. Hastinapur Wildlife and Bird Sanctuary lies within 10 km radius of the study area. The Ganga River flows at

210m to 211m above msl towards North-South in the mining lease area. There will be no change in the land use. Mining will be by opencast method, along the centre of the river bed keeping both the shores unaffected. There is no vegetation or building. Hence, no clearance of any vegetation, building and land will be required. The mining activity will be confined to the river bed. Sand/Moram will be loaded directly into trucks, dumpers etc. For this purpose, local people will be hired, and hence no temporary sites for housing will be required. Around 20 workers will be hired / employed locally from the nearby villages. Total water requirement will be 2.6 for drinking and dust suppression purpose. Water will be supplied by Private and Government tankers from nearby villages. Very insignificant quantity of domestic waste will be generated by the labours at site. Hastinapur Wildlife and Bird Sanctuary is about 3.2 km from the Project Site in NW direction. Sihali Jagir Reserve Forest is about 8 km from the Project Site in NE direction. Reserve Forest is about 5 km from the Project Site in SSE direction. Dense babul Jungle is about 3.5 km from the Project Site in NE direction.

As Informed by the Proponent this is a violation case. Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
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 (eco friendly mine plan), EIA report 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.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
16. The vegetation in the RF / PF in the study area, if any, should be indicated.
17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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.
20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
  23. Air quality modeling 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 modeling 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
  24. 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.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and

- whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.

- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

### **2.33 Kanvara sand/moram mining Project of M/s. Sri Somesh Bharadwaj for renewal of mining lease of Sand/Moram extraction of 7 lacs TPA (122.81 ha) at Village Kanwara, Bhuredi & Chilehata, District Banda, Uttar Pradesh (Consultant: Grass Roots Research and Creation India (P) Ltd)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Project is for sand/moram mining on river Ken. Original lease period was 24.12.2009 to 23.12.2012. Proponent applied for renewal of mine lease on 15.5.2012. This is a fresh application for renewal of mine lease period located at Plot/Survey/Khasra No. Khand No.: 13, Zone 1, Village Kanwara, Bhuredi,

Chilehata, Tehsil Banda, District Banda, Uttar Pradesh between Latitude: 25° 29'11.48" N to 25° 30'30.90" N and Longitude: 80° 18'40.03" E to 80°17'30.31" E. It is within 10 km radius from the interstate Boundary between Madhya Pradesh-Uttar Pradesh There will be no change in the land use. Mining will be by manual opencast method, along the centre of the river bed keeping both the shores unaffected. There is no vegetation or building. The mining activity will be confined to the river bed mining. Sand/Moram will be loaded directly into trucks, dumper etc. for this purpose local people will be hired, and hence no temporary sites for housing will be required. No waste/effluent will be generated at the mine site. About 5.91 KLD will be required for drinking and dust suppression purpose. This water will be supplied from the nearby village. Very insignificant quantity of domestic waste will be generated by the labours at site. Ganchha, Chatkan and dense babul Reserve Forests are located within 10 km radius.

As Informed by the Proponent this is a violation case. Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
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 (eco friendly mine plan), EIA report 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.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed

- in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
  11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
  13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
  16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
  18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
  19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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.
  20. Impact of the project on land use including change of river course, if any, should be given.

21. Impact on topography, drainage, agricultural fields, cattle fields grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free Silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
23. Air quality modeling 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 modeling 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
24. 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.
25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any,

- should be covered.
30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents

and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.

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

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.34 Bauxite Mining Project of M/s. Haroon Ahmed Fazlani (139.05 ha) with production capacity of 0.22 MTPA at Village -Mandivali, Taluka: Dapoli, District: Ratnagiri, Maharashtra (Aditya Environmental Services (P) Ltd)-EC**

The Proposal was submitted to the MoEF vide letter dated 14.9. 2006 to determine the Terms of Reference (TOR) for undertaking detailed EIA study for obtaining Environmental Clearance. The Proposal was considered by the Expert Appraisal Committee in its meeting held on 16-18<sup>th</sup> May, 2007 for prescribing TOR. Accordingly TOR were prescribed by the Ministry on 13.6.2007. The Proposal was considered by the EAC in its meetings held on 5-6 May, 2009 and further on 24-26 August, 2011. Public Hearing has been held on 24.12.2008. The mine lease area is 139.05 ha. No forestland is involved. Life of mine is 20 years. Mine working will be opencast mechanized involving drilling and blasting. It was observed that the baseline AAQ data contained in the EIA report is reported to have been collected during winter of 2008. Since, date-wise monitored data was not given in the EIA report, the Committee sought clarification from the Proponent and their Consultant present during the meeting, regarding the specific period during which Base line data was collected. Further,

it was also observed that the AAQ monitoring stations selected by the Proponent did not conform to the wind roses given in the EIA report. There was no mention of the compliance of the TOR in the EIA report.

Based on the presentation made and discussions held and keeping in view the poor quality of EIA report, the Committee had recommended rejection of the Proposal. A letter mentioning rejection of the Project was issued by the Ministry on 28<sup>th</sup> May, 2012.

The Proponent has now submitted fresh EIA/EMP Report on 11.6.2012. On the basis of the submission of the report to the Ministry, the Proposal was included in the EAC Meeting of November, 2012.

Based on the additional information/clarifications submitted by the Proponent and the detailed discussions on the latest EIA/EMP under submission, the Committee recommended the Project for environmental clearance.

### **2.35 Iron Ore Mining Project of M/s. Neelachal Ispat Nigam Ltd. District Keonjhar, Orissa- EC**

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

### **2.36 Andhari Quartz Mine of Smt. Prativa Bhanjdeo for Production Capacity: 7144 TPA (Plan period) & 9000 TPA (Conceptual Period) of Quartz (24.071 ha) in village Andhari and Ghaghari, in Biramitrapur tehsil of Sundargarh district, Odisha-EC**

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

### **2.37 Expansion of Sukinda Chromite Mine (opencast and underground) of M/s. Tata Steel Ltd., Village Kalarangiatta, Kaliapani and Mahulkhal, Tehsil Sukind, District Jajpur, Orissa-EC**

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

### **2.38 China Clay, Soap Stone & Red Ochre Mining Project of M/s. R.B. Mining & Company for enhancement in production capacity from 0.1 MTPA to 0.95 MTPA of Onkarpura China Clay, Soap Stone & Red Ochre Mine (M.L. Area 180.25 ha, M.L. No.- 217/05), near Village: Onkarpura, Tehsil: Kotri, District: Bhilwara, Rajasthan (Consultant: J.M. EnviroNet Pvt. Ltd.) -TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

Onkarpura China Clay, Soap Stone & Red Ochre Mine is for Production Enhancement of China Clay, Soapstone & Red Ochre from 0.1 MTPA to 0.95 MTPA is a Category 'A'. No alternative sites have been considered as this is an existing mine and Proposal is to seek environment clearance for enhancement in production capacity of red ochre, Soapstone & China Clay. No litigation is pending against this Project. The mining lease area is 180.25 ha which Government waste land. At the end of life of mine, total excavated area will be 39.47 ha, which will be converted into water reservoir. Mine's offices have been constructed in an area of 0.10 ha and about 0.85 ha area covered under roads are proposed to be left for public use as a post mining land use in the area. At the end of life of mine about 54.0 ha area will be covered with Plantations. The remaining 85.83 ha will remain undisturbed.

