

Ministry of Environment & Forests

(IA Division)

SUMMARY RECORD OF THE 30TH MEETING OF EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF MINING PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The 30th meeting of the Expert Appraisal Committee for Environmental Appraisal of Mining Projects of the Ministry of Environment and Forests was held during August 29th - 31st, 2012. The list of participants is annexed.

The Committee took note of the change of guard and welcomed the new Member Secretary Dr. Saroj, Director, MoEF on the superannuation of Dr. S.K. Aggarwal. The Committee felt that EAC (Mining) will amply benefit from her long and rich experience in EC matters in other industrial sectors. 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 2.44 and 2.45 have been considered.

Item No. 1:

1.1 Confirmation of the minutes of the 29th Meeting.

The minutes of the 29th meeting were confirmed as circulated.

2.1 Bauxite Mining Project of M/s Prachi mines located at village Adi and Dharivali, taluka Mahasala & Srivardhan, District Raigad, Maharashtra (Consultant: J.M. EnviroNet Pvt. Ltd.)

The proposal was considered by the Committee and the proponent made a presentation on the same. Prachi Mines proposes to carry out bauxite mining at Villages ADI M Khadi, Karivane and Dhariwali, Taluka Shrivardhan and Mhasala, District Raigad (Maharashtra). TORs for this project were prescribed vide MoEF F. No. J-11015/72/2007-IA. II (M) dated 13th June 2007 and an amendment to the same has been issued on 23rd July, 2009 changing the names of villages. For the purpose of reckoning the validity period of TOR of 4 years, the Committee felt the date on which the amendment was issued should be considered. The total mine lease area is 73.2176 ha and the proposed production capacity of the mine is 0.20MTPA. Maharashtra State Government has issued Letter of Intent (LOI) for an area of 73.2176 hectares, vide their 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 24.04.2009.

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." Longitudinal section & Cross section levels were measured along Savitri River using Auto

Level at every 200 m as well as wherever abrupt changes were noticed in the coastal line. Proposed bauxite mining lease area does not fall in CRZ area.

Method of Mining is Mechanized Opencast Mining and the life of mine is 20 years. Elevation range of lease area is 176mRL - 179m RL. The Ultimate Working Depth is 4m from surface level. The Ultimate Pit Slope angle is 45°. The total waste generation till the end of life of mine is 5,80,628 m³.

Based on the presentation made and discussions held, the Committee sought information on the following:-

1. Coverage of each of the item in TORs in the final EIA report shall be tabulated in the report.
2. Disaster Management plan shall be provided.
3. Pollution control, material transportation and logistics on Rajpura Jetty road, shall be detailed out.
4. Mangroves protection plan shall be prepared and submitted.
5. Plans to protect neighboring agricultural fields shall be spelt out.
6. Protection measures for river Savitri shall be indicated.
7. The details about R&R plan of private land shall be prepared and submitted.
8. Cumulative impact of all the Mines operating within the study area shall be brought out.

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.

2.2 Renewal of mine lease and expansion of Iron Ore Beneficiation Plant of M/s Tata Steel Ltd. Located at P.O. Noamundi, District West Singhbhum, Jharkhand (EC-Reconsideration) (Consultant: Ecomen Laboratories Pvt. Limited)

Terms of Reference (ToRs) were issued for the expansion project on 29th July 2011. Public Hearing for the project was conducted on 12th March, 2012 and the proposal was earlier considered by the Expert Appraisal Committee during its meeting held on 21st June, 2012 wherein the Committee had sought additional information/clarifications on various related issues. Based on the additional information/clarifications, viz: detailed note on the court order, selection of study area as specified in the TOR, biological study based on primary survey, assessment of impact of the project on the biological component, adequacy of the tailing pond for the life of the plan and reconciliation of water balance submitted by the proponent, the proposal was considered further.

The 1,230.42 ha project area of Noamundi Iron Mine includes 762.43 ha forest land. Out of this total forest land, 370.9 ha have already been utilized for mining activities and there shall be requirement of 383.39 ha of more forest land till end of mine life. To restore forest cover, about 163 ha of mined out and vacant land have already been afforested. At the end of mine life, a total of 1047 ha of area will be covered with plantation through implementation of progressive and final Mine Closure Plan. Moreover, 70 ha will be left as water bodies.

The mine fell due for lease renewal on 1st Jan, 2012. The earlier approved forest clearance (370.92 ha) being co-terminus with the expiry of mine lease, the Company had

applied for Temporary Working Permission (TWP) on 12th July, 2011 to work on already broken-up forest area of 370.92 ha. Though the Forest Advisory Committee (FAC) had recommended grant of TWP in favor of the Company, the TWP was not yet granted by the MoEF within the lease period i.e., before 31.12.2011. On 30th Dec, 2011, DFO, Chaibasa issued two letters to the Company directing closure of mining operation in forest areas of 346.490 ha and 24.43 ha (Total 370.92 ha) with effect from 01.01.2012. On the same date, Assistant Mining Officer, Chaibasa, also served a letter directing discontinuation of mining operation in absence of Environmental Clearance or Consent to Operate. Hon'ble Supreme Court granted stay for operation of all above three letters on 6th Jan 2012, for a period of one month. After further hearing on 30th Jan, 2012, the stay was extended for another 2 months. On 5th April, 2012, Hon'ble High Court, Jharkhand, granted interim stay on the letters issued by the District Forest Officer, Chaibasa, Assistant Mining Officer, Chaibasa and the Member Secretary, JSPCB. Because of stay order from Hon'ble High Court and grant of TWP by the MoEF, the Company withdrew the case from the Hon'ble Supreme court. Further on 18th April 2012, Hon'ble High Court, Ranchi, continued the stay order till next date of hearing. The next hearing was held on 30th July, 2012 and the Hon'ble High Court extended the stay.

Based on the presentation made and discussions held, the Committee recommended the project for Environmental Clearance.

2.3 Proposed Vikram Cement Limestone Mine of M/s Ultra Tech Cement Ltd., Village Nayagaon, Kesharpura, Damodarpura, Khor & Kanka, Tehsil Jawad, District Neemuch, M.P. (564.106 ha) (EC-Reconsideration) (Consultant: J.M. EnviroNet Pvt. Ltd.)

The proposal is for opening of a new mine for production of 2 MTPA of Limestone for the captive use in their Cement plant. Mine lease area is 564.106 ha. No forestland is involved. No National Park / Sanctuary / Wildlife Corridors are reported within 10 km of the mine lease. TORs for this project were prescribed on 24.03.2010. Public hearing has been held on 1.3.2012. Mine working will be opencast mechanised. Life of the mine is 29 years. Water requirement is estimated as 143 kld, which will be obtained from existing mine sump water (Mine-I) and proposed mine sump after five years. Drinking water will be sourced from bore wells. Ground water table is at 458 mRL to 455 mRL in post monsoon and 433m RL to 423m RL during pre-monsoon season. Ultimate working depth will be 421m RL (52m bgl). Mine will intersect ground water table after 10 years of working. Total OB waste generation at the conceptual stage will be 9.19 Million tonnes. OB dump area is 6.00 ha and backfilling is proposed after 7th year. Area under greenbelt/plantation will be 107.96 ha which will include 33.82 ha un-worked area.

The proposal was earlier considered by the Expert Appraisal Committee during its meeting held on 25th July, 2012 wherein the Committee had sought additional information/clarifications on various related issues. Based on the additional information/clarifications submitted by the proponent, the proposal was considered further.

Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance with the specific condition that the availability of water after the first five years must be ascertained and ensured.

2.4 Tiroda Iron Ore Mine (ML area- 34.4212 ha and production capacity of 0.40 MTPA) of M/s Gogte Minerals at Village Tiroda, Vengurla Taluk, Sindhudurg District, Maharashtra - MA No. 1 OF 2011 IN Appeal No. 3 of 2011 Sarpanch Gram Panchayat, Tiroda & Ors V/s Ministry of Environment and Forests & Ors before Hon'ble National Green Tribunal (NGT for short).

It was noted that all the points raised by the Committee in the meeting dated May 23-25, 2012 have been responded adequately by the PP. The NGT had dealt with the subject of applicability of the moratorium and the requirement of the CRZ map and concluded that there is no necessity of going into any details thereof. The only relevant point was the topographic map plotting all the iron ore mines therein. The Committee noted during the presentation that such a map was submitted by the PP and in their presentation; they gave details of the cumulative impact of all the Mines in the study area. The Committee noted that various environmental parameters were within the prescribed limits.

The Committee, as directed by the Hon'ble NGT, has reexamined all the relevant and additional information sought from the PP and found that the revised EIA/EMP and other requirements of granting EC have been duly complied with. The Committee therefore considers it appropriate to recommend revival/grant of EC to the Proposal.

2.5 Proposed Bauxite Mine of M/s Nilesh Mines Corp., Village Karivane, Taluka Shrivardhan, District Raigad, Maharashtra (70.07 ha)-EC Reconsideration (Consultant: J.M. EnviroNet Pvt. Ltd.)

M/s Nilesh Mines Corporation proposes Bauxite mining lease of 70.07 ha with production capacity of 0.20 MTPA at Village: Karivane, Taluka: 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 24-04-2009. TORs for this project were prescribed in June 2007 and an amendment to the same has been issued in July, 2009 changing the names of villages. For the purpose of reckoning the validity period of TORs for 4 years, the Committee felt the date on which the amendment was issued should be considered. Later on Modified Mining Plan was approved vide letter dated January, 2010 and final EIA/EMP Report was submitted to MoEF on 16th May, 2012.

