BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

EASTERN ZONE BENCH, KOLKATA

(Application under Section 18 read with Sections 14 and 15 of the National Green Tribunal Act, 2010)

ORIGINAL APPLICATION NO.05/2025 **OF** ~~**2024**~~

IN THE MATTER OF:

ATANU BORTHAKUR …APPLICANT

VERSUS

UNION OF INDIA & ORS. …RESPONDENTS

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Date: 14.12.2024

Place: Kolkata

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ORIGINAL APPLICATION NO. OF 2024

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S/o Late Mukti Nath Borthakur
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UNION OF INDIA & ORS. …RESPONDENTS

To,
The Registrar,
National Green Tribunal,
Eastern Zone Bench,
Kolkata

Sir,

Will you kindly treat the accompanying application as an urgent one in accordance with NGT Rules and Orders.

The grounds of urgency as set in the Original Application may kindly be treated as part and parcel of the present Application. Further, the proposed public hearing is likely to be conducted on 07.01.2025.

Filed by:

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Date: 14.12.2024
Place: Kolkata

SYNOPSIS

1. The present application has been preferred, *inter alia* to seek directions upon the Respondents to take immediate steps to stop any mining activity being carried out and to prevent any mining activity from being carried out in the District of Udalguri, State of Assam without there being a District Survey Report which has been made mandatory by various notifications, guidelines issued by Respondent No.1 from time to time and judicial precedents passed by this Hon'ble Tribunal and the Hon'ble Supreme Court of India.

2. The Parliament had enacted the Environmental Protection Act, 1986 on 23rd May 1986 to implement the decisions taken at the at the United Nations Conference on Human Environment in so far as they relate to protection and improvement of environment and prevention of hazards to human beings, other living creatures, plants and property.

3. The Respondent No.1 issued the Environment Impact Assessment Notification dated September 14, 2006 ('**EIA 2006**') directing that certain projects or activities as provided for in the said notification can be undertaken only after prior environmental clearance is granted. Entry 1 of the Schedule to the said notification provided that prior environmental clearance is required for mining of minerals either from the Central Government or from State Level Environmental Impact Assessment Authorities depending upon the categorization of the project and the threshold limits. It is further submitted that as per the EIA Notification 2006, Environmental Clearance or Environmental Impact Assessment was not required to be undertaken where the area of mining minerals was less than 5 hectares.

4. The Respondent No. 1 further issued a Notification dated January 15, 2016 which amended the EIA notification dated September 14, 2006, *inter alia*, making it mandatory to obtain Environmental Clearance for mining of minor mineral of lease area of less than or equal to 5 hectares. By way of the amendment notification, the subparagraph 7(iii) was introduced which provides for the *'Preparation of District Survey Report for Sand Mining or River Bed Mining and Mining of other Minor Minerals.'*

5. The main objective for preparation of DSR was to ensure to identify areas of aggradation or deposition wherein mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations wherein mining should be prohibited, and calculation of annual rate of replenishment and allowing time for replenishment after mining in that area.

6. The Respondent No. 1 had after thorough and extensive consultation with the State Governments has issued the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**'). The main objectives of the said guidelines are, *inter alia,* to ensure that sand and gravel mining is done in an environmentally sustainable and socially responsible manner, and to further ensure the conservation of river equilibrium and its natural environment by protection and restoration of the ecological system.

7. This Hon'ble Tribunal, Principal Bench at New Delhi in the case of *Anjani Kumar v. State of UP reported in 2017* SCC OnLine NGT 979. The Hon'ble National Green Tribunal vide judgement dated December 8, 2017 unequivocally held that *"preparation of District Survey Report and obtaining Environmental Clearance is a condition precedent to carrying on mining activity"*.

8. The Respondent No. 1, in supplement and addition to SSMMG, 2016, issued the Enforcement & Monitoring Guidelines for Sand Mining 2020 ('**EMGSM, 2020**'). The said EMGSM, 2020 alongwith highlighting the requisite judicial decisions passed by this Hon'ble Tribunal wherein the importance of DSR has been reflected, enumerated the various benefits of a DSR and its imperative role in curbing the unplanned grant of mining leases.

9. The Hon'ble Supreme Court *vide* judgement dated November 10, 2021 in *State of Bihar v. Pawan Kumar*, (2022) 2 SCC 348 interpreting the 2020 guidelines held that District Survey Report is required to be prepared before auction/e-auction/grant of mining lease.

10. Highlighting the importance of preparation of District Survey Report before any mining activity is carried out, the Hon'ble Supreme Court of India in the case of *Mangal Singh Bundela v. State of Madhya Pradesh & Ors*, bearing Civil Appeal No. 4593 of 2022 passed an interim order directing that no mining shall be carried out in terms of the e-auction therein without finalizing the District Survey Report.

11. Thus, from the aforesaid notifications, rules and guidelines issued by the Respondent No.1 and from the various judicial precedents passed by the Hon'ble Supreme Court of India as well as this Hon'ble Tribunal it is evidently clear that preparation of DSR and obtaining of Environmental Clearance is a condition precedent to carrying out any mining activity.

12. It is submitted that there is no District Survey Report for the District of Udalguri, State of Assam and without there being a District Survey Report mining activities are being carried out.

13. There is no District Survey Report for the District of Udalguri would be evident from the fact that a *Draft District Survey Report* has been uploaded in the public portal recently only in the month of September, 2024 for suggestions, comment and objections to the Draft DSR from the public.

14. From a perusal of the Draft District Survey Report it will be evident that there are running and existing mining leases in favour of third parties wherein mining activities are being carried out without there being a final District Survey Report in place. The draft District Survey Report although mentions the existence of running mining leases in various Mahals of the District of Udalguri but purposely and deliberately fails to mention the name of lessee in whose favour such mining leases have been granted who on the basis of such mining leases are carrying out mining activities in the District of Udalguri without there being a District Survey Report in place. Further, the draft District Survey Report is also silent about the period for the mining leases has been granted.

15. The Applicant, therefore conducted its own search and examination and came to know that Respondent No. 8-11 has been granted mining leases for the District of Udalguri without there being a District Survey Report for the same. However, it is submitted there maybe other entities as well who may be granted mining leases which the Applicant could not despite best of his efforts find out.

16. Further, Respondent No.2 has filed an affidavit in a matter titled as *"Pradeep Singh Shekhawat v. Union of India & Ors.'* bearing O.A. No. 86 of 2024/EZ wherein it has been explicitly stated that DSR is of utmost importance and mandatory for mining of minor minerals. Further, in the affidavit filed by the Respondent No.2 it would become evident that Final District Survey Report

has not been prepared for the District of Udalguri amongst other districts. Thus, from the affidavit of the Respondent No.2 itself it is evident that preparation and finalization of District Survey Report is mandatory before any mining activity can be permitted to be carried out and evidently there is no District Survey Report for the District of Udalguri.

17. It is therefore, submitted that mining activities are being carried out in the District of Udalguri, State of Assam without there being any DSR which is a mandatory requirement in law.

Hence the present application.

LIST OF DATE AND EVENTS

DATE	EVENTS
14.09.2006	EIA Notification 2006 notified under Environment Protection Act, 2006
27.02.2012	Judgement/order passed by the Hon'ble Supreme Court in the matter of Deepak Kumar & Ors. -vs- State of Haryana & Ors. bearing I.A. No. 12 and13 of 2011 in Special Leave Petition (Civil) No. 19628-19629 of 2009 made taking prior environmental clearance from Ministry of Environment and Forest mandatory for leases of minor minerals even where the area was less than 5 hectares. Further, the Hon'ble Supreme Court of India inter alia also directed State Governments and Union Territories to take immediate steps to frame necessary rules under Section 15 of the Mines and Minerals (Development and Regulation) Act, 1957 taking into consideration the recommendations of MoEF in its Report of March 2010 and model guidelines framed by the Ministry of Mines, Govt. of India.
16.03.2013	Respondent No.2 promulgated the Assam Minor Mineral Concession Rules, 2013 ('**Assam Rules 2013**') on March 16, 2013 *inter alia* for prevention of illegal mining.
15.01.2016	Respondent No. 1 issued a Notification which amended the EIA notification dated September 14, 2006, *inter alia*, making it mandatory to obtain Environmental Clearance for mining of minor mineral of lease area of less than or equal to 5 hectares. The notification further provided detailed procedure for Preparation of District Survey Report ('**DSR**').
20.01.2016	Respondent No. 1 issued another Notification by which the District Level Environment Impact Assessment Authority ('**DEIAA**') and District Level Expert Appraisal Committee ('**DEAC**') was constituted.
2016	Respondent No. 1 had after thorough and extensive consultation with the State Governments has issued the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**')
08.12.2017	The importance of preparation of the District Survey Report and obtaining environmental clearance before carrying out any mining activity of minor mineral was highlighted by this Hon'ble Tribunal, Principal Bench at New Delhi in the case of **Anjani Kumar v. State of UP reported in 2017 SCC OnLine NGT 979**
11.04.2018	The Hon'ble High Court of Jharkhand, *vide* its judgement dated April 11, 2018 in '*Court on its own motion v. State of Jharkhand*' in W.P. (PIL) No. 1806 of 2015 directed the Respondent No. 1 to lay down a format for the

	preparation of District Survey Report for minor minerals other than sand and *bajri*.
25.07.2018	Respondent No. 1 in compliance of the directions passed by the Hon'ble High Court of Jharkhand in '*Court on its own motion v. State of Jharkhand*' issued a Notification dated July 25, 2018 making amendments to Appendix X to the EIA 2006 and incorporated the procedure for formulation of a DSR for minerals other than sand and *bajri*.
2020	Respondent No. 1, in supplement and addition to SSMMG, 2016, issued the Enforcement & Monitoring Guidelines for Sand Mining 2020 ('**EMGSM, 2020**').
10.11.2021	The Hon'ble Supreme Court vide judgement dated November 10, 2021 in State of Bihar v. Pawan Kumar, (2022) 2 SCC 348 interpreting the 2020 guidelines held that District Survey Report is required to be prepared before auction/e-auction/grant of mining lease.
20.07.2022	The Hon'ble Supreme Court of India in the case of *Mangal Singh Bundela v. State of Madhya Pradesh & Ors*, bearing Civil Appeal No. 4593 of 2022 passed an interim order directing that no mining shall be carried out in terms of the e-auction therein without finalizing the District Survey Report.
24.11.2023	This Hon'ble Tribunal at Bhopal by a judgment dated passed in Dinesh Bothra v. Union of India, 2023 SCC OnLine NGT 490 reiterated that the act of conducting mining or de-silting and the consequent sale of minerals at prices fixed by the Government is a mining activity and in such a case, requirements defined in Clause 7 of EIA 2006 has to be followed, viz. preparation of DSR, obtaining of Environmental Clearances (EC) etc.
06.06.2024	The report of Comptroller and Auditor General of India on Revenue Sector for the year ended March 31, 2022
08.08.2024	The Hon'ble Tribunal in the case of *Bibekananda v State of Odisha & Ors.* O.A. No. 125/2024/EZ vide order dated 08.08.2024 has directed that no mining activity shall be carried out under interim District Survey Report.
September 2024	The draft District Survey Report for the District of Udalguri, State of Assam was uploaded at the public portal. It is evident from the Draft District Survey Report that there are running and existing mining leases in favour of third parties wherein mining activities are being carried out without there being a final District Survey Report in place.
	The present Original Application

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EASTERN ZONE BENCH, KOLKATA

(Application under Section 18 read with Sections 14 and 15 of the National Green Tribunal Act, 2010)

ORIGINAL APPLICATION NO. OF 2024

Atanu Borthakur
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VERSUS

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Through its Secretary,
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State of Assam
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Principal Chief Conservator of Forest & Head of Forest Force (PCCF & HOFF)
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Assam State Pollution Control Board
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The State Environment Impact Assessment Authority (SEIAA)
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Apurba Kumar Saharia,
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Dist.- Udalguri, (BTAD), Assam- 784510 **...RESPONDENT NO.11**

APPLICATION UNDER SECTION 18 READ WITH SECTION 14 AND 15 OF THE NATIONAL GREEN TRIBUNAL ACT, 2010

To,

The Hon'ble Chairperson and his Companion Members of the Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata

The humble application on behalf
of the Applicant abovenamed

MOST RESPECTFULLY SHOWETH:

1. **Particulars of the Petitioner:** As mentioned in the above cause title. The address of the Applicant is as given above for the service of notices of this application.

2. **Particulars of the Respondents:** As mentioned in the above cause title. The addresses of the Respondent Nos. 1 to 11 are as given above for services of notices of the instant application.

3. **DESCRIPTION OF PARTIES**

3.1. That the present application is being filed under Section 18 read with Sections 14 and 15 of the National Green Tribunal Act, 2010 by the Applicant, being affected and interested in the protection of the environment and ecology.

3.2. The Applicant is a social worker and committed to espouse the cause of general public at large. He has been performing several social and public interest activities throughout the State of Assam and specifically relating to protection of forest, rivers and environment which is being affected due to illegal mining activities permitted by the authorities concerned in gross violation of the established laws, regulatory frameworks and principles laid down by the Hon'ble National Green Tribunal and the Hon'ble Supreme Court of India, as well as various directives and guidelines issued by the Union Government. The Applicant's dedication is in preserving the ecological integrity of regions under threat.

3.3. The Respondent No. 1 is the nodal agency in the administrative structure of the Union Government entrusted with the task of implementation of policies and programs relating to conservation of country's natural resources and has issued the relevant Notification dated January 15, 2016 and the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement &

Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**') which mandate for the preparation of District Survey Report ('**DSR**') before granting of mining lease(s) and carrying out any mining activities.

3.4. The Respondent No. 2 is responsible for granting mining leases in the State of Assam. The Respondent No. 3 manages the Forests, Environment and Wild-Life related issues of State of Assam. The Respondent No. 4 is the body under the State Government mandated to monitor and regulate pollution levels and enforce environmental laws and standards within the State of Assam.

3.5. The Respondent No. 5 is the state-level expert committee constituted under Section 3(3) of The Environment (Protection) Act, 1986 ('**EP Act**') to appraise and evaluate proposal seeking environmental clearance in the State of Assam. The Respondent No. 6 is the authority responsible for approval of mining plans. The Respondent No.7 is the officer within State Government of Assam and in particular to District of Udalguri and entrusted with the task of preparation of DSR and is the Chairperson of the District Level Environment Impact Assessment Authority ('**DEIAA**') in Assam. The Respondent No. 8 to Respondent No. 11 are few persons/entities who have been unlawfully granted mining leases and are carrying on mining activities in different Mahals situated in the District of Udalguri, Assam in gross violation of the established laws, regulatory frameworks and principles laid down by the Hon'ble National Green Tribunal and the Hon'ble Supreme Court of India, as well as various directives and guidelines issued by the Union Government. It is pertinent to mention here that there are other persons/entities as well who have been unlawfully granted mining leases and are carrying on mining activities in the District of Udalguri, State of Assam without there being a District Survey Report which is in utter violation of the law laid by the Hon'ble NGT

and Hon'ble Supreme Court of India as well as the various notifications passed by the Respondent No.1 wherein it has been explicitly made clear that no mining activity can be carried out with there being a District Survey Report in place. However, the applicant despite his best efforts has been able to extract the details of the Respondent Nos. 8 to 11 only which are available in the public portal who have been unlawfully granted mining leases and are carrying on mining activity in the District of Udalguri, State of Assam without there being a District Survey Report for the same. However, the applicant submits that the present application pertains to all the entities/persons who are unlawfully carrying on mining activities in the District of Udalguri without there being a District Survey Report for the same.

3.6. This Hon'ble Tribunal has the jurisdiction to adjudicate the present original application it involves a substantial question relating to environment and that such question arises out of the implementation of the enactments specified in Schedule I of the National Green Tribunal Act, 2010.

3.7. The present application has been preferred, *inter alia* to seek directions upon the Respondents to take immediate steps to stop any mining activity being carried out and to prevent any mining activity from being carried out in the District of Udalguri, State of Assam without there being a District Survey Report which has been made mandatory by various notifications, guidelines issued by Respondent No.1 from time to time and judicial precedents passed by this Hon'ble Tribunal and the Hon'ble Apex Court of India. The present application further seeks directions for setting aside and quashing the mining leases and/or mining contracts and/or mining permits and/or mining concessionaire granted by the Respondent Nos. 1 to 7 illegally and unlawfully in favour of several third parties in transgression and violation of the provisions of the Environmental

Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**') issued by the Respondent No. 1.

4. **SUBSTANTIAL QUESTIONS OF LAW**

That the present Original Application seeks to raise the following substantial questions relating to the environment:

4.1 Whether the issuance and grant of mining leases and/or mining contracts and/or mining permits and/or mining concessionaire to several third parties and permitting them to carry out mining activities without the preparation and finalization of a District Survey Report (**"DSR"**) is in gross violation of the provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**') issued by the Respondent No. 1.

4.2 Whether the issuance and grant of mining leases and/or mining contracts and/or mining permits and/or mining concessionaire to several third parties and permitting them to carry out mining activities without obtaining the relevant Environmental Clearance (**"EC"**) is in gross violation of the provisions of the Environmental Impact Assessment dated

September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**') issued by the Respondent No. 1.

4.3 Whether the decision of the Hon'ble Apex Court in *State of Bihar v. Pawan Kumar*, (2022) 2 SCC 348 and *Mangal Singh Bundela v. State of Madhya Pradesh & Ors. Civil Appeal No. 4593 of 2022* and this Hon'ble Tribunal in *Anjani Kumar v State of Uttar Pradesh, 2017 SCC Online NGT 979 and Dinesh Bothra v. Union of India,* 2023 SCC OnLine NGT 490 is directly applicable wherein it has been categorically held that preparation of DSR and obtaining of Environmental Clearance is a mandatory condition precedent to carrying out any mining activity?

4.4 Whether it was incumbent upon the Respondent Nos. 2 to 7 to prepare and finalize a DSR and obtain EC as per provisions of the EIA 2016, subsequent Notifications dated January 15, 2016, January 20, 2016 and July 25, 2018 and the SSMMG, 2016 and EMGSM, 2020 issued by Respondent No. 1 before granting any mining lease/mining contract/mining permit/mining concessionaire and permitting the Respondent Nos. 8 to 11 and other unknown third parties from carrying out any mining activity?

4.5 Whether carrying out mining activities without the preparation of the District Survey Report and/or obtaining Environmental Clearance violates the fundamental right to

be free from the adverse effects of climate change under Article 21 of Constitution of India?

4.6 Whether the respondents are liable to compensate, rehabilitate and restitute the area under Section 15 of the NGT Act, 2010 for damage done to the environment.

5 BRIEF FACTS

5.1 The present application has been preferred, *inter alia* to seek directions upon the Respondents to take immediate steps to stop any mining activity being carried out and to prevent any mining activity from being carried out in the District of Udalguri, State of Assam without there being a District Survey Report which has been made mandatory by various notifications, guidelines issued by Respondent No.1 from time to time and judicial precedents passed by this Hon'ble Tribunal and the Hon'ble Supreme Court of India. The present application further seeks directions for setting aside and quashing the mining leases and/or mining contracts and/or mining permits and/or mining concessionaire granted by the Respondent Nos. 1 to 7 illegally and unlawfully in favour of several third parties in transgression and violation of the provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**') issued by the Respondent No. 1.

5.2 Brief facts leading to the filing of the present application are as follows:

5.3 In the sixties, there had been increased concern over the state of environment all over the world. Such concern was on account of decline in the environmental quality which had been evidenced by increasing pollution, loss of vegetal cover and biological diversity, excessive concentrations of harmful chemicals in the ambient atmosphere and in food chains, growing risks of environmental accidents and threats to life support systems. Accordingly, decision was taken in the United Nations Conference on the Human Environment at Stockholm in June 1972 to take appropriate steps for the protection and improvement of human environment. India was a participant in the conference and strongly advocated for the environmental concerns. Thus, the Parliament enacted the Environmental Protection Act, 1986 on 23rd May 1986 (hereinafter referred to as the '**EP Act**'), to implement the decisions taken at the at the United Nations Conference on Human Environment in so far as they relate to protection and improvement of environment and prevention of hazards to human beings, other living creatures, plants and property.

5.4 Section 3 of the Environmental Protection Act, 1986 empowers the Central Government to take measures to protect and improve the environment. Section 3(2) of the Environmental Protection Act, 1986 provides that Central Government may take measures for restriction of areas in which in any industries, operations or processes or class of industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards.

5.5 Thus, the Respondent No.1 under Section 3(1) and Section 3(2) (v) of the Environmental Protection Act, 1986 read with

Rule 5 (3) (d) of Environmental (Protection) Rules, 1986 issued the Environment Impact Assessment Notification dated September 14, 2006 ('**EIA 2006**') directing that certain projects or activities as provided for in the said notification can be undertaken only after prior environmental clearance is granted. Entry 1 of the Schedule to the said notification provided that prior environmental clearance is required for mining of minerals either from the Central Government or from State Level Environmental Impact Assessment Authorities depending upon the categorization of the project and the threshold limits. The Environment Impact Assessment Notification was uniformly applicable all over India. It is further submitted that as per the EIA Notification 2006, Environmental Clearance or Environmental Impact Assessment was not required to be undertaken where the area of mining minerals was less than 5 hectares.

5.6 The Environment Impact Assessment Notification *inter alia* also provided for constitution of Central and State Level Environmental Impact Assessment Authorities ('**SEIAA**'), manned by professionals, experts and technical individuals that shall screen, scope and appraise projects from an environmental perspective and further monitor the same from time to time, in order to achieve the desired goals of sustainable development.

A true copy of the EIA Notification dated September 14, 2006 issued by Respondent No. 1 is annexed herewith and marked as Annexure- **A-1 (Pages 54 to 96).**

5.7 In order to flout the EIA notification 2006, it was observed that homogeneous areas were being broken into pieces of land less than 5 hectares so that no Environment Impact

Assessment or Environmental Clearance would be required. Taking into account the fact that auction notices were being issued in respect of minor minerals without carrying out the necessary Environmental Impact Assessment or granting Environmental Clearance as the area under auction for mining leases was less than 5 hectares, the Hon'ble Supreme Court of India in the case of *Deepak Kumar & Ors. -vs- State of Haryana & Ors. bearing I.A. No. 12 and13 of 2011 in Special Leave Petition (Civil) No. 19628-19629 of 2009* vide judgment dated February 27, 2012 made taking prior environmental clearance from Ministry of Environment and Forest mandatory for leases of minor minerals even where the area was less than 5 hectares. Further, the Hon'ble Supreme Court of India *inter alia* also directed State Governments and Union Territories to take immediate steps to frame necessary rules under Section 15 of the Mines and Minerals (Development and Regulation) Act, 1957 taking into consideration the recommendations of MoEF in its Report of March 2010 and model guidelines framed by the Ministry of Mines, Govt. of India.

A true copy of the judgment passed on February 27, 2012 in I.A. No. 12 and 13 of 2011 in Special Leave Petition (Civil) No. 19628-19629 of 2009 [Deepak Kumar & Ors. -vs- State of Haryana & Ors.] is annexed herewith and marked as Annexure-**A-2 (Pages 97 to 124).**

5.8 Section 23-C of the Mines and Minerals (Development and Regulation) Act, 1957 provides that the State Government may make rules for preventing illegal mining, transportation and storage of minerals. Further, Section 15 of the Mines and Minerals (Development and Regulation) Act, 1957 empowers the State Government to make rules in respect of minor

minerals. Respondent No.2, in exercise of powers under Section 15(1) and Section 23C of the Mines and Minerals (Development and Regulation) Act, 1957, accordingly promulgated the Assam Minor Mineral Concession Rules, 2013 ('**Assam Rules 2013**') on March 16, 2013 *inter alia* for prevention of illegal mining.

A true copy of the Assam Minor Mineral Concession Rules, 2013 promulgated by Respondent No. 2 is annexed herewith and marked as **Annexure-A3 (Pages 125 to 266).**

5.9 In order to implement the aforesaid decision of the Hon'ble Supreme Court of India in the case of Deepak Kumar & Ors. -vs- State of Haryana & Ors. in its true letter and spirit and to streamline the process of environmental clearance for mining of minor minerals, the Respondent No. 1 issued a Notification dated January 15, 2016 which amended the EIA notification dated September 14, 2006, *inter alia*, making it mandatory to obtain Environmental Clearance for mining of minor mineral of lease area of less than or equal to 5 hectares. By way of the amendment notification, the subparagraph 7(iii) was introduced which provides for the *'Preparation of District Survey Report for Sand Mining or River Bed Mining and Mining of other Minor Minerals.'* By way of the amendment notification, it was also directed to constitute a District Level Environment Impact Assessment Authority ("**DEIAA**") comprising of professionals, experts and technical individuals. The Environmental Clearance in respect of B2 category projects as mentioned in the Schedule to the notification pertaining to mining of minor minerals of lease area of less than or equal to 5 hectares had to be obtained from the DEIAA. Further, the DEIAA and District Expert Appraisal Committee ('**DEAC**') had been assigned the task for

preparation of the District Survey Report (DSR) at the district level in each State.

5.10 The Appendix – X to the EIA 2006 which was also incorporated by and under the Notification dated January 15, 2016 provided the detailed procedure for Preparation of District Survey Report ('**DSR**') wherein the said DSR was to be prepared for each District as per the Sustainable Sand Mining Guidelines. The main objective for preparation of DSR was to ensure to identify areas of aggradation or deposition wherein mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations wherein mining should be prohibited, and calculation of annual rate of replenishment and allowing time for replenishment after mining in that area.

5.11 It is relevant to mention that as per the said Appendix-X, the survey was to be carried out by the newly constituted DEIAA with the assistance of the Geology Department, Irrigation Department, Forest Department, Public Works Department and ground water boards of mining department on the said district.

A true copy of the Notification dated 15.01.2016 issued by Respondent No. 1 is **Annexure A-4 (Pages 267 to 277).**

5.12 Thereafter, Respondent No. 1 issued another Notification dated January 20, 2016 by which the District Level Environment Impact Assessment Authority ('**DEIAA**') and District Level Expert Appraisal Committee ('**DEAC**') was constituted.

A true copy of the Notification dated January 20, 2016 issued by Respondent No. 1 is **Annexure A-5 (Pages 278 to 279).**

5.13 The Respondent No. 1 had after thorough and extensive consultation with the State Governments has issued the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**'). It was stated in the guidelines that sand and gravel are one of the most important construction materials and their mining has reached a level threatening the environment and ecosystem besides also reaching a level of scarcity that would threaten the economy. The main objectives of the said guidelines is, *inter alia,* to ensure that sand and gravel mining is done in an environmentally sustainable and socially responsible manner, and to further ensure the conservation of river equilibrium and its natural environment by protection and restoration of the ecological system. In the said guidelines as well, great emphasis was laid on preparation of District Survey Report. In fact, in the Annexure AI to the said guidelines it has been explicitly mentioned that the broad principle on which any sustainable sand mining guidelines/policy can be based is that river/natural resources must be utilized for the benefit of the present and future generation, so river resources should be prudently managed and developed and the preparation of District Survey Report is an important initial step in that regard.

5.14 In fact, one of the key nodal objectives enumerated in the SSMMG, 2016 was the preparation of the District Survey Report that would *'identify the areas of aggradation/deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations wherein mining*

should be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining area.' The Applicant seeks leave to refer and rely on the contents of the SMMG, 2016 at the time of hearing, which are not repeated herein for the sake of brevity.

A true copy of the Sustainable Sand Mining Management Guidelines, 2016 (SSMMG 2016) issued by the Respondent No. 1 **is Annexure A-6 (Pages 280 to 380).**

5.15 Interpreting the aforesaid rules, guidelines and notifications, the importance of preparation of the District Survey Report and obtaining environmental clearance before carrying out any mining activity of minor mineral was further highlighted by this Hon'ble Tribunal, Principal Bench at New Delhi in the case of *Anjani Kumar v. State of UP reported in 2017* SCC OnLine NGT 979. The Hon'ble National Green Tribunal vide judgement dated December 8, 2017 unequivocally held that preparation of District Survey Report is not only important act but it should be conducted prior to sanctioning of permission/concession. It was further held that in absence of District Survey Report after due inspection, grant of mining lease will be in conflict of the environmental laws as sand mining lease could be granted in an area only when aspect of replenishment of minor mineral especially in river sand is clearly established. It was further held in the said judgment that *"preparation of District Survey Report and obtaining Environmental Clearance is a condition precedent to carrying on mining activity"*. Further, it was also held that all laws in other fields than environment must tilt in favour of the environmental laws and no extraction of minor minerals should be carried on unless the requirement of environmental laws are fully satisfied.

A true copy of the judgement dated December 8, 2017 of the Hon'ble NGT, Principal Bench in *Anjani Kumar v. State of UP 2017* SCC OnLine NGT 979 is **Annexure A-7 (Pages 381 to 412).**

5.16 The Hon'ble High Court of Jharkhand, *vide* its judgement dated April 11, 2018 in '*Court on its own motion v. State of Jharkhand*' in W.P. (PIL) No. 1806 of 2015 after the appreciating the importance and relevance of the District Survey Report, directed the Respondent No. 1 to lay down a format for the preparation of District Survey Report for minor minerals other than sand and *bajri*.

5.17 Accordingly, the Respondent No. 1 in compliance of the directions passed by the Hon'ble High Court of Jharkhand in '*Court on its own motion v. State of Jharkhand*' issued a Notification dated July 25, 2018 making amendments to Appendix X to the EIA 2006 and incorporated the procedure for formulation of a DSR for minerals other than sand and *bajri*.

A true copy of the Notification dated July 25, 2018 issued by Respondent No. 1 is **Annexure A-8 (Pages 413 to 418).**

5.18 Thereafter, even after framing of the Sustainable Sand Mining Management Guidelines, 2016 (SSMMG 2016) it was observed that apart from management and systematic mining practices there is urgent need to have guidelines for effective enforcement of regulatory provision and their monitoring. In fact, the Hon'ble NGT in the matter titled as '*Sudarsan Das v State of West Bengal'* bearing O.A. No. 173 of 2018 vide its order dated 04.09.2018 *inter alia* also observed that *"There can be no two views that an effective institutional monitoring mechanism is required not only at the*

stage when Environmental Clearance is granted but also at subsequent stages. The guidelines focus on the preparation of District Survey Report and the Management Plan. We are of the view that all the safeguards which are suggested in sustainable sand mining guidelines as well as notification dated 15.01.2016 ought to be scrupulously followed. It is a known fact that in spite of the above-suggested guidelines being in existence, on the ground level, illegal mining is still going on. The existing mechanism has not been successful and effective in remedying the situation. …Since there is an utter failure in the current monitoring mechanism followed by the State Boards, SEIAAs and DEIAAs, it is required to be revised for effective monitoring of sand and gravel mining and a dedicated monitoring mechanism be set up."

5.19 Accordingly, the Respondent No. 1, in supplement and addition to SSMMG, 2016, issued the Enforcement & Monitoring Guidelines for Sand Mining 2020 ('**EMGSM, 2020**'). The said EMGSM, 2020 alongwith highlighting the requisite judicial decisions passed by this Hon'ble Tribunal wherein the importance of DSR has been reflected, enumerated the various benefits of a DSR and its imperative role in curbing the unplanned grant of mining leases.

A true copy of the Enforcement & Monitoring Guidelines for Sand Mining 2020 issued by the Respondent No. 1 is **Annexure A-9 (Pages 419 to 501).**

5.20 The Hon'ble Supreme Court *vide* judgement dated November 10, 2021 in *State of Bihar v. Pawan Kumar*, (2022) 2 SCC 348 interpreting the 2020 guidelines held that District Survey Report is required to be prepared before auction/e-auction/grant of mining lease.

A true copy of the judgement dated November 10, 2021 of the Hon'ble Supreme Court in *State of Bihar v. Pawan Kumar*, (2022) 2 SCC 348 is **Annexure A-10 (Pages 502 to 508).**

5.21 Highlighting the importance of preparation of District Survey Report before any mining activity is carried out, the Hon'ble Supreme Court of India in the case of *Mangal Singh Bundela v. State of Madhya Pradesh & Ors*, bearing Civil Appeal No. 4593 of 2022 passed an interim order directing that no mining shall be carried out in terms of the e-auction therein without finalizing the District Survey Report. In the present case e-auction for sand mining was conducted on 16.11.2021 whereas the draft District Survey Report was published only on 04.03.2022. Thus, taking into account the fact that mining leases was granted without there being a final District Survey Report, the Hon'ble apex was pleased to pass the interim order directing that no mining shall be carried out in terms of the e-auction without finalizing the District Survey Report.

A true copy of the order dated July 20, 2022 passed by the Hon'ble Supreme Court in *Mangal Singh Bundela v. State of Madhya Pradesh & Ors*, Civil Appeal No. 4593 of 2022 is annexed herewith and marked as **Annexure A-11 (Pages 509 to 510).**

5.22 This Hon'ble Tribunal at Bhopal by a judgment dated November 24, 2023 passed in *Dinesh Bothra v. Union of India*, 2023 SCC OnLine NGT 490 reiterated that the act of conducting mining or de-silting and the consequent sale of minerals at prices fixed by the Government is a mining activity and in such a case, requirements defined in Clause

7 of EIA 2006 has to be followed, *viz.* preparation of DSR, obtaining of Environmental Clearances (EC) etc.

A true copy of the judgement dated November 24, 2023 of this Hon'ble Tribunal in *Dinesh Bothra v. Union of India*, 2023 SCC OnLine NGT 490 is **Annexure A-12 (Pages 511 to 577)**.

5.23 It is pertinent to highlight that the Hon'ble Supreme in the case of *Common Cause v. Union of India (2017) 9 SCC 499* has definitively ruled that mining activities conducted without securing the necessary Consent to Establish ('**CTE**') and Consent to Operate ('**CTO**') constitute illegal mining. As a consequence, those engaged in such activities are obligated to compensate for the value of the mineral extracted unlawfully, in addition to damage caused to the environment.

5.24 Thus, from the aforesaid notifications, rules and guidelines issued by the Respondent No.1 and from the various judicial precedents passed by the Hon'ble Supreme Court of India as well as this Hon'ble Tribunal it is evidently clear that preparation of DSR and obtaining of Environmental Clearance is a condition precedent to carrying out any mining activity. It is amply clear that District Survey Report is not only important act but it should be conducted prior to sanctioning of permission/concession. In the absence of District Survey Report, grant of mining lease will be in conflict of the environmental laws as sand mining lease could be granted in an area only when aspect of replenishment of minor mineral especially in river sand is clearly established. Further, it is established that that all laws in other fields than environment must tilt in favour of the environmental laws and no extraction of minor minerals should be carried

on unless the requirement of environmental laws are fully satisfied.

5.25 It is submitted that as a consequence, those engaged in carrying out mining activities without there being a District Survey Report or without obtaining Environmental Clearance are clearly acting in gross violation of the provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**') are thus obligated to compensate for the value of the mineral extracted unlawfully, in addition to damage caused to the environment.

5.26 It is submitted that Respondent No. 1-7 are fully aware about the aforesaid legal position wherein no mining activity can be carried out without preparation of DSR and without obtaining Environmental Clearance. Despite being aware of the aforesaid legal situation, the Respondent No. 1 to Respondent No. 7 have granted mining leases/mining contracts/ mining permits/ mining concessionaire and have permitted mining activity to be carried out in the District of Udalguri, State of Assam without there being a District Survey Report for the same and without obtaining the requisite Environmental Clearance. Such acts on behalf of the Respondent No.1 to Respondent No. 7 clearly shows that they have scant regard for the law of the land and have carried put acts in dereliction of their duties.

5.27 It is submitted that there is no District Survey Report for the District of Udalguri, State of Assam and without there being a District Survey Report mining activities are being carried out and the Respondent No. 1-7 are permitting such mining activities from being carried out in gross violation of the provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**').

5.28 There is no District Survey Report for the District of Udalguri, State of Assam would be evident from the fact that a *Draft District Survey Report* has been uploaded in the public portal recently only in the month of September, 2024 for suggestions, comment and objections to the Draft DSR from the public. Appendix X of the 2016 notification provides for the procedure for preparation of District Survey Report. As per the appendix, the District Survey Report shall be prepared for each minor mineral in the district separately and its draft shall be placed in the public domain by keeping its copy in Collectorate and posting it on districts website for 21 days. The comments received shall be considered and if found fit, shall be incorporated in the final report to be finalized within six months by the DEIAA. The District Survey Report shall form the basis for application of environmental clearance, preparation of reports and appraisal of projects. The Report shall be updated every five years.

Since, the draft District Survey Report for the District of Udalguri, State of Assam has been uploaded at the public portal only late in the month of September 2024 it is quite apparent that there was no final District Survey Report for the District of Udalguri, State of Assam till September 2024 and as far as the Applicant is aware till date there is no final District Survey Report for the District of Udalguri, State of Assam. In fact, even the applicant came to know of the fact that there is no District Survey Report for the District of Udalguri, State of Assam only when the draft District Survey Report was uploaded in the public portal in the month of September.

A true copy of the Draft District Survey Report for Udalguri District, Assam as uploaded in the district portal is annexed and marked as **"Annexure A-13" (Pages 578 to 622).**

A true copy of the web page showing that the draft District Survey Report was uploaded only in the month of September 2024 is annexed and marked as **"Annexure A-14" (Pages 623)**

5.29 From a perusal of the Draft District Survey Report it will be evident that there are running and existing mining leases in favour of third parties wherein mining activities are being carried out without there being a final District Survey Report in place. The draft District Survey Report although mentions the existence of running mining leases in various Mahals of the District of Udalguri but purposely and deliberately fails to mention the name of lessee in whose favour such mining leases have been granted who on the basis of such mining leases are carrying out mining activities in the District of Udalguri without there being a District Survey Report in place. Further, the draft District Survey Report is also silent

about the period for the mining leases has been granted. The entire column pertaining to the 'Name of the lessee' and 'Period of lease' has been purposely and deliberately left blank in order to conceal the identity of parties who are carrying on mining activities in gross violation of the provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**'). From the aforesaid act it is evident that Respondent No. 1-7 are acting in collusion and connivance with the third parties and are permitting unlawful mining activities to be carried on in complete violation of provisions of law.

5.30 The Applicant, therefore conducted its own search and examination in order to ascertain the names of persons in whose favour such mining leases have been granted and who on the basis of such mining leases are carrying out mining activities in the District of Udalguri without there being a District Survey Report in place. The applicant after conducting thorough and elaborate searches, from the portal of Government of Assam, Mines and Minerals, Directorate of Geology and Mining being '*dgm.assam.gov.in/informationservices/approved-mining-plans*' was able to procure the details of approved mining plans as on 2021. From a bare perusal of such mining approved plans, it is evident that the Respondent No. 8 has been granted lease to mine sand gravel from Tarajuli Sand Gravel Mahal (Dhansiri Roiver), Dist. Udalguri, BTAD, Assam

for a period of 5 years commencing from October 7, 2021 for an area of 4.80 hectares. Similarly, Respondent No. 9 has been granted mining lease to mine sand from Lower Dhansiri S/S-Mahal-B, Dist. Udalguri, B.T.C. Assam for a period of 7 years commencing from February 23, 2018 for an area of 4.00 hectares. The Respondent No. 9 has also been granted mining lease to mine sand from Lower Dhansiri S/S-Mahal-B, Mining Permit Area, Dist. Udalguri, B.T.C. Assam for a period of 7 years from May 24, 2018 for an area of 3.68 hectares. Further, the Respondent No. 10 has been granted mining lease to mine sand/gravel from Bhorala Boulder Sand/Gravel Mahal No. 2. Dist. Udalguri, BTAD, Assam for a period of 7 years commencing from July 31, 2018 for an area of 4.60 hectares. Respondent No.11 has been granted mining lease to mine stone and earth from Samrang Newly Gravel & Earth Mahal Mining Permit Area, Dist. Udalguri, BTAD, Assam for a period of 7 years commencing from May 16, 2018 for an area of 3.21 hectares. It is submitted that the list of mining leases currently existing and running in the District of Udalguri, State of Assam is not exhaustive. There are high chances that there must be mining leases granted to other entities/persons which must be currently running and existing for the District of Udalguri, State of Assam without there being a District Survey Report, however, the Applicant despite his best efforts is unable to gather information in respect of the same as the same is not available in public portal. It is further submitted that the aforementioned mining leases have been granted from the year 2018 onwards whereas the Respondents are very well aware the preparation and finalization of DSR before granting any mining lease or before carrying out any mining activity was made mandatory much prior and thus mining

leases are in gross violation of the provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**'). Further, from the period of lease as mentioned in the document it is quite apparent that the aforementioned lease is currently existing and running and mining activity is being carried out unlawfully and in gross violation of the provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**').

A true copy of the list of approved mining plans 2021 as obtained from the website being 'dgm.assam.gov.in/informationservices/approved-mining-plans' is annexed and marked as **"Annexure A-15" (Pages 624 to 807).**

5.31 It is submitted that the despite best efforts of the Applicant, the Applicant was not able to trace the approved mining plans for the years 2022, 2023 and 2024 and the same is not uploaded at the portal of Government of Assam, Mines and Minerals, Directorate of Geology and Mining. It is humbly prayed that this Hon'ble Tribunal may kindly direct the Respondent No. 7 to place on record the complete details as

to when the mining lease was granted, to which agency, for how many years, in respect of which mineral and all other relevant information as may be required to unearth the truth behind mining activity being carried out or caried out in the District of Udalguri, State of Assam in violation of the provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**').

5.32 Further, from the report of the Comptroller and Auditor General of India on Revenue Sector for the year ended March 31, 2022 it would be evident that despite DSR being mandatory, no such report has been prepared by the State of Assam till February 2023. A few relevant excerpts from the report of Comptroller and Auditor General of India are quoted herein for ready reference of this Hon'ble Tribunal:

"4.3.10.3. District Survey Report not prepared: In 2016, GoI introduced the concept of District Survey Report (DSR) by amending the Environment Impact Assessment Notification, 2006 with an objective to ensure identification of areas of aggradations or deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited and time required for replenishment after mining in that area. The DSRs are required to be prepared for each minor mineral in each district separately by the District Environment Impact Assessment Authority (DEIAA) with the

assistance of Geology Department, Irrigation Department, Forest Department, Public Works Department, Ground Water Board Remote Sensing Department, Mining Department, etc. in the district. The DSR should contain the mineral potential and its location, depth of minable mineral and quantity of minerals of the district. The DSR shall be updated once in every five years and placed in the public domain. In April 2016, GoA instructed Mines and Minerals Department, Assam to initiate preparation of DSR; however, the Department had not prepared a single DSR till June 2022. Thus, due to non-preparation of DSR, the identification and quantification of reserves was limited to field verification carried out by the forest divisions without consulting other departments to adopt scientific methods. On being pointed out, the M&M Department stated (January 2023) that provision of DSR is not included in the AMMCR, 2013. The fact remains that in spite of GoA's instruction (April 2016) for preparation of DSR, the Department has not prepared any DSR till February 2023. Recommendation: The Government may ensure that the DSRs are prepared in a timebound manner."

A true copy of the report of the Comptroller and Auditor General of India on Revenue Sector for the year ended March 31, 2022 is annexed and marked as **"Annexure A-16" (Pages 808 to 1021).**

5.33 In fact, recently the Applicant while doing his research came to know that an application being *"Pradeep Singh Shekhawat v. Union of India & Ors."* bearing O.A. No. 86 of 2024/EZ was filed before this Hon'ble Tribunal wherein a similar issue was raised regarding e-auction of minor minerals being conducted in the districts of Assam without preparation of District Survey Report. The applicant thereafter conducting

further research was able to procure the affidavit filed by Respondent No.2 in O.A. No. 86 of 2024/EZ. It is pertinent to mention here that the Respondent No.2 has in para 5 expressly stated that *"That the answering deponent begs to state that, after various judicial decisions of the Hon'ble Apex Court as well as of the Hon'ble National Green Tribunal, and also from the time to time guidelines issued by the Ministry Of Environment Forest & Climate Change, it is observed that the DSR is of utmost importance and mandatory for mining of minor minerals, for each and every districts and as such the preparation of DSR has become indispensable, or else various development work of the Government would be affected which may adversely affect the revenue collection of the State. That presently mahals are auction under Assam Minor Mineral Concession Rules, 2013. That even amendment of Assam Minor Mineral Concession Rules, 2013 is underway and there also the preparation of DSR is being made mandatory"*. Further, in the affidavit filed by the Respondent No.2 it would become evident that Final District Survey Report has not been prepared for the District of Udalguri amongst other districts. Thus, from the affidavit of the Respondent No.2 itself it is evident that preparation and finalization of District Survey Report is mandatory before any mining activity can be permitted to be carried out and evidently there is no District Survey Report for the District of Udalguri.

A true copy of the affidavit filed by Respondent No.2 in O.A. No. 86 of 2024/EZ is annexed and marked as **"Annexure A-17"**. **Pages 1022 to 1062)**

5.34 It is therefore, submitted that mining activities are being carried out in the District of Udalguri, State of Assam without there being any DSR which is a mandatory requirement in

law. In fact, this Hon'ble Tribunal has recently in the case of *Bibekananda v State of Odisha & Ors.* O.A. No. 125/2024/EZ vide order dated 08.08.2024 has directed that no mining activity shall be carried out under interim District Survey Report. Thus, in the light of the aforesaid, it is quite evident that no mining activity can be carried out without a final District Survey Report.

A true copy of the order dated 08.08.2024 in the case *Bibekananda v State of Odisha & Ors.* O.A. No. 125/2024/EZ is annexed and marked as **"Annexure A-18" (Pages 1063 to 1065).**

5.35 It is further submitted that it has been held by this Hon'ble Tribunal that any Environmental Clearance granted in the absence of a District Survey Report is a null and void document and Environmental Clearance could have been issued only after issuance of a valid District Survey Report. Therefore, in the facts of the present case, admittedly there is no valid District Survey Report for the District of Udalguri, hence, no Environmental Clearance could have also been granted for any mining activity and if granted is null and void.

5.36 It is submitted that in recent years, District of Udalguri, State of Assam has witnessed a concerning surge in the illegal mining of minor minerals including sand, gravel and stone, exacerbating environmental degradation, endangering public health, and undermining the state's socio-economic stability. Further, unregulated extraction of these resources has become rampant, posing a significant challenge to the sustainable development of the region. The consequences of rampant illegal mining of minor minerals in the District of Udalguri, State of Assam are manifold and severe.

Environmental degradation is the most immediate and visible impact, as unregulated mining activities result in the destruction of natural habitats, soil erosion, contamination of water bodies and depletion of ground water levels. Furthermore, the unchecked exploitation of minor minerals poses grave risks to public health and safety. The use of heavy machinery and equipment in mining operations contributes to air and noise pollution, endangering the health of nearby communities, as these illegal mining activities are done without taking requisite permissions under the Air Act or the Water Act.

5.37 In the absence of a District Survey Report (DSR), excessive mining activities are leading to the depletion and contamination of groundwater in District of Udalguri, State of Assam. The districts watershed has been adversely affected due to such illegal mining activities without preparation of the requisite DSR. This has resulted in the alteration of river courses in the District of Udalguri, State of Assam, primarily because of sand and stone mining. It is submitted that the Respondent Nos. 1 to 7 have failed to even the monitor the ground water levels being caused by such illegal mining. The monitoring of groundwater levels is not conducted by any authority before granting and issuing mining leases, the development of a mining plan by the Department of Mines and Resources (DMR), or the issuance of Environmental Clearance (EC) by the State Environmental Impact Assessment Authority (SEIAA). Consequently, permissions for mining are being issued without any consideration for the effects on groundwater quality, volume, or the overall watershed integrity.

5.38 The failure of the Respondent Nos. 1 to 7 to take steps in preparing District Survey Reports (DSRs) before granting and issuing mining leases/ mining contracts/ mining permits/ mining concessionaire represents a serious dereliction of duty of the Respondent Nos. 1 to 7 to comply with the environmental laws of the country, which needs to be addressed by this Hon'ble Tribunal at the earliest.

5.39 Hence, the present Application.

6 GROUNDS

6.1 **BECAUSE** the Hon'ble NGT, Principal Bench at New Delhi in the case of *Anjani Kumar v. State of UP reported in 2017* SCC OnLine NGT 979 vide judgement dated December 8, 2017 has unequivocally held that preparation of District Survey Report and obtaining Environmental Clearance is a condition precedent to carrying on mining activity and thus mining activity of minor minerals being carried out in the District of Udalguri without there being a final District Survey Report for the District of Udalguri is in direct contravention of the law laid down by this Hon'ble Tribunal and the entities engaged in such unlawful and illegal mining is liable to compensate for the value of the mineral extracted unlawfully and to compensate, rehabilitate and restitute the area under Section 15 of the NGT Act, 2010 for damage done to the environment.

6.2 **BECAUSE** the Hon'ble Supreme Court *vide* judgement dated November 10, 2021 in *State of Bihar v. Pawan Kumar*, (2022) 2 SCC 348 interpreting the 2020 guidelines held that District Survey Report is required to be prepared before auction/e-auction/grant of mining lease and thus mining activity of minor

minerals being carried out in the District of Udalguri without there being a final District Survey Report for the District of Udalguri is in direct contravention of the law laid down by this Hon'ble Tribunal and the entities engaged in such unlawful and illegal mining is liable to compensate for the value of the mineral extracted unlawfully and to compensate, rehabilitate and restitute the area under Section 15 of the NGT Act, 2010 for damage done to the environment.

6.3 **BECAUSE** the Hon'ble Supreme Court of India in the case of *Mangal Singh Bundela v. State of Madhya Pradesh & Ors*, bearing Civil Appeal No. 4593 of 2022 passed an interim order directing that no mining shall be carried out in terms of the e-auction therein without finalizing the District Survey Report and thus evidently in the present case as well since there is no final District Survey Report for the District of Udalguri, hence, no mining activity can be permitted in absence of a final District Survey Report.

6.4 **BECAUSE** this Hon'ble Tribunal at Bhopal by a judgment dated November 24, 2023 passed in *Dinesh Bothra v. Union of India*, 2023 SCC OnLine NGT 490 reiterated that the act of conducting mining or de-silting and the consequent sale of minerals at prices fixed by the Government is a mining activity and in such a case, requirements defined in Clause 7 of EIA 2006 has to be followed, *viz.* preparation of DSR, obtaining of Environmental Clearances (EC) etc.

6.5 **BECAUSE** Respondent No. 1-7 are fully aware about the aforesaid legal position wherein no mining activity can be carried out without preparation of DSR and without obtaining Environmental Clearance and despite being aware of the aforesaid legal situation, the Respondent No. 1 to Respondent No. 7 have granted mining leases/mining contracts/ mining

permits/ mining concessionaire and have permitted mining activity to be carried out in the District of Udalguri, State of Assam without there being a District Survey Report for the same and without obtaining the requisite Environmental Clearance. Such acts on behalf of the Respondent No.1 to Respondent No. 7 clearly shows that they scant regard for the law of the land and have carried put acts in dereliction of their duties.

6.6 **BECAUSE** admittedly there is no District Survey Report for the District of Udalguri, State of Assam and without there being a District Survey Report mining activities are being carried out and the Respondent No. 1-7 are permitting such mining activities from being carried out in gross violation of the provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**').

6.7 **BECAUSE** the Respondent No.5 in the affidavit filed in O.A. No. 86 of 2024/EZ has expressly stated that *"That the answering deponent begs to state that, after various judicial decisions of the Hon'ble Apex Court as well as of the Hon'ble National Green Tribunal, and also from the time to time guidelines issued by the Ministry Of Environment Forest & Climate Change, it is observed that the DSR is of utmost importance and mandatory for mining of minor minerals, for each and every districts and as such the preparation of DSR has become indispensable, or else various development work of the Government would be affected which may adversely affect the revenue collection of the State. That*

presently mahals are auction under Assam Minor Mineral Concession Rules, 2013. That even amendment of Assam Minor Mineral Concession Rules, 2013 is underway and there also the preparation of DSR is being made mandatory" and further stated that Final District Survey Report has not been prepared for the District of Udalguri amongst other districts.

6.8 **BECAUSE** the draft District Survey Report for the district of Udalguri has been uploaded at the public portal only late in the month of September 2024 and thus all the mining activities carried out in the absence of a final District Survey Report is in violation of the provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**') and the entities engaged in such illegal and unlawful mining is liable to compensate for the value of the mineral extracted unlawfully and to compensate, rehabilitate and restitute the area under Section 15 of the NGT Act, 2010 for damage done to the environment.

6.9 **BECAUSE** from a perusal of the Draft District Survey Report it will be evident that there are running and existing mining leases in favour of third parties wherein mining activities are being carried out without there being a final District Survey Report which is in violation of the mandatory requirement imposed vide notification dated 15.01.2026.

6.10 **BECAUSE** from the report of the Comptroller and Auditor General of India on Revenue Sector for the year ended March

31, 2022 it would be evident that despite DSR being mandatory, no such report has been prepared by the State of Assam till February 2023. A few relevant excerpts from the report of Comptroller and Auditor General of India are quoted herein for ready reference of this Hon'ble Tribunal:

"4.3.10.3. District Survey Report not prepared: In 2016, GoI introduced the concept of District Survey Report (DSR) by amending the Environment Impact Assessment Notification, 2006 with an objective to ensure identification of areas of aggradations or deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited and time required for replenishment after mining in that area. The DSRs are required to be prepared for each minor mineral in each district separately by the District Environment Impact Assessment Authority (DEIAA) with the assistance of Geology Department, Irrigation Department, Forest Department, Public Works Department, Ground Water Board Remote Sensing Department, Mining Department, etc. in the district. The DSR should contain the mineral potential and its location, depth of minable mineral and quantity of minerals of the district. The DSR shall be updated once in every five years and placed in the public domain. In April 2016, GoA instructed Mines and Minerals Department, Assam to initiate preparation of DSR; however, the Department had not prepared a single DSR till June 2022. Thus, due to non-preparation of DSR, the identification and quantification of reserves was limited to field verification carried out by the forest divisions without consulting other departments to adopt scientific methods. On being pointed out, the M&M Department stated (January 2023) that provision of DSR is not included in the AMMCR, 2013. The fact remains that in spite of GoA's instruction (April 2016) for preparation of DSR, the

Department has not prepared any DSR till February 2023. Recommendation: The Government may ensure that the DSRs are prepared in a timebound manner."

6.11 **BECAUSE** this Hon'ble Tribunal has recently in the case of *Bibekananda v State of Odisha & Ors.* O.A. No. 125/2024/EZ vide order dated 08.08.2024 has directed that no mining activity shall be carried out under interim District Survey Report. Thus, in the light of the aforesaid, it is quite evident that no mining activity can be carried out without a final District Survey Report.

6.12 **BECAUSE** applicant upon conducting its searches was able to ascertain from the documents available at public portal that Respondent No. 8-11 are currently carrying out mining activities under an existing mining lease in the District of Udalguri, State of Assam, without there being a District Survey Report which is in gross violation of provisions of the Environmental Impact Assessment dated September 14, 2006 ('**EIA, 2006**') as amended by the Respondent No. 1, by and under the Notification dated January 15, 2016 along with the decisions passed by the Hon'ble Supreme Court, this Hon'ble Tribunal, as well as the Sustainable Sand Mining Management Guidelines, 2016 ('**SSMMG, 2016**') and Enforcement & Monitoring Guidelines for Sand Mining, 2020 ('**EMGSM, 2020**'). There are other third parties/entities as well who are conducting mining activities in the District of Udalguri without there being a DSR, however, the applicant despite its best efforts is unable to ascertain or find out such entities.

6.13 **BECAUSE** illegal mining constitutes a flagrant violation of the public trust doctrine, which holds that natural resources are a public trust to be protected for the benefit of present and future generations. The State, as the trustee of these resources, is entrusted with the responsibility to manage them sustainably

and ensure their equitable distribution. However, illegal mining exploits natural resources for private gain, disregarding the interests of the public and future generations. This not only deprives the public of their rightful access to these resources but also leads to environmental degradation and irreparable harm to ecosystems. By condoning or allowing illegal mining to persist, the Respondents are breaching their fiduciary duty under the public trust doctrine, thereby undermining the principles of environmental justice and intergenerational equity.

6.14 **BECAUSE** it has come to the knowledge of the Applicant that the Respondents are granting mining lease/mining contract/ mining permits/ mining concessionaire and permitting mining activities to take place in the District of Udalguri, State of Assam without the preparation of District Survey Reports (DSRs) which is in direct contravention of established legal requirements and a grave violation of the Environment (Protection) Act, 1986.

6.15 **BECAUSE** the Respondents have failed to formulate and prepare a DSR for the District of Udalguri in consonance with Notification dated January 15, 2016, the SSMMG, 2016 and EMGSM, 2020 issued by the Respondent No. 1 and various judgements and orders passed by the Hon'ble Apex Court, this Hon'ble Tribunal as well as the Hon'ble Jharkhand High Court, whereby it has been authoritatively held that DSR is a mandatory pre-requisite and thus a conditional precedent before carrying out any mining activity.

6.16 **BECAUSE** the Respondents have failed to appreciate the judgments passed by the Hon'ble Supreme Court in *State of Bihar v. Pawan Kumar*, (2022) 2 SCC 348 and by this Hon'ble Tribunal in the case of *Anjani Kumar v. State of U.P* and *Subhash Bhai Ishwar Bhai Parmar v. State of Gujarat*, 2022 SCC OnLine NGT 3854 whereby this Hon'ble Tribunal has highlighted the

importance and relevance of the DSR and how it is mandatorily incumbent on the State government to start the process of granting mining lease/mining contract/ mining permits/mining concessionaire after the preparation of the DSR and in sync thereof. This Hon'ble Tribunal has also stated that the DSR is an integral and essential part, which is fundamental and a pre-requisite, and its absence would be in the conflict with Environmental laws, which all state governments under the Public trust doctrine and Article 48 of the Constitution of India are required to adhere.

6.17 **BECAUSE** it is the case of the Applicant that a final DSR is a pre-requisite for carrying out any mining activity.

6.18 **BECAUSE** the said actions and inactions on the part of Respondents have adversely impacted the watershed of the District of Udalguri. As a consequence, intensive sand, gravel and stone mining activities have resulted in alteration of river courses and contamination of water, particularly in Udalguri district. It is submitted that the act of the Respondents in granting permissions without any consideration of the after effects of mining on the effects on groundwater quality, volume, watershed integrity and the disorientation of rivers in the state is bound to cause permanent ecological damage, the consequences of which shall have to be dealt with by the future generations.

7 LIMITATION

The cause of action first arose when the Applicant became aware about the Draft District Survey Report of Udalguri District being uploaded in the district portal in the month of September, 2024 from which it is apparent that mining activities are being carried out without preparation of DSR. The cause of action is still continuing,

as the DSR has not been prepared, till date and the Respondent Nos. 8 to 11 along with other third parties [who have been granted mining leases/mining contracts/mining permits/mining concessionaire, illegally and unlawfully] continue to excavate, extract and carry on mining activities in direct violation of the rules and notifications as issued by Respondent No. 1. Hence, it is submitted that cause of action subsists till date and therefore the instant Original Application is being filed within the period of limitation.

8 PRAYER

In view of the aforesaid facts and circumstances, the Hon'ble tribunal may be pleased the cognizance of the issues highlighted above and pass the following directions:

a. Issue suitable order/directions directing the Respondent Nos. 1 to 7 to take action against and prohibit any mining of sand, gravel, stones and other minor minerals in the District of Udalguri, State of Assam till the time final District Survey Report is prepared and requisite Environmental Clearance obtained and impose penalty;

b. Issue suitable order/directions setting aside and quashing any mining leases/mining contracts/mining permits/mining concessionaire granted to Respondent Nos. 8 to 11 in the District of Udalguri, State of Assam without the preparation of the District Survey Report and/or without obtaining requisite Environmental Clearance;

c. Issue suitable order/directions setting aside and quashing the mining leases/mining contracts/ mining permits/mining concessionaire granted to unknown third parties in the District of Udalguri, State of Assam which have been granted without the preparation of the District Survey Report and/or without obtaining requisite Environmental Clearance;

d. Pass suitable order/directions directing the Respondents to take necessary steps restraining any mining activity from being carried on till the District Survey Report for the District of Udalguri is notified in accordance with law;

e. Issue suitable orders/directions directing constitution of a Court monitored committee under the supervision of the Central Pollution Control Board, Ministry of Environment, Forest and Climate Change (MoEFCC) and Central Empowered Committee (CEC) to oversee and submit a report regarding the extent and the impact of the illegal mining being conducted in the Udalguri District, Assam; and/or

f. Direct the Respondent Nos. 8 to 11 and other unknown third parties to pay compensation for the damage done to the natural resources due to illegal mining activities being conducted without preparation of the District Survey Report in the District of Udalguri, Assam;

g. Direct the Respondents to compensate, rehabilitate and restitute the area under Section 15 of the NGT Act, 2010 for damage done to the environment;

h. Grant an ex-parte ad-interim stay immediately restraining any mining activity being carried out in the District of Udalguri, State of Assam till the pendency of the present application

i. Grant an ex-parte ad-interim order directing the Respondent Nos. 1 to 7 to seize the vehicles, equipment and excavators of the Respondent Nos. 8 to 11 and other unknown third parties which are being used for carrying on mining activities, without preparation of the District Survey Report in the respective Mahals in the District of Udalguri, Assam;

j. Grant an order directing the Respondent Nos. 1 to 7 to seize the vehicles, equipment and excavators of the Respondent Nos. 8 to 11 and other unknown third parties which are being used for the carrying on mining activities, without preparation of the District Survey Report in the respective Mahals in the District of Udalguri, Assam;

k. Direct the Respondent Nos. 1 to 7 to produce the relevant records regarding the mining leases/mining contracts/mining permits/ mining concessionaire granted to various parties during the period when there is no District Survey Report.

l. Pass suitable order/directions directing the Respondents to produce relevant records and documents of the extent of illegal mining activity carried out in the District of Udalguri without preparation of DSR.

m. Pass suitable order/directions directing the Respondent Nos. 8 to 11 and other unknown third parties who have carried out mining activity unlawfully to pay adequate compensation for the restitution of the environment.

n. Pass any other orders as this Hon'ble Tribunal may deem fit and proper in the facts and circumstances of the instant case.

Filed by:

ASHISH CHOUDHURY AND AKASH AGARWAL
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Email: ashishchoudhuryadv@gmail.com

Date: 14.12.2024

Place: Kolkata

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH KOLKATA
I.A. NO. /2024
IN
ORIGINAL APPLICATION NO. /2024

Sl. No. 26,013
Date: 25-11-2024

IN THE MATTER OF :

ATANU BORTHAKUR. ...APPLICANT

VERSUS

UNION OF INDIA & ORS ...RESPONDENTS

AFFIDAVIT

I, Atanu Borthakur, S/o Late Mukti Nath Borthakur, R/o Gandhibasti, Guwahati- 781003, aged about 51 do hereby solemnly affirm and state on oath as under:

1. That I am Applicant in the captioned matter and as such fully conversant with facts and circumstances of the case and competent to swear this Affidavit.
2. That I have gone through the contents of the accompanying application that has been drafted by my counsel according to my instructions and the contents of the same are true and correct to my knowledge.

Atanu Borthakur
Deponent

Identified by me
Ashok Kr. Dey
Advocate
25-11-2024

VERIFICATION

Verified on this 25th day of Nov' 2024 that the contents of the present affidavit are true and correct to my knowledge and nothing material has been concealed.

Atanu Borthakur
Deponent

NOTARY GOVT OF ASSAM
LINA BARUA
Kamrup (Metro)
Regd. No. KAM-37
Exp Date:-
27/02/2029

LINA BARUA
NOTARY GOVT. OF ASSAM
Kamrup (Metro) Guwahati
Regd. No. KAM-37
25 NOV 2024

Sl. No. 14187
Date 25-11-24

VAKALATNAMA

IN THE COURT OF **Hon'ble National Green Tribunal Eastern Zone Bench Kolkata**

SUIT / APPEAL / O.A. No. **of 2024**

Atanu Borthakur ....Plff./Applt./Petitioner/Complainant

VERSUS

Union of India & Ors ....Defendant / Respondents

KNOW ALL to whom these presents shall come that I / We **Atanu Borthakur**

The above named **Applicant** ....do hereby appoint

1) Adv. Ashish Choudhury 2) Adv. Akash Agarwal 3) Adv. Abhishek Arora, Suit 1A, 8B, Mathura Road, Jangpura B, New Delhi-110014, Email:ashishchoudhuryadv@gmail.com Mob: 8095957280

To act, appear and plead in the above-noted case in this Court or in any other Court in which the same may be tried or heard and also in the Appellate Court including High Courts/Supreme Court of India ..... subject to payment of fees.

To sign, file, verify and present pleadings, inspect files & documents & obtain copies thereof, appeal, cross objections or petitions for execution, review, withdrawal, compromise or other petitions or affidavits or other documents as may be deemed necessary or proper for the prosecution of the said case in all its stages subject to payment of fees for each stage.