Environmental Clearance was issued by MoEF, New Delhi vide Letter No. J-11015/30/2005-IA.II (m) dated 27.10.2005. Regular compliance of the conditions stipulated in EC/CTO are being submitted to the respective authorities. The mining lease area is located between 25°23'58.1" to 25°25'5.04"N and Latitude 75°0'43.48" to 75°21'0.85"E. The total capital cost of the Project is Rs 3 Crores. The cost for environmental protection measures is Rs. 7.5 lakhs. Three Reserve Forests are within 10 km radius of the Project. No wastewater will be generated. Septic tanks and soak pits will be provided for disposal of domestic sewage. Mining is by opencast semi-mechanized method. About 46,65,720 Tonnes of waste is likely to be generated till end of life of the mine. This will be dumped in 10.0 ha area which will be stabilized by plantation. Total water requirement for the mine will be 60 KLD in which existing water requirement is 8.5 KLD & proposed is 51.5 KLD. Only domestic wastewater in small quantities will be generated from the mine office toilets, which will be disposed in soak pit via septic tank. No International protected area is located within the 15 km radius of the mining lease area. Banas River is at a distance of 4.5 km and Kothari River is at a distance of 8.5 km in S direction.

Based on the presentation made and discussions held, the Committee sought information on the following, regarding the compliance of existing EC conditions, Mine Plan and status of Flora/Fauna in the Study area:-

1. Details of the area under Green Belt.
2. Details of the mine closure plan

3. Authenticated report stating that there is no schedule-I flora and fauna present in the Project location.

It was decided that the Proposal may be brought back before the Committee for its further consideration after the requisite information as mentioned above, has been submitted.

**2.39 Erach (Khand 4) Sand/Moram Mining Project of M/s Ramgarh Minerals for proposed capacity of sand/Moram of 7 Lakh TPA (73.65 ha) at Plot No.: Bhukhand No.-4 Khasra No.- 1क, 154 ग & 42, Village Erach, Tehsil Garautha, District Jhansi, Uttar Pradesh (Consultant: Grass Roots Research and Creation India (P) Ltd.) - TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent has submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The Project is for sand/moram mining on river Betwa. Application for granting of lease is dated 28.4.2010. Total mine lease area is 73.65 ha. This is a category 'A' Project. Total cost of the Project is Rs. 30 Lakhs. The lease area lies between Latitude 25°48'40.30" N to 25°49'08.55" N and Longitude 79°05'05.16" E to 79°06'47.84"E. The Betwa River flows at 137 m to 141 m above msl towards East in the mining lease area. Betwa canal is about 3 km in N direction. Six Reserve Forests are present in 10 km radius of the mining lease area. Mining is by manual means. No change in land use pattern is proposed. Mining will be by opencast manual method along the centre of the river bed keeping both the shores unaffected. The mining is confined to extraction of sand/Moram from the river bed. Sand/Moram will be loaded directly into trucks/dumpers and for this purpose, local people will be hired, and hence no temporary sites for housing will be required. About 6 KLD will be required for drinking and dust suppression purpose. This water will be supplied from the dug wells/bore wells. Very insignificant quantity of domestic solid waste will be generated by the labour at site.

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
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 (eco friendly mine plan), EIA report 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.
  4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
  5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
  6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
  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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  9. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
  11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
  13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.

16. The vegetation in the RF / PF in the study area, if any, should be indicated.
17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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.
20. Impact of the project on land use including change of river course, if any, should be given.
21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free Silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
23. Air quality modeling 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 modeling 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
24. 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.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.

36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues,

the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.40 Naseni Sand/Moram Mining Project of M/s. Dilip Singh for production capacity of 1.3 Lakhs TPA Sand/Moram on River Ken (11.99ha) at Bhukhand No. 10 – Zone-1, Village Naseni, Tehsil Naraini, District Banda, Uttar Pradesh (Consultant: Grass Roots Research and Creation India (P) Ltd) - TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

This is a Sand/Moram mining Project on River Ken. The mine lease area is located between 25°10'43.13" N to 25°10'34.13"N and 80°26'09.28" E to 80° 26' 10.83" E. Proponent has applied for renewal of mine lease on 15.5.2012. The original lease period was 22.1.2010 to 21.01.2013. There will be no change in the land use. Mining will be by opencast manual method along the centre of the river bed keeping both the shores unaffected. The mining is confined to extraction of sand/Moram from the river bed. The operation will be semi-mechanised in which the river bed material will be collected in its existing form. The mining activity will be confined to river bed only. Sand/Moram will be loaded directly into trucks/dumpers. About 2.67 KLD water will be required for drinking and dust suppression purpose. This water will be supplied from the nearby village. Very insignificant quantity of domestic solid waste will be generated by the laborers at site. Total cost of the Project is Rs.10 Lakhs.

As Informed by the Proponent this is a violation case. Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
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 (eco friendly mine plan), EIA report 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.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract

- should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
  6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
  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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
  11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
  13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
  16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
  18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by

- a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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.
  20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
  23. Air quality modeling 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 modeling 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
  24. 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.

25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

#### **2.41 Pathari Sand/Moram Mining Project of M/s. Sri Shivharan Singh for renewal of mining lease of Sand/Moram (83.08 ha) at Khand No-06 Village Pathari, Tehsil Banda, District Banda, Uttar**

**Pradesh (Consultant: Grass Roots Research and Creation India (P) Ltd) -TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

This is a Sand/Moram mining Project on river Ken. Original lease period is 18.1.2010 to 17.1.2013. Proponent had applied for renewal of mine lease on 15.5.2012. Pathari Sand/Moram Mining Project for production capacity of Sand/Moram extraction will be 6,00,000 TPA, the area of the proposed mine is 83.08 ha located at Latitude 25°38'2.44"N to 25°36'44.93"N and Longitude 80°18'12.62"E to 80°17'30.40"E. The mining is confined to extraction of sand/Moram from the river bed. The operation will be semi-mechanised in which the river bed material will be collected in its existing form. Sand/Moram will be loaded directly into trucks, dumper etc. for this purpose local people will be hired, and hence no temporary sites for housing will be required. No waste/effluent will be generated at the mine site. About 5.5 KLD will be required for drinking and dust suppression purpose. This water will be supplied from nearby villages. Very insignificant quantity of domestic solid waste will be generated by the labours at site. The areas which are sensitive for ecological reasons are Khair Reserved Forest (7 km in NE), Chatkan Reserved Forest (5 km in South), Reserved Forests (5 km in SW), Protected Forest (dense babul-7 km in SW), Reserved Forest (near Bhulsi- 4 km in North), Protected Forest (near Beri Purwa- 7 km in North and Reserved Forest (near Beri Purwa- 8 km in North). Total cost of the Project is Rs. 35 Lakhs.