Based on the presentation made and discussions held, the Committee sought information on the following:-

- 1) Coverage of each of the item in TORs in the final EIA report shall be tabulated in the report.
- 2) Disaster management plan shall be provided.
- 3) Pollution control, material transportation and logistics on Rajpura Jetty road, shall be detailed out.
- 4) Mangroves protection plan shall be prepared and submitted.
- 5) Plans to protect neighboring agricultural fields shall be spelt out.
- 6) Protection measures for river Savitri shall be indicated.
- 7) The details about R&R plan of private land shall be prepared and submitted.
- 8) Cumulative impact of all the Mines operating within the study area shall be brought out.

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.

2.6 Malanjkhand Copper Ore Project of M/s Hindustan Copper Ltd., village Malanjkhand, District Balaghat, M.P. (EC-reconsideration) - (Consultant: SENES Consultants India Pvt. Ltd. Noida)

The proposal was earlier considered by the Expert Appraisal Committee during its meeting held on July 25-27, 2012 wherein the Committee had sought additional information/clarifications on various related issues.

Based on the additional information/clarifications submitted by the proponent, the proposal was considered further. The proposal is for renewal of mine lease which will fall due in August, 2013 and enhancement of production of copper ore from 2.0 million TPA to 5.0 million TPA with increase in lease area from 479.9 ha to 728.4 ha along with change in technology from opencast to underground mining and beneficiation plant with a total capacity of 5.0 million TPA by adding another Unit. The total project area is 2016.77 ha. The facility wise break-up of land is as - Mine I&II and existing beneficiation plant 479.9 ha; Mine-III 248.5 ha; tailing disposal facility 230.0 ha; housing complex, market, auditorium & club, oxidation ponds for sewage disposal and others-1057.6 ha. 728.8 ha of forest land is involved. The Kanha National Park (core zone) is reported at a distance of 8.05 km from the project area and the buffer zone of the Kanha National Park is at a distance of 4.24 km from the project area. The total water requirement is 52,577 m³/day out of this 21,260 m³/day will be recycled and net water requirement will be 31,317 m³/day which will be sourced from Banjar river. Method of mining will be underground mechanized with mass blasting and filling. Life of U/g mine will be 30 years. There are two mine leases, one mine lease consisting of mine-I & II which were amalgamated in 1993 on first renewal and now falling due for 2nd renewal in 2013. Second mine is Mine-III of ML area 248.5 ha, the lease for which is yet to be executed. TOR for the project was prescribed on 29.3.2011. Public hearing was held on 6.1.2012. Issues have been adequately addressed. The mine is in operation since 1973 and obtained environmental clearance in 1992. Mining Plan for 479.9 ha was approved vide letter No. 314(3)/ 2012-MCCM (CZ)/MP-04 dated 23.08.2012. Application as regards Wild Life was made to the State Government of Madhya Pradesh on 13.08.2012 for onward submission to National Wild Life Board.

Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance.

2.7 Karampada Iron Ore Mine of M/s Singhbhum Mineral Co., Chaibasa, Distt West Sighbhum, Jharkhand (141.64 ha)- EC Reconsideration

The proposal was earlier considered by the Expert Appraisal Committee during its meeting held on December 22-23, 2011 wherein the Committee had sought additional information/clarifications on various related issues.

Based on the additional information/clarifications submitted by the proponent, the proposal was considered further. The proponent made a presentation on the same. The proposal is for enhancement of production of iron ore from 0.0163 million TPA to 0.4006 million TPA and renewal of mine lease which is due since 1996. TORs for this project were

prescribed on 4.9.2008. Public hearing has been held on 9.8.2010.

There is no National Park / Sanctuary located within the 10 Km radius of the proposed ML area. The ML area is situated within the core zone of Singhbhum Elephant Reserve. A wildlife conservation plan has been prepared and submitted to PCCF, Ranchi for their approval. Map showing the location of Sanctuary / National Park / Wildlife Corridors etc., w.r.t. the mine has been authenticated by the PCCF, Ranchi vide letter no. 186(WL)10-11/12 on dated 06.01.11.

The ML area of 141.64 ha is a forest land, falls within the Karampada Reserve Forest of Saranda Forest Division in Chaibasa District of Jharkhand State. An area of 18.975 ha was broken prior to 1980. An application for forest clearance along with the Forest Diversion Proposal for 38.537 ha including the broken up area was made on 14.08.08 to the PCCF, Ranchi. The highest production achieved prior to 1994 was reported to be 16,300.5 TPA. The mine was reported to have been worked up to 1993 and closed thereafter. Mine working will be opencast mechanized involving drilling and blasting. Life of mine is 15 years for the existing broken up area and 140 years for the entire area. Water requirement for the project is estimated as 70 kld, which will be obtained from Kande nallah. Fresh baseline AAQ monitoring data has been generated from Mar-2012 to May-2012. The project being located in identified severely polluted area, comments of SPCB were obtained. The parameters were found to be within permissible limits.

Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance.

2.8 Sand/Boulder mining of M/s Rajesh Kumar Dubey, Village Billi markundi, Distt. Sonbhadra, U.P. (ML area-3.00 Acres) - TORs- On the direction of the Hon'ble Supreme Court.

The consideration of the proposal was deferred as the project proponent did not attend the meeting.

2.9 Hulsam Stone Quarry of M/s Sri Om Prakash Jaiswal, Village Hulsam, Tehsil Chatarpur, Distt. Palamu, Jharkhand (1.11 acres) -TORs - 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 Sept. 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 a brief Pre-Feasibility Report.

The Committee noted 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 and as such the project deserved to be granted the blanket environment clearance subject to the mines less than 5 ha area being formally brought under the EC regime on the directions of Hon'ble Supreme Court.

For the same reasons of size of the leasehold and environmental impact being negligible, there will not be any need for issue of TOR, 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 (PP for short) eligible for getting the EC forthwith.

However, the Committee noted that the PP has not prepared any Mine Plan duly approved or to be approved (as may have been so required) by the Competent Authority; in the instant case, the State Director of Geology & Mining / State Government either singly or in a cluster. The Committee feels that it is in the best interest of the PP as well as the Regulatory Agencies, that the PP prepares a simple Mine Plan (with proposed mining method and environment protection measures therein) and cumulative impact of similar mines in the neighbourhood, if any and submits the same at their earliest to the Ministry.

2.10 Open cast mining Activity from Mauja Chaparwar of M/s Anand Kumar Singh, Village Chaparwar, Tehsil Hariharganj, Distt. Palamau, Jharkhand (1.2707 ha)- TOR- 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 Sept. 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 a brief Pre-Feasibility Report.

The Committee noted 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 and as such the project deserved to be granted the blanket clearance subject to the mines less than 5 ha area brought under the EC regime on the directions from Hon'ble Supreme Court.

For the same reasons of size of the leasehold and environmental impact being negligible, there will not be any need for a 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 which will entail the proponent for getting the EC forthwith.

However, the Committee noted that the PP has not prepared any Mine Plan duly approved or to be approved (as may have been so required) by the Competent Authority; in the instant case, the State Director of Geology & Mining / State Government either singly or in a cluster. The Committee feels that it is in the best interest of the PP as well as the Regulatory Agencies, that the PP prepares a simple Mine Plan (with proposed mining method and environment protection measures therein) and cumulative impact of similar mines in the neighbourhood, if any and submits the same at their earliest to the Ministry.

2.11 Open cast mining Activity from Mauja Chaparwar of M/s Anand Kumar Singh, Village Chaparwar, Tehsil Hariharganj, Distt. Palamau, Jharkhand (2.238 ha) -TOR- 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 Sept. 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 a brief Pre-Feasibility Report.

The Committee examined and noted 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 and as such the project deserved to be granted the blanket clearance subject to the mines less than 5 ha area brought under the EC regime on the directions from Hon'ble Supreme Court.

For the same reasons of size of the leasehold and environmental impact being negligible, there will not be any need for a 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 which will entail the proponent for getting the EC forthwith.

However, the Committee noted that the PP has not prepared any Mine Plan duly approved or to be approved (as may have been so required) by the Competent Authority; in the instant case, the State Director of Geology & Mining / State Government either singly or in a cluster. The Committee feels that it is in the best interest of the PP as well as the Regulatory Agencies, that the PP prepares a simple Mine Plan (with proposed mining method and environment protection measures therein) and cumulative impact of similar mines in the neighbourhood, if any and submits the same at their earliest to the Ministry.

2.12 Proposal for collection of Sand, Stone and Bajri of M/s AARESS Grits, Village Kuthar Beet, Tehsil Haroli, Distt. Una, H.P. (4.556 ha)-TOR- 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 Sept. 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 a brief Pre-Feasibility Report.

The Committee examined and noted 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 and as such the project deserved to be granted the blanket clearance subject to the mines less than 5 ha area brought under the EC regime on the directions from Hon'ble Supreme Court.

For the same reasons of size of the leasehold and environmental impact being negligible, there will not be any need for a 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 which will entail the proponent for getting

the EC forthwith.

However, the Committee noted that the PP has not prepared any Mine Plan duly approved or to be approved (as may have been so required) by the Competent Authority; in the instant case, the State Director of Geology & Mining / State Government either singly or in a cluster. The Committee feels that it is in the best interest of the PP as well as the Regulatory Agencies, that the PP prepares a simple Mine Plan (with proposed mining method and environment protection measures therein) and cumulative impact of similar mines in the neighbourhood, if any and submits the same at their earliest to the Ministry.

2.13 Proposed Niwada Sand Mining of M/s Sri Shripal, Village Niwada, Tehsil Baghat, Distt. Baghat, U.P. (1.9550 ha)- TOR- 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 Sept. 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 a brief Pre-Feasibility Report.