To file and take back documents, to admit &/or deny the documents of opposite party.

To withdraw or compromise the said case or submit to arbitration, differences or disputes that may arise touching or in any manner relating to the said case.

To take execution proceedings.

To deposit, draw and receive money, cheques, cash and grant receipts hereof and to do all other acts and things which may be necessary to be done for the progress and in the court of the prosecution of the said case.

To appoint and instruct any other legal Practitioner or person authorising him to exercise the power and authority hereby conferred upon the Advocate whenever he may think fit to do so & to sign the power of attorney on our behalf.

And I / We the undersigned to hereby agree to ratify and confirm all acts done by the Advocate or his substitute in the matter as my/our own acts as if done by me/us for all intents and purpose.

And I / We undertake that I / we or my / our duly authorised agent would appear in Court on all hearings & will inform the Advocate for appearance when the case is called.

And I / We undersigned do hereby agree not to hold the advocate or his substitute responsible for the result of the said case. The adjournment costs whenever ordered by the Court shall be of the Advocate which he shall receive and retain for himself.

"And I/We the undersigned do hereby agree that I/We shall not claim any compensation, nor the Advocate/s shall be liable for any compensation if he/she fails to appear in the court or fails to conduct or withdraws from the case due to non-payment of fee as per settlement or for reason of any request/call given by Bar Association/s or Councils/s."

And I/we undersigned do hereby agree that in the event of the whole or part of the fee agreed by me/us to be paid to the advocate remaining unpaid he shall be entitled to withdraw from the prosecution of the said case until the same is paid up. The fee settled is only for the above case and above Court. I/we hereby agree that once the fee is paid, I/we will not be entitled for the refund of the same in any case whatsoever and if the case prolongs for more than 3 years the original fee shall be paid again by me/us.

IN WITNESS WHEREOF I/we do hereunto set my/our hand to these presents the contents of which have been understood by me / us on this ..... day of ..... ACCEPTED.

Ashish Choudhury

(Ashish Choudhury)
F/420/16

Juri Dos
Advocate

Abhishek Arora

(Abhishek Arora)
D/5619/20

Akash Agarwal

(Akash Agarwal)
F/682/21

P. Rabha
Pratima Rabha
NOTARY
Kamrup(Metro), Guwahati,
Regd.No.-KAM-27

Atanu Borthakur

CLIENT

25 NOV 2024

(Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii)
MINISTRY OF ENVIRONMENT AND FORESTS

New Delhi 14th September, 2006

Notification

S.O. 1533 Whereas, a draft notification **under sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986 for imposing** certain restrictions and prohibitions on new projects or activities, or on the expansion or modernization of existing projects or activities based on their potential environmental impacts as indicated in the Schedule to the notification, being undertaken in any part of India[1], unless prior environmental clearance has been accorded in accordance with the objectives of National Environment Policy **as approved by the Union Cabinet on 18th May, 2006** and the procedure specified in the notification, by the Central Government or the State or Union territory Level Environment Impact Assessment Authority (SEIAA), to be constituted by the Central Government in consultation with the State Government or the Union territory Administration concerned under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 for the purpose of this notification, was published in the Gazette of India ,Extraordinary, Part II, section 3, sub-section (ii) vide number S.O. 1324 (E) dated the 15th September ,2005 inviting objections and suggestions from all persons likely to be affected thereby within a period of sixty days from the date on which copies of Gazette containing the said notification were made available to the public;

And whereas, copies of the said notification were made available to the public on 15th September, 2005;

And whereas, all objections and suggestions received in response to the above mentioned draft notification have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986, read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 and in supersession of the notification number S.O. 60 (E) dated the 27th January, 1994, except in respect of things done or omitted to be done before such supersession, the Central Government hereby directs that on and from the date of its publication the required construction of new projects or activities or the expansion or modernization of existing projects or activities listed in the Schedule to this notification entailing capacity addition with change in process and or technology shall be undertaken in any part of India only after the prior environmental clearance from the Central Government or as the case may be, by the State Level Environment Impact Assessment Authority, duly constituted by the Central Government under sub-section (3) of section 3 of the said Act, in accordance with the procedure specified hereinafter in this notification.

---

[1]Includes the territorial waters

2. Requirements of prior Environmental Clearance (EC):- The following projects or activities shall require prior environmental clearance from the concerned regulatory authority, which shall hereinafter referred to be as the Central Government in the Ministry of Environment and Forests for matters falling under Category 'A' in the Schedule and at State level the State Environment Impact Assessment Authority (SEIAA) for matters falling under Category 'B' in the said Schedule, before any construction work, or preparation of land by the project management except for securing the land, is started on the project or activity:

(i) All new projects or activities listed in the Schedule to this notification;

(ii) Expansion and modernization of existing projects or activities listed in the Schedule to this notification with addition of capacity beyond the limits specified for the concerned sector, that is, projects or activities which cross the threshold limits given in the Schedule, after expansion or modernization;

(iii) Any change in product - mix in an existing manufacturing unit included in Schedule beyond the specified range.

3. State Level Environment Impact Assessment Authority:- (1) A State Level Environment Impact Assessment Authority hereinafter referred to as the SEIAA shall be constituted by the Central Government under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 comprising of three Members including a Chairman and a Member – Secretary to be nominated by the State Government or the Union territory Administration concerned.

(2) The Member-Secretary shall be a serving officer of the concerned State Government or Union territory administration familiar with environmental laws.

(3) The other two Members shall be either a professional or expert fulfilling the eligibility criteria given in Appendix VI to this notification.

(4) One of the specified Members in sub-paragraph (3) above who is an expert in the Environmental Impact Assessment process shall be the Chairman of the SEIAA.

(5) The State Government or Union territory Administration shall forward the names of the Members and the Chairman referred in sub- paragraph 3 to 4 above to the Central Government and the Central Government shall constitute the SEIAA as an authority for the purposes of this notification within thirty days of the date of receipt of the names.

(6) The non-official Member and the Chairman shall have a fixed term of three years (from the date of the publication of the notification by the Central Government constituting the authority).

(7) All decisions of the SEIAA shall be unanimous and taken in a meeting.

4. Categorization of projects and activities:-

(i) All projects and activities are broadly categorized in to two categories - Category A and Category B, based on the spatial extent of potential impacts and potential impacts on human health and natural and man made resources.

(ii) All projects or activities included as Category 'A' in the Schedule, including expansion and modernization of existing projects or activities and change in product mix, shall require prior environmental clearance from the Central Government in the Ministry of Environment and Forests (MoEF) on the recommendations of an Expert Appraisal Committee (EAC) to be constituted by the Central Government for the purposes of this notification;

(iii) All projects or activities included as Category 'B' in the Schedule, including expansion and modernization of existing projects or activities as specified in sub paragraph (ii) of paragraph 2, or change in product mix as specified in sub paragraph (iii) of paragraph 2, but excluding those which fulfill the General Conditions (GC) stipulated in the Schedule, *will* require prior environmental clearance from the State/Union territory Environment Impact Assessment Authority (SEIAA). The SEIAA shall base its decision on the recommendations of a State or Union territory level Expert Appraisal Committee (SEAC) as to be constituted for in this notification. In the absence of a duly constituted SEIAA or SEAC, a Category 'B' project shall be treated as a Category 'A' project;

5. Screening, Scoping and Appraisal Committees:-

The same Expert Appraisal Committees (EACs) at the Central Government and SEACs (hereinafter referred to as the (EAC) and (SEAC) at the State or the Union territory level shall screen, scope and appraise projects or activities in Category 'A' and Category 'B' respectively. EAC and SEAC's shall meet at least once every month.

(a) The composition of the EAC shall be as given in Appendix VI. The SEAC at the State or the Union territory level shall be constituted by the Central Government in consultation with the concerned State Government or the Union territory Administration with identical composition;

(b) The Central Government may, with the prior concurrence of the concerned State Governments or the Union territory Administrations, constitutes one SEAC for more than one State or Union territory for reasons of administrative convenience and cost;

(c) The EAC and SEAC shall be reconstituted after every three years;

(d) The authorised members of the EAC and SEAC, concerned, may inspect any site(s) connected with the project or activity in respect of which the prior environmental clearance is sought, for the purposes of screening or scoping or appraisal, with prior notice of at least seven days to the applicant, who shall provide necessary facilities for the inspection;

(e) The EAC and SEACs shall function on the principle of collective responsibility. The Chairperson shall endeavour to reach a consensus in each case, and if consensus cannot be reached, the view of the majority shall prevail.

6. Application for Prior Environmental Clearance (EC):-

An application seeking prior environmental clearance in all cases shall be made in the prescribed Form 1 annexed herewith and Supplementary Form 1A, if applicable, as given in Appendix II, after the identification of prospective site(s) for the project and/or activities to which the application relates, before commencing any construction activity, or preparation of land, at the site by the applicant. The applicant shall furnish, along with the application, a copy of the pre-feasibility project report except that, in case of construction projects or activities (item 8 of the Schedule) in addition to Form 1 and the Supplementary Form 1A, a copy of the conceptual plan shall be provided, instead of the pre-feasibility report.

7. Stages in the Prior Environmental Clearance (EC) Process for New Projects:-

7(i) The environmental clearance process for new projects will comprise of a maximum of four stages, all of which may not apply to particular cases as set forth below in this notification. These four stages in sequential order are:-

- Stage (1) Screening (Only for Category 'B' projects and activities)
- Stage (2) Scoping
- Stage (3) Public Consultation
- Stage (4) Appraisal

I. **Stage (1) - Screening**:

In case of Category 'B' projects or activities, this stage will entail the scrutiny of an application seeking prior environmental clearance made in Form 1 by the concerned State level Expert Appraisal Committee (SEAC) for determining whether or not the project or activity requires further environmental studies for preparation of an Environmental Impact Assessment (EIA) for its appraisal prior to the grant of environmental clearance depending up on the nature and location specificity of the project . The projects requiring an Environmental Impact Assessment report shall be termed Category 'B1' and remaining projects shall be termed Category 'B2' and will not require an Environment Impact Assessment report. For categorization of projects into B1 or B2 except item 8 (b), the Ministry of Environment and Forests shall issue appropriate guidelines from time to time.

II. **Stage (2) - Scoping**:

(i) "Scoping": refers to the process by which the Expert Appraisal Committee in the case of Category 'A' projects or activities, and State level Expert Appraisal Committee in the case of Category 'B1' projects or activities, including applications for expansion and/or modernization and/or change in product mix of existing projects or activities, determine detailed and comprehensive Terms Of Reference (TOR) addressing all relevant environmental concerns for the preparation of an Environment Impact Assessment (EIA) Report in respect of the project or activity for which prior environmental clearance is sought. The Expert Appraisal Committee or State level Expert Appraisal Committee concerned shall determine the Terms of Reference on the basis of the information furnished in the prescribed application Form1/Form 1A including Terns of Reference proposed by the applicant, a site visit by a sub- group of Expert Appraisal Committee or State level Expert Appraisal Committee concerned only if considered necessary by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, Terms of Reference suggested by the applicant if furnished and other information that may be available with the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned. All projects and activities listed as Category 'B' in Item 8 of the Schedule (Construction/Township/Commercial Complexes /Housing) shall not require Scoping and will be appraised on the basis of Form 1/ Form 1A and the conceptual plan.

(ii) The Terms of Reference (TOR) shall be conveyed to the applicant by the Expert Appraisal Committee or State Level Expert Appraisal Committee as concerned within sixty days of the receipt of Form 1. In the case of Category A Hydroelectric projects Item 1(c) (i) of the Schedule the Terms of Reference shall be conveyed along with the clearance for pre-construction activities .If the Terms of Reference are not finalized and conveyed to the applicant within sixty days of the receipt of Form 1, the Terms of Reference suggested by the applicant shall be deemed as the final Terms of Reference approved for the EIA studies**.** The approved Terms of

Reference shall be displayed on the website of the Ministry of Environment and Forests and the concerned State Level Environment Impact Assessment Authority.

(iii) Applications for prior environmental clearance may be rejected by the regulatory authority concerned on the recommendation of the EAC or SEAC concerned at this stage itself. In case of such rejection, the decision together with reasons for the same shall be communicated to the applicant in writing within sixty days of the receipt of the application.

III. **Stage (3) - Public Consultation**:

(i) "Public Consultation" refers to the process by which the concerns of local affected persons and others who have plausible stake in the environmental impacts of the project or activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate. All Category 'A' and Category B1 projects or activities shall undertake Public Consultation, except the following:-

(a) modernization of irrigation projects (item 1(c) (ii) of the Schedule).

(b) all projects or activities located within industrial estates or parks (item 7(c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals.

(c) expansion of Roads and Highways (item 7 (f) of the Schedule) which do not involve any further acquisition of land.

(d) all Building /Construction projects/Area Development projects and Townships (item 8).

(e) all Category 'B2' projects and activities.

(f) all projects or activities concerning national defence and security or involving other strategic considerations as determined by the Central Government.

(ii) The Public Consultation shall ordinarily have two components comprising of:-

(a) a public hearing at the site or in its close proximity- district wise, to be carried out in the manner prescribed in Appendix IV, for ascertaining concerns of local affected persons;

(b) obtain responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity.

(iii) the public hearing at, or in close proximity to, the site(s) in all cases shall be conducted by the State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC) concerned in the specified manner and forward the proceedings to the regulatory authority concerned within 45(forty five) of a request to the effect from the applicant.

(iv) in case the State Pollution Control Board or the Union territory Pollution Control Committee concerned does not undertake and complete the public hearing within the specified period, and/or does not convey the proceedings of the public hearing within the prescribed period

directly to the regulatory authority concerned as above, the regulatory authority shall engage another public agency or authority which is not subordinate to the regulatory authority, to complete the process within a further period of forty five days,.

(v) If the public agency or authority nominated under the sub paragraph (iii) above reports to the regulatory authority concerned that owing to the local situation, it is not possible to conduct the public hearing in a manner which will enable the views of the concerned local persons to be freely expressed, it shall report the facts in detail to the concerned regulatory authority, which may, after due consideration of the report and other reliable information that it may have, decide that the public consultation in the case need not include the public hearing.

(vi) For obtaining responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity, the concerned regulatory authority and the State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC) shall invite responses from such concerned persons by placing on their website the Summary EIA report prepared in the format given in Appendix IIIA by the applicant along with a copy of the application in the prescribed form , within seven days of the receipt of a written request for arranging the public hearing . Confidential information including non-disclosable or legally privileged information involving Intellectual Property Right, source specified in the application shall not be placed on the web site**.** The regulatory authority concerned may also use other appropriate media for ensuring wide publicity about the project or activity. The regulatory authority shall, however, make available on a written request from any concerned person the Draft EIA report for inspection at a notified place during normal office hours till the date of the public hearing. All the responses received as part of this public consultation process shall be forwarded to the applicant through the quickest available means.

(vii) After completion of the public consultation, the applicant shall address all the material environmental concerns expressed during this process, and make appropriate changes in the draft EIA and EMP. The final EIA report, so prepared, shall be submitted by the applicant to the concerned regulatory authority for appraisal. The applicant may alternatively submit a supplementary report to draft EIA and EMP addressing all the concerns expressed during the public consultation.

IV. Stage (4) - Appraisal:

(i) Appraisal means the detailed scrutiny by the Expert Appraisal Committee or State Level Expert Appraisal Committee of the application and other documents like the Final EIA report, outcome of the public consultations including public hearing proceedings, submitted by the applicant to the regulatory authority concerned for grant of environmental clearance. This appraisal shall be made by Expert Appraisal Committee or State Level Expert Appraisal Committee concerned in a transparent manner in a proceeding to which the applicant shall be invited for furnishing necessary clarifications in person or through an authorized representative. On conclusion of this proceeding, the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall make categorical recommendations to the regulatory authority concerned either for grant of prior environmental clearance on stipulated terms and conditions, or rejection of the application for prior environmental clearance, together with reasons for the same.

(ii) The appraisal of all projects or activities which are not required to undergo public consultation, or submit an Environment Impact Assessment report, shall be carried out on the basis of the prescribed application Form 1 and Form 1A as applicable, any other relevant

validated information available and the site visit wherever the same is considered as necessary by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned.

(iii) The appraisal of an application be shall be completed by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned within sixty days of the receipt of the final Environment Impact Assessment report and other documents or the receipt of Form 1 and Form 1 A, where public consultation is not necessary and the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee shall be placed before the competent authority for a final decision within the next fifteen days .The prescribed procedure for appraisal is given in Appendix V ;

7(ii). Prior Environmental Clearance (EC) process for Expansion or Modernization or Change of product mix in existing projects:

All applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or for the modernization of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product –mix shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence necessary including preparation of EIA and public consultations and the application shall be appraised accordingly for grant of environmental clearance.

8.Grant or Rejection of Prior Environmental Clearance (EC):

(i) The regulatory authority shall consider the recommendations of the EAC or SEAC concerned and convey its decision to the applicant within forty five days of the receipt of the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned or in other words within one hundred and five days of the receipt of the final Environment Impact Assessment Report, and where Environment Impact Assessment is not required, within one hundred and five days of the receipt of the complete application with requisite documents, except as provided below.

(ii) The regulatory authority shall normally accept the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned. In cases where it disagrees with the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, the regulatory authority shall request reconsideration by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned within forty five days of the receipt of the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned while stating the reasons for the disagreement. An intimation of this decision shall be simultaneously conveyed to the applicant. The Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, in turn, shall consider the observations of the regulatory authority and furnish its views on the same within a further period of sixty days. The decision of the regulatory authority after considering the views of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall be final and conveyed to the applicant by the regulatory authority concerned within the next thirty days.

(iii) In the event that the decision of the regulatory authority is not communicated to the applicant within the period specified in sub-paragraphs (i) or (ii) above, as applicable, the

applicant may proceed as if the environment clearance sought for has been granted or denied by the regulatory authority in terms of the final recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned.

(iv) On expiry of the period specified for decision by the regulatory authority under paragraph (i) and (ii) above, as applicable, the decision of the regulatory authority, and the final recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall be public documents.

(v) Clearances from other regulatory bodies or authorities shall not be required prior to receipt of applications for prior environmental clearance of projects or activities, or screening, or scoping, or appraisal, or decision by the regulatory authority concerned, unless any of these is sequentially dependent on such clearance either due to a requirement of law, or for necessary technical reasons.

(vi) Deliberate concealment and/or submission of false or misleading information or data which is material to screening or scoping or appraisal or decision on the application shall make the application liable for rejection, and cancellation of prior environmental clearance granted on that basis. Rejection of an application or cancellation of a prior environmental clearance already granted, on such ground, shall be decided by the regulatory authority, after giving a personal hearing to the applicant, and following the principles of natural justice.

9. Validity of Environmental Clearance (EC):

The "Validity of Environmental Clearance" is meant the period from which a prior environmental clearance is granted by the regulatory authority, or may be presumed by the applicant to have been granted under sub paragraph (iv) of paragraph 7 above, to the start of production operations by the project or activity, or completion of all construction operations in case of construction projects (item 8 of the Schedule), to which the application for prior environmental clearance refers. The prior environmental clearance granted for a project or activity shall be valid for a period of ten years in the case of River Valley projects (item 1(c) of the Schedule), project life as estimated by Expert Appraisal Committee or State Level Expert Appraisal Committee subject to a maximum of thirty years for mining projects and five years in the case of all other projects and activities. However, in the case of Area Development projects and Townships [item 8(b)], the validity period shall be limited only to such activities as may be the responsibility of the applicant as a developer. This period of validity may be extended by the regulatory authority concerned by a maximum period of five years provided an application is made to the regulatory authority by the applicant within the validity period, together with an updated Form 1, and Supplementary Form 1A, for Construction projects or activities (item 8 of the Schedule). In this regard the regulatory authority may also consult the Expert Appraisal Committee or State Level Expert Appraisal Committee as the case may be.

10. Post Environmental Clearance Monitoring:

(i) It shall be mandatory for the project management to submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.

(ii) All such compliance reports submitted by the project management shall be public documents. Copies of the same shall be given to any person on application to the concerned regulatory authority. The latest such compliance report shall also be displayed on the web site of the concerned regulatory authority.

11. Transferability of Environmental Clearance (EC):

A prior environmental clearance granted for a specific project or activity to an applicant may be transferred during its validity to another legal person entitled to undertake the project or activity on application by the transferor, or by the transferee with a written "no objection" by the transferor, to, and by the regulatory authority concerned, on the same terms and conditions under which the prior environmental clearance was initially granted, and for the same validity period. No reference to the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned is necessary in such cases.

12. Operation of EIA Notification, 1994, till disposal of pending cases:

From the date of final publication of this notification the Environment Impact Assessment (EIA) notification number S.O.60 (E) dated 27th January, 1994 is hereby superseded, except in suppression of the things done or omitted to be done before such suppression to the extent that in case of all or some types of applications made for prior environmental clearance and pending on the date of final publication of this notification, the Central Government may relax any one or all provisions of this notification except the list of the projects or activities requiring prior environmental clearance in Schedule I , or continue operation of some or all provisions of the said notification, for a period not exceeding one year from the date of issue of this notification.

[No. J-11013/56/2004-IA-II (I)]

(R.CHANDRAMOHAN)
JOINT SECRETARY TO THE GOVERNMENT OF INDIA

SCHEDULE

(See paragraph 2 and 7)

LIST OF PROJECTS OR ACTIVITIES REQUIRING PRIOR ENVIRONMENTAL CLEARANCE

Project or Activity		**Category with threshold limit**		**Conditions if any**
		A	**B**	
1		**Mining, extraction of natural resources and power generation (for a specified production capacity)**		
(1)	(2)	(3)	(4)	(5)
1(a)	Mining of minerals	≥ 50 ha. of mining lease area Asbestos mining irrespective of mining area	<50 ha ≥ 5 ha .of mining lease area.	General Condition shall apply Note Mineral prospecting (not involving drilling) are exempted provided the concession areas have got previous clearance for physical survey
1(b)	Offshore and onshore oil and gas exploration, development & production	All projects		Note Exploration Surveys (not involving drilling) are exempted provided the concession areas have got previous clearance for physical survey
1(c)	River Valley projects	(i) ≥ 50 MW hydroelectric power generation; (ii) ≥ 10,000 ha. of culturable command area	(i) < 50 MW ≥ 25 MW hydroelectric power generation; (ii) < 10,000 ha. of culturable command area	General Condition shall apply
1(d)	Thermal Power Plants	≥ 500 MW (coal/lignite/naphta & gas based); ≥ 50 MW (Pet coke diesel and all other fuels -)	< 500 MW (coal/lignite/naptha & gas based); <50 MW ≥ 5MW (Pet coke ,diesel and all other fuels)	General Condition shall apply

(1)	(2)	(3)	(4)	(5)
1(e)	Nuclear power projects and processing of nuclear fuel	All projects	-	
2		**Primary Processing**		
2(a)	Coal washeries	≥ 1 million ton/annum throughput of coal	<1million ton/annum throughput of coal	General Condition shall apply (If located within mining area the proposal shall be appraised together with the mining proposal)
2 (b)	Mineral beneficiation	≥ 0.1million ton/annum mineral throughput	< 0.1million ton/annum mineral throughput	General Condition shall apply (Mining proposal with Mineral beneficiation shall be appraised together for grant of clearance)

3		**Materials Production**		
(1)	**(2)**	**(3)**	**(4)**	**(5)**
3(a)	Metallurgical industries (ferrous & non ferrous)	a)Primary metallurgical industry All projects b) Sponge iron manufacturing ≥ 200TPD c)Secondary metallurgical processing industry All toxic and heavy metal producing units ≥ 20,000 tonnes /annum -	Sponge iron manufacturing <200TPD Secondary metallurgical processing industry i.)All toxic andheavymetal producing units <20,000 tonnes /annum ii.)All other non –toxic secondary metallurgical processing industries >5000 tonnes/annum	General Condition shall apply for Sponge iron manufacturing
3(b)	Cement plants	≥ 1.0 million tonnes/annum production capacity	<1.0 million tonnes/annum production capacity. All Stand alone grinding units	General Condition shall apply

4		**Materials Processing**		
(1)	**(2)**	**(3)**	**(4)**	**(5)**
4(a)	Petroleum refining industry	All projects	-	-
4(b)	Coke oven plants	≥2,50,000 tonnes/annum -	<2,50,000 & ≥25,000 tonnes/annum	-
4(c)	Asbestos milling and asbestos based products	All projects	-	-
4(d)	Chlor-alkali industry	≥300 TPD production capacityor a unit located out side the notified industrial area/ estate	<300 TPD production capacity and located within a notified industrial area/ estate	Specific Condition shall apply No new Mercury Cell based plants will be permitted and existing units converting to membrane cell technology are exempted from this Notification
4(e)	Soda ash Industry	All projects	-	-
4(f)	Leather/skin/hide processing industry	New projects outside the industrial area or expansion of existing units out side the industrial area	All new or expansion of projects located within a notified industrial area/ estate	Specific condition shall apply
5		**Manufacturing/Fabrication**		
5(a)	Chemical fertilizers	All projects	-	-
5(b)	Pesticides industry and pesticide specific intermediates (excluding formulations)	All units producing technical grade pesticides	-	-

(1)	(2)	(3)	(4)	(5)
5(c)	Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics)	All projects -	-	-
5(d)	Manmade fibres manufacturing	Rayon	Others	General Condition shall apply
5(e)	Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes)	Located out side the notified industrial area/ estate -	Located in a notified industrial area/ estate	Specific Condition shall apply
5(f)	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	Located out side the notified industrial area/ estate	Located in a notified industrial area/ estate	Specific Condition shall apply
5(g)	Distilleries	(i)All Molasses based distilleries (ii) All Cane juice/ non-molasses based distilleries ≥30 KLD	All Cane juice/non-molasses based distilleries – <30 KLD	General Condition shall apply
5(h)	Integrated paint industry	-	All projects	General Condition shall apply

(1)	(2)	(3)	(4)	(5)
5(i)	Pulp & paper industry excluding manufacturing of paper from waste paper and manufacture of paper from ready pulp with out bleaching	Pulp manufacturing and Pulp& Paper manufacturing industry -	Paper manufacturing industry without pulp manufacturing	General Condition shall apply
5(j)	Sugar Industry	- -	≥ 5000 tcd cane crushing capacity	General Condition shall apply
5(k)	Induction/arc furnaces/cupola furnaces 5TPH or more	- -	All projects	General Condition shall apply
6		**Service Sectors**		
6(a)	Oil & gas transportation pipe line (crude and refinery/ petrochemical products)**,** passing through national parks /sanctuaries/coral reefs /ecologically sensitive areas including LNG Terminal	All projects -		-

(1)	(2)	(3)	(4)	(5)
6(b)	Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000)	-	All projects	General Condition shall apply
7		**Physical Infrastructure including Environmental Services**		
7(a)	Air ports	All projects	-	-
7(b)	All ship breaking yards including ship breaking units	All projects	-	-
7(c)	Industrial estates/ parks/ complexes/ areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes.	If at least one industry in the proposed industrial estate falls under the Category A, entire industrial area shall be treated as Category A, irrespective of the area**.** Industrial estates with area greater than 500 ha. and housing at least one Category B industry.	-Industrial estates housing at least one Category B industry and area <500 ha. Industrial estates of area> 500 ha. and not housing any industry belonging to Category A or B.	Special condition shall apply Note: Industrial Estate of area below 500 ha. and not housing any industry of category A or B does not require clearance**.**
7(d)	Common hazardous waste treatment, storage and disposal facilities (TSDFs)	All integrated facilities having incineration &landfill or incineration alone	All facilities having land fill only	General Condition shall apply

(1)	(2)	(3)	(4)	(5)
7(e)	Ports, Harbours	≥ 5 million TPA of cargo handling capacity (excluding fishing harbours)	< 5 million TPA of cargo handling capacity and/or ports/ harbours ≥10,000 TPA of fish handling capacity	General Condition shall apply
7(f)	Highways	i) New National High ways; and ii) Expansion of National High ways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State.	i) New State High ways; and ii) Expansion of National / State Highways greater than 30 km involving additional right of way greater than 20m involving land acquisition.	General Condition shall apply
7(g)	Aerial ropeways		All projects	General Condition shall apply
7(h)	Common Effluent Treatment Plants (CETPs)		All projects	General Condition shall apply
7(i)	Common Municipal Solid Waste Management Facility (CMSWMF)		All projects	General Condition shall apply

(1)	(2)	~~(3)~~	(4)	(5)
8		**Building /Construction projects/Area Development projects and Townships**		
8(a)	Building and Construction projects		≥20000 sq.mtrs and <1,50,000 sq.mtrs. of built-up area#	#(built up area for covered construction; in the case of facilities open to the sky, it will be the activity area)
8(b)	Townships and Area Development projects.		Covering an area ≥ 50 ha and or built up area ≥1,50,000 sq .mtrs ++	++All projects under Item 8(b) shall be appraised as Category B1

Note:-

General Condition (GC):

Any project or activity specified in Category 'B' will be treated as Category A, if located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries.

Specific Condition (SC):

If any Industrial Estate/Complex / Export processing Zones /Special Economic Zones/Biotech Parks / Leather Complex with homogeneous type of industries such as Items 4(d), 4(f), 5(e), 5(f), or those Industrial estates with pre –defined set of activities (not necessarily homogeneous, obtains prior environmental clearance, individual industries including proposed industrial housing within such estates /complexes will not be required to take prior environmental clearance, so long as the Terms and Conditions for the industrial estate/complex are complied with (Such estates/complexes must have a clearly identified management with the legal responsibility of ensuring adherence to the Terms and Conditions of prior environmental clearance, who may be held responsible for violation of the same throughout the life of the complex/estate).

APPENDIX I

(See paragraph – 6)

FORM 1

(I) Basic Information

Name of the Project:

Location / site alternatives under consideration:

Size of the Project: *

Expected cost of the project:

Contact Information:

Screening Category:

- *Capacity corresponding to sectoral activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area for mineral exploration, length for linear transport infrastructure, generation capacity for power generation etc.,)*

(II) Activity

1. **Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)**

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)		
1.2	Clearance of existing land, vegetation and buildings?		
1.3	Creation of new land uses?		
1.4	Pre-construction investigations e.g. bore houses, soil testing?		
1.5	Construction works?		

1.6	Demolition works?		
1.7	Temporary sites used for construction works or housing of construction workers?		
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations		
1.9	Underground works including mining or tunneling?		
1.10	Reclamation works?		
1.11	Dredging?		
1.12	Offshore structures?		
1.13	Production and manufacturing processes?		
1.14	Facilities for storage of goods or materials?		
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?		
1.16	Facilities for long term housing of operational workers?		
1.17	New road, rail or sea traffic during construction or operation?		
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?		
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?		
1.20	New or diverted transmission lines or pipelines?		
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?		
1.22	Stream crossings?		
1.23	Abstraction or transfers of water form ground or surface waters?		
1.24	Changes in water bodies or the land surface affecting drainage or run-off?		

1.25	Transport of personnel or materials for construction, operation or decommissioning?		
1.26	Long-term dismantling or decommissioning or restoration works?		
1.27	Ongoing activity during decommissioning which could have an impact on the environment?		
1.28	Influx of people to an area in either temporarily or permanently?		
1.29	Introduction of alien species?		
1.30	Loss of native species or genetic diversity?		
1.31	Any other actions?		

2. **Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):**

S.No.	**Information/checklist confirmation**	**Yes/No**	**Details thereof (with approximate quantities /rates, wherever possible) with source of information data**
2.1	Land especially undeveloped or agricultural land (ha)		
2.2	Water (expected source & competing users) unit: KLD		
2.3	Minerals (MT)		
2.4	Construction material – stone, aggregates, and / soil (expected source – MT)		
2.5	Forests and timber (source – MT)		
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)		
2.7	Any other natural resources (use appropriate standard units)		

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)		
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)		
3.3	Affect the welfare of people e.g. by changing living conditions?		
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,		
3.5	Any other causes		

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes		
4.2	Municipal waste (domestic and or commercial wastes)		
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)		

4.4	Other industrial process wastes		
4.5	Surplus product		
4.6	Sewage sludge or other sludge from effluent treatment		
4.7	Construction or demolition wastes		
4.8	Redundant machinery or equipment		
4.9	Contaminated soils or other materials		
4.10	Agricultural wastes		
4.11	Other solid wastes		

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S.No.	**Information/Checklist confirmation**	**Yes/No**	**Details thereof (with approximate quantities/rates, wherever possible) with source of information data**
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources		
5.2	Emissions from production processes		
5.3	Emissions from materials handling including storage or transport		
5.4	Emissions from construction activities including plant and equipment		
5.5	Dust or odours from handling of materials including construction materials, sewage and waste		

5.6	Emissions from incineration of waste		
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)		
5.8	Emissions from any other sources		

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers		
6.2	From industrial or similar processes		
6.3	From construction or demolition		
6.4	From blasting or piling		
6.5	From construction or operational traffic		
6.6	From lighting or cooling systems		
6.7	From any other sources		

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials		
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)		
7.3	By deposition of pollutants emitted to air into the land or into water		
7.4	From any other sources		
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?		

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances		
8.2	From any other causes		
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?		

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting. lities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industries • supply industries • other		
9.2	Lead to after-use of the site, which could havean impact on the environment		
9.3	Set a precedent for later developments		
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects		

(III) Environmental Sensitivity

S.No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value		

2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration		
4	Inland, coastal, marine or underground waters		
5	State, National boundaries		
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas		
7	Defence installations		
8	Densely populated or built-up area		
9	Areas occupied by sensitive man-made land uses *(hospitals, schools, places of worship, community facilities)*		
10	Areas containing important, high quality or scarce resources *(ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)*		
11	Areas already subjected to pollution or environmental damage. *(those where existing legal environmental standards are exceeded)*		
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (*earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions*)		

(IV). Proposed Terms of Reference for EIA studies

APPENDIX II

(See paragraph 6)

FORM-1 A (only for construction projects listed under item 8 of the Schedule)

CHECK LIST OF ENVIRONMENTAL IMPACTS

(Project proponents are required to provide full information and wherever necessary attach explanatory notes with the Form and submit along with proposed environmental management plan & monitoring programme)

1. LAND ENVIRONMENT

(Attach panoramic view of the project site and the vicinity)

1.1. Will the existing landuse get significantly altered from the project that is not consistent with the surroundings? (Proposed landuse must conform to the approved Master Plan / Development Plan of the area. Change of landuse if any and the statutory approval from the competent authority be submitted). Attach Maps of (i) site location, (ii) surrounding features of the proposed site (within 500 meters) and (iii)the site (indicating levels & contours) to appropriate scales. If not available attach only conceptual plans.

1.2. List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.

1.3. What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing landuse, disturbance to the local ecology).

1.4. Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).

1.5. Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)

1.6. What are the quantities of earthwork involved in the construction activity-cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site etc.)

1.7. Give details regarding water supply, waste handling etc during the construction period.

1.8. Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)

1.9. Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)

2. WATER ENVIRONMENT

2.1. Give the total quantity of water requirement for the proposed project with the breakup of requirements for various uses. How will the water requirement met? State the sources & quantities and furnish a water balance statement.

2.2. What is the capacity (dependable flow or yield) of the proposed source of water?

2.3. What is the quality of water required, in case, the supply is not from a municipal source? (Provide physical, chemical, biological characteristics with class of water quality)

2.4. How much of the water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)

2.5. Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)

2.6. What is the incremental pollution load from wastewater generated from the proposed activity? (Give details of the quantities and composition of wastewater generated from the proposed activity)

2.7. Give details of the water requirements met from water harvesting? Furnish details of the facilities created.

2.8. What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?

2.9. What are the impacts of the proposal on the ground water? (Will there be tapping of ground water; give the details of ground water table, recharging capacity, and approvals obtained from competent authority, if any)

2.10. What precautions/measures are taken to prevent the run-off from construction activities polluting land & aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)

2.11. How is the storm water from within the site managed?(State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels)

2.12. Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)

2.13. What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology & facilities for recycling and disposal)

2.14. Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.

3. VEGETATION

3.1. Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with it's unique features, if any)

3.2. Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)

3.3. What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale)

4. FAUNA

4.1. Is there likely to be any displacement of fauna- both terrestrial and aquatic or creation of barriers for their movement? Provide the details.

4.2. Any direct or indirect impacts on the avifauna of the area? Provide details.

4.3. Prescribe measures such as corridors, fish ladders etc to mitigate adverse impacts on fauna

5. AIR ENVIRONMENT

5.1. Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)

5.2. What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.

5.3. Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exit to the project site.

5.4. Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.

5.5. Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.

5.6. What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.

6. AESTHETICS

6.1. Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?

6.2. Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?

6.3. Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.

6.4. Are there any anthropological or archaeological sites or artefacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.

7. SOCIO-ECONOMIC ASPECTS

7.1. Will the proposal result in any changes to the demographic structure of local population? Provide the details.

7.2. Give details of the existing social infrastructure around the proposed project.

7.3. Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?

8. BUILDING MATERIALS

8.1. May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)

8.2. Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?

8.3. Are recycled materials used in roads and structures? State the extent of savings achieved?

8.4. Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.

9. ENERGY CONSERVATION

9.1. Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?

9.2. What type of, and capacity of, power back-up to you plan to provide?

9.3. What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?

9.4. What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.

9.5. Does the layout of streets & buildings maximise the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details.

9.6. Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?

9.7. Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.

9.8. What are the likely effects of the building activity in altering the micro-climates? Provide a self assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?

9.9. What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) fenestration? Give details of the material used and the U-values or the R values of the individual components.

9.10. What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.

9.11. If you are using glass as wall material provides details and specifications including emissivity and thermal characteristics.

9.12. What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.

9.13. To what extent the non-conventional energy technologies are utilised in the overall energy consumption? Provide details of the renewable energy technologies used.

10. Environment Management Plan

The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire.

APPENDIX III

(See paragraph 7

GENERIC STRUCTURE OF ENVIRONMENTAL IMPACT ASSESSENT DOCUMENT

S.NO	EIA STRUCTURE	CONTENTS
1.	Introduction	• Purpose of the report • Identification of project & project proponent • Brief description of nature, size, location of the project and its importance to the country, region • Scope of the study – details of regulatory scoping carried out (As per Terms of Reference)
2.	Project Description	• Condensed description of those aspects of the project (based on project feasibility study), likely to cause environmental effects. Details should be provided to give clear picture of the following: • Type of project • Need for the project • Location (maps showing general location, specific location, project boundary & project site layout) • Size or magnitude of operation (incl. Associated activities required by or for the project • Proposed schedule for approval and implementation • Technology and process description • Project description. Including drawings showing project layout, components of project etc. Schematic representations of the feasibility drawings which give information important for EIA purpose • Description of mitigation measures incorporated into the project to meet environmental standards, environmental operating conditions, or other EIA requirements (as required by the scope) • Assessment of New & untested technology for the risk of technological failure

3.	Description of the Environment	• Study area, period, components & methodology • Establishment of baseline for valued environmental components, as identified in the scope • Base maps of all environmental components
4.	Anticipated Environmental Impacts & Mitigation Measures	• Details of Investigated Environmental impacts due to project location, possible accidents, project design, project construction, regular operations, final decommissioning or rehabilitation of a completed project • Measures for minimizing and / or offsetting adverse impacts identified • Irreversible and Irretrievable commitments of environmental components • Assessment of significance of impacts (Criteria for determining significance, Assigning significance) • Mitigation measures
5.	Analysis of Alternatives (Technology & Site)	• In case, the scoping exercise results in need for alternatives: • Description of each alternative • Summary of adverse impacts of each alternative • Mitigation measures proposed for each alternative and • Selection of alternative
6.	Environmental Monitoring Program	• Technical aspects of monitoring the effectiveness of mitigation measures (incl. Measurement methodologies, frequency, location, data analysis, reporting schedules, emergency procedures, detailed budget & procurement schedules)
7.	Additional Studies	• Public Consultation • Risk assessment • Social Impact Assessment. R&R Action Plans
8.	Project Benefits	• Improvements in the physical infrastructure • Improvements in the social infrastructure • Employment potential –skilled; semi-skilled and unskilled • Other tangible benefits

9.	Environmental Cost Benefit Analysis	If recommended at the Scoping stage
10.	EMP	• Description of the administrative aspects of ensuring that mitigative measures are implemented and their effectiveness monitored, after approval of the EIA
11	Summary & Conclusion (This will constitute the summary of the EIA Report)	• Overall justification for implementation of the project • Explanation of how, adverse effects have been mitigated
12.	Disclosure of Consultants engaged	• The names of the Consultants engaged with their brief resume and nature of Consultancy rendered

APPENDIX III A
(See paragraph 7)

CONTENTS OF SUMMARY ENVIRONMENTAL IMPACT ASSESSMENT

The Summary EIA shall be a summary of the full EIA Report condensed to ten A-4 size pages at the maximum. It should necessarily cover in brief the following Chapters of the full EIA Report: -

1. Project Description
2. Description of the Environment
3. Anticipated Environmental impacts and mitigation measures
4. Environmental Monitoring Programme
5. Additional Studies
6. Project Benefits
7. Environment Management Plan

APPENDIX IV

(See paragraph 7)

PROCEDURE FOR CONDUCT OF PUBLIC HEARING

1.0 The Public Hearing shall be arranged in a systematic, time bound and transparent manner ensuring widest possible public participation at the project site(s) or in its close proximity District -wise, by the concerned State Pollution Control Board (SPCB) or the Union Territory Pollution Control Committee (UTPCC).

2. 0 **The Process:**

2.1 The Applicant shall make a request through a simple letter to the Member Secretary of the SPCB or Union Territory Pollution Control Committee, in whose jurisdiction the project is located, to arrange the public hearing within the prescribed statutory period. In case the project site is extending beyond a State or Union Territory, the public hearing is mandated in each State or Union Territory in which the project is sited and the Applicant shall make separate requests to each concerned SPCB or UTPCC for holding the public hearing as per this procedure.

2.2 The Applicant shall enclose with the letter of request, at least 10 hard copies and an equivalent number of soft (electronic) copies of the draft EIA Report with the generic structure given in Appendix III including the Summary Environment Impact Assessment report in English and in the local language, prepared strictly in accordance with the Terms of Reference communicated after Scoping (Stage-2). Simultaneously the applicant shall arrange to forward copies, one hard and one soft, of the above draft EIA Report along with the Summary EIA report to the Ministry of Environment and Forests and to the following authorities or offices, within whose jurisdiction the project will be located:

(a) District Magistrate/s
(b) Zila Parishad or Municipal Corporation
(c) District Industries Office
(d) Concerned Regional Office of the Ministry of Environment and Forests

2.3 On receiving the draft Environmental Impact Assessment report, the above-mentioned authorities except the MoEF, shall arrange to widely publicize it within their respective jurisdictions requesting the interested persons to send their comments to the concerned regulatory authorities. They shall also make available the draft EIA Report for inspection electronically or otherwise to the public during normal office hours till the Public Hearing is over. The Ministry of Environment and Forests shall promptly display the Summary of the draft Environmental Impact Assessment report on its website, and also make the full draft EIA available for reference at a notified place during normal office hours in the Ministry at Delhi.

2.4 The SPCB or UTPCC concerned shall also make similar arrangements for giving publicity about the project within the State/Union Territory and make available the Summary of the draft Environmental Impact Assessment report (Appendix III A) for inspection in select offices or public libraries or panchayats etc. They shall also additionally

make available a copy of the draft Environmental Impact Assessment report to the above five authorities/offices viz, Ministry of Environment and Forests, District Magistrate etc.

3.0 Notice of Public Hearing:

3.1 The Member-Secretary of the concerned SPCB or UTPCC shall finalize the date, time and exact venue for the conduct of public hearing within 7(seven) days of the date of receipt of the draft Environmental Impact Assessment report from the project proponent, and advertise the same in one major National Daily and one Regional vernacular Daily. A minimum notice period of 30(thirty) days shall be provided to the public for furnishing their responses;

3.2 The advertisement shall also inform the public about the places or offices where the public could access the draft Environmental Impact Assessment report and the Summary Environmental Impact Assessment report before the public hearing**.**

3.3 No postponement of the date, time, venue of the public hearing shall be undertaken, unless some untoward emergency situation occurs and only on the recommendation of the concerned District Magistrate the postponement shall be notified to the public through the same National and Regional vernacular dailies and also prominently displayed at all the identified offices by the concerned SPCB or Union Territory Pollution Control Committee;

3.4 In the above exceptional circumstances fresh date, time and venue for the public consultation shall be decided by the Member –Secretary of the concerned SPCB or UTPCC only in consultation with the District Magistrate and notified afresh as per procedure under 3.1 above.

4.0 The Panel

~~4.1~~ The District Magistrate or his or her representative not below the rank of an Additional District Magistrate assisted by a representative of SPCB or UTPCC**,** shall supervise and preside over the entire public hearing process.

5.0 Videography

5.1 The SPCB or UTPCC shall arrange to video film the entire proceedings. A copy of the videotape or a CD shall be enclosed with the public hearing proceedings while forwarding it to the Regulatory Authority concerned.

6.0 Proceedings

6.1 The attendance of all those who are present at the venue shall be noted and annexed with the final proceedings.

6.2 There shall be no quorum required for attendance for starting the proceedings.

6.3 A representative of the applicant shall initiate the proceedings with a presentation on the project and the Summary EIA report.

6.4 Every person present at the venue shall be granted the opportunity to seek information or clarifications on the project from the Applicant. The summary of the public

hearing proceedings accurately reflecting all the views and concerns expressed shall be recorded by the representative of the SPCB or UTPCC and read over to the audience at the end of the proceedings explaining the contents in the vernacular language and the agreed minutes shall be signed by the District Magistrate or his or her representative on the same day and forwarded to the SPCB/UTPCC concerned**.**

6.5 A Statement of the issues raised by the public and the comments of the Applicant shall also be prepared in the local language and in English and annexed to the proceedings.

6.6 The proceedings of the public hearing shall be conspicuously displayed at the office of the Panchyats within whose jurisdiction the project is located, office of the concerned Zila Parishad, District Magistrate ,and the SPCB or UTPCC . The SPCB or UTPCC shall also display the proceedings on its website for general information. Comments, if any, on the proceedings which may be sent directly to the concerned regulatory authorities and the Applicant concerned.

7.0 Time period for completion of public hearing

7.1 The public hearing shall be completed within a period of 45 (forty five) days from date of receipt of the request letter from the Applicant. Therefore the SPCB or UTPCC concerned shall sent the public hearing proceedings to the concerned regulatory authority within 8(eight) days of the completion of the public hearing .The applicant may also directly forward a copy of the approved public hearing proceedings to the regulatory authority concerned along with the final Environmental Impact Assessment report or supplementary report to the draft EIA report prepared after the public hearing and public consultations.

7.2 If the SPCB or UTPCC fails to hold the public hearing within the stipulated 45(forty five) days, the Central Government in Ministry of Environment and Forests for Category 'A' project or activity and the State Government or Union Territory Administration for Category 'B' project or activity at the request of the SEIAA, shall engage any other agency or authority to complete the process, as per procedure laid down in this notification.

APPENDIX –V
(See paragraph 7)

PROCEDURE PRESCRIBED FOR APPRAISAL

1. The applicant shall apply to the concerned regulatory authority through a simple communication enclosing the following documents where public consultations are mandatory: -

- Final Environment Impact Assessment Report [20(twenty) hard copies and 1 (one) soft copy)]
- A copy of the video tape or CD of the public hearing proceedings
- A copy of final layout plan (20 copies)
- A copy of the project feasibility report (1 copy).

2. The Final EIA Report and the other relevant documents submitted by the applicant shall be scrutinized in office within 30 days from the date of its receipt by the concerned Regulatory Authority strictly with reference to the TOR and the inadequacies noted shall be communicated electronically or otherwise in a single set to the Members of the EAC /SEAC enclosing a copy each of the Final EIA Report including the public hearing proceedings and other public responses received along with a copy of Form -1or Form 1A and scheduled date of the EAC /SEAC meeting for considering the proposal .

3. Where a public consultation is not mandatory and therefore a formal EIA study is not required, the appraisal shall be made on the basis of the prescribed application Form 1 and a pre-feasibility report in the case of all projects and activities other than Item 8 of the Schedule .In the case of Item 8 of the Schedule, considering its unique project cycle , the EAC or SEAC concerned shall appraise all Category B projects or activities on the basis of Form 1, Form 1A and the conceptual plan and stipulate the conditions for environmental clearance . As and when the applicant submits the approved scheme /building plans complying with the stipulated environmental clearance conditions with all other necessary statutory approvals, the EAC /SEAC shall recommend the grant of environmental clearance to the competent authority.

4. Every application shall be placed before the EAC /SEAC and its appraisal completed within 60 days of its receipt with requisite documents / details in the prescribed manner.

5. The applicant shall be informed at least 15 (fifteen) days prior to the scheduled date of the EAC /SEAC meeting for considering the project proposal.

6. The minutes of the EAC /SEAC meeting shall be finalised within 5 working days of the meeting and displayed on the website of the concerned regulatory authority. In case the project or activity is recommended for grant of EC, then the minutes shall clearly list out the specific environmental safeguards and conditions. In case the recommendations are for rejection, the reasons for the same shall also be explicitly stated.

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APPENDIX VI

(See paragraph 5)

COMPOSITION OF THE SECTOR/ PROJECT SPECIFIC EXPERT APPRAISAL COMMITTEE (EAC) FOR CATEGORY A PROJECTS AND THE STATE/UT LEVEL EXPERT APPRAISAL COMMITTEES (SEACs) FOR CATEGORY B PROJECTS TO BE CONSTITUTED BY THE CENTRAL GOVERNMENT `

1. The Expert Appraisal Committees (EAC(s) and the State/UT Level Expert Appraisal Committees (SEACs) shall consist of only professionals and experts fulfilling the following eligibility criteria:

Professional: The person should have at least (i) 5 years of formal University training in the concerned discipline leading to a MA/MSc Degree, or (ii) in case of Engineering /Technology/Architecture disciplines, 4 years formal training in a professional training course together with prescribed practical training in the field leading to a B.Tech/B.E./B.Arch. Degree, or (iii) Other professional degree (e.g. Law) involving a total of 5 years of formal University training and prescribed practical training, or (iv) Prescribed apprenticeship/article ship and pass examinations conducted by the concerned professional association (e.g. Chartered Accountancy),or (v) a University degree , followed by 2 years of formal training in a University or Service Academy (e.g. MBA/IAS/IFS). In selecting the individual professionals, experience gained by them in their respective fields will be taken note of.

Expert: A professional fulfilling the above eligibility criteria with at least 15 years of relevant experience in the field, or with an advanced degree (e.g. Ph.D.) in a concerned field and at least 10 years of relevant experience.

Age: Below 70 years. However, in the event of the non-availability of /paucity of experts in a given field, the maximum age of a member of the Expert Appraisal Committee may be allowed up to 75 years

2. The Members of the EAC shall be Experts with the requisite expertise and experience in the following fields /disciplines. In the event that persons fulfilling the criteria of "Experts" are not available, Professionals in the same field with sufficient experience may be considered:

- **Environment Quality Experts**: Experts in measurement/monitoring, analysis and interpretation of data in relation to environmental quality

- **Sectoral Experts in Project Management**: Experts in Project Management or Management of Process/Operations/Facilities in the relevant sectors.

- **Environmental Impact Assessment Process Experts**: Experts in conducting and carrying out Environmental Impact Assessments (EIAs) and preparation of Environmental Management Plans (EMPs) and other Management plans and who have wide expertise and knowledge of predictive techniques and tools used in the EIA process

- **Risk Assessment Experts**

- **Life Science Experts in floral and faunal management**

- **Forestry and Wildlife Experts**

- **Environmental Economics Expert with experience in project appraisal**

3. The Membership of the EAC shall not exceed 15 (fifteen) regular Members. However the Chairperson may co-opt an expert as a Member in a relevant field for a particular meeting of the Committee.

4. The Chairperson shall be an outstanding and experienced environmental policy expert or expert in management or public administration with wide experience in the relevant development sector.

5. The Chairperson shall nominate one of the Members as the Vice Chairperson who shall preside over the EAC in the absence of the Chairman /Chairperson.

6. A representative of the Ministry of Environment and Forests shall assist the Committee as its Secretary.

7. The maximum tenure of a Member, including Chairperson, shall be for 2 (two) terms of 3 (three) years each.

8. The Chairman / Members may not be removed prior to expiry of the tenure without cause and proper enquiry.

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ANNEXURE A-2

REPORTABLE

IN THE SUPREME COURT OF INDIA

CIVIL APPELLATE JURISDICTION

I.A. Nos.12-13 of 2011

IN

SPECIAL LEAVE PETITION (C) NO. 19628-19629 OF 2009

Deepak Kumar etc. ...Petitioners

Versus

State of Haryana and Others etc. ...Respondents

WITH

SLP(C) Nos. 729-731/2011, 21833/2009, 12498-499/2010, SLP(C) CC... 16157/2011 & CC 18235/2011

O R D E R

K. S. Radhakrishnan, J.

I.A. Nos. 12-13 of 2011 are allowed. SLP (C) Nos.12498-12499 of 2010 be detagged and be listed after two weeks.

The Department of Mines and Geology, Government of Haryana issued an auction notice dated 3.6.2011 proposing to auction the extraction of minor mineral boulder, gravel and sand quarries of an area not exceeding 4.5 hectares in each case in the District of Panchkula, auction notices dated 8.8.2011 in the District of Panchkula, Ambala and Yamuna

SUPREME COURT OF INDIA
JUDGMENT

Nagar exceeding 5 hectares and above, quarrying minor mineral, road metal and masonary stone mines in the District of Bhiwani, stone, sand mines in the District of Mohindergarh, slate stone mines in the District of Rewari, and also in the Districts of Kurukshetra, Karnal, Faridabad and Palwal, with certain restrictions for quarrying in the river beds of Yamuna, Tangri, Markanda, Ghaggar, Krishnavati River basin, Dohan River basin etc. The validity of those auction notices is under challenge before us, apart from the complaint of illegal mining going on in the State of Rajasthan and Uttar Pradesh.

2. When the matter came up for hearing on 25.11.2011, we passed an order directing the CEC to make a local inspection with intimation to MoEF, State of U.P., Rajasthan and Haryana with regard to the alleged illegal mining going on in the States of Uttar Pradesh, Rajasthan and also with regard to the areas identified for mining in the State of Haryana and submit a report. We also directed the CEC to examine whether there has been an attempt to flout EIA Notification dated 14.9.2006 by breaking the homogeneous area into pieces of less than 5 hectares. CEC was also

directed to examine whether the activities going on in that area have any adverse environmental impact.

3. CEC, in response to our order, submitted a detailed report on 4.1.2012. However, the report is silent with regard to the disturbing trend of serious illegal and unrestricted upstream, in-stream and flood plain sand mining activities and the prevailing degree of degradation of the sites and the environment, especially on the river beds mentioned earlier. Report of CEC however states that the auction notice also refer to mining leases of less than 5 hectares and hence no environmental clearance need be obtained as per the MoEF notification dated 14.9.2006. No light is also thrown on the question whether there has been, in fact, an attempt to flout the notification dated 14.9.2006 by breaking the homogeneous area into pieces of less than 5 hectares and the possible environmental or ecological impact on quarrying of minor minerals.

4. Mr. Patwalia, learned senior counsel appearing for the petitioners, submitted that CEC report is silent about those aspects and also whether 1 km. distance has been

maintained between the mining blocks of less than 5 hectares. Learned counsel also submitted that mining areas earmarked are at the foothills of fragile Himalayan ranges known as Shivalik hills, which are spread over the Districts of Panchkula, Ambala and Yamuna Nagar and the illegal and excessive mining has caused serious environmental degradation and ecological impact, and no Environmental Impact Assessment has ever taken place in areas earmarked for mining especially on the river beds.

5. Shri Gopal Subramaniam, learned senior counsel appearing for the State of Haryana, submitted that the State has taken adequate and effective precautions to maintain 1 km. separation between mining blocks of less than 5 hectares each and that the auction notice dated 3.6.2011 itself has imposed strict restrictions on quarrying in the river beds so also the auction notice dated 8.8.2011. Further, it was pointed out that the notification dated 14.9.2006 would not apply for quarrying minor minerals from areas of less than 5 hectares and therefore, no environmental impact assessment needs to be undertaken either at the instance of the State Government or the Project Proponent.

6. Shri Mohan Jain, learned Additional Solicitor General, appearing for the MoEF submitted that the grant or allotment of mining licence/lease of smaller plots of less than five hectares should not be encouraged from the environmental point of view and that the applicability of EIA notification of 2006, has to be seen in its letter and spirit so as to ensure environmental safeguards in place and implemented for sustainable mining. Learned counsel also assured, if environmental clearance is sought for covering a mining area of less than five hectares, the same shall be immediately attended to and necessary clearance would be granted in accordance with law.

7. We have no materials before us to come to the conclusion that the removal of minor mineral boulder, gravel, sand quarries etc. covered by the auction notices dated 3.6.2011 and 8.8.2011, in the places notified therein and also in the river beds of Yamuna, Ghaggar, Tangri, Markanda, Krishnavati river basin, Dohan river basin etc. would not cause environmental degradation or threat to the biodiversity, destroy riverine vegetation, cause erosion,

pollute water sources etc. Sand mining on either side of the rivers, upstream and in-stream, is one of the causes for environmental degradation and also a threat to the biodiversity. Over the years, India's rivers and Riparian ecology have been badly affected by the alarming rate of unrestricted sand mining which damage the ecosystem of rivers and the safety of bridges, weakening of river beds, destruction of natural habitats of organisms living on the river beds, affects fish breeding and migration, spells disaster for the conservation of many bird species, increases saline water in the rivers etc. Extraction of alluvial material from within or near a streambed has a direct impact on the stream's physical habitat characteristics. These characteristics include bed elevation, substrate composition and stability, in-stream roughness elements, depth, velocity, turbidity, sediment transport, stream discharge and temperature. Altering these habitat characteristics can have deleterious impacts on both in-stream biota and the associated riparian habitat. The demand for sand continues to increase day by day as building and construction of new infrastructures and expansion of existing ones is continuous

thereby placing immense pressure on the supply of the sand resource and hence mining activities are going on legally and illegally without any restrictions. Lack of proper planning and sand management cause disturbance of marine ecosystem and also upset the ability of natural marine processes to replenish the sand.

8. We are expressing our deep concern since we are faced with a situation where the auction notices dated 3.6.2011 and 8.8.2011 have permitted quarrying mining and removal of sand from in-stream and upstream of several rivers, which may have serious environmental impact on ephemeral, seasonal and perennial rivers and river beds and sand extraction may have an adverse effect on bio-diversity as well. Further it may also lead to bed degradation and sedimentation having a negative effect on the aquatic life. Rivers mentioned in the auction notices are on the foothills of the fragile Shivalik hills. Shivalik hills are the source of rivers like Ghaggar, Tangri, Markanda etc. River Ghaggar is a seasonal river which rises up in the outer Himalayas between Yamuna and Satluj and enters Haryana near Pinjore, District Panchkula, which passes through Ambala

and Hissar and reaches Bikaner in Rajasthan. River Markanda is also a seasonal river like Ghaggar, which also originates from the lower Shivalik hills and enters Haryana near Ambala. During monsoon, this stream swells up into a raging torrent, notorious for its devastating power, as also, river Yamuna.

9. We find that it is without conducting any study on the possible environmental impact on/in the river beds and else-where the auction notices have been issued. We are of the considered view that when we are faced with a situation where extraction of alluvial material within or near a river bed has an impact on the rivers physical habitat characteristics, like river stability, flood risk, environmental degradation, loss of habitat, decline in biodiversity, it is not an answer to say that the extraction is in blocks of less than 5 hectares, separated by 1 kilometre, because their collective impact may be significant, hence the necessity of a proper environmental assessment plan. Possibly this may be the reason that in the affidavit filed by the MoEF on 23.11.2011 along with the annexure-2 report, the following stand has been taken:

> "The Ministry is of the opinion that where the mining area is homogenous, physically proximate end on identifiable piece of land of 5 ha or more, it should not be broken into smaller sizes to circumvent the EIA Notification, 2006 as the EIA Notification, 2006 is not applicable to the mining projects having lease area of less than 5 ha. The Report of Committee on Minor Minerals, under the Chairmanship of the Secretary (E&F) with representatives of various state Governments as members including the State of Haryana and Rajasthan recommended a minimum lease size of 5 ha for minor minerals for undertaking scientific mining for the purpose of integrating and addressing environmental concerns. Only in cases of isolated discontinued mineral deposits in less than 5 ha, such mining leases may be considered keeping in view the mineral conservation."

Situations referred to earlier prevail not only in the State of Haryana but also in the neighbouring and other States of the country as well and those issues had come up for serious deliberations before the Government of India, on various occasions.

10. Government of India was receiving various reports regarding the adverse impacts on riverbeds and groundwater due to quarrying/mining of minerals. The Mines and Minerals (Development & Regulation) Act 1957 empowers the State Governments to make rules in respect of minor

minerals. It was noticed that proposals for mining of major minerals typically undergo environment impact assessment and environmental clearance procedure, but due attention has not been given to environmental aspects of mining of minor minerals. Environmental Impact Assessment Notification of 1994 did not apply to the mining of minor minerals, noticing that minor minerals were brought under the ambit of the Environmental Impact Assessment Notification of 2006 and as per the said notification mining of minerals with a lease area of 5 hectares and above require prior environmental clearance. MoEF's attention was drawn to several instances across the country regarding damage to lakes, riverbeds and groundwater leading to drying up of water beds and causing water scarcity on account of quarry/mining leases and mineral concessions granted under the Mineral Concession Rules framed by the State Governments under Section 15 of the Mines and Minerals (Development and Regulation) Act 1957. MoEF noticed that less attention was given on environmental aspects of mining of minor minerals since the area was small, but it was noticed that the collective impact in a particular area over a

period of time might be significant. Taking note of those aspects, MoEF constituted a Core Group under the Chairmanship of the Secretary (E&F) to look into the environmental aspects associated with mining of minor minerals, vide its order dated 24.03.2009. The terms of reference to the Group were as under:

(i) To consider the environmental aspects of mining of minor minerals (quarrying as well as river beds mining) for their integration into the mining process.

(ii) Specific safeguard measures required to minimize the likely adverse impacts of mining on environment with specific reference to impact on water bodies as well as groundwater so as to ensure sustainable mining.

(iii) To evolve model guidelines so as to address mining as well as environmental concerns in a balanced manner for their adoption and implementation by all the mineral producing States.

The Group held its first meeting on 7.7.2009 and discussed the impact that may be caused by quarrying/mining of minor minerals on riverbeds and ground waters. It was noticed that individual mines of minor minerals being small in size may have insignificant impact, however, their collective impacts, taking into consideration various mines on a regional scale, is significantly adverse. It was, therefore, felt

necessary to consider various aspects since appropriate guidelines have to be issued on the basis of the report of the Committee. The issues which were brought up for consideration were; (i) the need to re-look the definition of minor mineral, (ii) minimum size of lease for adopting eco friendly scientific mining practices, (iii) period of lease, (iv) cluster of mine approach for addressing and implementing EMP in case of small mines, (v) depth of mining to minimize adverse impact on hydrological regime, (vi) requirement of mine plan for minor minerals, similar to major minerals, and (vii) reclamation of mined out area, post mine land use, progressive mine closure plan etc.

11. Comments and inputs from various States and Experts were also invited so as to prepare a report for consideration of the MoEF. Based on the discussion held and subsequent inputs received, a draft report was prepared and circulated to all members for their further inputs. Report was further discussed on 29.1.2010 for its finalization. The observations/comments made during the meeting were incorporated in the report and it was again circulated to all members for their consideration. The report so circulated

was ultimately finalized. The decision taken by the MoEF affects generally the mining of minor minerals including the riverbed mining throughout the country. For an easy reference, we may extract the issues and recommendations made by the MoEF, which are as follows:

"**4.0 ISSUES AND RECOMMENDATIONS**

4.1 Definition of Minor Mineral:

The term minor mineral is defined in clause (e) of Section 3 of MMDR Act, 1957 as "minor mineral means building stones, gravel, ordinary clay, ordinary sand other than sand used for prescribed purposes and any other material which the Central Government may, by Notification in the Gazette of India declare to be a minor mineral". The term 'ordinary sand' used in clause (e) of Section 3 of the MMDR Act, 1957 has been further clarified in rule 70 of the MCR, 1960 as "sand shall not be treated as minor mineral when used for any of the following purposes namely: (i) purposes of refractory and manufacture of ceramic, (ii) metallurgical purposes, (iii) optical purposes, (iv) purposes of stowing in coal mines, (v) for manufacture of silvicrete cement, (vi) manufacture of sodium silicate and (vii) manufacture of pottery and glass.

