



सत्यमेव जयते

File No: EC-01(145)/2024

Government of India

Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), UTTARAKHAND)



Dated 19/09/2024



To,

AMIT PATWARI
AMIT PATWARI
Haldwa Sitarganj, UDAM SINGH NAGAR, UTTARAKHAND, 262405
nishacripl@gmail.com

Subject: Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding.

Sir/Madam,

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project Budhwashaheed-I Sand, Bajri and Boulders Mining in Modaro River At Khata no 220, 221, 222, 184 Village- Daulatpur Hazratpur Urf Budhwashaheed-I, Tehsil- Bhagwanpur & District- Haridwar, UK (Area- 4.0227 Ha) submitted to Ministry vide proposal number SIA/UK/MIN/485878/2024 dated 07/07/2024.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO24B0107UK5357316N
(ii) File No.	EC-01(145)/2024
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals Budhwashaheed-I Sand, Bajri and Boulders Mining in Modaro River At Khata no 220, 221, 222, 184 Village- Daulatpur Hazratpur Urf Budhwashaheed-I, Tehsil- Bhagwanpur & District- Haridwar, UK (Area- 4.0227 Ha)
(vii) Name of Project	
(viii) Name of Company/Organization	AMIT PATWARI
(ix) Location of Project (District, State)	HARIDWAR, UTTARAKHAND
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the Ministry for an appraisal by the State Environment Impact Assessment Authority (SEIAA) Appraisal Committee (SEIAA) in the Ministry under the provision of EIA notification 2006 and its subsequent amendments.
4. The above-mentioned proposal has been considered by State Environment Impact Assessment Authority (SEIAA) Appraisal Committee of SEIAA in the meeting held on 24/08/2024. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B, Part C EIA, EMP)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.
5. The brief about configuration of plant/equipment, products and byproducts and salient features of the project along with environment settings, as submitted by the Project proponent in Form-1 (Part A, B and C)/EIA & EMP Reports/presented during SEIAA are annexed to this EC as Annexure (1).
6. The SEIAA, in its meeting held on 24/08/2024, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of Terms of Reference under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of specific and general conditions as detailed in Annexure (2).
7. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the State Environment Impact Assessment Authority (SEIAA) Appraisal Committee hereby decided to grant Terms of Reference for instant proposal of M/s. AMIT PATWARI under the provisions of EIA Notification, 2006 and as amended thereof.
8. The Ministry reserves the right to stipulate additional conditions, if found necessary.
9. The Terms of Reference to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
10. This issues with the approval of the Competent Authority.

Copy To

N/A

Annexure 1

Standard Terms of Reference for (Mining of minerals)

1.

S. No	Terms of Reference
1.1	Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.

Additional Terms of Reference

STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR NON-COAL MINING PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.

3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee. The above reports should also match with the latest District Survey Report (DSR) notification dated 25th July, 2018. **Data obtained from this DSR should be incorporated in the EIA Report for Impact Identification, Interpretation, Prediction, Carrying Capacity and Mitigation.**

4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).

5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.

6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.

7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.

8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.

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

11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.

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

13) 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.

14) 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.

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

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

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

18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated,

separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

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

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

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

22) Air quality 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. **Monitoring should be at four places minimum.** The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

23) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.

24) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

25) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.

26) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.

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

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

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

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

31) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating

whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

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

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

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

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

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

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

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

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

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

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

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

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

1. Executive Summary of the EIA/EMP Report

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

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

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

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

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

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

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

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

10. 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.

11. All pages of technical documents/EIA/EMP should be signed by the consultant and project proponent both.

12. The lease area, its address and production per annum should match with as mentioned in DSR and LOI. In case there is any difference classification/amendment letter from competent authorities shall be submitted.