The Committee examined and noted 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 and as such the project deserved to be granted the blanket clearance subject to the mines less than 5 ha area brought under the EC regime on the directions from Hon'ble Supreme Court.

For the same reasons of size of the leasehold and environmental impact being negligible, there will not be any need for a 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 which will entail the proponent for getting the EC forthwith.

However, the committee feels that it is in the best interest of the PP as well as the regulatory agencies; the PP prepares a simple mine plan and submits the same at their earliest to the Ministry.

The committee noted that the PP has not prepared any mine plan duly approved or to be approved by the Competent Authority, in the instant case the State Director of Geology & Mining / State Government either singly or in a cluster.

2.14 Mining of Sand stone and Bajri of M/s Ranjit Rana, Village & PO Spail, Tehsil Jawali, Distt. Kangra, H.P. (14.0036 ha) -TORs.

This item, already dealt with, has got repeated inadvertently; hence passed over.

2.15 Devpura-I Soapstone Mine of M/s Associated Soapstone Distributing Co. Pvt. Ltd., Village Devpura, Tehsil Sarada, Distt. Udaipur, Rajasthan (70.40 ha)-TORs (Consultant : ENKAY ENVIRO SERVICES)

The proposal was considered by the Committee to determine the Terms of Reference (TORs) for undertaking detailed EIA study for obtaining Environmental Clearance (EC for short) 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 a Pre-Feasibility Report.

The proposal is of Soapstone Mine of 0.075 MTPA capacity of M/s Associated Soapstone Distributing Co. Pvt. Ltd., Village Devpura, Tehsil Sarada, Distt. Udaipur, Rajasthan. The Project Cost is 7.75 Crores. The mining operations are continuing since 1953. The lease is effective from 24.01.1993 and upto 23.01.2013 for 20 years, as granted vide Government order no. P 5 (86) Khan/ Group-2/ 92 dated 05.08.2000 over an area of 70.214 ha. Jaisamand Game Sanctuary exists at a distance of 6.0 km towards East from mine site. Proposal for NOC has already been initiated for approval by the Chief Wildlife Warden/ State Wildlife Department.

Vide letter no. J-11015/161/2003-IA.II (M) dated 16th February 2005, EC was granted from MoEF, New Delhi. Compliance report of the Conditions stipulated by MoEF has been certified by Regional Office, Lucknow vide letter no. IV/ENV/R/MINE-211/320/2005/357 dated 17.08.2012. Current Scheme of Mining and Progressive Mine Closure Plan was approved by IBM vide letter no. SME/ UD-Cir/Mining Plan/ Scheme/ UDR/ F01/09/879-885 dated 03.06.2009, which is valid from 2009-10 to 2013-14. The mining operation is being carried out by mechanized open cast method of mining.

The water demand is being met from dug well situated outside the lease area. The daily water demand is 33.0 KLD. The ground water table is at 305 MSL. The ultimate working depth in Block - A is 325 MSL and in Block - B it will be 410 MSL. Hence, water table will not be encountered during the life of mine. Overburden/ waste generated during the first year of scheme period is 12,90,892 tons and at the end will be 79,35,156 tons. The generated waste will be initially dumped on non-mineralized zone in the form of terraces of 10 m height. The lease area is in forest land and consist of two blocks (30.83 ha in Block A - Mahadev and 39.384 ha. in Block - B Ganesh) in addition to this 0.186 ha. area is for road, which is outside to lease area. Thus, the total retained area is 30.83 ha + 39.57 ha = 70.40 ha. As the area, falls in Forest and the clearance for the same has been obtained from MoEF, New Delhi, vide letter no. 8-67/ 97 - FC dated 29.10.1999 in favour of M/s. Associated Soapstone Distributing Co. Pvt. Ltd.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

- 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 Imagery/toposheet 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) 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.
 - 13) 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.
 - 14) Impact, if any, of change of land use should be given.
 - 15) 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.
 - 16) One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
- 17) 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.
 - 18) 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.
 - 19) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
 - 20) Details of water conservation measures proposed to be adopted in the project should be given.
 - 21) 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.
 - 22) 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.
 - 23) 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.
 - 24) Details of rainwater harvesting proposed, if any, in the project should be provided.
 - 25) 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.
 - 26) 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 dumps (number of dumps, their height, terraces etc. to be brought out).
 - 27) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
 - 28) 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.
- 29) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
 - 30) 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.
 - 31) 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.
 - 32) 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.
 - 33) 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.
 - 34) 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.
 - 35) 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.
 - 36) 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.
 - 37) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
 - 38) 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.

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 (EC for short) in accordance with the procedure prescribed under the EIA Notification, 2006.

2.16 Iron Ore Beneficiation & Pelletization Plant of M/s Archana Hi Tech Automation System Pvt. Ltd., Hargarh, Tehsil Sihora, Distt. Jabalpur, M.P. (0.72 Million Ton/year and 0.64 Million Ton)-EC (Consultant: Enviro Techno Consult)

The proposal is for setting up of a iron ore Beneficiation Plant with a capacity of 0.72 million TPA along with Pelletization Plant with a capacity of 0.64 million TPA. The land requirement for the project is estimated as 1.096 ha, which will be located in Hargarh, notified industrial area in Silhora Tehsil, District Jabalpur, Madhya Pradesh. The fresh water requirement for the project is estimated as 910 kld, which will be obtained from Hiren river. It was stated that the low grade iron ore will be beneficiated and the fines will be used in the Pellet Plant.

The proponent made a request for exemption from Public Hearing for this project on the ground that the said project will be located in the notified industrial area and submitted letters no. 2096/3093/2011/B-11 dated 18.10.2011, no. F-11-61/2005/B-11 dated 13.3.2007 from the Commerce, Industry and Employment Department, Govt. of Madhya Pradesh, as also a Notification of the Govt. of Madhya Pradesh dated 23.5.2008 in support of their claim. A perusal of the documents showed that the State Govt. of Madhya Pradesh have notified this land for industrial purpose. As such, it only confirms the land use of the area. Further, since industrial estates / parks/ complexes/areas/EPZ/SEZ have found a specific entry in the EIA Notification, 2006, the Notification of these areas would require Environmental Clearance under the provisions thereof as per the prescribed procedure. Only thereafter, the individual projects / activities to be located in such areas would be exempted from separate public hearing. In the instant case, no such EC document was made available for the Hargarh Industrial area. In the absence of the requisite supporting documents, the Committee did not agree with the request of the Proponent for exemption from Public Hearing. Bohra Reserved forest is at 2.0 Km and Dhanwahd RF is at 6.5 km. The

proposed Plant [located in Notified Industrial Area at Hargarh (Sihora), Dist. Jabalpur, Madhya Pradesh] is at Latitude: 23° 29' 09" North and Longitude: 80° 06'54" East. The Project area is 23,488 sqm and Lora Hill Forest is located 2.0 km to the North. The Hiren River at 1500m to south and is a source of water for MPAKVN. 2 villages namely Hargarh & Daraula, exist within 2 km radius.

Availability of the raw material is within 10 km, and existing roads shall be used for transportation of ore in dumpers duly covered. About 85% water will be recovered through water reclamation system and recycled. Water used for beneficiation will be in closed circuit and will not be allowed to go out of the system. Raw ore, concentrates and waste stocks will be protected by coir mats followed by RCC bedded trenches leading to tailing pond.

The solid waste will be allowed to settle in the settling ponds and will be scraped out of the ponds and dumped at designated place, the seepage water coming out from the scraped solids will go to tailing pond again through the surrounding RCC bedded trench.

Based on the presentation made and discussion held, the Committee desired the PP to get the Public Hearing conducted by the concerned SPCB, following the due process and submit the Report along with the Video Recording thereof, time bound Action Plan on the issues raised and agreed upon in the PH and final EIA/EMP to MoEF for further consideration of the EC proposal by the EAC (Mining). The Committee also desired submission of AAQ data of December /Winter Season as discussed.

2.17 Limestone Production of 2.0 MTPA of M/s Adhunik Cement Ltd., Village Thangskai, Jaintia Hills Distt., Meghalaya (128.52 ha and 19.33 ha outside dump)-EC (Consultant: B .S. Envi - Tech Pvt. Ltd, Hyderabad)

The proposal is for opening of a new mine for production of 2.0 million TPA of limestone for the captive use in their cement plant adjacent to the mine lease. The mine lease area is 128.52 ha and approved by IBM. It was reported that Environmental Clearance for the cement plant has already been obtained. The PP has obtained Stage – I FC clearance for 147.85 ha (128.52 ha and 19.33 ha outside dump), the same also includes the safety zone of 9.736 ha (out of which ML area safety zone is 7.55 ha and dump area is 2.18ha). The mine working will be opencast mechanized mining involving drilling and blasting. Life of mine is 31 years. Ultimate working depth will be 30 m bgl. Water requirement is 30 kld. River Lubha is at 8.5 km and River Umluner is at 6.3 km. Blasting of the mineral at the mining lease will be done using slurry explosive. Cumulative impact of cement plant, power plant and Captive limestone mine was estimated. Total waste generation will be 24.0 MT (rocky overburden – red sandstone) and will be dumped outside the lease in an area of 19.33 ha up to a height of 25 m.

On being informed by the PP about Change of Land Category, the Ministry had issued additional TORs, to be addressed appropriately in the Draft EIA report already prepared. Comparison of changes made in the Draft EIA Report (submitted for public hearing) and Final EIA Report was submitted as part of final EIA document.