Additionally, the Central Government has declared the following minerals as minor minerals: (i) boulder, (ii) shingle, (iii) chalcedony pebbles used for ball mill purposes only, (iv) limeshell, kankar and limestone used in kilns for manufacture of lime used as building material, (v) murrum, (vi) brick-earth, (vii) fuller's earth, (viii) bentonite,

(ix) road metal, (x) reh-matti, (xi) slate and shale when used for building material, (xii) marble, (xiii) stone used for making household utensils, (xiv) quartzite and sandstone when used for purposes of building or for making road metal and household utensils, (xv) saltpeter and (xvi) ordinary earth (used or filling or levelling purposes in construction or embankments, roads, railways building).

It may thus be observed that minerals have been classified into major and minor minerals based on their end use rather than level of production, level of mechanization, export and import etc. There do exist some minor mineral mines of silica sand and limestone where the scale of mechanization and level of production is much higher than those of industrial mineral mines. Further, in terms of the economic cost and revenue, it has been estimated that the total value of minor minerals constitutes about 10% of the total value of mineral production whereas the value of non metallic minerals comprises only 3%. It is, therefore, evident that the operation of mines of minor minerals need to be subject to some regulatory parameters as that of mines of major minerals.

Further, unlike India there does not exist any such system based on end usage in other countries for classifying minerals into major and minor categories. Thus, there is a need to re-look at the definition of "minor" minerals per se.

It is, therefore, recommended that Ministry of Mines along with Indian Bureau of Mines, in consultation with the State Governments may re-examine the classification of minerals into major and minor categories so that the regulatory

aspects and environment mitigation measures are appropriately integrated for ensuring sustainable and scientific mining with least impacts on environment.

4.2 Size of the Mine Lease:

Area for grant of mine lease varies from State to State. Maximum area which can be held under one or more mine lease is 2590 ha or 25.90 sq.miles in Jammu & Kashmir. Rajasthan prescribed a minimum limit of 1 ha for a lease. Maximum area prescribed for permit is 50x50 m. In most of the States area of permit is not specified in the rules. It has recently been observed by Punjab and Haryana High Court in its order dated 15.5.2009 that State Government are apparently granting short term permits by dividing the mining area into small zones in effect avoids environmental norms.

There is, thus a need to bring uniformity in the extent of area to be granted for mine lease so as to ensure that eco friendly scientific mining practices can be adopted. **It is recommended that the minimum size of mine lease should be 5 ha. Further, preparation of comprehensive mine plan for contiguous stretches of mineral deposits by the respective State Governments may also be encouraged. This may suitably be incorporated in the Mineral Concession Rules, 1960 by Ministry of Mines.**

4.3 Period of Mine Lease:

The period of lease varies from State to State depending on type of concessions, minerals and its end use. The minimum lease period is one year and maximum 30 years. Minerals like granite where huge investments

are required, a period of 20 years is generally given with the provisions of renewal. Permits are generally granting for short periods which vary from one month to a maximum one year. In States like Haryana, minor mineral leases are auctioned for a particular time period. Mining is considered to be capital intensive industry and considerable time is lost for developing the mine before it attains the status of fully developed mine. If the tenure of the mine lease is short, it would encourage the lessee to concentrate more on rapid exploitation of mineral without really undertaking adequate measures for reclamation and rehabilitation of mined out area, posing thereby a serious threat to the environment and health of the workers and public at large.

There is thus, a need to bring uniformity in the period of lease. **It is recommended that a minimum period of mine lease should be 5 years, so that eco friendly scientific and sustainable mining practices are adopted. However, under exceptional circumstances arising due to judicial interventions, short term mining leases / contracts could be granted to the State Agencies to meet the situation arising there from.**

4.4 Cluster of Mine Approach for Small Sized Mines:

Considering the nature of occurrence of minor mineral, economic condition of the lessee and the likely difficulties to be faced by Regulatory Authorities in monitoring the environmental impacts and implementation of necessary mitigation measures, **it may be desirable to adopt cluster approach in case of smaller mine leases being operated**

presently. Further, these clusters need be provided with processing/crusher zones for forward integration and minimizing excessive pressure on road infrastructure. The respective State Governments / Mine Owners Associations may facilitate implementation of Environment Management Plans in such cluster of mines.

4.5 Requirement of Mine Plan for Minor Minerals:

At present, most of the State Governments have not made it mandatory for preparation of mining plan in respect of minor minerals. In some States like Rajasthan, eco friendly mining plans are prepared, which are approved by the State Mining Department. The eco friendly mining plans so prepared, though conceptually welcome, are observed to be deficient and need to be made comprehensive in a manner as is being done for major minerals. Besides, the aspects of reclamation and rehabilitation of mined out areas, progressive mine closure plan, as in vogue for major minerals could be introduced for minor minerals as well.

It is recommended that provision for preparation and approval of mine plan, as in the case of major minerals may appropriately be provided in the Rules governing the mining of minor minerals by the respective State Governments. These should specifically include the provision for reclamation and rehabilitation of mined out area, progressive mine closure plan and post mine land use.

4.6 Creation of Separate Corpus for Reclamation / Rehabilitation of Mines of Minor Minerals:

Mining of minor minerals, in our country, is by and large unorganized sector and is practiced in haphazard and unscientific manner. At times, the size of the leasehold is also too small to address the issue of reclamation and rehabilitation of mined outs areas. It may, therefore, be desirable that before the concept of mine closure plan for minor minerals is adopted, the existing abandoned mines may be reclaimed and rehabilitated with the involvement of the State Government. **There is thus, a need to create a separate corpus, which may be utilized for reclamation and rehabilitation of mined out areas. The respective State Governments may work out a suitable mechanism for creation of such corpus on the 'polluter pays' principle. An organizational structure may also need to be created for undertaking and monitoring these activities.**

4.7 Depth of Mining:

Mining of minerals, whether major or minor have a direct bearing on the hydrological regime of the area. Besides, affecting the availability of water as a resource, it also affects the quality of water through direct run of going into the surface water bodies and infiltration / leaching into groundwater. Further, groundwater withdrawal, dewatering of water from mine pit and diversion of surface water may cause surface and sub surface hydrologic systems to dry up. An ideal situation would require that quarrying should be restricted to unsaturated zone only above the phreatic water table and should not intersect the groundwater table at

any point of time. However, from the point of view of mineral conservation, it may not be desirable to impose blanket ban on mining operation below groundwater table.

It is, therefore, recommended that detailed hydro-geological report should be prepared in respect of any mining operation for minor minerals to be undertaken below groundwater table. Based on the findings of the study so undertaken and the comments / recommendations of Central Ground Water Authority / State Ground Water Board, a decision regarding restriction on depth of mining for any area should be taken on case to case basis.

4.8 Uniform Minor Mineral Concession Rules:

The economic value of the minor minerals excavated in the country is estimated to contribute to about 9% of the total value of the minerals whereas the non metallic minerals contribute to about 2.8%. Keeping in view the large extent of mining of minor minerals and its significant potential to adversely affect the environment, it is **recommended that Model Mineral Concession rules may be framed for minor minerals as well and the minor minerals may be subjected to a simpler regulatory regime, which is, however, similar to major minerals regime.**

4.9 River Bed Mining:

4.9.1 Environment damage being caused by unregulated river bed mining of sand, bazari and boulders is attracting considerable attention including in the courts. The following

recommendations are therefore made for the river bed mining.

(a) In the case of mining leases for riverbed sand mining, specific river stretches should be identified and mining permits/lease should be granted stretch wise, so that the requisite safeguard measures are duly implemented and are effectively monitored by the respective Regulatory Authorities.

(b) The depth of mining may be restricted to 3m/water level, whichever is less.

(c) **For carrying out mining in proximity to any bridge and/or embankment, appropriate safety zone should be worked out on case to case basis, taking into account the structural parameters, locational aspects, flow rate etc. and no mining should be carried out in the safety zone so worked out**.

5.0 Conclusion:

Mining of minor minerals, though individually, because of smaller size of mine leases is perceived to have lesser impact as compared to mining of major minerals.

> However, the activity as a whole is seen to have significant adverse impacts on environment. It is, therefore, necessary that the mining of minor minerals is subjected to simpler but strict regulatory regime and carried out only under an approved framework of mining plan, which should provide for reclamation and rehabilitation of the mined out areas. Further, while granting mining leases by the respective State Governments "location of any eco-fragile zone(s) within the impact zone of the proposed mining area, the linked Rules/Notifications governing such zones and the judicial pronouncements, if any, need be duly noted. The Union Ministry of Mines along with Indian Bureau of Mines and respective State Governments should therefore make necessary provisions in this regard under the Mines and Minerals (Development and Regulation) Act, 1957, Mineral Concession Rules, 1960 and adopt model guidelines to be followed by all States. " (emphasis supplied)

The report clearly indicates that operation of mines of minor minerals needs to be subjected to strict regulatory parameters as that of mines of major minerals. It was also felt necessary to have a re-look to the definition of "minor" minerals *per se*. The necessity of the preparation of "comprehensive mines plan" for contiguous stretches of mineral deposits by the respective State Governments may also be encouraged and the same be suitably incorporated in the Mineral Concession Rules, 1960 by the Ministry of Mines. Further, it was also recommended that States, Union

Territories would see that mining of minor minerals is subjected to simpler but strict regulatory regime and carried out only under an approved framework of mining plan, which should provide for reclamation and rehabilitation of mined out areas. Mining Plan should take note of the level of production, level of mechanisation, type of machinery used in the mining of minor minerals, quantity of diesel consumption, number of trees uprooted, export and import of mining minerals, environmental impact, restoration of flora and host of other matters referred to in 2010 rules. A proper framework has also to be evolved on cluster of mining of minor mineral for which there must be a Regional Environmental Management Plan. Another important decision taken was that while granting of mining leases by the respective State Governments, location of any eco-fragile zone(s) within the impact zone of the proposed mining area, the linked Rules/Notifications governing such zones and the judicial pronouncements, if any, need to be duly noted.

12. The Minister for (E & F) wrote DO letter dated 1st June, 2010 to all the Chief Ministers of the States to examine the report and to issue necessary instructions for incorporating

the recommendations made in the report in the Mineral Concession Rules for mining of minor minerals under Section 15 of Mines and Mineral (Development and Regulation) Act, 1957. Following are the key recommendations re-iterated in the letter:

"(1) Minimum size of mine lease should be 5 ha.
(2) Minimum period of mine lease should be 5 years.
(3) A cluster approach to mines should be taken in case of smaller mines leases operating currently.
(4) Mine plans should be made mandatory for minor minerals as well.
(5) A separate corpus should be created for reclamation and rehabilitation of mined out areas.
(6) Hydro-geological reports should be prepared for mining proposed below groundwater table.
(7) For river bed mining, leases should be granted stretch wise, depth may be restricted to 3m/water level, whichever is less, and safety zones should be worked out.
(8) The present classification of minerals into major and minor categories should be re-examined by the Ministry of Mines in consultation with the States."

13. The Ministry of Mines, Govt. of India sent a communication No.296/7/2000/MRC dated 16.05.2011 called "Environmental aspects of quarrying and of minor minerals – Evolving of Model Guidelines" along with a draft model guidelines calling for inputs before 30. 06. 2011. Draft rules called Minor Minerals Conservation and Development

Rules, 2010 were also put on the website. Further, it may be noted Section 15(1A)(i) of the Act specifies the manner in which rehabilitation of flora and other vegetation, such as trees, shrubs and the like destroyed by reasons of any quarrying or mining operations shall be made in the same area or in any other area once selected by the State Government, whether by way of reimbursement of the cost of rehabilitation or otherwise by the persons holding the quarrying or mining lease.

14. We are of the view that all State Governments / Union Territories have to give due weight to the above mentioned recommendations of the MoEF which are made in consultation with all the State Governments and Union Territories. Model Rules of 2010 issued by the Ministry of Mines are very vital from the environmental, ecological and bio-diversity point of view and therefore the State Governments have to frame proper rules in accordance with the recommendations, under Section 15 of the Mines and Minerals (Development and Regulation) Act, 1957.

15. Quarrying of river sand, it is true, is an important economic activity in the country with river sand forming a

crucial raw material for the infrastructural development and for the construction industry but excessive in-stream sand and gravel mining causes the degradation of rivers. In-stream mining lowers the stream bottom of rivers which may lead to bank erosion. Depletion of sand in the streambed and along coastal areas causes the deepening of rivers which may result in destruction of aquatic and riparian habitats as well. Extraction of alluvial material as already mentioned from within or near a streambed has a direct impact on the stream's physical habitat characteristics.

16. We are of the considered view that it is highly necessary to have an effective framework of mining plan which will take care of all environmental issues and also evolve a long term rational and sustainable use of natural resource base and also the bio-assessment protocol. Sand mining, it may be noted, may have an adverse effect on bio-diversity as loss of habitat caused by sand mining will effect various species, flora and fauna and it may also destabilize the soil structure of river banks and often leaves isolated islands. We find that, taking note of those technical, scientific and environmental matters, MoEF, Government of India, issued

various recommendations in March 2010 followed by the Model Rules, 2010 framed by the Ministry of Mines which have to be given effect to, inculcating the spirit of Article 48A, Article 51A(g) read with Article 21 of the Constitution.

17. The State of Haryana and various other States have not so far implemented the above recommendations of the MoEF or the guidelines issued by the Ministry of Mines before issuing auction notices granting short term permits by way of auction of minor mineral boulders, gravel, sand etc., in the river beds and elsewhere of less than 5 hectares. We, therefore, direct to all the States, Union Territories, MoEF and the Ministry of Mines to give effect to the recommendations made by MoEF in its report of March 2010 and the model guidelines framed by the Ministry of Mines, within a period of six months from today and submit their compliance reports.

18. Central Government also should take steps to bring into force the Minor Minerals Conservation and Development Rules 2010 at the earliest. State Governments and UTs also should take immediate steps to frame necessary rules under

Section 15 of the Mines and Minerals (Development and Regulation) Act, 1957 taking into consideration the recommendations of MoEF in its Report of March 2010 and model guidelines framed by the Ministry of Mines, Govt. of India. Communicate the copy of this order to the MoEF, Secretary, Ministry of Mines, New Delhi, Ministry of Water Resources, Central Government Water Authority, the Chief Secretaries of the respective States and Union Territories, who would circulate this order to the concerned Departments.

19. We, in the meanwhile, order that leases of minor mineral including their renewal for an area of less than five hectares be granted by the States/Union Territories only after getting environmental clearance from the MoEF.

Ordered accordingly.

.....J.
(K.S. Radhakrishnan)

.....J.
(Chandramauli Kr. Prasad)

New Delhi

February 27, 2012

পঞ্জীভুক্ত নম্বব - ৭৬৮ /৯৭ Registered No.-768/7

অসম ৰাজপত্ৰ

সত্যমেব জয়তে

THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্ত্তৃত্বৰ দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

নং 100 দিশপুৰ, শনিবাৰ, 16 মার্চ, 2013, 25 ফাগুন, 1934 (শক)

No.100 Dispur, Saturday, 16th March, 2013, 25th Phalguna, 1934 (S.E.)

GOVERNMENT OF ASSAM

ORDERS BY THE GOVERNOR

POWER (E), MINES AND MINERALS DEPARTMENT

NOTIFICATION

The 16th March, 2013

No. PEM 83/2009/pt -1/627.– In exercise of the powers conferred by sub-section (1) of section 15 and section 23C of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957), the Governor of Assam hereby makes the following rules for regulating the grant of various forms of mineral concessions and for prevention of illegal mining, namely:-

Part – I (General)

Chapter – 1

Preliminary

Short title and commencement **1.** (1) These rules may be called the Assam Minor Mineral Concession Rules, 2013.

(2) They shall come into force on the date of their publication in the Official Gazette

Definitions **2.** (1) In these rules, unless the context otherwise requires –

(a) **"Act"** means the Mines and Minerals (Development and Regulation) Act, 1957 (Central Act 67 of 1957);

(b) **"boundary pillar"** means cemented pillar of size sixty centimetre x sixty centimetre with one metre height and fifty centimeter foundation with the yellow paint and marked lease/ contract number and pillar number along with Global Positioning System (in short GPS) readings in black paint;

(c) **"carrier"** means any mode of transport or facility by which mineral or its products are transported either in raw or processed form from the place of raising or from one place to another and includes any mechanized device, person, animal or cart;

(d) **"competitive bid"** means an amount offered by the participant in the open auction or tender process under these rules;

(e) **"competent authority"** means the Director of Geology and Mining, Assam in respect of minor minerals as listed in Schedule 'X' or the Principal Chief Conservator of Forests and Head of Forest Force, Assam in respect of minor minerals as listed in Schedule 'Y' or any other authority specified by any Government Notification for exercise of such powers and carrying out of such functions as specified in these rules;

(f) **"contractor"** means a person holding a mining contract under these rules;

(g) **"contract money"** means the amount to be paid by the contractor(s) of minor minerals for raising the mineral(s) from the area granted on contract;

(h) **"dead rent"** means the minimum amount payable in a year by the person granted a mining lease under these rules irrespective of the fact as to whether or not he operates/ could operate the area fully or partly;

(i) **"Department"** means the Department of Mines and Minerals, Assam in respect of minerals under Schedule – 'X' and the Department of Environment and Forest in respect of minerals under Schedule – 'Y';

(j) **"Director"** means the Director of Geology and Mining, Assam;

(k) **"form"** means a form appended to these rules;

(l) **"fund"** means the Mines and Mineral Development, Restoration and Rehabilitation Fund created and established under these rules;

(m) **"Government"** means the Government of Assam;

(n) **"lessee"** means a person holding a valid grant of lease for raising the minerals from the area granted on lease and would include the plural thereof;

(o) **"letter of intent" (LoI)** means a 'Letter of Intent' issued to the successful bidder on acceptance of the bid for grant of a mining lease or contract or permit or a mineral concession under these rules;

(p) **"licensee"** means holder of a prospecting license granted under these rules wherein a licensee is required to pay fixed annual license fee exclusive of royalty;

(q) **"mineral concession"** means a mining lease or a mining contract or permit in respect of minor mineral and includes quarrying permits and any other mineral concession, permitting the mining of minor mineral in accordance with the provisions of these rules;

(r) **"mining contract"** means a mining contract given on behalf of the Government to carry, win, work and carry away any minor mineral(s) specified therein through a competitive bidding process;

(s) **"mining dues"** means and includes any of the dues on account of royalty, dead rent, contract money, amount payable towards the Mines and Mineral Development, Restoration and Rehabilitation Fund, interest on delayed payments or any fee or any other sum in respect of a mineral concession granted under these rules;

(t) **"mining lease"** means a lease granted under these rules to mine, search, undertake excavation for winning of mineral and to carry away any minor mineral(s) specified therein;

(u) **"mining operations"** means any operation carried out for the purpose of winning any mineral except mineral oils;

(v) **"mining plan"** means a plan prepared by a recognized qualified person (RQP) on behalf of mineral concession holder of minor mineral and includes progressive and final mine closure plans;

(w) **"mineral product"** means minerals in any processed form, bricks, dressed stone, rock aggregates, chips, ballast, stone dust, and/ or any product to be prepared from minerals without involving any chemical changes;

(x) **"mineral transit pass"** means a document issued by the competent authority to the lessee/ contractor/ permit holder for lawful dispatch and transportation of any mineral(s) raised;

(y) **"mining permit"** means a mineral concession, other than a lease granted for a specified quantity of minor minerals to be extracted/ collected within a specified period not exceeding two years in specified cases on payment of advance royalty;

(z) **"processing"** means all physical processes such as pulverizing and/ or grinding and/ or powdering or washing of minerals in such a way that no chemical change takes place by that process and includes cutting and polishing process of slate, granite blocks or marble blocks or blocks of any other types of rocks;

(aa) **"producer"** means any person carrying on the business of extracting/ producing/ collecting minerals or mineral aggregates in raw or processed form including the licensee of a registered metal mineral unit, as the case may be, in accordance with the provisions of the Act or rules made there under;

(bb) **"rules"** means the rules made under the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957);

(cc) **"Schedule"** means a Schedule appended to these rules;

(dd) **"scheme of mining"** means a scheme prepared by a recognized qualified person (RQP) on behalf of mineral concession holder for systematic and scientific mining of minor mineral;

(ee) **"scientific mining"** means and refers to mining operations consistent with the approved mining plan/ scheme of mining, clearances/ permissions granted by the authority;

(ff) **"un-authorised mining"** means any mining operation undertaken without any valid mineral concession granted under these rules;

(gg) **"unscientific mining"** means and refers to the manner of undertaking mining operations not consistent with the mining plan/scheme of mining approved, clearances/permissions granted by the authority.

(2) **All other words and expressions used** in these rules, and not defined herein but defined in the Act, shall have the same meanings respectively assigned to them in the Act.

Power to grant mining lease or mining contact or any other concession or license or transit pass or permit etc.

3. A mining lease or a mining contract or permit or any other concession or license or transit pass or permit or license or control or regulation of mining or other actions under these rules, etc. shall be granted/ taken by:-

(a) The Director in respect of minor minerals for industrial and specific uses as specified in Schedule 'X';

(b) The Principal Chief Conservator of Forests and Head of Forest Force, Assam or any officer authorized by the Government by notification in this behalf in respect of minor minerals for uses other than in industry as specified in Schedule 'Y';

Relaxations in certain cases

4. (1) No royalty or permit fee shall be charged or transit permit required for, –

(i) extraction of ordinary clay or ordinary sand by hereditary artisans for use in manufacturing of earthen pots/ artifacts on a cottage industry basis;

(ii) mining, transportation or storage of clay or sand by hereditary artisans or a co-operative society of artisans for making pots or earthen images, etc. by traditional means but not by the process of manufacture in kilns or by way of any mechanical device;

(iii) levelling of any agricultural fields by a landowner within his own land.

(2) No royalty shall be charged for removal of any ordinary earth by a person from his own land for meeting personal land-fill requirements either in another agricultural field or for meeting his personal bonafide requirements.

(3) The relaxations granted under this rule shall not be available for excavation of mineral in any area where use of explosive is inevitable, whether being mined by a concession holder or not.

Provided that the aforesaid relaxation do not afford immunity from any action which might be taken under the provisions of any existing rules or Acts of the State or the Central Government for unauthorized removal of minor mineral from any Government land by private persons, without the permission of the competent authority or the State Government or any officer authorized by it in this behalf.

Quarrying of minor minerals by Government Departments/ Agencies/ Contractors engaged by Government Departments or Agencies

5. (1) An application for the grant of mining permit for quarrying of any minor mineral by the notified Departments of State or Central Government or any of their agencies for any work/project, shall be made by an officer authorised by the concerned Department to the competent authority.

(2) The contractors engaged for the works/projects of the Government Departments/Agencies shall be granted mining permit for the required quantity as specified in the detailed project report for execution of the works/projects on making an application under sub-rule (1) above.

(3) The Department or the agency or the contractor granted a permit under sub-rule (1) above, shall be liable to pay royalty/ dead rent/ fee etc. in advance as notified by the Government and shall abide by the terms and conditions of such grant and other laws as applicable to the lessee or any other concession holder(s) unless specifically relaxed.

Chapter – 2

General Restrictions

Mining operations under a mineral concession.

6. No person shall undertake any prospecting or mining operation activity in respect of any mineral(s) in any part of the State, except under and in accordance with the terms and conditions of a permit or a prospecting licence or a mining lease or a mining contract or a permit, or a concession in any other form, as the case may be, granted:

Provided that nothing in this sub-rule shall apply to any prospecting operations undertaken by the Geological Survey of India, the Indian Bureau of Mines, the Atomic Minerals Directorate for Exploration and Research of the Central Government, the Directorate of Geology and Mining, Assam or the Mineral Exploration Corporation Limited.

Restrictions on grant of mining lease/ contract/ permit.

7. (1) No mining lease/ contract/ permit shall be granted in respect of any land within a distance of;-

(i) fifty metres from the outer periphery of the defined limits of any village habitation, National Highway, State Highway and other roads where such excavation does not require use of explosives;

(ii) two hundred fifty metres from the outer periphery of the defined limits of any village habitation, National Highway, State Highway and other roads where use of explosives is required;

(iii) five hundred metres from major structures like R.C.C Bridges, Guide bund etc.:

Provided that the Government may relax the above distance parameters, wherever required in the interest of workings, mineral conservation or for any unforeseen reasons subject to such conditions as may be imposed under the said relaxation.

(2) No mining lease/ contract/ permit or other mineral concession shall be granted in respect of any such minor mineral or in respect of any specific or general area which the government may notify.

Part – II

Grant of Mineral Concessions

Chapter – 3

Grant of a Mining Lease

Grant of a Mining Lease through competitive bidding.

8. (1) No mining lease shall be granted by the competent authority unless it is satisfied that there is evidence to show that the area for which grant of mining lease is considered has been prospected earlier for minor minerals or the existence of minor minerals therein has been established otherwise.

(2) Any minor mineral deposits, where the competent authority decides such areas to be operated under a lease, may be granted on mining lease; subject to rule 5, for a period ordinarily not less than 10 years but not exceeding 20 years following a competitive bid process as provided under Chapter 6 of these rules:

Provided that the competent authority may, wherever it deems necessary, pre-qualify the bidders, with the pre-qualification criteria determined upfront, by inviting expressions of interest through a public notice, and limit the bidding process among such pre-qualified bidders.

(3) In case the competent authority accepts the bid, the payment of earnest money, initial bid security, security and advance instalment shall be made in accordance with the provisions contained in Chapter 6 of these rules.

(4) The highest bid received shall become the 'annual dead rent' amount payable by the lessee. The rate of annual dead rent initially determined on the basis of competitive bids/ auctions shall be increased @ 25% on completion of each block of three years.

Explanation: If the initially determined amount of annual dead rent is Rs.100/-, it shall be increased to Rs.125/- with the commencement of the fourth year and to Rs.156.25 with the commencement of the 7th year and so on and so forth for the next each block of three years.

(5) A lease deed shall be executed by the successful bidder with the competent authority in the prescribed Form ML-1, appended hereto, within the period as prescribed under rule 17 of these rules.

(6) The lessee shall pay royalty in advance in respect of each of the minor minerals extracted or removed or consumed by him or by his agent, manager, employee etc. The royalty shall be payable at the rates prescribed in the First Schedule appended to these rules.

Register of applications and Mining Lease.

9. (1) A register of applications for grant or renewal of mining leases shall be maintained in Form ML-2.

(2) A register of mining leases granted under these rules shall be maintained in Form 'ML-3'.

Inspection of Register

10. The register of applications for grant of mining leases and the register of grant of mining leases shall be open to inspection by any person on payment of a fee of Rs.100/- on any working day.

Compact area and minimum area of lease in case of isolated deposits.

11. The area for any mining lease should be compact and contiguous as far as possible. However, no mining lease shall be granted for an area of less than one hectare in case of isolated and small deposits.

Transfer of a mining lease or contract.

12. (1) The lessee or contractor shall not assign, sublet, mortgage, or in any other manner transfer the lease or contract or any right, title or interest therein, to any person without prior approval of the competent authority.

(2) When a lease is granted following the system of pre-qualification of lessees, the competent authority may specify a lock-in period within which no transfer of such lease shall be permissible. A lessee may, however, in such cases be permitted to induct other partners/ share holders to the extent of forty nine percent of the total shareholding of the original grantee.

(3) Any application for transfer of a mining lease or contract shall be accompanied with a non-refundable fee of Rs.10,000/- per hectare, subject to a minimum of Rs.2,00,000/-. The said application shall be signed by the lessee himself in the case of an individual, each of the partners in case of a partnership firm and by the person authorised by a special resolution of the Board of Directors, in the case of a company.

(4) No consent to the transfer of mining lease or contract shall be accorded unless the applicant has paid all the outstanding mining dues in respect of the lease or contract and the transferee has accepted all the terms and conditions and the liabilities enjoined upon the transferor in respect of such mining lease or contract.

(5) The transferor shall make the original or certified copies of all plans of abandoned workings in the area available to the transferee.

(6) The transferor-lessee or contractor shall not charge or accept from the transferee any premium in addition to the sum spent by him in obtaining the lease or contract and for conducting all or any of the operations in or over the lease granted to him.

(7) The transferee shall be required to furnish an undertaking that he has filed up-to-date income tax returns, paid income tax assessed on him or on the basis of self-assessment as provided in the Income Tax Act, 1961.

(8) Subject to submission of the transfer application, complete in all respects, the competent authority may allow the transfer of such lease or contract and prescribe such additional conditions, as it may deem appropriate.

(9) The competent authority may refuse to allow such transfer, wherever deemed appropriate, for reasons to be recorded in writing, after giving an opportunity of representation to the applicant.

(10) Where the competent authority gives its consent for transfer of such lease or contract on an application for transfer of mining lease under sub-rule (2), a transfer lease deed shall be executed within ninety days of the date of the consent in Form ML-4 failing which, the consent shall be deemed to have lapsed, unless the period is extended on the request of the lessee made prior to the expiry of such period of ninety days.

(11) Where it comes to the notice of the competent authority that any lessee or contractor has violated the conditions prescribed in sub-rule (1) above, it may terminate such lease by an order in writing at any time. However, no such order shall be passed without giving a reasonable opportunity of show cause to the lessee or the contractor for stating his case.

Renewal of lease

13. (1) A mining lease, originally granted under rule 9, may be renewed only once over and above the original lease period, for such period as considered appropriate but not exceeding ten years on expiry of the original lease period, subject to strict compliance of the terms and conditions of the grant, lease agreement and other approvals or permission for mining granted by Central or State agencies.

(2) The lessee shall submit application for renewal of mining lease twenty four months before the date of expiry of lease period in the prescribed Form ML-5 to the competent authority giving complete details of the mineral excavated, royalty paid, mineral reserves available, details of explorations undertaken, if any, along with the details of the areas reclaimed or restored, the sites of overburden, restoration works undertaken etc. The details regarding compliance of other statutory requirements such as environmental clearance, safety provisions as per Mines Act, 1952 and the rules and regulations framed thereunder etc. shall also be provided.

(3) No application for renewal of a mining lease shall be considered in a case where the lessee has been found to be indulging in any violation of the conditions of original lease grant or has been penalised or held accountable for such violations.

(4) Every application for renewal of a mining lease shall be accompanied with a non-refundable fee of Rs.1,000/- per hectare or part thereof, subject to a minimum of Rs.1,00,000/-. Besides, the application shall be accompanied with the following supporting documents:-

(i) a valid clearance certificate for payment of mining dues on all accounts, such as royalty or dead rent or contract money or the Fund, and the surface rent payable to the landowners under the Act or the rules made thereunder, in respect of the original mining lease or any other mineral concession held by him in the State from the competent authority;

(ii) in case of a firm or a company or association of persons, a valid clearance certificate shall be submitted in respect of the firm, company or association of persons as well as the other firms in which partners in the applicant firm are partners or directors:

Provided that the grant of a clearance certificate shall not discharge the holder(s) of such certificate from the liability to pay the mining dues which may subsequently be found to be payable by such applicant under the Act or rules made thereunder.

(iii) where any injunction has been granted by a court of law or any other authority, staying the recovery of any such outstanding mining dues or income tax, non-payment thereof shall not be treated as a disqualification for the purpose of renewing the said mining lease;

(iv) a declaration stating that the applicant has filed up-to-date income-tax returns, paid the income-tax assessed on him, or on the basis of self-assessment, as provided in the Income Tax Act, 1961 on the project.

(5) The competent authority shall issue notice within thirty days from the date of receipt of application to make up the deficiencies in the application, if any, or for furnishing any additional information as may be required by the competent authority, requiring the applicant(s) to supply the requisite information within a period of thirty days from the date of issue of such notice. In case the said information is not furnished within such specified period, the application shall be decided on the basis of information already submitted along with application.

(6) The renewal of a lease shall be considered only in cases where the lease has been granted after the commencement of these rules.

Acknowledgement of application.

14. The receipt of an application of renewal of a mining lease under rule 14, if delivered personally, shall be acknowledged forthwith in Form ML-6 and if the application is received by post, the same shall be acknowledged within seven days of the receipt thereof.

15. (1) An application for renewal of a mining lease shall be decided by the competent authority within a period of six months of the receipt of complete application in all respects keeping in view the following parameters:-

(i) the lessee has complied with all the terms and conditions of the original lease grant and other permissions for undertaking mining operations;

(ii) the mining operations under the original lease grant have been carried out in a scientific manner;

(iii) The mined out area has been restored/ reclaimed/ rehabilitated as per the progressive mine closure plan;

(iv) the lessee has not defaulted in submission of all details with regard to the production, payment of mining dues in time and has not been found wanting in taking adequate measures for the labour safety;

(v) the lessee has not been penalised for non-compliance of the environmental safeguards, or for any other reason, including suspension of the mining operations, for whatsoever reasons, during the original lease period;

(vi) substantial investment has been made by the lessee in the development of mine, plant and machinery with a long term perspective and optimal benefit of the same could not have been derived during the original lease period; and

(vii) such other matters as may be considered necessary.

(2) The competent authority may reduce the area of mining lease at the time of renewal for reasons to be recorded in writing:

Provided that the reduction in the area of the mining lease shall not result in any prorated reduction in the dead rent.

(3) Where the competent authority accords its approval to the renewal of a mining lease, the annual dead rent shall be increased by an amount of twenty five percent over the amount of dead rent payable in the last year of the original lease grant. Further, future increase in such dead rent, on the expiry of each block of three years, shall be regulated on the same terms and conditions as applicable in the case of any mining lease granted on the first occasion;

Provided that in case the lessee makes an application for surrender of part area of the lease, it shall not result in any prorated reduction of the dead rent and the rate of dead rent payable and applicable for the entire area at the time of such application shall remain intact.

Surrender of a mining lease

16. (1) The Government may accept the request of a lease holder for surrender of a lease or part thereof in cases where it is established that it has not been found feasible to operate the mining lease grant, for whatsoever reasons, subject to the condition that the lessee,-

(i) has been regular in furnishing the production returns as required in terms of the lease agreement;

(ii) has been taking the requisite steps for the progressive mine closure plan as per the conditions of the lease grant;

(iii) is not in default of payment of any mining dues on account of any mineral concession as on the date of making such application and undertakes to pay all such dues till the date of expiry of the notice period either in advance or by way of adjustment of the security or both.

(2) In case the lessee makes an application for surrender of part area of the lease, it shall not result in any prorated reduction of the dead rent and the rate of dead rent payable and applicable for the entire area at the time of such application shall remain intact.

Execution of mining lease Agreement.

17. (1) Where a mining lease is granted or renewed, the lease deed shall be executed in Form ML-1 within a period of ninety days of the date of order of grant or renewal of the mining lease and duly registered.

(2) If the lease deed is not executed within the aforesaid period, the order sanctioning the mining lease shall be deemed to have been revoked and the 'advance dead rent' and 'security amount' deposited at the time of auction shall stand forfeited:

Provided that where the competent authority is satisfied that the LoI holder/ lessee is not responsible for the delay in the execution of the lease deed, the competent authority may, for reasons to be recorded in writing, permit the execution of the lease deed beyond a period of ninety days but not exceeding one hundred twenty days of the expiry of the aforesaid period.

(3) The LoI holder/ lessee shall also furnish a solvent surety for a sum equal to the annual bid amount for execution of the agreement. In case the surety offered by the lessee during the subsistence of the mining lease is not found solvent, the lessee shall offer another solvent surety and a supplementary deed to this effect shall be executed.

Chapter – 4

Grant of Mining Contracts

Grant of mining contracts by competitive bidding.

18. (1) The minor mineral deposits, where the competent authority decides to grant the mineral concession in respect of such area in the form of a contract, may be granted on mining contract, subject to rule 5, for a specified annual quantity (or part(s) thereof) of minor mineral for period ordinarily not less than seven years but not exceeding ten years following a competitive bidding process as prescribed under chapter 6 of these rules.

(2) No bid shall be regarded as successful unless accepted by the competent authority. The amount of the successful bid shall become the annual contract money payable by the contractor. The annual contract money determined at the time of initial grant shall be increased at the rate of twenty five percent on completion of each block of three years.

(3) The mining contract deed shall be executed by the successful bidder with the competent authority in the prescribed Form MC-1.

(4) Other terms and conditions of the contract shall be in accordance with provisions as contained in chapter 7.

Renewal of mining contract.

19. (1) The contractor shall submit an application to the competent authority for renewal of the mining contract eighteen months prior to the date of expiry of contract period in the prescribed Form MC-2, containing complete details of the mineral excavated, royalty paid, mineral reserves available, details of explorations undertaken, if any, along with the details of the areas reclaimed/ restored, the sites of overburden, restoration works undertaken etc. The details regarding compliance of other statutory requirements such as environmental clearance, safety provisions as per Mines Act, 1952 and the rules and regulations framed thereunder etc. shall also be provided.

(2) No application for renewal of a mining contract shall be considered in a case where the contractor has been found to be indulging in any violation of the conditions of original contract grant or the conditions accompanying the environmental clearances, and penalised or held accountable for any such violations.

(3) Every application for renewal of a mining contract shall be accompanied with a non-refundable fee of Rs.1,000/- per hectare or part thereof, subject to a minimum of Rs.1,00,000/- along with the following supporting documents:-

(i) a valid clearance certificate regarding payment of mining dues on all accounts (such as royalty or dead rent or contract money or Fund and surface rent payable to the landowners under the Act or the rules made thereunder) in

respect of the original contract or any other mineral concession held by him in the State;

(ii) in case of a firm or a company or association of persons, a valid clearance certificate shall have to be submitted in respect of the firm, company or association of persons as well as the other firm in which the partners in the applicant firm are partners or directors:

Provided that the grant of a clearance certificate shall not discharge the holder(s) of such certificate from the liability to pay the mining dues which may subsequently be found to be payable by such applicant under the Act or rules made thereunder.

(iii) where any injunction has been granted by a court of law or any other authority, staying the recovery of any such outstanding dues, non-payment thereof shall not be treated as a disqualification for the purpose of renewal of the said mining contract;

(iv) a self-declaration stating that the applicant has filed up-to-date income-tax returns, paid the income-tax assessed on him or on self-assessment as provided in the Income Tax Act, 1961 on the project.

(4) The competent authority shall communicate the discrepancies in the application, if any, or requirement of any additional information within thirty days from the date of receipt of application, requiring the applicant(s) to make up the deficiencies and/ or provide such additional information within a period of thirty days from the date of issue of such notice. In case the required information is not submitted within such specified period, the application shall be decided on the basis of information already submitted.

(5) No renewal shall be granted for the mining contracts exempted under section 3 of the Mines Act, 1952.

(6) The renewal of a contract shall be considered only in cases where the contract has been granted after the commencement of these rules.

(7) A contract for minor minerals granted under rule 18 may be renewed only once by the competent authority for a period not exceeding five years, after having satisfied itself that the contractor has undertaken mining operations strictly in accordance with the terms and conditions of grant, contract agreement and other approvals/ permissions for mining granted by Central/ State agencies.

Decision on the application for renewal of Mining Contract.

20. (1) The application for renewal of a mining contract shall be decided on satisfaction of the competent authority with regard to the following:-

(i) The contractor has complied with all the terms and conditions of the contract agreement and other permissions for undertaking mining operations;

(ii) The mining operations under the original contract grant have been carried out in a scientific manner;

(iii) The mined out area has been restored/ reclaimed/ rehabilitated as per the progressive mine closure plan;

(iv) The contractor has not been in default of submission of any returns with regard to the production, payment of contract money in time and has not been found wanting in taking adequate measures for the labour safety;

(v) The contractor has not been penalised in any manner, including suspension of the mining contract, for whatsoever reasons, during the original contract period;

(vi) Substantial investment has been made by the contractor in the development of mine and plant and machinery with a long term perspective and optimal benefit of the same could not have been derived during the original contract period; and

(vii) Such other matters as may be considered.

(2) The competent authority may reduce the area of contract at the time of renewal for reasons to be recorded in writing.

(3) Where the competent authority accords its approval to the renewal of a contract, the annual contract amount shall be increased by an amount of 25% over the amount of contract money payable in the last year of the original contract grant. Further, future increase in such contract amount, on the expiry of each block of three years, shall be regulated on the same terms and conditions as applicable in the case of any contract granted on the first occasion.

Surrender of a mining contract.

21. The Government may accept the contractor's request for surrender of a contract or part thereof in cases where it is established that it has not been found feasible to operate the contract grant for whatsoever reasons subject to the condition that the contractor, -

(i) has been regular in furnishing the production returns as required in terms of the contract agreement;

(ii) has been taking the requisite steps for the progressive mine closure plan as per the conditions of the contract grant;

(iii) is not in default of payment of any dues of the Government as on the date of making such application and undertakes to pay all such dues till the date of expiry of the notice period either in cash in advance or by way of adjustment of the security or both.

Provided that in case the contractor makes an application for surrender of part of the contract area, it shall not result in any prorated reduction of the contract money and the rate of contract amount payable and applicable for the entire area at the time of making such application shall remain intact.

Execution of Contract Agreement within ninety days.

22. (1) Where a mining contract is granted or renewed, the agreement deed shall be executed in Form 'MC-1' within a period of 90 days of the date of order of grant/ renewal of the contract and shall be duly registered;

(2) If the contract agreement is not executed within the aforesaid period, the order sanctioning the contract shall be deemed to have been revoked and the 'advance contract money' and the 'security amount' deposited at the time of auction shall be forfeited to the Government:

Provided that where the competent authority is satisfied that the LoI holder/ contractor is not responsible for the delay in the execution of the contract agreement, the competent authority may, for the reasons to be recorded in writing, permit the execution of the contract agreement deed beyond a period of 90 days but not exceeding 120 days of the expiry of the aforesaid period.

(3) The LoI holder/contractor shall also furnish a solvent surety for a sum equal to the amount of the annual bid for execution of the agreement. In case the surety offered by the contractor(s) during the subsistence of the contract is not found solvent, the contractor(s) shall offer another solvent surety and a supplementary deed to this effect shall be executed.

(4) In case the contractor is not able to remove the whole or any part of the mineral for which he obtained the contract within the permissible time for any reasons, whatsoever, within the validity of the contract he shall not be entitled to claim the refund of contract amount or any part thereof.

Chapter – 5

Grant of Mining or Quarrying Permits

Grant of Mining/ quarrying Permits

23. (1) Subject to rule 5, mining or quarrying may be granted by the competent authority in respect of any area not covered under any mineral concession already granted under these rules in the following cases:-

(i) mining in respect of areas ordinarily less than five hectares for a specified annual quantity [or part(s) thereof] of minor mineral;

(ii) removal of salt petre;

(iii) excavation of Brick Earth by the Brick Kiln Owners;

(iv) extraction of ordinary clay/ earth;

(v) permits for specific Government works under emergency conditions.

(2) All mining/ quarrying permits in respect of sub clauses (i) and (ii) mentioned under sub-rule (1) shall be granted following a competitive bid process, unless specifically decided otherwise by the Government in any specific case.

(3) The mining/ quarrying permits in respect of (iii) to (v) above shall be granted on the basis of application submitted under rules 26, 27 and 28 respectively.

(4) A mining permit under these rules may be granted for a period as considered appropriate by the competent authority, but not exceeding two years, on such terms and conditions as may be stipulated therein.

(5) The competent authority, may refuse the application to grant permits in respect of sub-clauses (ii) and (iv) mentioned under sub-rule (1) of this rule for reasons to be recorded in writing.

Grant of permits for mining over area less than five hectares.

24. (1) Subject to sub-rule (2) of rule 23, permits for mining of minor minerals may be granted by the competent authority for extraction of minor minerals in respect of area ordinarily less than five hectares.

(2) Permits under this rule shall be granted only in cases where the competent authority decides such areas to be operated for short periods under special circumstances and with adequate environmental safeguards, precautions and applicable clearances.

(3) In case more than one individual/ agency shows interest in taking the permit, it shall be granted in favour of the individual/ agency offering the highest bid.

(4) In case of permit granted under this rule, the permit holder shall execute an agreement in Form MPS-1 with the competent authority within a period of ninety days from the date of grant and shall be duly registered.

(5) The permit holder shall submit monthly production returns in Form MMP-1.

Grant of permits for removal of saltpetre.

25. (1) Subject to sub-rule (2) of rule 23, the permit for excavation of saltpetre, a minor mineral, may be granted along with suitable restrictions regarding the depth of excavation which shall generally not exceed 12 inches.

(2) In case more than one individual/agency shows interest in taking the permit it shall be granted in favour of the individual/agency offering the highest bid.

(3) In case of permit granted under this rule, the permit holder shall execute an agreement in Form MPS-2 with the competent authority within a period of ninety days from the date of such grant and shall be duly registered.

(4) The permit holder shall submit monthly production returns in Form MMP-1.

Permits for excavation of Brick Earth by the Brick Kiln Owners.

26. (1) A permit for excavation of brick earth may be granted by the competent authority in favour of the Brick Kiln Owner only for the purposes of manufacturing of bricks.

(2) The initial permit shall be granted for a period that co-terminates with the close of the next financial year so that the further renewal thereof is allowed on bi-annual basis.

(3) The excavation of brick earth under this permit shall not be permissible beyond a depth of nine feet measured from the natural ground level of the area.

(4) The application for lifting of brick earth shall be made to the competent authority in form PIM-1 along with the following supporting documents:-

(i) The particulars/details of the land from where he proposes to extract/ remove the brick earth;

(ii) Lay out Plan of the area from where brick earth is to be removed;

(iii) Written consent of the land owner(s) along with certified copy of the agreement signed between the landowner and the applicant after mutual settlement of compensation between the parties;

(iv) A copy of the partnership deed or Articles of Memorandum in case the applicant is a partnership firm or a company, as the case may be.

(5) The existing brick kiln owner shall apply ninety days before the expiry of permit already held by him for fresh grant in cases where the extraction of brick earth has reached the maximum permissible level in respect of area of the permit already held;

In case the excavation of the brick earth is to be carried out in the same area earlier held on permit, the brick kiln owner shall apply for renewal of the permit ninety days before the expiry of permit already held.

(6) The royalty on account of excavation of brick earth shall be charged as per rates prescribed in the First Schedule appended to these rules. The payment in these cases shall be made in advance for the complete financial year or part thereof.

(7) An application for renewal of permit/ fresh grant under this rule shall be submitted within the period prescribed above along with the payment towards applicable royalty for the ensuing year and a surety for the remaining period of the permit.

(8) A permit for excavation of brick earth shall be granted in form PIM-2.

Permits for extraction of ordinary clay/ earth.

27. (1) Save in the cases covered under sub-rule (2) of rule 26, the competent authority may grant permit for lifting of ordinary earth from an area not already granted on any mineral concession to the landowner or the person having consent of the landowner on submission of an application.

(2) The permit for extraction of ordinary earth shall be granted only up to a maximum depth of nine feet measured from the natural ground level of said area.

(3) The permit for extraction of ordinary earth/ clay in respect of any land of which the ownership or management vests in a Gram Panchayat shall be granted only if a resolution is passed to that effect by the Gram Panchayat and approval of the concerned Deputy Commissioner is obtained by the applicant or the Gram Panchayat.

(4) The royalty shall be charged on lump-sum basis on the basis of quantity/ volume of the earth for which the permit is applied/ granted as per

rates prescribed in the First Schedule. The payment of royalty in these cases shall be made in advance for the complete financial year or part thereof.

(5) An application for grant of permit shall be submitted in model form PIM-3. The application shall be submitted along with following documents:-

(i) The particulars/details of the land from where he proposes to extract/ remove the brick earth;

(ii) Lay out Plan of the area from where earth is to be removed;

(iii) Written consent of the land owner(s) or a certified copy of the agreement signed between the landowner and the applicant after mutual settlement of compensation between the parties;

(iv) A copy of the partnership deed or Articles of Memorandum in case the applicant is a partnership firm or a company, as the case may be.

(6) A permit for excavation of ordinary earth shall be granted on model form PIM-4.

Permits for specific emergency situations.

28. The competent authority may, on a requisition from the Deputy Commissioner of the District concerned, grant permit for extraction of minor minerals from any area including the areas where mineral concession have been granted to such Government Department or any other Government Agency requiring mineral for execution of works relating to emergent flood protection works or any other natural calamity or other pressing circumstances for safety of human and cattle life under emergency conditions:

Provided that the Government may decide the terms and conditions of grant of such permits under emergency situations in advance or ex-post-facto.

Application fee for permits

29. The permits, other than those given through competitive bidding process, may be granted on application made to the competent authority on Forms submitted along with non-refundable application fee of Rs.500/-:

Provided that a Government Department/ Agency seeking a permit under Rule - 29 shall be exempted from payment of the application fee.

Conditions on which the Permit for mining/ quarrying shall be granted.

30. (1) Any mining operations in the case of mining of brick earth or ordinary clay or alluvial deposits below a depth of 1.5 meters shall necessarily require formation of benches for safe mining. The benches would be formed in a manner that the width of the bench is not lesser than the height of the bench.

(2) Any quarrying permit granted under these rules shall contain information with regard to the following:—

(i) manner, mode and place of payment of rent, royalties, permit money, Rehabilitation and Restoration Fund amount and interest on delayed payments or any other dues as admissible under these rules;

(ii) particulars of the receipt heads of the Government to which the payments are to be credited;

(iii) rent, compensation of damage to the landowners for the land covered by the permit;

(iv) felling of trees, pumping of ground water;

(v) restriction of surface operations in any area prohibited by any authority;

(vi) entering and working in any forest area;

(vii) reporting all accidents, use of explosives;

(viii) indemnity to the Government against claim of third parties;

(ix) mineral to be stacked, measured and dispatched;

(x) applicability of the provisions of all other statutes/ rules framed by the Central and State Governments;

(xi) reclamation or restoration of the mining areas and security thereof;

(xii) development and conservation of minerals and environment and ecology of the area;

(xiii) extent of the area or land from where the minor mineral shall be extracted;

(xiv) period within which the minor mineral shall be extracted and removed and delivery of possession of land on the expiry of such period or on removal of the quantity of the minor mineral for which the permit is valid/ granted;

(xv) release of security by the authority issuing permit after having satisfied that the permit holder has fulfilled all the conditions of the permit satisfactorily;

(xvi) any other condition, as may be found expedient by the competent authority to grant the permit, may be imposed in the interest of scientific mining, mineral conservation and mineral development.

(3) In case the permit holder is not able to remove the whole or any part of the mineral for which he obtained the permit within the permissible time for any reasons, whatsoever, he shall not be entitled to claim the refund of permit amount/ royalty or any part thereof.

(4) The permit holders for the brick kilns shall furnish a solvent surety within fifteen days of the issue of the permit by submitting an undertaking of such surety that he would be responsible for deposit of all dues in case the permit holder fails to deposit the same.

Forfeiture of property left after cancellation of the permit.

31. In case of breach of any of the conditions of the grant of permit, the competent authority may cancel the permit by passing orders after giving thirty days notice to the permit holder and for reasons to be recorded in writing. On cancellation of the permit, unless specifically ordered otherwise, the quarried mineral lying on the land from which the same was extracted shall be allowed to be removed by the permit holder within a period of seven days after which any residual mineral will become the absolute property of the Government.

Chapter – 6

Procedure for inviting competitive bids/ auctions and payments

Mode of Grant of mining lease or contract or permit.

32. (1) Save in the cases specifically mentioned under these rules and where such mineral concessions may be granted on application, all mining leases/ contracts/ permits shall be granted through a transparent process of inviting competitive bids/ open auction.

(2) The competent authority may, in the interest of mineral conservation and scientific mining, pre-qualify the potential bidders, based on an objective assessment criteria determined upfront, by inviting Expressions of Interest through general public notice and restrict the bids among the pre-qualified bidders.

Determination of reserve price for inviting bids/ auction.

33. (1) The competent authority shall upfront determine the reserve price in each case where the mineral concessions are granted through competitive bidding/ open auction, as the case may be.

(2) State's priorities with regard to the observance of principles of sustainable development, inter-generational equities and conservation of minerals, scientific mining, availability of construction material at economic rates for developmental works and the State Revenues shall remain the over-arching principles in fixing the reserve prices.

(3) The reserve price may be fixed keeping in view the past trends, availability of mineral reserves in the area, the potential, access and proximity to the markets. However, any aberrations in the auctions held earlier and the bids received of exceptionally lower or higher amount, due to whatsoever reasons, may be ignored.

(4) In case of no bid/ offer is received against a reserve price fixed for an area on two successive occasions, the competent authority may revise the reserve price downwards at appropriate level.

Public notice for inviting expressions of Interest/ bids/ open auctions.

34. (1) A public notice of 21 days shall be published for inviting bids or conduct of open auctions for the grant of mineral leases/ contracts/ permits, as the case may be.

(2) In addition to the publication of notice in writing, competitive bids/open auction under sub-rule (1) above, the gist of such notice, along with the schedule for inviting bids/holding open auctions, shall also be published in one daily newspaper having good circulation in the area.

(3) A copy each of the said public notice shall also be sent to the Deputy Commissioner and others as decided by the competent authority for giving wide publicity in the area.

Earnest money

35. (1) The intending bidder shall deposit the earnest money, equal to ten percent of the reserve price and rounded by an amount of Rs.10,000/-, in each case before commencement of open auction or deposited with the bid, as the case may be.

(2) In case of competitive bids invited through sealed tenders, the earnest money shall accompany the bid offers in the form of a Demand Draft drawn in favour of the competent authority.

(3) In the case of open auctions, the earnest money deposited by all bidders, save in the cases where the earnest money has been ordered to be forfeited by the Presiding Officer on grounds of any misconduct during the auction proceedings, shall be refunded immediately upon completion of the auction proceedings.

(4) In case the highest bidder fails to deposit 10% of the annual bid amount towards the 'Initial bid security', his earnest money shall be forfeited and such bidder shall not be eligible to participate in any such auctions/ competitive bids in respect of the same area or any other area in the State for a period of five years.

(5) No person, who is a defaulter of any mining dues in respect of any mineral concession granted in the past or any other current mineral concession shall be eligible to participate in the auction or bid process. In case he is found to be in such arrears at any stage, his bid shall be revoked with forfeiture of the amount deposited by him. In case any of the partners of a Partnership Firm or a Director of a company participating in the bid/ auction process are found to be defaulters, the bidder firm/ company would be held ineligible and attract similar action:

Provided that where any injunction has been granted by a court of law or any other competent authority staying the recovery of any such amount, the non-payment thereof shall not be treated as a disqualification for the purpose of participation in the auction.

Powers of the Presiding Officer.

36. (1) The presiding officer shall conduct the auction in a peaceful manner and may direct any bidder to leave the auction premises in the event of a disorderly conduct by or on behalf of any bidder. In cases of extreme misconduct or misbehaviour, the presiding officer may order the forfeiture of earnest money deposited by such bidder and recommend his debarring from participation in any future auctions.

(2) The presiding officer shall send his recommendations through proper channel to the officer competent to accept tender.

Payments of the bid amount.

37. (1) No bid shall be regarded as 'successful' unless accepted by the officer competent to accept bid/ tender in accordance with the provisions of The Delegation of Financial Powers Rules, 1999 of the State.

(2) The highest bidder shall be required to deposit an amount equal to 25% of the annual dead rent/ contract money as the 'Security' along with an additional amount equal to one month's dead rent/ contract money in advance.

(3) The process for completion of the various stages of payment as specified under sub-rule (2) above shall be as follows:-

(i) On completion of the bid process i.e. the fall of the hammer or the opening of the sealed bids, as the case may be, the highest bidder shall deposit an amount equal to 10% of the annual bid amount as 'Initial Bid Security' before expiry of the period allowed.

(ii) The amount deposited towards the 'initial bid security' would be adjusted as part of the Bid Security on acceptance of the bid by the competent authority and a Letter of Intent (LoI) will be issued in favour of the successful bidder.

(iii) The letter of intent holder shall deposit the balance amount of Bid Security i.e. equal to 15% of the annual bid amount before expiry of the period allowed.

(iv) The amount of security already deposited towards the initial bid security shall be duly adjusted to make up the twenty five percent of the bid amount towards the bid Security.

(v) Wherever a LoI holder fails to deposit the balance fifteen percent amount towards security as prescribed under sub-rule (3) (iii) above, and/or fails to execute the agreement after the issue of letter of intent, the same shall be deemed to have been revoked and the ten percent amount deposited by him towards 'initial bid security' shall stand forfeited. In addition, the letter of intent holder/ defaulter shall be liable to deposit the unpaid balance of fifteen percent to make up twenty five percent of the bid amount as bid security.

(vi) Where the LoI holder fails to deposit the unpaid fifteen percent amount on demand, such amount with interest shall be recoverable as arrears of land revenue and such bidder shall be debarred from participation in any subsequent bids for a period of five years.

(vii) No interest, whatsoever, shall be payable on the security amount deposited.

(viii) On enhancement of the dead rent/ contract money with expiry of every three years period, the lessee/ contractor shall deposit the balance amount of security so as to upscale the security amount equal to 25% of the revised annual dead rent/ contract money as applicable for one year with respect to the next block of three years.

Chapter – 7

General conditions for grant of any mineral concession

Conditions of the mining lease/ contract.

38. (1) The lessee/ contractor shall deposit the annual dead rent (in case of lease) or contract money, as the case may be, in respect of the minor minerals in four quarterly instalments in advance on the 1st of April, 1st of June, 1st of September and 1st of December of the year.

(2) The advance amount paid on account of one instalment along with the fifteen percent amount of the bid security shall be required to be deposited/ adjusted in a manner that the subsequent instalments are payable for a full quarter/ year, as the case may be.

(3) In case of a mining lease, where the amount of royalty payable in respect of a month exceeds the amount of dead rent deposited in advance, the lessee shall deposit such amount of royalty on the mineral extracted and dispatched or consumed by the 7th day of the following month after adjusting the amount of advance dead rent already deposited.

(4) In cases where the lessee has paid the amount of royalty or dead rent during a part of the year, which is equal to or more than the annual dead rent payable for the year, he shall not be required to deposit the advance dead rent for the remaining period of the said year and the royalty for the balance part of the year shall be deposited by the 7th day of the following month.

(5) Where the lessee/ contractor is operating the area, he shall also deposit/ pay an additional amount equal to ten percent of the due dead rent /royalty/ contract money along with instalments towards the "Mines and Minerals Development, Restoration and Rehabilitation Fund".

(6) In case of any default in payment of the instalments of dead rent/ contract money/ royalty/ contribution to the 'Mines and Minerals Development, Restoration and Rehabilitation Fund' on the due date(s), the amount would be payable along with interest at the following rates:-

Serial Number	Period of delay	Rate of Interest applicable
(i)	If paid within a period of 7 days from the due date:	A grace period of up to 7 days is allowed without any interest;
(ii)	If paid after 7 days but up to 30 days of the due date:	15% on the amount of default for the period of default including the grace period;
(iii)	If paid after 30 days but within 60 days of the due date:	18% on the amount of default for the period of default including the grace period;
(iv)	Delay beyond 60 days of the due date	Termination of the lease/ contract and the entire outstanding amount would be recoverable along with interest calculated at the rate of twenty one percent for the entire period of default.

(7) Any default in payment of the due instalments of dead rent, royalty, contract money, contribution to the Fund beyond a period of seven days from the due date would entail:-

(i) issue of a notice requiring the mineral concession holder to clear the default immediately and stating that in case the due

amount is not paid within a period of thirty days of the due date, his mining operations would be suspended;

(i) If the concession holder fails to deposit the due amount within a period of thirty days of the due date along with interest applicable thereon, the competent authority shall direct the concession holder to suspend his mining operations and stop any despatch of mineral from the concession area till such time the default is cleared;

(ii) The order of suspension issued under (ii) above shall, inter alia, include a show cause notice for termination of the lease or contract or permit along with forfeiture of security in the event of continuation of default for a period of thirty days from the date of order of suspension. The concession holder shall also be liable to pay the dues for such suspension period;

(iii) The competent authority may revoke the suspension of mining operations in case the concession holder deposits atleast fifty percent of the due amount with an undertaking to pay the balance amount within a period of three months along with interest, concurrent with the instalments payable during this period;

(iv) The order of suspension of mining operations and the ban on despatch of mineral from the area would remain in force throughout such default period;

(v) The competent authority may terminate the mineral concession, with or without forfeiture of the whole of the security deposit or part thereof, as deemed appropriate, in such cases without any further opportunity.

(8) The mineral concession holder shall erect boundary pillars around the mining area at his own expense as per his plan of mining and shall at all times maintain and keep the same in good condition. Each of the boundary pillars shall also be numbered along with the GPS readings duly marked thereon. The plan annexed to the concession agreement shall clearly indicate the location of pillars along with their GPS readings.

(9) The mineral concession holder shall, at all times, carry out the mining operations subject to the following restrictions:-

(i) maintain a distance of fifty meters from the outer periphery of the defined limits of any village habitation, National Highway, State Highway and other roads where such excavation does not require use of explosives, unless specifically relaxed and permitted by the competent authority;

(ii) maintain a distance of two hundred fifty meters from the outer periphery of the defined limits of any village habitation, National Highway, State Highway and other roads where use of explosives is required, unless specifically relaxed and permitted by the authority or any specific dispensation is obtained from the Director, Mines Safety;

(iii) mining operations in the river-beds shall be undertaken in accordance with the conditions prescribed under rule 39.

(10) The lessee/contractor shall at all times keep and maintain correct and true accounts of -

(i) the quantity and other particulars of all minerals obtained from the mines;

(ii) the number of persons employed in his mining operations;

(iii) an up-to-date complete plan and sections of the mine;

and shall allow any officer authorised by the Central or the State Government or competent authority in that behalf to examine at any time any accounts and records maintained by him, and shall furnish to the Central or the State Government or the competent authority with such information and returns, as it may require.

(11) Where the continuance of mining operations in any area, in the opinion of the State Government, is likely to endanger the safety of any national or State highway, road, bridge, drainage, reservoir, tank, canal or other public works, or public or private building, or any other public interest or in the interest of environment/ecology of the area, the Government may suspend the operations in the entire concession area or part thereof with immediate effect by communicating the reasons thereof in writing. The Government may, wherever so warranted, terminate such mining lease/ contract over entire area or part thereof after giving sixty days notice to the concession holder in this behalf and the grant of such mineral concession shall stand terminated from the date specified in the said notice.

(12) A mineral concession holder shall not stock any mineral outside the concession area granted on mining lease/ contract/ permit. The total mineral excavated and stacked by the concession holder within the area granted on mining lease/ contract/ permit shall not exceed two times of the average monthly production as per approved mining plan at any point of time.

(13) In cases where access to and from any other mineral concession area granted under these rules is required to be provided through the land/ area of the lessee/ contractor, he shall allow the existing and future lessee/

contractor/ or any other mineral concession holder a reasonable access to pass through such land/ area which is comprised in or adjoins or is reached through the land held by such mineral concession holder.

(14) The mineral concession holder shall ensure unhindered access to any officer, authorised by the State or Central Government or competent authority, to enter upon any building, excavation or land comprised in the concession area for the purpose of inspecting the mines. If the mineral concession holder creates any hindrance in peaceful inspection of the mines, the competent authority may take recourse to extreme measure of cancellation of the mineral concession and forfeit the security deposit in whole or part thereof.

(15) A mineral concession holder shall,-

(i) submit by the 7th day of every month, a return in Form "MMP-1" containing the total quantity of minor mineral raised and dispatched from the area and other details prescribed in the said form during the preceding calendar month and its value, to the competent authority; and

(ii) also furnish by the 30th April of every year, a statement containing information in Form 'MMP-2' regarding the quantity and value of minor mineral extracted, dispatched, stacked during the previous financial year, average number of regular labourers employed (men and women separately), number of accidents (if any), compensation paid and number of days worked and such other details as prescribed in the form to the competent authority.

(16) The mineral concession holder shall at all times maintain and, if required, strengthen any railway line, bridge, national highway, reservoir, tank, canals, road any other public works or buildings in proper condition to the satisfaction of the Railway Administration or the competent authority or any officer authorised by him and shall ensure that no risk is caused to any such structure as a result of his mining operations.

(17) The mineral concession holder shall report the discovery of any such minor mineral which is not specified in the concession to the competent authority or an officer authorised by him without any delay and shall not dispose off the same.

(18) In case the mineral concession holder incidentally extracts any major mineral, in the process of extracting minor minerals granted through the mineral concession, which is not forming part of the concession, the same shall be the property of the Government and the mineral concession holder shall stack and store the same separately and maintain its proper record in accordance with the directions given by the competent authority.

The competent authority shall lay down a procedure for the disposal of the major mineral so detected, excavated and stacked.

(19) In case, it is detected that the mineral concession holder has disposed of the incidentally extracted major mineral in whole or part thereof or failed to maintain the record of the stored mineral in terms of sub-rule (18) above, he shall be liable to penalties as specified in sub section (1), (4) and (5) of section 21 of the Act, and also termination of mining lease/contract.

(20) In case the mineral concession holder does not commence mining operations within a period of one hundred and eighty days counted from the date of commencement of the mineral concession, notwithstanding the payment of dead rent/ contract money by him, the mineral concession shall be liable to be terminated unless specifically permitted by the competent authority on application for reasons to be recorded in writing.