13. Plan for using the mine void for productive use in consultation with local administration and gram panchayat.

14. In case project proponent intends to temporarily mine out materials outside the mine lease area than NOC from competent authority for doing so should be submitted and details of such area and associated environmental impacts should be included in EIA EMP report this should be clearly mentioned during public hearing.
15. Road network to be used by the project should be clearly shown on survey of India topo sheet in 1:20,000 scale. In case road network involves forest road, permission should be obtained from forest department and a copy of the same should be submitted at the time of appraisal of EIA-EMP report.
16. Project proponent should submit action plan for carrying out plantation at least 1000 plants/ha of lease area. **This should give the plant species to be planted along with a proper map should be submitted at the time of EIA presentation. This plan should be** duly approved either by Forest department or Horticulture department for planting either on government land or community land within periphery of 5 Kms from the boundary of lease area along with provision for maintenance for 5 years. Survival of plants below Uttarakhand Forest Departments survival rate will be treated as violation of EC condition.
17. In view of the agricultural land proposed under the mining lease area, the project proponent needs to submit the cost benefit analysis comprising the current agricultural production and annual turnover vis-à-vis the mineral cost and benefits.
18. To ensure proper monitoring, the project proponent/consultant should provide evidence in for of (A) Raw Data (B) Logbook of their site visit along with activities carried out during monitoring (C) Real time photographs showing monitoring machine, public, lab person etc. Proprietor/proprietor representative should be present at the time of monitoring and monitoring should be conducted as per CPCB SOP/NABET/QCI guidelines. Lab responsible person should be present at the time of EIA presentation.
19. EIA coordinator & FAE should give a photo affidavit during EIA presentation that they have personally visited the site & they have also taken all the mitigating measures for any critical issues involved in the project.
20. The project proponent will have to inform the schedule of monitoring/data collection programme to the SEIAA, Uttarakhand before start of data collection. In case of failure, the collected baseline monitoring data will be treated as null and void.
21. The details of equipment used for baseline monitoring alongwith its photograph mentioning date, time and geo coordinates for preparation of EIA report should be clearly displayed to the people present during public hearing and the complete details related to monitoring period must be mentioned in the minutes of public hearing.
22. Original lab analysis report of the project proposal along with EIA report should be uploaded on Parivesh Portal.
23. During the EIA presentation latest KML of site pillar should be presented.
24. Combined KML of all mines in a cluster should be submitted at the time of EIA.
25. The project proponent/Consultant should identify the core & buffer zone (2.5 km) of the mining site.
26. Agreement/ Consent between project proponent and competent authority/ landowner for haulage road from lease site to link road to be submitted at the time of EIA presentation.
27. Proponent/ Consultant should submit the plan/information along with technology (photographs of water sprinklers/ tankers) to be implemented for mitigating dust at source points in lease area and haulage road during operation activity/vehicular movement. Technology should be displayed at the time of EIA presentation.
28. Proposed plantation plan with area specific plant species, number of plants to be planted and place of plantation along with a proper map to be submitted at the time of EIA presentation.
29. Water requirement details along with source of water and the permission/ agreement with the concerning authority/ person to be submitted at the time of EIA presentation.
30. Proponent/consultant shall present TOR specific/additional conditions compliance, observation/suggestions raised during the public hearing and commitment made by the project proponent in a tabular form with a time bound plan at the time of EIA presentation.
31. Corporate Social Responsibility (CSR) to be prepared as per the MoEF&CC guidelines and present it at the time of EIA presentation.
32. The Project Proponent shall carry out geological stability study along with detailed flora and fauna investigation by subject specialist. The Project Proponent shall submit mitigation plan for avoiding the runoff and leaching of debris during the monsoon.
- 33. The Project Proponent shall submit a list of flora and fauna of the mine lease area duly verified by concern DFO.**
- 34. The Project Proponent shall submit a detail of the socio-economic status of the villages falling within 10.0 Km radius of the project area.**
35. The Project Proponent shall obtain clearance under the Wildlife (Protection) Act, 1972 from the competent Authority as may be applicable to this project.
36. The Project Proponent shall follow all relevant directions/orders issued by Hon'ble High Court/NGT/ Supreme Court.

37. Copy of all the analysis reports duly signed by analyst approved by NABL or MoEF&CC shall be annexed with the EIA report and original analysis reports should be presented at the time of presentation.
38. MOU signed between the project proponent and the consultant should be submitted.
39. All pages of all documents should be signed by PP and EIA consultant.
- Note:** 1) The study area shall comprise of radial distance of 10 KM from the project site and the study period is three months. The impact on each of the above parameter as a result of mining shall be assessed through appropriate modelling and prediction methods considering base line data.
- 2) District Survey Report should be submitted as per the latest notification issued by MoEF&CC.
- Hence you are kindly requested to kindly submit EIA report for further necessary action.