Government of Meghalaya, Office of Chief Conservator of Forests, Wild Life circle of Meghalaya, Shillong, vide letter dated FWC/G/117 dated 16th November, 2010 has confirmed that there are no threatened species except one species of Schedule-I i.e.,

Bambusicola Fitchi Hapkinsoni (common name: Assam Bamboo Partridge) belonging to Avi Fauna observed in study area of 10 km radius. The issues raised during Public Hearing were also considered and discussed during the meeting. It was reported that there is no court case pending against the project. Areas of afforestation will cover 7.5 m wide statutory barrier zone (7.55 ha) and Dump area (19.33 Ha) – outside lease. Apart from the above, an area of about 26.55 ha will be developed on the bench slopes.

Based on the presentation made and discussion held, the Committee recommended the project for Environmental Clearance subject to an appropriate Conservation Plan for the sited Schedule-I species, i.e., *Bambusicola Fitchi Hapkinsoni* (common name: Assam Bamboo Partridge), duly approved by the concerned Chief Conservator of Wild Life.

2.18 Proposed Manganese ore mining of M/s Aditya Minerals Pvt. Ltd., Village Guda, Distt. Adilabad, A.P. (89.03 ha)-EC

The consideration of the proposal was deferred as the project proponent did not attend the meeting.

2.19 Chawandiya & Madpura Limestone Mine of M/s MW Mines Pvt. Ltd., Village Chawandiya - Madpura, Testily Khminsar, Distt. Nagpur, Rajasthan (335.37 ha)-EC

The consideration of the proposal was deferred as the project proponent did not attend the meeting.

2.20 Fatepur Stone Mine of M/s Hindustan Construction Co. Ltd., Village Fatepur, Distt. Pakur, Jharkhand (5.61 ha)-TOR-(Consultant: MANTEC CONSULTANTS PVT. LTD., NEW DELHI)

The proposal was considered by the Committee 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 has submitted information in the prescribed format (Form-1) along with a Pre-Feasibility Report.

The project is located at Village: Fatehpur, Taluk: Patharia, Block: Hiranpur, District: Pakur, State: Jharkhand at latitude/longitude of 24°44'59.17"N / 87°47'16.41" E. The land is a Government waste land. The life of mine is 2 years. Opencast Mechanized method will be used. No blasting shall be used. Water demand is 11 KLD and the source of water is borewell. The lease deed has been executed in favour of M/s Hindustan Construction Company Ltd., vide letter no. nil dated 08/07/2010 for a period of 10 years, w. e. f. 08-07-2010 to 07-07-2020. The mine lease area is within 3.0 kms from interstate boundary between Jharkhand and West Bengal States. River Kanlai, is about 5 km from the mine and Ganga Feeder Canal is within 10 km of mine. One primary school is located within 200 meters from the Lease boundary.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

- 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) 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.
 - 3) All corner coordinates of the mine lease area superimposed on High Resolution Imagery/toposheet should be provided.
 - 4) 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.
 - 5) 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.
 - 6) 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.
 - 7) 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.
 - 8) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc should be for the life of the mine / lease period.
 - 9) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
 - 10) Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
 - 11) 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.
 - 12) 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.
 - 13) 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.
 - 14) Impact, if any, of change of land use should be given.
 - 15) 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.

- 16) One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
- 17) 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.
- 18) 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.
- 19) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
- 20) Details of water conservation measures proposed to be adopted in the project should be given.
- 21) 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.
- 22) 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.
- 23) 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.
- 24) Details of rainwater harvesting proposed, if any, in the project should be provided.
- 25) 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.
- 26) 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).

- 27) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
- 28) 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.
- 29) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
- 30) 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.
- 31) 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.
- 32) 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.
- 33) 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.
- 34) 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.
- 35) 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.
- 36) 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.
- 37) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
- 38) 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.

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.

2.21 Mining of stone, sand & Bajri of M/s Krishna Stone Crushing Co., Village & PO Paragpur, Tehsil Dehra, Distt. Kangra, H.P. (18.6875 ha) -TOR

The consideration of the proposal was deferred as the project proponent did not attend the meeting.

2.22 Mining of Sand stone and Bajri of M/s Sh. Sanjay Kumar, Village & PO Dabhiri, Tehsil Barsar, Distt. Hamirpur, H.P. (19.4970 ha)-TOR

The consideration of the proposal was deferred as the project proponent did not attend the meeting.

2.23 Januda Limestone Area of M/s GHCL, Village Januda, Taluka Maliya Hatina, Distt. Junagadh, Gujarat (78.0426 ha)-TOR-(Consultant: UDAIPUR MIN-TECH. PVT. LTD.)

The proposal was considered by the Committee 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 has submitted information in the prescribed format (Form-1) along with a Pre-Feasibility Report.

The proposal is for opening of a new limestone mine of M/s GHCL Ltd to meet the limestone requirement for its 2400 TPD Soda ash plant situated in Sutrapada village of Junagarh distt. The chemical grade limestone is the basic raw material used in soda ash

manufacturing process, therefore the company has applied for a new lease for mineral limestone over an area of 94.4208 ha. Near village Januda, Taluka-Maliya Hatina, Dist. Junagarh of Gujarat for a period of 30 years on 21.12.2006. The company was issued a LOI for grant of mining lease vide letter no MCR-102010-ML-123-(105)- CHH-1 dated 21.01.2011 by Industries & Mines Department, Gujarat, over an area of 78.0426 ha. The mine is located at a Longitude / Latitude of 21° 01' 44'' - 21° 02' 20'' N / 70° 19' 03'' - 70° 20' 55'' E. River Hiran is 6.0 Km South East, River Megal is 2.0 Km North West and Arabian Sea is at 8.45 Km. South. The production target is 2,24,719 TPA (ROM) and the method of mining will be open cast with drilling & blasting and maintaining the bench height of 3.0 m. The slope of benches will be 70°. The ultimate depth will be 25 - 27 mRL (3 - 7 m bgl) upto mine life.

The water requirement is 23 KLD. Out of total area of 78.0426 ha, 12.3615 ha is Private land and 65.6811 ha is Government Waste land. About 11.27 ha mined out benches will be used for plantation and remaining 50.73 ha for rain water storage. Total 20 ha will be covered by plantation out of which 11.27 ha will be over mined out benches & 8.73 ha for green belt development along lease boundary.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

- 1) The PP may examine the use of Surface Miners and furnish the outcome thereof.
- 2) Combined impacts should be presented. The prediction of impacts should take into consideration the soda ash plant as well as any other activity within the study area.
- 3) A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
- 4) All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
- 5) All corner coordinates of the mine lease area superimposed on High Resolution 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) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc should be for the life of the mine / lease period.
- 11) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water

- bodies, human settlements and other ecological features should be indicated.
- 12) Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
 - 13) 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.
 - 14) 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.
 - 15) Impact, if any, of change of land use should be given.
 - 16) 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.
 - 17) One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
 - 18) 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 combined impact should be worked out.
 - 19) 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.
 - 20) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
 - 21) Details of water conservation measures proposed to be adopted in the project should be given.

- 22) 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.
- 23) 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.
- 24) 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.
- 25) Details of rainwater harvesting proposed, if any, in the project should be provided.
- 26) 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.
- 27) 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).
- 28) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
- 29) 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.
- 30) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
- 31) 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.
- 32) 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
- 33) 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.
- 34) 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.

- 35) 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.
- 36) 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.
- 37) 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.
- 38) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
- 39) 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.

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.

2.24 Mining of Sand Stone and Bajri of M/s Kajla Stone Crusher, Village & PO Moch, Tehsil Fatehpur, Distt. Kangra, H.P. (11.2279 ha) –TOR

The consideration of the proposal was deferred as the project proponent did not attend the meeting.

2.25 Proposed Ullikallu Dolomite Mine of M/s Ullikallu Dolomite Mine Pvt.ltd., Village Ullikallu, Singanamala Mandal, Distt. Ananthapur, A.P. (67.017 ha)-TOR (Consultant: Pragati Labs and Consultants).

The proposal was considered by the Committee 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 Project Proponent (PP) has submitted information in the prescribed format (Form-1) along with a Pre-Feasibility Report.

The proposal of Ullikallu Dolomite Mine of M/s Ullikallu Dolomite Mine Pvt. Ltd., Village Ullikallu, Singanamala Mandal, Distt. Ananthapur, A.P. to an extent of 67.017 ha is for the production of Dolomite @ 1,00,550 tonnes per Annum (Max) and Life of Mine is 222 Years. No forest land is involved. The highest R.L. is 453.0 m (MSL) and Lowest R.L. is 350.5 m (MSL). The Latitude is 14° 52' 30" N to 14° 53' 13" N and Longitude is 77° 48' 02" E to 77° 49' 07" E. The mining method will be opencast and the water requirement will be 20 m³/day. The Mining Plan is approved by IBM vide Letter No. 5027/MP-TDP/2008 dated 20-11-2008. The mining Lease is obtained from Industries and Commerce (M-III) department vide Letter No. 1728/M-III (1) /2007 dated 04-07-2008. Total waste at the end of lease period will be 89,500m³. Area occupied by waste dump will be 44,750m² and Height of waste dump will be 2 m.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

- 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 Imagery/toposheet 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) 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.
 - 13) 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.
 - 14) Impact, if any, of change of land use should be given.
 - 15) 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.
 - 16) One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
- 17) 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.
 - 18) 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.
 - 19) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
 - 20) Details of water conservation measures proposed to be adopted in the project should be given.
 - 21) 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.
 - 22) 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.
 - 23) 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.
 - 24) Details of rainwater harvesting proposed, if any, in the project should be provided.
 - 25) 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.
 - 26) 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).
 - 27) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
 - 28) 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.
- 29) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
 - 30) 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.
 - 31) 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.
 - 32) 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.
 - 33) 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.
 - 34) 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.
 - 35) 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.
 - 36) 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.
 - 37) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
 - 38) 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.