(21) The mineral concession holder shall immediately inform in writing in Form 'MSE-1: (a) the working in the mines extend below the superjacent ground, or (b) the depth of any open cast excavation reaches six meters (measured from its highest to the lowest point); or (c) the number of persons employed on any day is more than 50, or (d) any explosives are used, to the following:—

(i) The Director General of Mines Safety, Government of India, Dhanbad;

(ii) The Director, Mines Safety, Government of India, Guwahati;

(iii) The Competent Authority;

(iv) The District Magistrate of the District concerned.

(22) The competent authority will make arrangements for the survey and demarcation of the area granted under the concession at the expense of the mineral concession holder. The mineral concession holder shall have to bear actual expenses of the staff deputed for the work, which shall include prorated salary of the staff, travelling allowance and daily allowance of the staff deployed and instrument usage charges which shall be equal to ten percent of the staff charges.

(23) A safety margin of two meters shall be maintained above the ground water table while undertaking mining and no mining operations shall be permissible below this level unless a specific permission is obtained from the competent authority in this behalf.

(24) A mineral concession may contain and provide for such additional conditions as the competent authority may deem necessary with regard to but not limited to the following:-

(i) payment of dead rent, royalty, contract money, Mines and Mineral Development, Rehabilitation and Restoration Fund, and the interest payable on delayed payments or any other dues;

(ii) particulars of the receipt heads of the Government to which the payments are to be credited;

(iii) payment of rent for use of the surface area and compensation for damage to the landowner in respect of land covered under the lease/contact;

(iv) restriction of surface operations in any area prohibited by any authority;

(v) notice by the mineral concession holder for surface occupation;

(vi) facilities to be given by the mineral concession holder to another mineral concession holder for working of minor mineral(s) in the area or the adjacent area or for work of State or Central Government Departments or their Agencies.

(vii) entering and working in any forest area;

(viii) reclamation/ restoration and securing of the pits, shaft and other areas affected by mining;

(ix) reporting of accidents and use of explosives;

(x) indemnity to the Government against any third party claims;

(xi) mineral to be stacked, measured and dispatched;

(xii) applicability of the provisions of all other statutes/ rules framed by the Central and the State Governments;

(xiii) maintenance of sanitary conditions in the mining area;

(xiv) development and conservation of the minerals, and environment and ecology of the area;

(xv) forfeiture of property left after termination/ expiry of the mineral concession;

(xvi) delivery of possession of lands and mines on surrender, expiration or premature termination of the mineral concession;

(xvii) powers to take possession of plant, machinery, premises and mines in the event of war or emergency; and

(xviii) termination of a mineral concession for non-compliance of terms and conditions of the grant and agreement;

(xix) any other special conditions may be imposed in the interest of scientific mining, mineral conservation and mineral development, as may be found expedient by the competent authority.

(25) Boundaries of the area covered by a mining lease/ contract/permit shall run vertically downwards below the surface towards the centre of the earth.

Special conditions for river-bed

39. Following conditions shall be applicable for excavation of minor mineral(s) from river beds in order to ensure safety of river-beds, structures and the adjoining areas:

(i) No mining would be permissible in a river-bed up to a distance of five times of the span of a bridge on up-stream side and ten times the span of such bridge on down-stream side, subject to a minimum of 250 metres on the up-stream side and 500 metres on the down-stream side;

(ii) There shall be maintained an un-mined block of 50 meters width after every block of 1000 meters over which mining is undertaken or at such distance as may be directed by the competent authority;

(iii) The maximum depth of mining in the river-bed shall not exceed three metres measured from the un-mined bed level at any point of time with proper bench formation;

(iv) Mining shall be restricted within the central 3/4th width of the river/ rivulet;

(v) No mining shall be permissible in an area up to a width specified by the competent authority from the active edges of embankments;

(vi) Any other conditions as may be required by the competent authority in public interest.

Powers to issue directions.

40. (1) The competent authority may, in the interest of systematic development of mineral deposits, conservation of minerals, scientific mining, sustainable development and protection of the environment, issue directions to the owner, agent, mining engineer, geologist or manager of a mine.

(2) Every direction issued under sub-rule (1) shall be complied within such period as may be specified, not being a period of less than one week:

Provided that where there is difficulty in giving effect to any such direction, the owner, agent, mining engineer, geologist or manager of the mine, as the case may be, may apply for modification or rescinding of such direction and the competent authority may either modify or rescind the direction or confirm the same.

Consequences of any non-compliance or violation of the terms and conditions of the grant of a mineral concession.

41. (1) In case the mineral concession holder fails to (a) undertake mining in a scientific and systematic manner, or (b) undertakes mining in violation of environmental safeguards, or (c) fails to deposit the due amount of dead rent, royalty, contract money or any other amount due to the Government under these rules, or (d) fails to comply with any of the terms and conditions of grant of the mineral concession agreement or other conditions imposed by any other State/ Central agency at the time of granting permission/ approval for undertaking mining activity, or (e) fails to comply with any other directions issued during the subsistence of the mineral concession, the competent authority shall have the right to suspend the mining operations or prematurely terminate the lease/ contract along with forfeiture of part or full amount of security after following the prescribed procedure;

(2) As a measure of recovery of any outstanding amount towards mining dues from a defaulting mineral concession holder, the competent authority shall be competent to enter upon the said premises and detain all or any of the mineral or moveable property therein till the concession holder makes the payment of outstanding amount. If the concession holder fails to make the payment within a period of ten days, such officer may order disposal and sale of the detained material and such property to the extent it covers the recovery of the outstanding dues and all costs and expenses incurred on this account.

(3) Where a mineral concession is prematurely terminated for breach of any of the conditions subject to which the mineral concession is granted, the competent authority may also order forfeiture of the quarried material lying in the concession area and on passing of such an order, such mineral shall become the absolute property of the State.

Rights of the lessee/ contractor.

42. Subject to the conditions mentioned under rules 39 and 40, the mineral concession holder shall have the right to use the land in respect of which the mineral concession has been granted for following activities,

(i) working of the mines;

(ii) sink pits and shafts and construct roads;

(iii) erect plant and machinery;

(iv) use water;

(v) use land for stacking purpose;

(vi) install fuel-pumps or stations or diesel or petrol for self-use with the permission of the authority;

(vii) construct magazine for explosives and storage sheds for explosive related substances with permission from the licensing authority;

(viii) store over-burden/ waste material in areas identified for the purpose; and

(ix) request for diversion of public roads, overhead electric lines passing through the concession area from the concerned authorities at his expense to ensure scientific mining.

Special rights of the Government

43. (1) The Government shall have the right of pre-emption of the minor mineral and all products thereof lying over the area granted on a mineral concession or elsewhere under the control of the mineral concession holder at all times during the term of any mineral concession. Upon issue of an order by the Government in writing to this effect, the mineral concession holder shall deliver all minor mineral or products thereof to the Government at rates worked out on the basis of average billing of mineral for the last one month at the pit head in such quantities and in such manner as may be specified in the order exercising the said right.

(2) The Government may terminate/ cancel the mineral concession in the State of a National Emergency or War without giving any notice for such termination.

(3) The Government may terminate or cancel the mineral concession, by giving three calendar months prior notice in writing, in the event the minor mineral under the concession is required for establishing an industry beneficial to the general public.

Chapter – 8

Payment of rent and compensation to the landowners and determination thereof

Mining over land in the ownership of third parties.

44. (1) Where a mineral concession is granted under these rules over any land in respect of which minor mineral rights vest in the State Government, the rights of the landowner shall be subordinate to that of the State Government for extraction of the mineral, access to the quarry/mine, stacking of minerals and other subsidiary purposes. The landowner is entitled to a fair rent and compensation for such use of the land and to damage or injury caused to such land.

(2) A mineral concession holder, who is granted the mineral concession under these rules, is entitled to use the land/ area for extraction of mineral in respect of which the said concession is granted. The mineral concession holder shall be liable to pay (a) the annual rent in respect of the land area blocked under the concession but not being operated, and (b) the annual compensation in respect of the area used for actual mining operations.

(3) In case the landowner is allowed to use part of the area granted under the mineral concession for his normal operations for which it was being used prior to the grant of mineral concession, concurrent with the concession grant, no rent shall be payable in respect of such portion of land which is not being used for actual mining operations for such period as it remains available to the landowner for his normal use. In cases where the mineral concession holder blocks the entire concession area as a result of which the landowner is not able to use such land or part thereof for his normal operations, the rent shall be payable in respect of the entire blocked area.

Mutual settlement of rent and compensation for the land used for mining

45. The amount of annual rent and the compensation shall be settled mutually between the landowner and the mineral concession holder.

Determination of fair market rent, if not mutually settled between the parties.

46. (1) Where no agreement is reached by way of mutual settlement between the landowner and the mineral concession holder regarding the rate of rent, the mineral concession holder shall offer to pay rent equal to the amount of Annuity, as applicable from time to time, as payable in cases of land acquisition.

(2) Where the land owner is not agreeable for a mutual settlement under rule 46 and is also not satisfied with the rent offered to be paid under sub-rule (1) above, the landowner or the concession holder may apply to the competent authority to make a reference to the District Collector for determination of the fair rent payable in respect of such land.

(3) Where either of the parties prefer a reference to the District Collector under sub-rule (2) above, the competent authority shall forward the reference to the District Collector for determination of the fair market rent in respect of such land. The competent authority shall also require the mineral concession holder to deposit the rent for one year as prescribed under sub-rule (1) above as a tentative compensation with the Collector. Upon so doing, the mineral concession holder shall be entitled to commence mining operations over the said land area.

(4) Upon a reference from the competent authority, the District Collector may call upon the parties to furnish the details of their claims and counter claims, inter alia, containing information on the parameters prescribed under sub-rule (5) of this rule and afford an opportunity of hearing to the parties.

(5) (a) Pursuant to the hearing granted to the parties to the reference, the District Collector shall determine the fair market rent of the land keeping in view the following:-

(i) nature/ character of the land;

(ii) use to which such land was being put immediately before the grant of mineral concession;

(iii) annual net income that the landowner was able to derive/ earn from such land use;

(iv) normal increase in the income level that would have taken place in such net income during the intervening period;

(v) amount so worked out shall be added an amount equal to thirty percent in lieu of compulsory use of the land;

(b) While determining the fair market rent, the collector shall also decide the rate at which such rent would be increased on year-to-year basis during the currency of the mineral concession.

(6) Notwithstanding the parameters prescribed for determining the fair market rent under sub-rule (5) above, Collector shall not determine the rent at a rate lesser than the amount of annuity payable in case of land acquisition.

(7) The District Collector shall order parties and the mineral concession holder to pay such rent to the landowner from time to time, as determined by him.

(8) Any appeal against the order of the District Collector shall lie with the Government.

Determination of Compensation.

47. (1) In addition to the rent settled between the parties under rule 45 or determined and payable under rule 46, the landowner would also be entitled to payment of a fair and reasonable compensation for any damage caused to such land in respect of the area under actual mining operations.

(2) In cases where the amount of compensation is not mutually settled between the parties under rule 45, the tentative amount of compensation shall be equal to 10% of the annual contract money, dead rent/ royalty actually paid by the mineral concession holder to the Government, less the amount of rent settled or determined.

(3) Where the landowner or the mineral concession holder is not agreeable to accept the amount of compensation prescribed under sub-rule (2) above, either of them may seek a reference through competent authority to the District Collector for determination of fair and reasonable compensation with reference to the damage or injury caused to such land. Pending a decision by the District Collector on such reference by either of the parties, the mineral concession holder shall deposit the tentative compensation amount for one year with the District Collector in accordance with sub-rule (2) above, whereafter the concession holder shall be entitled to operate the area.

(4) Upon a reference from the competent authority, the District Collector shall proceed to determine the fair compensation amount on account of any damage likely to be caused to such land on account of the mining operations. The Collector shall invite claims and counter claims and afford an opportunity of hearing to the parties before determining the compensation amount.

(5) (a) The Collector shall determine the fair compensation for the damage or injury caused to such land keeping in view the following:-

(i) nature or character of the land;

(ii) economic activity for which such land was being used immediately before the grant of mineral concession;

(iii) nature and extent of damage caused and as to whether such land is fully or partially reclaimable after closure of the mining operations or the damage is irreversible;

(iv) economic activity for which such land can be used after mine closure, with or without any investment, and the kind of returns it is capable of yielding after such restoration.

(v) extent of efforts and expenditure proposed to be made by the mineral concession holder for restoration or

reclamation or rehabilitation of the land as per the mine closure plan for its eventual use by the landowner;

(b) While determining the compensation amount, the Collector shall keep in view the total rent and the estimated compensation amount payable to the landowner throughout the concession period. In case the sum total of the rent and the compensation amount assessed is more than the prevailing market value of land, the mineral concession holder may be given an option to buy the land at such rates subject to the landowner agreeing to the same. Alternatively, the Collector may determine the compensation amount keeping in view that the landowner would continue to retain the ownership of land after the closure of mining operations.

(c) In case the mineral concession holder and the landowner(s) are able to settle the compensation mutually in respect of a portion of the land required for actual mining operations, compensation for such portion of the land shall not be a subject for settlement. However, the amount of compensation already settled in respect of part of the operating area shall be kept in view while settling the compensation for the disputed area.

(6) Notwithstanding the determination of compensation on the considerations stated under sub-rule (5) above, the annual rent and the compensation amount put together shall not be less than 10% of the amount of contract money/ dead rent/ royalty actually paid by the mineral concession holder to the government with reference to such portion of land in accordance with sub-rule (2) above.

(7) The compensation amount determined by the District Collector shall be final and binding on the parties and the mineral concession holder shall be liable to pay such compensation amount to the landowner annually during the currency of the mineral concession.

(8) An appeal against the order of the Collector shall lie with the Government.

Part-III

Scientific and Systematic Mining and Environmental Safeguards

Chapter – 9

Mining operations to be undertaken as per the Mining Plan

Mining Plan.

48. Any mining operations under a mineral concession granted under these rules shall be undertaken by the mineral concession holder in accordance with a duly approved 'Mining Plan':

Provided that the State Government may exempt certain specified nature of mining activities from the requirements of preparation of a mining plan.

Registration of a 'Recognised Qualified Person" (RQP).

49. (1) No person shall be registered as a 'Recognised Qualified Person' for the purposes of rule 50 (1) by the Director, unless he possesses,-

(i) a degree in Mining Engineering or a post-graduate degree in Geology granted by a university established or incorporated by or under an Act of Parliament or any institution recognised by the University Grants Commission established under section 4 of the University Grants Commission Act, 1956 (3 of 1956) or any qualification equivalent thereto; and

(ii) professional experience of five years of working in a supervisory capacity in the field of mining or mineral administration after obtaining a degree or qualification required under clause (1) (i) above.

(2) Any person possessing the qualifications and experience as prescribed under sub-rule (1) above, may apply to the Director, or an officer authorised by him, for registration as a RQP along with a fee of Rs. 1,000/- (Rs. one thousand only). The Director may, after making such enquiry as deemed appropriate, grant or refuse to grant recognition and where recognition is refused, the Director shall record the reasons therefore in writing and communicate the same to the applicant.

(3) The applicant recognised under sub-rule (2) above shall be so registered for a period of ten years and his registration may be further renewed on application and deposit of the fee as applicable at such time for a further period not exceeding ten years at any one time.

(4) The registration of a person as 'Recognised Qualified Person' may be revoked at any time in the case of any misconduct on the part of such person after giving him a notice and opportunity of hearing. Similarly, the

Director may refuse to renew recognition for reasons to be recorded in writing after giving him an opportunity of hearing.

Preparation of a Mining Plan by a Recognised Qualified Person.

50. (1) A mining plan shall be prepared by a Recognised Qualified Person (RQP), recognised in this behalf by the Director or an officer authorised by him, or by a person recognized by the Central Government or an officer authorized by the Central Government in this behalf under the provisions of rule 22 B of the Mineral Concession Rules, 1960.

(2) The Director shall specify all such persons who are so recognised by him under sub-rule (1) above and keep such a list of persons published and updated on the website of the department.

Officer authorised for approval/ modification of the Mining Plan/ Scheme of mining.

51. The Director may authorise any of his officers to approve or modify the Mining plan/ Scheme of mining for mining of Minor Mineral in the State subject to such officer fulfilling the following qualifications:-

(i) a degree in mining engineering or post-graduate degree in geology from a university established or incorporated by or under a Central Act, a Provincial Act or a State Act, including any institution recognized by the University Grant Commission established under section 4 of the University Grants Commission Act, 1956 (3 of 1956), or any equivalent qualification granted by any university or institution outside in India; and

(ii) possesses professional experience of 8 years in case of a Mining Engineer in the field of mining and 12 years in case of a Geologist in the field of mining/ geological survey, after obtaining the basic academic qualification.

Requirements of a Mining Plan

52. (1) Every mineral concession holder shall prepare a Mining Plan along with the Mine Closure Plan (Progressive and Final) and shall not commence mining operations in any area except in accordance with such Mining Plan duly approved by an officer authorized by the Director in this behalf. The plan shall also contain the conceptual plan of the mining area and take into consideration the following aspects:-

(i) Level of Production;

(ii) Level of Mechanisation;

(iii) Type of Machinery used;

(iv) Quantity of diesel/ energy fuel consumption;

(v) Number of trees uprooted due to proposed mining operations.

(2) Where the mining operations have already been undertaken under an existing mineral concession before the commencement of these rules, the holder of such mineral concession shall also submit a Mining Plan along with Mine Closure Plan within a period of ninety days from the commencement of these rules for approval by the authorized officer.

(3) Every mining plan or scheme of mining submitted for approval under these rules shall be accompanied with a non-refundable fee of Rs. 5,000 for every square kilometre or part thereof in respect of the mining area covered under the mining plan.

(4) Every mining plan shall contain all plans, sections serially numbered or suitably indexed. The tracings or copies of such plans and sections duly certified for its correctness by the owner, agent, mining engineer or manager or geologist, by the mining engineer/ geologist appointed by the concession holder, shall be kept at the site office of the minor mineral mine/ concession area.

(5) A mining plan shall incorporate the following as a minimum:-

(i) the plan of the area under concession delineated on a map with boundaries duly marked along with the positions of boundary pillars with GPS readings;

(ii) the plan of the area under concession showing the nature and extent of the mineral body/ spot or spots where the mining operations are proposed to be undertaken;

(iii) the plan of the area showing natural water courses, limits of reserves and other forest areas and density of trees, if any, assessment of impact of mining activity on forest, land surface and environment including air and water pollution i.e. the environment management plan;

(iv) details of the geology and lithology of the area including the estimated mineral reserves of the area;

(v) extent of manual mining or mining with the use of machinery and mechanical devices;

(vi) tentative scheme of mining and annual programme and plan for excavation/ production from year-to-year for a period of five years as part of the Mining Plan;

(vii) proposed method of mining/ development of mines, use of explosives and blasting operations, if any, stacking and disposal of minerals, mine-drainage pattern, handling of the overburden, location of electronic weigh bridges, and mineral processing, if any;

(viii) progressive and final mine closure plan;

(ix) details of scheme of restoration/ rehabilitation of the area through afforestation, land reclamation, use of pollution control devices and such other measures as may be directed by the State Government from time to time.

(6) In addition to the requirements stipulated under sub-rule (4) above, every mining plan shall delineate the approach in respect of environmental safeguards and restoration and rehabilitation measures of the area with regard to the following, among others:-

(i) precautions for the protection of environment and control of pollution while undertaking mining operations in the area granted on contract lease/ contract;

(ii) control of air pollution due to dust, exhaust emissions or fumes during mining or processing operations for minor mineral and related activities and containing the same within permissible limits specified under any environmental laws for the time being in force;

(iii) precautions to prevent or reduce the discharge of toxic and objectionable liquid effluents from minor mineral quarry, workshop or processing plant within the permissible limits. No such toxic affluent shall be discharged in any water body or in the sub-soil through a bore-hole;

(iv) abatement of and control over the noise arising out of mining and processing operations for minor minerals so as to keep the same within the permissible limits;

(v) prevention and containment of any damage to the flora of the area held under concession and the nearby area, scheme of undertaking plantation to compensate for any unavoidable damage and maintenance of the same during the subsistence of the concession period;

(vi) removal and stacking of any top soil or over-burden or waste rock and nonsaleable minor mineral excavated/ generated during the mining operations and utilisation of the same for restoration and rehabilitation of the area;

(vii) plan for phased restoration, reclamation and rehabilitation of land affected by mining operations.

(7) The mining plan, once approved, shall be valid for the mineral concession period, unless revised and modified and got approved during the concession period.

(8) The owner, agent, mining engineer or manager of every mine shall review the mining plan after every five years and shall submit scheme of mining for the next five years of the concession period for approval.

Modification in the mining Plan or Scheme and other conditions.

53. (1) Where any modification of the approved mining plan is required during the subsistence of the mineral concession, the concession holder shall get any such modification approved.

(2) The competent authority may, wherever needed, require the mineral concession holder to make such modifications in the mining plan referred to above or impose such conditions, as he may consider necessary by an order in writing if such modification or imposition of condition are considered necessary,-

(a) in the light of the experience of operation of mines;

(b) in view of the change in the technological development; and

(c) in the light of any change in legal provisions or orders of any Court.

(3) A mineral concession holder, desirous of seeking modifications in the approved mining plan as are considered expedient in the interest of safe and scientific mining, conservation of minerals, or for the protection of environment, shall apply to the Director, setting forth the intended modifications and also explaining the reasons for the same.

(4) The Director shall approve the mining plan or such modified mining plan or scheme of mining with or without any modification, as deemed appropriate, within a period of forty-five days from the date of receipt or submission of such application for approval of mining plan or modified mining plan or scheme of mining, as the case may be.

(5) Where no decision is conveyed within the aforesaid period of forty-five days, the mining plan or modified mining plan or scheme of mining, as the case may be, shall be deemed to have been provisionally approved, till such time a final decision in the matter is communicated.

(6) The mineral concession holder shall furnish financial assurance amounting to Rs.15,000/- per hectare of the area granted under the mineral concession and put to use for mining and allied activities subject to a minimum of one lakh rupees in the form and manner as defined.

Chapter – 10

Regulation and control of mining operations

Mining to be undertaken in a scientific and systematic manner.

54. (1) The mining operations shall be undertaken in a scientific and systematic manner ***i.e.*** mining operations consistent with the approved Mining Plan/ scheme of mining, clearances/ permissions granted by the concerned authorities.

(2) Any un-scientific operation or contravention of the terms of grant or permission (excepting the conditions relating to payment of Government dues) to operate by the mineral concession holder shall amount to violation or breach of the grant.

Non-compliance with or violation of the terms and conditions of the mineral concessions

55. (1) A mineral concession holder shall be held to be in 'default' of compliance of the conditions of grant of mineral concession in cases where the non-compliance is rectifiable ***suo moto*** or upon a notice within the period indicated in such notice. Some of the instances of major violations on the part of the mineral concession holder may be in the following areas:-

(i) Undertaking mining operations in an unsafe and unscientific manner ***i.e.*** without bench formation, non-erection or maintenance of boundary pillars, lack of labour safety measures, and the regulations pertaining to the use of explosives;

(ii) Non-installation of the electronic weigh bridges or, the weigh bridges, if installed, are found to be not calibrated properly to ensure correct weighment;

(iii) Non-adherence to the rules with regard to the limits prescribed for stocking of minerals and failure to furnish the prescribed returns in this behalf;

(iv) Dispatch of mineral from the concession area without a valid mineral transit pass;

(v) Non-submission of the prescribed reports and returns as per the time frame prescribed.

(2) Wherever non-compliance of terms and conditions of the mineral concession or violation thereof is observed, it shall cause a notice to be served upon the mineral concession holder to rectify the default and take corrective measures within such period as may be specified in such notice.

Breach of terms and conditions and the consequences

56. (1) Any failure on the part of the mineral concession holder to rectify any default or take corrective measures under rule 55 above within the period specified, or such violation being irreversible and non-rectifiable, or recurrence of defaults takes place, the same shall amount to a 'breach' of the terms and conditions of grant of the mineral concession.

(2) Wherever a mineral concession holder is observed to be in 'breach' of the conditions of grant, the competent authority shall be competent to take any or all of the following actions:-

(i) suspension of the mining operations and dispatch of mineral from the concession area, withholding the inventory of stocks, duly assessed at the time of suspension of operation, till such time the suspension order is revoked. The period of suspension may continue up to a period of three months or till such time the breach condition is rectified, whichever is earlier;

(ii) temporary seizure of the stocks of the mineral excavated in raw or processed form till such time the stocks are reconciled with the records and established to have been accepted from legal sources;

(iii) termination of the concession with forfeiture of the security in whole or in part and also forfeiture of the mineral lying in the area and its disposal by the competent authority; and

(iv) debarring the individuals/ firms/ companies for grant of a fresh mineral concession in the State for a period of up to 5 years.

Procedure for dealing with 'Breach' conditions and the penalties.

57. (1) A breach of any of the conditions of grant of a mineral concession or violation of any of the conditions relating to permission or clearance to undertake mining by any authority shall be dealt as under:-

(i) the competent authority shall, upon inspection by himself or any officer or on reporting of any violation amounting to breach by any other authority, issue a notice to the mineral concession holder to show cause within the period specified therein as to why the mineral concession be not prematurely terminated along with forfeiture of the amount of security, in full or part thereof, and forfeiture of the mineral already excavated while undertaking said operations;

(ii) on receipt and examination of the reply of the mineral concession holder, the competent authority may, on his satisfaction that the breach was either not entirely due to fault on the part of the concession holder or was beyond his

control or the same had actually not been committed, settle the notice with such caution as deemed appropriate with or without any further directions;

(iii) where the mineral concession holder admits to the breach having been committed on his part and promises to remedy the breach conditions in his reply and requests for grant of time, and the competent authority is satisfied with such promise, he may grant time as deemed proper for implementation of the remedial measures with or without a surety;

(iv) in case the competent authority ***prima facie*** forms an opinion on examination of the reply of the mineral concession holder that the breach is of a recurring or continuing nature, he may order suspension of the mining operations with immediate effect along with a ban on dispatch of the mineral from the site or any other related activity in the mine;

(v) In case the competent authority is not satisfied with the reply submitted by the mineral concession holder, the competent authority may terminate the mineral concession with or without forfeiture of the security amount in whole or part thereof along with forfeiture of the mineral already excavated while undertaking said operations. However, no such order shall be passed without affording an opportunity of show cause and representation to the mineral concession holder.

(2) Wherever an order is passed under clause (v) of sub-rule (1) above against a mineral concession holder, he or the partnership firm in which he may be a partner, or the company in which he may be a Director, may be debarred for the grant of a fresh mineral concession for a period of five years from the date of passing such order.

Chapter – 11

Mines and Mineral Development, Restoration and Rehabilitation Fund

Establishment of the Mines and Mineral Development, Restoration and Rehabilitation Fund.

58. A fund known as the 'Mines and Mineral Development, Restoration and Rehabilitation Fund' shall be established under 'Public Account' in the State of Assam under the administrative control of the Department to which rehabilitation charges payable under clause (i) of sub section (1A) of section 15 of the Act shall be credited in order to meet the following objectives:-

(i) funding of the restoration or reclamation or rehabilitation works in the sites affected by mining operations;

(ii) provision of common facilities for the benefit of community in and around areas where mining activities are undertaken;

(iii) development of infrastructure facilities for orderly growth of the mining operations and allied activities ***e.g.*** roads, water supply ***etc.***;

(iv) funding of the studies commissioned or activities related to the mining sector ***e.g.*** survey, exploration and prospecting of minerals, procurement of equipment and machinery required to support such activities;

(v) education, awareness and training of the mineral concession holders and the officers through field visits and exposure to the best mining practices;

(vi) funding of expenditure incurred on implementation of any scheme of incentives that the State Government may frame for recognition and awards for scientific mining undertaken with highest regard to mineral conservation, rehabilitation measures along with environmental safeguards and other measures;

(vii) Any other objects which the Government may consider expedient to support in the overall interest of the mining sector.

Contributions to the Fund

59. (1) An amount equal to ten percent of the dead rent or royalty or contract money paid to the State shall be charged from the mineral concession holder in the nature of 'other charges' for restoration and rehabilitation works and credited to the Fund in addition to the amount payable to the Government on account of such dead rent or royalty or contract money.

(2) The said contribution shall be remitted by the mineral concession holder in instalments along with the instalments of dead rent or royalty or contract money, as the case may be. Such amount shall be reconciled at the close of the financial year and any differential of the amount due shall be adjusted or paid on reconciliation.

(3) The Department shall maintain complete account of receipts to the Fund and the expenditure there from and shall invest the progressive accumulated corpus in a manner so as to earn secure returns therefrom.

Expenditure out of the Fund.

60. The amount available in the Fund shall be utilised strictly for fulfilment of the objectives for which the Fund is being set up and on the terms and conditions as may be stipulated by the Committee constituted under rule 62.

Restoration and Rehabilitation works to remain the first charge on the Fund.

61. (1) The expenditure on restoration and rehabilitation of the mining sites shall remain the first charge on the fund.

(2) Every mineral concession holder, before undertaking the restoration and rehabilitation works as part of his progressive mine closure plan, shall get his estimates of expenditure on such works duly approved from the Director or an officer authorised by him and submit the utilisation certificate duly certified by a registered Chartered Accountant. The mineral concession holder shall be entitled to get the expended amount re-imbursed out of the Fund to the extent of actual expenditure subject to such re-imbursement being limited to the amount contributed by him. Any expenditure incurred over and above this limit shall have to be borne by the mineral concession holder from his own account.

Explanatory Note : Notwithstanding the expenditure incurred by a mineral concession holder on the measures taken for the progressive mine closure plan, the occasion for undertaking the complete restoration and rehabilitation works in respect of any mining area arises only when a mine reaches the closure stage. It is likely that the mining operations would have been undertaken by multiple concession holders before reaching the stage of closure of a mine. As such, it becomes imperative that the comprehensive measures for restoration and rehabilitation of a mining site are taken up only upon closure of such mine. The responsibility for execution of such plan shall rest with the mineral concession holder operating such area at the time of its closure. Since the contribution to the fund is also made by each of the lessees/ contractors who have operated the area during the intervening period, the financial burden of restoration and rehabilitation measures shall not be borne by the last contractor/ lessee alone.

(3) A mineral concession holder operating the mine at the time of its final closure shall be responsible for execution of the restoration and rehabilitation works as per the final mine closure plan. He shall prepare and submit the estimates for implementation of the final restoration and rehabilitation plan to the Director, for approval of the estimates.

(4) The Director, shall approve such estimates, with or without any modifications, and reimburse the expenditure actually incurred on the site by the implementation agency in a phased manner out of the Fund. The amount so re-imbursed shall not exceed the total amount received from the mineral concession holders in respect of that site less the expenditure already incurred earlier.

(5) The Director may require the mineral concession holder to engage an independent agency for implementation of the restoration and

rehabilitation works and evolve a system of monitoring the deliverables through an independent agency.

Sanction of expenditure from the Fund

62. (1) Any or all proposals for expenditure from out of the Fund shall be approved by a committee of officers headed by the Secretary of the Department and consisting of representatives from the Departments of Mines and Minerals, Finance, Environment and Forests, Health, Education, Panchayat and Rural Development and Social Welfare.

(2) The mode and method of collection, remittance, and utilisation of these 'other charges' shall be notified separately by the Government.

Part IV

Miscellaneous

Chapter – 12

Illegal or un-authorised Mining and consequences

Illegal or unauthorised Mining

63. Any person undertaking any mining operations without a valid mineral concession granted under the Act and the rules framed thereunder in any area shall be deemed to be indulging in illegal or unauthorised mining and shall be dealt in accordance with the provisions contained in this chapter.

Consequences of illegal or unauthorised mining.

64. Any act of illegal or unauthorised mining shall be liable to the following:-

(i) for a first time violation, the said mineral shall be liable to be seized along with the impounding of all such tools, equipment, vehicles or any other things used for such unauthorised operation, which may be released only upon realisation of the payment of price of the mineral and the applicable royalty for the mineral extracted and, in addition, a fine which shall not be less than Ten Thousand rupees;

(ii) for a second time violation, the said mineral shall be liable to be seized along with the impounding of all such tools, equipment, vehicles or any other things used for such unauthorised operation for a minimum period of seven days, which may be released only upon realisation of the payment of price of the mineral and the applicable royalty for the mineral extracted and, in addition, a fine which shall not be less than fifteen thousand rupees;

(iii) wherever a person is found to be indulging in such offence for the third time or more, the officer concerned shall register an FIR and handover all such tools, equipment, vehicles or any other things used for such unauthorised operation to the Police. Any such offence shall entail (a) confiscation of all such tools, equipment, vehicles or any other thing used for such unauthorised operation for a period of minimum thirty days or more, and (b) pecuniary penalty and punishment for the offence as provided under Section 21 of the Mines and Minerals (Development and Regulation) Act, 1957.

Offences by companies.

65. (1) If the person committing an offence under these rules is a company registered under the Companies Act, every person, who at the time when the offence was committed, was in-charge and was responsible to the company for the conduct of the business of the company, shall be deemed to be guilty

of the offence and shall be liable to be proceeded against and punished accordingly :

Provided that nothing contained in this sub-rule shall render any such person liable to any punishment if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Where an offence under these rules has been committed with the consent or connivance of any director, manager, secretary or other authorised representative of the company, such director, manager, secretary or other authorised representative shall be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Chapter – 13
Delegation, Review and Appeals

Delegation.

66. The Government may delegate any powers under these rules, save in the cases of appeals and subject to such restrictions as it may deem appropriate to the competent authority, by an executive order. Similarly, the competent authority, may delegate any of his powers under these rules, save in the case of appeals, and subject to such restrictions as he may deem appropriate, to any of his subordinate officer(s) by an executive order.

Review.

67. The Director/ Principal Chief Conservator of Forests and Head of Forest Force, Assam may, either on an application from an aggrieved party or on his own motion, review the orders passed by him under these rules in any matter.

Appeals.

68. (1) Unless otherwise provided, an appeal against an order passed by any Sub-ordinate Officer shall lie with the Director/ Principal Chief Conservator of Forests and Head of Forest Force, Assam as the case may be.

(2) An appeal against the order passed by the Director/ Principal Chief Conservator of Forests and Head of Forest Force, Assam shall lie before the Government in the Power (E), Mines and Minerals Department in respect of minerals under Schedule – 'X' and the Environment and Forest Department in respect of minerals under Schedule – 'Y.

(3) No order under these rules shall be passed by the competent authority against any person unless he has been issued a show cause and given a reasonable opportunity to make a representation.

Time allowed for appeals or review.

69. (1) Any application for review under rule 67 and an appeal under rule 68 (1) can be preferred within a period of sixty days of the passing of the impugned order. A delay up to thirty days beyond the permissible appeal

period may be condoned by the Director/Principal Chief Conservator of Forests and Head of Forest Force, if found justified.

(2) A second appeal against the orders of the Director/Principal Chief Conservator of Forests and Head of Forest Force, under rule 68 (2) can be filed within a period of 45 days of the passing of the impugned order. A delay for up to thirty days beyond the permissible period may be condoned by the Government, if found justified.

Fee for review or appeal

70. (1) Every application for review or appeal shall be accompanied with the fee as prescribed in the Second Schedule appended to these rules.

(2) No application for review or appeal shall be entertained in matters where the applicant is in default of any Government dues, on whatsoever account, unless he deposits at least twenty five percent of such dues before filing such application and the proof for such payment is enclosed with the application or memorandum of appeal.

Chapter – 14
Miscellaneous

Power to rectify inadvertent mistakes.

71. (1) The competent authority may at any time, within six months, from the date of the order passed under these rules, on its own motion rectify any mistake or error apparent on the face of the record, and may within the like period rectify any such mistake or error which has been brought to its notice by an applicant for the grant of the minor mineral(s) concession.

(2) No such rectification under sub-rule (1) above, as has or purports to have a prejudicial effect on another applicant for the grant of the mining lease, shall be made unless the competent authority has given such applicant(s) notice of its intention so to do, and has allowed him/ them a reasonable opportunity to make a representation thereon.

Recovery of Government dues as arrears of land revenue.

72. Any rent, royalty, fee, contract money or other sum due to the Government or penalty imposed under these rules or under the terms and conditions of the mining lease or contract or permit and remaining unpaid, shall constitute a first charge on the assets of a mineral concession holder or the surety furnished under these rules and shall be recoverable as arrears of Land Revenue.

Unauthorized Working.

73. (1) No person shall undertake any mining operations in any area, except under and in accordance with the terms and conditions of a mineral concession granted under these rules.

(2) Notwithstanding any other punitive measures for any violations provided under the rules, any contravention of sub rule (1) shall be subject to the provisions contained in Section 21 of the Act.

Offences cognizable only on written complaint

74. No court shall take cognizance of any offence punishable under these rules except upon a complaint in writing made by the competent authority within three months of the date on which said offence is alleged to have been committed.

Relaxation in special cases.

75. The Government may, for reasons to be recorded in writing, relax any provision of these rules in cases where any mineral concession is granted to any Government Department or to a statutory authority set up by the State or Central Government, or a company or a corporation wholly owned or controlled by the State or Central Government.

Commencement of the grant of a mineral concession.

76. A mineral concession granted under these rules, in whatever form, shall commence from the date of execution of the agreement or from such date as specified therein.

Concession registration of Lease Deeds/ Contract Agreements.

77. All lease deeds or contract agreements effective for a period of 11 months or more shall be duly registered with the Registrar. All expenditure on registration of the lease deed or contract agreement shall be borne by the concession holder.

Applicability of other Statutes.

78. Grant of any mineral concession or other permissions under these rules shall not absolve the holder from the applicability of other statutes.

Repeal and savings

79. (1) The Assam Minor Mineral Concessions Rule, 1994 as amended from time to time, in their application to the State of Assam are hereby repealed.

(2) Notwithstanding such repeal, anything done or any action taken or proceedings commenced under the 'Assam Minor Mineral Concessions Rule, 1994' as amended from time to time shall be deemed to have been done, taken or commenced under these rules :

Provided that wherever the terms and conditions of any mineral concession, granted before the commencement of these rules, are inconsistent with or repugnant to these rules, the same shall be deemed to have been modified in accordance with these rules from the date of notification thereof.

FORM ML – 1

[see rule 8(5) and 17(1)]

Model form for execution of Mining Lease Deed

This indenture made on this _____ day of _____, 201_ between the Governor of Assam acting through _____ (hereinafter referred to as the "State Government") which expression shall where the context so admits, include the successors and assigns) of the one part; and

Where the lessee is an individual :-

_____ (Name and address of the person) (hereinafter referred to as the "Lessee" which expression shall where the context so admits, includes his heirs, executors, administrator, representatives and permitted assigns)

Where the lessee is more than one individual :-

_____ (Name and address of persons) (hereinafter referred to as the "Lessee" which expression shall where the context so admits include their respective heirs, executors, administrators, representatives and permitted assigns)

Where the lessee is registered firm :-

_____ (Name and address of all the partners or members, where the lessee is a firm or society) all carrying on business in partnership under the firm name and style of _____ (name of the firm and address) registered under Indian Partnership Act, 1932 and having their registered office at _____ (hereinafter referred to as the "Lessee" which expression shall where the context so admits include all partner of the said firm, their representatives, heirs, executors, administrators and permitted assigns).

Where the lessee is a registered company :-

_____ (Name of the company) a company registered under _____(Act under which company incorporated) and having its registered office at _____ (address) (hereinafter referred to as the "Lessee" which expression shall where the context so admits, include its successors and permitted assigns) of the other part.

(Where lease is granted through competitive bid process under rule 8 or renewed under rule 13)

Whereas the lessee has offered the highest bid of Rs. _____ (in words Rupees_____) in the bid/auction held on _____ for obtaining a mining lease for _____ (name of minor minerals) in respect of the lands hereinafter described in clause 2 and such bid had been accepted by the officer authorized in this behalf and the lessee has deposited with the Government, a sum of Rs. _____ (Rupees _____) as initial bid security (10% of the annual bid amount) and Shri _____, S/o Shri _____, resident of _____ District _____ (referred to as the 'surety' which expression shall where the context so admits, include his heirs, executors, administrators, representatives) has been offered as solvent surety for the aforesaid amount, and whereas the lessee is in possession of a Income Tax Clearance Certificate.

Now, therefore, this deed witnesses and the parties hereby agree as follows :

Liberties and privileges to be exercised and enjoyed by the Lessee(s) :

The following liberties, powers and privileges may be exercised and enjoyed by the lessee subject to the other provisions.

1. In consideration of the rents and royalties, covenants and agreements hereinafter contained and on the part of the Lessee to be paid, observed and performs, the Government hereby grants and demises unto the lessee all those mines/beds/veins/seams of_____ (hereinafter referred to as the said minor minerals), situated, lying and being in or under the lands which are referred to in clause (2) together with the liberties, powers and privileges to be executed or enjoyed in connection herewith which are hereinafter mentioned in Part-I subject to the restrictions and conditions as to exercise and enjoyment of such liberties, powers and privileges which are hereinafter mentioned in Part-II and subject to other provisions of this lease.

2. The area of the said lands is as follows :

All the tract of land situated at village _____ in _____ Sub-Division _____ District bearing _____ Dag No. and _____ Patta No. containing an area of _____ or thereabouts delineated on the plan hereto annexed and boundary as follows :

On the North by _____;
On the South by _____;
On the East by _____;
On the West by _____:
And (hereinafter referred to as the 'said lands' or the 'leased area').

3. The lessee shall hold the premises hereby granted from the _____ day _____ for the term of _____ years thence next ensuing.

Part – I

Liberties and privileges to be exercised and enjoyed by the Lessee(s)

The following liberties and privileges may be exercised and enjoyed by the lessee subject to the other provisions :

1. To enter upon land and search for win, work, etc. :

Liberty at all times during the term hereby demised to enter upon the said lands and to search for mineral, bore, dig, drill for win, work, dress, process, convert, carry away and dispose of the said minor mineral(s).

2. To sink, drive and make pit, shafts and inclines, etc :

Liberty for or in connection with any of the purposes mentioned in this clause to sink, drive, make, maintain and use in the said land and pits, shafts, inclines, drifts, levels, waterways, airways and other works and to use, maintain, deepen or extend any existing works of the like nature in the said lands.

3. To bring and use machinery, equipment :

Liberty for or in connection with any of the purposes mentioned in this clause to erect, construct, maintain and use on or under the said lands any engine, machinery, plan, dressing floors, furnaces, coke, ovens, brick kilns, workshop, store houses, bunglows, godowns, shed and other buildings and other works and convenience of the like nature on or under the said lands.

4. To use water from streams, etc.:

Liberty for or in connection with any of the purposes mentioned in this clause but subject to the rights of any existing or future lessees and with the written permission of the Collector concerned to appropriate and use water from any streams, water course, springs, or other source in or upon the said lands and to divert, step up or dam any such stream or water course, cultivated land, village buildings or watering places for livestock of a reasonable supply of water as before accustomed nor in any way to foul or pollute any streams or springs :

Provided that the lessee shall not interfere with navigation in any navigable stream nor shall divert such stream without the previous written permission of the Government.

5. To fell undergrowth and utilize timber and trees, etc.:

Liberty for or in connection with any of the purposes mentioned in this lease deed, to clear undergrowth and brush wood. Lessee shall not fell any trees or timber standing or found on the said lands without obtaining prior permission in writing from the Forest Department. In case such permission is granted, he shall pay in advance, the price of the trees/timber to be felled to the said officer at the rates, fixed by him.

6. To get building and roads material, etc. :

Liberty for or in connection with any of the purposes, mentioned in this lease deed, to quarry and get stones, gravel and other building and road materials and ordinary clay and to use and employ the same and to manufacture such clay into bricks or tiles and to use such bricks, tiles but not to sell any such materials, bricks, tiles.

7. To use land for stacking purpose :

Liberty to enter upon and use a sufficient part of the surface of the said lands for the purpose of stocking, storing or depositing therein any produce of the mines including over burden or waste material and works carried on ad tools, equipment and other materials needed for mining operations.

8. To install fuel pumps or stations for diesel or petrol for self use :

Liberty to use a sufficient part of the land for installing fuel pumps or stations for diesel or petrol for self use or consumption required for mining operations in the lease area, subject to permission of the authority.

9. To construct magazine for explosive and storage sheds :

Liberty to construct magazine for storage of explosive and storage sheds for explosive related substances with permission from licensing authority.

10. Liberty to seek permission for diversion of public roads, overhead electric lines :

Liberty and power to request to the competent authority for diversion of public road, overhead electric lines passing through the concession area at the expenses of the lessee to ensure scientific and systematic mining.

Part – II

Restrictions as to the exercise of the liberties by the lessee

The liberties and privileges granted under Part – I are subject to the following restrictions and subject to other provisions of this lease :

1. No mining operations within the limit of public works, etc. :

The lessee shall not carry on, or allow to be carried on any mining operations :-

(i) within a distance of 50 meters from the outer periphery of the defined limits of any village, habitation, National Highway, State Highway and other roads, where such excavation does not require use of explosives, unless specifically relaxed and permitted by the competent authority; or

(ii) within a distance of 250 meters from the outer periphery of the defined limits of any village, habitation, National Highway, State Highway and other roads, where use of explosives is required, unless specifically relaxed and permitted by the competent authority or any specific dispensation is obtained from the Director, Mines Safety; or

(iii) within a distance of 500 metres from major structures like R.C.C Bridges, Guide bund etc.; or

(iv) within a distance of 75 meters from any railway line or bridge except under and in accordance with the written permission of the railway administration concerned. The Railway Administration or the Government may in granting such permission, impose such conditions as it may deem fit.

Explanation : For the purpose of this clause the expression Railway Administration shall have the same meaning as it is defined by sub-section (4) of section 3 of the Indian Railway Act, 1890.

Provided that where the continuance of any mining operations in any area, in the opinion of the Government is likely to endanger the safety of any National or State Highway, rod, bridge, drainage, reservoir, tank, canal or other public works, or public or private buildings or in the public interest or in the interest of environment/ecology of the area, the Government may determine the lease after giving 60 days notice to the lessee in this behalf and the lease shall stand terminated on the date mentioned in this notice.

2. Working in sand Zones:

That the lessee in respect of sand zones, shall restrict the quarrying operations to maximum four villages of the zone at any point of time during the subsistence of the lease. The lessee shall have a right to change the site any time during the subsistence of the lease on settlement of compensation with the land owners of new site of the zone from where he intends to extract sand but ceiling of maximum four villages shall be adhered to strictly and such change of site shall be intimated to the competent authority.

3. Special conditions for river bed mining :

In case of river bed mining/excavation of minor mineral(s), in order to ensure safety of river-beds, structures and the adjoining areas, the following special conditions shall be abide by the lessee :

(a) No mining would be permissible in a river-bed up to a distance of five times of the span of a bridge on up-stream side and ten times the span of such bridge on down-stream side, subject to a minimum of 250 metres on the up-stream side and 500 metres on the down-stream side;

(b) There shall be maintain an un-mined block of 50 metres width after every block of 1,000 metres over which mining is undertaken or at such distance as may be directed by the competent authority;

(c) The maximum depth of mining in the river bed shall not exceed three metres measured from the un-mined bed level at any point of time with proper bench formation.

(d) Mining shall be restricted within the central 3/4th width of the river/rivulet;

(e) No mining shall be permissible in an area up to a width specified by the competent authority from the active edges of embankments;

(f) Any other condition(s) as may be required by the competent authority in public interest.

4. Notice for surface operation in land not already in use :

Before using for surface operations any land which has not already been used for such operation, the lessee shall give notice in advance to the Collector of the District, the competent authority and the officer-in-Charge _____ in writing along

with copy of permission to undertake mining specifying the situation and the extend of the land proposed to be so used and the purpose for which the same is required and the said land shall not be so used, if objection is issued by the Collector.

5. Not to use the land for other purposes :

The lessee shall not cultivate or use the land for any other purpose other than those specified in the lease deed.

6. Disposal of mineral(s) only on issuance of Mineral Transit Pass:

The holder of mining lease shall not sell/dispose off any mineral or mineral products from the concession area without a Mineral Transit Pass.

7. Stacking of mineral(s) inside lease hold area :

The lessee shall not stock the mineral(s) excavated inside the lease hold area at the designated site more than twice the quantity of the average monthly production as per approved mining plan/scheme.

8. Stacking of mineral(s) outside lease hold area :

The lessee shall not stock any minor mineral(s) granted under the lease, outside the lease hold area.

9. Stacking and storage of incidentally extracted major minerals :

In case lessee, while extracting minor mineral(s) given on lease, incidentally extracts any major mineral not given on lease, the same shall be the property of the Government and lessee shall be under an obligation to stack and store it and maintain its proper record in accordance with the direction of the competent authority, who shall also be competent to prescribe the procedure for its disposal.

10. Penalties in case of non-compliance of clause (9) :

In case it is detected that lessee has disposed off incidentally extracted major mineral referred to in sub-rule (18) of rule 38 in whole or part thereof or failed to maintain the record of stored mineral, he shall be liable to penalties as specified in sub-section (1), (4) and (5) of section 21 of the Mines and Minerals (Development and Regulation) Act, 1957 and also premature determination of mining lease in terms of sub-rule (19) of rule 39 of the said rules.

11. Restrictions of mining operations above Ground Water Table :

A safety margin of two metres shall be maintained above the ground water table while undertaking mining and no mining operations shall be permissible below this level unless a specific permission is obtained from the competent authority in this behalf.

12. Restrictions of surface operations :

No mining operations shall be undertaken in any area prohibited by any authority or by the orders of any Court.

13. No mining operations without requisite clearance :

The lessee shall not undertake any mining operations in the area granted on mining lease without obtaining requisite clearance from the competent authority as required for undertaking mining operations.

Part – III
Covenants of the Lessee

The lessee/ lessees hereby covenant(s) with the Government as follows:-

1. Rate of Royalty :

The lessee shall pay royalty on the quantity of the said minor mineral dispatched from the leased area at the rates as per First Schedule of the Assam Minor Mineral Concession Rules, 2012 and as may be revised by the State Government from time to time.

2. Surface rent:

The lessee shall pay Surface rent for the surface area occupied by him as per rule 44.

3. Dead rent:

The lessee shall pay for every year dead rent at the rate as fixed by the Government from time to time.

Where the mining lease is granted by competitive bid/auction under rule 8:- The highest bid received in the open bid/auction at the rate of ..... per annum shall become the 'annual dead rent' amount payable by the lessee. The rate of annual dead rent initially determined on the basis of competitive bids/ auctions shall be increased @ 25% on completion of each block of three years.

Explanation: If the initially determined amount of annual dead rent is Rs.100/, it shall be increased to Rs.125/- with the commencement of the fourth year and to Rs.156.25 with the commencement of the 7th year and so on and so forth for the next each block of three years :

Provided further that if the lease permits the working of more than one minor mineral in the same area, the Government may charge separate dead rent in respect of each minor mineral :

Provided that the mining of one minor mineral does not involve the working of another minor mineral :

Provided further that the lessee/lessees shall be liable to pay the dead rent or royalty in respect of each mineral, whichever be higher but not both:

Provided further that lessee/ lessees shall deposit the dead rent at the rates as revised and notified from time to time by the State Government.

4. Security deposit :

25% of the annual bid amount/ rate of dead rent. The security amount to be deposited as per following :-

(i) 10% as initial bid security at the time of auction
(ii) 15% of the annual bid amount before commencement of mining operations or before the expiry of period allowed, which shall not be more than 12 months, whichever is earlier :

Provided on enhancement of the dead rent after expiry of every three year period of lease the lessee shall deposit the balance amount of security so as to upscale the security amount equal to 25% of the revised annual dead rent as applicable for one year with respect to next block of three years

5. Mode of payment of dead rent/ royalty and surface rent :

(a) In case of mining lease granted under rule 8, the lessee shall deposit one advance instalment of dead rent before commencement of mining operations or before the expiry of period allowed, which shall not be more than 12 months, whichever is earlier, along with 15% of the balance security amount as per clause 4(a) above.

(b) The lessee during the subsistence of the lease, pay in advance to the Government the instalments of the dead rent in respect of the said land given to him/ them on mining lease in four quarterly instalments on the 1st of April, 1st of June, 1st of September and 1st of December of the year.

Note: The amount of one advance instalment deposited at the time of commencement of the mining operations or within time allowed for the same shall be adjusted in a manner that the subsequent instalments are payable for a full calendar month/quarter/year, as the case may be.

(c) The lessee shall be liable to pay the amount of royalty on the mineral excavated and dispatched at the rate specified in the first schedule or dead rent, whichever is more and not both.

(d) Where the amount of royalty payable in respect of a month exceeds the amount of dead rent deposited in advance, the lessee shall deposit such amount of royalty on the mineral extracted and dispatched or consumed by the 7th day of the following month after adjusting the amount of advance dead rent already deposited.

(e) In cases where the lessee has paid the amount of royalty or dead rent during a part of the year, which is equal to or more than the annual dead rent payable for the year, he shall not be required to deposit the advance dead rent for the remaining period of the said year and the royalty for the balance part of the year shall be deposited by the 7th day of the following month.

6. Amount to be deposited on account of Mines and Minerals Development Restoration and Rehabilitation Fund :

Where the lessee is operating the area, he shall also deposit/ pay an additional amount, equal to 10% of the due dead rent or royalty, whichever is more along with amount of instalments on account of dead rent or royalty, towards the 'Mines and Minerals Development Restoration and Rehabilitation Fund' separately established under these rules.

7. Interest on delayed payments :

In case of any default in payment of the instalments of dead rent/contract money/ contribution to the Mines and Minerals Development (Restoration and Rehabilitation) Fund on the due date(s), the amount would be payable along with interest at the following rates :

Sr. No.	Period of delay	Rate of Interest applicable
(i)	If paid within a period of 7 days from the due date	A grace period of up to 7 days is allowed without any interest;
(ii)	If paid after 7 days but up to 30 days of the due date	15% on the amount of default for the period of default including the grace period;
(iii)	If paid after 30 days but within 60 days of the due date	18% on the amount of default for the period of default including the grace period;
(iv)	Delay beyond 60 days of the due date	It would amount to a 'breach', invite action for termination of the lease/ contract and the entire outstanding amount would be recoverable along with interest calculated @ 21% for the entire period of default.

8. Working of newly discovered minerals :

If any minor mineral, not specified in the lease, is discovered in the leased area, the lessee shall report the discovery without delay to the competent authority and shall not win or dispose of such minor mineral without obtaining a lease therefor. If he fails to apply for such a lease within six months from the discovery of the minor mineral, the competent authority may give the lease in respect of such mineral, to any other person :

Provided that the grant of such permit may be refused for reasons to be recorded in writing:

9. To commence mining operations within 180 days and carry them on properly :

Unless the competent authority for sufficient cause allows otherwise, the lessee shall commence mining operations 180 days from the date of execution of the lease and shall thereafter conduct such operations in a proper, skilful and workman like manner.

Explanation :– For the purpose of this clause, mining operations shall include the erection of machinery laying of a tramway or construction of a road in connection with the working of the mine.

10. To erect and maintain boundary pillars etc. :

The lessee shall at his own expenses, erect and at all times maintain and keep in good repairs boundary marks and pillars according to the plan annexed to the lease. Each of the pillars should be numbered and every pillar shall have GPS reading.

11. Accounts :

The lessee shall keep correct accounts showing the quantity and other particulars of all minerals obtained from the mines and the number of persons employed therein and a complete plan of the mine and shall allow any officer authorised by the Assam Government or the Central Government in that behalf to examine at any time any accounts and records maintained by him, and shall furnish to the Assam Government or competent authority or the Central Government or the competent authority with such information and returns as it may require.

12. To allow facilities to other lessees etc. :

In addition to the concession holders under Rule – 5 of the Assam Minor Mineral Concession Rules, 2012, the lessee shall allow existing and future licensees or lease holders/contractors of any land which is comprised in or adjoins or is reached by the land, held by the lessee, reasonable facilities for access thereto.

13. To allow entry to officers :

The lessee shall allow any officer authorised by the Assam Government and the Central Government or competent authority to enter upon any building, excavation or land comprised in the lease for the purpose of inspecting the mines.

14. Returns :

The lessee shall :–

(a) submit a return in form 'MMP1' by the 7th of every month to the competent authority and also to other officer(s) specified giving the total quantity of minor

mineral(s) raised and dispatched from the leased area in the preceding calendar month and its value ;

(b) also furnish a statement giving information in Form 'MMP2' by the 15th April every year to the competent authority and to other Officer(s), specified regarding quantity and value of minor mineral(s) obtained during last financial year, average number of regular labourers employed (men and women separately) number of accidents, compensation paid and number of days worked separately.

15. To strengthen and support the mines :

The lessee shall strengthen and support to the satisfaction of the Railway Administration or the State Government, as the case may be any part of the mine which in its opinion requires such, strengthening or support for the safety of any railway, bridge, national highway, reservoirs, canal, road or any other public work or building.

16. Notice for use of explosives, etc. :

The lessee shall immediately give notice in writing in Form 'IMSE1' to the following:

1. The Controller General, Indian Bureau of Mines, Government of India, Nagpur;
2. The Director General of Mines Safety, Government of India, Dhanbad;
3. The Director, Mines Safety, Government of India, Guwahati;
4. The Regional Controller of Mines, Indian Bureau of Mines, Kolkata;
5. The competent authority;
6. The District Magistrate of the District concerned; and
7. The Officer-in-charge as soon as :
   (a) The working in the mines extend below superjacent ground; or
   (b) The depth of any open cast excavation measured from its highest to the lowest point reaches six metres; or
   (c) The number of persons employed on any day is more than 50;

   or

   (d) Any explosives are used.

17. Maintenance of Sanitary conditions :

The Lessee shall maintain sanitary conditions in the area held by him under the lease.

18. To pay compensation for damage and indemnify the Government :

The lessee shall make and pay such reasonable satisfaction and compensation for all damage, injury or disturbance which may be done by him in exercise of the powers granted by the lease and shall indemnify the Government against all claims which may be made by third parties in respect of such damage, injury or disturbance.

19. Application of all Acts, Rules and Regulations to this lease :

The lessee shall abide by the provisions of Mines Act, 1952, and the rules framed there under and also the provisions of other labour laws both Central and State as are applicable to the workmen engaged in the mines and quarries relating to the provisions of drinking water, rest shelters, dwelling houses, latrines and first-aid and medical facilities in particular and other safety and welfare provisions in general, to the satisfaction of the competent authorities under the aforesaid Acts, Rules and Regulations and also to the satisfaction of the District Magistrate concerned. In case of non compliance of any of the provisions of the enactments as aforesaid, competent authority may terminate the mining lease by giving one month's notice with forfeiture of security deposited :

Provided that the lessee shall carry out mining operations in accordance with all other provisions as applicable for undertaking mining including the provisions of Forest (Conservation) Act, 1980 and Environment (Protection) Act, 1986 and the rules made thereunder.

20. To report accident :

The lessee shall without delay report to the Deputy Commissioner of the district concerned and the competent authority or any other officer authorised by him, any accident which may occur at or in the leased area.

21. Delivery of possession of land and mines on the surrender or sooner determination of the lease :

At the end or sooner determination or surrender of the lease the Lessee shall deliver up the said lands and all mines (if any dug there) in a proper and workable state, save in respect of any working as to which the Government might have sanctioned abandonment.

22. To provide electronic weighing machine :

The lessee shall provide and at all times keep at or near the pit-head at which the said mineral shall be brought to bank a properly constructed and efficient electronic weighing machine and shall weigh or caused to be weighed thereon all the said minor minerals from time to time brought to bank, sold, exported and converted products, and shall at the close of each day cause the total weights, ascertained by such means of the said minor minerals, ores, products, raised, sold, exported and converted during the previous twenty four hours to be entered in the aforesaid books of accounts. The lessee shall permit the Government at all times during the said term to employ any persons to be present at the weighing of the said minor minerals, as aforesaid and to keep accounts thereof and to check the accounts kept by the lessee. The lessee shall give 15 days previous notice in writing to the Officer-in-Charge _____ of every such measuring or weighing in order that he or some officer on his behalf may be present thereat.

23. To secure pits shafts not fill them up :

The lessee shall well and properly secure pits and shafts and will not without permission in writing, wilfully close, fill up or close any mine or shaft.

24. Not to enter upon or to commence operations in the Forest land :

The lessee shall not enter upon or commence any mining operations in any forest land comprised in the leased area except after obtaining permission in writing of the Forest Department, Assam.

25. To respect water rights and not injure adjoining property :

The lessee shall not injure or cause to deteriorate any source of water, power or water-supply and shall not in any other way render any spring or stream or water unfit to be used or to do anything to injure adjoining land, villages or houses.

26. Stocks lying at the end of the lease :

(a) The lessee on expiry of the lease period (successful completion of the lease) shall remove already extracted all of the mineral from the premises of the quarry within a period of seven days. In case any quantity of the already extracted mineral, in the said land is left undisposed off and is not removed within seven days from the date of expiry of the period of lease the same shall be deemed to be the property of the Government who may dispose it off in any manner it may like without paying anything thereof to the lessee.

(b) The lessee on the termination or sooner determination of the lease shall not remove extracted mineral from the premises of the leased areas. All extracted minerals in the said lands left over un-disposed after the termination or determination of lease shall be deemed to be property of the Government and competent authority, may dispose it off in any manner it may like without paying anything thereof to the lessee.

27. Payment of taxes :

The lessee shall duly and regularly pay to the appropriate authority all taxes, cesses and local dues in respect of the leased area, said minor minerals or the working of the mines.

28. Payment of additional amount for reclamation/ restoration :

The lessee shall also deposit/pay additional amount equal to 10% of the amount of royalty/dead rent along with the payment of royalty or dead rent, whichever is more, by the 7th of every month, to ensure the compliance of the Reclamation and Restoration works. This additional amount shall be refunded after satisfactory Reclamation/ Restoration of the area after mining in accordance with the Mine Closure Plan :

Provided that in case the lessee fails to reclaim/ restore the area as per mining plan to the satisfactions of the State Government, the amount deposited shall be forfeited and used for the restoration of the area :

Provided further that in case no rehabilitation position of the mine comes during the tenure of the mining lease, the amount so deposited shall be kept by the State Government in the mining area development fund for future use as and when the mine reaches to a stage requiring restoration and rehabilitation.

29. Assign sublet or transfer of the lease :

The lessee shall not assign, sublet or transfer the lease to any person without obtaining prior permission in writing from the competent authority.

30. Fencing of working place :

If a working place is found to be unsafe all persons shall be withdrawn by the lessee immediately from the dangerous area and all access to such working place except for the purpose of removing the danger or saving life shall be prevented by securely fencing the full width of all entrances to the place, at his own cost.

31. Fencing of excavation after termination or sooner determination of the lease :

The lessee on termination or sooner determination of the lease, shall at his own cost, suitably fence the excavations for safety as competent authority.

32. Felling of trees:

The lessee shall not fell or cut any tree, standing on the land wherein the quarry is located without obtaining prior permission in writing from the Forest Department, Assam and paying its price as fixed.

33. Security deposit shall carry no interest:

The security deposited by the lessee shall not carry any interest.

34. State Government not responsible for loss to lessee:

The Government shall not be responsible for any kind of loss to the lessee.

Part-IV

Rights of the State Government

1. Suspension or termination of the lease :

The competent authority shall have the right to suspend or prematurely terminate the lease.

(a) If the dead rent or royalty or surface rent or any other amount due to the Government are not paid;

(b) if any of the terms and conditions of the lease deed or conditions of grant or permission to undertake mining by any other statutory authority or competent authority is violated;

(c) if any of the provisions of these rules and other laws both Central and State as are applicable to mines and minerals, are not complied with :

Provided that no orders of suspension or termination of the lease shall be passed by the competent authority without giving reasonable opportunity to show cause and following the procedure prescribed in the Assam Minor Mineral Concession Rules, 2012.

Provided further that the competent authority may also at any time after issuance of the notice for default on account of non payment of dues, enter upon the said premises and detrain all or any of the mineral(s) or movable property therein and may carry away, detain or order the sale of the property so detrained, or so much of it as will suffice for the satisfaction of the rent or royalty or both dues and all costs and expenses occasioned by the non-payment thereof and shall give proper receipt of the articles carried away.

2. Determination of lease in public interest :

The Government may by giving 'six months' prior notice in writing determine the lease if the Government consider that the minor mineral under the lease is required for establishing an Industry beneficial to the public :

Provided that in the State of National Emergency or War, the lease may be determined without giving such notice.

3. Right of pre-emption :

The government shall from time to time and at all times during the terms of lease have the right (to be exercised by notice in writing to the lessee) of pre-emption of the said mineral(s) and all products thereof lying in or upon the said lands hereby demised or elsewhere under the control of the lessee and the lessee shall deliver all minerals or products thereof to the Government at current market rates in such quantities and in the manner at the place specified in the notice exercising the said right.

4. Penalty for not allowing entry to officers:

If the lessee or his transferee or assignee does not allow any entry or inspection under clause (13) of part-III, the competent authority may cancel the lease and forfeit in whole or in part the security deposit paid by the lessee.