Annexure 2

Details of Products & By-products

Name of the product /By-product	Product / By-product	Quantity	Unit	Mode of Transport / Transmission	Remarks (eg. CAS number)
SAND BAJRI BOULDER (RBM)	SAND BAJRI BOULDER (RBM)	4.0227	Hectares (Ha)	Road	NA

राज्य स्तर पर्यावरण समाघात निर्धारण
प्राधिकरण, उत्तराखण्ड, "गौरादेवी पर्यावरण
भवन, तृतीय तल, 46-बी, आई.टी.
पार्क, सहस्रधारा रोड, देहरादून"
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय,
भारत सरकार, नई दिल्ली द्वारा गठित)

दूरभाष: 0135-2976159

ईमेल: seiaa.seac.uk@gmail.com



State Level Environment Impact
Assessment Authority, "Gauradevi
Paryavaran Bhawan, Third Floor, 46-B
I.T. Park, Sahastradhara Road,
Dehradun"
(Constituted by Ministry of
Environment, Forests and Climate
Change Government of India.)
Phone No-0135-2976159
Email- seiaa.seac.uk@gmail.com

Letter No. 426/SEIAA

Dated- 31 August, 2024

To,

M/s Laxmi Stone Industries LLP,
R/o- Village- Halduwa, Tehsil- Sitarganj, District- UdhamSingh Nagar.

Sub- Regarding Terms of Reference (ToR) for Extraction of Sand/Bajri/Boulder at Khata no 220, 221, 222, 184 Village- Daulatpur Hazratpur Urf Budhwashaheed-I, Tehsil-Bhagwanpur & District- Haridwar. (4.0227 Ha).

Kindly take reference of your submitted vide proposal no SIA/UK/MIN/485878/2024 regarding above proposal. The SEAC in its 27th meeting held on dated 14th August, 2024 examined the proposal. The SEAC after thorough discussion and deliberation conveyed that EIA report of this proposal after due public consultation conducted by Uttarakhand Pollution Control Board. SEIAA in its meeting dated 21st August, 2024 agreed with the recommendation of SEAC. The terms of reference (TOR) for the EIA report is being out lined below:-

1. **The Project Proponent shall obtain NBWL clearance from the National Board of Wild Life before the starting of mining activities (Which has already been applied by project proponent vide their proposal No. WL/UK/MIN/QR/489915/2024 dated 27.07.2024).**

1(a): STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR NON-COAL MINING PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee. The above reports should also match with the latest District Survey Report (DSR) notification dated 25th July, 2018. **Data obtained from this DSR should be incorporated in the EIA Report for Impact Identification, Interpretation, Prediction, Carrying Capacity and Mitigation.**
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- 5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
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- 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, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
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- 14) 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.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted. **It should be verified by PCCF Wildlife, Uttarakhand.**
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 20) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 21) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data with geo tagged photographs of sampling location on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM₁₀, particularly for free silica, should be given.
- 22) Air quality 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. **Monitoring should be at four places minimum.** The air quality contours may be shown on a location map clearly

- indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 23) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
 - 24) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
 - 25) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
 - 26) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
 - 27) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
 - 28) Details of any stream, seasonal or otherwise, passing through the lease area and modification/diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
 - 29) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
 - 30) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
 - 31) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
 - 32) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
 - 33) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
 - 34) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
 - 35) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
 - 36) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
 - 37) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
 - 38) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
 - 39) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
 - 40) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
 - 41) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
 - 42) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

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

1. Executive Summary of the EIA/EMP Report
2. All documents to be properly referenced with index and continuous page numbering.

3. Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
4. Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
5. Where the documents provided are in a language other than English, an English translation should be provided.
6. The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
7. While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
8. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
9. As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
10. 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.
11. All pages of technical documents/EIA/EMP should be signed by the consultant and project proponent both.
12. The lease area, its address and production per annum should match with as mentioned in DSR and LOI. In case there is any difference classification/amendment letter from competent authorities shall be submitted.
13. Plan for using the mine void for productive use in consultation with local administration and gram panchayat.
14. In case project proponent intends to temporarily mine out materials outside the mine lease area than NOC from competent authority for doing so should be submitted and details of such area and associated environmental impacts should be included in EIA EMP report this should be clearly mentioned during public hearing.
15. Road network to be used by the project should be clearly shown on survey of India topo sheet in 1:20,000 scale. In case road network involves forest road, permission should be obtained from forest department and a copy of the same should be submitted at the time of appraisal of EIA-EMP report.
16. Project proponent should submit action plan for carrying out plantation at least 1000 plants/ha of lease area. **This should give the plant species to be planted along with a proper map should be submitted at the time of EIA presentation. This plan should be duly approved either by Forest department or Horticulture department for planting either on government land or community land within periphery of 5 Kms from the boundary of lease area along with provision for maintenance for 5 years. Survival of plants below Uttarakhand Forest Departments survival rate will be treated as violation of EC condition.**
17. In view of the agricultural land proposed under the mining lease area, the project proponent needs to submit the cost benefit analysis comprising the current agricultural production and annual turnover vis-à-vis the mineral cost and benefits.
18. To ensure proper monitoring, the project proponent/consultant should provide evidence in for of (A) Raw Data (B) Logbook of their site visit along with activities carried out during monitoring (C) Real time photographs showing monitoring machine, public, lab person etc. Proprietor/proprietor representative should be present at the time of monitoring and monitoring should be conducted as per CPCB SOP/NABET/QCI guidelines. Lab responsible person should be present at the time of EIA presentation.
19. EIA coordinator & FAE should give a photo affidavit during EIA presentation that they have personally visited the site & they have also taken all the mitigating measures for any critical issues involved in the project.
20. The project proponent will have to inform the schedule of monitoring/data collection programme to the SEIAA, Uttarakhand before start of data collection. In case of failure, the collected baseline monitoring data will be treated as null and void.
21. The details of equipment used for baseline monitoring alongwith its photograph mentioning date, time and geo coordinates for preparation of EIA report should be clearly displayed to the people present during public hearing and the complete details related to monitoring period must be mentioned in the minutes of public hearing.
22. Original lab analysis report of the project proposal along with EIA report should be uploaded on Parivesh Portal.
23. During the EIA presentation latest KML of site pillar should be presented.

24. Combined KML of all mines in a cluster should be submitted at the time of EIA.
25. The project proponent/Consultant should identify the core & buffer zone (2.5 km) of the mining site.
26. Agreement/ Consent between project proponent and competent authority/ landowner for haulage road from lease site to link road to be submitted at the time of EIA presentation.
27. Proponent/ Consultant should submit the plan/information along with technology (photographs of water sprinklers/ tankers) to be implemented for mitigating dust at source points in lease area and haulage road during operation activity/vehicular movement. Technology should be displayed at the time of EIA presentation.
28. Proposed plantation plan with area specific plant species, number of plants to be planted and place of plantation along with a proper map to be submitted at the time of EIA presentation.
29. Water requirement details along with source of water and the permission/ agreement with the concerning authority/ person to be submitted at the time of EIA presentation.
30. Proponent/consultant shall present TOR specific/additional conditions compliance, observation/suggestions raised during the public hearing and commitment made by the project proponent in a tabular form with a time bound plan at the time of EIA presentation.
31. Corporate Social Responsibility (CSR) to be prepared as per the MoEF&CC guidelines and present it at the time of EIA presentation.
32. The Project Proponent shall carry out geological stability study along with detailed flora and fauna investigation by subject specialist. The Project Proponent shall submit mitigation plan for avoiding the runoff and leaching of debris during the monsoon.
33. **The Project Proponent shall submit a list of flora and fauna of the mine lease area duly verified by concern DFO.**
34. **The Project Proponent shall submit a detail of the socio-economic status of the villages falling within 10.0 Km radius of the project area.**
35. The Project Proponent shall obtain clearance under the Wildlife (Protection) Act, 1972 from the competent Authority as may be applicable to this project.
36. The Project Proponent shall follow all relevant directions/orders issued by Hon'ble High Court/NGT/ Supreme Court.
37. Copy of all the analysis reports duly signed by analyst approved by NABL or MoEF&CC shall be annexed with the EIA report and original analysis reports should be presented at the time of presentation.
38. MOU signed between the project proponent and the consultant should be submitted.
39. All pages of all documents should be signed by PP and EIA consultant.

Note: 1) The study area shall comprise of radial distance of 10 KM from the project site and the study period is three months. The impact on each of the above parameter as a result of mining shall be assessed through appropriate modelling and prediction methods considering base line data.

2) District Survey Report should be submitted as per the latest notification issued by MoEF&CC.

Hence you are kindly requested to kindly submit EIA report for further necessary action.

(Dr.S.P. Subudhi)
Member Secretary,
SEIAA, Uttarakhand

Copy to:- Member Secretary, Uttarakhand Pollution Control Board, Gaura Devi Paryavaran Bhavan, 46-B, IT Park, Sahasradhara Road, Dehradun for necessary action.

(Dr.S.P. Subudhi)
Member Secretary,
SEIAA, Uttarakhand