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.

2.26 Proposed Mining of Sand/Morrum of M/s Mr. Virender Kumar Rai, Village Devisinghpura, Luhargaon, Maukhas, Bhakoro, Sitora & Khishi Bujurg, Tehsil Mauranipur, Distt. Jhansi, U.P. (54.61 ha) –TORs

Inadvertently repeated hence passed over.

2.27 Mining of Sand Stone and Bajri of M/s Sh Navneet Sharma, Village & PO Har, Tehsil Jawali, Distt. Kangra, H.P. (11.7281 ha) –TOR.

The consideration of the proposal was deferred as the project proponent did not attend the meeting.

2.28 Mining of Sand stone and Bajri of M/s Shiv Shakti Stone Crusher Co-Operative Industrial Society, Village Anuhi, Jangal, Soldha, Tehsil Jawali, Distt. Kangra, H.P. (16.9752 ha)-TOR

The consideration of the proposal was deferred as the project proponent did not attend the meeting.

2.29 Lohagarh Soapstone Mine of M/s Associated Soapstone Distributing Co. Pvt. Ltd., Village Lohargarh, Tehsil Dhariawad, Distt. Pratapgarh, Rajasthan (85.314 ha)-EC

The proposal was considered by the Committee and the proponent made a presentation on the same. The proposal is for renewal of mine lease, which fell due from January, 2011 for production of 30,000 TPA of soapstone. TORs for this project were prescribed on 28-04-2011. Public Hearing has been held on 16.4.2012.

The mine lease area is 85.31 ha. The Latitude is 23°57' 47.5"– 23°58' 39.5" North and Longitude is 74°15' 59.47"–74°16'50.06" East. Lohagarh Soapstone mining lease was granted in the year 1971 over an area of 85.314 hectares including: Govt. Wasteland 56.224 ha and Private agriculture land 29.090 ha. Mining Plan has been approved by IBM vide letter no. SME / BHIL-CIR / Mining Scheme / ML1 / 90 /1342-1350 dated 08.11.2010 for production capacity of 30,000 TPA. Central Ground Water Authority vide order no. 21-4(147)/ WR/CGWA/07-88 dated 16.04.2010 granted permission for withdrawal of ground water not exceeding 115 m³/day. Life of the mine at proposed production capacity is 23 years and total O.B. Generation would be 1,48,14,652 T.

No forestland is involved. Mine working will be opencast semi-mechanised involving drilling and blasting. It is estimated that 61,67,084 m³ of waste will be generated up to the end of the mine life. Backfilling is proposed. Life of mine is 23 years. Ultimate Depth of mining will be 120 m bgl. Depth of ground water table during post monsoon period in the lease hold area is 200 m AMSL. Hydro Geological Study has been conducted to assess impact of mining on Ground Water. Groundwater table is reported to vary between 8 – 15 m bgl. Mine working will intersect groundwater table. Water requirement will be around 22 KLD (from Ground Water: 0.885 KLD for drinking & from Mine Sump: 20.20 KLD for water sprinkling, plantation). No Ecologically Sensitive areas exists within the study area (10km radius from m.l. boundary like National Park, Wildlife Sanctuary, Biosphere Reserve and Bird Sanctuary, Elephant Corridors, etc.

The issues raised during Public Hearing were also considered and discussed during the meeting. It was reported that there is no court case pending against the project.

Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance.

2.30 Sand Stone and Khanda Mine of M/s Sh. Laxmi Chand Goyal, Village Chaikora and Kharaga ka Nagala, Tehsil Rupbas, Distt. Bharatpur, Rajasthan (48.70 ha)- EC (Consultant: ENKAY ENVIRO SERVICES)

The proposal was considered by the Committee and the proponent made a presentation on the same. The proposal is for renewal of mine lease for production of 1,00,037 TPA of sand stone and khanda (minor mineral). TORs for this project were prescribed on 20-05-2011. Public Hearing has been held on 20.3.2012. The mine lease area is 48.70 ha. No forestland is involved. It has been considered as category 'A' project because of inter-state boundary of U.P. and Rajasthan at a distance of 1 km. No National Park / Sanctuary is reported within 10 km of the mine lease. The proposed method of the mining will be by manual open cast. The height and width of bench will be maintained at 3.0m. The mining will be done from top to bottom by cutting 1.0m thick slices. The exploitation of mineral will be done from 174m AMSL to 156m AMSL (conceptual phase). Considering the stability of rocks, the ultimate pit slope proposed is 45° from vertical. Haul road will be developed up to point of loading. Transportation of the mineral from pit – mouth to destination will be by trucks. No drilling and blasting is involved for mineral production.

Life of the mine is 41 years. Water requirement is 15 kld, which will be obtained from nearby villages. The mine is reported to be closed for the last 7 years.

The lease was originally granted for an area of 153.6 ha. for a period of 30 years. The

application for renewal of 48.70 ha was submitted on 11.06.1997 and remaining area was surrendered. Renewal of revised lease area 48.70 ha is pending for want of Environmental Clearance. The Eco-friendly mining plan has been approved by the Mining Engineer, DMG, Bharatpur vide letter no. 2514 dated 24.02.2011. A confirmation duly authenticated by the Mining Engineer, Bharatpur, Department of Mines and Geology stating that the project does not falls in Aravalli has been obtained vide letter dated 14.06.2011. There is no National Park, Wildlife Sanctuary, Wildlife Corridor, Tiger/ Elephant Reserve within 10Km radius from the mine site. The same has been duly authenticated from the Office of Divisional Forest Officer, Bharatpur vide letter dated 14.12.2011. An authenticated list of flora and fauna has been obtained from the Office of Divisional Forest Officer, Bharatpur vide letter dated 14.12.2011. No objection certificate has been obtained from the Office of Gram Panchayat-Chaikora, Tehsil-Rupbas, District-Bharatpur (Rajasthan). There is no legal issue against the project in the court of law.

Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance.

2.31 Mining Lease for Silicate Boulders of M/s Mohunta Mining & Mfg. Co. Pvt. Ltd., Village Mauza Bathri, Tehsil Haroli, Distt. Una, H.P. -TORs- Re-consideration (Consultant: Eco Laboratories and Consultants, Mohali).

The proposal was considered by the Committee in its 16th meeting on 22.6.11 to determine the Terms of Reference (TORs) for undertaking detailed EIA study for the purpose of obtaining Environmental Clearance in accordance with the provisions of the EIA Notification, 2006. During consideration of the proposal, it was observed that the mine lease was only for silicate, though the Project Proponent proposes to collect other minerals also. The Committee, therefore, desired that the proponent should first get the mine lease modified by including all the associated minerals which are proposed to be excavated / collected and thereafter come back and they have got approval from Department of Industries, Government of H.P.- Lease dated 01.04.2008 is valid for 20 years and inclusion of associated minor minerals is taken on 4.1.2012.

Mining Lease is for Collection of Silica Boulder in an area of 8.98-35 ha at Khasra No. 303, 304 and 305 Mauza Bathri Part of Hum Khad, Sub Tehsil Haroli, District Una, H.P. Land is on Lease from Private Individuals (Gair Mumkin Khad) as well as from Government (1-54-85 ha) on bed of Hum Khad (a seasonal rivulet). There is no Forest Land involved. Project land is at an aerial distance of 2 Km from the state boundary of neighboring State of Punjab and hence is submitted to MoEF for Environmental Clearance. Maximum material handling is 54,000 MT/annum.

Joint Inspection report from SDM, Forest Department, Pollution Control Board, PWD and IPH Department and NOC from Village Panchayat is also obtained. Approval of Working cum EMP from Govt. of H.P. dated 7-10-2008 (and amended for inclusion of associated minerals on 27.2.2012) has been obtained.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

- 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 Working cum EMP 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 Working cum EMP 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) Cumulative impact of all mines within the study area should be worked out and presented in the EIA.
 - 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, SO₂ and NO_x), 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 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.

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.

2.32 Banrobar Bauxite Mine of M/s Leela Devi, Village Bandobar, Distt. Lohardaga, Jharkhand (TOR- Re-consideration) (Consultant: Grass Roots Research and Creation India (P) Ltd., Noida)

The proposal was considered by the Committee in its 20th Meeting during October 20th-22nd 2011 to determine the Terms of Reference (TORs) for undertaking detailed EIA study for obtaining Environmental Clearance in accordance with the provisions of the EIA Notification, 2006. During consideration of the proposal, it was observed that the proposal is for renewal of mine lease, which fell due in 2010 for production of 1,99,092 TPA of bauxite. It was stated during the presentation that Smt. Deepali Pandey and Smt. Punita Pandey are the present owners of the mine in their capacity as legal heirs of Late Smt. Leela Devi. However, in the absence of documents in support of their legal succession, the Committee had deferred consideration of the project.

The total mine lease area is 25.9 ha. The working will be opencast by mechanized method. The IBM had approved Mining Plan on 16-10-1990. This is a violation case. Water requirement is 8 KLD. Chupat river is at 4km NW. No National park/Wildlife sanctuary/Biosphere reserve/Tiger reserve/Elephant reserve etc. are reported to be located in the core and buffer zone of the mine.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

- 1) Status of compliance of the earlier EC conditions along with supporting documents and photographs should be submitted.
- 2) 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.
- 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/toposheet 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 judgment 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.
 - 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) should be indicated. A copy of the forestry clearance should also be furnished.
 - 16) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
 - 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 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.

- 21) A detailed biological study of the 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.
- 22) Impact, if any, of change of land use should be given.
- 23) 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.
- 24) One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
- 25) 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.
- 26) 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.
- 27) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
- 28) Details of water conservation measures proposed to be adopted in the project should be given.
- 29) 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.
- 30) 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.