5. Settlement of Rent and Compensation Payable to third parties thereof :

In case the occupier(s) or owner(s) of the said land refuses his/ their consent to the exercise of the rights and powers reserved to the Government and demised to the lessee under these presents, the lessee shall report the matter to the competent authority who

shall request the Collector of the District concerned to direct the occupier(s) or owner(s) to allow the lessee to enter the said lands and to carry out such operations as may be necessary for working the mine, on payment in advance of such rent or compensation to the occupier or owner by the lessee, as may be fixed by the Collector as per the provisions of rules 46 and 47 of the rules.

6. Suspension of mining operations :

The competent authority may order to suspend the mining operations after serving a notice to the lessee, in case, the following violations are noticed:—

(a) unsafe and unscientific mining;
(b) non operations of weighbridge;
(c) non providing of safety appliances to the workers;
(d) non payment of compensation to the surface owners;
(e) non submissions of monthly returns;

In case of violations of the aforesaid conditions and also any other terms and conditions of the agreement deed and the provisions of the rules, the competent authority may give a notice to the lessee to remedy the violations within a period of 15 days from the date of issue of the notice. In case, the violations pointed out through notice, are not remedied within the stipulated period of 15 days, the competent authority may after affording an opportunity of being heard to the lessee, order the suspension of the mining operations till such time, the defaults/ defects are removed by the lessee within the time frame (within a maximum period of six months) granted by the competent authority. During the period of suspension of mining operations, the lessee will be allowed only to undertake rectification work for removal of the defects and shall not dispose of the mineral. During the suspension period, the lessee shall be under the obligation to deposit the amount of the dead rent on the due dates.

On satisfactory removal of the defects, the competent authority may revoke the suspension orders with or without any modification. Non removal of the defects/ defaults during the suspension period and within the time allowed by the competent authority, shall lead to premature termination of lease.

Part-V

General

1. Cancellation:

The lease shall be liable to be cancelled by the competent authority if the lessee cease to work the mine for a continued period of six months without obtaining written sanction.

2. Notices :

Every notice by these presents required to be given to the lessee shall be given in writing to such person resident on the said lands as the lessee may appoint for the

purpose of receiving such notices and if there shall have been no such appointment then every such notice shall be sent to the lessee by registered post addressed to the lessee at the address recorded in this lease or at such other address in India as the lessee may from time to time in writing to the competent authority designate for the receipt of notices and every such service shall be deemed to be proper and valid service upon the lessee and shall not be questioned or challenged by him.

3. Recovery of government dues as arrears of land revenue:

Without prejudice to any other mode of recovery authorised by any provision of this lease or by any law, all amounts, falling due hereunder against the lessee may be recovered as arrears of land revenue under the law in force for such recovery.

4. Forfeiture of property left more than three months after expiry or determination of lease :

The lessee should remove his property lying on the said lands within three months after the expiry or sooner determination of the lease or after the date from which any surrender by the lessee of the said lands under relevant rules of the Assam Minor Mineral Concession Rules, 2012 becomes effective, as the case may be, the property left after the aforesaid period shall become the property of the Government and may be sold or disposed of in such manner as the competent authority shall deem fit without liability to pay any compensation therefore, to the lessee.

5. Security and forfeiture thereof :

a. the competent authority may forfeit the whole or any part of the amount deposited as 'Security' under this lease, in case the lessee commits a breach(s) of any covenants to be performed by the lessee under this lease.

b. Whenever the said security deposit or any part thereof or any further sum hereafter deposited with the competent authority in replenishment thereof is forfeited under sub clause (a) or applied by the competent authority under this lease (which the Government is hereby authorised to do) the lessee shall immediately deposit with the inappropriate part thereof to bring the amount in deposit with the Government up to the requisite amount of security at that point of time of lease.

c. The rights conferred to the Government by clause (a) shall be without prejudice to the rights conferred on the State Government by any other provision of this lease or by any law.

d. On such date as the competent authority may elect within twelve calendar months after the determination of this lease or any renewal thereof, the amount of security deposit paid in respect of this lease and then remaining in deposit with the Government and not required to be applied to any of the purposes mentioned in this lease shall be refunded to the lessee. No interest shall run on the security deposit.

6. Survey and demarcation of the area :

When a mining lease is granted arrangement shall be made, if necessary, at the expense of the lessee, for the survey and demarcation of the area granted under the lease. The lessee shall have to bear actual expenses of the staff deputed for the work. Actual expenses will include travelling allowances, daily allowances and salary of staff plus 10 percent as instrument charges.

7. Surrender of a mining lease by the lessee :

The Government may accept the request of a lease holder for surrender of a lease or part thereof in cases where it is established that it has not been found feasible to operate the lease grant for whatsoever reasons subject to the condition that the lessee :

(i) has been regular in furnishing the production returns as required in terms of the lease agreement;

(i) has been taking the requisite steps for the progressive mine closure plan as per the conditions of the lease grant;

(iv) is not in default of payment of any dues of the Government as on the date of making such application and undertakes to pay all such dues till the date of expiry of the notice period either in cash in advance or by way of adjustment of the security or both:

Provided that in case the lessee makes an application for surrender of part area of the lease, it shall not result in any prorated reduction of the dead rent and the rate of dead rent payable and applicable for the entire area at the time of such application shall remain intact.

8. Penalty for repeated breaches :

In case of repeated breaches of covenants and agreements by the lessee for which notice has been given by the competent authority in accordance with Sub-rule (1) of Rule 55 and/ or sub rule(1) of rule 56 of the Assam Minor Mineral Concession Rules, 2012 on earlier occasions, the competent authority without giving any further notice, may impose such penalty not exceeding twice the amount of annual dead rent specified in clause 3 of part-III of this form.

9. Obtaining sales tax number :

The lessee shall get himself registered with the commercial Taxes Department of Assam State and shall obtain the Sales Tax Number.

10. Overriding effect :

Unless otherwise specifically provided, it is agreed that this deed shall be governed by the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957) and the rules made thereunder. The provisions of the Act and the rules shall prevail over the terms and conditions of the agreement.

IN WITNESS WHEREOF: – These presents have been executed in the manner hereunder appearing the day and year first above written.

Signature of the Lessee

For and on behalf of the Government of Assam.

Witness :–

1._____ 1._____

2._____ 2._____

Signature of surety

Witness

1. _____

2. _____

FORM ML-2

{See rule 9(1)}

(Register of application for grant/ renewal of Mining Lease)

1	Serial Number
2	Date of application for grant or renewal of mining lease
3	Date on which application was received by the Receiving Officer
4	Name of applicant with full address
5	Situation of the land applied for *viz* village and district with details
6	Estimated area of the land
7	Particulars of minerals which the applicant intends to mine
8	Amount of application fee paid
9	Final disposal of application together with number and date of the order
10	Remarks
11	Signatures of the Officer

FORM ML-3

{See rule 9 (2)}

(Mining Lease Register)

1	Serial number	
2	(a) Date of application (b) Date of receipt of the application	
3	Name and address of the applicant	
4	Situation and boundaries of the land	
5	The mineral granted under mining lease	
6	The total area	
7	Number and date of grant of the lease	
8	Period for which granted	
9	Date of execution of the lease deed	
10	Number, date and period of renewal	
11	Amount of security deposited	
12	Particulars of disposal or refund of security deposit	
13	Date of assignment of transfer of the lease, if any and fee paid thereof and the names of the parties thereto	
14	Date of expiry or relinquishment or cancellation	
15	Date from which the area is available for re-grant	
16	Signature of the Officer-In-charge	

FORM ML-4

{See rule 12 (10)}

(Model Form for transfer of Mining Lease/Mining Contract)

The indenture made this ..... day of ..... 20 ..... between ..... (Name of the person with address and occupation) (hereinafter referred to as the 'transferor' which expression shall where the context so admits be deemed to include his heirs, executors, administrators, representatives and permitted assigns). or

Where the transferors are more than one individuals ..... (Name of the persons with address and occupations) and ..... (Name of the persons with address and occupations) (hereinafter referred to as the 'transferor' which expression shall where the context so admits be deemed to include their heirs, executors, administrators, representatives and their permitted assigns). or

Where the transferor is a registered firm ..... (Name of the persons with address of all the partners) all carrying on business in partnership under the firm name and style of ..... (Name of the firm) registered under the Indian Partnership Act, 1932 (9 of 1932) and having their registered office at ..... (Address) (hereinafter referred to as the 'transferor' which expression shall where the context so admits shall be deemed to include all the said partners, their respective heirs, executors, legal representatives and their permitted assigns). or

Where the transferor is a registered company ..... (Name of company) a company registered under the Companies Act 1956 and having its registered office at ..... (Address) (hereinafter referred to as the 'transferor' which expression shall where the context so admits be deemed to include its successors and permitted assigns) of the first part.

Where the transferee is an individual ..... (Name of the person with address and occupation) (hereinafter referred to as the 'transferee' which expression shall where the context so admits be deemed to include his heirs, executors, administrators, representatives and permitted assigns). or

Where the transferees are more than one individuals ..... (Name of the persons with address and occupations) and ..... (Name of the persons with address and occupations) (hereinafter referred to as the 'transferee' which expression shall where the context so admits be deemed to include their heirs, executors, administrators, representatives and their permitted assigns). or

Where the transferee is a registered firm ..... (Name of the persons with address of all the partners) all carrying on business in partnership under the firm name and style of ..... (Name of the firm) registered under the Indian Partnership Act, 1932 (9 of 1932) and having their registered office at ..... (Address) (hereinafter referred

to as the 'transferee' which expression shall where the context so admits shall be deemed to include all the said partners, their respective heirs, executors, legal representatives and their permitted assigns).

Where the transferée is a registered company ..... (Name of company) a company registered under the Companies Act 1956 and having its registered office at ..... (Address) (hereinafter referred to as the 'transferee' which expression shall where the context so admits be deemed to include its successors and permitted assigns) of the second part.

Where the Governor of Assam (hereinafter referred to as the 'Government' which expression shall where the context so admits be deemed to include successors and assigns) of the third part.

Whereas by virtue of an indenture of lease dated the ..... (dated) (hereinafter referred to as lease) the original whereof is attached hereto and marked 'A' entered into between the Government (therein called the lessor) and the transferor (therein called the lessee/contractor) is entitled to search for, win and work the mines and minerals in respect of ..... (Name of minerals) in the land described in Schedule thereto and also in Schedule annexed thereto for the term and subject to the payment of rents and royalties and observance and performance of the lessee's/contractor's covenant and conditions in the said deed of lease/contract reserved and contained including a covenant not to assign the lease/contract or any interest there under without the previous sanction of the Government.

Whereas the transferor is now desirous of transferring and assigning the lease/contract to the transferee and the Government has, at the request of the transferor, granted permission to the transferor *vide* order No..... dated ..... to such a transfer and assignment of the lease/contract upon the conditions of the transferees entering into an agreement is and containing the terms and conditions hereinafter set forth.

Now this Deed Witnesseth as follows:

2. The transferee hereby covenants with the Government that from and after the transfer and assignment of the lease/contract, the transferee shall be bound by, and be liable to perform, observe and conform and be subject to all the provisions of all the covenants, stipulations and conditions contained in said hereinbefore recited lease in the same manner in all respects as if the lease/contract had been granted to the transferee as the lessee/contractor there under and he had originally executed it such.

3. It is further hereby agreed and declared by the transferor of the one part and transferee of the other part that:-

   (i) the transferor and transferee declare that they have ensured that the mineral rights over the area for which the mining lease/contract is being transferred, vest in the Government;

(ii) the transferor hereby declares that he has not assigned subject, mortgaged or any other manner, transferred the mining lease/contract now being transferred and that no other person has any right, title or interest where under in the present mining lease/contract being transferred;

(iii) the transferor further declares that he has not entered into or made any agreement, contract or understanding whereby he has been or is being directly or indirectly financed to a substantial extent by or under which the transferor's operation or understandings were or are being substantially controlled by any person or body of persons other than the transferor;

(v) the transferee hereby declares that he has accepted all the conditions and liabilities which the transferor was having in respect of such mining lease/contract;

(vi) the transferee further declares that he is financially capable of and will directly undertake mining operations;

(vii) the transferee further declares that he has filed an affidavit stating that he has filed up to date income tax returns, paid the income tax accessed as provided in the Income Tax Act, 1961 (43 of 1961);

(viii) the transferor has supplied to the transferee the original or certified copies of all the plans of abandoned workings in the area and in a belt 65 metres width surrounding it;

(ix) the transferee hereby further declares that as a consequence of this transfer, the total area held by him under mineral concession are not in contravention of the provisions of the Rules;

(x) the transferor has paid all the rents, royalties, and other dues towards Government till the date, in respect of this lease.

In witness whereof the parties hereto have signed on the date and year first above written.

Signature of the transferor

For and on behalf of the Governor of Assam

Witness:–

1._____ 1._____

2._____ 2._____

Signature of Transferee

Witness:-

1. _____

2. _____

FORM ML-5

{See rule 13(2)}

(Application for renewal of Mining lease)

Received at_____(Place) at _____(Hours)
on the _____day of _____.

From

_____
_____
_____

To

The_____
_____
_____

Dated the _____ 20

I. I/ we hereby apply for renewal of a mining lease for _____ (name of minor mineral(s) for a term of _____ years over _____hectares of land in the area specified in the Schedule.

II. A sum of Rs. ..... on account of application fee payable under rule 13 of the Assam Minor Mineral Concession Rules, 2012, deposited in the Government Treasury and the receipted Challan thereof/ Demand Bank Draft No. ---------- dated ---------- is enclosed.

III. The required particulars are given below :—

PARTICULARS

1	Name of applicant individual/firm/company or society.	
2	Nationality of the individual or place of registration or incorporation of firm, company or society.	
3	Profession or nature of business of individual or firm or company and place of business.	
4	Address of the individual/ firm/company or society.	
5	Name of Minor Mineral which the applicant intents to mine.	
6	Period for which the original lease was granted.	

7	Manner in which the Minor Mineral(s) is to be utilized : (a) for manufacture (b) for sale (c) any other purpose In case of manufacture, the industries in connection with which it is required should be specified.	
8	A description illustrated by a map or plan (in triplicate) showing as accurate as possible the situation, boundaries and area of land in respect of which the lease is required and where the area is un-surveyed the location of the area should be shown by some permanent physical features *i.e.* road, tanks etc.	
9	A statement showing all the areas within jurisdiction of the Government :— (i) already held by me/us in my/our name/names (and jointly with others) under quarrying leases specifying the names of minor minerals. (ii) already applied for but not yet granted, and (iii) applied for simultaneously or being applied for in the State. **Note:** No application will be held to be complete for the purpose of priority unless it furnishes the particular required by paragraphs i), ii) and iii) and is properly signed and stamped.	
10	Period for which renewal of mining lease is required	
11	Whether renewal is applied for the whole or part of the lease held	
12	In case the renewal applied for is only for part of the lease held :- a. The area applied for renewal. b. Description of the area applied for renewal. c. Map (in triplicate) of the lease held with area applied for renewal clearly marked on it (copy of map attached).	
13	Means by which the minor mineral is to be raised *i.e.* by hand, labour or mechanical or electric power	
14	Year-wise quantity of the mineral(s) excavated along with royalty paid in each year since grant of lease. (attached no due certificate of concerned Officer-In-charge.	
15	Mineral reserves available	
16	Details of explorations undertaken, if any	

17	Details of the mined out areas restored/ reclaimed/ rehabilitated as per progressive mine closure plan	
18	Details of the sites of overburden restored	
19	Details of the compliance of:- (i) Environmental Clearance; (ii) Mining plan/ scheme of mining; (iii) Safety provisions as per the Mines Act, 1952 and the rules and regulations framed thereunder; and (iv) other relevant laws and terms and conditions applicable on Mines and Minerals	
20	Details of defaults, if any, in submission of production returns, payment of royalty/dead rent and found wanting in taking adequate measures for labour safety.	
21	Details of investment made in development of mine, plant and machinery with a long term perspective and optimal benefit of the same could not have derived during the original period of lease	
22	Any other particulars which the applicant wishes to furnish.	
Schedule giving description of the area applied for		
1	Name of village, Sub-Division and District	
2	In the case of forest land, the name of the range and Division	
3	Dag and Patta Numbers and area of each field or part thereof	
3.1	Patta No. a) b)	Area a) b) ....
3.2	Full description of the area applied for with regard to its natural features :-	
3.3	Felling series and working circle, if any	
3.4	District	

(Signature of applicant)

Place _____

Date _____

N.B. — If the application is signed by an authorised agent of the applicant, power of attorney should be attached.

This is not necessary if whole village or a well defined portion thereof is applied for or if the area lies in Government Forest. If all the numbers cannot be entered in this form they should be continued on a separate sheet attached to it and signed. Where a portion of a Patta number only is required the approximate area of such portion will suffice.

FORM ML-6

(See rule 14)

(Acknowledgement of Application for renewal of Mining Lease)

Government of Assam

No. Dated

Received the application with the following enclosures for a mining lease in respect of minor mineral of Shri/M/s---------- at ----- --- AM/PM on ---------- for about ----------hectares of land village ---------- - sub-division ----------district---------- for mining of ---------- (Name of the minor mineral):

Signature and Designation of
The Receiving Officer.

Place:

Dated.

Enclosures:

FORM MC-1

{See rule 18 (3) and 22(1)}

(Model Form for execution of mining contract)

This indenture made on this _____ day of _____ 20 between the Governor of Assam acting through _____ (hereinafter referred to as the "State Government" which expression shall where the context so admits, include the successors and assigns) of the one part; and

Where the Contractor is an individual:- _____ (Name and address of the person) (hereinafter referred to as the "Contractor" which expression shall where the context so admits, includes his heirs, executors, administrator, representatives and permitted assigns)

Where the Contractor is more than one individual:- _____ (Name and address of persons)(hereinafter referred to as the "Contractor" which expression shall where the context so admits include their respective heirs, executors, administrators, representatives and permitted assigns)

Where the Contractor is registered firm:- _____ (Name and address of all the partners or members, where the "Contractor" are a firm or society) all carrying on business in partnership under the firm name and style of _____(name of the firm and address) registered under Indian Partnership Act 1932 and having their registered office at ..... (hereinafter referred to as the "Contractor" which expression shall where the context so admits include all partner of the said firm, their representatives, heirs, executors/Administrators and permitted assigns).

Where the Contractor is a registered company:- _____ (Name of the company) a company registered under _____ (Act under which company incorporated) and having its registered office at _____ (address) (hereinafter referred to as the "Contractor" which expression shall where the context so admits, include its successors and permitted assigns) of the other part.

Whereas the "Contractor" has offered the highest bid of Rs._____(in words Rupees_____) in the bid/auction held on _____ for obtaining a mining contract for _____ cu.m. (in words _____cubic metres (name of minor minerals) in respect of the lands hereinafter described in clause 2 and such bid had been accepted by the officer authorized in this behalf and the contractor has deposited with the Government, a sum of Rs_____ (Rupees_____) as initial bid security **(10% of the annual bid amount)** and Shri_____S/o Shri_____ _____ resident of _____ _____ District _____ (referred to as the 'surety' which expression shall where the context so admits, include his heirs, executors, administrators, representatives) has been offered as solvent surety for the aforesaid

amount, and whereas the contractor is in possession of a Income Tax Clearance Certificate.

Now, therefore, this deed witnesses and the parties hereby agree as follows: —

Liberties and privileges to be exercised and enjoyed by the Contractor.

The following liberties, powers and privileges may be exercised and enjoyed by the contractor subject to the other provisions of contract :—

(1) In consideration of the contract money, covenants and agreements hereinafter contained and on the part of the Contractor to be paid, observed and performed the Government hereby grants and demises unto the contractor all those mines/beds/veins/seams of _____ (hereinafter referred to as the said minor minerals,) situated, lying and being in or under the lands which are referred to in clause (b) together with the liberties, powers and privileges to be executed or enjoyed in connection herewith which are hereinafter mentioned in Part-I subject to the restrictions and conditions as to exercise and enjoyment of such liberties, and privileges which are hereinafter mentioned in Part- II and subject to other provisions of this contract.

(2) All the tract of land situated at village _____ _____ in Sub-Division_____ District _____ bearing Dag and Patta Nos. _____containing an area of _____ or thereabouts delineated on the plan hereto annexed and bounded as follows:

On the North by _____;
On the South by _____;
On the East by _____;
On the West by _____;

and (hereinafter referred to as the 'said lands' or the 'Contracted area')

(3) The contractor shall hold the premises hereby granted and demised from the_____ ____ day _____ for the term of _____ years thence next ensuing.

Part-I

Liberties and privileges to be exercised and enjoyed by the Contractor

The following liberties and privileges may be exercised and enjoyed by the contractor subject to the other provision of contract: –

i. **To enter upon land and search for win, work :**

Liberty at all times during the term hereby demised to enter upon the said lands and to search for mineral, bore, dig, drill for win, work, dress, process, convert, carry away and dispose of the said minor mineral(s).

ii. To sink, drive and make pit, shafts and inclines :

Liberty to sink, drive, make, maintain and use in the said land and pits, shafts, inclines, drifts, levels, waterways, airways and other works and to use, maintain, deepen or extend any existing works of the like nature in the said lands.

iii. To bring and use machinery, equipment:

Liberty to erect, construct, maintain and use on or under the said lands any engine, machinery, plan, dressing floors, furnaces, coke ovens, brick kilns, workshop, store houses, bungalows, godowns, shed and other buildings and other works and conveniences of the like nature on or under the said lands.

iv. To use water from streams :

Liberty but subject to the rights of any existing or future contractor and with the written permission of the Collector concerned to appropriate and use water from any streams, water course, springs or other source in or upon the said lands and to divert, step up or dam any such stream or water-course and collect or impound any such water and to make, construct and maintain any water course, cultivated land, village buildings or watering places for livestock of a reasonable supply of water as before accustomed nor in any way to foul or pollute any streams or springs : provided that the contractor/contractors shall not interfere with navigation in any navigable stream nor shall divert such stream without the previous written permission of the Government.

v. To fell undergrowth and utilise timber and trees :

Liberty to clear undergrowth and brush wood. Contractor shall not fell any trees or timber standing or found on the said lands without obtaining prior permission in writing from the Forest Department. In case such permission is granted, he shall pay in advance, the price of the trees/timber to be felled to the said Officer at the rates, fixed by him.

vi. To get building and roads material :

Liberty to quarry and get stones, gravel and other building and road materials and ordinary clay and to use and employ the same and to manufacture such clay into bricks or tiles and to use such bricks, tiles but not to sell any such material, bricks, tiles.

vii. To use land for stacking purpose :

Liberty to use a sufficient part of the surface of the said lands for the purpose of stocking, storing or depositing therein any produce of the mines including over burden/waste material and works carried on and tools, equipment and other materials needed for mining operations.

viii. To install fuel pumps or stations for Diesel or Petrol for self use:

Liberty to use a sufficient part of the land for installing fuel pumps or stations for diesel or petrol for self use /consumption required for mining operations in the contract area, subject to permission of the authority.

ix. To construct magazine for explosive and storage sheds:

Liberty to construct magazine for storage of explosive and storage sheds for explosive related substances with permission from licensing authority.

x. Liberty to seek permission for diversion of public roads, overhead electric lines:

Liberty to request to the competent authority for diversion of public road over head electric lines passing through the concession area at the expenses of lessee to ensure scientific and systematic mining.

Part-II

Restrictions as to the Exercise of the Liberties by the contractor

The liberties and privileges granted under Part– I are subject to the following restrictions and subject to other provisions of this contract : –

1. No mining operations within the limit of public works:

The contractor shall not carry on, or allow to be carried on any mining operations:-

(i) within a distance of 50 metres from the outer periphery of the defined limits of any village *habitation,* National Highway, State Highway and other roads where such excavation does not require use of explosives, unless specifically relaxed and permitted by the competent authority; or

(ii) within a distance of 250 metres from the outer periphery of the defined limits of any village *habitation,* National Highway, State Highway and other roads where use of explosives is required, unless specifically relaxed and permitted by the competent authority or any specific dispensation is obtained from the Director, Mines Safety; or

(iii) within a distance of 500 metres from major structures like R.C.C Bridges, Guide bund etc.; or

(iv) within a distance of 75 metres from any railway line or bridge except under and in accordance with the written permission of the railway administration concerned. The Railway Administration or the Government may in granting such permission, impose such conditions as it may deem fit.

Explanation : – For the purpose of this clause the expression Railway Administration shall have the same meanings as it is defined by sub section (4) of section 3 of the Indian Railway Act, 1890:

Provided that where the continuance of any mining operations in any area, in the opinion of the Government is likely to endanger the safety of any National or State Highway, road, bridge, drainage, reservoir, tank, canal or other public works, or public or private buildings or in the public interest or in the interest of environment/ ecology of the area, the Government may determine the contract after giving 60 days notice to the contractor in this behalf and the contract shall stand terminated on the date mentioned in the notice.

2. Working in Sand Zones:

That the contractor in respect of sand zones, shall restrict the quarrying operations to maximum four villages of the zone at any point of time during the subsistence of the contract. The contractor shall have a right to change the site at any time during the subsistence of the contract on settlement of compensation with the land owners of new site of the zone from where he intend to extract sand but ceiling of maximum four villages shall be adhered to strictly and such change of site shall be intimated to the competent authority.

3. Special conditions for river bed mining:

In case of river bed mining / excavation of minor mineral(s) , in order to ensure safety of riverbeds, structures and the adjoining areas, the following special conditions shall be abide by the contractor:-

(a) no mining would be permissible in a river-bed up to a distance of five times of the span of a bridge on up-stream side and ten times the span of such bridge on down-stream side, subject to a minimum of 250 metres on the up-stream side and 500 metres on the downstream side;

(b) there shall be maintained an un-mined block of 50 metres width after every block of 1000 metres over which mining is undertaken or at such distance as may be directed by the competent authority;

(c) the maximum depth of mining in the river-bed shall not exceed three metres measured from the un-mined bed level at any point in time with proper bench formation;

(d) mining shall be restricted within the central 3/4th width of the river/rivulet.

(e) no mining shall be permissible in an area up to a width specified by the competent authority from the active edges of embankments;

(f) any other condition(s), as may be required by the competent authority in public interest.

4. Notice for surface operation in land not already in use :

Before using for surface operations any land which has not already been used for such operation, the contractor shall give notice in advance to the Collector of the district, the competent authority and the Officer–in-Charge_____ in writing along with copy of permission to undertake mining specifying the situation and the extend of the land proposed to be so used and the purpose for which the same is required and the said land shall not be so used, if objection is issued by the Collector.

5. Not to use the land for other purposes:

The contractor shall not cultivate or use the land for any other purpose other than those specified in the contract-deed

6. Disposal of mineral(s) only on issuance of Mineral Transit Pass:

The holder of mining contract shall not sell/dispose off any mineral or mineral products from the concession area without a Mineral Transit Pass.

7. Stacking of mineral(s) inside contract hold area:

The contractor shall not stock the mineral(s) excavated inside the contract hold area at the designated site more than twice the quantity of the average monthly production as per approved mining plan/ scheme.

8. Stacking of mineral(s) outside contract hold area:

The contractor shall not stock any minor mineral(s) granted under the contract, outside the contract hold area.

9. Stacking and storage of incidentally extracted major minerals:

In case contractor, while extracting minor mineral given on contract, incidentally extracts any major mineral not given on contract, the same shall be the property of the Government and contractor shall be under an obligation to stack and store it and maintain its proper record in accordance with the direction of the competent authority who shall also be competent to prescribe the procedure for its disposal.

10. Penalties in case of non-compliance of clause (9) :

In case it is detected that contractor has disposed off incidentally extracted major mineral referred to in clause 9 above or in sub rule (18) of rule 38, in whole or part there of or failed to maintain the record of stored mineral, he shall be liable to penalties under the Act and also premature determination of mining contract in terms of sub rule (19) of Rule 39 of the said rules.

11. Restrictions of mining operations above Ground Water Table :

A safety margin of two metres shall be maintained above the ground water table while undertaking mining and no mining operations shall be permissible below this

level unless a specific permission is obtained from the competent authority in this behalf.

12. Restrictions of surface operations:

No mining operations shall be undertaken in any area prohibited by any authority or by the orders of any Court.

13. No mining operations without requisite clearance:

The contractor shall not undertake any mining operations in the area granted on mining contract without obtaining requisite clearance from the competent authority as required for undertaking mining operations.

Part – III

Covenants of the contract

The contractor hereby covenant with the Government as follows:-

1. Surface rent:

The contractor shall pay for the surface area occupied by him, surface rent at the rate of Rs. ..... (Rupees .....) per annum.

2. Security deposit :

In case of mining contract granted through competitive bid/auction under rule 18:

25% of the annual bid amount / rate of contract money. The security amount to be deposited as per following :-

(i) 10% as initial bid security at the time of auction; and
(ii) 15% of the annual bid amount before commencement of mining operations :

Provided on enhancement of the contract money after expiry of every three year period of contract the contractor shall deposit the balance amount of security so as to up-scale the security amount equal to 25% of the revised annual contract money as applicable for one year with respect to next block of three years

3. Mode of payment of contract money and surface rent :

(a) The contractor shall deposit one advance instalment of contract money before commencement of mining operations or before the expiry of period allowed along with 15% of the balance security amount as per clause 2 above.

(b) The contractor, during the subsistence of the contract, shall pay in advance to the Government the instalments of the contract money in respect of the said land given

to him on mining contract in four quarterly instalments on the 1st of April, 1st of June, 1st of September and 1st of December of the year.

Note: The amount of one advance instalment deposited at the time of commencement of the mining operations or within time allowed for the same shall be adjusted in a manner that the subsequent instalments are payable for a full calendar month/quarter/year, as the case may be.

4. Amount to be deposited on account of Fund

Where the contractor is operating the area, he shall also pay an additional amount, equal to 10% of the due contract money along with amount of instalments on account of dead rent or royalty, towards the Fund.

5. Interest on delayed payments.

In case of any default in payment of the instalments of contract money/ contribution to the Fund on the due date(s), the amount would be payable along with interest at the following rates:

Serial Number	Period of delay	Rate of Interest applicable
(i)	If paid within a period of 7 days from the due date	A grace period of up to 7 days is allowed without any interest
(ii)	If paid after 7 days but up to 30 days of the due date	15% on the amount of default for the period of default including the grace period;
(iii)	If paid after 30 days but within 60 days of the due date	18% on the amount of default for the period of default including the grace period;
(iv)	Delay beyond 60 days of the due date	It would amount to a 'breach', invite action for termination of the contract and the entire outstanding amount would be recoverable along with interest calculated @ 21% for the entire period of default

6. Working of newly discovered minerals :

If any minor mineral, not specified in the contract, is discovered in the contracted area, the contractor shall report the discovery without delay to the competent authority and shall not win or dispose of such minor mineral without obtaining a separate mineral concession therefor. If he fails to apply for such a mineral concession within 6 months from the discovery of the minor mineral, the competent authority may give the mineral concession in respect of such mineral, to any other person :

Provided that the grant of such permit may be refused for reasons to be recorded in writing.

7. To commence mining operations within 180 days and carry them on properly :

Unless the competent authority for sufficient cause allows otherwise, the contractor shall commence mining operations 180 days from the date of execution of the contract

and shall thereafter conduct such operations in a proper, skilful and workman like manner.

Explanation:– For the purpose of this clause, mining operations shall include the erection of machinery laying of a tramway or construction of a road in connection with the working of the mine.

8. To erect and maintain boundary pillars :

The contractor shall at his own expenses, erect and at all times maintain and keep in good repairs boundary marks and pillars according to the plan annexed to the contract. Each of the pillars should be numbered and every pillar shall have GPS reading.

9. Accounts:

The contractor shall keep correct accounts showing the quantity and other particulars of all minerals obtained from the mines and the number of persons employed therein and a complete plan of the mine and shall allow any officer authorised by the Government or the Central Government or the competent authority in that behalf to examine at any time any accounts and records maintained by him, and shall furnish to the Government or the Central Government or the competent authority with such information and returns as it may require.

10. To allow facilities to other lessees etc. :

In addition to the concession holders under Rule – 5 of the Assam Minor Mineral Concession Rules, 2012, the lessee shall allow existing and future contractor of any land which is comprised in or adjoins or is reached by the land, held by the lessee, reasonable facilities for access thereto.

11. To allow entry to officers :

The contractor shall allow any officer authorised by the Government or the Central Government or the competent authority to enter upon any building, excavation or land comprised in the contract for the purpose of inspecting the mines.

12. Returns : –The contractor shall :—

(a) submit a return in form 'MMP1' by the 7th of every month to the competent authority and also to other officer (s) giving the total quantity of minor mineral(s) raised and dispatched from the contracted area in the preceding calendar month and its value ;

(b) also furnish a statement giving information in Form 'MMP2' by the 15th April every year to the competent authority and to other Officer(s), regarding quantity and value of minor mineral obtained during last financial year, average number of regular labourers employed (men and women separately) number of accidents, compensation paid and number of days worked separately.

13. To strengthen and support the mines:

The contractor shall strengthen and support to the satisfaction of the Railway Administration or the State Government, as the case may be any part of the mine which in its opinion requires such, strengthening or support for the safety of any railway, bridge, national highway, reservoirs, canal, road or any other public work or building.

14. Notice for use of explosives, etc :

The contractor shall immediately give notice in writing in Form 'MSE-1' to the following:

1. The Controller General, Indian Bureau of Mines, Government of India, Nagpur;
2. The Director General of Mines Safety, Govt. of India, Dhanbad;
3. The Director, Mines Safety, Govt. of India, Guwahati;
4. The Regional Controller of Mines, Indian Bureau of Mines, Kolkata;
5. The competent authority;
6. The District Magistrate of the District concerned; and
7. The office-in-charge as soon as:
   (a) The working in the mines extends below superjacent ground;
   or
   (b) The depth of any open cast excavation measured from its highest to the lowest point reaches six metres; or
   (c) The number of persons employed on any day is more than 50;
   or
   (d) Any explosives are used.

15. Maintenance of Sanitary conditions:

The Contractor shall maintain sanitary conditions in the area held by him under the contract.

16. To pay compensation for damage and indemnify the Government:

The contractor shall make and pay such reasonable satisfaction and compensation for all damage, injury or disturbance which may be done by him in exercise of the powers granted by the contract and shall indemnify the Government against all claims which may be made by third parties in respect of such damage, injury or disturbance.

17. Application of all Acts, Rules and Regulations to this contract :

The contractor shall abide by the provisions of Mines Act, 1952 and the rules and regulations framed there under and also the provisions of other labour laws both Central and State as are applicable to the workmen engaged in the mines and quarries relating to the provisions of drinking water, rest shelters, dwelling houses, latrines and first-aid and medical facilities in particular and other safety and welfare provisions in general, to the satisfaction of the competent authorities under the aforesaid Acts, Rules and Regulations and also to the satisfaction of the District Magistrate concerned. In case of non compliance of any of the provisions of the enactments as aforesaid, the competent

authority may terminate the mining contract by giving one month's notice with forfeiture of security deposited or :

Provided that the contractor shall carry out mining operations in accordance with all other provisions as applicable for undertaking mining including the provisions of Forest (Conservation) Act, 1980 and Environment (Protection) Act, 1986 and the rules made there under.

18. To report accident :

The contractor shall without delay report to the Deputy Commissioner of the district concerned and the competent authority or any other office authorised by him, any accident which may occur at or in the contract area.

19. Delivery of possession of land and mines on the surrender or sooner determination of the contract :

At the end or sooner determination or surrender of the contract, the contractor shall deliver up the said lands and all mines (if any dug there) in a proper and workable State, save in respect of any working as to which the Government might have sanctioned abandonment.

20. To provide electronic weighing machine :

The contractor shall provide and at all times keep at or near the pit-head at which the said mineral shall be brought to bank a properly constructed and efficient weighing machine and shall weigh or caused to be weighed thereon all the said minor minerals from time to time brought to bank, sold, exported and converted products, and shall at the close of each day cause the total weights, ascertained by such means of the said minor minerals, ores, products, raised, sold, exported and converted during the previous twenty four hours to be entered in the aforesaid books of accounts. The contractor shall permit the Government at all times during the said term to employ any persons to be present at the weighing of the said minor minerals, as aforesaid and to keep accounts thereof and to check the accounts kept by him. The contractor shall give 15 days previous notice in writing to the Officer-in-Charge_____ of every such measuring or weighing in order that he or some officer on his behalf may be present thereat.

21. To secure pits shafts not fill them up :

The contractor shall well and properly secure pits and shafts and will not without permission in writing, will fully close, fill up or close any mine or shaft.

22. Not to enter upon or to commence operations in the reserved or protected Forest:

The contractor shall not enter upon or commence any mining operations in any forest land comprised in the contracted area except after previously obtaining permission in writing of the Forest Department, Assam.

23. To respect water rights and not injure adjoining property :

The contractor shall not injure or cause to deteriorate any source of water, power or water supply and shall not in any other way render any spring or stream or water unfit to be used or to do anything to injure adjoining land, villages or houses.

24. Stocks lying at the end of the contract: –

(a) The contractor on expiry of the contract period (successful completion of the contract) shall remove already extracted all of the mineral from the premises of the quarry within a period of seven days. In case any quantity of the already extracted mineral, in the said land is left undisposed off and is not removed within seven days from the date of expiry of the period of contract the same shall be deemed to be the property of the Government and competent authority may dispose it off in any manner it may like without paying anything thereof to the contractor.

(b) The contractor on the termination or sooner determination of the contract shall not remove extracted mineral from the premises of the contracted areas. All extracted minerals in the said lands left over un-disposed after the termination or determination of contract shall be deemed to be property of the Government and competent authority may dispose it off in any manner it may like without paying anything thereof to the contractor.

25. Payment of taxes:

The contractor shall duly and regularly pay to the appropriate authority all taxes, cesses and local dues in respect of the contracted area, said minor minerals or the working of the mines.

26. Payment of additional amount for reclamation/ restoration:

The contractor shall also deposit / pay additional amount equal to 10% of the amount of contract money by the 7th of every month, to ensure the compliance of the Reclamation and Restoration works. This additional amount shall be refunded after satisfactory Reclamation/ Restoration of the area after mining in accordance with the Mine Closure Plan :

Provided that in case the contractor fails to reclaim/ restore the area as per mining plan to the satisfactions of the Government, the amount deposited shall be forfeited and used for the restoration of the area.

Provided further that in case no rehabilitation position of the mine comes during the tenure of the mining contract, the amount so deposited shall be kept by the Government in the mining area development fund for future use as and when the mine reaches to a stage requiring restoration and rehabilitation.

27. Assign sublet or transfers of the contract:

The contractor shall not assign, sublet or transfer the contract to any person without obtaining prior permission in writing from the competent authority.

28. Fencing of working place:

If a working place is found to be unsafe all persons shall be withdrawn by the contractor immediately from the dangerous area and all access to such working place except for the purpose of removing the danger or saving life shall be prevented by securely fencing the full width of all entrances to the place, at his own cost.

29. Fencing of excavation after termination or sooner determination of the contract:

The contractor on termination or sooner determination of the contract shall at his own cost, suitably fence the excavations for safety as instructed by the competent authority.

30. Felling of trees:

The contractor shall not fell or cut any tree, standing on the land wherein the quarry is located without obtaining prior permission in writing from the Forest Department, Assam and paying its price as fixed.

31. Security deposit shall carry no interest:

The security deposited by the contractor shall not carry any interest.

32. Government not responsible for loss to contractor:

The Government shall not be responsible for any kind of loss to the contractor.

Part-IV

Rights of the State Government

1. Suspension or termination of the contract:

The competent authority shall have the right to prematurely terminate the contract

(a) If the contract money or surface rent or any other amount due to the Government are not paid;
(b) if any of the terms and conditions of the contract agreement or conditions of grant or permission to undertake mining by any other statutory authority/Competent authority is violated;
(c) if any of the provisions of these rules and other laws both Central and State as are applicable to mines and minerals, are not complied with:

Provided that no orders of suspension/termination of the contract shall be passed by the competent authority without giving reasonable opportunity to show cause and following the procedure prescribed in the Rules :

Provided that in case of default in payment of Government dues such as contract money/ surface rent or any other dues payable under these presents, the contract may be terminated by the competent authority without affording hearing to the contractor after serving upon a notice to make good the payment within thirty days :

Provided further that the competent authority may also at any time after issuance of the notice for default on account of non payment of dues, enter upon the said premises and detain all or any of the mineral or movable property therein and may carry away, detain or order the sale of the property so detained, or so much of it as will suffice for the satisfaction of the contract money or rent or royalty or both dues and all costs and expenses occasioned by the non-payment thereof.

2. Determination of contract in public interest:

The Government may by giving six months' prior notice in writing determine the contract if the Government consider that the minor mineral under the contract is required for establishing an Industry beneficial to the public:

Provided that in the State of National Emergency or war, the contract may be determined without giving such notice.

3. Right of pre-emption :

The Government shall from time to time and at all times during the terms of contract have the right (to be exercised by notice in writing to the contractor) of pre-emption of the said mineral(s) and all products thereof lying in or upon the said lands hereby demised or elsewhere under the control of the contractor and the contractor shall deliver all minerals or products thereof to the Government at current market rates in such quantities and in the manner at the place specified in the notice exercising the said right.

4. Penalty for not allowing entry to officers :

If the contractor or his transferee or assignee does not allow any entry or inspection under clause 11 of part-III, the competent authority may cancel the contract and forfeit in whole or in part the security deposit paid by the contractor.

5. Compensation and acquisition of land of third parties thereof :

In case the occupier(s) or owner(s) of the said land refuses his/ their consent to the exercise of the rights and powers reserved to the Government and demised to the contractor under these presents, the contractor shall report the matter to the competent authority who shall request the Collector of the district concerned to direct the occupier(s) or owner(s) to allow the contractor to enter the said lands and to carry out such operations as may be necessary for working the mine, on payment in advance of such compensation to the occupier or owner by the contractor, as may be fixed by the Collector under the rules.

6. Suspension of mining operations:

The Director may order to suspend the mining operations after serving a notice to the contractor, in case, the following violations are noticed:-

(a) unsafe and unscientific mining;
(b) non operations of weighbridge;
(c) non providing of safety appliances to the workers;
(d) non payment of compensation to the surface owners;
(e) non submissions of monthly returns;

In case of violations of the aforesaid conditions and also any other terms and conditions of the agreement deed and the provisions of the rules, the competent authority may give a notice to the contractor to remedy the violations within a period of 15 days from the date of issue of the notice. In case, the violations pointed out through notice, are not remedied within the stipulated period of 15 days, the competent authority may after affording an opportunity of being heard to the contractor, order the suspension of the mining operations till such time, the defaults/ defects are removed by the lessee within the time frame granted by the competent authority. During the period of suspension of mining operations, the contractor will be allowed only to undertake rectification work for removal of the defects and shall not dispose off the mineral. During the suspension period, the contractor shall be under the obligation to deposit the amount of the contract money etc. on the due dates.

On satisfactory removal of the defects, the competent authority may revoke the suspension orders with or without any modification. Non removal of the defects/ defaults during the suspension period and within the time allowed by the competent authority, shall lead to premature termination of contract.

Part-V
General

1. Cancellation:

The contract shall be liable to be cancelled by the competent authority if the contractor cease to work the mine for a continued period of 180 days without obtaining written sanction.

2. Notices :

Every notice by these presents required to be given to the contractor shall be given in writing to such person resident on the said lands as the contractor may appoint for the purpose of receiving such notices and if there shall have been no such appointment then every such notice shall be sent to the contractor by registered post addressed to the contractor at the address recorded in this contract or at such other address in India as the contractor may from time to time in writing to the competent authority designate for the receipt of notices and every such service shall be deemed to be proper and valid service upon the contractor sand shall not be questioned or challenged by him.

3. Recovery of Government dues as arrears of land revenue:

Without prejudice to any other mode of recovery authorised by any provision of this contract or by any law, all amounts, falling due hereunder against the contractor may be recovered as arrears of land revenue under the law in force for such recovery.

4. **Forfeiture of property left more than three months after expiry or determination of contract :**

The contractor should remove his property lying on the said lands within three months after the expiry or sooner determination of the contract or after the date from which any surrender by the contractor of the said lands becomes effective, as the case may be, the property left after the aforesaid period shall become the property of the Government and may be sold or disposed of in such manner as the competent authority shall deem fit without liability to pay any compensation therefore, to the contractor.

5. **Security and forfeiture thereof :**

(a) the competent authority may forfeit the whole or any part of the amount deposited as security under this contract, in case the contractor commits a breach of any covenants to be performed by the contractor under the contract.

(b) Whenever the said security deposit or any part thereof or any further sum hereafter deposited with the Government in replenishment thereof is forfeited under sub clause (a) or applied by the competent authority under the contract (which the competent authority is hereby authorised to do) the contractor shall immediately deposit the deficient amount thereof to bring the amount in deposit with the Government up to the requisite amount of security at that point of time of contract.

(c) The rights conferred to the Director by clause (a) shall be without prejudice to the rights conferred on the Government by any other provision of this contract or by any law.

(d) On such date as the competent authority may decide within twelve calendar months after the determination of this contract or refusal of any renewal thereof, the amount of security deposit paid in respect of this contract in case is the same is otherwise not forfeited or is not required to be detained for any other purposes mentioned in this contract shall be refunded to the contractor. No interest shall run on the security deposit.

6. **Survey and demarcation of the area :**

When a mining contract is granted, arrangement shall be made, if necessary, at the expense of the contractor, for the survey and demarcation of the area granted under the contract. The contractor shall have to bear actual expenses of the staff deputed for the work. Actual expenses will include travelling allowances, daily allowances and salary of staff plus 10 percent as instrument charges.

7. **Surrender of a mining contract by the contractor :**

The Government may accept the request of the contractor for surrender of a contract or part thereof in cases where it is established that it has not been found feasible to operate the contract grant for whatsoever reasons subject to the condition that the contractor :

(i) has been regular in furnishing the production returns as required in terms of the contract agreement;

(ii) has been taking the requisite steps for the progressive mine closure plan as per the conditions of the contract grant;

(iii) is not in default of payment of any dues of the Government as on the date of making such application and undertakes to pay all such dues till the date of expiry of the notice period either in cash in advance or by way of adjustment of the security or both :

Provided that in case the contractor makes an application for surrender of part area of the contract, it shall not result in any prorated reduction of the contract money and the rate of contract money payable and applicable for the entire area at the time of such application shall remain intact.

8. Penalty for repeated breaches:

In case of repeated breaches of covenants and agreements by the contractor for which notice has been given by the competent authority in accordance with sub-rule (1) of rule 55 and /or sub rule(1) of rule 56 on earlier occasions, the competent authority without giving any further notice, may impose such penalty not exceeding twice the amount of security deposited.

9. Obtaining Sale Tax number:

The contractor shall get himself registered with the Taxation Department of Assam and shall obtain the Sales Tax number.

10. Overriding effect:

Unless otherwise specifically provided, it is agreed that this deed shall be governed by the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957) and the rules made thereunder. The provisions of the Act and the rules shall prevail over the terms and conditions of the agreement.

Signature of the Contractor For and on behalf of the Governor of Assam

Witness :–

1._____ 1._____

2._____ 2._____

Signature of surety

Witness

1. _____

2. _____

FORM MC-2

{See rule 19(1)}

(Application for renewal of Mining Contract)

Received at_____(Place) at _____(Hours) on the _____ day of _____.

From

_____

_____

To

The_____

_____

Dated the _____ 20

1. I hereby apply for renewal of a mining contract for_____ _____ (name of minor mineral(s) for a term of _____ years over _____hectares of land in the area specified in the Schedule.

2. A sum of Rs ..... on account of application fee payable under rule 20, deposited in the Government Treasury and the receipted Challan thereof /Demand Bank Draft No. ---------- dated ---------- is enclosed.

3. The required particulars are given below:-

PARTICULARS

(i)	Name of applicant individual/firm/Company or Society	
(ii)	Nationality of the individual or place of registration or incorporation of firm, company or society	
(iii)	Profession or nature of business of individual or firm or company and place of business	
(iv)	Address of the individual/ firm/company or society	
(v)	Name of Minor Mineral which the applicant intents to mine	
(vi)	Period for which the original contract was granted	

(vii)	Manner in which the Minor Mineral(s) raised is to be utilized : (a) For manufacture (b) for sale (c) any other purpose In case of manufacture, the industries in connection with which it is required should be specified.	
(viii)	A description illustrated by a map or plan (in triplicate) showing as accurate as possible the situation, boundaries and area of land in respect of which the renewal of contract is required and where the area is un-surveyed the location of the area should be shown by some permanent physical features i.e. road, tanks etc	
(ix)	A statement showing all the areas within jurisdiction of the Government :- (i) already held by me/us in my/our name/names (and jointly with others) under quarrying leases specifying the names of minor minerals. (ii) already applied for but not yet granted, and (iii) applied for simultaneously or being applied for in the State. **Note:** No application will be held to be complete for the purpose of priority unless it furnishes the particular required by paragraphs i), ii) and iii) and is properly signed and stamped	
(x)	Period and quantity for which renewal of mining contract is required.	
(xi)	Whether renewal is applied for the whole or part of the contract held.	
(xii)	In case the renewal applied for is only for part of the contract held :- (a) the area and quantity applied for renewal (b) description of the area applied for renewal. (c) Map (in triplicate) of the contract held with area applied for renewal clearly marked on it (copy of map attached)	
(xiii)	Means by which the minor mineral is to be raised i.e. by hand, labour or mechanical or electric power.	
(xiv)	Year-wise quantity of the mineral(s) excavated along with contract money paid in each year since grant of contract (attached no due certificate of concerned officer in charge.	
(xv)	Mineral reserves available.	
(xvi)	Details of explorations undertaken, if any	
(xvii)	Details of the mined out areas restored/ reclaimed/ rehabilitated as per progressive mine closure plan.	

(xviii)	Details of the sites of overburden restored	
(xix)	Details of the compliance of:- (i) Environmental Clearance; (ii) Mining plan/ scheme of mining; (iii) Safety provisions as per the Mines Act, 1952 and the rules and regulations framed thereunder; and (iv) other relevant laws and terms and conditions applicable on Mines and Minerals	
(xx)	Details of defaults, if any, in submission of production returns, payment of contract money and found wanting in taking adequate measures for labour safety.	
(xxi)	Details of investment made in development of mine, plant and machinery with a long term perspective and optimal benefit of the same could not have derived during the original period of contract.	
(xxii)	Any other particulars which the applicant wishes to furnish.	
(xxiii)	Schedule giving description of the area applied for	
a.	Name of village	
b.	In the case of forest land the name of the Range and Division	
c.	Dag and Patta Number and area of each field or part thereof	
	Dag and Patta no. a) b) - -	Area a) b) - -
d.	Full description of the area applied for with regard to its natural features :-	
e.	Felling series and working circle, if any	
f.	District	

(Signature of applicant)

Place _____

Date _____

N.B. If the application is signed by an authorised agent of the applicant, power of attorney should be attached.

FORM MPS-1

{see rule 24(4)}

Model Form for execution of permit granted for area less than five hectares

This indenture made on this _____ day of _____ 20__between the Governor of Assam acting through _____ (hereinafter referred to as the "State Government") which expression shall where the context so admits, include the successors and assigns) of the one part; and

Where the permit holder is an individual:

_____ (Name and address of the person)(hereinafter referred to as the "permit holder" which expression shall where the context so admits, includes his heirs, executors, administrator, representatives and permitted assigns;

Where the permit holder is more than one individual:

_____ (Name and address of persons) (hereinafter referred to as the "permit holder" which expression shall where the context so admits include their respective heirs, executors, administrators, representatives and permitted assigns)

Where the permit holder is registered firm:

_____ (Name and address of all the partners or members, where the "permit holder" are a firm or society) all carrying on business in partnership under the firm name and style of _____(name of the firm and address) registered under Indian partnership Act, 1932 and having their registered office at ..... (hereinafter referred to as the "permit holder" which expression shall where the context so admits include all partner of the said firm, their representatives, heirs, executors/Administrators and permitted assigns;

When the permit holder is a registered company:

_____ (Name of the company) a company registered under _____ (Act under which company incorporated) and having its registered office at _____ (address) (hereinafter referred to as the "permit holder" which expression shall where the context so admits, include its successors and permitted assigns) of the other part.

Whereas the "permit holder" has offered the highest bid of Rs _____(in words Rupees_____) in the bid/auction held on _____ for obtaining a mining contract for _____cu.m. (in words _____ cubic metres) _____ (name of minor minerals) in respect of the lands hereinafter described in clause 2 and such bid had been accepted by the officer authorized in this behalf and the Permit holder has deposited with the Government, a sum of Rs _____ (Rupees _____) as initial bid security (10% of the

annual bid amount) and Shri _____ S/o Shri _____ resident of _____ District _____ (referred to as the 'surety' which expression shall where the context so admits, include his heirs, executors, administrators, representatives) has been offered as solvent surety for the aforesaid amount, and whereas the permit holder is in possession of a Income Tax Clearance Certificate.

Now, therefore, this deed witnesses and the parties hereby agree as follows:-

(1) In consideration of the permit money, covenants and agreements hereinafter contained and on the part of the permit holder to be paid, observed and performed the Government hereby grants and demises unto the permit holder all those mines/beds/veins/seams of _____ (hereinafter referred to as the said minor minerals)situated, lying and being in or under the lands which are referred to in **clause 2** together with the liberties and privileges to be executed or enjoyed in connection herewith which are hereinafter mentioned in Part-I subject to the restrictions and conditions as to exercise and enjoyment of such liberties and privileges which are hereinafter mentioned in Part-II and subject to other provisions of this permit.

(2) All the tract of land situated at village _____ in Sub-Division _____ District _____ bearing Dag and Patta Numbers _____ containing an area of _____ or thereabouts delineated on the plan hereto annexed and bounded as follows:

on the North by _____;
on the South by _____;
on the East by _____;
on the West by _____;

and (hereinafter referred to as the 'said lands' or the 'permit area')

(3) The permit holder shall hold the premises hereby granted and demised from the _____ day _____ for the term of _____ years thence next ensuing.

Part-I
Liberties and privileges

The following liberties and privileges may be exercised and enjoyed by the permit holder subject to the other provision of permit: –

1. **To enter upon land and search for win, work** :–
Liberty at all times during the term hereby demised to enter upon the said lands and to search for mineral, bore, dig, drill for win, work, dress, process, convert, carry away and dispose of the said minor mineral(s).

2. **To sink, drive and make pit, shafts and inclines :**

Liberty to sink, drive, make, maintain and use in the said land and pits, shafts, inclines, drifts, levels, waterways, airways and other works and to use, maintain, deepen or extend any existing works of the like nature in the said lands.

3. **To bring and use machinery, equipment:**

Liberty to erect, construct, maintain and use on or under the said lands any engine, machinery, plan, dressing floors, furnaces, coke ovens, brick kilns, workshop, store houses, bungalows, godowns, shed and other buildings and other works and conveniences of the like nature on or under the said lands.

4. **To use water from streams :**

Liberty but subject to the rights of any existing or future Permit holder and with the written permission of the Collector concerned to appropriate and use water from any streams, water course, springs or other source in or upon the said lands and to divert, step up or dam any such stream or water-course and collect or impound any such water and to make, construct and maintain any water course, cultivated land, village buildings or watering places for livestock of a reasonable supply of water as before accustomed nor in any way to foul or pollute any streams or springs :

Provided that the Permit holder shall not interfere with navigation in any navigable stream nor shall divert such stream with out the previous written permission of the Government.

5. **To fell undergrowth and utilise timber and trees :**

Liberty to clear undergrowth and brush wood. Permit holder shall not fell any trees or timber standing or found on the said lands without obtaining prior permission in writing from the Forest Department. In case such permission is granted, he shall pay in advance, the price of the trees or timber to be felled to the said Officer at the rates, fixed by him.

6. **To get building and roads material :**

Liberty to quarry and get stones, gravel and other building and road materials and ordinary clay and to use and employ the same and to manufacture such clay into bricks or tiles and to use such bricks, tiles but not to sell any such material, bricks, tiles.

7. **To use land for stacking purpose :**

Liberty to use a sufficient part of the surface of the said lands for the purpose of stocking, storing or depositing therein any produce of the mines including over burden or waste material and works carried on and tools, equipment and other materials needed for mining operations.

8. **To install fuel pumps or stations for Diesel or Petrol for self use :**

Liberty to use a sufficient part of the land for installing fuel pumps or stations for diesel or petrol for self use or consumption required for mining operations in the permit area, subject to permission of the authority.

9. **To construct magazine for explosive and storage sheds :**

Liberty to construct magazine for storage of explosive and storage sheds for explosive related substances with permission from the competent authority, in this behalf.

10. **Liberty to seek permission for diversion of public roads, overhead electric lines :**

Liberty to request to the competent authority for diversion of public road over head electric lines passing through the concession area at the expenses of permit holder to ensure scientific and systematic mining.

Part-II

Restrictions

The liberties, powers and privileges granted under Part– I are subject to the following restrictions and subject to other provisions of this permit : –

1. **No mining operations within the limit of public works:**

The permit holder shall not carry on, or allow to be carried on any mining operations:-

(i) within a distance of fifty metres from the outer periphery of the defined limits of any village habitation, National Highway, State Highway and other roads where such excavation does not require use of explosives, unless specifically relaxed and permitted by the competent authority; or

(ii) within a distance of two hundred fifty metres from the outer periphery of the defined limits of any village habitation, National Highway, State Highway and other roads where use of explosives is required, unless specifically relaxed and permitted by the competent authority or any specific dispensation is obtained from the Director, Mines Safety; or

(iii) within a distance of 500 metres from major structures like R.C.C Bridges, Guide bund etc.; or

(iv) within a distance of seventy metres from any railway line or bridge except under and in accordance with the written permission of the railway administration concerned. The Railway Administration or the Government may in granting such permission, impose such conditions, as it may deem fit.

Explanation : – For the purpose of this clause, the expression 'Railway Administration' shall have the same meanings as it is defined by sub section (4) of section 3 of the Indian Railway Act, 1890 ( ) :

Provided that where the continuance of any mining operations in any area, in the opinion of the Government is likely to endanger the safety of any National or State Highway, road, bridge, drainage, reservoir, tank, canal or other public works, or public or private buildings or in the public interest or in the interest of environment or ecology of the area, the Government may determine the permit after giving sixty days notice to the permit holder in this behalf and the permit shall stand terminated on the date mentioned in the notice :

Provided further that in the State of National Emergency or war, the permit may be determined without giving such notice.

2. Working in sand zones:

That the Permit holder in respect of sand zones, shall restrict the quarrying operations to maximum four villages of the zone at any point of time during the subsistence of the permit. The Permit holder shall have a right to change the site at any time during the subsistence of the permit on settlement of compensation with the land owners of new site of the zone from where he intend to extract sand but ceiling of maximum four villages shall be adhered to strictly and such change of site shall be intimated to the competent authority.

3. Special conditions for river bed mining:

In case of river bed mining or excavation of minor mineral(s) , in order to ensure safety of river-beds, structures and the adjoining areas, the following special conditions shall be abide by the permit holder :-

(a) no mining would be permissible in a river-bed up to a distance of five times of the span of a bridge on up-stream side and ten times the span of such bridge on down-stream side, subject to a minimum of 250 metres on the up-stream side and 500 metres on the downstream side;
(b) there shall be maintained an un-mined block of 50 metres width after every block of 1000 metres over which mining is undertaken or at such distance as may be directed by the competent authority;
(c) the maximum depth of mining in the river-bed shall not exceed three metres measured from the un-mined bed level at any point in time with proper bench formation;
(d) mining shall be restricted within the central 3/4th width of the river/rivulet.
(e) no mining shall be permissible in an area up to a width specified by the competent authority from the active edges of embankments;
(f) any other condition(s), as may be required by the competent authority in public interest.

4. Notice for surface operation in land not already in use :

Before using for surface operations any land which has not already been used for such operation, the permit holder shall give notice in advance to the Collector of the district, the Director and the Officer–in-Charge_____ in writing along with copy of permission to undertake mining specifying the situation and the extend of the land

proposed to be so used and the purpose for which the same is required and the said land shall not be so used, if objection is issued by the Collector.

5. Not to use the land for other purposes :

The permit holder shall not cultivate or use the land for any other purpose other than those specified in the permit agreement.

6. Disposal of mineral(s) only on issuance of mineral transit pass:

The holder of mining permit shall not sell or dispose off any mineral or mineral products from the concession area without a mineral transit pass.

7. Stacking of mineral(s) inside permit hold area:

The permit holder shall not stock the mineral(s) excavated inside the permit hold area at the designated site more than twice the quantity of the average monthly production as per approved mining plan or scheme.

8. Stacking of mineral(s) outside permit hold area:

The Permit holder shall not stock any minor mineral(s) granted under the permit, outside the permit hold area.

9. Stacking and storage of incidentally extracted major minerals:

In case Permit holder, while extracting minor mineral given on permit, incidentally extracts any major mineral not given on permit, the same shall be the property of the Government and Permit holder shall be under an obligation to stack and store it and maintain its proper record in accordance with the direction of the competent authority who shall also be competent to prescribe the procedure for its disposal and in case it is detected that permit holder has disposed off incidentally extracted major mineral in this clause or in the rule, in whole or part there of or failed to maintain the record of stored mineral, he shall be liable to penalties under the Act and also premature determination of mining permit in terms of the rules.

10. Restrictions of mining operations above ground water table :

A safety margin of two metres shall be maintained above the ground water table while undertaking mining and no mining operations shall be permissible below this level unless a specific permission is obtained from the competent authority in this behalf.

11. Restrictions of surface operations:

No mining operations shall be undertaken in any area prohibited by any authority or by the orders of any Court.

12. No mining operations without requisite clearance:

The Permit holder shall not undertake any mining operations in the area granted on mining permit without obtaining requisite clearance from the competent authority as required for undertaking mining operations.

Part – III

Covenants of the permit

The permit holder hereby covenant with the Government as follows :-

1. **Surface rent:**

The permit holder shall pay for the surface area occupied by him, surface rent at the rate of Rs. ---------- (Rupees .....) only.

2. **Security deposit:**

The permit holder shall deposit twenty five percent of the annual bid amount or rate of permit money as Security. The security amount shall be deposited as per following:-

(i) ten percent as initial bid security at the time of auction; and
(ii) fifteen percent of the annual bid amount before commencement of mining operations or before the expiry of period allowed;

3. **Mode of payment of permit money and surface rent**

(a) The permit holder shall deposit one advance instalment of permit money before commencement of mining operations or before the expiry of period allowed along with fifteen percent of the balance security amount as per clause 2 above.
(b) The permit holder, during the subsistence of the permit, shall pay in advance to the Government the instalments of the permit money in respect of the said land given to him on mining permit in four quarterly instalment on the 1st of April, 1st of June, 1st of September and 1st of December.

Note : The amount of one advance instalment deposited at the time of commencement of the mining operations or within time allowed for the same shall be adjusted in a manner that the subsequent instalments are payable for a full calendar month or quarter or year, as the case may be.

4. **Amount to be deposited on account of Fund**

Where the Permit holder is operating the area, he shall also pay an additional amount, equal to 10% of the due permit money along with amount of instalments on account of dead rent or royalty, towards the Fund.

5. **Interest on delayed payments :**

In case of any default in payment of the instalments of permit money/ contribution to the Fund on the due date(s), the amount would be payable along with interest at the following rates:

Serial Number	Period of delay	Rate of Interest applicable
(i)	If paid within a period of 7 days from the due date	A grace period of up to 7 days is allowed without any interest
(ii)	If paid after 7 days but up to 30 days of the due date	15% on the amount of default for the period of default including the grace period;
(iii)	If paid after 30 days but within 60 days of the due date	18% on the amount of default for the period of default including the grace period;
(iv)	Delay beyond 60 days of the due date	It would amount to a 'breach', invite action for termination of the contract and the entire outstanding amount would be recoverable along with interest calculated @ 21% for the entire period of default.

6. Working of newly discovered minerals:

If any minor mineral not specified in the permit, is discovered in the permit area, the Permit holder shall report the discovery without delay to the competent authority and shall not win or dispose of such minor mineral without obtaining a separate mineral concession/lease for such mineral. If he fails to apply for such a mineral concession within six months from the discovery of the minor mineral, the competent authority may give the mineral concession in respect of such mineral, to any other person :

Provided that the grant of such permit may be refused for reasons to be recorded in writing.

7. To commence mining operations within one hundred eighty days and carry them on properly :

Unless the competent authority for sufficient cause otherwise, the permit holder shall commence mining operations one hundred eighty days from the date of execution of the permit and shall thereafter conduct such operations in a proper, skilful and workman like manner.

Explanation :– For the purpose of this clause, mining operations shall include the erection of machinery laying of a tramway or construction of a road in connection with the working of the mine.

8. To erect and maintain boundary pillars :

The permit holder shall at his own expenses, erect and at all times maintain and keep in good repairs boundary marks and pillars according to the plan annexed to the permit. Each of the pillars should be numbered and every pillar shall have GPS reading.