As Informed by the Proponent this is a violation case. Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
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 (eco friendly mine plan), EIA report 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.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the

- EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
  6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
  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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
  11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
  13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
  16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
  18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary

- clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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.
  20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, ~~cattle~~ fields grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
  23. Air quality modeling 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 modeling 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
  24. 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.
  25. Necessary clearance from the Competent Authority for drawl of requisite

- quantity of water for the project should be obtained where required and copy furnished.
26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

**2.42 Dungri Sand Land Lease Area of M/s. Tata Steel Limited at Dungri, Mouza- Dungri, No. 111; Paetia No. 107, Tehsil- Dhanbad, District Dhanbad, Jharkhand State (24.127 ha) (Consultant: Indian School of Mines, Dhanbad) –TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

This is a proposed expansion Project of the capacity of 3.2 Lakh Tonne per annum in the existing mine located at Mouza Dungri no. 111 and Petiya no. 107 in between Latitude 23°42'0.63"N to 23°42'22.05"N and Longitude 86°22'10.96" E to 86°22'23.27" E. The proposed Project activity will be carried out in the bed of the river Damodar. TISCO Limited is the Lessee of the proposed Mine for a period of 30 years. The mining is confined to collection of sand from the river bed. The operation will be Semi-mechanised with the help of scraper and Poclain Dumper combination in which the river bed material will be collected. There is no need of water to carry out operations but drinking water will be required for the working people. This water will be supplied from the dug wells/bore wells in nearby villages. There are no mineral rejects of any kind produced during mining. The domestic and temporary rest shelter effluents will be biologically treated by adoption of septic tanks, soak pits and dispersion trenches. The mine workers will be hired from nearby villages, so residential areas will not be made, rehabilitation and resettlement is not required. The total cost of the Project would be around Rs. 20 Lakhs. No forest land is involved. No vegetation in the core zone. No rare species (fauna) found in core zone.

While examining the Proposal it was observed that the said Project is located in District Dhanbad. As per the Ministries O.M. no J-11013/5/2010 IA.II (I) dated 13.1.2010 and 15.3.2010, a location map showed the Project in the Critically Polluted Areas. Accordingly a letter was issued to the Proponent to clarify whether the area falls in the category of Critically Polluted Areas. As desired by the MoEF, Proponents submitted a map showing the location of Project with respect to the Critically Polluted Areas.

Based on the information furnished, presentation made and discussions held, the Committee desired to seek views of the SPCB as per procedure adopted and subject to favourable report from the SPCB, Committee prescribe the TORs for undertaking detailed EIA study as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
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 (eco friendly mine plan), EIA report 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.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
  5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
  6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
  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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
  11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
  12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
  13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
  16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on

- wildlife of the area including aquatic life.
18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
  19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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.
  20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
  23. Air quality modeling 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 modeling 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also

- be taken into account.
24. 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.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.
  34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
  35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
  36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.

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

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

### **2.43 Tetangabad Sand Lease Area of M/s. Tata Steel Limited at Mouza: Tetangabad (90), Tehsil and District Dhanbad Jharkhand State (36.66 ha) (Consultant: Indian School of Mines, Dhanbad)-TOR**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the Proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility Report.

The mine lease area is along the river banks of Damodar River. Tetangabad Sand Lease Area is the Project for expansion in capacity from 2.0 Lakh Tonne per annum to 0.3 MTPA in 34.66 ha area. It is an already existing mine located at Latitude 23°42'5.33"N to 23°42'44.28"N Longitude 86°19'52.30" E to 86°20'46.86" E. The proposed Project activity will be carried out in the bed of the river Damodar. TISCO Limited is the Lessee of the proposed Mine for a period of 30 years. The mining is confined to extraction of sand from the river bed. The operation will be Semi-Mechanised with the help of scraper and aerial ropeway and Poclain. There are no mineral rejects of any kind produced during mining, therefore, no provision of stock yard is proposed. The entire mineral produced is usable. The domestic and temporary rest shelter effluents will be biologically treated by adoption of septic tanks, soak pits and dispersion trenches. Rehabilitation and resettlement plan is not required. The total cost of the Project would be around Rs. 20 Lakhs. Project falls under Critically Polluted Areas. Life of the mine is 20 years. No forest land is involved. No vegetation in the core zone. No rare species of fauna in the core zone.

While examining the Proposal it was observed that the said Project is to be located in District Dhanbad. As per the Ministries O.M. no J-11013/5/2010 IA.II (I) dated 13.1.2010 and 15.3.2010, a location map showed the Project in the Critically Polluted Areas. Accordingly a letter was issued to the Proponent to clarify whether the area falls in the category of Critically Polluted Areas. As desired by the Committee Proponents submitted a map showing the location of Project with respect to the Critically Polluted Areas.

Based on the information furnished, presentation made and discussions held, the Committee desired to seek views of the SPCB as per procedure adopted and subject to favourable report from the SPCB, Committee prescribe the TORs for undertaking detailed EIA study as follows:

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force may be furnished.
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 (eco friendly mine plan), EIA report 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.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/topo sheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
9. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the replenishment potential of the area and details furnished.
13. Land use of the study area should be described delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other

- ecological features.
14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications and depicted in the EIA report.
  16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
  18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease, if any, should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
  19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zones should be furnished based on 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.
  20. Impact of the project on land use including change of river course, if any, should be given.
  21. Impact on topography, drainage, agricultural fields, ~~cattle~~ fields grazing grounds, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary Baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil, flora and fauna. 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. Collected baseline AAQ data should be tabulated date wise to form part of EIA and EMP report. The mineralogical composition of PM10 particularly for free silica, should be given. There should be at least one AAQ monitoring station

- within 500 m of the mine lease in the pre-dominant downwind direction.
23. Air quality modeling 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 modeling 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. The impact of other mines in the study area, as also stone crusher and other industries nearby, if any, should also be taken into account.
  24. 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.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be obtained where required and copy furnished.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required, should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  30. Details of the rest shelters and other facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation, clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible, quantitative dimensions should be given.

34. Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts, with specific safeguard measures to control PM10 as well as pollution due to transportation, should be given. It should also address the impact due to stone crushers nearby, if any.
35. Public Hearing points raised and commitment of the Project Proponent (PP) 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.
36. Details of litigation pending against the Project, if any, with direction /order passed by any Court of Law against the project should be given.
37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any, made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the Public Hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

#### **2.44 Enhancement of production from 1.505 to 5.0 MTPA, ML (659 ha) of M/s. Jaiprakash Associates Limited Harudi Kharai Limestone Mines near Village Harudi and Kharai, Tehsil Lakhpat, District Kachchh, Gujarat (Consultant: Vimta Labs Ltd)–TOR Reconsideration**

The Proponent submitted information in the prescribed format (Form-1) along with a Pre-Feasibility Report for obtaining Terms of Reference (TOR) for undertaking detailed EIA study for obtaining Environmental Clearance in accordance with the provisions of the EIA Notification, 2006. The proposal was scheduled for consideration by the EAC in its meeting of July 25-27, 2012. However, proponent vide letter dated 24.7.2012 intimated that due to unavoidable circumstances, they would not be able to attend the meeting and requested for deferment of the Agenda Item. Hence this reconsideration of the original TOR Proposal.