- 31) 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.
- 32) Details of rainwater harvesting proposed, if any, in the project should be provided.
- 33) 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.
- 34) 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).
- 35) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
- 36) 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.
- 37) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
- 38) 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.
- 39) 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.
- 40) 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.
- 41) 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.
- 42) 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.
- 43) 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.
- 44) 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.
 - 45) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
 - 46) 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.

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 Mining Lease for Silicate Boulders of M/s Mohunta Mining & Mfg. Co. Pvt. Ltd., Village Mauza Bathri, Tehsil Haroli, Distt. Una, H.P. -TORs- Re-consideration.

Same as Item No. 2.31 inadvertently repeated; hence passed over.

2.34 Banesti Mine for Minerals China Clay, Silica and Red Ochre of M/s Mohd. Sher Khan, Village Banesti, Tehsil and Distt. Chittorgarh, Rajasthan – Change in TORs (Consultant: Udaipur Min-Tech Pvt. Ltd.).

Banesti mine (ML no. 5/97) was granted for mineral China Clay & Red Ochre near village Banesti over an area of 48.56 ha, in favour of Sh. Mohd. Sher Khan, resident of village and P.O. Sawa Dist. - Chittorgarh. Mineral silica sand was included in the mining lease on 15.07.2002. Another mining lease (ML No. 10/2000) for mineral China Clay and Red Ochre near village Banesti, over an area of 64.75 ha, in favour of Sh. Mohd. Sher Khan was renewed for the first time and both of these mining leases were amalgamated vide State Government order No. DMG/Chittor/ CC-3/Ren./P- 1(1)5/97/2073 dated 27.08.2003. Thus total lease area became 113.31 hectares for minerals Red Ochre, China Clay & Silica Sand effective up to 24.06.2018.

Environment Clearance was granted by MoEF, New Delhi for production of China clay 1,20,000 TPA, Silica sand 3,00,000 TPA and Red Ochre 50,000 TPA vide letter no. J-11015/191/2006-IA.II (M) dated 24/01/2007. The lessee applied for TORs under expansion category for production of China Clay from 1,20,000 to 4,00,000 TPA, Silica Sand from 3,00,000 to 10,00,000 TPA and Red Ochre from 50,000 TPA to 4,00,000 TPA. After presentation before EAC, TORs were issued for expansion vide MoEF letter no. J-11015/140/2011/IA.II (M) dated 21/09/11.

It was observed that the compliance to the earlier EC conditions needs to be further improved and presented with supporting data and photographs at the time of consideration of proposal for environmental clearance. The method of mining is open cast using excavator cum loader for extracting mineral as it is soft and bedded deposit, hence can be mined by machinery without drilling and blasting. The ultimate depth will be 35.00 tm (370.0 mRL) for China Clay and 50.00 mt (360.0 mRL) for Silica sand. There is no perennial source of water except seasonal river like Berach river (7.00 km towards West), Gambhir Nadi (8.50 km towards north east) & Satkhanda Nadi (7.50 km towards east) flowing within the study area of 10 km of buffer zone. Total water demand will be 100.00 KLD i.e., 48.00 KLD for dust suppression, 2.00 KLD for drinking & 50.00 KLD for plantation.

Based on the information furnished and presentation made, the Committee revalidated the TORs for undertaking the detailed EIA study.

2.35 Sanindpur Iron & Bauxite mine of M/s Rungta Sons (P) Ltd., Village Sanindpur & Oraghat, Distt. Sundergarh, Orissa (147.10 ha)-TOR (Consultant: Ecomen Laboratories Pvt. Ltd.).

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 enhancement in Iron Ore Production Capacity of the mine from 1.65 MTPA to 2.85 MTPA (ROM) ; dry processing of 1.65 MTPA of low grade iron ore &

installation of wet beneficiation plant of capacity 1.44MTPA at Villages – Sanindpur & Oraghat, Tehsil-Bonai, Dist.- Sundergarh, Odisha. Mine Lease Area is 147.10 ha and mine in operation since 1985. At present lease is under deemed renewal as per clause 24(A) of M.C. Rules, 1960 for 20 years w.e.f., 06/09/2005 to 05./09/2025 The lessee had applied for 1st renewal over 147.10 ha on 04/02/2004 vide RML application no. 141 which was further revised on 16/05/2006 over a reduced area of 88.737 ha for 20 years. The mine is located at Latitude: 21°55' 18.11" to 21°55'54.91" and Longitude: 85°17'19.49" to 85°18'29.96". The Total lease area of the mine is 147.10 ha. The lessee had applied for renewal of mining lease for the entire area. The lessee had reapplied for renewal for reduced area only of 88.737 ha. relinquishing forest area of over 58.189 ha. & non forest land of over 0.174 ha. The reduced RML applied area comprises of 68.135 ha. forest land and 20.602 ha non-forest land. STAGE-II CLEARANCE was granted by MoEF, Govt. of India vide letter no. 8 - 135/2003, dated 19.06.2006 for an area of 52.742 ha. STAGE-I CLEARANCE is further obtained by the lessee from MoEF, Govt. of India vide no.8 -135/2003 (Vol) dated 21/12/2010 for balance 15.393 ha forest land in addition to already diverted 52.742 ha of forest land. The Scheme of Mining for the period 2010-11 to 2014-15 for the required production capacity has been approved by IBM Nagpur vide letter no. 314(3)/2010 MCCM(CZ) MS-04 dated 28/05/2010. Life of Mine is 11.52 years.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

- 1) Status of compliance of the earlier EC conditions along with supporting documents and photographs should be submitted.
- 2) 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.
- 3) A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.
- 4) All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.
- 5) All corner coordinates of the mine lease area superimposed on High Resolution 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) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc should

- be for the life of the mine / lease period.
- 11) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.
 - 12) Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and submitted.
 - 13) 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.
 - 14) 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.
 - 15) 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 judgment 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.
 - 16) Status of forestry clearance for the broken up area and virgin forestland involved in the project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
 - 17) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
 - 18) 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.
 - 19) The vegetation in the RF / PF area with necessary details should be given.
 - 20) 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.
 - 21) 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.
 - 22) A detailed biological study of the 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.

- 23) Impact, if any, of change of land use should be given.
- 24) 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.
- 25) One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
- 26) 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.
- 27) 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.
- 28) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
- 29) Details of water conservation measures proposed to be adopted in the project should be given.
- 30) 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.
- 31) 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.
- 32) 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.
- 33) Details of rainwater harvesting proposed, if any, in the project should be provided.
- 34) 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.
- 35) 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).
- 36) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
 - 37) 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.
 - 38) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
 - 39) 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.
 - 40) 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.
 - 41) 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.
 - 42) 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.
 - 43) 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.
 - 44) 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.
 - 45) 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.
 - 46) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
 - 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 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.

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.

2.36 Mining Project of white clay mine of M/s Harish Clays, Village Chandi, Tehsil Kolayat, Bikaner, Rajasthan (75.13 ha)(M.L.No. 8/92)-TOR (Consultant: Apex Mintech Consultants)

The proposal was considered by the Committee 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 has submitted information in the prescribed format (Form-1) along with Pre-Feasibility Report.

The proposal is for white clay mine [M.L. No.24/2012 (Old M.L. No. 08/1992), Area 75.13 ha] Near village Chandi, Tehsil Kolayat District Bikaner (Rajasthan). Earlier Environment clearance was granted by MoEF, New Delhi for enhancement of production of 1,50,000 M.T. per year for mineral White Clay vide letter No. J-11015/13/2005-IA. II (M) dt.

14th June, 2005. The Latitude is 27°53'9.59" N to 27°53'48.64" N and Longitude is 72°59'56.67" E to 73°00'39.38" E. Life of mine is 14 years.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

- 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 Imagery/toposheet 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) 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.
- 13) 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.

- 14) Impact, if any, of change of land use should be given.
- 15) 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.
- 16) One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
- 17) 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.
- 18) 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.
- 19) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
- 20) Details of water conservation measures proposed to be adopted in the project should be given.
- 21) 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.
- 22) 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.
- 23) Details of treatment and disposal / management of effluents generated from the washing plant should be given.
- 24) 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.

- 25) Details of rainwater harvesting proposed, if any, in the project should be provided.
- 26) 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.
- 27) 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).
- 28) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
- 29) 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.
- 30) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
- 31) 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.
- 32) 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.
- 33) 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.
- 34) 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.
- 35) 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.
- 36) 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.
- 37) 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.
- 38) Details of litigation pending against the project, if any, with direction /order

- passed by any Court of Law against the project should be given.
- 39) 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.

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.

2.37 Acchi Bavri Soapstone & Dolomite Mine of M/s Mahesh Mantri, Nr. Village Acchi Bavri, Distt. Rajsamand, Rajasthan (129.50 ha)-TOR (Consultant: Apex Mintech Consultants)

The proposal was considered by the Committee 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 the prescribed format (Form-1) along with Pre-Feasibility Report.

The proposal is Acchi Bavri Soapstone & Dolomite Mine of M/s Mahesh Mantri, Nr. Village Acchi Bavri, Distt. Rajsamand, Rajasthan (129.50 ha) – Capacity of Soapstone is 20,000 MTA & Dolomite 2,40,000 MTA (M.L. No. 5/98). No Forest Land is involved, Govt. waste land is 27.02 ha, Pvt. Waste land is 70.48 ha and Grazing land is 32 ha. The mining method is semi-mechanised opencast and the dimension of benches is 6m height and 9 m width. Banas river is on Northern periphery. Water requirement is 13 KLD and source of water is sump water (12KLD) and tube well (1KLD).