9. Accounts :

The permit holder shall keep correct accounts showing the quantity and other particulars of all minerals obtained from the mines and the number of persons employed therein and a complete plan of the mine and shall allow any officer authorised by the Government or the Central Government or the competent authority in that behalf to examine at any time any accounts and records maintained by him, and shall furnish to the Government or the Central Government of the competent authority with such information and returns as it may require.

10. To allow facilities to other concession holders :

The permit holder shall allow existing and future concession holders of any land which is comprised in or adjoins or is reached by the land, held by the lessee, reasonable facilities for access thereto.

11. To allow entry to officers :

The permit holder shall allow any officer authorised by the Government or the Central Government or the competent authority to enter upon any building, excavation or land comprised in the permit area for the purpose of inspecting the mines.

12. Returns :

The permit holder shall : -

(a) submit a return in form 'MMP1' by the 7th of every month to the competent authority and also to other officer (s) specified giving the total quantity of minor mineral(s) raised and dispatched from the permit area in the preceding calendar month and its value ;

(b) also furnish a statement giving information in Form 'MMP2' by the 15th April every year to the competent authority and to other Officer(s) regarding quantity and value of minor mineral obtained during last financial year, average number of regular labourers employed (men and women separately) number of accidents, compensation paid and number of days worked separately.

13. To strengthen and support the mines:

The permit holder shall strengthen and support to the satisfaction of the Railway Administration or the State Government, as the case may be any part of the mine which in its opinion requires such, strengthening or support for the safety of any railway, bridge, national highway, reservoirs, canal, road or any other public work or building.

14. Notice for use of explosives, etc:

The permit holder shall immediately inform in writing in Form MSE1 in case of (a) working in the mines extends below superjacent ground; or (b) depth of any open cast excavation measured from its highest to the lowest point reaches six metres; or(c)

number of persons employed on any day is more than 50; or (d) any explosives are used, to the following;

(i) The Controller General, Indian Bureau of mines, Government of India, Nagpur;
(ii) The Director General of Mines Safety, Government of India, Dhanbad;
(iii) The Director, Mines Safety, Government of India, Guwahati;
(iv) The Regional Controller of Mines, Indian Bureau of Mines, Kolkata;
(v) The competent authority;
(vi) The District Magistrate of the District concerned; and
(vii) The Officer-in-Charge.

15. Maintenance of sanitary conditions :

The permit holder shall maintain sanitary conditions in the area held by him under the permit.

16. To pay compensation for damage and indemnify the Government :

The permit holder shall make and pay such reasonable satisfaction and compensation for all damage, injury or disturbance which may be done by him in exercise of the powers granted by the lease and shall indemnify the Government against all claims which may be made by third parties in respect of such damage, injury or disturbance.

17. Application of all Acts, Rules and Regulations to this permit :

The Permit holder shall abide by the provisions of Mines Act, 1952 and the rules and regulations framed thereunder and also the provisions of other labour laws both Central and State as are applicable to the workmen engaged in the mines and quarries relating to the provisions of drinking water, rest shelters, dwelling houses, latrines and first-aid and medical facilities in particular and other safety and welfare provisions in general, to the satisfaction of the competent authorities under the aforesaid Acts, Rules and Regulations and also to the satisfaction of the District Magistrate concerned. In case of non compliance of any of the provisions of the enactments as aforesaid, the competent authority may terminate the mining lease by giving one month's notice with forfeiture of security deposited:

Provided that the permit holder shall carry out mining operations in accordance with all other provisions as applicable for undertaking mining including the provisions of Forest (Conservation) Act, 1980 and Environment (Protection) Act, 1986 and the rules made there under.

18. To report accident :

The permit holder shall without delay report to the Deputy Commissioner of the district concerned and the competent authority or any other officer authorised by him, any accident which may occur at or in the permit area.

19. Delivery of possession of land and mines on the surrender or sooner determination of the permit :

At the end or sooner determination or surrender of the permit, the permit holder shall deliver up the said lands and all mines (if any dug there) in a proper and workable state, save in respect of any working as to which the Government might have sanctioned abandonment.

20. To secure pits/shafts and not fill them up :

The permit holder shall well and properly secure pits and shafts and will not without permission in writing, wilfully close, fill up or close any mine or shaft.

21. Not to enter upon or to commence operations in the reserved or protected forest:

The permit holder shall not enter upon or commence any mining operations in any forest land comprised in the leased area except after previously obtaining permission in writing of the Forest Department.

22. To respect water rights and not injure adjoining property :

The permit holder shall not injure or cause to deteriorate any source of water, power or water supply and shall not in any other way render any spring or stream or water unfit to be used or to do anything to injure adjoining land, villages or houses.

23. Stocks lying at the end of the permit :

(a) The permit holder on expiry of the permit period (successful completion of the permit) shall remove already extracted the entire mineral from the premises of the quarry within a period of seven days. In case any quantity of the already extracted mineral, in the said land is left undisposed off and is not removed within seven days from the date of expiry of the period of permit the same shall be deemed to be the property of the Government and competent authority may dispose it off in any manner it may like without paying anything thereof to the Permit holder.

(b) The permit holder on the termination or sooner determination of the permit shall not remove extracted mineral from the premises of the permit areas. All extracted minerals in the said lands left over un-disposed after the termination or determination of lease shall be deemed to be property of the Government and competent authority may dispose it off in any manner it may like without paying anything thereof to the Permit holder.

24. Payment of taxes:

The permit holder shall duly and regularly pay to the appropriate authority all taxes, cesses and local dues in respect of the permit area, said minor minerals or the working of the mines.

25. Payment of additional amount for reclamation/ restoration:

The Permit holder shall also pay additional amount equal to 10% of the amount of permit money by the 7th of every month to ensure the compliance of the Reclamation and Restoration works. This additional amount shall be refunded after satisfactory reclamation or restoration of the area after mining in accordance with the mine closure plan :

Provided that in case the Permit holder fails to reclaim or restore the area as per mining plan to the satisfactions of the Government, the amount deposited in the joint account shall be forfeited and used for the restoration of the area:

Provided further that in case no rehabilitation position of the mine comes during the tenure of the mining permit, the amount so deposited shall be kept by the Government in the mining area development fund for future use as and when the mine reaches to a stage requiring restoration and rehabilitation.

26. Assign sublet or transfer of the permit area :

The permit holder shall not assign, sublet or transfer the permit area to any person without obtaining prior permission in writing from the competent authority.

27. Fencing of working place :

If a working place is found to be unsafe, all persons shall be withdrawn by the permit holder immediately from the dangerous area and all access to such working place except for the purpose of removing the danger or saving life shall be prevented by securely fencing the full width of all entrances to the place, at his own cost.

28. Fencing of excavation after termination or sooner determination of the permit :

The permit holder on termination or sooner determination of the permit, shall at his own cost, suitably fence the excavations for safety as instructed by the competent authority.

29. Felling of trees :

The permit holder shall not fell or cut any tree, standing on the land wherein the quarry is located without obtaining prior permission in writing from the Forest Department and paying its price as fixed.

30. Security deposit shall carry no interest :

The security deposited by the permit holder shall not carry any interest. It shall be refunded to the permit holder within three months from the date of expiry or sooner determination of the permit in case the same is otherwise not forfeited or is not required to be detained for any other purpose.

31. Government not responsible for loss to Permit holder :

The Government shall not be responsible for any kind of loss to the Permit holder.

Part-IV

Rights of the State Government

1. The Suspension or Termination of the permit:– The competent authority shall have the right to suspend or prematurely terminate the permit

   (a) If the permit money or royalty or surface rent or any other amount due to the Government are not paid,

   (b) if any of the terms and conditions of the permit agreement or conditions of grant or permission to undertake mining by any other statutory authority/Competent authority is violated;

   (c) if any of the provisions of these rules and other laws both Central and State as are applicable to mines and minerals, are not complied with :

   Provided that no orders of suspension or termination of the permit shall be passed by the competent authority without giving reasonable opportunity to show cause and following the procedure prescribed in the Rules :

   Provided further that in case of default in payment of Government dues such as permit money, royalty, dead rent or any other dues payable under these presents, the permit may be terminated by the competent authority without affording hearing to the permit after serving upon a notice to make good the payment within thirty days :

   Provided further that the competent authority may also at any time after issuance of the notice for default on account of non payment of dues, enter upon the said premises and detrain all or any of the mineral or movable property therein and may carry away, detain or order the sale of the property so detrained, or so much of it as will suffice for the satisfaction of the permit money or rent or royalty or both dues and all costs and expenses occasioned by the non-payment thereof.

2. **Determination of permit area in public interest:**

   The Government may by giving six months' prior notice in writing determine the permit if the Government consider that the minor mineral under the permit is required for establishing an Industry beneficial to the public:

   Provided that in the State of national emergency or war, the permit may be determined without giving such notice.

3. **Right of pre-emption :**

   The Government shall from time to time and at all times during the terms of permit have the right (to be exercised by notice in writing to the permit holder) of pre-emption of the said mineral(s) and all products thereof lying in or upon the said lands hereby

demised or elsewhere under the control of the permit holder and the permit holder shall deliver all minerals or products thereof to the Government at current market rates in such quantities and in the manner at the place specified in the notice exercising the said right.

4. **Penalty for not allowing entry to officers :**

If the permit holder or his transferee or assignee does not allow any entry or inspection under clause 11 of part-III, the competent authority may cancel the permit and forfeit in whole or in part the security deposit paid by the permit holder.

5. **Compensation and acquisition of land of third parties thereof ;**

In case the occupier(s) or owner(s) of the said land refuses his consent to the exercise of the rights and powers reserved to the Government and demised to the permit holder under these presents, the permit holder shall report the matter to the competent authority who shall request the Collector of the district concerned to direct the occupier(s) or owner(s) to allow the permit holder to enter the said lands and to carry out such operations, as may be necessary for working the mine, on payment in advance of such compensation to the occupier or owner by the permit holder, as may be fixed by the Collector concerned under the rules.

6. **Suspension of mining operations:**

The Director may order to suspend the mining operations after serving a notice to the permit holder, in case, the following violations are noticed:-

(a) unsafe and unscientific mining; or
(b) non providing of safety appliances to the workers; or
(c) non payment of compensation to the surface owners; or
(d) non submissions of monthly returns;

In case of violations of the aforesaid conditions and also any other terms and conditions of the agreement deed and the provisions of the rules, the competent authority may give a notice to the permit holder to remedy the violations within a period of fifteen days from the date of issue of the notice. In case, the violations pointed out through notice, are not remedied within the stipulated period of fifteen days, the competent authority may after affording an opportunity of being heard to the Permit holder, order the suspension of the mining operations till such time, the defaults/ defects are removed by the Permit holder within the time frame granted by the competent authority. During the period of suspension of mining operations, the permit holder will be allowed only to undertake rectification work for removal of the defects and shall not dispose off the mineral. During the suspension period, the Permit holder shall be under the obligation to deposit the amount of the Govt. dues on the due dates.

On satisfactory removal of the defects, the competent authority may revoke the suspension orders with or without any modification. Non removal of the defects or defaults during the suspension period and within the time allowed by the competent authority, shall lead to premature termination of permit.

Part-V

General

1. **Cancellation**:

The Permit holder shall be liable to be cancelled by the competent authority if the permit holder cease to work the mine for a continued period of one hundred eighty days without obtaining written sanction.

2. **Notices :**

Every notice by these presents required to be given to the permit holder shall be given in writing to such person resident on the said lands as the permit holder may appoint for the purpose of receiving such notices and if there shall have been no such appointment then every such notice shall be sent to the permit holder by registered post addressed to the permit holder at the address recorded in this permit or at such other address in India as the permit holder may from time to time in writing to the competent authority designate for the receipt of notices and every such service shall be deemed to be proper and valid service upon the Permit holder sand shall not be questioned or challenged by him.

3. **Recovery of Government dues as arrears of land revenue:**

Without prejudice to any other mode of recovery authorised by any provision of this permit or by any law, all amounts, falling due hereunder against the Permit holder may be recovered as arrears of land revenue under the law in force for such recovery.

4. **Forfeiture of property left more than three months after expiry or determination of permit:**

The permit holder shall remove his property lying on the said lands within three months after the expiry or sooner determination of the permit. The property left after the aforesaid period of three months shall become the property of the Government and may be sold or disposed of in such manner, as the competent authority shall deem fit, without liability to pay any compensation therefore, to the permit holder.

5. **Security and forfeiture thereof :**

(a) the competent authority may forfeit the whole or any part of the amount deposited as security under this permit, in case the permit holder commits a breach of any covenants to be performed by the permit holder under the permit.

(b) Whenever the said security deposit or any part thereof or any further sum hereafter deposited with the Government in replenishment thereof is forfeited under sub-clause (a) or applied by the competent authority under the permit (which the competent authority is hereby authorised to do) the permit holder shall immediately deposit with the inappropriate part thereof to bring the amount in deposit with the Government up to the requisite amount of security at that point of time of permit.

(c) The rights conferred to the competent authority by clause (a) shall be without prejudice to the rights conferred on the Government by any other provision of this permit or by any law.

(d) On such date, as the competent authority may decide, within twelve calendar months after the determination of this permit or refusal of any renewal thereof, the amount of security deposit paid in respect of this permit and then remaining in deposit with the Government and not required to be applied to any of the purposes mentioned in this permit shall be refunded to the permit holder. No interest shall run on the security deposit.

6. Survey and demarcation of the area :

When a mining permit is granted, arrangement shall be made, if necessary, at the expense of the permit holder, for the survey and demarcation of the area granted under the permit. The permit holder shall have to bear actual expenses of the staff deputed for the work. Actual expenses will include travelling allowances, daily allowances and salary of staff plus ten percent as instrument charges.

7. Surrender of a mining permit by the Permit holder :

The Government may accept the request of the permit holder for surrender of a permit or part thereof in cases where it is established that it has not been found feasible to operate the permit grant for whatsoever reasons subject to the condition that the permit holder :

(i) has been regular in furnishing the production returns as required in terms of the permit agreement;

(ii) has been taking the requisite steps for the progressive mine closure plan as per the conditions of the permit grant;

(iii) is not in default of payment of any dues of the Government as on the date of making such application and undertakes to pay all such dues till the date of expiry of the notice period either in cash in advance or by way of adjustment of the security or both :

Provided that in case the permit holder makes an application for surrender of part area of the permit, it shall not result in any prorated reduction of the permit money and the rate of permit money payable and applicable for the entire area at the time of such application shall remain intact.

8. Penalty for repeated breaches :

In case of repeated breaches of covenants and agreements by the permit holder for which notice has been given by the competent authority in accordance with sub-rule (1) of rule 55 and/ or clause (i) of sub rule (1) of rule 56 on earlier occasions, the Director

without giving any further notice, may impose such penalty not exceeding twice the amount of annual permit money.

9. Obtaining Sale Tax number :

The Permit holder shall get himself registered with the Taxation Department of Assam and shall obtain the Sales Tax number.

10. Overriding effect :

Unless otherwise specifically provided, it is agreed that this deed shall be governed by the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957) and the rules made thereunder. The provisions of the Act and the rules shall prevail over the terms and conditions of the agreement.

Signature of the Permit holder For and on behalf of the Governor of Assam.

Witness :-

1._____

1._____

2._____

2._____

Signature of surety

Witness

1. _____

2. _____

FORM MPS-2

(See rule 25(3))

(Model form for execution deed for permit of Saltpeter)

This indenture made this _____day of _____ _____20_____ between the Governor of Assam acting through_____ (hereinafter called the "Government" which expression shall where the context so admits be deemed to include his successors in office and assigns of the first part, and Shri _____ _____ son of Shri _____ resident of _____ district _____ _____ (hereinafter referred to as "Permit holder" which expression shall, where the context so admits include his heirs, executors, administrators, representatives and permitted assigns) of the second part and Shri _____ _____ son of Shri _____ resident of _____ district _____ (hereinafter referred to as "the surety", which expression shall, where the context so admits, include his heirs, executors, administrators, representatives and permitted assigns) of the third part;

And whereas the permit holder has offered the highest bid for the permit of _____ _____cu.m. (in words _____cubic metre_____ (name of the quarry) (hereinafter referred to as the "said lands") in Sub-Divisions _____ district _____ and whereas the permit holder has paid Rs. _____ (Rupees_____) only First instalment/ permit money in full for the first year_____ and Rs. _____ (Rupees_____) only as security (equal to 25% of the bid amount) for the due fulfilment of the terms and covenants hereinafter mentioned and the Government has agreed to grant him the aforesaid permit.

Now these presents witnesses as follows :

1. Amount and mode of payment of permit money :

The permit holder shall during the subsistence of the permit pay in advance to the Government, the following permit money in respect of the said lands given to him on permit for the period from _____to _____on the dates mentioned below.

Serial Number	Value of Annual permit money	Periodicity of payment
1	2	3
(i)	Up to Rs. 10.00 lakhs.	Rs. ..... (Full amount of permit money in lump-sum to be deposited at the time of auction along with the security amount.)
(ii)	Above Rs. 10.00 lakhs	Rs. ..... (In two instalments, one at the time of auction and another by 15th of May of the year to which the permit pertains)

2. Amount to be deposited on account of Mines and Mineral Development, Restoration and Rehabilitation Fund (hereinafter referred to as "Fund")

Where the permit holder is operating the area, he shall also pay an additional amount, equal to ten percent of the due permit money, whichever is more alongwith amount of instalments on account of dead rent or royalty, towards the Fund.

3. Interest on delayed payments :

In case of any default in payment of the instalments of permit money or contribution to the Fund on the due date(s), the amount would be payable alongwith interest at the following rates:

Serial Number	Period of delay	Rate of Interest applicable
(i)	If paid within a period of 7 days from the due date	A grace period of up to 7 days is allowed without any interest;
(ii)	If paid after 7 days but up to 30 days of the due date	15% on the amount of default for the period of default including the grace period;
(iii)	If paid after 30 days but within 60 days of the due date	18% on the amount of default for the period of default including the grace period;
(iv)	Delay beyond 60 days of the due date	Termination of the lease/ contract and the entire outstanding amount would be recoverable along with interest calculated @ 21% for the entire period of default.

4. No quarrying operations in certain areas :

No quarrying operations or working shall be carried on or permitted to be carried on by the permit holder in or under the said lands or to any point within a distance of ten metres from any railway line, bridge, National Highway, reservoir, tank, canal or other public road or buildings etc:

Provided that where the continuance of any mining operations in any area, in the opinion of the competent authority is likely to endanger the safety of any National or State Highway, road, bridge, drainage, reservoir, tank, canal, other public works, or other public or private buildings, the competent authority may terminate the permit after giving one month's notice to the Permit holder in this behalf. The permit shall stand terminated on the date mentioned in the notice. In such an event the Permit holder shall be refunded the permit money proportionate to the unexpired portion of the permit paid by him in advance if any.

5. To allow entry to Central Government and State Government Officers for inspection :

The permit holder shall at all reasonable times allow the competent authority and any other officer authorised by the Central Government or by the State Government in that behalf to inspect the said lands and the buildings and plant erected thereon and the permit holder shall assist such person in conducting the inspection and afford them all

information they may reasonably require and shall conform to and observe all orders which the Central or the State Government or the competent authority, as a result of such inspection or otherwise may from time to time pass.

6. Assign, sublet or transfer of the permit :

The permit holder shall not assign, sublet or transfer the permit to any person without obtaining prior permission in writing from the competent authority.

7. To pay compensation for damage and indemnify the Government:

The Permit holder shall make and pay such reasonable satisfaction and compensation for all damage, injury or disturbance which may be done by him in exercise of the powers granted by the permit and shall indemnify the Government against all claims which may be made by third parties in respect of such damage, injury or disturbance.

8. Not to carry on surface operation in prohibited areas :

The permit holder shall not carry on surface operation in any area prohibited by any authority, without obtaining prior permission in writing from the concerned authority.

9. Not to enter and work in reserved and protected forest areas :

The permit holder shall not enter and work in any forest land without obtaining prior permission in writing from the Forest Department.

10. Application of all Acts, rules and regulations to this permit :

The permit holder shall abide by the provisions of Mines Act, 1952 (35 of 1952), and the rules and regulations framed thereunder and also the provisions of other labour laws both Central and State as are applicable to the workmen engaged in the mines and quarries relating to the provisions of drinking water, rest shelters, dwelling houses, latrines and first-aid and medical facilities in particular and other safety and welfare provisions in general, to the satisfaction of the authorities under the aforesaid Acts, rules and regulations and also to the satisfaction of the District Magistrate concerned. In case of non compliance of any of the provisions of the enactments as aforesaid, the competent authority may terminate the permit by giving one month's notice with forfeiture of security deposited :

Provided that the Permit holder shall carry out mining operations in accordance with all other provisions as applicable for undertaking mining including the provisions of Forest (Conservation) Act, 1980 and Environment (Protection) Act, 1986 and the rules made there under.

11. Disposal of mineral(s) only on issuance of Mineral Transit Pass:

The holder of mining permit shall not sell or dispose off any mineral or mineral products from the concession area without a Mineral Transit Pass.

12. Security deposit shall carry no interest:

The security deposited by the permit holder shall not carry any interest. It shall be refunded to the permit holder within three months from the date of expiry or sooner determination of the permit in case the same is not forfeited or required to be detained for any other purposes under this deed.

13. Penalty for default :

In case of default in the due observance of the terms and conditions of the permit or in payment of the permit money on the due date, the permit may be terminated by the competent authority by giving one month's notice. In such an event, the competent authority shall be at liberty to forfeit the security deposited and also the instalment, paid in advance, if any the permit holder shall deliver the possession of the quarry to the Officer-in-Charge, concerned within seven days of the receipt of the order of termination of permit.

14. Termination of permit by Government in public interest :

The permit may be terminated by the Government if considered by it to be in public interest, by giving one month's notice:

Provided that in the State of National emergency or War, the permit may be terminated without giving such notice.

15. Recovery of permit money as arrears of land revenue :

Any sum due from the permit holder on account of permit money in respect of the permit shall be recoverable from him as arrears of land revenue.

16. To submit reports :

The permit holder shall furnish such reports and returns relating to output, labourers employed and other matters, as the competent authority may prescribe from time to time.

17. Returns :

The permit holder shall submit a monthly return in form 'MMP1' by the 10th day of each month to the competent authority and to the Officer-in-Charge concerned giving the total quantity of minor mineral(s) raised and dispatched from the specific area out of the area under permit in the preceding calendar month, and its value and such other information relating to the permit as may be called for by the competent authority.

18. State Government not responsible for loss to permit holder :

The Government shall not be responsible for any kind of loss to the Permit holder for any reason what-so-ever.

19. Notices :

Every notice by these presents required to be given to the permit holder shall be given in writing to such person, resident on the said lands as the Permit holder may appoint for the purpose of receiving of such notice and if there shall have been no such appointment then every such notice shall be sent to the Permit holder at the address recorded in this deed or at such other address in India, the Permit holder may, from time to time, in writing to the officer authorised by the competent authority for the receipt of notices and every such service shall be deemed to be proper and valid service upon the Permit holder and shall not be questioned by him.

20. Compensation and acquisition of land of third parties thereof :

In case the occupier(s) or owner(s) of the said land refuses his/ their consent to the exercise of the rights and powers reserved to the Government and demised to the Permit holder under these presents, the Permit holder shall report the matter to the competent authority who shall request the Collector of the district concerned to direct the occupier(s) or owner(s) to allow the Permit holder to enter the said lands and to carry out such operations as may be necessary for working the mine, on payment in advance of such compensation to the occupier or owner by the Permit holder, as may be fixed by the Collector concerned under the rules.

21. Suspension of mining operations :

The competent authority may order to suspend the mining operations after serving a notice to the permit holder, in case of the following;

(a) unsafe and unscientific mining;
(b) non providing of safety appliances to the workers;
(c) non payment of compensation to the surface owners;
(d) non submissions of monthly returns;

In case of violations of the aforesaid conditions and also any other terms and conditions of the agreement deed and the provisions of the rules, the competent authority may give a notice to the permit holder to remedy the violations within a period of fifteen days from the date of issue of the notice. In case, the violations pointed out through notice, are not remedied within the stipulated period of fifteen days, the competent authority may after affording an opportunity of being heard to the permit holder, order the suspension of the mining operations till such time, the defaults/ defects are removed by the Permit holder within the time frame granted by the competent authority. During the period of suspension of mining operations, the Permit holder will be allowed only to undertake rectification work for removal of the defects and shall not dispose off the mineral. During the suspension period, the permit holder shall be under the obligation to deposit the amount of the dead rent etc. on the due dates.

On satisfactory removal of the defects, the competent authority may revoke the suspension orders with or without any modification. Non removal of the defects or

defaults during the suspension period and within the time allowed by the competent authority, shall lead to premature termination of permit holder.

22. Stocks lying at the end of the permit :

(a) The permit holder on expiry of the permit period (successful completion of the permit) shall remove already extracted all of the mineral from the premises of the quarry within a period of seven days. In case any quantity of the already extracted mineral, in the said land is left undisposed off and is not removed within seven days from the date of expiry of the period of permit the same shall be deemed to be the property of the Government which will be disposed by the competent authority in any manner, without paying anything thereof to the permit holder.

(b) The permit holder on the termination or sooner determination of the permit shall not remove extracted mineral from the premises of the permit areas. All extracted minerals in the said lands left over un-disposed after the termination or determination of permit lease shall be deemed to be property of the Government which will be disposed off by the competent authority in any manner without paying anything thereof to the permit holder.

23. Recovery of Government dues as arrears of land revenue:

This indenture further witnesseth that in further pursuance of the agreement and covenants referred to above, the permit holder and the surety further covenant that if the permit holder shall make default in the payment of the permit money under these presents including any interest thereon, on the date or dates on which the same shall be or become payable then the whole of the outstanding permit money and interest shall be payable by the Permit holder and the surety jointly and severally. The Government shall be at liberty to recover the same from the permit holder or the surety irrespective of the fact whether Government shall have pursued all or any of its remedies against the Permit holder.

24. Permit holder shall get himself registered with the Taxation Department of Assam and shall obtain the Sales Tax number.

25. Overriding effect:

Unless otherwise specifically provided, it is agreed that this deed shall be governed by the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957) and the rules made thereunder. The provisions of the Act and the rules shall prevail over the terms and conditions of the agreement.

IN WITNESS WHEREOF these presents have been executed in the manner hereunder appearing the day and year above written.

Signature of the Permit holder.

In the presence of :

1. _____

Address_____

2. _____

Address_____

For and on behalf of the Governor of Assam.

In the presence of :

1. _____

Address_____

2. _____

Address_____

Signature of the surety

in the presence of :-

1. Name _____

Address_____

2. Name _____

Address_____

FORM PIM – 1
(See rule 26(4))

Application for the grant of permit for excavation of Brick Earth by the Brick Kiln Owners

To

.....

.....

Dear Sir,

Undersigned intends to install a brick Kiln or is the owner of .... (Name and address of the Brick Kiln), and for manufacturing of the bricks requires the minor mineral namely "Brick Earth". The application fee of Rs. 500/- (non- refundable) in the form of bank draft/treasury challan bearing number..... dated ....., is enclosed.

2. The details of the area for which permission is being sought, is given as under :-

(a) location of Brick Kiln(village/ sub-division/district)
(b) category of the Brick Kiln
(c) extent of the land from which brick earth is to be excavated (Dag No., Patta No. etc.)
(d) lay out plan of the area applied for permit
(e) existing status of the land as compared to general ground level of the area
(f) quantity of brick kiln required to be removed
(g) advance amount of Permit fee/royalty
(h) security (refundable).

3. Applicant further submits that;
   (i) royalty at the rates prescribed under First Schedule to the Assam Minor Mineral Concession Rules, 2012 shall be paid for the brick earth to be removed from the area under permit.
   (ii) area is free from Plantation or is not forest land.
   (iii) digging of the earth at the site is otherwise not prohibited by any court of law or any authority.
   (iv) brick earth will be used only for manufacturing of the bricks.
   (v) he will abide by all relevant provisions for excavation of earth.
   (vi) a compensation has been settled with land owner mutually and a copy of the agreement signed between the applicant and the landowner qua mutual settlement of the compensation is attached(in case land is owned by the applicant himself, the proof thereof).
   (vii) in case of renewal of permit copy of last permit, alongwith proof of payment towards applicable permit money or royalty.

Dated :
Encls: As above.

(Name and address of the applicant).

FORM PIM – 2

(See Rule 26(8)

Standard form for quarrying permits for brick earth

Whereas Shri/Messers _____ owner(s) of Brick Kiln falling in category _____ has/ have applied for quarrying permit for removal of the "Brick Earth", for a period of two years from the land measuring _____ bigha/ acres/hectares bearing Dag, Patta numbers _____ in the revenue estate of _____ _____ Sub-division _____ District _____under rule 26 of the Assam Minor Mineral Concession Rules, 2012. The applicant has paid requisite application fee of Rs. _____ and has/have also paid security amounting to Rs. _____ (25% of the annual royalty amount). (Further the applicant has also deposited the permit fee of _____ for _____ category of Brick Kiln.)

The permission is hereby granted for removal of brick earth and manufacture of bricks from the aforesaid area during the period from ..... to ..... (upto 31st March, ...) subject to the conditions given below :-

1. The holder of the permits shall keep the Government indemnified from third party claim relating to the extraction of brick earth from the land for which quarrying permit is given.

2. The holder of the permit shall excavate the brick earth in such a manner that the same shall not disturb or damage any road, public ways, buildings, premises of public grounds.

3. The holder of the permit shall not use the brick earth excavated from the land granted on permit for any other purpose than that of manufacturing of bricks. In case the brick earth is to be transported up to brick kiln from the site of the excavation, the permit holder transports the same only by issuing a Mineral Transit Pass.

4. That the holder of the permit shall not fell any tree standing on the land without obtaining prior permission in writing from the competent authority in the Forest Department. In case such permission has been granted, he shall abide by the terms and conditions stipulated in such permission.

5. The permit holder shall not carry on surface operations in any area prohibited by any authority, without obtaining prior permission in writing from the concerned authority.

6. The permit holder shall not enter and work in any Forest without obtaining prior written permission of the Forest Department.

7. The permit holder shall report immediately all accidents to the Deputy Commissioner and the competent authority concerned.

8. The depth of the pit below surface shall not exceed nine feet.

9. The annual amount of royalty shall be paid in advance by 1st April of every year.

In case the annual royalty is not paid on the date specified above, the permit holder shall be liable to pay interest as per following :-

Serial Number	Period of delay	Rate of Interest applicable
(i)	If paid within a period of 7 days from the due date	A grace period of up to 7 days is allowed without any interest
(ii)	If paid after 7 days but up to 30 days of the due date	15% on the amount of default for the period of default including the grace period;
(iii)	If paid after 30 days but within 60 days of the due date	18% on the amount of default for the period of default including the grace period;
(iv)	Delay beyond 60 days of the due date	Termination of the permit and the entire outstanding amount would be recoverable along with interest calculated @ 21% for the entire period of default.

10. The brick Kiln owner shall be liable to make payment of lump-sum royalty for the whole of the year notwithstanding the operation of the Kiln for any part of the year.

11. In case of any default in due observance of the terms and conditions of this permit or in payment of the instalment on due date, the permit may be cancelled by the competent authority by giving one month's notice. Any sum due from the permit holder on account of royalty and interest thereon shall be recovered from him/ them as an arrear of land Revenue.

Signature _____

Designation _____

FORM PIM – 3

{See rule 27(5)}

Application for the grant of permit for extraction of ordinary clay/earth

To

.....

.....

Dear Sir,

The applicant is the owner of land or is having the written consent of the land owner of the land measuring ..... bigha/ ha ..... (details of Dag, Patta numbers) in village ..... Sub-division ..... District ..... and have to remove the ordinary clay/earth for levelling the land or selling the same for commercial purpose. As a result of levelling of land or excavation, ordinary clay/earth excavated is to be disposed off, for which permission is solicited. The applicant further state that :-

2. The details of the area for which permission is being sought, is given as under:-

(a) location of the area

(b) purpose

(c) total area to be excavated/levelled

(d) extent of the area [length, breadth and depth]

(e) quantity of the ordinary clay to be removed and disposed off

(f) existing status of the land as compared to general ground level of the area

(g) advance royalty

(h) security (refundable)

Dated :

Encls: As above. (Name and address of the applicant).

(i) Proof of ownership of land/consent of the land owner.

Form PIM- 4

(See rule 27(6))

Standard form for excavation of ordinary clay or earth

Whereas Sh./ Messers _____ has applied for the grant of a permit under Rule 27 of the Assam Minor Mineral Concession Rules, 2012, for excavation of _____ tonnes/ cubic meter/ quintals of _____ ordinary clay/earth, a minor minerals for excavation/removal from _____ (details of area). The applicant has/have paid royalty in advance amounting to _____ _____ and Rs._____on account of Mines and Mineral Development, Rehabilitation and Restoration Fund (10% of the amount of royalty) and Rs. _____ on account of security (50% of the amount of royalty).

The permission is hereby granted for disposal of the mineral _____ (name of minor minerals) tonnes/ cubic meter/ quintals excavated/removed from the aforesaid area for the period from ---------- to ---------- subject to following conditions:-

1. The holder of the permits shall keep the Government indemnified from third party claim relating to the extraction of ordinary clay/earth from the land for which quarrying permit is given.

2. The holder of the permit shall excavate the ordinary clay/earth in such a manner that the same shall not disturb or damage any Road, Public ways, buildings, premises of public grounds.

3. That the holder of the permit shall not fell any tree standing on the land without obtaining prior permission in writing from the competent authority in the Forest Department. In case such permission has been granted, he shall abide by the terms and conditions stipulated in such permission.

4. The permit holder shall not carry on surface operations in any area prohibited by any authority, without obtaining prior permission in writing from the concerned authority.

5. The permit holder shall not enter and work in any forest land without obtaining prior written permission of the Forest Department.

6. The permit holder shall report immediately all accidents to the Deputy Commissioner and the competent authority concerned.

7. The depth of the pit below surface shall not exceed nine feet and in case where sand deposits are found, the depth of the pit below surface shall not exceed three feet.

8. The permit holder shall not excavate any other mineral than that of ordinary clay/earth found in the area. Any breach in this regard will entail immediate suspension of the workings and followed by termination of permit along with forfeiture of security amount, after affording opportunity of show cause. In case any mineral is illegally disposed off, the Officer-in-Charge shall also recover amount of penalty in accordance with the provisions of Mines and Mineral (Development and Regulation) Act 1957 and Rules framed thereunder.

9. The permit holder shall ensure that any mining operations below a depth of 1.5 metres shall necessarily be undertaken by formation of benches for safe mining. The benches would be formed in a manner that the width of the bench is not lesser than the height of the bench or as permitted by the Director, Mines Safety, Government of India.

10. The permit holder shall transport/dispose of the ordinary clay/earth from the site of the excavation, only by issuing a Mineral Transit Pass.

11. The permit holder shall restore and rehabilitate the area of excavation with in fifteen days from the date of expiry of the permit and shall submit compliance report to the Officer-in-Charge.

12. In case of any default in due observance of the terms and conditions of this permit or in payment of the instalment on due date, the permit may be cancelled by the competent authority by giving one month notice where the remaining period of permit is more than sixty days. In other cases the period of permit is less than sixty days, notice of ten days shall be given before taking decision on cancellation of permit.

13. The amount of security deposit shall entail no interest. The security amount shall be refunded within a period of three months in case the same is not forfeited or required to be detained for any other purpose under this permit.

14. Any sum due from the permit holder shall be recovered from him as an arrear of land Revenue.

The permission shall be valid up to _____.

Signatures _____

Designation _____

FORM MMP – 1

[See rule 24, 25 and 38(15)(i)]

Monthly return for the Month of _____(to be furnished by the mining lessee/contractor/permit holder

1.	Name of the Mine		3.	Name and address of lessee	
2.	Location of the Mine (a) Village (b) District (c) State		4.	Name of Minor Mineral(s) for which lease has been granted	

Name of mineral(s)	Closing stock brought forward from the previous month (Tonne/ Cu.M.)	Production during the month (Tonne/ Cu.M.)	Dispatched during the month (in Tonne/Cu.M.)				Closing stock (Tonne / Cu.M.)
5.	6.	7.	8.				9.
			By Truck	By Railway	By other means of transport	Total	

Average daily No. of labourer or employees				Wages paid			
10				11			
Male	Female	Adolescent	Total	Male	Female	Adolescent	Total
6A	6B	6C	6D	7A	7B	7C	7D

Signature of the lessee/contractor/
Permit holder or his authorized agent.

Dated : _____

N.B. : (1) Please furnish on the reverse of this form reasons for rise or fall in production, dispatches and labour employed, etc. as compared with the previous month.

(2) Please send this report to :

(a) The competent authority;

(b) The Officer-in-Charge concerned by the 10th of the month following the month under report.

FORM MMP – 2

[See rule 38(15)(ii)]

Annual return to be furnished by the mining lessee/contractor

Annual Statement of Minor Minerals obtained, labourer employed, etc. for the Financial Year ending _____20___.

Name of the lessee _____

Area of the lease _____

Village _____

Sub-Division _____

District _____

Name of the minor mineral	Output	Value	Average number of persons employed daily		
1	2	3	4		
			Male	Female	Total

Average No. of days worked	No. of accidents	Compensation paid (in Rs.)	No. of days worked	Remarks
5	6	7	8	9

Signature of the lessee/contractor/
Permit holder or his authorized agent.

Dated : _____

N.B. : This return is to be submitted by the 15th of April of each year for the preceding financial year, i.e. from First of April to 31st March to the :

(a) The competent authority.

(b) The Officer-in-Charge concerned.

FORM MSE – 1

[See rule 38(21)]

Notice for explosive, etc. by the lessee

1.	Name of mine	
2.	Name of minor mineral(s) excavated	
3.	Situation of mine (village, Police Station, Sub-Division, District	
4.	The date when works were first started.	
5.	Name and postal address of present owner(s)	
6.	Name and postal address of agency, if any	
7.	Name and postal address of Manager, if any	
	Age	
	Qualification	
	Experience in mining	
8.	Whether workings are likely to be extended below; superjacent ground.	
9.	Maximum depth of open cast excavation measured from its lowest point	
	Date when depth first exceeded six metres.	
10.	Nature, amount and kind of explosives used, if any.	
11.	Date when explosives were first used.	
12.	Date(s) on which the number of persons employed on any day exceeded 50.	

Signature of Owner/Agent/Manager

Dated: _____

To be sent to :

1. The Controller General, Indian Bureau of Mines, Government of India, Nagpur;
2. The Director General of Mines Safety, Government of India, Dhanbad;
3. The Director, Mines Safety, Government of India, Guwahati;
4. The Regional Controller of Mines, Indian Bureau of Mines, Kolkata;
5. The Competent Authority;
6. The District Magistrate of the concerned District and
7. The Officer-in-Charge concerned.

LIST OF MINOR MINERALS

(As defined under S.3(e) of MMDR Act, 1957 and further declared as such from time to time under the Act)

1. Building stones,
2. Gravel,
3. Ordinary clay,
4. Ordinary sand other than sand used for prescribed purposes.

Mineral Concession Rules, 1960: Rule 70: Sand not to be treated as minor mineral when used for certain purposes. Sand shall not be treated as minor mineral when used for any of the following purposes :

(i) purposes of refractory and manufacture of ceramic;
(ii) metallurgical purposes;
(iii) optical purposes;
(iv) purposes of stowing in coal mines;
(v) for manufacture of silvicrete cement;
(vi) for manufacture of Sodium silicate;
(vii) for manufacture of pottery and glass.

5. Boulder,
6. Shingle,
7. Chalcedony or impure quartz pebbles used for ball mill purposes or filling for bore wells or for decorative purposes in buildings,

8. Limeshell,
9. Kankar and
10. Limestone,

when used in kilns for manufacture of lime used as building material

11. Murram,
12. Brick-earth,
13. Fuller's earth,
14. Bentonite,
15. Road metal,
16. Reh-matti,
17. Slate and
18. Shale
19. Marble,

when used for building material

20. Stones used for making household utensils,
21. Quartzite and sandstone, when used for purposes of building or for making road metal and house hold utensils,
22. Salt-petre,

SCHEDULE – 'X'

[Under Rule 3 (1)]

Minor minerals for industrial and specific uses :

(1) Building stone including Granite :	When mined for the purpose of manufacture of polished tiles, slabs and other decorative and architectural purposes Or When mined in large-scale for export of the stone in the form of cubes, slabs, boulder or gravel and for construction of dams, dykes, bridges, etc.
(2) Marble	
(3) Fuller's earth	
(4) Bentonite	
(5) Lime Shell	When used in kilns for manufacturing of lime used as building materials
(6) Kankar	
(7) Lime stone of any grade	
(8) Brick earth	When used in mechanized brick plants
(9) Quartzite and Sand Stone	When used in cement manufacturing or any other manufacturing industry.
(10) Ordinary clay	When used in cement manufacturing or in any industry other than Cottage Industry
(11) Shale	

SCHEDULE 'Y'

[Under Rule 3 (2)]

Minor minerals for uses other than in Industry :-

(1) Gravel	When used in construction of roads and buildings other than mined in large scale for export and for construction of dams, dykes, bridges, etc.
(2) Ordinary clay	Other than used in cement manufacturing or in any industry except cottage industry
(3) Ordinary Sand	Other than sand used for prescribed purposes.

Mineral Concession Rule 1960 :- Rule 70 :- Sand not to be treated as minor mineral when used for certain purposes sand shall not be treated as minor mineral when used for any of the following purposes :

(i) Purpose of refractory and manufacture of ceramic,
(ii) Optical purposes,
(iii) Metallurgical purposes,
(iv) Purposes of stowing in coal mines,
(v) For manufacture of silvicrete cement,
(vi) For manufacture of Sodium silicate,
(vii) For manufacture of pottery and glass.

(4) Boulder	When used in construction of roads and buildings other than mines in large scale for export and for construction of dams, dykes and bridges, etc.
(5) Shingle (6) Chalecedony or impure quartz pebbles	When used for ball mill purposes for filing for bore wells or for decorative purposes in buildings
(7) Murram (8) Brick-earth	Other than brick-earth used in mechanized brick plants

(9) Road metal	
(10) Reh matti	
(11) Slate and Shale	When used as building material and other than used in cement or other industry except Cottage Industry.
(12) Stones	When used for making household utensils.
(13) Quartzite and Sandstone	When used for purposes of building or for making road metal and household utensils other than used in cement manufacturing or in any other manufacturing industry.
(14) Salt-petre	
(15) Ordinary Earth	

First Schedule

Rates of royalty

(see rule 8(6), 26(6) and 27(4)

Sl.No	Name of Minor Mineral		Rate of Royalty (in Rs.)
1	Building Stone (excluding Granite)		100.00 Cu. M
2	Gravel		100.00 Cu. M
3	Ordinary Clay		15.00 Cu. M
4	Ordinary sand other than sand used for prescribed purposes.		70.00 Cu. M
5	Boulder		100.00 Cu. M
6	Shingle		75.00 Cu. M
7	Chalcedony or Impure quartz pebbles		90.00 Cu. M
8	Lime Shell	when used in kilns for manufacture of lime used as building materials.	80.00 Cu. M
9	Kankar		
10	Lime Stone		
11	Murram		-
12	Brick Earth		15.00 Cu. M
13	Fuller's Earth		20.00 Cu. M
14	Bentonitc		30.00 Cu. M
15	Road metal		-
16	Rchmatti		-
17	Slate		-
18	Shale		-
19	Marbale		-
20	Stone used for making household utensils		-
21	Quartzite and Sandstone		80.00 Cu. M
22	Salt petre		-
23	Granite		70.00 Cu. M
24	Ordinary Earth		-

Second Schedule

Fee for review and appeal

[See rule 71(1)]

An appeal before Controlling Officer against the orders of Subordinate Officer	Rs. 2,000/-
An application before the Director/Principal Chief Conservator of Forests and Head of Forest Force for review of orders passed by him	Rs. 2,000/-
An appeal before the Government against the orders of Director/Principal Chief Conservator of Forests and Head of Forest Force	Rs. 3,000/-

R. T. JINDAL,

Principal Secretary to the Government of Assam,
Power (E), Mines and Minerals Department,
Dispur, Guwahati – 6.

GUWAHATI - Printed and Published by the Dy. Director (P. & S.), Directorate of Ptg. & Sty., Assam, Guwahati-21, (Ex-Gazette) No. 199-100+50-16-3-2013

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 15th January, 2016

S.O. 141(E).—Whereas in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), a draft notification for making certain amendments in the Environment Impact Assessment Notification, 2006, issued *vide* number S.O. 1533(E), dated the 14th September 2006, was published under sub-rule (3) of rule (5) of the Environment (Protection) Rules, 1986, vide number S.O. 2588(E), dated 22nd September, 2015, inviting objections and suggestions from all persons likely to be affected thereby, within a period of sixty days from the date of publication on which copies of Gazette containing the said notification were available to the public;

And whereas, copies of said notification were made available to the public on 22nd September 2015;

And whereas, all objections and suggestions received in response to the above mentioned draft notification have been duly considered by the Central Government;

And whereas, in pursuance to the order of Hon'ble Supreme Court dated the 27th February, 2012 in I.A. No.12-13 of 2011 in Special Leave Petition (C) No.19628-19629 of 2009, in the matter of Deepak Kumar etc. Vs. State of Haryana and Others etc., prior environmental clearance has now become mandatory for mining of minor minerals irrespective of the area of mining lease;

And whereas, as a result of the above said Order of Hon'ble Supreme Court, the number of cases which are now required to obtain prior environmental clearance has increased substantially;

And whereas, the Hon'ble National Green Tribunal, *vide* its order dated the 13th January, 2015 in the matter regarding sand mining has directed for making a policy on environmental clearance for mining leases in cluster for minor minerals;

And whereas, the State Governments have represented for streamlining the process of environmental clearance for mining of minor mineral;

And whereas, the Ministry of Environment, Forest and Climate Change in consultation with State Governments has prepared Guidelines on Sustainable Sand Mining detailing the provisions on environmental clearance for cluster, creation of District Environment Impact Assessment Authority and proper monitoring of sand mining using information technology and information technology enabled services to track the mined out material from source to destination;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following amendments in the said notification, namely:-

In the said notification,-

(a) in paragraph 2, after the words "in the said Schedule", the following words shall be inserted, namely:-

"and at District level, the District Environment Impact Assessment Authority (DEIAA) for matters falling under Category 'B2' for mining of minor minerals in the said Schedule";

(b) after paragraph 3, the following paragraph shall be inserted, namely:-

"3 A. District Level Environment Impact Assessment Authority:-

(1) A District Level Environment Impact Assessment Authority hereinafter referred to as the DEIAA shall be constituted by the Central Government under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 comprising of four members including a Chairperson and a Member-Secretary.

(2) The District Magistrate or District Collector shall be the Chairperson of the DEIAA.

(3) The Sub-Divisional Magistrate or Sub-Divisional Officer of the district head quarter of the concerned district of the State shall be the Member-Secretary of the DEIAA.

(4) The other two members of the DEIAA shall be the senior most Divisional Forest Officer and one expert. The expert shall be nominated by the Divisional Commissioner of the Division or Chief Conservator of Forest, as the case may be. The term and qualifications of the expert fulfilling the eligibility criteria are given in Appendix VII to this notification.

(5) The members of the DEIAA who are serving officers of the concerned State Government or the Union territory Administration shall be *ex-officio* members except the expert member.

(6) The District Level Expert Appraisal Committee hereinafter referred to as the DEAC shall comprise of eleven members, including a Chairman and a Member-Secretary.

(7) The senior most Executive Engineer, Irrigation Department in the district of respective State Governments or Union territory Administration shall be the Chairperson of the DEAC.

(8) The Assistant Director or Deputy Director of the Department of Mines and Geology or District Mines Officer or Geologist of the district shall be the Member-Secretary of the DEAC in that order.

(9) A representative of the State Pollution Control Board or Committee, senior most Sub-Divisional Officer (Forest) in the district, representative of Remote Sensing Department or Geology Department or State Ground Water Department, one occupational health expert or Medical Officer to be nominated by the District Magistrate or District Collector, Engineer from Zila Parishad, and three expert members to be nominated by the Divisional Commissioner or Chief Conservator of Forest, as the case may be, shall be the other members of the DEAC. The term and qualifications of the experts fulfilling the eligibility criteria are given in Appendix VII to this notification.

(10) The members of the DEAC who are serving officers of the concerned State Government or the Union territory Administration shall be *ex-officio* members except the expert members.

(11) The District Magistrate or District Collector shall notify an agency to act as Secretariat for the DEIAA and the DEAC and shall provide all financial and logistic support for their statutory functions.

(12) The DEIAA and DEAC shall exercise the powers and follow the procedure as specified in the said notification, as amended from time to time.

(13) The DEAC shall function on the principle of collective responsibility and the Chairman shall endeavor to reach a consensus in each case and if consensus cannot be reached, the view of the majority shall prevail. ";

(c) in paragraph 4, after sub-paragraph (iii), the following sub-paragraph shall be inserted, namely:-

"(iv) The 'B2' Category projects pertaining to mining of minor mineral of lease area less than or equal to five hectare shall require prior environmental clearance from DEIAA. The DEIAA shall base its decision on the recommendations of DEAC, as constituted for this notification." ;

(d) for paragraph 5, the following paragraph shall be substituted, namely:-

"5. Screening, Scoping and Appraisal Committees:-

The same Expert Appraisal Committees (EACs) at the Central Government, SEACs at the State or Union territory level and DEAC at the district level shall screen, scope and appraise projects or activity in category 'A', 'B1 and B2' and 'B2' projects for mining of minor minerals of lease area less than and equal to five hectare respectively. EAC, SEACs and DEACs shall meet at least once every month.

(a) The composition of the EAC shall be as given in Appendix VI. The SEAC at the State or the Union territory level shall be constituted by the Central Government in consultation with the concerned State Government or the Union

territory Administration with identical composition. DEAC at the district level shall be constituted by the Central Government as per the composition given in paragraph 3 A.

(b) The Central Government may with the prior concurrence of the concerned State Governments or the Union territory Administration constitute one SEAC for more than one State or Union territory for reasons of administrative convenience and cost.

(c) The EAC and SEAC shall be reconstituted after every three years.

(d) The authorised members of the EAC, SEACs and DEACs concerned, may inspect any site connected with the project or activity in respect of which the prior environmental clearance is sought for the purpose of screening or scoping or appraisal with prior notice of at least seven days to the project proponent who shall provide necessary facilities for the inspection.

(e) The EAC, SEACs and DEACs shall function on the principle of collective responsibility. The Chairperson shall endeavor to reach a consensus in each case and if consensus cannot be reached the view of the majority shall prevail.";

(e) for paragraph 6, the following paragraph shall be substituted, namely:-

"6. Application for Prior Environmental Clearance (EC):-

An application seeking prior environmental clearance in all cases shall be made by the project proponent in the prescribed Form 1 annexed herewith and Supplementary Form 1A, if applicable, as given in Appendix II after the identification of prospective site (s) for the project and/or activities to which the application relates; and in Form 1M for mining of minor minerals up to five hectare under Category 'B2' projects, as given in Appendix VIII, before commencing any construction activity, or preparation of land, or mining at the site by the project proponent. The project proponent shall furnish along with the application, a copy of the pre-feasibility project report, in addition to Form 1, Form 1A, and Form 1M; and in case of construction projects or activities (item 8 of the Schedule), a copy of the conceptual plan shall be provided instead of pre-feasibility report.";

(f) in paragraph 7,-

(i) in sub-paragraph (i), under the heading "I. Stage (1)- Screening:", the existing sub-paragraph shall be lettered as sub-paragraph "(A)" and after sub-paragraph as so lettered, the following sub-paragraph shall be inserted, namely:-

"(B) The cases as specified in Appendix IX shall be exempted from prior environmental clearance." ;

(ii) after sub-paragraph 7 (ii), the following sub-paragraph shall be inserted, namely:-

"7 (iii) Preparation of District Survey Report for Sand Mining or River Bed Mining and Mining of other Minor Minerals:

(a) The prescribed procedure for preparation of District Survey Report for sand mining or river bed mining and mining of other minor minerals is given in Appendix X.

(b) The prescribed procedure for environmental clearance for mining of minor minerals including cluster situation is given in Appendix XI.";

(g) in paragraph 8,-

(i) for the letters and word "EAC or SEAC", the words and letters "EAC or SEAC or DEAC" shall be substituted;

(ii) for the words "Expert Appraisal Committee or State Level Expert Appraisal Committee" wherever they occur, the words "Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee" shall be substituted;

(h) in paragraph 9, in sub-paragraph (i),-

for the words "Expert Appraisal Committee or State Level Expert Appraisal Committee", the words "Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee" shall be substituted;

(i) in paragraph 10, after sub-paragraph (iii), the following sub-paragraph shall be inserted, namely:-

"(iv) The prescribed procedure for sand mining or river bed mining and monitoring is given in Appendix XII.";

(j) in paragraph 11, -

for the words "Expert Appraisal Committee or State Level Expert Appraisal Committee", the words "Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee" shall be substituted;

(k) in the Schedule,-

(i) for item 1 (a) and the entries relating thereto, the following item and entries shall be substituted, namely:-

(1)	(2)	(3)	(4)	(5)
"1(a)	(i) Mining of minerals	≥50 ha of mining lease area in respect of non-coal mine lease >150 ha of mining lease area in respect of coal mine lease Asbestos mining	<50 ha of mining lease area in respect of non-coal mine lease ≤150 ha of mining lease area in respect of coal mine lease	General Conditions shall apply except: (i) for project or activity of mining of minor minerals of Category 'B2' (up to 25 ha of mining lease area); (ii) River bed mining projects on account of inter-state boundary.

		irrespective of mining area		**Note:** (1) Mineral prospecting is exempted. ''; (2) The prescribed procedure for environmental clearance for mining of minor minerals including cluster situation is given in Appendix XI."; (3) The mining leases which have obtained environmental clearance under Environment Impact Assessment Notification, 1994 and Environment Impact Assessment Notification, 2006 shall not require fresh environmental clearance during renewal provided the project has valid and subsisting environmental clearance.
	(ii) Slurry pipelines (coal lignite and other ores) passing through national parks or sanctuaries or coral reefs, ecologically sensitive areas.	All projects.		

(l) after Appendix VI, the following appendices shall be inserted, namely:-

"APPENDIX VII

(See paragraph 3 A)

Qualifications and terms for the Experts in DEIAA and DEAC

1. **Qualification:** The person should have at least (i) 5 years of formal University training in the concerned discipline leading to a MA or M Sc Degree or (ii) in case of Engineering/ Technology/ Architectural discipline, 4 years formal training course together with prescribed practical training in the field leading to a B. Tech/ B.E./ B. Arch. Degree, or (iii) Other professional degree (e.g. MBA etc.) involving a total of 5 years of formal University training and prescribed practical training, or (iv) Prescribed apprenticeship/ article ship and pass examinations conducted by the concerned professional associations (e.g. Chartered Accountancy) or (v) a University degree, followed by two years of formal training in a University or Service Academy (e.g. MBA/MPA etc.). In selecting the individual professionals, experience gained by them in their respective fields will be taken note of.
2. **Expert:** A professional fulfilling the above eligibility criteria with at least 10 years of relevant experience in the field or with an advanced degree (e.g. Ph. D) in a concerned field with at least 5 years of relevant experience.
3. **Age:** Below 70 years. However, in the event of non-availability of paucity of experts in a given field, the maximum age of a member may be allowed up to 75 years.
4. **Fields:** Experts in Mining, Geology, Hydrology, Remote Sensing, Environment Quality, Environment Impact Assessment Process, Risk Assessment, Life Sciences, Marine Sciences, Forestry and Wildlife, Environmental Economics, Bio-diversity, and River Ecology.

5. **Tenure:** The maximum tenure of expert members shall be for two terms of three years each.

6. The Expert Members may not be removed prior to expiry of the tenure without cause and proper enquiry.

APPENDIX VIII
(See paragraph 6)
FORM 1 M
APPLICATION FOR MINING OF MINOR MINERALS UNDER CATEGORY 'B2' FOR LESS THAN AND EQUAL TO FIVE HECTARE

(II) Basic Information

(viii) Name of the Mining Lease site:
(ix) Location / site (GPS Co-ordinates):
(x) Size of the Mining Lease (Hectare):
(xi) Capacity of Mining Lease (TPA):
(xii) Period of Mining Lease:
(xiii) Expected cost of the Project:
(xiv) Contact Information:

Environmental Sensitivity

Sl. No.	Areas	Distance in kilometer / Details
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc.	
2.	Distance from infrastructural facilities Railway line National Highway State Highway Major District Road Any Other Road Electric transmission line pole or tower Canal or check dam or reservoirs or lake or ponds In-take for drinking water pump house Intake for Irrigation canal pumps	
3.	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	
4.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	
5.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	
6.	Inland, coastal, marine or underground waters	
7.	State, National boundaries	
8.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	
9.	Defence installations	
10.	Densely populated or built-up area, distance from nearest human habitation	
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	
12.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	
13.	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	
14.	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	

15.	Is proposed mining site located over or near fissure / fracture for ground water recharge	
16.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely:- (a) The Forest (Conservation) Act, 1980; (b) The Wildlife (Protection) Act, 1972; (c) The Coastal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	
17.	Forest land involved (hectares)	
18.	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? (a) Name of the Court (b) Case No. (c) Orders or directions of the Court, if any, and its relevance with the proposed project.	

(Signature of Project Proponent
Along with name and address)

APPENDIX – IX
[See paragraph 7(i) (B)]
EXEMPTION OF CERTAIN CASES FROM REQUIREMENT OF ENVIRONMENTAL CLEARANCE

The following cases shall not require prior environmental clearance, namely:-

1. Extraction of ordinary clay or sand, manually, by the Kumhars (Potter) to prepare earthen pots, lamp, toys, etc. as per their customs.
2. Extraction of ordinary clay or sand, manually, by earthen tile makers who prepare earthen tiles.
3. Removal of sand deposits on agricultural field after flood by farmers.
4. Customary extraction of sand and ordinary earth from sources situated in Gram Panchayat for personal use or community work in village.
5. Community works like de-silting of village ponds or tanks, construction of village roads, ponds, bunds undertaken in Mahatama Gandhi National Rural Employment and Guarantee Schemes, other Government sponsored schemes, and community efforts.
6. Dredging and de-silting of dams, reservoirs, weirs, barrages, river, and canals for the purpose of their maintenance, upkeep and disaster management.
7. Traditional occupational work of sand by Vanjara and Oads in Gujarat *vide* notification number GU/90(16)/ MCR-2189(68)/5-CHH, dated the 14th February, 1990 of the Government of Gujarat.
8. Digging of well for irrigation or drinking water.
9. Digging of foundation for buildings not requiring prior environmental clearance.
10. Excavation of ordinary earth or clay for plugging of any breach caused in canal, nala, drain, water body, etc., to deal with any disaster or flood like situation upon orders of District Collector or District Magistrate.
11. Activities declared by State Government under legislations or rules as non-mining activity with concurrence of the Ministry of Environment, Forest and Climate Change, Government of India.

APPENDIX - X
[See paragraph 7 (iii) (a)]
PROCEDURE FOR PREPARATION OF DISTRICT SURVEY REPORT

The main objective of the preparation of District Survey Report (as per the Sustainable Sand Mining Guideline) is to ensure the following:

Identification of areas of aggradations or deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining in that area.

The report shall have the following structure:

1. Introduction
2. Overview of Mining Activity in the District
3 The List of Mining Leases in the District with location, area and period of validity
4. Details of Royalty or Revenue received in last three years
5. Detail of Production of Sand or Bajari or minor mineral in last three years
6. Process of Deposition of Sediments in the rivers of the District
7. General Profile of the District
8. Land Utilization Pattern in the district: Forest, Agriculture, Horticulture, Mining etc.

9. Physiography of the District
10. Rainfall: month-wise
11. Geology and Mineral Wealth

In addition to the above, the report shall contain the following:

(a) District wise detail of river or stream and other sand source.
(b) District wise availability of sand or gravel or aggregate resources.
(c) District wise detail of existing mining leases of sand and aggregates.

A survey shall be carried out by the DEIAA with the assistance of Geology Department or Irrigation Department or Forest Department or Public Works Department or Ground Water Boards or Remote Sensing Department or Mining Department etc. in the district.

Drainage system with description of main rivers

S. No.	Name of the River	Area drained (Sq. Km)	% Area drained in the District

Salient Features of Important Rivers and Streams:

S. No.	Name of the River or Stream	Total Length in the District (in Km)	Place of origin	Altitude at Origin

Portion of the River or Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne) (60% of total mineral potential)

Mineral Potential

Boulder (MT)	Bajari (MT)	Sand (MT)	Total Mineable Mineral Potential (MT)

Annual Deposition

S. No.	River or Stream	Portion of the river or stream recommended for mineral concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne) (60% of total mineral potential)
Total for the District						

A Sub-Divisional Committee comprising of Sub-Divisional Magistrate, Officers from Irrigation department, State Pollution Control Board or Committee, Forest department, Geology or mining officer shall visit each site for which environmental clearance has been applied for and make recommendation on suitability of site for mining or prohibition thereof.

Methodology adopted for calculation of Mineral Potential:

The mineral potential is calculated based on field investigation and geology of the catchment area of the river or streams. As per the site conditions and location, depth of minable mineral is defined. The area for removal of the mineral in a river or stream can be decided depending on geo-morphology and other factors, it can be 50 % to 60 % of the area of a particular river or stream. For example in some hill States mineral constituents like boulders, river born Bajri, sand up

to a depth of one meter are considered as resource mineral. Other constituents like clay and silt are excluded as waste while calculating the mineral potential of particular river or stream.

The District Survey Report shall be prepared for each minor mineral in the district separately and its draft shall be placed in the public domain by keeping its copy in Collectorate and posting it on district's website for twenty one days. The comments received shall be considered and if found fit, shall be incorporated in the final Report to be finalised within six months by the DEIAA.

The District Survey Report shall form the basis for application for environmental clearance, preparation of reports and appraisal of projects. The Report shall be updated once every five years.

APPENDIX - XI

[See paragraph 7 (iii) (b)]

PROCEDURE FOR ENVIRONMENTAL CLEARANCE FOR MINING OF MINOR MINERALS INCLUDING CLUSTER

The following policy shall be followed for environmental clearance of mining of minor minerals including cluster situation:-

(1). The data provided by the States (Sustainable Sand Mining Guidelines) shows that most of the mining leases for minor minerals are of lease area less than 5 hectare. It is also reported that in hill States getting a stretch in river with area more than 5 hectare is very uncommon. So the size of lease for minor minerals including river sand mining will be determined by the States as per their circumstances.

(2). The mining of minor minerals is mostly in clusters. The Environment Impact Assessment or Environment Management Plan are required to be prepared for the entire cluster in order to capture all the possible externalities. These reports shall capture carrying capacity of the cluster, transportation and related issues, replenishment and recharge issues, geo-hydrological study of the cluster area. The Environment Impact Assessment or Environment Management Plan shall be prepared by the State or State nominated Agency or group of project proponents in the Cluster or the project proponent in the cluster.

(3). There shall be one public consultation for entire cluster after which the final Environment Impact Assessment or Environment Management Plan report for the cluster shall be prepared.

(4). Environmental clearance shall be applied for and issued to the individual project proponent. The individual lease holders in cluster can use the same Environment Impact Assessment or Environment Management Plan for application for environmental clearance. The cluster Environment Impact Assessment or Environment Management Plan shall be updated as per need keeping in view any significant change.

(5). The details of cluster Environment Impact Assessment or Environment Management Plan shall be reflected in each environmental clearance in that cluster and DEAC, SEAC, and EAC shall ensure that the mitigative measures emanating from the Environment Impact Assessment or Environment Management Plan study are fully reflected as environmental clearance conditions in the environmental clearance's of individual project proponents in that cluster.

(6). A cluster shall be formed when the distance between the peripheries of one lease is less than 500 meters from the periphery of other lease in a homogeneous mineral area.

(7). Form 1M, Pre-Feasibility Report and mine plan for Category 'B2' projects for mining of minor minerals shall be prepared by the Registered Qualified Person or Accredited Consultants of Quality Council of India, National Accreditation Board for Education and Training. The Environment Impact Assessment or Environment Management Plan for Category 'A' and Category 'B1' projects shall be prepared by the accredited consultants of Quality Council of India, National Accreditation Board for Education and Training.

(8). The SEIAAs shall have supervisory jurisdiction over the DEIAAs and decisions of DEIAA shall be reviewed by the SEIAA without prejudice to any provisions under any existing law.