M/s. Jaypee Gujarat Cements propose to enhance Limestone capacity from 1.505 MTPA to 5 MTPA Harudi-Kharai Limestone Mines to meet further addition of 2MTPA Clinkerisation Plant. This area is falling under the category of restricted zones of Survey of India; the Toposheets of this area are not available. The area is located between Latitude 23°27'11.1" to 23°30'04"N and Longitude 68°40'57" to 68°42'45"E. Since there is no overburden and waste-rock, no land is required for disposal of rock. No waste shall be generated. Ecologically Sensitive Areas namely Kharo Creek and Narayan Sarovar Sanctuary are at the distance of 15 km and 10.27 km respectively. The mining lease area is 659 ha. Total cost of the project is Rs. 45 Crores. There is no forest cover within the lease area. Four Reserve/Protected Forests are present within 10 km radius of the mine lease area. No displacement of villages involved, there will be no diversion of water body or any disturbance to drainage pattern. The kharo seasonal river flows across the central part of the deposit. Mining and crushing is not permitted within the radius of 3 km from the outer boundary of the Narayan Sarovar Wildlife Sanctuary. Life of the mine is approximately 49 years. Mechanised open cast method will be adopted. 156 m<sup>3</sup>/day water will be

required which will be availed from Desalination Plant and rainwater harvesting. Compliance of MoEF Environmental Clearance letter No. J-11015/102/2006-IA.II (M) dated 6<sup>th</sup> December, 2006 was also submitted and perused.

Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. Year-wise production details since 1994 onwards 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 coming 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 High Resolution
5. Imagery/toposheet should be provided.
6. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
7. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
8. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
9. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
10. Issues relating to mine safety based on subsidence study should be detailed. The proposed safeguard measure in this regard should also be provided.
11. 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.
12. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of

- fauna, water bodies, human settlements and other ecological features should be indicated.
13. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted.
  14. Details of the land for OB dump 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.
  15. High Resolution Satellite Imagery of the proposed area clearly showing the land use and other ecological features of the study area (core and buffer zone) should be furnished.
  16. 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, or otherwise, based on land use classification (revenue record) as also in terms of the definition of forest as pronounced in the judgement of the Hon'ble Supreme Court of India in the matter of T.N. Godavarman Vs. Union of India. In the event of any 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.
  17. 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). A copy of the forestry clearance should also be furnished.
  18. Implementation of status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
  19. 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.
  20. The vegetation in the RF / PF area with necessary details should be given.
  21. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including on the elephant population and details furnished.
  22. A confirmation may be adduced, duly authenticated by the competent authority in the State Government to the effect whether the project falls in Aravalli and whether it is covered by the order of the Hon'ble Supreme Court dated 8.4.2005 in the contempt petition (c) 412/2004 in writ petition 202 of 1995 in the matter of Godavarman vs Union of India.
  23. 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, if any, 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.
24. A detailed biological study for 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 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.
  25. Impact, if any, of change of land use should be given.
  26. R&R plan / compensation details for the project affected people should be furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
  27. One season (non-monsoon) primary baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
  28. The mineralogical composition of PM10 particularly for free silica should be given.
  29. Air quality modeling 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 modeling 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.
  30. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.

31. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
32. Details of water conservation measures proposed to be adopted in the project should be given.
33. 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.
34. 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.
35. Details of any stream, seasonal or otherwise, passing through lease area and modification / diversion proposed, if any and the impact of the same on the hydrology should be brought out.
36. Details of rainwater harvesting proposed, if any, in the project should be provided.
37. 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.
38. Quantity of solid waste generation to be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dump (number of dumps, their height, terraces etc. to be brought out).
39. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
40. Impact on local transport infrastructure due to the project should be indicated.
41. 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
42. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.

43. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
44. Phase-wise plan of greenbelt development, 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.
45. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of preplacement medical examination and periodical medical examination schedules should be incorporated in the EMP.
46. Public health implication 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 allocation.
47. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with time frame for implementation.
48. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
49. 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.
50. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
51. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.

- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J- 11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

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

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

#### **2.45 Suleipat Iron Ore for enhancement of production of iron from 0.6 million TPA to 4.65 million TPA and setting up of two TPH crushing and screening units (618 ha) of M/s. Sri B.C. Dagar at Hatisikly, Ukam & Nangalsila Villages and Bhitarmda hill District-Mayurbhanj, Orissa (Cons: Envomin Consultant Pvt. Ltd., Bhubaneswar)- TOR Reconsideration**

The Proposal was considered by the Committee to determine the Terms of Reference (TOR) in its meeting held on 23-25 January, 2012. For this purpose, the proponent had submitted information in the prescribed format (Form-1) along with Pre-feasibility report.

The Proposal was for enhancement of production of iron ore from 0.6 million TPA to 4.65 million TPA (ROM) and setting up of two 150 TPH crushing and screening units. The mine lease area is 430.99 ha. It was observed that the earlier environment clearance for 0.6 million TPA capacity was granted on 16<sup>th</sup> September, 2011 over an area of 618 ha, wherein it was stated that they have proposed to surrender 187.01 ha of non mineralized area and the revised lease area thereafter would be 430.99 ha. As per the information submitted at that time, the revised mine lease area of 430.99 ha would have 264.58 ha of forestland. However, as per the information furnished at the time of the aforesaid appraisal, the forestland involved in the project was 360.9 ha.

In view of the discrepancy in the extent of forestland involved in the project as pointed out above, the Committee desired that the proponent should in the first instance, reconcile the forestland involved in the project, get the earlier EC amended and thereafter submit the proposal for TOR for enhancement of production. Further, the proponent should also submit a copy of the lease document executed with the State Govt. over the revised mine lease area of 430.99 ha.

Based on the additional information/clarifications submitted by the Proponent and discussions held the Committee prescribed the TORs for undertaking detailed EIA study which are as follows:

1. A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
2. Status of compliance of the earlier EC conditions along with supporting documents and photographs should be submitted.
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 High Resolution Imagery/topo sheet should be provided.
5. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
6. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
7. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
8. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
9. 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.
  10. Land use of the study area delineating forest area, agricultural land, grazing
    - a. land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
  11. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
  12. Details of the land for OB dump 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.
  13. High Resolution Satellite Imagery of the proposed area clearly showing the land use and other ecological features of the study area (core and buffer zone) should be furnished.
  14. 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, or otherwise, based on land use classification (revenue record) as also in terms of the definition of forest as pronounced in the judgement of the Hon'ble Supreme Court of India in the matter of T.N. Godavarman Vs. Union of India. In the event of any 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 Committee.
  15. 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). A copy of the forestry clearance letter should also be furnished.
  16. Implementation of status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
  17. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required should be worked out with cost implications and submitted.
  18. The vegetation in the RF / PF area with necessary details should be given.
  19. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including on the elephant population and details furnished.