Issues presented before the Public have remained unchanged as also the environmental background. Considering that the minerals being mined are environmentally benign, the incremental impacts consequent on the proposed expansion are not going to be materially different from the impacts placed before the Public on the previous occasion. The Committee therefore feels that despite the proposed expansion of production, and also the fact that last Public Hearing for Soapstone of 20,000 MTA & Dolomite 2,40,000 MTA was held on 27-08-2008, the proposal deserves to be exempted from a repeat public consultations in the instance case.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

- 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 Imagery/toposheet 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) 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.
 - 13) 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.
 - 14) Impact, if any, of change of land use should be given.
 - 15) 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.
 - 16) One season (non-monsoon) primary baseline data on ambient air quality (PM10, SO₂ and NO_x), 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.
 - 17) 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.
 - 18) 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.
 - 19) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
 - 20) Details of water conservation measures proposed to be adopted in the project should be given.
 - 21) 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.
- 22) 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.
 - 23) 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.
 - 24) Details of rainwater harvesting proposed, if any, in the project should be provided.
 - 25) 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.
 - 26) 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).
 - 27) The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
 - 28) 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.
 - 29) Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
 - 30) 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.
 - 31) 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.
 - 32) 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.
 - 33) 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.
 - 34) 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.
 - 35) 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.
- 36) 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.
 - 37) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
 - 38) 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.

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.

2.38 Joruri & Jalahari Iron Ore Mines of M/s Kalinga Mining Corp., Village Jalahari & Khandbandh, Distt. Keonjhar, Orissa (54.754 ha) (1.0 MTPA)-TOR (Consultant: CREATIVE ENGINEERS & CONSULTANTS, CHENNAI).

The proposal was considered by the Committee 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 has submitted information in the prescribed format (Form-1) along with Pre-Feasibility Report.

The proposal of Kalinga Mining Corporation is for the operating Joruri Iron and Manganese Ore Mines (54.754 ha.) located in village Jalahari and Khandbandh, Sub-division Champua, district Keonjhar of Orissa since June 1953. Out of the total area of 54.754 ha, 6.313 ha is under village forest, 45.167Ha is under DLC forest and rest of 3.274 ha is non-forest land. Present proposal is for enhancement of production of iron ore from 0.101 MTPA to 1.0 MTPA (ROM) and manganese ore to 0.014 MTPA capacity during 3rd RML period. Application for third renewal of the mining lease for the period from 22.06.2013 to 21.06.2033 (20 years) is made on 12-06-2012 one year prior to lease expiry over the entire area of 54.754 ha. Approval of Mining Scheme has been obtained from IBM vide letter no MS/OTF.MECH/56-ORI/BHU/2010-11. Mining Plan for the lease area of 54.754 ha for the third RML period of 20 years is being prepared. Forest diversion proposal for third RML period over 51.48 ha is submitted and is under process. Environmental Clearance for a production of 1,01,346 TPA of iron ore and 13,687 TPA of Manganese Ore was obtained from MOEF in December 2008. TOR for enhancement of production of iron ore from 0.101 MTPA to 0.5 MTPA and manganese ore from 0.014 MTPA to 0.1 MTPA was obtained from MOEF vide letter no J-11015/277/2010-IA.II (M) dated 29th November 2010. However, since the lease is due for renewal in 2013 and there is a proposal to enhance the iron ore production to 1.0 MTPA (ROM), the management has decided to obtain fresh TOR for increased production and Lease renewal. Baitarani river (About 3.0km, E), Dalko Nala (1.5 km, E), Kundra Nala (2.7 Km, West), Kakrapani (5.5Km, SW) Karo river (13.5 Km, NW) are the surrounding rivers. No Ecologically sensitive area such as National park/Wild life sanctuary/Biosphere reserve/tiger/Elephant reserve exists within 10 km of Buffer zone. Karo Karampada elephant corridor is located at a distance of 18.3 km. Open cast mechanized mining using drilling & blasting, raising of ore and waste by shovel dumper combination is proposed.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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 Imagery/toposheet 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. 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.
13. 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.
14. Impact, if any, of change of land use should be given.
15. 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.
16. One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
17. 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.
 18. 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.
 19. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
 20. Details of water conservation measures proposed to be adopted in the project should be given.
 21. 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.
 22. 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.
 23. 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.
 24. Details of rainwater harvesting proposed, if any, in the project should be provided.
 25. 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.
 26. 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).
 27. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
 28. 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.
29. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
 30. 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.
 31. 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.
 32. 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.
 33. 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.
 34. 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.
 35. 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.
 36. 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.
 37. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
 38. 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, 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.

2.39 Joruri Iron Ore Mines of M/s Kalinga Mining Corp., Village Jalahari, Distt. Keonjhar, Orissa (27.170 ha) (0.5 MTPA)-TOR (Consultant: CREATIVE ENGINEERS & CONSULTANTS, CHENNAI)

The proposal was considered by the Committee 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 has submitted information in the prescribed format (Form-1) along with Pre-Feasibility Report.

The Proposal of M/s Kalinga Mining Corporation is for their operating Joruri Iron Ore Mines (27.17 ha.) located in village Jalahari, Sub-division Champua, district Keonjhar of Orissa since June 1953. Out of the total ML area of 27.17 ha, 9.39 ha. are non- forest land, 16.67 ha of DLC forest land and 1.11 ha. of non - forest land which is under sabik kism jungle. Present proposal is for enhancement of iron ore production to 0.50 MTPA (ROM) during 3rd RML period. Application for 3rd renewal of mine lease was filed for the period of 20 years starting from 22-06-2013 as per the rule 22 of MCR, 1960 on 12-06-2012 i.e. one year prior to expiry of existing lease period. Mining Plan for the lease area of 27.17 ha for the third renewal of lease for 0.50 MTPA (ROM) capacity is being prepared under rule 24 of MCR, 1960 for the next RML period for approval from IBM. Out of total 17.78 ha of forest land, 11.881 ha is already broken up prior to 1980. Application to divert 17.78 ha of forest land including 11.431 broken up forest land prior to 1980, safety zone of 3.163 ha for non - forest use under F.C. act 1980 for third RML period is made. This TOR is applied towards obtaining environmental clearance for production of 0.50 MTPA during renewal of mine lease. Baitarani river is at 1.7 km east, Suna nadi is at 3 km from NW towards South, Dalko Nala is at 0.7 km, Kakrapani is at 6.7Km, SW. Open cast mechanized mining using drilling & blasting is being done. No Ecologically sensitive area such as National park/Wild life sanctuary / Biosphere reserve / tiger / Elephant reserve within 10 km of Buffer zone. Karo Karampada elephant corridor is located at a distance of 18.0 kms. Ore is transported to mobile crusher (2 x 150 TPH) /screen plant (2 x 150 TPH) through dumpers to get the final product of -5mm, 5-18mm, 18-40mm sized ore.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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 Imagery/toposheet 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. 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.
13. 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.
14. Impact, if any, of change of land use should be given.
 15. 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.
 16. One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
 17. 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.
 18. 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.
 19. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
 20. Details of water conservation measures proposed to be adopted in the project should be given.
 21. 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.
 22. 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.
 23. 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.
 24. Details of rainwater harvesting proposed, if any, in the project should be provided.
 25. 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.
 26. 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).

27. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
28. 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.
29. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.
37. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
38. 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, 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.

2.40 Guali Iron Ore Mines of M/s R.P. Sao (Ramesh Prasad Sao), Village Topadih, Panduliposhi, Loidapada, Guali & Rugudih, Tehsil Barbil, Distt. Keonjhar, Orissa (365.026 ha)-TOR

The proposal was considered by the Committee 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 has submitted information in the prescribed format (Form-1) along with Pre-Feasibility Report.

The proposal of Iron Ore Mines of M/s R.P. Sao (Ramesh Prasad Sao) at Village Topadih, Panduliposhi, Loidapada, Guali & Rugudih, Tehsil Barbil, Distt. Keonjhar, Orissa (365.026 ha). Mining lease originally granted in the year 27.06.1953. Application for third renewal of the mining lease for the period 27.06.201. 3 to 26.06.2033 (20 years) applied on 25-04-2012 one year prior to lease expiry over the entire area of 365.026 Ha. Mining plan for third RML period over the lease area of 365.026 Ha submitted to IBM for approval. Environmental Clearance for 5.7 MTPA iron ore production obtained from MOEF vide letter

No.J-11015/1155/2007-IA-II (M) dated the 22 June 2009. Out of 288.796 Ha forest area, forest clearance for 42.471 Ha of already broken up area (prior to 1980), obtained from MoEF vide letter. No F.No-8-96/96-FC dated 14th January 2005. Forest clearance for additional 95.00 Ha area obtained from MOEF vide letter F.N-96/96(+P) dated 6th September 2011 from MOEF. Thus the total diverted forest area at present is 137.417 Ha. Lessee has now filed diversion proposal for entire forest area of 288.796 Ha on 22.06.2012 for renewal of mining lease, which includes 137.417 Ha diverted forest, 135.219 Ha virgin forest and 16.160 Ha safety zone. NOC for withdrawal of ground water has been obtained from CGWA vide letter. No .No-21-4 (93)/SER/ CGWA/ 2008-1730. Site-specific wildlife conservation plan got approved from Principal Chief Controller of Forests (Wildlife), Orissa vide Memo No.321 to 324 1 WL-C-FC-385/08 dt.17.01.09. Method of mining is open cast and mechanized. Life of mine is 19 years.