Schematic Presentation of Requirements on Environmental Clearance of Minor Minerals including cluster situation

Area of Lease (Hectare)	Category of Project	Require-ment of EIA / EMP	Require-ment of Public Hearing	Require-ment of EC	Who can prepare EIA/ EMP	Who will apply for EC	Authority to appraise/ grant EC	Authority to monitor EC compliance
EC Proposal of Sand Mining and other Minor Mineral Mining on the basis of individual mine lease								
0 – 5ha	**'B2'**	Form –1M, PFR and Approved Mine Plan	No	Yes	Project Proponent	Project Proponent	DEAC/ DEIAA	DEIAA SEIAA SPCB CPCB MoEFCC Agency

> 5 ha and < 25 ha	**'B2'**	Form –I, PFR and Approved Mine Plan and EMP	No	Yes	Project Proponent	Project Proponent	SEAC / SEIAA	nominated by MoEFCC
≥ 25ha and < 50ha	**'B1'**	Yes	Yes	Yes	Project Proponent	Project Proponent	SEAC/ SEIAA	
≥ 50 ha	**'A'**	Yes	Yes	Yes	Project Proponent	Project Proponent	EAC/ MoEFCC	
EC Proposal of Sand Mining and other Minor Mineral Mining in cluster situation								
Cluster area of mine leases up to 5 ha	**'B2'**	Form –1M, PFR and Approved Mine Plan	No	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	DEAC/ DEIAA/	DEIAA SEIAA SPCB CPCB MoEFCC Agency nominated by MoEFCC
Cluster area of Mine leases > 5 ha and < 25 ha with no individual lease > 5 ha	**'B2'**	Form –I, PFR and Approved Mine Plan and one EMP for all leases in the Cluster	No	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	DEAC/ DEIAA/	
Cluster of mine leases of area ≥ 25 hectares with individual lease size < 50ha	**'B1'**	Yes	Yes	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	SEAC/ SEIAA	
Cluster of any size with any of the individual lease ≥ 50ha	**'A'**	Yes	Yes	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	EAC/ MoEFCC	

APPENDIX - XII

[See paragraph 10 (iv)]

PROCEDURE FOR MONITORING OF SAND MINING OR RIVER BED MINING

1. The security feature of Transport Permit shall be as under:

   (a) Printed on Indian Banks' Association (IBA) approved Magnetic Ink Character Recognition (MICR) Code paper.

   (b) Unique Barcode.

   (c) Unique Quick Response (QR) code.

   (d) Fugitive Ink Background.

   (e) Invisible Ink Mark.

   (f) Void Pantograph.

   (g) Watermark.

2. Requirement at Mine Lease Site:

   (a) Small Size Plot (Up to 5 hectare): Android Based Smart Phone.

(b) Large Size Plots (More than 5 hectare): CCTV camera, Personal Computer (PC), Internet Connection, Power Back up.

(c) Access control of mine lease site.

(d) Arrangement for weight or approximation of weight of mined out mineral on basis of volume of the trailer of vehicle used.

3. Scanning of Transport Permit or Receipt and Uploading on Server:

(a) Website: Scanning of receipt on mining site can be done through barcode scanner and computer using the software;

(b) Android Application: Scanning on mining site can be done using Android Application using smart phone. It will require internet availability on SIM card;

(c) SMS: Transport Permit or Receipt shall be uploaded on server even by sending SMS through mobile. Once Transport Permit or Receipt get uploaded, an unique invoice code gets generated with its validity period.

4. Proposed working of the system:

The State Mining Department should print the Transport Permit or Receipt with security features enumerated at Paragraph 1 above and issue them to the mine lease holder through the District Collector. Once these Transport Permits or Receipts are issued, they would be uploaded on the server against that mine lease area. Each receipt should be preferably with pre-fixed quantity, so the total quantity gets determined for the receipts issued.

When the Transport Permit or Receipt barcode gets scanned and invoice is generated, that particular barcode gets used and its validity time is recorded on the server. So all the details of transporting of mined out material can be captured on the server and the Transport Permit or Receipt cannot be reused.

5. Checking On Route:

The staff deployed for the purpose of checking of vehicles carrying mined mineral should be in a position to check the validity of Transport Permit or Receipt by scanning them using website, Android Application and SMS.

6. Breakdown of Vehicle:

In case the Vehicle breakdown, the validity of Transport Permit or Receipt shall be extended by sending SMS by driver in specific format to report breakdown of vehicle. The server will register this information and register the breakdown. The State can also establish a call centre, which can register breakdowns of such vehicles and extend the validity period. The subsequent restart of the vehicle also should be similarly reported to the server or call centre.

7. Tracking of Vehicles:

The route of vehicle from source to destination can be tracked through the system using check points, RFID Tags, and GPS tracking.

8. Alerts or Report Generation and Action Review:

The system will enable the authorities to develop periodic report on different parameters like daily lifting report, vehicle log or history, lifting against allocation, and total lifting. The system can be used to generate auto mails or SMS. This will enable the District Collector or District Magistrate to get all the relevant details and shall enable the authority to block the scanning facility of any site found to be indulged in irregularity. Whenever any authority intercepts any vehicle transporting illegal sand, it shall get registered on the server and shall be mandatory for the officer to fill in the report on action taken. Every intercepted vehicle shall be tracked.

The monitoring of mined out mineral, environmental clearance conditions and enforcement of Environment Management Plan will be ensured by the DEIAA, SEIAA and the State Pollution Control Board or Committee. The monitoring arrangements envisaged above shall be put in place not later than three months. The monitoring of enforcement of environmental clearance conditions shall be done by the Central Pollution Control Board, Ministry of Environment, Forest and Climate Change and the agency nominated by the Ministry for the purpose.".

[No. Z-11013/98/2014-IA-II (M)]

MANOJ KUMAR SINGH, Jt. Secy.

Note: The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) *vide* number S.O. 1533 (E), dated the 14th September, 2006 and subsequently amended *vide* the following numbers :-

1. S.O. 1737 (E) dated the 11th October, 2007;
2. S.O. 3067 (E) dated the 1st December, 2009;
3. S.O. 695 (E) dated the 4th April, 2011;
4. S.O. 2896 (E) dated the 13th December, 2012;
5. S.O. 674 (E) dated the 13th March, 2013;
6. S.O. 2204 (E) dated the 19th July 2013;
7. S.O. 2555 (E) dated the 21st August, 2013;
8. S.O. 2559 (E) dated the 22nd August, 2013;
9. S.O. 2731 (E) dated the 9th September, 2013;
10. S.O. 562 (E) dated the 26th February, 2014;
11. S.O. 637 (E) dated the 28th February, 2014;
12. S.O. 1599 (E) dated the 25th June, 2014;
13. S.O. 2601 (E) dated the 7th October, 2014;
14. S.O. 2600 (E) dated the 9th October, 2014
15. S.O. 3252 (E) dated the 22nd December, 2014;
16. S.O. 382 (E) dated the 3rd. February, 2015;
17. S.O. 811 (E) dated the 23rd March, 2015;
18. S.O. 996 (E) dated the 10th April, 2015;
19. S.O. 1142 (E) dated the 17th April, 2015;
20. S.O. 1141 (E) dated the 29th April, 2015;
21. S.O. 1834 (E) dated the 6th July, 2015.

Printed by the Manager, Government of India Press, Ring Road, Mayapuri, New Delhi-110064
and Published by the Controller of Publications, Delhi-110054.

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 20th January, 2016

S.O.190(E).—In exercise of the powers conferred by sub-section (3) of Section 3 of the Environment (Protection) Act, 1986 (29 of 1986) and in pursuance of the notification of the Government of India in the erstwhile Ministry of Environment and Forest number S.O. 1533 (E), dated the 14th September 2006 (hereinafter referred to as the said notification), the Central Government hereby constitutes the District Level Environment Impact Assessment Authority (DEIAA), for grant of environmental clearance for Category 'B2' Projects for mining of minor minerals, for all the districts in the country (hereinafter referred to as Authority for the districts) comprising of the following members, namely:—

1.	District Magistrate or District Collector of the district	—Chairperson
2.	Senior most Divisional Forest Officer in the district	—Member
3.	An expert member to be nominated by the Divisional Commissioner or Chief Conservator of the Forest	—Member
4.	Sub-Divisional Magistrate or Sub-Divisional Officer of the district head quarter	—Member-Secretary

2. The Chairperson and official members of the Authority for the districts shall hold office during their tenure in the district on said posts and the expert member shall hold office for a period of three years from the date of nomination by the competent authority.

3. The Authority for the districts shall exercise such powers and follow the procedures as specified in the said notification.

4. The Authority for the districts shall base its decision on the recommendations of the District Level Expert Appraisal Committee constituted under paragraph 5 of this notification.

5. For the purposes of assisting the Authority for the districts, the Central Government hereby constitutes the District Level Expert Appraisal Committee for all the districts of the country (hereinafter referred to as DEAC for the district) comprising of the following members, namely:-

1.	Senior most Executive Engineer, Irrigation Department	—Chairperson
2.	Senior most Sub-Divisional Officer (Forest)	—Member
3.	A representative of Remote Sensing Department or Geology Department or State Ground Water Department to be nominated by the District Magistrate or District Collector	—Member
4.	Occupational health expert or Medical Officer to be nominated by the District Magistrate or District Collector	—Member
5.	Engineer from Zila Parishad	—Member
6.	A representative of State Pollution Control Board or Committee	—Member
7.	An expert to be nominated by the Divisional Commissioner or Chief Conservator of Forest	—Member
8.	An expert to be nominated by the Divisional Commissioner or Chief Conservator of Forest	—Member
9.	An expert to be nominated by the Divisional Commissioner or Chief Conservator of Forest	—Member
10.	Senior most Assistant Engineer, Public Works Department	—Member
11.	Assistant Director or Deputy Director or District Mines Officer or Geologist in the district in that order	—Member- Secretary

6. The Chairperson and the official members of the DEAC shall hold office during their tenure in the district and the non-official members shall hold office for three years from the date of their nomination by the competent authority.

7. The DEAC shall exercise the powers and follow the procedures as specified in the said notification.

8. The DEAC shall function on the principles of collective responsibility and the Chairperson shall endeavor to reach a consensus in each case, and if consensus cannot be reached, the view of the majority shall prevail.

9. The District Magistrate or District Collector of the district shall notify an agency to act as Secretariat for the Authority for the districts and DEAC. The agency shall provide all logistic support including transportation, accommodation, and such other facilities in respect of all its statutory functions.

10. The non-official members of the Authority for districts and the DEAC shall be entitled to such sitting fees, travelling allowance and dearness allowance which shall be paid in accordance with the concerned rules of the respective State Governments.

[No. Z-11013/98/2014-IA-II (M)]

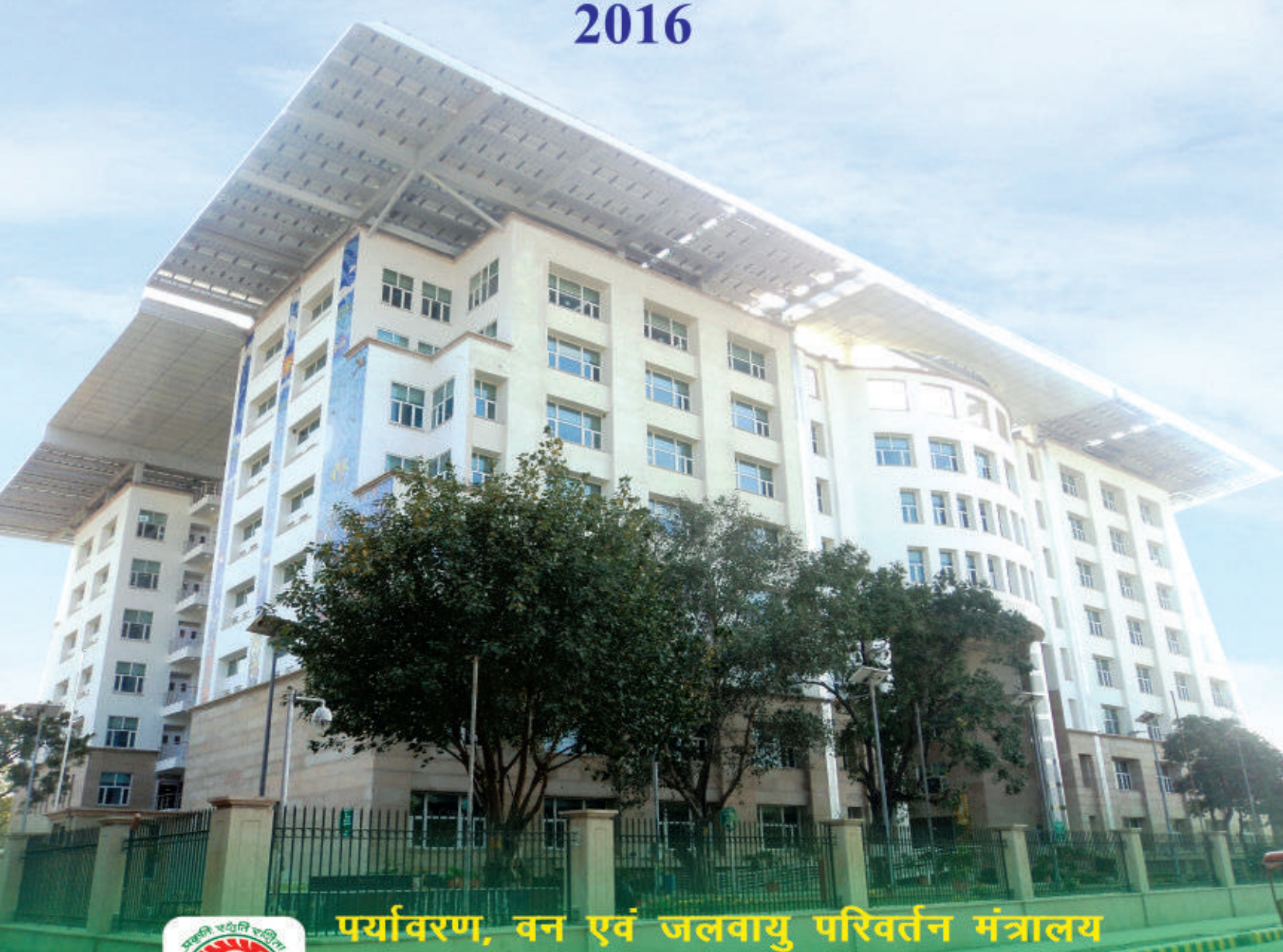
MANOJ KUMAR SINGH, Jt. Secy.

Printed by the Manager, Government of India Press, Ring Road, Mayapuri, New Delhi-110064
and Published by the Controller of Publications, Delhi-110054.

ANNEXURE A-6

सत्यमेव जयते

SUSTAINABLE SAND MINING MANAGEMENT GUIDELINES 2016



पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
इंदिरा पर्यावरण भवन, जोर बाग रोड, नई दिल्ली–110 003
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Acknowledgment

The Sustainable Sand Mining Management Guidelines 2016, has been prepared after extensive consultation with the States and stakeholders over a period of last one year. The Guideline assimilates the knowledge and experience of stakeholder. The main objective of the Guidelines is to ensure sustainable sand mining and environment friendly management practices in order to restore and maintain the ecology of river and other sand sources. The team of the officers of Ministry of Environment, Forest and Climate Change who have worked for preparing these Guidelines comprised of following:

1. Shri Manoj Kumar Singh, Joint Secretary
2. Dr. U. Sridharan, Scientist 'F'
3. Dr. R.B. Lal, Scientist 'D'
4. Dr. Sonu Singh, Scientist 'D'

SUSTAINABLE SAND MINING MANAGEMENT GUIDELINES

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प्रकाश जावडेकर
Prakash Javadekar

सत्यमेव जयते

राज्य मंत्री (स्वतंत्र प्रभार)
MINISTER OF STATE (INDEPENDENT CHARGE)
पर्यावरण, वन एवं जलवायु परिवर्तन
ENVIRONMENT, FOREST & CLIMATE CHANGE
भारत सरकार / GOVERNMENT OF INDIA



FOREWORD

Environmental Protection and Sustainable Development have been the cornerstones of the policies and procedures governing the industrial and other developmental activities in India. The Ministry of Environment, Forest and Climate Change has taken several policy initiatives and enacted environmental and pollution control legislations to prevent indiscriminate exploitation of natural resources and to promote integration of environmental concerns in developmental projects. One such initiative is the Notification on Environmental Impact Assessment (EIA) of developmental projects issued on 14th September, 2006 under the provisions of Environment (Protection) Act, 1986, making EIA mandatory for certain categories of developmental projects.

Another land mark decision has been taken with the new notifications dated 15.01.2016 and 20.01.2016 on mining of minor minerals and constitution of District Level Environment Impact Assessment Authority and District Level Environment Appraisal Committee. This will ensure environmentally sustainable mining especially for sand and gravel under close supervision of district authorities. Use of information technology and information technology enabled services for scientific monitoring of mining and transportation of mined out material is another important feature of above notification.

Sand and gravel are one of the most important construction materials. Ensuring their availability is vital for the development of the infrastructure in the country. There are different sources of sand and gravel, the most important among them is the river. As the requirement of these construction materials is on rise, they also are very vital for the health, physical character of the river and the different important functions of the river. The extraction of sand and gravel from the river bodies has to be regulated and done with adoption of required environmental safeguards.

In view of evolving scenario in industry and development sector, My Ministry has prepared a "Sustainable Sand Mining Management Guidelines". The Guidelines *inter-alia* focus on preparation of District Survey Report; Management Plan; Marine Sand Mining and Impact on Marine Biodiversity; Issues and Management of Mining in Cluster; Management of Sand Deposited after Flood on Agricultural Field of Farmers; Mining of Sand from Agricultural Field; Monitoring System for Sustainable Sand Mining using Information Technology System; Creation of District Level Environment Impact Assessment Authority (DEIAA) and District Level Expert Appraisal Committee (DEAC) for granting Environment Clearance for Mining of Minor Minerals; Exemption of certain cases for requirement of Environment Clearance and Standard Environmental Conditions for Sustainable Sand Mining.

The Guidelines will help the Departments of Mines and Geology, State Pollution Control Boards/Committees, Industries, Regulators, Authorities and various Stakeholders to ensure environmentally sustainable mining in the Country.

(Prakash Javadekar)

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अशोक लवासा
ASHOK LAVASA, IAS

सत्यमेव जयते

सचिव
भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Secretary
Government of India
Ministry of Environment, Forest and Climate Change



PREFACE

Sand is naturally occurring granular material composed of finely divided rock and mineral particles. Sand and gravel together known as aggregate, represent the highest volume of raw material used on earth. The mining of aggregate has been continuing for many years. Now the mining of aggregates has reached a level threatening the environment and ecosystem besides also reaching a level of scarcity that would threaten the economy. It is recommended that sand and aggregate mining, and quarrying should be done only after sound scientific assessment and adopting best practices to limit the impact on the environment.

The main objectives of the Guidelines, inter-alia, includes to ensure that sand and gravel mining is done in environmentally sustainable and socially responsible manner; availability of adequate quantity of aggregate in sustainable manner; improve the effectiveness of monitoring of mining and transportation of mined out material; conservation of the river equilibrium and its natural environment by protection and restoration of the ecological system; avoid aggradation at the *downstream* reach especially those with hydraulic structures such as jetties, water intakes etc.; to ensure the rivers are protected from bank and bed erosion beyond its stable profile; no obstruction to the river flow, water transport and restoring the riparian rights and in-stream habitats; to avoid pollution of river water leading to water quality deterioration; to prevent depletion of ground water reserves due to excessive draining out of ground water; and streamlining the process for grant of environmental clearance (EC) for sustainable mining.

The recommendations for management of sustainable sand extraction are the key objectives of the Guidelines. Emphasis is given to the setting up of monitoring plans that will provide data on profile changes and sediment transport capacity to enable the authorities to evaluate the long-term effect of the mining activities both upstream and downstream of sand extraction sites. Special emphasis is given on monitoring of the mined out material, which is key to the success of environment management plan. So use of IT and IT enabled services for effective monitoring of the quantity of mined out material and transportation along with process reengineering has been made a part of the Guideline. The Guidelines propose delegation of responsibility and authority to the cutting edge level i.e. the District Environment Impact Assessment Authority along with streamlining the process of impact assessment, environment management plan and environment clearance in cluster situation.

(Ashok Lavasa)

New Delhi
Date: 15-03-2016

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EXECUTIVE SUMMARY

The sand and gravel are one of the most important construction materials. Ensuring their availability is vital for the development of the infrastructure in the country. There are different sources of sand and gravel, the most important among them is the river. As the requirement of these construction materials is on rise, they also are very vital for the health, physical character of the river and the different important functions of the river. The extraction of sand and gravel from the river bodies has to be regulated and done with adoption of required environmental safeguards.

For making available these resources, a mapping of these resources at the district level, identification of appropriate sites for extraction, appraisal of the extraction process, putting in place the required environmental safeguards, and rigorous monitoring of the volume of extracted material is required to ensure sustainability of the entire process.

The district is the unit of administration which is best placed to do the mapping of these resources, adopt the best environmental practices for extraction of these materials and monitor its extraction and movement. The large number of leases which are awarded, the scattered geographical location of the availability of these materials and decentralized requirement and usage of the sand and aggregates also places districts in a unique position to play a vital role in adoption of environmental safeguards needed for sustainable extraction of river sand and gravel.

Recommendations for management of sustainable sand extraction are the key objective of the Guidelines. Emphasis is given to the setting up of monitoring plans that will provide data on profile changes and sediment transport capacity to enable the authorities to evaluate the long-term effect of the mining activities both upstream and downstream of sand extraction sites.

Special emphasis is given on monitoring of the mined out material, which is key to the success of environment management plan. So use of IT and IT enabled services for effective monitoring of the quantity of mined out material and transportation along with process reengineering has been made a part of the Guideliness. The Guidelines proposes delegation of responsibility and authority to the cutting edge level i.e. the District Environment Impact Assessment Authority along with streamlining the process of impact assessment, environment management plan and environment clearance in cluster situation.

Promotion of manufactured sand, artificial sand and alternative technologies in construction materials and processes are also required for reducing the dependence and demand on naturally occurring sand and gravel. Development of slag sand, sand from stone chips and there certification under BIS is an important step in this direction.

INTRODUCTION

Sustainable Development is built on three pillars - environmental, social and economic. Sustainable development cannot be achieved if the environment is protected but poverty is prevalent in a significant part of the population. Similarly, sustainable development cannot be achieved through inappropriate economic growth, if it undermines the environment in which people and businesses exists. These Guideliness support that fundamental concept, promoting environmental protection, limiting negative physiological, hydrological and social impacts under pinning sustainable economic growth.

Sand and gravel have long been used as aggregate for construction of roads and building. Today, the demand for these materials continues to rise. In India, the main sources of sand are river flood plain, coastal sand, paleo channel sand, and sand from agricultural fields.

River sand mining is a common practice as habitation concentrates along the rivers and the mining locations are preferred near the markets or along the transportation route, for reducing the transportation cost. River sand mining can damage private and public properties as well as aquatic habitats. Excessive removal of sand may significantly distort the natural equilibrium of a stream channel.

Removing sediment from the active channel bed in river interrupt the continuity of sediment transport through the river system, disrupting the sediment mass balance in the river downstream and induces channel adjustments (usually incision) extending considerable distances (commonly one kilometer or more) beyond the extraction site.

The magnitude of the impact basically depends on the magnitudes of the extraction relative to bed load sediment supply and transport through the reach. Implementation of the principles and processes outlined in this Guidelines will limit the negative externalities of sand and gravel mining.

NEED FOR POLICY GUIDELINES

Sand is naturally occurring granular material composed of finely divided rock and mineral particles between 150 micron to 4.75 mm in diameter (IS 383-1970). Sand is formed due to weathering of rocks due to mechanical forces. In the process the weathered rocks forms gravel and then sand.

Sand and gravel together known as aggregate, represent the highest volume of raw material used on earth after water. The mining of aggregate has been continuing for many years. Now the mining of aggregates has reached a level threatening the environment and ecosystem besides also reaching a level of scarcity that would threaten the economy. It is recommended that sand & aggregate mining, and quarrying should be done only after sound scientific assessment and adopting best practices to limit the impact on the environment.

It is also felt that the greater use of substitute material (Manufactured Sand, artificial sand etc.) & construction technology, and sustainable use of the resource could drastically reduce adverse impact of mining on the environment.

OBJECTIVE OF THE GUIDELINES

The Guideliness has been based on the following principles:

- Uncontrolled sand mining is not sustainable.
- Compliance with present and future legislation and regulations on the subject is mandatory and not voluntary.
- Each lease holder should be given the opportunity to self-regulate to the extent that it can demonstrate compliance with legislation and regulations.
- Where self- regulation fails to deliver compliance with legislation and regulations, increased formal enforcement and monitoring should be implemented with punitive measures applied in line with the legal framework.
- There is a need to protect the environment and the right of the population to live in clean and safe surroundings, with the need to use natural resources in a way that will make a positive and sustainable contribution to the economy.

The main objectives of the Guidelines

- To ensure that sand and gravel mining is done in environmentally sustainable and socially responsible manner.
- To ensure availability of adequate quantity of aggregate in sustainable manner.
- To improve the effectiveness of monitoring of mining and transportation of mined out material.

- Ensure conservation of the river equilibrium and its natural environment by protection and restoration of the ecological system.
- Avoid aggradation at the downstream reach especially those with hydraulic structures such as jetties, water intakes etc.
- Ensure that the rivers are protected from bank and bed erosion beyond its stable profile.
- No obstruction to the river flow, water transport and restoring the riparian rights and in-stream habitats.
- Avoid pollution of river water leading to water quality deterioration.
- To prevent depletion of ground water reserves due to excessive draining out of ground water.
- To prevent ground water pollution by prohibiting sand mining on fissures where it works as filter prior to ground water recharge.
- To maintain the river equilibrium with the application of sediment transport principles in determining the locations, period and quantity to be extracted.
- Streamlining and simplifying the process for grant of environmental clearance (EC) for sustainable mining.

THE EFFECT OF SAND AND GRAVEL MINING

Mining within or near riverbed has a direct impact on the stream's physical characteristics, such as channel geometry, bed elevation, substratum composition and stability, in-stream roughness of the bed, flow velocity, discharge capacity, sediment transport capacity, turbidity, temperature etc. Alteration or modification of the above attributes may cause hazardous impact on ecological equilibrium of riverine regime. This may also cause adverse impact on in-stream biota and riparian habitats. This disturbance may also cause changes in channel configuration and flow-paths.

The effects of sand and gravel mining are as follows:

a) Extraction of bed material in excess of replenishment by transport from upstream causes the bed to lower (degrade) upstream and downstream of the site of removal.

b) In-stream habitat is impacted by increase in river gradient, suspended load, sediment transport and sediment deposition. Excessive sediment deposition for replenishment increases turbidity which prevents penetration of light required for photosynthesis and reduces food availability of aquatic fauna.

c) Riparian habitat including vegetative cover on and adjacent to the river banks it controls erosion, provide nutrient inputs into the stream and prevents intrusion of pollutants in the stream through runoff. Bank erosion and change of morphology of the river can destroy the riparian vegetative cover.

d) Bed degradation are responsible for channel shifting, causing loss of properties and degradation of landscape, it can also undermine bridge supports, pipe lines or other structures.

e) Degradation may change the morphology of the river bed, which constitutes one aspect of the aquatic habitat.

f) Degradation can deplete the entire depth of gravelly bed material, exposing other substrates that may underlie the gravel, which could in turn affect the quality of aquatic habitat. Lowering of ground water table in the flood plain because of lowering of riverbed level as well as river water level takes place because of extraction and draining out of excessive ground water from the adjacent areas. So, if a floodplain aquifer drains to the stream, groundwater levels can be lowered as a result of bed degradation.

g) Lowering of the water table can destroy riparian vegetation.

h) Excessive pumping of ground water in the process of mining in abandoned channels depletes ground water causing scarcity of irrigation and drinking water. In extreme cases it may create ground fissures and subsidence in adjacent areas.

i) Flooding is reduced as bed elevations and flood heights decrease, reducing hazard for human occupancy of floodplains and the possibility of damage to engineering works.

j) The supply of overbank sediments to floodplains is reduced as flood heights decrease.

k) An un-scientific and unregulated sand and gravel mining tends to increase channel bank

scouring and erosion. This causes a large degree of meandering of rivers and sometimes it could be in kms.

l) Rapid bed degradation may induce bank collapse and erosion by increasing the heights of banks.

m) Polluting ground water by reducing the thickness of the filter material especially if mining is taking place at top of recharge fissures.

n) Choking of sand layer which acts as filter for ingress of ground water from river by dumping of finer material, compaction of filter zone due to movement of heavy vehicles. It also reduces the permeability and porosity of the filter material.

o) Removal of gravel from bars may cause downstream bars to erode if they subsequently receive less bed material than is carried downstream from them by fluvial transport.

p) Ecological effects on bird nesting, fish migration, angling, etc.

q) Indiscrete mining activities lead to increased concentration of suspended sediment in the river which in turn causes siltation of water resources projects.

r) Un-scientific and unregulated sand and gravel mining leads to the severe health hazards like air quality degradation and dust fog.

s) Direct destruction from heavy equipment operation; discharges from equipment and refueling.

t) Biosecurity and pest risks.

u) Impacts on coastal processes.

The other deleterious impacts of indiscrete mining include

Loss of riparian habitat resulting from direct removal of vegetation along the stream bank to facilitate the use of a dragline or through the process of lowering the water table, bank undercutting, and channel incision. The physical composition and stability of substrates are altered as a result of in-stream mining and most of these physical effects may exacerbate sediment entrainment in the channel.

Furthermore, the process of in-stream mining and gravel washing produces fine sediments under all flow conditions, resulting in a deposition of fine sediment in riffles as well as other habitats at low discharge. Excess sediment is considered the greatest pollutant in waters and constitutes one of the major environmental factors in the degradation of stream fisheries.

However, in-stream mining may contribute additional sediment to downstream reaches due to the disruption of substrate stability. Once sediment enters the stream, it is best to let natural geomorphological and hydrological processes reach a dynamic equilibrium, rather than further exacerbating the situation by additional disturbance.

All other things being equal:

a) Extracting gravel from an excavation that does not penetrate the water table and is located away from an active stream channel should cause little or no change to the natural hydrological processes unless the stream captures the pit during periods of flooding.

b) In-stream extraction of gravel from below the water level of a stream generally causes more changes to the natural hydrologic processes than limiting extraction to a reference point above the water level.

c) In-stream extraction of gravel below the deepest part of the channel (the thalweg) generally causes more changes to the natural hydrological processes than limiting extraction to a reference point above the thalweg.

d) Excavating sand and gravel from a small straight channel with a narrow floodplain generally will have a greater impact on the natural hydrological processes than excavations on a braided channel with a wide floodplain.

e) Extracting sand and gravel from a large river or stream will generally create less impact than extracting the same amount of material from a smaller river or stream.

f) Over-extraction of gravel can destabilise channels and banks, and/or affect the ecologic functioning of rivers particularly if undertaken at the wrong time, or in the wrong place, or in a way that damages the river bed or margins.

GENERAL APPROACH TO SUSTAINABLE SAND AND GRAVEL MINING

Following considerations should be kept in mind for sand / gravel mining:

a) Parts of the river reach that experience deposition or aggradation shall be identified first. The Lease holder/ Environmental Clearance holder may be allowed to extract the sand and gravel deposit in these locations to manage aggradation problem.

b) The distance between sites for sand and gravel mining shall depend on the replenishment rate of the river. Sediment rating curve for the potential sites shall be developed and checked against the extracted volumes of sand and gravel.

c) Sand and gravel may be extracted across the entire active channel during the dry season.

d) Abandoned stream channels on terrace and inactive floodplains be preferred rather than active channels and their deltas and flood plains. Stream should not be diverted to form inactive channel.

e) Layers of sand and gravel which could be removed from the river bed shall depend on the width of the river and replenishment rate of the river.

f) Sand and gravel shall not be allowed to be extracted where erosion may occur, such as at the concave bank.

g) Segments of braided river system should be used preferably falling within the lateral migration area of the river regime that enhances the feasibility of sediment replenishment.

h) Sand and gravel shall not be extracted within 200 to 500 meter from any crucial hydraulic structure such as pumping station, water intakes, and bridges. The exact distance should be ascertained by the local authorities based on local situation. The cross-section survey should cover a minimum distance of 1.0 km upstream and 1.0 km downstream of the potential reach for extraction. The sediment sampling should include the bed material and bed material load before, during and after extraction period. Develop a sediment rating curve at the upstream end of the potential reach using the surveyed cross- section. Using the historical or gauged flow rating curve, determine the suitable period of high flow that can replenish the extracted volume. Calculate the extraction volume based on the sediment rating curve and high flow period after determining the allowable mining depth.

i) Sand and gravel could be extracted from the downstream of the sand bar at river bends. Retaining the upstream one to two thirds of the bar and riparian vegetation is accepted as a method to promote channel stability.

j) Flood discharge capacity of the river could be maintained in areas where there are significant flood hazard to existing structures or infrastructure. Sand and gravel mining may be allowed to maintain the natural flow capacity based on surveyed cross- section history.

k) Alternatively, off-channel or floodplain extraction is recommended to allow rivers to replenish the quantity taken out during mining.

l) The Piedmont Zone (Bhabhar area) particularly in the Himalayan foothills, where riverbed material is mined, this sandy-gravelly track constitutes excellent conduits and holds the greater potential for ground water recharge. Mining in such areas should be preferred in locations selected away from the channel bank stretches.

m) Mining depth should be restricted to 3 meter and distance from the bank should be 3 meter or 10 percent of the river width whichever less.

n) The borrow area should preferably be located on the river side of the proposed embankment, because they get silted up in course of time. For low embankment less than 6 m in height, borrow area should not be selected within 25 m from the toe/heel of the embankment. In case of higher embankment the distance should not be less than 50 m. In order to obviate development of flow parallel to embankment, cross bars of width eight times the depth of borrow pits spaced 50 to 60 meters centre-to-centre should be left in the borrow pits.

o) Demarcation of mining area with pillars and geo-referencing should be done prior to start of mining.

THE WORLD SCENARIO

Sand and gravel are mined world-wide and account for the largest volume of solid material extracted globally. Formed by erosive processes over thousands of years, they are now being extracted at a rate far greater than their renewal. Furthermore, the volume being extracted is having a major impact on rivers, deltas and coastal and marine ecosystems, resulting in loss of land through river or coastal erosion, lowering of the water table and decrease in the amount of sediment supply. Despite the colossal quantities of sand and gravel being used, increasing dependence on them and the significant impact that their extraction has on the environment, this issue needs far better attention and awareness.

Globally, between 47 and 59 billion tonnes of material is mined every year of which sand and gravel, known as aggregates, account for both the largest share (from 68% to 85%) and the fastest growth in extraction increase. Although more sand and gravel are mined than any other material, reliable data on their extraction is not available. The absence of global data on aggregates mining makes environmental assessment very difficult and has contributed to the lack of awareness about this issue. One way to estimate the global use of aggregates indirectly is through the production of cement for concrete (concrete is made with cement, water, sand and gravel). The production of cement is reported by 150 countries and it reached 3.7 billion tonnes in 2012 (USGS, 2013a). For each tonne of cement, the building industry needs about six to seven times more tonnes of sand and gravel (USGS, 2013b). Thus, the world's use of aggregates for concrete can be estimated at 25.9 billion tonnes a year for 2012 alone.

Added to this are all the aggregates used in land reclamation, shoreline developments and road embankments (for which the global statistics are unavailable), added to this is the 180 million tonnes of sand used in industry (USGS, 2012). Aggregates also contribute to 90% of asphalt pavements and 80% of concrete roads (Robinson and Brown, 2002). Taking all these estimates into account, a conservative estimate for the world consumption of aggregates exceeds 40 billion tonnes a year.

This large quantity of material cannot be extracted and used without a significant impact on the environment. Extraction has an impact on biodiversity, water turbidity, water table levels and landscape and on climate through carbon dioxide emissions from transportation. There are also socio-economic, cultural and even political consequences. In some extreme cases, the mining of marine aggregates has changed international boundaries, such as through the disappearance of sand islands in Indonesia (New York Times, 2010; Guerin, 2003).

The impacts of sand mining can be mainly categorized as follows:

IMPACTS ON	DESCRIPTION
Biodiversity	Impacts on related ecosystems (for example; fisheries)
Land losses	Both inland and coastal through erosion
Hydrological functions	Change in water flows, flood regulation and marine currents
Water supply	Through lowering of the water table and pollution
Infrastructures	Damage to bridges, river embankments and coastal infrastructures
Climate	Directly through transport emissions
Landscape	Coastal erosion, changes in deltaic structures, quarries, pollution of rivers
Extreme events	Decline of protection against extreme events (flood, drought, storm surge)

World over sand was until recently extracted in land quarries and riverbeds; however, a shift to marine and coastal aggregates mining has occurred due to the decline of inland resources. River and marine aggregates remain the main sources for building and land reclamation. For concrete, in-stream gravel requires less processing and produces high-quality material while marine aggregate needs to be thoroughly washed to remove salt. If the chloride is not removed from marine aggregate, a structure built with it might collapse after few decades due to corrosion of steel reinforced structures. Most sand from deserts cannot be used for concrete and land reclaiming, as the wind erosion process forms round grains that do not bind well.

INDIAN SCENARIO

The data on consumption of sand and aggregate in country is not available with any source. It can be derived indirectly from the usage of cement, construction of roads and stowing of mines. The trend for aggregates extraction can be estimated using cement production as a proxy.

Cement production has multiplied three-fold in the last 20 years from 1.37 billion tonnes of cement in 1994 to 3.7 billion tonnes in 2012 (USGS, 2013a) mainly as a result of rapid economic growth in Asia (UNEP and CSIRO, 2011). Five countries: China (58%), India (6.75%), the United States (2%), Brazil and Turkey - produce 70% of the world's cement (USGS, 2013c). The consumption of cement is expected to reach 324 million tonnes, which equates to use of 2.2 billion tonnes of aggregates. This is in addition to sand and aggregates used in stowing of mines, industry and other allied usage.

In India the main sources of sand are:

(a) River (riverbed and flood plain).

(b) Lakes and reservoirs.

(c) Agricultural fields (Haryana).

(d) Coastal / marine sand.

(e) Palaeo-channels (Bikaner in Rajasthan).

THE PRICE ELASTICITY FOR DEMAND OF SAND

As the price elasticity of demand for sand is inelastic (-0.88), any increase in price in absence of marketable alternative will not have any significant impact on demand. Use of crushed stones or other substitute material should be promoted. The regional context of aggregate resources, market demand, and the environmental impacts of various alternatives must be understood before any site-specific proposal for aggregate extraction can be reviewed.

Evaluation of aggregate supply and demand should be undertaken on the basis of production-consumption regions, encompassing the market for aggregate and all potential sources of aggregate within an economical transport distance. The finite nature of high-quality alluvial gravel resources must be recognized, and high-quality PCC-grade aggregates should be reserved only for the uses demanding this quality material (such as concrete). Alternative sources should be used in less demanding applications (such as road sub-base). Part replacement with fly ash in roads and embankments be promoted in place of sand and aggregates.

The environmental costs of sand mining should be incorporated into the price of the product so that alternative sources that require more processing but have less environmental impact become more attractive.

PROCESS OF SEDIMENT TRANSPORT

The loose boundary (consisting of movable material) of an alluvial channel deforms under the action of flowing water and the deformed bed with its changing roughness (bed forms) interacts with the flow. The resulting movement of the bed material (sediment) in the direction of flow is called sediment transport and a critical bed shear stress must be exceeded to start the particle movement.

Such a critical shear stress is referred as incipient (threshold) motion condition, below which the particles will be at rest and the flow is similar to that on a rigid boundary. Some sediment particles roll or slide along the bed intermittently and some others saltate (hopping or bouncing along the bed). The material transported in one or both of these modes is called 'bed load'.

Finer particles (with low fall velocities) are entrained in suspension by the fluid turbulence and transported along the channel in suspension. This mode of transport is called 'suspended load'. Sometimes finer particles from upland catchment (sizes which are not present in the bed material), called 'wash load', are also transported in suspension. The combined bed material and wash load is called 'total load'.

Bed load ranges from a few percent of total load in lowland rivers to perhaps 15% in Mountain Rivers to over 60% in some arid catchments. Although a relatively small part of the total sediment load, the arrangement of bed load sediment constitutes the architecture of sand, and gravel-bed channels.

The rate of sediment transport typically increases as a power function of flow; that is, a doubling of flow typically produces more than a doubling in sediment transport and most sediment transport occurs during floods. The environmental impacts from in-stream mining can be avoided, if the annual bed load is calculated and aggregate extraction is restricted to that value or some portion of it. To accurately limit extraction to some portion of bed load, the amount of sediment that passes the in-stream mining site during a given period of time must be calculated.

There is a large amount of uncertainty in the process of calculating annual rates of bed load transport. How much coarse material is moved, how long it remains in motion as also how far it moves depends on the size, shape & packing of the material and the characteristics of the river flow.

Downstream movement commonly occurs as irregular bursts of short-distance movement separated by longer periods, when the particles remain at rest. Because bed load changes from hour-to-hour, day-to-day, and year-to-year, estimating annual bed load rates is a dynamic process involving careful examination.

Constant variations in the flow of the river make the channel floor and riverbanks a dynamic interface, where some materials are being eroded while others are being deposited. The net balance of this activity, on a short- term basis, is referred to as scour or fill.

On a long-term basis, continued scour results in erosion (degradation), while continued fill results in deposition (aggradation).

A general indicator of the stability of a stream relates to the amount of vegetation present. Gravel bars that are vegetated or where the gravel is tightly packed, generally indicate streams, where the gravel supply is in balance. Streams with excessive gravel generally have gravel bars with little or no vegetation, and are surfaced with loosely packed gravel.

SUSTAINABLE SAND AND GRAVEL MINING GUIDELINES

The broad principle on which any sustainable sand mining Guidelines / policy can be based is that river/ natural resources must be utilized for the benefit of the present and future generation, so river resources should be prudently managed and developed. The preparation of District Survery Report is an important initial step.

The Processes under the Guidelines:

(a) Identification of areas of aggradation / deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited. Use of satellite imagery for identifying areas of sand deposit and quantity be done.

(b) Calculation of annual rate of replenishment and allowing time for replenishment after mining in area.

(c) Identifying ways of scientific and systematic mining.

(d) Identifying measures for protection of environment and ecology.

(e) Determining measures for protection of bank erosion.

(f) A bench mark (BM) with respect to mean sea level (MSL) should be made essential to in-mining channel reaches (MCR). Below which no mining shall be allowed.

(g) Identifying steps for conservation of mineral.

(h) Permanent gauging facilities (for discharge and sediment both) should be made compulsory for the sites having excessive mining in consultation with Central Water Commission or any competent State Agency.

(i) Implementing safeguards for checking illegal and indiscrete mining.

Following the above processes, to begin with it is important to prepare a survey document mapping the status of sand sources in a district. This survey should be conducted and report be prepared for each district. Though it is an acceptable fact that rivers cut across districts and States and every river is an ecosystem in itself. But, keeping in view the fact that the district is the most established unit of administration at which this kind of survey, planning and monitoring can be ensured effectively, it is proposed that every district will prepare this document taking the river stretch in that district as an ecological unit and inventorising other sources of sand in the district.

Besides, the production of aggregate in a particular area is a function of availability of natural resources, the size of the population, the economy of the area and various developmental and infrastructural works being undertaken in the area.

The natural resources must be utilized in environment friendly manner in scientific and systematic way and with the objective of sustainable development the policy on the subject should have provisions for protection of environment & ecology. These factors can be accounted for in a most efficient manner at district level.

The sustainable mining plan needs to be dynamic. A survey should be carried out by the District Environment Impact Assessment Authority (DEIAA) with the assistance of Geology Department, Irrigation Department, Forest Department, Public Works Department, Ground Water Boards, Remote Sensing Department and Mining Department etc. in the district at regular intervals.

The survey shall contain:

1. District wise detail of river or stream and other sand source.
2. District wise availability of sand or gravel or aggregate resources.
3. District wise detail of existing mining leases of sand and aggregates.

Based on this survey document, the action plan shall divide the river/ stream/ other sources of the District into the following categories:

1. River / Stream beds sections / other sources suitable for extraction of sand and aggregates.
2. River / Stream beds sections / other sources prohibited for extraction of sand and aggregates.

The river/ streams/ other sources of sand and aggregate are studied on following parameters:

a) Geomorphological studies

i) Place of origin
ii) Catchment area.
iii) General profile of river stream.
iv) Annual deposition factor.
v) Replenishment.
vi) Total potential of minor mineral in the river bed.

b) Geological studies

i) Lithology of catchment area.
ii) Tectonics and structural behavior of rocks.

c) Climatic Factors

i) Intensity of rainfall.
ii) Climate Zone.
iii) Temperature variation

The following points to be considered while selecting the river / stream for mining besides the above parameters:

i) A stable river is able to constantly transport the flow of sediments produced by watershed such that it's dimensions (width and depth) pattern and vertical profile are maintained without aggrading (building up) or degrading (scouring down).

ii) The amount of boulders, cobbles, pebbles, and sand deposited in river bed equals to the amount delivered to the river from catchment area and from bank erosion minus amount transported downstream each year.

iii) It is compulsive nature of river to meander in their beds and therefore they will have to be provided with adequate corridor for meandering without hindrance. Any attempt to diminish the width of the corridor (floodway) and curb the freedom to meander would prove counterproductive.

iv) Erosion and deposition is law of nature. The river stream has to complete its geomorphological cycles from youth, mature to old age.

v) River capturing is unavoidable.

vi) Fundamentally the lowest point of any stream is fixed by sea level.

This survey document should be prepared in the district based on direct and indirect benefits of mining and identification of the potential threats to the river / stream beds in the district.

Besides, calculating the carrying capacity of the river / stream beds / other sources to find out maximum quantity available to be allowed for removal each year from the sources, it should also provide various measures to regulate sand and aggregate mining in a systemic way.

It has to provide for environmentally safe depth of mining and safeguards of banks by prescribing safe distance from banks. It is required that there should be a Sub-Divisional Committee which should visit each site and make recommendation. The Committee should comprise of Sub-Divisional Magistrate, Officers from Irrigation department, State Pollution Control Board or Committee, Forest department, Geology or mining officer shall visit each site for which environmental clearance has been applied for and make recommendation on suitability of site for mining or prohibition thereof.

THE STRUCTURE OF DISTRICT SURVEY REPORT

The report can have following structure:

1. Introduction
2. Overview of Mining Activity in the District
3 The List of Mining Leases in the District with location, area and period of validity
4. Details of Royalty or Revenue received in last three years
5. Detail of Production of Sand or Bajari or minor mineral in last three years
6. Process of Deposition of Sediments in the rivers of the District
7. General Profile of the District
8. Land Utilization Pattern in the district: Forest, Agriculture, Horticulture, Mining etc.
9. Physiography of the District
10. Rainfall: month-wise
11. Geology and Mineral Wealth

12. Drainage System with description of main rivers.

Sl.No.	NAME OF RIVER	AREA DRAINED (Sq. Km)	% AREA DRAINED

13. Salient Features of Important Rivers and Streams:

Sl.No.	Name of the River / Stream	Total Length in the District (in Km)	Place of origin	Altitude at Origin

14. Methodology Adopted for Calculating of Mineral Potential

The mineral potential is calculated based on field investigation and geology of the catchment area of the river/ streams. As per the policy of the State and location, depth of minable mineral is defined. The area for removal of mineral in a river or stream can be decided depending on geo-morphology

and other factors, it can be 50% to 60% of the area of a particular river/stream, e.g. in Himachal Pradesh mineral constituents like boulders, river born bajari, sand up to a depth of one meter are considered as resource mineral. Other constituents like clay and silt are excluded as waste while calculating the mineral potential of particular river/ stream.

The specific gravity of each mineral constituent is different. While calculating the mineral potential, the average specific gravity is taken as 2.25. The percent of mineral constituent like boulder, river bajari, sand also varies for different river and streams. While calculating the mineral potential the percentage of each mineral constituent is taken as, Boulders 35-40%, Bajari - 30-35%, Sand 25-30% and 5-10% for silt and clay.

The quantum of deposition varies from stream to stream depending upon factors like catchment lithology, discharge, river profile and geomorphology of the river course. There are certain geomorphological features developed in the river beds such as channel bar, point bar etc. where annual deposition is more even two to three meters.

For illustration one example of Yamuna River in Sirmaour district of Himachal Pradesh is given below:

Portion of the River / Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne) (60% of total mineral potential)
From Downstream of confluence with Tons River to Behral near Haryana and Uttar Pradesh border	31	478	14818000	16803612

Note: Considering the density of river bed material to be **1.89 g/cm^3**

Present Status of Mining

This gives the detail of mining leases already in operation in this stretch, area and production in last three years from these leases is calculated.

Mineral Potential is calculated in following way:

Mineral Potential

Boulder (MT)	Bajari (MT)	Sand (MT)	Total Mineable Mineral Potential (MT)
5601204	6801462	4400946	16803612

Annual Deposition

336072	408088	264057	1008217

Recommendation:

From the above it is clear that about 16803612 metric tonnes of mineral is available up to depth of one meter in the river bed of Yamuna in Sirmour district.
The annual deposition is 1008217 MT.
The average annual production is 80000 MT.
So, 16723612 MT of mineral can be safely removed.

In similar manner it should be calculated for each river and stream in the district and compiled in following format:

Sl.No.	River/ Stream	Portion of the river / stream recommended for mineral concession	Length of the recommended area for mineral concession (in kilometer)	Average width of the recommended area for mineral concession (in meters)	Area recommended for mineral concession (in sq.mtrs.)	Mineable mineral potential (in metric tonne) (60% of total mineral potential)
Total for the District						

About the size of the mining leases for the aggregates it should be borne in mind that a river / stream can be divided into two zones, which in-turn is dynamic i.e. the zone of erosion and

zone of deposition. These zones of deposition and erosion are extended in different patches in the river.

Any mining lease granted in larger tract can cover both the zones, and mining activity in zone of erosion can further aggravate the problem of erosion and as such the mining activity can be allowed only in the zone of the deposition. The mining leases of larger areas in rivers are neither in interest of environment nor in the interest of mineral conservation.

In Himalayan states the rivers and wasteland has been mostly classed as forest land and mining on that requires diversion of forest land and payment of compensatory afforestation and NPV etc. The land in river beds in hilly tracts and many small rivers at any one site seldom exceed 5 hectare, so not allowing sand mining leases less than 5 hectare on river beds further aggravates the situation. So the size of mining lease for river sand mining should be determined by the State as per the local situation.

MANAGEMENT PLAN

1. River Bed Mining Recommendations:

a) Permit Mining Volume Based on Measured Annual Replenishment

In the first year following adoption of the management plan, a volume equal to the estimated annual replenishment could be extracted from the reach of channel. Replenishment (up to the elevation of the selected channel configuration) would need to occur before subsequent extraction could take place. The concept of annual replenishment accounts for the episodic nature of sediment transport. For example, during wet periods with high stream flows, and a high contribution of sediment from hill slopes and tributaries, monitoring data would show that sand and gravel bars are replenished quickly. During drought periods with low stream flow, and little sediment supply or transport, monitoring data would likely show that bars were replenished at a slower rate.

The use of monitoring data is essential in measuring when actual replenishment occurs. The use of the concept of annual replenishment protects long-term channel stability as well as aquatic and riparian habitat by extracting a volume sustainable by watershed processes.

b) Establish an Absolute Elevation below Which No Extraction May Occur (Minimum Enveloped Level or Redline).

The absolute elevation below which no mining could occur or "redline" would be surveyed on a site-specific basis in order to avoid impacts to structures such as bridges and to avoid vegetation impacts associated with down-cutting due to excessive removal of sediment. An extraction site can be determined after setting the deposition level at 1 m above natural channel thalweg elevation, as determined by the survey approved by mine plan approving authority.

c) Limit River Bed Extraction Methods to Bar Skimming

If mining is limited to the downstream end of the bar with a riparian buffer on both the channel and hill slope (or floodplain) side, bar skimming would minimise impacts. Other methods such as excavation of trenches or pools in the low flow channel lower the local base level, and maximise upstream (head cutting and incision) and downstream (widening and braiding) impacts. In addition, direct disturbance of the substrate in the low flow channel should be avoided. Trenching on bars may be beneficial in the future if the river becomes severely aggraded, flat, shallow and braided. Trenching of bars may initially impact a smaller area of riparian habitat than skimming - as a result of excavating deeper rather than shallow skimming of a large area. However, over the

long-term, the upstream and downstream effects of a trench on the bar or in the channel may offset any short-term benefit derived from this method.

d) Extract Sand and Gravel from the Downstream Portion of the Bar:

Retaining the upstream one to two thirds of the bar and riparian vegetation while excavating from the downstream one to two third of the bar is accepted as a method to promote channel stability and protect the narrow width of the low flow channel necessary for aquatic life. Sand and gravel would be re-deposited in the excavated downstream one to two thirds of the bar (or downstream of the widest point of the bar) where an eddy would form during sediment transporting flows. In contrast, if excavation occurs on the entire bar after removing existing riparian vegetation, there is a greater potential for widening and braiding of the low flow channel.

e) Concentrate Activities to Minimise Disturbance:

River bed extraction activities should be concentrated or localised to a few bars rather than spread out over many bars. This localisation of extraction will minimise the area of disturbance of upstream and downstream effects. Skimming decreases habitat and species diversity - these effects should not be expanded over a large portion of the area.

f) Review Cumulative Effects of Sand and Gravel Extraction:

The cumulative impact of all mining proposals should be reviewed on an annual basis to determine if cumulative riverine effects or effects to the estuary are likely.

g) Maintain Flood Capacity:

Flood capacity in the river should be maintained in areas where there are significant flood hazards to existing structures or infrastructure.

h) Establish a Long-term Monitoring Program:

Monitoring of changes in bed elevation and channel morphology, and aquatic and riparian habitat upstream and downstream of the extraction would identify any impacts of sand and gravel extraction to biologic resources. Long-term data collected over a period of decades as sand and gravel extraction occurs will provide data to use in determining trends.

i) Minimise Activities That Release Fine Sediment to the River:

No washing, crushing, screening, stockpiling, or plant operations should occur at or below the streams "average high water elevation," or the dominant discharge. These and similar activities have the potential to release fine sediments into the stream, providing habitat conditions harmful to local fish.

j) Retain Vegetation Buffer at Edge of Water and Against River Bank:

Riparian vegetation performs several functions essential to the proper maintenance of geomorphic and biological processes in rivers. It shields river banks and bars from erosion. Additionally, riparian vegetation, including roots and downed trees, serves as cover for fish, provides food source, works as a filter against sediment inputs, and aids in nutrient cycling. More broadly, the riparian zone is necessary to the integrity of the ecosystem providing habitat for invertebrates, birds and other wildlife.

k) The River Bed mining should only be allowed during the dry season.

No River bed mining should be permitted during rainy season (see Appendix 9).

l) An Annual Status and Trends Report:

This report should review permitted extraction quantities in light of results of the monitoring program, or as improved estimates of replenishment become available. The report should document changes in bed elevation, channel morphology, and aquatic and riparian habitat. The report should also include a record of extraction volumes permitted, and excavation location. Finally, recommendations for reclamation, if needed should be documented.

2. Off-Channel or Floodplain Extraction Recommendations

a) Floodplain Extraction should be set back from the Main Channel

In a dynamic alluvial system, it is not uncommon for meanders to migrate across a floodplain. In areas where sand and gravel occurs on floodplains or terraces, there is a potential for the river channel to migrate toward the pit. If the river erodes through the area left between the excavated pit and the river, there is a potential for "river capture," a situation where the low flow channel is diverted though the pit. In order to avoid river capture, excavation pits should set back from the river to provide a buffer, and should be designed to withstand the 100-year flood (100-year ARI). Adequate buffer widths and reduced pit slope gradients are preferred over engineered structures which require maintenance in perpetuity. Hydraulic, geomorphic, and geotechnical studies should be conducted prior to design and construction of the pit and bund. In addition to river capture, extraction pits create the possibility of stranding fish.

b) The maximum depth of Floodplain Extraction should remain above the Channel Thalweg

Floodplain pits should not be excavated below the elevation of the thalweg in the adjacent channel. This will minimise the impacts of potential river capture by limiting the potential for head cutting and the potential of the pit to trap sediment. A shallow excavation (above the water table) would provide a depression that would fill with

water part of the year, and develop seasonal wetland habitat. An excavation below the water table would provide deep water habitat.

c) Side Slopes of Floodplain Excavation Should Range from 3:1 to 10:1

Side slopes of a floodplain pit should be graded to a slope that ranges from 3:1 to 10:1. This will allow for a range of vegetation from wetland to upland. Steep side slopes excavated in floodplain pits on other systems have not been successfully reclaimed, since it is difficult for vegetation to become stabilised. Terrace pits should be designed with a large percentage of edge habitat with a low gradient which will naturally sustain vegetation at a variety of water levels.

d) Place Stockpiled Topsoil above the 25-year Return Period or ARI Level

Stockpiled topsoil can introduce a large supply of fines to the river during a flood event and degrade fish habitat. Storage above the 25-year flood (25-year ARI) inundation level is sufficient to minimise this risk.

e) Floodplain Pits Should Be Restored to Wetland Habitat or Reclaimed for Agriculture

The key to successful restoration or reclamation is to conserve or import adequate material to re-fill the pit, while ensuring that pit margins are graded to allow for development of significant wetland and emergent vegetation.

f) Establish a Long-term Monitoring Program

A long-term monitoring program should provide data illustrating any impacts to river stability, groundwater, fisheries, and riparian vegetation. The monitoring program should assess the success of any reclamation or restoration attempted.

g) An Annual Status and Trends Report

The status and trends report described previously should include a section on the hydrologic and biologic components of floodplain pit reclamation.

3. Extraction Methods

The important methods of sand and gravel mining operations are as below:

a) **Bar scalping or skimming** is extraction of sand and gravel from the surface of bars. This method generally requires that surface irregularities be smoothed out and that the extracted material be limited to what could be taken above an imaginary line sloping upwards and away from the water from a specified level above the river's water surface at the time of extraction (typically 0.3 - 0.6 m (1-2 ft). Bar scalping is commonly repeated year after year. To maintain the hydraulic control provided to upstream by the Riffle head, the preferred method of bar scalping is now generally to leave the top one-third (approximately) of the bar undisturbed, mining only from the downstream two-

thirds.

b) Dry-Pit Channel Mining

Dry-pit channel mines are pits excavated within the active channel on dry intermittent or ephemeral stream beds. Dry pits are often left with abrupt upstream margins, from which head cuts are likely to propagate upstream.

c) Wet-Pit Channel Mining

Wet-pit mining involves excavation of a pit in the active channel below the surface water in a perennial stream or below the alluvial groundwater table.

d) Bar Excavation

A pit is excavated at the downstream end of the bar as a source of aggregate and as a site to trap sand and gravel. Upon completion, the pit may be connected to the channel at its downstream end to provide side channel habitat.

e) Channel-wide River bed Mining

In rivers with a highly variable flow regime, sand and gravel are commonly extracted across the entire active channel during the dry season. The bed is evened out and uniformly (or nearly so) lowered.

4. Reclamation Plans

Reclamation plans should include:

a) A baseline survey consisting of existing condition cross-section data: Cross-sections must be surveyed between two documented endpoints set back from the top of bank, and elevations should be referenced to bench mark;

b) The proposed mining cross-section data should be plotted over the baseline data to illustrate the vertical extent of the proposed excavation;

c) The cross-section of the replenished bar should be the same as the baseline data. This illustrates that the bar elevation after the bar is replenished will be the same as the bar before extraction;

d) A planimetric map showing the aerial extent of the excavation and extent of the riparian buffers;

e) A planting plan developed by a plant ecologist familiar with the flora of the river for any areas such as roads that need to be restored;

f) A monitoring plan: The appropriate reclamation plans can turn river-bed and floodplain sand and gravel mining operations into something perceived by the public as desirable.

MARINE SAND MINING AND IMPACT ON MARINE BIODIVERSITY

The mining of marine aggregates is increasing significantly. Marine sand mining has had an impact on seabed flora and fauna. Dredging and extraction of aggregates from the benthic (sea bottom) zone destroys organisms, habitats and ecosystems and deeply affects the composition of biodiversity, usually leading to a net decline in faunal biomass and abundance or a shift in species composition. Aggregate particles that are too fine to be used are rejected by dredging boats, releasing vast dust plumes and changing water turbidity, resulting in major changes to aquatic and riparian habitats over large areas.

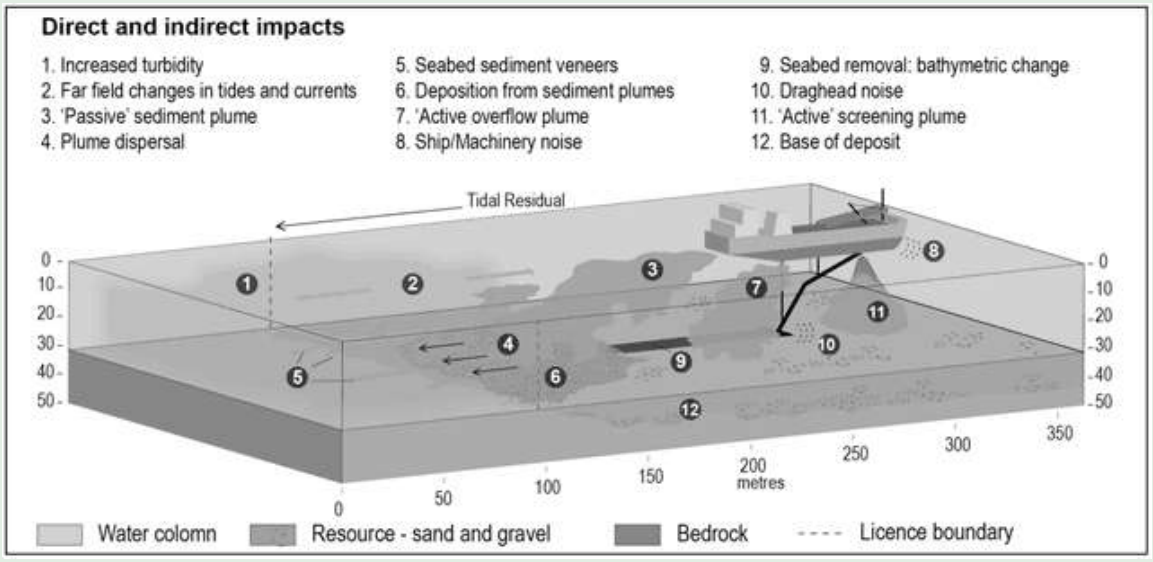


Figure: Direct and indirect consequences of aggregates dredging on the marine environment.

Source: Tillin, H.M., Houghton, A.J., Saunders, J.E., Drabble, R. and Hull, S.C., 2011. Direct and Indirect Impacts of Aggregate Dredging, Marine Aggregate Levy Sustainability Fund (MALSF). Science Monograph Series 1, 1-46.

REDUCING CONSUMPTION OF SAND

Because sand is still very cheap - sand itself is freely accessible; only extraction and transportation costs need to be covered - there is little or no incentive to induce a change in our consumption. Despite the very high value of minerals found in the sand, it is mostly used for concrete or is buried under highways. Recycled building and quarry dust material can be a substitute for sand. Concrete rubble should be recycled to avoid using aggregates, at least for low-quality uses.

Substitutes for sand are available. Quarry dust could be used to replace sand in general concrete structures. The replacement of sand by up to 40% of incinerator ash exhibits higher compressive strength than regular cement mortars. Some desert sand can be used if mixed with other material. There are alternatives for building houses, including wood, straw and recycled material. However, the current building industry is geared toward concrete know-how and equipment.

Training of architects and engineers, new laws and regulations, and positive incentives are needed to initiate a shift for lowering our dependency on sand. Renewable and recycled materials need to be targeted for building houses and roads. Use of Manufactured Sand (M-Sand) also needs to be promoted.

Alternative sources of sand and gravel, which accumulate at the bottom of dams, can also be targeted. Their use would address the problem of these aggregates accumulating which leads to a reduced capacity of dams to store water and could result in the dams' water intakes being blocked. Dams regularly release large amounts of water to flush out aggregates.

The important standard setting bodies in India are taking steps to promote the usage of alternatives to sand and gravel. Bureau of Indian Standards, the National Standards Body of the country, considering the scarcity of sand and coarse aggregates from natural sources, has evolved number of alternatives which are ultimately aimed at conservation of natural resources apart from promoting use of various waste materials without compromising in quality.

These measures include permitting in the Concrete Code (IS 456) as also in the National Building Code of India, the use of slag - a waste from steel industry, fly ash - a waste from thermal power plants, crushed over-burnt bricks and tiles - waste from clay brick and tile industry, in plain cement concrete as an alternative to sand/natural aggregate, subject to fulfilling the requirements of the Code. This Code, further, encourages use of fly ash and ground granulated blast furnace slag as part replacement of ordinary Portland cement in plain as well as reinforced cement concrete.