20. Location of the proposed plant w.r.t. the source of raw material and mode of transportations of the ore from mines to the beneficiation plant, and outbound movement of the products should be provided.
21. Details of the technology and process involved in the project may be furnished.
22. Proposed treatment of runoff from the fines/waste dump should be provided. Estimation of the fines going into the washings and its management should be given. Details of the equipment, settling pond etc. should be provided.
23. Detailed material balance should be provided.
24. Source of raw material and its transportation should be given. Steps proposed to be taken to protect the ore from getting air borne should be given.
25. Management and disposal of tailings and closure plan of the tailing pond, if any, after the project is over, should be provided.
26. Size distribution of the iron ore with percentage weight shall also be done to assess the source of fugitive dust emission of the ore feed to the plant.
27. Measures to manage the under size / over-size waste from the feed ore shall be provided.
28. Details of the solid waste to be generated and its management should be outlined. Adequacy of the tailing pond for the life of the beneficiation plant should be provided with supporting data and documentation. Design and capacity of tailing pond should be such as to guard against overflow from the tailing pond during heavy rainfall. The provision of lining, nature of lining with supporting permeability studies should also be provided.
29. 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, if any, 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.
30. A detailed biological study for 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 primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, 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.
31. Impact of change of land use should be given.
32. R&R plan / compensation details for the project affected people should be

- furnished. While preparing the R&R plan, the National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs / STs and other weaker sections, need based sample survey, family-wise, should be undertaken to assess their requirement and action programmes prepared accordingly integrating the sectoral programme of line departments of the State Government.
33. One season (non-monsoon) primary baseline data on ambient air quality (PM10, SO2 and NOx), water quality, noise level, soil and flora and fauna shall be collected and the AAQ data so collected 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.
  34. Air quality modeling 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 modeling 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.
  35. 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.
  36. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  37. Details of water conservation measures proposed to be adopted in the project should be given.
  38. 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.
  39. 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.
  40. Details of first order stream, if any, passing through lease area and modification/ diversion proposed, if any and the impact of the same on the hydrology should be brought out.

41. Details of rainwater harvesting proposed, if any, in the project should be provided.
42. 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.
43. Quantity of solid waste generation should be estimated and details for its disposal and management should be provided. The quantity, volumes and methodology planned for removal and utilisation (preferably concurrently) of top soil should be indicated. Details of backfilling proposed, if any, should also be given. It may be clearly indicated that out of the total waste generated during the mine life, how much quantity would be backfilled and how much quantity would be disposed off in the form of external dumps (number of dumps, their height, terraces etc. to be brought out).
44. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
45. 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 increased load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government), should be covered.
46. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
47. Conceptual post mining land use and Reclamation and Rehabilitation of mined out area (with plans and with adequate number of sections) should be given in the EIA report.
48. Phase-wise plan of greenbelt development, 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.
49. Occupational health impact of project should be anticipated and preventive measures initiated. Details in this regard should be provided. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP.
50. Public health implication 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 allocation.
51. Measures of socio economic significance and influence to the local community proposed to be provided by project proponent should be indicated. As far as possible, quantitative dimensions may be given with

- time frame for implementation.
52. Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia also include the impact due to change of land use, due to loss of agricultural land and grazing land, if any, occupational health impacts besides other impacts of the projects.
  53. 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.
  54. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
  55. The cost of the project (capital and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points should also be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological

maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

#### **2.46 Ram Nagar Kauhan Sand/Moram Mining Project (68.8 HA) of M/s. Wasif Zama Khan at Village Ram Nagar Kauhan, Tehsil and District Fatehpur, Uttar Pradesh (Consultant: Grass Roots Research & Creation India (P) Ltd)–TOR Reconsideration**

The Proposal was considered by the Committee in its meeting held on 21-23 February, 2012 to determine the Terms of Reference (TOR). For this purpose, the proponent had submitted information in the prescribed format (Form-1) along with a Pre-Feasibility Report. The Committee did not prescribe TORs to the project as the proponent did not have any Letter of Intent (LOI) in respect of Mining Lease at that time. The PP was asked to submit the required LOI from the Competent Authority confirming lease renewal. The PP produced a letter dated 10.4.2012 from District Magistrate (115/30-Mineral/2011-2012) stating that lease can be renewed only after securing environmental clearance. On the basis of this, the Proponent requested EAC to consider their Project Proposal for issue of TOR. Hence this re-consideration.

The proposed Sand/Moram Mine is situated at Village Ram Nagar Kuhan, Tehsil & District Fatehpur, Uttar Pradesh in an area of 68.8 ha and falls under category 'A'. The mining lease was granted in favour of Mr. Wasif Zama Khan s/o/ Mr. Murtazayar Khan, on 08.11.2006 for a period of 3 years. The Lessee has submitted the renewal application for the same lease area to District Administrative Officer, Fatehpur, Government of Uttar Pradesh on 3.3.2009. The project is for sand/moram mining on river Yamuna. Mine was in operation since 2006 to 2009. Proponent had applied for first renewal on 3.3. 2009. The project site is located at Latitude 25°41'25.1"N and Longitude 80°51'31.6 "E. The mining is confined to extraction of Sand/Moram from the river bed. The operation will be manual in which the river bed material will be collected in its existing form. There is no need of water to carry out operations but drinking water will be required for working people which will be about 4.64 KLD. This water will be supplied from the dug wells/bore wells. The domestic and temporary rest shelter

effluents will be biologically treated by adoption of septic tanks, soak pits and dispersion trenches. No rehabilitation and resettlement is required. The total cost of the project would be around Rs. 20 lakhs.

As Informed by the proponent this is a violation case. Based on the information furnished, presentation made and discussions held, the Committee prescribed the TORs for undertaking detailed EIA study which is as follows:

1. Year-wise production details since 2006 after the EIA Notification, 2006 coming into force.
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 (eco friendly mine plan), EIA report 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.
4. The terms and conditions imposed, if any, by the Competent Authority in the State Government while granting mining lease / permit / contract should be built into the mine plan (eco friendly mine plan) as well as the EIA report. It may inter-alia include; area of working (length and breadth of the river stretch), mode of working, working shift, transportation of mineral, restriction, if any imposed for working etc.
5. All corner coordinates of the mine lease area superimposed on High Resolution Imagery/toposheet should be provided.
6. Involvement of forestland, if any, in the project and status of forestry clearance should be given.
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. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
9. Does the Environment Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
10. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
11. Does the company have a 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? This reporting mechanism should be detailed in the EIA report.
12. A study should also be carried out to decide on the quantum of mineral which can be removed on sustainable basis taking into account the

- replenishment potential of the area and details furnished.
13. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features.
  14. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases.
  15. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigation measures required should be worked out with cost implications.
  16. The vegetation in the RF / PF in the study area, if any, should be indicated.
  17. A study shall be got done to ascertain the impact of the mining project on wildlife of the area including aquatic life.
  18. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves (existing as well as proposed) within 10 km of the mine lease should be clearly indicated supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance from the Chief Wildlife Warden for operating the mine within 10 km of the National Park/Sanctuary, if any, should also be obtained and furnished.
  19. A detailed biological study for the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] including the aquatic fauna in the riverine system shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zone should be furnished based on 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.
  20. Impact of the project on land use including change of river course, if any should be given.
  21. Impact on topography, drainage, agricultural fields, cattle fields, wildlife, water logging leading to water borne diseases, if any. It may also be shown whether it will lead to change of watercourse of the river. Modelling exercise should also be carried out through an expert agency to show the change in river flow dynamics, if any.
  22. Collection of one season (non-monsoon) primary baseline data on ambient air quality (PM10, SO<sub>2</sub> and NO<sub>x</sub>), water quality, noise level, soil and flora and fauna, 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. Date wise collected baseline AAQ data should form part of EIA and EMP report. The