During the presentation for TOR, the proponent mentioned the Project has obtained EC on 22nd June 2009 after Public Hearing. The conditions stipulated are being complied with by the Project. The present proposal for TOR is for renewal of the EC for next lease period without any change in production, lease area and pollution load etc. The renewal of the lease is due on 26th June 2013. It was requested by the proponent to allow exemption from Public Hearing. It was noted that considering the nature of the public hearing and the action plan, the proponent deserves to be exempted from the public consultations.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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 Imagery/toposheet 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. 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.
13. 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.
14. Impact, if any, of change of land use should be given.
15. 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.
16. One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
17. 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.
18. 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.
19. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.

20. Details of water conservation measures proposed to be adopted in the project should be given.
21. 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.
22. 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.
23. 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.
24. Details of rainwater harvesting proposed, if any, in the project should be provided.
25. 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.
26. 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).
27. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.
28. 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.
29. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
30. 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.
31. 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.
32. 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.

33. 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.
34. 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.
35. 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.
36. 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.
37. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
38. 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, 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

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

2.41 Kumbhajari Decorative Stone Mines of M/s Ajax Petro, Village Kumbhajhari, Distt. Ganjam, Orissa (13.638 ha)-TOR

The consideration of the proposal was deferred as the project proponent did not attend the meeting.

2.42 Dakhinpur Decorative Stone Mines of M/s Ajax Petro, Village Dakhinpur, Distt. Ganjam, Orissa (8.964 ha)-TOR.

The consideration of the proposal was deferred as the project proponent did not attend the meeting.

2.43 Iron ore mine of M/s Urumunda Iron Ore Mines located at kasipur, Keonjhar, Orissa- EC – Reconsideration. (Consultant: Envomin Consultant (Pvt.) Ltd.)

The proposal is for renewal of mine lease, which became due on 29.12.2011 and enhancement of production of iron ore from 30,000 TPA to 1,80,000 TPA. A Crushing, Screening and Beneficiation Plant of 60,000 TPA is also part of the Project. The mine is reported to be closed presently. TORs for this project were prescribed on 18.1.2010. Public Hearing has been held on 30.6.2010. Mine lease area is 82.03 ha, which includes 54.63 ha of forestland. It is a violation case as the proponent has increased production without obtaining requisite prior environment clearance. Mine working will be opencast semi mechanized involving drilling and blasting. Ultimate working depth will be 585 m AMSL. Groundwater table during post monsoon is reported 575.5 m AMSL. Mine working will not intersect groundwater table. It was stated by the Proponent that they are proposing to take necessary measures by involving other mine owners in the area. Based on the presentation made and discussions held, the Committee decided that the proponent will come for obtaining environmental clearance beyond 2011. Now, the Proponent has ensured that the necessary safeguard measures are in place and their effectiveness is demonstrated by supporting data on ambient air quality in the area. The mining plan for renewal of Mining Lease has been reapproved on 28.04.2011 by IBM, Bhubaneswar vide letter no. MP/OTF.MECH/39-ORI/BHU/ 2010-11.

Based on the presentation made and discussions held, the Committee recommended the project for environmental clearance.

2.44 Capacity Expansion of Mining and Mineral Separation Unit of M/s Indian Rare Earths Ltd. Located at P.O-Matikhalo, Chatrapur (Ganjam), Orissa (Consultant: Bhagvathi Ana Labs Ltd. Hyderabad)

The proposal was earlier considered by the Expert Appraisal Committee during its meeting held on November 28-30, 2011 wherein the Committee had sought additional information/clarifications on various related issues. Based on the additional information/clarifications submitted by the proponent, the proposal was considered further.

The proposal is for enhancement of production of heavy mineral raw sand from 25,00,000 TPA to 75,00,000 TPA which will be processed in the mineral separation plant for producing ilmenite along with other associated heavy minerals. The mine lease area is 2,464.054 ha which includes 157.7 ha of forestland. Application has been made for obtaining forestry clearance, copy of which has been submitted. No national park/sanctuary is reported within 10 km of mine lease, however, nesting sites of Olive Ridley Turtles are reported within 5.5 km from the approved mine site and 2.16 km from mine lease boundary. The proponent stated that no mining will be carried out within 5km of the nesting site. NOC has been granted by Principal Chief Conservator of Forests & Chief Wildlife Warden vide letter No.3536/WL(C)(SSP)-149/2012 dated 11th May 2012 for carrying out mining in north sector with respect to Capacity Expansion of Mining & Mineral Separation Units (CEMMU). The distance of mine lease boundary from the Rushikulya River Bank varies from 50 m to 1500 m. TORs for this project were prescribed on 20.10.2009. Public Hearing has been held on 29.03.2011. The issues raised during public hearing were also considered and discussed during the meeting. It was reported that there is no court case pending against the project. The compliance status of the earlier EC conditions was also presented and discussed.

Based on the presentation made and discussion held, the Committee recommended the project for environmental clearance subject to Compliance with the conditions laid down by Odisha State Coastal Zone Management Authority. No mining shall be carried out in "NO GO ZONE / NO OPERATION ZONE" as stipulated in the conditions in the NOC letter granted by Principal Chief Conservator of Forests & Chief Wildlife Warden.

2.45 Donkhera Dolomite & Baryte of M/s Satveer Singh at Mohindergarh, Haryana-TOR (Consultant: Perfect EnviroSolutions Pvt. Ltd.)

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 of Donkhera Dolomite & Baryte at Mohindergarh, Haryana is for the production of Dolomite of 2.2 MTPA. The lease area is 24.3 ha, which is a barren land. Date of grant of lease is 21-08-2001 and the same is valid for 20 years. Krishnawati or Kasaunti river is at 2.0 Km E and Meena ka Nangal PF is adjacent. Ecologically sensitive area such as National park/Wild life sanctuary / Biosphere reserve / tiger / Elephant reserve are not present within 10 km of Buffer zone. The Proponent has submitted a letter from DFO, Mohindergarh stating that the area is not covered under Section 4 and 5 of Punjab Land Preservation Act. It was also reported by the proponent that there is no court case pending against the project. The mining method will be opencast semi mechanized including drilling and blasting.

Based on the information furnished and presentation made, the Committee prescribed the following TORs for undertaking detailed EIA study:-

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 Imagery/toposheet 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. 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.
 13. 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.
 14. Impact, if any, of change of land use should be given.
 15. 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.
16. One season (non-monsoon) primary baseline data on ambient air quality (PM₁₀, SO₂ and NO_x), 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.
 17. 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.
 18. 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.
 19. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the project should be provided.
 20. Details of water conservation measures proposed to be adopted in the project should be given.
 21. 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.
 22. 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.
 23. 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.
 24. Details of rainwater harvesting proposed, if any, in the project should be provided.
 25. 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.
 26. 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).
 27. The reclamation plan, post mine land use and progressive greenbelt development plan shall be prepared in tabular form (prescribed format) and submitted.

28. 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.
29. Details of the infrastructure facilities to be provided for the mine workers should be included in the EIA report.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.
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Besides the above, the below mentioned general points should also be followed:-

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- 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.

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.

Annexure**List of Participants**

1.	Shri M.S. Nagar	-	Chairman
2.	Dr. S. Subramaniam	-	Vice Chairman
3.	Prof. C.K. Varshney	-	Member
4.	Shri K.S. Anandan	-	Member
5.	Dr. T.K. Joshi	-	Member
6.	Shri Mihir Moitra	-	Member
7.	Dr. L. Ajay Kumar	-	Member
8.	Dr. S.K. Peshin	-	Member
9.	Shri Vinay Mahajan	-	Member
10.	Shri Rajesh Srivastava	-	Member
11.	Dr. B.K. Mishra	-	Member
12.	Shri Ranjan Sahai	-	Member
13.	Dr. Saroj, Director	-	Member Secretary
14.	Shri Om Prakash, Dy. Director, MoEF		
15.	Shri Neeraj Khatri, Dy. Director, MoEF		
16.	Representative of M/s Prachi Mines		
17.	Representative of M/s Tata Steel Ltd.		
18.	Representative of M/s UltraTech Cement Ltd.		
19.	Representative of M/s Gogte Minerals		
20.	Representative of M/s Nilesh Mines Corp.		
21.	Representative of M/s Hindustan Copper Ltd.		
22.	Representative of M/s Singhbhum Mineral Co.		
23.	Representative of M/s Sri Om Prakash Jaiswal		
24.	Representative of M/s Anand Kumar Singh		
25.	Representative of M/s Aaress Grits		
26.	Representative of M/s Sri Shripal		
27.	Representative of M/s Associated Soapstone Distributing Co. Pvt. Ltd.		
28.	Representative of M/s Archana Hi Tech Automation System Pvt. Ltd.		
29.	Representative of M/s Adhunik Cement Ltd.		
30.	Representative of M/s Hindustan Construction Company		
31.	Representative of M/s GHCL		
32.	Representative of M/s Kajla Stone Crusher		
33.	Representative of M/s Ullikallu Dolomite Mine Pvt.ltd.		
34.	Representative of M/s Associated Soapstone Distributing Co. Pvt. Ltd.		
35.	Representative of M/s Sh. Laxmi Chand Goyal		
36.	Representative of M/s Mohunta Mining & Mfg. Co. Pvt. Ltd.		
37.	Representative of M/s Leela Devi		
38.	Representative of M/s Mohd. Sher Khan		
39.	Representative of M/s Rungta Sons (P) Ltd.,		
40.	Representative of M/s Harish Clays		
41.	Representative of M/s Mahesh Mantri,		
42.	Representative of M/s Kalinga Mining Corp.,		
43.	Representative of M/s R.P. Sao		
44.	Representative of M/s Urumunda Iron Ore Mines		
45.	Representative of M/s Indian Rare Earths Ltd		
46.	Representative of M/s Satveer Singh		