- mineralogical composition of PM10 particularly for free silica should be given. There should be at least one AAQ monitoring station within 500 m of the mine lease in the pre-dominant downwind direction.
23. 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. The impact of other mines in the impact zone as also the stone crusher and other industries, if any, nearby should also be taken into account.
  24. The water requirement for the project, its availability and source to be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.
  25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
  26. Impact of the project on the water quality should be assessed and necessary safeguard measures, if any required should be provided.
  27. Information on site elevation, working depth, groundwater table should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
  28. Quantity of solid waste generation, if any, should be estimated and details for its disposal and management should be provided.
  29. Impact on local transport infrastructure due to the project should be evaluated. Projected increase in truck traffic as a result of the project in the present road network (including those outside the project area) and whether it is capable of handling the increased load should be estimated. Arrangement for improving the infrastructure, if contemplated including action to be taken by other agencies such as State Government, if any, should be covered.
  30. Details of the infrastructure facilities to be provided for the mine workers should be furnished.
  31. Phase-wise plan of greenbelt development, plantation and compensatory afforestation clearly indicating the area to be covered under plantation and the species to be planted should be provided.
  32. Occupational health impacts of the project activity should be anticipated and reported and proposed preventive measures indicated. These along with details of pre-placement medical examination and periodical medical examination schedules and medical facilities proposed to be provided should be incorporated in the EMP.
  33. Measures of socio economic influence to the local community, proposed to be provided by project proponent should be spelt out. As far as possible,

- quantitative dimensions should be given.
34. Detailed environmental management plan to mitigate the environmental impacts. Specific safeguard measures to control PM10 as well as pollution due to transportation should be given. It should also address the impact due to stone crusher nearby.
  35. 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.
  36. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
  37. The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.

Besides the above, the below mentioned general points will also to be followed:-

- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b) All documents may be properly referenced with index, page numbers and continuous page numbering.
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
- f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry should also be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

The EIA report should also include surface plan of the area indicating contours of main topographic features, drainage and mining area. The prescribed TORs would be valid for a period of two years for submission of the EIA/EMP reports, as per the O.M. No. J-11013/41/2006-IA.II(I) dated 22.3.2010.

After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

#### **2.47 New Captive Limestone Mine of M/s. Lafarge India Pvt. Ltd., near Village Chilhati, Tehsil Masturi, District -Bilaspur, Chattisgarh (1236.476 ha) (Consultant: J.M. EnviroNet Pvt. Ltd. –TOR Reconsideration**

The original Proposal of M/s. Lafarge India Pvt. Ltd was considered by the Committee during its meeting on July 26-28, 2010 to determine the Terms of Reference (TOR) for undertaking detailed EIA study for obtaining Environmental Clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the proponent had submitted information in May 2010, in the prescribed format (Form-1) along with a Pre-Feasibility Report. TORs were issued vide letter dated 19<sup>th</sup> August, 2010

The MoEF has issued a O.M. dated 22.3.2010, reducing the validity of TORs issued after 1.4.2010 to 2 years. The validity may be extended by one year i.e. for 3<sup>rd</sup> year based on proper justification and approval of EAC/SEAC. In view of this, and on the basis of Proponents request, the Proposal was considered in the EAC Meeting. The validity of the TORs issued to the Project Proponent (PP) expires in August 2012 and the PP has requested MoEF on 10<sup>th</sup> July, 2012 for extension of the validity period by another two years. The reason given is that though the PP has completed the Baseline data collection and preparation of the draft EIA, they are still awaiting the date for Public Hearing to be fixed by the District Authorities / State Pollution Control Board. Project proposal is for New Captive Limestone Mine (1236.479 ha) area with production capacity of 4.0 MTPA. Chattisgarh State Government has issued Letter of Intent (LOI) for an area of 1236.479 ha vide letter no. F 3-86/2007/12 (2), dated 7<sup>th</sup> December, 2009.

Based on the information furnished, presentation made discussions held on the subject matter, the Committee recommended extension of TOR for 1 more year from the last date of validity period of the TOR.

## **2.48 Dirsumburu Iron Ore Project of M/s/ Electro-steel Castings Limited at Kodolibad Reserve Forest, District Singhbhum West, Jharkhand (Consultant: Perfect Enviro Solutions Pvt. Ltd)-EC Reconsideration**

The project was considered by the EAC in its meeting on 24-26<sup>th</sup> September, 2007. The Committee desired information on 18 points. Based on the information received, the proposal was further considered by the EAC in its meeting on 23-25<sup>th</sup> September, 2008. The Committee recommended the project for environmental clearance subject to obtaining prior clearance from wildlife angle as the project is located in the core zone of Singhbhum Elephant Reserve. The Principal Chief Conservator Forests, Biodiversity Conservation cum Chief Wildlife Warden, Jharkhand vide letter dated 22.09.2008 stated that the proposed mine lease area falls within the core area of the Singhbhum Elephant Reserve and no national park/wildlife sanctuary is located within the 10 km of the mine lease. As per the State Forest and Wildlife Department, an amount of Rs. 360.28 lakhs has to be borne by the Project Authority for implementation of the Elephant Conservation Project. The FAC however, had recommended the rejection of the proposal and the letter of the same was issued on 16<sup>th</sup> January, 2009. EAC recommended the project as per 19<sup>th</sup> meeting dated 23-25 September 2008 subject to Forest Clearance and Site Inspection report from the representative of SPCB. Project Proponent received Forest Clearance on 13<sup>th</sup> February, 2012 from MoEF vide letter No. F.NO8-35/2008-FC (Pt). Furthermore MoEF issued letter no. J-11015/448/2007-IA.II(M) dated 26<sup>th</sup> June 2012 for submission of one month revalidated data of AAQ and clearance from standing Committee of NBWL. Subsequent to this, proponent requested for grant of EC, since the forest clearance was already granted. Furthermore the Project Proponent submitted fresh baseline data vide their letter dated 21<sup>st</sup> August, 2012. The Jharkhand State Pollution Control Board Ranchi have submitted their reply vide letter no. PC/NOC/JSR/244/06/2056 dated 24<sup>th</sup> August, 2012. As per the JSPCB's report all parameters were found within the norms of the Board and proponent shall have to take necessary effective steps for proper handling of ores and processing of ores, effluents and hazardous wastes.

Based on the additional information/clarifications submitted by the proponent and discussions held the Proposal was considered further. However it was observed that the Air Quality Data submitted by the proponent is still above permissible limits. Further control measures are called for to bring down the air pollution levels within the prescribed limits. With reference to the information furnished and presentation made, the Committee recommended the project for environmental clearance subject to submission of (i) air quality data within three months of this presentation and also (ii) necessary wildlife clearance from Standing Committee of NBWL as per MoEF letter no. J-11015/448/2007-IA.II(M) dated 26<sup>th</sup> June 2012.

**2.49 Diamond China Clay Mines of M/s The Singhbhum Mineral Co., Village Karanjiya, District West Singhbhum, Jharkhand (Consultant: Envomin Consultant (Pvt.) Ltd., Bhubaneswar) (68.615 ha) -EC Reconsideration**

The Proposal was considered by the Expert Appraisal Committee in its meeting held on May 23-25, 2012. The Proposal was for renewal of mine lease which fell due since 1.6.2009 and enhancement in production of china clay to 0.038 million TPA along with washing plant of 0.038 million TPA capacity. Mine lease area is 68.615 ha. No forestland is involved. No National Park / Sanctuary is reported within 10 km of the mine lease. However, the mine lease is located within core zone of Singhbhum Elephant Reserve. TOR for this project were prescribed on 24.3.2009. Public Hearing has been held on 16.1.2010. It is estimated that at the conceptual stage 3,27,835 m<sup>3</sup> of OB, 2,88,192 m<sup>3</sup> of intercalated waste and 20,00,536 m<sup>3</sup> of tailing waste will be generated. All the waste would be accommodated / backfilled in an area of 13.118 ha. Water requirement is estimated as 260 kld, which include 240 kld for washing plant, which will be obtained from abandoned quarries. Mine working will be opencast manual. Life of mine is 75 years. The ultimate working depth will be 432 m AMSL. The groundwater table is reported at 440 m AMSL. Mine working will intersect groundwater table. The proponent carried out a hydro-geological study. As per the hydro-geological study, the stage of groundwater development is 9.26%, which may increase to 9.32%. The radius of influence has been shown to be 67.7 m from the centre of the mining at the working depth. During conceptual period an area of 19.872 ha will be covered under plantation. The baseline AAQ data showed that the levels are within permissible limit. The issues raised during Public Hearing were also considered and discussed during the meeting which inter-alia, included pollution of water due to run off, control of air pollution, water sprinkling on road, maintenance of vehicles to be used for transportation of mineral, job opportunities, medical health care, improvement in educational facilities etc. It was reported that there is no court case pending against the project.

Based on the presentation made and discussions held at the time of previous appraisal of EAC Meeting held on 23-25 May 2012, the Committee had sought information on (i) Land use of the mine lease area during the lease period (ii) necessary permission for CGWA for pumping of groundwater (iii) Details of waste generation and its management for the entire lease period and conceptual stage (iv) The baseline data on flora and fauna (v) Site specific and duly authenticated Conservation Plan should be prepared and furnished (vi) Compliance of consent conditions (vii) Status of environment quality in the study area (viii) Filled in Questionnaire giving correct and complete information.

As the Project site is located in the West Singhbhum District which is

declared as Singhbhum Elephant Reserve the EAC asked to prepare the site specific conservation plan as point (v) above. However the PCCF, Biodiversity Conservation and Wildlife Warden, Ranch vide letter dated 28.11.2011 has noted that a separate Site Specific Plan is not required as the proponent is committed to bear the proportional cost of Comprehensive Wildlife Conservation Plan. As the project is located in West Singhbhum (a severely polluted area) the comments of SPCB were also received vide their letter dated 20.3.2012, which were also considered and taken on record as per the prescribed procedure. It was reported by the SPCB that air pollution will be generated due to mining of china clay and during its beneficiation water will be reused after beneficiation. As per the report, ambient air quality, noise level and water analysis, all parameters were within permissible limits.

The Proponents have since submitted the information sought by the Committee vide their letter dated 24.5.2012. The points as above on which additional information was sought were seen to have been addressed adequately in the Report submitted by Project Proponent. Based on the additional information/ clarifications and discussions held, the proposal was recommended by the EAC for environmental clearance subject to obtaining necessary wildlife clearance.

#### **2.50 Chrome Ore Beneficiation Plant of M/s. Rohit Ferro-Tech Ltd. located at Kalinga Nagar, at –Pabana, P.O. Jakhapura District Jajpur. Orissa (Consultant: Sun Consultancy and Services)-EC Reconsideration**

The Proposal of M/s Rohit Ferro Tech Limited was for setting up of a Chrome Ore Beneficiation Plant at Kalinganarag Industrial Growth Centre Jakhapura, District Jajpur, Orissa with a throughput capacity of 1,55,000 TPA to yield 70,000TPA of Chrome Concentrates. The life of the mine was estimated as 10 years. The capital cost of the project was Rs.350 Lakhs. The Proposal, received in the Ministry vide letter dated 10.07.2008, was appraised by the EAC during its meeting held on 19-21<sup>st</sup> November, 2008 and TOR for this project were prescribed on 22.12.2008. The Project Proponent submitted their Application for environmental clearance on 15.06.2010 and the Proposal was considered by the Expert Appraisal Committee during its meeting held on 25-27<sup>th</sup> August, 2010.

The baseline AAQ data was reported to be within prescribed limits; however, RSPM levels were seen to be relatively high. The Public Hearing for this project was held on 12.01.2010 as per EIA Notification, 2006 for throughput capacity of 1,55,000TPA. The issues raised during Public Hearing were considered and discussed during the meeting of the EAC. No National Park/ Sanctuary/Wildlife Reserve is reported within 10 km of the project site. No forest

land is involved. Authentic list of flora and fauna was provided through DFO Cuttak. It was stated by the Project Proponent that there is no court case against the Project. EC was accorded vide letter no J-11015/322/2008-IA.II (M) dated 20<sup>th</sup> December 2010, for the COB Plant at Kalinganagar Industrial Growth Centre, Jakhapura, District Jajpur, Odisha.

The present reconsideration of the aforesaid approved Project is in response to PP's request, vide letter dated 21<sup>st</sup> April, 2012 for permission to shift the COB Plant from its present location to Kalinganagar Industrial Growth Centre, Jakhapura, District Jajpur, Odisha on the nearby plot allotted by IDCO (Government of Odisha) which is again coming under Kalinganagar Industrial Growth Centre, Jakhapura, Dist-Jajpur, Odisha.

Based on the information submitted and presentation made by the Project Proponent, the Committee deliberated on the pros and cons of the proposed shifting of the Chrome Ore Beneficiation Plant. As a result of their examination of the request for COB relocation, the Committee sought the following additional information

1. Authentic plotting of the present and proposed location of the COB vis a vis the Project area on a Toposheet with description of the chosen plots may be furnished
2. The need/feasibility and possible impacts of the proposed shifting of location on human health and local environment may be elucidated.

It was decided that the proposal may be brought back before the Committee for its further consideration after the requisite information as mentioned above is submitted.

#### **2.51 Bauxite Mining Project (73.2176 ha) with Production Capacity 0.20MTPA at Village Adi M Khadi, Karivane and Dhariwali, Taluka Shrivardhan and Mhasala District Raigad, Maharashtra by M/s. Prachi Mines (Consultant: J.M. EnviroNet Pvt. Ltd.)-EC Reconsideration**

The Prachi Mines proposed to carry out Bauxite Mining at Village ADI M Khadi Karivane and Dhariwali, Taluka Shrivardhan and Mhasala, District Raigad (Maharashtra). The total mine lease area is 73.2176 ha and the proposed production capacity of the mine is 0.20 MTPA. Maharashtra State Government has issued Letter of Intent (LOI) for an area of 73.2176 ha, vide letter no. MMN-1004/C.R.70/Ind-9. Mining Plan has been approved by Indian Bureau of Mines vide letter no. RGH/BX/MPLN-1031/NGP dated 24.4.2009. MoEF issued TOR vide letter no. J-11015/72/2007-IA.II (M) dated 13<sup>th</sup> June 2007 and corrigendum of

TOR vide letter dated 23<sup>rd</sup> July, 2009. Public Hearing was conducted on January 6<sup>th</sup>, 2010. Final EIA/EMP Report was submitted to MoEF, new Delh on July, 22<sup>nd</sup>, 2011. Letter regarding change of consultant was submitted to MoEF on March 16<sup>th</sup> 2012. Upgraded Final EIA/EMP Report was submitted to MoEF on May 16<sup>th</sup> 2012. The lease area is private barren land. The mining lease area is 73.2176 ha. No forest land is involved. There is no habitation in the lease area. No court case is pending against the project. Total cost of the project is Rs. 1.0 Crores. Capital cost of the Environment Protection Measures is Rs. 37 lacs. Recurring Cost will be Rs. 10. Lacs/annum. No perennial nallah or river in the ML Area. Life of the mine is 20 years. Method of mining will be opencast mechanised method. Stage wise cumulative plantation will be on 72.2076 ha with 180506 trees. Environmental parameters studies were done during February to March 2012. Air and water quality parameters were found to be within permissible limits. Public Hearing was chaired by District Collector Raigad and Regional Officer, MPCB, Raigad. Action Plan for the issues raised during Public Hearing was prepared with allocation of budget. Agreement is signed between proponent and Triveni Sangharsh Samiti for undertaking the actions on the issues raised by the proponent.

The Proposal was considered by the EAC in its meeting held on August, 2012. Committee sought additional information from the Proponent. Vide letter no. 9.8.2012, the Proponent replied to the queries raised by the Committee. Based on the information furnished, and internal discussions held, the Committee recommended the Project for environmental clearance.

### **2.52 Bauxite Mining Project (70.07ha) with Production Capacity 0.20MTPA at Village Karivane, Tahsil Shrivardhan and Mhasala District Raigad, Maharashtra by M/s. Nilesh Mines corporation (Consultant: J.M. EnviroNet Pvt. Ltd.)-EC Reconsideration**

The M/s. Nilesh Mines Corporation proposes Bauxite mining lease of 70.07 ha with production capacity of 0.20 MTPA at Village arivaane, Tahsil Shrivardhan, District Raigad, Maharashtra. Letter of Intent was issued vide order no. MMN-1004/CR 703/Ind-9. The mining plan was approved vide letter no. RGH/BX/MPLN-1032/NGP dated 24.4.2009. Later on Modified Plan approved vide letter no. 314 (3)/2011-MCCM (CZ/MP-18 dated 28.11.2011. Public Hearing was conducted on January 6<sup>th</sup>, 2010. Final EIA/EMP Report submitted to MoEF on May 16<sup>th</sup>, 2012. Nearest Village is Karivane is 1.5 km NW. Savitri River is 0.25 km, Bharja is 5.5 km and Arabian Sea is 9 km away. No National Park/Sanctuary is within 10 km radius of the study area. Demarcation of HTL in the Cadastral level CZM map for the proposed mine in Maharashtra State was taken up by Institute of Remote Sensing, Anna University, Chennai. The lease area is Private Barren Land. The mining lease area is 70.07 ha. There is no forest land involved. There is no habitation in the lease area. No court case is pending against the

Project. Total water requirement is 7.5 KLPD. Total Cost of the Project is 1.00 Crores. Cost of the Environment Protection Measures is 37 lacs. Recurring Cost for Environmental Protection Measures is 12.0 lacs/annum. No perennial river or nallah exists within the lease area. Method of mining will be opencast mechanised. Total 50.563 ha plantation will be completed with 128900 trees. Air and water quality were found within permissible limits. Public Hearing was conducted on January 6<sup>th</sup>, 2010. District Collector Raigad chaired the Hearing. Regional Officer MPCB, Raigad attended the Hearing. Action Plan for the issues raised during Public Hearing was prepared with allocation of budget. Agreement is signed between proponent and Triveni Sangharsh Samiti for undertaking the action on the issues raised by the proponent.

The Proposal was considered by the EAC in its meeting held on August, 2012. Committee sought additional information from the Proponent. Vide letter no. 9.8.2012, the Proponent replied to the queries raised by the Committee. Based on the information furnished and internal discussions held, the Committee recommended the Project for environmental clearance.

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**Annexure****List of Participants**

1.	Sri M.S. Nagar	-	Chairman
2.	Dr. S. Subramaniyan	-	Member
3.	Dr. L Ajay Kumar	-	Member
4.	Dr. Rajesh Srivastava	-	Member
5.	Prof. A.K. Bhatnagar	-	Member
6.	Prof. G.S. Roonwall	-	Member
7.	Dr. D Mohamed Kizhar Irshath	-	Member
8.	Sri P.K. Vedrdia	-	Member
9.	Director (Non-coal Mining, MoEF)	-	Member Secretary
10.	Shri Om Prakash, Dy. Director, MoEF		
11.	Shri Neeraj Khatri, Dy. Director, MoEF		
12.	Representative of M/s Smt. Shikha Upadhyay		
13.	Representative of M/s. Madras Cements Ltd.		
14.	Representative of M/s. Dilip Kumar Singh		
15.	Representative of M/s. BMM Cements Ltd.		
16.	Representative of M/s. Hindustan Zinc Ltd.		
17.	Representative of M/s. Rajeev Chadha		
18.	Representative of M/s. Jain Mines & Minerals (India) Pvt. Ltd.		
19.	Representative of M/s. Vijay Kumar Ojha		
20.	Representative of M/s. Sri Raveen Mehta		
21.	Representative of M/s. Sri Vijay Kumar Saraogi		
22.	Representative of M/s. IVRCL Ltd.		
23.	Representative of M/s. Ex. Service Men Welfare Association		
24.	Representative of M/s. Shiva Cements Ltd.		
25.	Representative of M/s. Pawan Kumar Ahluwalia		
26.	Representative of M/s. Mahavir Vintrade Pvt. Ltd.		
27.	Representative of M/s. Sri Kamal Kumar Agrawal		
28.	Representative of M/s. Kamal Pravat Stone		
29.	Representative of M/s. Vimli Devi		
30.	Representative of M/s. Sri Manoj Tiwari		
31.	Representative of M/s. Sri Raj Kumar Khurana		
32.	Representative of M/s. Mrs. Sangeeta Singh		
33.	Representative of M/s. Somesh Bhardwaj		
34.	Representative of M/s. Haroon Ahmed		
35.	Representative of M/s. R.B. Mining & Company		
36.	Representative of M/s. Ramgarh Minearals		
37.	Representative of M/s. Dilip Singh		
38.	Representative of M/s. Shivharan Singh		
39.	Representative of M/s. Tata Steel Ltd.		
40.	Representative of M/s. Jaiprakash Associates Ltd.		
41.	Representative of M/s. B.C. Dagara		

42. Representative of M/s. Wasif Zama Khan
43. Representative of M/s. Lafarge India Pvt. Ltd.
44. Representative of M/s. Electrosteel Casting Ltd.
45. Representative of M/s. The Singbhum Mineral Company
46. Representative of M/s. Rohit Ferro-Tech Ltd.

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