The Indian Standard on concrete mix design (IS 10262) has been upgraded to include guidance and examples of designing concrete mixes using fly ash and slag. Provisions for compliance for requisite quality of concrete made using fly ash and slag have been duly covered for the manufacturers of ready-mixed concrete in the Indian Standard Code of practice for RMC (IS 4926).

BIS has also formulated an Indian Standard Specification for artificial lightweight aggregates covering manufactured aggregates, such as foamed blast furnace slag, bloated clay aggregate, sintered fly ash aggregate and cinder aggregate (IS 9142).

A series of Indian Standards has also been formulated on various precast concrete products such as solid and hollow concrete blocks, light weight concrete blocks, autoclaved aerated concrete blocks, preformed foam concrete blocks, partial prefabricated concrete flooring and roofing units, concrete pipes, etc, all permitting use of fly ash and slag.

THE REPORT OF THE COMMITTEE HEADED BY SECRETARY, MoEF - 2010

A Committee headed by Secretary, Ministry of Environment and Forest was set up on the subject in 2010. The Committee considered this subject in detail and prepared a report. The important parts of the report are as follows:

Definition of Minor Mineral:

The term 'minor mineral' is defined in clause (e) of Section 3 of MMDR Act, 1957: '3 (e) "minor minerals" means building stones, gravel, ordinary clay, ordinary sand other than sand used for prescribed purposes and any other material which the Central Government may, by Notification in the Gazette of India declare to be a minor mineral;'

The term `ordinary sand' used in clause (e) of Section 3 of the MMDR Act, 1957 has been further clarified in rule 70 of the MCR, 1960 as:

(iv) Purposes of stowing in coal mines,
(v) For manufacture of silvicrete cement,
(vi) Manufacture of sodium silicate and for
(vii) Manufacture of pottery and glass.

Additionally, the Central Government has declared the following minerals as minor minerals:

Sl.No.	Minor Minerals
i)	Boulder
ii)	Shingle
iii)	Chalcedony pebbles used for ball mill purposes only
iv)	Lime shell, kankar and limestone used in kilns for manufacture of lime used as building material
v)	Murrum

Sl.No.	Minor Minerals
vi)	Brick-earth
vii)	Fuller's earth
viii)	Bentonite
ix)	Road metal
x)	Reh-matti

Sl.No.	Minor Minerals
xi)	Slate and shale when used for building material
xii)	Marble
xiii)	Stone used for making household utensils
xiv)	Quartzite and sandstone when used for purposes of building or for making road metal and household utensils
xv)	Saltpetre, and

xvi)	Ordinary earth (Used for filling or leveling purposes in construction or embankments, roads, railways building).

It may thus be observed that minerals have been classified into major and minor minerals based on their end use rather than level of production, level of mechanization, export and import etc. There do exist some minor mineral mines of silica sand and limestone where the scale of mechanization and level of production is much higher than those of industrial mineral mines. Further, in terms of the economic cost and revenue, it has been estimated that the total value of minor minerals constitutes about 10% of the total value of mineral production whereas the value of non- metallic minerals comprises only 3%. It is, therefore, evident that the operations of mines of minor minerals need to be subject to some regulatory parameters as that of mines of major minerals. Further, unlike India there does not exist such system in any other country where minerals are classified as major and minor based on end usage. Thus, there is a need to re-look at the definition of 'minor minerals' per se. It is, therefore, recommended that Ministry of Mines along with Indian Bureau of Mines, in consultation with the State Governments may re-examine the classification of minerals into major and minor categories so that the regulatory aspects and environment mitigation measures are appropriately integrated for ensuring sustainable and scientific mining with least impacts on environment.

Size of the Mine Lease:

Area for grant of mine lease varies from State to State. Maximum area which can be held under one or more mine lease is 2590 ha or 25.90 sq. miles in Jammu and Kashmir. Rajasthan prescribed a minimum limit of 1 ha for a lease. Maximum area prescribed for permit is 50x50 m. In most of the States area of permit is not specified in the rules.

It has recently been observed by Punjab and Haryana High Court in its order dated 15.05.2009 that State Government are apparently granting short term permits by dividing the mining area into small zones in effect to avoids environmental norms. There is, thus a need to bring uniformity in the extent of area to be granted for mine lease so as to ensure that eco- friendly scientific mining practices can be adopted. It is recommended that the minimum size of mine lease should be 5 ha. Further, preparation of comprehensive mine plan for contiguous stretches of mineral deposits by the respective State Governments may also be encouraged. This may suitably be incorporated in the Mineral Concession Rules, 1960 by Ministry of Mines.

Period of Mine Lease:

The period of lease varies from State to State depending on type of concessions, minerals and its end use. The minimum lease period is one year and maximum 30 years. Minerals like granite where huge investments are required, a period of 20 years is generally given with the provisions of renewal. Permits are generally granted for short periods which vary from one month to a maximum one year. In States like Haryana, minor mineral leases are auctioned for a particular time period. Mining is considered to be capital intensive industry and considerable time is lost for developing the mine before it attains the status of fully developed mine. If the tenure of the mine lease is short, it would encourage the lessee to concentrate more on rapid exploitation of mineral without really undertaking adequate measures for reclamation and rehabilitation of mined out area, posing thereby a serious threat to the environment and health of the workers and public at large.

There is thus, a need to bring uniformity in the period of lease. It is recommended that a minimum period of mine lease should be 5 years, so that eco- friendly scientific and sustainable mining practices are adopted. However, under exceptional circumstances arising due to judicial interventions, short term mining leases / contracts could be granted to the State Agencies to meet the situation arising there from.

Cluster of Mine Approach for Small Sized Mines:

Considering the nature of occurrence of minor mineral, economic condition of the lessee and the likely difficulties to be faced by Regulatory Authorities in monitoring the environmental impacts and implementation of necessary mitigation measures, it may be desirable to adopt cluster approach in case of smaller mine leases being operated presently. Further, these clusters need be provided with processing/crusher zones for forward integration and minimizing excessive pressure on road infrastructure. The respective State Governments / Mine Owners Associations may facilitate implementation of Environment Management Plans in such cluster of mines.

Requirement of Mine Plan for Minor Minerals:

At present, most of the State Governments have not made it mandatory for preparation of mining plan in respect of minor minerals. In some States like Rajasthan, eco- friendly mining plans are prepared, which are approved by the State Mining Department. The eco- friendly mining plans so prepared, though conceptually welcome, are observed to be deficient and need to be made comprehensive in a manner as is being done for major minerals. Besides, the aspects of reclamation and rehabilitation of mined out areas, progressive mine closure plan, as in vogue for major minerals could be introduced for minor minerals as well.

It is recommended that provision for preparation and approval of mine plan, as in the case of major minerals may appropriately be provided in the Rules governing the mining of minor minerals by the respective State Governments. These should specifically include the provision for reclamation and rehabilitation of mined out area, progressive mine closure plan and post mine land use.

Creation of Separate Corpus for Reclamation / Rehabilitation of Mines of Minor Minerals:

Mining of minor minerals, in our country, is by and large unorganized sector and is practiced in haphazard and unscientific manner. At times, the size of the leasehold is also too small to address the issue of reclamation and rehabilitation of mined outs areas. It may, therefore, be desirable that before the concept of mine closure plan for minor minerals is adopted, the existing abandoned mines may be reclaimed and rehabilitated with the involvement of the State Government. There is thus, a need to create a separate corpus, which may be utilized for reclamation and rehabilitation of mined out areas. The respective State Governments may work out a suitable mechanism for creation of such corpus on the `polluter pays' principle. An organizational structure may also need to be created for undertaking and monitoring these activities.

Depth of Mining:

Mining of minerals, whether major or minor have a direct bearing on the hydrological regime of the

area. Besides, affecting the availability of water as a resource, it also affects the quality of water through direct run of going into the surface water bodies and infiltration / leaching into groundwater. Further, groundwater withdrawal, dewatering of water from mine pit and diversion of surface water may cause surface and sub- surface hydrologic systems to dry up. An ideal situation would require that quarrying should be restricted to unsaturated zone only above the phreatic water table and should not intersect the groundwater table at any point of time. However, from the point of view of mineral conservation, it may not be desirable to impose blanket ban on mining operation below groundwater table. It is, therefore, recommended that detailed hydro-geological report should be prepared in respect of any mining operation for minor minerals to be undertaken below groundwater table. Based on the findings of the study so undertaken and the comments/ recommendations of Central Ground Water Authority/ State Ground Water Board, a decision regarding restriction on depth of mining for any area should be taken on case to case basis.

Uniform Minor Mineral Concession Rules:

The economic value of the minor minerals excavated in the country is estimated to contribute to about 9% of the total value of the minerals whereas the non- metallic minerals contribute to about 2.8%. Keeping in view the large extent of mining of minor minerals and its significant potential to adversely affect the environment, it is recommended that Model Mineral Concession rules may be framed for minor minerals as well and the minor minerals may be subjected to a simpler regulatory regime, which is, however, similar to major minerals regime.

River Bed Mining:

1. Environment damage being caused by unregulated river bed mining of sand, bajri and boulders is attracting considerable attention including in the courts. The following recommendations are therefore made for the river bed mining.

    (a) In the case of mining leases for riverbed sand mining, specific river stretches should be identified and mining permits/lease should be granted stretch wise, so that the requisite safeguard measures are duly implemented and are effectively monitored by the respective Regulatory Authorities.

    (b) The depth of mining may be restricted to 3m / water level, whichever is less.

    (c) For carrying out mining in proximity to any bridge and / or embankment, appropriate safety zone should be worked out on case to case basis, taking into account the structural parameters, locational aspects, flow rate etc. and no mining should be carried out in the safety zone so worked out.

Conclusion:

Mining of minor minerals, though individually, because of smaller size of mine leases is perceived to have lesser impact as compared to mining of major minerals. However, the activity as a whole is seen to have significant adverse impacts on environment. It is, therefore, necessary that the mining of minor minerals is subjected to simpler but strict regulatory regime and carried out only under an

approved framework of mining plan, which should provide for reclamation and rehabilitation of the mined out areas. Further, while granting mining leases by the respective State Governments "location of any eco-fragile zone (s) within the impact zone of the proposed mining area, the linked Rules/ Notifications governing such zones and the judicial pronouncements, if any, need be duly noted.

The Union Ministry of Mines along with Indian Bureau of Mines and respective State Governments should therefore make necessary provisions in this regard under the Mines and Minerals (Development and Regulation) Act, 1957, Mineral Concession Rules, 1960 and adopt model Guideliness to be followed by all States (emphasis supplied)".

REGIME OF LAW AND ADMINISTRATIVE ORDERS RELATING TO MINING OF MINOR MINERALS

The Entry 54 of List 1 in Schedule VII to the Constitution of India is the entry which empowers the Parliament in respect of 'Regulation of Mines and Minerals Development. Entry 23 of List 2 of the same Schedule, read with Article 246 (3) of the Constitution confers legislative powers on the State Legislature in respect of Regulation of Mines and Mineral Development, but, this power is subject to the provisions of List 1 with respect to the regulation and development under the control of the Union. The Parliament, with the object to amend and consolidate the law relating to the regulation of labour and safety in mines enacted the Mines Act, 1952. Section 2 (JJ) of the Mines Act, 1952 defines "minerals" to mean, all substances which can be obtained from the earth by mining, digging, drilling, dredging, hydraulicing, quarrying or by any other operation and includes mineral oils (which, in turn, include natural gas and petroleum). On 1st June, 1958, the Mines and Minerals (Development and Regulation) Act, 1957 was promulgated. This Act provides, inter alia, for general restrictions on undertaking prospecting and mining operations, the procedure for obtaining prospecting licenses or mining leases in respect of the land in which the minerals vests in the Government, the rule making power for regulating the grant of prospecting licenses and mining leases, special powers of Central Government to undertake prospecting or mining operations in certain cases, and for development of minerals.

The protection of natural environment is one of the fundamental duties of every citizen under Article 51-A of the Constitution of India. Article 48-A of the Constitution, obliged the State to endeavor to protect and improve the environment and to safeguard the forests and wild life of the country. The Environment (Protection) Act and Rules, 1986 were enacted and came into force on 19th November, 1986. The object of this Act is to provide for the protection and improvement of environment and for matters connected therewith. Under provisions of the Act and Rules of 1986, MoEFCC has issued various Notifications regulating the mining of minor minerals, specifically stating the procedures that were required to be complied by persons intending to carry on such mining activity and for the authorities to regulate the same.

Prior to 1994, there was no specific regime in place in relation to mining activity being carried out. The Notification issued by MoEF on 27th January, 1994, in exercise of the powers vested in it under Sub-Rule 3 of Rule 5 of the Rules of 1986 and Sub Section (1) and Clause (v) of Sub-Section (2) of Section 3 of the Act of 1986, prescribed the requirement and procedure for seeking Environmental Clearance for the projects listed in Schedule I. Schedule I of this Notification did not list mining projects of minor minerals. On the contrary, the projects covered under S. No. 20 of Schedule I of this Notification were only "mining projects (major mineral) with leases more than 5 hectares".

It provided for the constitution of Expert Committees and preparation of Environmental Impact Assessment Report which was to be evaluated and assessed by the Impact Assessment Agency. In exercise of its statutory powers afore-indicated, the Central Government on 14th September, 2006,

issued a Notification, i.e., 'Environment Impact Assessment Notification, 2006'. In terms of this Notification, the projects as stated in the Schedule to this Notification required prior Environmental Clearance as per the procedure. The projects have been categorised into two kinds, i.e., Category 'A' and Category 'B' under Clause 2 of the Notification. Projects under Category 'A' were required to take prior Environmental Clearance by MoEFCC. For Category 'B' projects, Environmental Clearance was to be given by State Environment Impact Assessment Authority (SEIAA).

The mining of minerals (both major and minor) were brought under the ambit of the EIA Notification, 2006. The mine lease area of more than equal to 50 ha was Category 'A' and mine lease area less than 50 ha and more than equal to 5 ha was category 'B' project. Mine lease area of less than 5 ha (both major and minor) was kept out of EIA Notification purview.

The Notification of 2006 came to be amended by Notification dated 1st December, 2009. It included the category of non-coal mine and coal mine lease and provided that non-coal mine lease of area more than equal to 5 ha and less than 50 ha will be category 'B' and mine lease area more than equal to 50 ha will be category 'A'. Similarly, mine lease area of more than equal to 5 ha and less than 150 ha for coal mine lease will be category 'B' and mine lease area of coal mine more than 150 ha will be category 'A'. Here again mining lease area of less than 5 ha (both coal and non-coal mine) was kept out of EIA Notification purview.

The Hon'ble Supreme Court, vide its order dated 27.2.2012 in I.A. No.12-13 of 2011 in SLP (C) No.19628-19629 of 2009 titled Deepak Kumar etc. v/s State of Haryana & Ors. has inter alia ordered *"We, in the meanwhile, order that leases of minor mineral including their renewal for an area of less than five hectares be granted by the States/Union Territories only after getting environmental clearance from the MoEF."*

Hon'ble Apex Court in Deepak Kumar's case (supra) extensively examined the environmental concerns, in the context of mining of minor minerals, considering its impact on the environment. The Apex Court observed that Extraction of alluvial material from within or near a streambed has a direct impact on the stream's physical habitat characteristics. These characteristics include bed elevation, substrate composition and stability, in-stream roughness elements, depth, velocity, turbidity, sediment transport, stream discharge and temperature. Altering these habitat characteristics can have deleterious impacts on both in-stream biota and the associated riparian habitat. The demand for sand continues to increase day by day as building and construction of new infrastructures and expansion of existing ones is continuous thereby placing immense pressure on the supply of the sand resource and hence mining activities are going on legally and illegally without any restrictions. Lack of proper planning and sand management cause disturbance of marine ecosystem and also upset the ability of natural marine processes to replenish the sand. Quarrying, mining and removal of sand from in-stream and upstream of several rivers, which may have serious environmental impact on ephemeral, seasonal and perennial rivers and river beds and sand extraction may have an adverse effect on bio-diversity as well. Further it may also lead to bed degradation and sedimentation having a negative effect on the aquatic life.

Apex Court observed that without conducting any study on the possible environmental impact on/

in the river beds and else- where the auction notices have been issued. Hon'ble Apex Court observed that "We are of the considered view that when we are faced with a situation where extraction of alluvial material within or near a river bed has an impact on the rivers physical habitat characteristics, like river stability, flood risk, environmental degradation, loss of habitat, decline in biodiversity, it is not an answer to say that the extraction is in blocks of less than 5 hectares, separated by 1 kilo meter, because their collective impact may be significant, hence the necessity of a proper environmental assessment plan".

In order to ensure compliance of the aforesaid order of the Hon'ble Supreme Court, MoEF issued an OM No.L-11011/47/2011-IA.II(M) dated 18.05.2012 stating inter alia that all mining projects of minor minerals including their renewal, irrespective of the size of the lease would henceforth require prior EC and that the projects of minor minerals with lease area less than 5 ha would be treated as Category "B" as defined in EIA Notification, 2006 and will be considered by the respective State Environment Impact Assessment Authorities (SEIAAs) notified by MoEF and following the procedure prescribed under the EIA Notification, 2006.

On 24th June, 2013, MoEF issued another Office Memorandum stating Guideliness for consideration of proposals for grant of Environmental Clearance under the Notification of 2006 for mining of 'brick earth' and 'ordinary earth' having lease area of less than 5 hectares. Referring to the judgment of the Hon'ble Supreme Court in the case of Deepak Kumar (supra) and its Office Memorandum dated 18th May, 2012, it further considered that the 'brick kiln' manufactures had stated that it was a small scale activity requiring that certain depth should be kept outside the purview of Environmental Clearance. Having considered various aspects, examining the recommendations of the Expert Committee, constituted by MoEF, finally it was directed as follows:

"(a) The activities of borrowing / excavation of 'brick earth' and ordinary earth', upto an area of less than 5 ha, may be categorized under 'B2' Category subject to the following Guideliness in terms of the provisions under '7.I Stage(1)-Screening' of EIA Notification, 2006:

(i) The activity associated with borrowing/excavation of 'brick earth' and 'ordinary earth' for purpose of brick manufacturing, construction of roads, embankments etc. shall not involve blasting.

(ii) The borrowing/excavation activity shall be restricted to a maximum depth of 2 m below general ground level at the site.

(iii) The borrowing/excavation activity shall be restricted to 2 m above the ground water table at the site.

(iv) The borrowing/excavation activity shall not alter the natural drainage pattern of the area.

(v) The borrowed/excavated pit shall be restored by the project proponent for useful purpose(s).

(vi) Appropriate fencing all around the borrowed/excavated pit shall be made to prevent any mishap.

(vii) Measures shall be taken to prevent dust emission by covering of borrowed/excavated earth during transportation.

(viii) Safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to borrowing/excavation of earth.

(ix) Workers / labourers shall be provided with facilities for drinking water and sanitation.

(x) A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.

(xi) A minimum distance of 15 m from any civil structure shall be kept from the periphery of any excavation area.

2. (a) The concerned SEIAA while considering granting environmental clearance for such activity for brick earth / ordinary earth will prescribe the Guideliness as stated at (i) to (xi) above and specify that the clearance so granted shall be liable to be cancelled in case of any violation of above Guideliness.

(b) Notwithstanding what has been stated at (a) above, the following will apply:

(i) No borrowing of earth / excavation of 'brick earth' or 'ordinary earth' shall be permitted in case the area of borrowing/ excavation is within 1 km of boundary of national parks and wild life sanctuaries.

(ii) In case the area of borrowing / excavation is likely to result into a cluster situation i.e. if the periphery of one borrow area is less than 500 m from the periphery of another borrow area and the total borrow area equals or exceeds 5 ha, the activity shall become Category 'B 1' Project under the EIA Notification, 2006. In such a case, mining operations in any of the borrow areas in the cluster will be allowed only if the environmental clearance has been obtained in respect of the cluster. This issues with the approval of the Competent Authority."

These directions which were specific only to 'brick earth' and 'ordinary earth' activities for areas less than 5 hectares, as decided to be categorised as 'B 2' Category projects, subject to the restrictions stated in the memorandum, provided that if the cluster area exceeded 5 hectares, then it would become Category 'B 1' and would not be treated as Category 'B 2' projects. The above Office Memorandum was not dealing with the issues of sand mining or any other minor mineral activity except 'brick earth' and 'ordinary earth'. Further, MoEF has issued an amendment to EIA Notification vide Notification S.O. 2731 (E) dated 9th September 2013 and amended the EIA Notification, 2006 for item 1 (a) as follows:

(1)	(2)	(3)	(4)	(5)
"1(a)	(i) Mining of minerals.	≥ 50 ha of mining lease area in respect of non-coal mine lease	<50 ha of mining lease area in respect of minor minerals mine lease ; and < 50 ha ≥5 ha of mining lease area in respect of other non-coal mine lease.	General Conditions shall apply except for project or activity of less than 5 ha of mining lease area for minor minerals: Provided that the above exception shall not apply for project or activity if the sum total of the mining lease area of the said project or activity and that of existing operating mines and mining projects which were accorded environment clearance and are located within 500 metres from the periphery of such project or activity equals or exceeds 5 ha.
		>150 ha of mining lease area in respect of coal mine lease.	≤ 150 ha ≥ 5 ha of mining lease area in respect of coal mine lease.	(i) Prior environmental clearance is required at the stage of renewal of mine lease for which an application shall be made up to two years prior to the date due for renewal. Further, a period of two years with effect from the 4th April, 2011 is provided for obtaining environmental clearance for all those mine leases, which were operating as

(1)	(2)	(3)	(4)	(5)
				on the 4th April, 2011 with requisite valid environmental clearance and which have fallen due for renewal on or after the 4th November, 2011: Provided that no fresh environmental clearance shall be required for a mining project or activity at the time of renewal of mining lease, which has already obtained environmental clearance under this notification.
	(ii) Slurry pipelines (coal lignite and other ores) passing through national parks or sanctuaries or coral reefs, ecologically sensitive areas.	All projects.		(ii) Mineral prospecting is exempted.

In this Notification a new category of minor mineral was introduced and it was provided that mining lease area of minor mineral less than 50 ha will be category 'B' and will require EC. Accordingly the minor mineral mining projects having less than 5 hectare of lease area are required to be appraised by the SEIAA/SEAC of respective State for granting environment clearance. It was provided that the project or activity of less than 5 ha of mining lease area for minor minerals will be exempt from the General Conditions. Simultaneously the concept of cluster was introduced and it was provided that the exemption of applicability of General Conditions shall not apply for project or activity if the sum total of the mining lease area of the said project or activity and that of existing operating mines and mining projects which were accorded EC and are located within 500 m from the periphery of such project or activity equal or exceeds 5 ha.

The Ministry, on 24th December, 2013, issued another Office Memorandum for consideration of proposals for grant of Environmental Clearance regarding categorisation of Category 'B' projects into Category 'B (1)' and 'B (2)'. Mining of minor minerals had been separately dealt with in this Office Memorandum. This Office Memorandum stated that no river sand mining project with mining lease area of less than 5 hectares may be considered for grant of Environmental Clearance. Such area up to 25 hectares would be categorised as 'B (2)' and such projects were to be considered, subject to the stipulations stated therein. This Office Memorandum stated that no Environmental Clearance would be granted for extraction of minor minerals from any riverbed where the area is less than 5 hectares. Sand mining, in area other than riverbeds, would be permitted, only if the Project Proponent takes Environmental Clearance.

The Ministry vide Notification No. S.O. 1599 (E) dated 25.06.2014 reduced the area of 10 kilo meter to 5 kilo meters for applicability of General Conditions increasing the delegation to States by taking out projects located in 5 to 10 kilo meter of interstate boundary, CEPI, and, PAs from category 'A'.

The anomaly created by the Notification dated 09.09.2013 was corrected vide Notification No. S.O. 2601 (E) dated 7th October 2014, and category of minor mineral was deleted and mining leases were again classed as non-coal mine and coal mine and mining lease area of less than 50 ha was made category 'B' for non-coal mine and mine lease area of less than equal to 150 ha for coal mine was made category 'B'. The mine lease area of less than 5 ha was exempt from the applicability of General Conditions and cluster concept of Notification dated 09.09.2013 was retained.

Notification S.O. 2601 (E) dated 7th October 2014 provides as follows:

(1)	(2)	(3)	(4)	(5)
"1(a)	(i) Mining of minerals.	≥ 50 ha of mining lease area in respect of non-coal mine lease. >150 ha of mining lease area in respect of coal mine lease. Asbestos mining irrespective of mining area.	<50 ha of mining lease area in respect of non-coal mine lease. ≤ 150 ha of mining lease area in respect of coal mine lease.	General Conditions shall apply except for project or activity of less than 5 ha of mining lease area: Provided that the above exception shall not apply for project or activity if the sum total of the mining lease area of the said project or activity and that of existing operating mines and mining projects which were accorded environment clearance and are located within 500 metres from the periphery of such project or activity equals or exceeds 5 ha. Note: (i) Prior environmental clearance is required at the stage of renewal of mine lease for which an application shall be made up to two years prior to the date due for renewal. Provided that no fresh environmental clearance shall be required for a mining project or activity at the time of renewal of mining lease, which has already obtained environmental clearance under this notification. (ii) Mineral prospecting is exempted. "
	(ii) Slurry pipelines (coal lignite and other ores) passing through national parks or sanctuaries or coral reefs, ecologically sensitive areas	All projects.		

The NGT vide order dated 13.01.2015 (O.A. No. 123 of 2014 and M.A. No. 419 of 2014) has declared the Notification dated 09.09.2013 as invalid, inoperative and quashed it. The above order has also quashed the paragraph 4 (b) (i) of O.M. dated 24th June 2013 which provided that "No borrowing of earth / excavation of 'brick earth' or 'ordinary earth' shall be permitted in case the area of borrowing / excavation is within 1 km of boundary of national parks and wild life sanctuary." Though this provision was taken from the observation of Hon'ble Supreme Court in W.P. No. 435 of 2012 (Goa Foundation Vs. Union of India) and order dated 04.08.2006 of Supreme Court in *T.N. Godavarman Thirumulpad v. Union of India & Ors.* Supreme Court has taken a view that 1 km. from the boundaries of National Parks and Sanctuaries would be a safety zone, subject to the orders that may be made in IA No.1000 regarding Jamua Ramgarh Sanctuary and the State will not grant any Temporary Working Permit (TWP) in these safety zones comprising 1 km. from the boundaries of National Parks and Sanctuaries.

Similarly the proviso at paragraph 2 (iii) of O.M. dated 24.12.2013 which says that "No river sand mining project, with mine lease area less than 5 ha, may be considered for granting EC" has been quashed. This condition was taken from the recommendations of the Committee headed by the Secretary, MoEF constituted in 2010. The above proviso were quashed on the ground that as EIA Notification places no such restriction, so same cannot be imposed by an executive order and many hill States find it very difficult to get an area equal to or more than 5 ha. in riverbed. The information made available by the States also makes it clear that majority of the mining leases of sand are of area less than 5 hectares.

THE ISSUES AND MANAGEMENT OF MINING IN CLUSTER

In I.A. No. 12-13 of 2011 in SLP Nos. 729-731 / 2011, 21833 / 2009, 12498-499 / 2010, SLP (C) CC … 16157 / 2011 & CC 18235 / 2011 (Deepak Kumar and Ors. Vs. State of Haryana and Ors. etc.) Hon'ble Supreme Court in its order dated 27.02.2012 on the subject of cluster has quoted the submission of affidavit dated 23.11.2011 of MOEFCC. It says that "The Ministry is of the opinion that where the mining area is homogeneous, physically proximate and on identifiable piece of land of 5 ha. or more, it should not be broken into smaller sizes to circumvent the EIA Notification, 2006 as the EIA Notification, 2006 is not applicable to the mining projects having lease area of less than 5 ha. The Report of Committee on Minor Minerals, under the Chairmanship of Secretary (E&F) with representatives of various state governments as members including the State of Haryana and Rajasthan recommended a minimum lease size of 5 ha for minor minerals for undertaking scientific mining for the purpose of integrating and addressing environmental concerns. Only in cases of isolated discontinued mineral deposits in less than 5 ha, such mining leases may be considered keeping in view the mineral conservation".

The order further quotes that "Cluster of Mine Approach for Small Sized Mines: Considering the nature of occurrence of minor mineral, economic condition of the lessee and the likely difficulties to be faced by Regulatory Authorities in monitoring the environmental impacts and implementation of necessary mitigation measures, it may be desirable to adopt cluster approach in case of smaller mine leases being operated presently. Further these clusters need be provided with processing / crusher zones for forward integration and minimizing excessive pressure on road infrastructure. The respective State Governments / Mine Owners Association may facilitate implementation of Environment Management Plans in such cluster of mines." The order has further quoted the letter dated 1.06.2010 written by the then Minister of Environment, Forest and Climate Change which says on the subject that "A cluster approach to mines should be taken in case of smaller mines leases operating currently". The Hon'ble Court has ordered that "The State of Haryana and various other States have not so far implemented the above recommendations of the MoEF or the Guideliness issued by the Ministry of Mines before issuing auction notices granting short term permits by way of auction of minor mineral boulders gravel, sand etc., in the river beds and elsewhere of less than 5 hectares. We therefore, direct to all the States, Union Territories, MoEF and the Ministry of Mines to give effect to the recommendations made by MoEF in its report of March 2010 and the model Guideliness framed by the Ministry of Mines, within a period of six months from today and submit their compliance reports."

"We in the meanwhile, order that leases of minor mineral including their renewal for an area of less than five hectares be granted by the States/ Union Territories only after getting environmental clearance from the MoEF."

The Ministry vide O.M. No. L-11011/47/2011-IA.II (M) dated 18th May 2012 said that "In order to ensure compliance of the above referred order of the Hon'ble Supreme Court dated 27.02.2012, it has now been decided that all mining projects of minor minerals including their renewal, irrespective of the size of the lease would henceforth require prior environment clearance. Mining projects with lease area up to less than 50 ha including projects of minor mineral with lease area less than 5 ha would be treated as Category 'B' as defined in EIA Notification, 2006 and will be considered by the respective SEIAAs notified by MoEF and following the procedure prescribed under EIA Notification, 2006."

On the issue of cluster, the Notifications No. S.O. 2731 (E) dated 09.09.2013 and Notification No. S.O. No. 2601 (E) of 07.10.2014 were issued.

The above Notifications in Schedule at Item No. 1 (a) in Conditions mentions that "General Conditions shall apply except for projects or activity of less than 5 ha of mining lease area:

Provided that the above exception shall not apply for project or activity if the sum total of the mining lease area of the said project or activity and that of existing operating mines and mining projects which were accorded environment clearance and are located within 500 meters from the periphery of such projects or activity equals or exceeds 5 ha. The Office Memorandum No. J-13012/12/2013-IA-II (1) dated 24.12.2013 is about Guideliness for consideration of proposals for grant of environment clearance under Environment Impact Assessment Notification 2006 and its amendments - regarding categorization of Category 'B' projects/ activities into Category 'B1' & 'B2'.

The above O.M. besides categorizing the Category B into Category B1 & B2 also has directions on mining of brick earth / ordinary earth and river sand mining. These provisions are as follows:

"Mining of minor minerals:

As of now, mining projects of minor minerals with less than 50 hectare of mining lease areas are categorized as Category 'B' as per Notification S.O. 2731 (E) dated 9th September 2013. Also vide O.M. No. L-11011/47/2011-IA-II (M) dated 24.06.2013, Guideliness has been issued regarding categorization of mining projects of brick earth and ordinary earth having lease areas less than 5 hectare as Category 'B2' subject to stipulations stated therein.

In the above backdrop, the projects of mining of minor minerals, categorized as Category 'B' are hereby categorized as 'B2' as per the following:

(i) 'Brick Earth' / 'Ordinary Earth' mining projects having lease area less than 5 ha will be considered for granting EC as per the aforesaid Guideliness issued by MOEF on 24.06.2013.

(ii) 'Brick Earth' / 'Ordinary Earth' mining projects with mining lease area more than equal to 5 ha but less than equal to 25 ha and all other minor , mineral mining projects with mining lease area < 25 ha, except for river sand mining projects will be appraised as Category 'B2' projects.

These projects will be appraised based on the following documents:

(a) Form-1 as per the Appendix-I under the EIA Notification 2006

(b) Pre-feasibility report of the project

(c) Mining plan approved by the authorized agency of the concerned State Government.

Provided in case the mining lease area is likely to result into a cluster situation, i.e. if the periphery of one lease area is less than 500 meter from the periphery of another lease area and the total lease area equals or exceeds 25 ha, the activity shall become Category 'B1' Project under the EIA

Notification, 2006. In such a case, mining operations in any of the mine lease areas in the cluster will be allowed only if the environmental clearance has been obtained in respect of the cluster.

About river sand mining it says that:

(iii) No river sand mining project, with mine lease area less than 5 ha, may be considered for granting EC. The river sand mining projects with lease area more than equal to 5 ha but less than 25 ha will be categorized as 'B2'. In addition to the requirement of documents, as brought out above under sub-para (ii) above for appraisal, such projects will be considered subject to the following stipulations:

(a) The mining activity shall be done manually. The depth of mining shall be restricted to 3 m / water level, whichever is less.

(b) For carrying out mining in proximity to any bridge and / or embankment, appropriate safety zone shall be worked out on case to case basis to the satisfaction of SEAC / SEIAA, taking into account the structural parameters, locational aspects, flow rate etc., and no mining shall be carried out in the safety zone so worked out. No in-stream mining shall be allowed.

(c) The mining plan approved by the authorized agency of the State Government shall inter-alia include study to show that the annual replenishment of sand in the mining lease area is sufficient to sustain mining operations at levels prescribed in the mining plan and that the transport infrastructure is adequate to transport the mines material. In case of transportation by road the transport vehicles will be covered with the tarpaulin to minimize dust/ sand particle emissions.

(d) EC will be valid for mine lease period subject to a ceiling of 5 years.

Provided, in case the mining lease area is likely to result into a cluster situation i.e. if the periphery of one lease area is less than 1 km from the periphery of another lease area and total lease area equals to or exceeds 25 ha., the activity shall become Category 'B1' Projects under EIA Notification, 2006. In such a case, mining operation in any of the mine lease area in the cluster will be allowed only if the environment clearance has been obtained in respect of the cluster.

The NGT order dated 13.01.2015 in O.A. No. 123 of 2014 and M.A. No. 419 of 2014 has following directions on the issue of cluster: "In light of the judgment of the Supreme Court and what has emerged from the various cases that are subject matter of this Judgment, we direct the Ministry of Environment and Forest to formulate a uniform cluster policy in consultation with the States for permitting minor mineral mining activity including its regulatory regime, in accordance with law.

Notification S.O. 1559 (E) dated 25th June 2014 provides that "Any project or activity specified in Category 'B' will be appraised at the Central Level as Category 'A', if located in whole or in part within 5 km. from the boundary of: (i) Protected Areas; (ii) CEPI; (iii) ESA; (iv) Inter-state boundaries or international boundaries ……".

The NGT vide its order dated 13.01.2015 has quashed the Notification dated 9th September 2013, but similar provision on clusters exists in Notification dated 7th October 2014.

The EIA Notification 2006, as amended makes it clear that projects in respect of non-coal mine leases, where the area is more than equal to 50 hectares would require prior Environmental Clearance from MoEFCC, while the projects of area less than 50 hectares would be appraised for prior Environmental Clearance at the level of SEIAA.

The EIA Notification of 2006 in Clause 7 specifies the stages through which projects for grant of Environmental Clearance are required to be passed and processed. The stages include Screening, Scoping, Public Consultation and Appraisal, upon which, the Expert Appraisal Committee makes recommendation to the MoEF/SEIAA. Under 'Screening', this Clause 7 also provides for a further bifurcation of projects falling under category 'B' into 'B 1' and 'B 2'. The relevant part of Clause 7, dealing with this aspect, reads as under: "Stage (1) - Screening (Only for Category 'B' projects and activities): In case of Category 'B' projects or activities, this stage will entail the scrutiny of an application seeking prior environmental clearance made in Form 1 by the concerned State level Expert Appraisal Committee (SEAC) for determining whether or not the project or activity requires further environmental studies for preparation of an Environmental Impact Assessment (EIA) for its appraisal prior to the grant of environmental clearance depending up on the nature and location specificity of the project . The projects requiring an Environmental Impact Assessment report shall be termed Category 'B1' and remaining projects shall be termed Category 'B2' and will not require an Environment Impact Assessment report. For categorization of projects into B1 or B2 except item 8 (b), the Ministry of Environment and Forests shall issue appropriate Guideliness from time to time."

The Ministry on 24th December, 2013, issued Office Memorandum for consideration of proposals for grant of Environmental Clearance regarding categorisation of Category 'B' projects into Category 'B1' and 'B2'. Mining of minor minerals had been separately dealt with in this Office Memorandum. Such area up to 25 hectares would be categorised as 'B 2' and such projects were to be considered, subject to the stipulations stated therein.

The EIA Notification, 2006 does not provide for issuance of Environment Clearance to Cluster of mines. It provides for EC to individual lease holders / project proponents. This position has also been upheld by the Hon'ble Supreme Court in its judgment of Vivek Bansal Vs. State of Haryana that EC should be applied for and granted to the individual lease holder.

There has been rising concerns about adverse impact of mining on small leases (less than 5 hectare) in case the numbers of such leases are large and they are located in close proximity to each other. This leads to the definition of Cluster. To avoid the rigors of environment impact assessment studies, environment management plan and the environment clearance there has been a tendency to break the leases into size which does not attract the provisions of environment impact assessment studies, environment management plan, public consultation and the environment clearance. In Deepak Kumar's case Hon'ble Supreme Court also encountered this situation and in its order dated 27.02.2012 mandated that no mining lease or renewal be done without environment clearance irrespective of size.

It is seen that the categorization of mines into 'B1' and 'B2' category in which Category 'B2' leases are being exempted from the requirement of Environment Impact Assessment, Environment Management Plan, and Public Consultation for grant of EC, in many cases now the mining leases are being given for 25 hectares or less. This defeats the purpose and intent of Hon'ble Supreme Court Judgment which orders environment clearance for all mining leases irrespective of size. The environment clearance without Environment Impact Assessment, Environment Management Plan, and Public Consultation does not serve the purpose of environment clearance which is to ensure environmentally sustainable and socially responsible mining. So if a cluster or individual lease size exceeds 5 hectare, the EIA/ EMP should be completed in the process of grant of prior environment clearance.

The EIA Notification, 2006 and subsequent amendments to that or any O.M. issued by the Ministry do not provide for procedures and Competent Authority for environment clearance for cluster. In a cluster there will mostly be situation where there are a number of different lease holders and as per the settled law the lease holder has to do the working of mine and the lease holder is the one who can apply for and get the environment clearance. The conditions stipulated in the environment clearance have to be complied by the EC holder and any violation of that empowers the authority to cancel the environment clearance or prosecute the EC holder if necessitated by the circumstances.

For cluster there is no mechanism about who will apply for EC, EC will be issued in whose name, and who will be responsible for compliance of EC conditions.

The intent of cluster assessment is to have a holistic knowledge of the impact on environment by different mines operating in close proximity of each other. There are also requirement of mitigative measures which need implementation in concerted manner by different EC holders of that cluster. To ensure that it is important that there should be an integrated Environment Impact Assessment /

Environment Management Plan for the cluster to be presented before the authority appraising the projects and considering the proposals for grant of EC. This integrated EIA/ EMP can be prepared by either the lease holder, group of lease holders, State or the State Agencies. This EIA/ EMP need to be prepared by the accredited consultants / Registered Qualified Persons of the State Governments. The application for EC and grant of EC should be done in the name of individual lease holders in the background of the integrated EIA/EMP report. The Competent Authority (SEIAA/ SEAC / EAC) will entertain individual lease holder's application for grant of EC to individual mining lease projects in that cluster in the name of lease holders. The conditions related to mitigative measures necessitated by the integrated EIA/EMP may run across more than one lease holder or EC holders, that should figure in each EC accordingly and its compliance be ensured by the individual EC holders.

The Hon'ble Supreme Court, NGT, SEAC/EAC and the Project Proponents have raised issue of cluster in mine lease allotment and environment clearance for the same, so following conditions need to be ensured for cluster of mines:

1. To address the concern of adverse impact of minor mineral mining on environment it is proposed that all mining activity including river sand mining (above 5 hectare individual or cluster) will need to prepare Environment Impact Assessment Report and Environment Management Plan before grant of environment clearance. These reports (EIA /EMP) can be prepared by the State or State nominated Agency / the Project Proponent (s).
2. As can be seen from the data provided by the States most of the mining leases for minor minerals are of lease area less than 5 hectare. It is also reported that in hill states getting a stretch in river with area more than 5 hectare is very uncommon. So the size of lease for minor minerals including river sand mining will be determined by the States as per their circumstances.
3. The EIA Notification, 2006 does not provide for cluster EC, it provides for issuance of EC to individual project proponents and the same has also been upheld in the judgment of Hon'ble Supreme Court in Vijay Bansal vs. State of Haryana case. So EC will have to be applied for and issued to the individual project proponent.
4. A cluster shall be formed when the distance between the peripheries of one lease is less than 500 meters from the periphery of other lease in a homogeneous mineral area.
5. The mining of minor minerals is mostly in clusters. The Environment Impact Assessment or Environment Management Plan are required to be prepared for the entire cluster in order to capture all the possible externalities. These reports shall capture carrying capacity of the cluster, transportation and related issues, replenishment and recharge issues, geo-hydrological study of the cluster area. The Environment Impact Assessment or Environment Management Plan shall be prepared by the State or State nominated Agency or group of project proponents



in the Cluster or the project proponent in the cluster.

6. The individual lease holders in cluster can use the same Environment Impact Assessment or Environment Management Plan for application for environmental clearance. The cluster Environment Impact Assessment or Environment Management Plan shall be updated as per need keeping in view any significant change.

7. There shall be one public consultation for entire cluster after which the final Environment Impact Assessment or Environment Management Plan report for the cluster shall be prepared.

8. The details of cluster Environment Impact Assessment or Environment Management Plan shall be reflected in each environmental clearance in that cluster and District Expert Appraisal Committee (DEAC), SEAC, and EAC shall ensure that the mitigative measures emanating from the Environment Impact Assessment or Environment Management Plan study are fully reflected as environmental clearance conditions in the environmental clearance's of individual project proponents in that cluster.

9. As the sand is mostly mined from rivers and majority of the rivers which are important source of sand also form boundary between States, so because of General Conditions most of the sand mining projects become Category 'A' project. So the General Conditions will not apply in case of river sand and gravel mining projects on account of being in 5 kilometer of inter-state boundary.

10. The Committee headed by the District Magistrate or District Collector will be empowered to appraise and grant EC for mining leases up to 5 ha in case of individual lease and up to 25ha in case of cluster for sand mining.

11. In case the mining leases are in cluster (if periphery of one lease is within 500 meters), fowling are the categorization of projects:-

- Category 'B2'Project: Cluster area of mine leases up to 5 ha and to be dealt at DEIAA/ DEAC level
- Category 'B2'Project: Cluster area of Mine leases > 5 ha and < 25 ha with no individual lease > 5 ha and to be dealt at DEIAA/DEAC level
- Category 'B1'Project: Cluster of mine leases of area > 25 hectares with individual lease size < 50ha and to be dealt at SEIAA/SEAC level
- Category 'A' Project: Cluster of any size with any of the individual lease >50ha and to be dealt at MoEFCC/EAC level

The schematic presentation of requirements on Environmental Clearance of Sand Mining including cluster situation is detailed as below:-

Area of Lease (Hectare)	Category of Project	Require-ment of EIA / EMP	Require-ment of Public Hearing	Require-ment of EC	Who can prepare EIA/ EMP	Who will apply for EC	Authority to appraise/ grant EC	Authority to monitor EC compliance
EC Proposal of Sand Mining in cluster situation								
Cluster area of mine leases up to 5 ha	**'B2'**	Form-1M, PFR and Approved Mine Plan	No	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	DEAC/ DEIAA/	DEIAA SEIAA SPCB CPCB MoEFCC Agency nominated by MoEFCC
Cluster area of Mine leases > 5 ha and < 25 ha with no individual lease > 5 ha	**'B2'**	Form-I, PFR and Approved Mine Plan and one EMP for all leases in the Cluster	No	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	DEAC/ DEIAA/	
Cluster of mine leases of area > 25 hectares with individual lease size < 50ha	**'B1'**	Yes	Yes	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	SEAC/ SEIAA	

Cluster of any size with any of the individual lease > 50ha	**'A'**	Yes	Yes	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	EAC/ MoEFCC	

MANAGEMENT OF SAND DEPOSITED AFTER FLOOD ON AGRICULTURAL FIELD OF FARMERS

The Standing Committee on Water Resources on issues, concerning flood management, compensation, and status of ownership of submerged and eroded land in the country including compensation to farmers for loss of their crops destroyed by floods and right to disposal of the sand left in the fields of farmers in its meeting held on 29.04.2015 made observations on this subject.

The Committee observed that pursuant to Hon'ble Supreme Court of India decision in "Deepak Kumar Case" in 2012, regulations were framed by the Ministry of Mines to guide environmental clearance of minor minerals. … The Committee, therefore, desires the Ministry of Water Resources, River Development and Ganga Rejuvenation to work in close coordination with the Ministry of Mines and Environment, Forest and Climate Change to frame regulations / Guideliness in this regard expeditiously.

Mining of Sand

The Committee further observed that due to the floods, the agricultural land of farmer is destroyed and rendered infertile. Further the farmer loses his livelihood as the produce of his land is destroyed by flood and become unsalable. The farmer is also deprived of the right of lifting sand from his land. He is therefore, left helpless and destitute and leave their land in search of job.

The Committee observes that "mining operation" means any operation undertaken for the purpose of winning any mineral. Accordingly, if desilting is undertaken perse with the objective of winning a mineral then only it will be construed as a mining operation. Apparently, if the desilting is undertaken not for winning any mineral, it will not be construed as mining operation and therefore, the farmer can remove the sand from the land without requiring the requisite permits. However, the Committee strongly feels that the farmer be given the right to use and dispose-off the sand accumulated over their land post flood, by incorporating the necessary provisions in the Mines and Mineral (Development and Regulation) Act, 1957".

Removal of sand from the agricultural field by the owner farmer of the land from environment point of view will not be considered as mining operation and its removal and disposal can be allowed without the requirement of environment clearance till it is done only to the extent of reclaiming the agricultural land. The sand deposited after flood only be removed, so no mining / digging below the ground level is allowed. For removing sand in case where private land has gone into the river due to erosion, the requirement of mining lease and environment clearance will continue. This operation

of removal of sand deposited on agricultural field should be done after a mapping of deposition is done by the Land Management Committee of the Gram Panchayat. The sand so deposited post flood can be removed by the farmer owning the land / group of farmers affected by this post flood sand deposition or the Gram Panchayat. Customary rights to remove and dispose off the sand should be given to the farmer affected by deposition of sand on account of sudden flood in his agricultural land.

MINING OF SAND FROM AGRICULTURAL FIELD

This practice is prevalent in Haryana, where the top layer of soil varying between 1 and 2 meters is removed and stacked separately and thereafter the sand deposit which may be 10-15 meter deep is mined. After removing the sand layer up to a maximum depth of 09 meters, the top soil stacked is spread out on the field and the same is brought under the cultivation. Though the level of this land (mined out area) is lowered to the depth of the excavation and in initial years of cultivation the productivity is low, but the productivity of the fields improves with continued cultivation and addition of organic manure in the field. In Haryana some leases are of large area (ranging from 1000 hectare to 2000 hectare) the agricultural fields and river bed both are included in the same lease for mining.

The following recommendations should be kept in mind for mining in such leases:

1. Mining of sand in such mine leases will require environment clearance.
2. The lease should be of sand mining either from the agricultural field or river. In same lease both type of area should not be included.
3. The sand mining from agricultural field is being done in Haryana for a long time and it can be done in a more sustainable manner without adverse impact on agricultural productivity, if proper environmental safeguards are taken.
4. The slope of mining area adjacent to agricultural fields should be proper (preferably 45-60 degree) and adequate gap (minimum 10 feet) be left from adjacent agricultural field to avoid erosion and scouring.

CUSTOMARY RIGHT ON SAND MINING

The native people have their long held customary rights to take silt, sand & soil from their tanks and nearby rivers for their use or community works in the village in almost all the States in some form or the other.

Next to the reserved forests, tanks and rivers are the biggest common properties in India. Most of the village tanks are 'government properties' with some exceptions of privately held tanks. Land revenue department, irrigation department and forest department is given powers to deal with property right' and hence protecting all tanks and rivers preventing damages including encroachments is their responsibility. The local villagers were given 'customary rights' under the Revenue Department Orders, and other laws related to Panchayats and Easements to take sand, soil and earth for agricultural and domestic purposes without seeking any permission from anyone. The States strive to keep these customary rights to use such resources like soil and sand for individuals work and community work in the village intact without requirement of any permit and clearance. These customary rights need to be protected and respected.

DESILTING OF RESERVOIRS / BARRAGES / ANNECUTS / LAKES / CANALS

These structures are generally in possession and maintenance of Irrigation Department / Minor Irrigation Department / PHED of State Governments. The dams and reservoirs can be a significant source of sand. Many such structures are silted and their water holding capacity has gone down considerably. In some instances to compensate for silted capacity raising of height of dam or construction of new structures is proposed which further leads to submergence of new areas of agricultural field and forests. Taking up desilting of such projects can serve dual purpose of increasing the water holding capacity and making available the sand for other usage. In some States the Irrigation Department is permitted to use it for the departmental works free of charge and balance can be disposed of in market after paying the due royalty. A detailed study is required to be carried out to verify economic viability and environmental sustainability before contemplating dredging of storage reservoirs for sand / gravel mining.

The de-silting of reservoir, dredging for upkeep and maintenance of structures, channels and averting natural disasters will not be treated as mining for the purpose of environmental clearance.

The Ministry of Water Resources (MoWR) view on desiltation from flood control point of view is as follows:

A multidisciplinary Committee (Mittal Committee) under the chairmanship of Dr. B.K. Mittal, former Chairman, Central Water Commission was constituted by MoWR, vide letter dated 08.10.2001 to identify cause and extent of siltations in rivers, suggest measures to minimize siltation, examine as to whether desilting is a technically feasible means to minimize magnitude of flood in rivers, suggest appropriate technology/ methods of desilting of rivers, propose a realistic operational programme in a time bound manner and other related aspects. The committee studied in respect of few sites on Ganga, Brahmputra, Godavari, Krishna etc., and inter-alia concluded that:

i) Siltation in river is not pronounced and alarming;

ii) Desilting of rivers for flood control is not an economically viable solution;

iii) Dredging in general has been found to be inadequate and should not be resorted to, particularly in major rivers;

iv) There are, of course, some locations such as tidal rivers, confluence points with narrow constrictions and the like which can be tackled by desilting after thorough examination and techno-economic justification;

v) Selective dredging is suggested depending upon local conditions; and

vi) Desilting of rivers can marginally minimize the magnitude of floods and be effective only for a short period.

Thus, desilting in general is not feasible technically, due to several reasons like non-sustainability, non- availability of vast land required for disposal of dredged material etc. This cannot be viewed in isolation of other approaches to manage floods. Desilting of rivers in vulnerable reaches may be suggested based on model study, if it is found techno-economically viable. For navigation purposes, the river reaches in the water ways path may be dredged to have minimum depth of water.

MINING PLAN

The Environment Clearance shall be given to only those mining leases which have mine plan approved by the Competent Authority designated by the States. Modification of the mining plan during operation will also need approval of the Competent Authority. The Mining Plan shall be prepared by the Recognised Qualified Persons (RQP). The person to be recognized for preparing the mining plan should be a holding a degree of Mining Engineering, Environmental Engineering or a post graduate degree in Geology granted by a University established or incorporated by or under a Central Act or a State Act including any institutions recognized by the UGC or any equivalent qualification granted by any University or institution outside India and have a professional experience of three years of working in a supervisory capacity in the field of mining after obtaining a degree. The States will devise their own mechanism of selection and empanelment of RQPs. A mining plan should be valid for a period of 5 years, which can be renewed further.

EVALUATING THE IMPACT OF SAND MINING

To assess the impact of mining and effect of remedial measures can be assessed through monitoring. This is also required for mid-course corrections. Monitoring will provide data to evaluate the upstream and downstream effects of sand and gravel extraction activities, and long-term changes. A brief report summarizing the annual results of the physical and biological monitoring should document the evolution of the sites over time, and the cumulative effects of sand and gravel extraction. The summary should also recommend any modification of extraction rates needed to minimize impacts of extraction.

Sand Replenishment, Geomorphology and Hydrology:

Physical monitoring requirements of sand and gravel extraction activities should include surveyed channel cross-sections, longitudinal profiles, bed material measurements, geomorphic maps, and discharge and sediment transport measurements. The physical data will illustrate bar replenishment and any changes in channel morphology, bank erosion, or particle size.

In addition to local monitoring for replenishment at specific mining sites, monitoring of the entire reach through the estuary will provide information on the cumulative response of the system to sand and gravel extraction. For example, it is important for downstream bars and the estuary to receive sufficient sand and gravel to maintain estuarine structure and function. Because the elevation of the bed of the channel is variable from year to year, a reach-based approach to monitoring will provide a larger context for site-specific changes. If long-term monitoring data show that there is a reach-scale trend of bed lowering (on bars or in the thalweg), the extraction could be limited.

Cross-sections:

Surveyed channel cross-sections should be located at permanently documented sites upstream, downstream and within the extraction area. Cross-sections intended to show reach- scale changes

should be consistently located over geomorphic features such as at the head of riffles, across the deepest part of pools, or across particular types of channel bars.

Cross-section spacing should be close enough to define the morphology of the river channel. Cross-section data should be surveyed in March or April to evaluate changes that may occur during the flooding season.

Cross-section data should be collected over the reach to the estuary, and locally upstream, downstream, and within each mining site. This long-term monitoring data should be collected and analyzed even if no mining occurs in order to understand and estimate the sand budget of the river reach.

Photo-documentation:

Photographs of the project sites should be taken prior to excavation to document the baseline conditions, and again during each monitoring session. Photos should be taken twice a year. Photos of structures nearby like outfalls / off-takes, intakes, bridges and other structures may also be regularly taken.

Groundwater Level:

Monitoring wells should be established adjacent to each off-channel floodplain excavation to record changes in ground water levels. Measurements should be taken monthly. This should help analyse surface water and ground water interaction along the reach.

Extent and Quality of Riparian Vegetation:

Document the extent and quality of riparian vegetation, including successional status, and any increase in disturbance indicators (non-native plants). The extent of riparian habitat can be determined utilising aerial photos. Habitat quality data, i.e., successional status and species composition, must be determined through field reconnaissance.

Riparian Vegetation Maps:

Develop yearly maps of the sensitive habitat areas and document their aerial extent over time. These maps may be combined with the geomorphic maps. Monitor sites identified as sensitive for disturbance in excess of expected geomorphic trends - i.e., massive bank wasting up or downstream from an active mine site. Monitor sand and gravel mining impacts which may translate up and downstream, causing accelerated erosion of sensitive zones and impacting the ability of new habitat to form due to excessive scour or sedimentation.

This monitoring / documentation should be done by the EC holders and will be regularly checked and assessed by the DEIAA for corrective steps in time. The DEIAA should review the status of monitoring and documentation data of each mining site especially for sand mining once in a year.

MONITORING SYSTEM FOR SUSTAINABLE SAND MINING

The implementation of these Guideliness on Sustainable Sand Mining is not possible till States create a robust mechanism to monitor the mining operation and measure the mined out mineral. The entire exercise of Environment Impact Assessment and Environment Management Plan aims towards making the mining process environmentally sustainable. The Environment Clearance letter indicates the EC capacity that is the quantity of material which can be mined in a year. If this quantity is not measured, and much more mineral than envisaged in the EC is mined out then the entire process of EC is rendered futile. Keeping above objective in mind it is required of the State / State Agencies to create and establish a robust system to monitor and measure the mined out mineral at each lease location and its transportation in State.

The State Governments have tried various methods for monitoring the sand mining in their areas, the main feature of which generally has been through Transport Permits (T.P.). The printing of Transport Permits on security paper, invisible ink mark, fugitive ink background, VOID pantograph and Unique Barcode are some of the tools used by the States. These tools need to be backed by suitable software and dedicated websites with security certifications at different levels.

The system proposed is that States should issue Transport Permit. Bar code on the T.P. when scanned using the system, will generate a unique invoice number. The bidder has to enter destination, distance between plot and destination, vehicle number etc in the system. After scanning, unique bar code number; invoice date & time and validity date & time is sent to the bidder, which need to be written on T.P. Validity of T.P. is calculated based on distance between plot and destination. After validity time is over the T.P. stands invalid. The officers involved in monitoring should be provided with the android application using which the T.P. can be checked anywhere on road. As soon as the bar code on T.P. gets scanned through using android application, all details of T.P. such as plot details, vehicle details, validity time etc. should get fetched from server. This means, if anything is re-written on T.P. and attempt is made to reuse the same, it can be traced immediately. Registering of T.P. on server can be done using website, using android application (smartphone with internet) or even through SMS (smartphone without internet). This implies that TP can be registered on server even if only mobile phone range is available on plot. Various reports can be generated using the system showing daily lifting reports and user performance report. This way the vehicles carrying sand can be tracked from source to destination.

MONITORING SYSTEM FOR SUSTAINABLE SAND MINING

PROCEDURE FOR MONITORING OF SAND MINING OR RIVER BED MINING

1. The security feature of Transport Permit shall be as under:

(a) Printed on Indian Banks' Association (IBA) approved Magnetic Ink Character Recognition (MICR) Code paper.

(b) Unique Barcode.

(c) Unique Quick Response (QR) code.

(d) Fugitive Ink Background.

(e) Invisible Ink Mark.

(f) Void Pantograph.

(g) Watermark.

2. Requirement at Mine Lease Site:

(a) Small Size Plot (Up to 5 hectare): Android Based Smart Phone.

(b) Large Size Plots (More than 5 hectare): CCTV camera, Personal Computer (PC), Internet Connection, Power Back up.

(c) Access control of mine lease site.

(d) Arrangement for weight or approximation of weight of mined out mineral on basis of volume of the trailer of vehicle used.

3. Scanning of Transport Permit or Receipt and Uploading on Server:

(a) Website: Scanning of receipt on mining site can be done through barcode scanner and computer using the software;

(b) Android Application: Scanning on mining site can be done using Android Application using smart phone. It will require internet availability on SIM card;

(c) SMS: Transport Permit or Receipt shall be uploaded on server even by sending SMS through mobile. Once Transport Permit or Receipt get uploaded, an unique invoice code gets generated with its validity period.

4. Proposed working of the system:

The State Mining Department should print the Transport Permit or Receipt with security features enumerated at Paragraph 1 above and issue them to the mine lease holder through the District Collector. Once these Transport Permits or Receipts are issued, they would be uploaded on the server against that mine lease area. Each receipt should be preferably with pre-fixed quantity, so the total quantity gets determined for the receipts issued.

When the Transport Permit or Receipt barcode gets scanned and invoice is generated, that particular barcode gets used and its validity time is recorded on the server. So all the details of transporting of mined out material can be captured on the server and the Transport Permit or Receipt cannot be reused.

5. Checking On Route:

The staff deployed for the purpose of checking of vehicles carrying mined mineral should be in a position to check the validity of Transport Permit or Receipt by scanning them using website, Android Application and SMS.

6. Breakdown of Vehicle:

In case the Vehicle breakdown, the validity of Transport Permit or Receipt shall be extended by sending SMS by driver in specific format to report breakdown of vehicle. The server will register this information and register the breakdown. The State can also establish a call centre, which can register breakdowns of such vehicles and extend the validity period. The subsequent restart of the vehicle also should be similarly reported to the server or call centre.

7. Tracking of Vehicles:

The route of vehicle from source to destination can be tracked through the system using check points, RFID Tags, and GPS tracking.

8. Alerts or Report Generation and Action Review:

The system will enable the authorities to develop periodic report on different parameters like daily lifting report, vehicle log or history, lifting against allocation, and total lifting. The system can be used to generate auto mails or SMS. This will enable the District Collector or District Magistrate to get all the relevant details and shall enable the authority to block the scanning facility of any site found to be indulged in irregularity. Whenever any authority intercepts any vehicle transporting illegal sand, it shall get registered on the server and shall be mandatory for the officer to fill in the report on action taken. Every intercepted vehicle shall be tracked.

The monitoring of mined out mineral, environmental clearance conditions and enforcement of Environment Management Plan will be ensured by the DEIAA, SEIAA and the State Pollution Control Board or Committee. The monitoring arrangements envisaged above shall be put in place. The monitoring of enforcement of environmental clearance conditions shall be done by the Central Pollution Control Board, Ministry of Environment, Forest and Climate Change and the agency nominated by the Ministry for the purpose.

ADMINISTRATIVE STRUCTURE FOR ENVIRONMENT CLEARANCE AND ENSURING COMPLIANCE OF EC CONDITIONS

An no mining in allowed without Envirnomental Clearance. The process of EC involves preparation of EIA/EMP, PER and mine plan.

The EIA/EMP can be prepared by the State Government or any agency of the State, group of project proponents in the cluster or the individual project proponent. The EIA / EMP can be prepared by the accredited consultants or the Registered Qualified Person(s) / agencies selected by the States.

DISTRICT ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

The Central Government has constituted the District Level Environment Impact Assessment Authority (DEIAA), for grant of environmental clearance for Category 'B2' Projects for mining of minor minerals, for all the districts in the country.

For, minor minerals including sand and gravel mining lease of area up to 5 hectare in case of individual lease and up to 25 ha in case of cluster for sand mining, the grant of EC will be done by the District Environment Impact Assessment Authority (DEIAA) headed by the District Magistrate or District Collector. This Authority will be responsible for proper and sustainable management of sand mining in the district. The Authority will be responsible for designating the area / stretch in river suitable for mining in the district and also identifying the area / stretch in river prohibited for sand mining. The Authority will ensure clear demarcation of mining site, its documentation, and ensuring that no mining takes place without EIA / EMP and EC of the mining site.

The Chairperson and official members of the Authority for the districts should hold office during their tenure in the district on said posts and the expert member shall hold office for a period of three years from the date of nomination by the Competent Authority. The Committee shall meet at least once in a month.

The District Environment Impact Assessment Authority (DEIAA) :

The DEIAA will have following composition :

1.	District Magistrate or District Collector of the district	Chairperson
2.	Senior most Divisional Forest Officer in the district	Member
3.	An expert member to be nominated by the Divisional Commissioner or Chief Conservator of the Forest	Member
4.	Sub-Divisional Magistrate or Sub-Divisional Officer of the district head quarter	Member-Secretary

DISTRICT LEVEL EXPERT APPRAISAL COMMITTEE:

The District Level Expert Appraisal Committee (DEAC) will appraise the cases and make recommendations to the District Environment Impact Assessment Authority for environmental clearance. This Committee will also make recommendations / suggestions on the District Survey Report to the DEIAA. The DEAC will have following composition:

1.	Senior most Executive Engineer, Irrigation Department	Chairperson
2.	Senior most Sub-Divisional Officer (Forest)	Member
3.	A representative of Remote Sensing Department or Geology Department or State Ground Water Department to be nominated by the District Magistrate or District Collector	Member
4.	Occupational health expert or Medical Officer to be nominated by the District Magistrate or District Collector	Member
5.	Engineer from Zila Parishad	Member
6.	A representative of State Pollution Control Board or Committee	Member
7.	An expert to be nominated by the Divisional Commissioner or Chief Conservator of Forest	Member
8.	An expert to be nominated by the Divisional Commissioner or Chief Conservator of Forest	Member
9.	An expert to be nominated by the Divisional Commissioner or Chief Conservator of Forest	Member
10.	Senior most Assistant Engineer, Public Works Department	Member
11.	Assistant Director or Deputy Director or District Mines Officer or Geologist in the district in that order	Member- Secretary

The DEAC will meet at least once a month, depending on the work load the frequency of meetings can be decided by the Chairperson of DEAC and Chairperson, DEIAA.

Each proposal for the mining lease under consideration for environmental clearance in the district will be inspected on-site by the Sub-Divisional Level Committee headed by the SDM.

The Sub-Divisional Committee should comprise of following officers:

Sub-Divisional Magistrate	Chairperson
Sub-Divisional Officer, Forest/ Assistant Conservator of Forest/ Forest Range Officer	Member
Representative of State Pollution Control Board	Member
SDO, Irrigation Department	Member
Geologist or Assistant Geologist or Mining Officer / Mining Inspector	Member

The presence of at least three members will be needed for inspection. This Committee shall submit its report within 15 days from the receipt of the proposal.

The monitoring of EC conditions and enforcement of EMP will be ensured by the District Collector and the, State Pollution Control Board. The monitoring of enforcement of EC conditions can also be done by the Central Pollution Control Board, Ministry of Environment, Forest & Climate Change and the agency nominated by the Ministry for the purpose.

Schematic Presentation of Requirements on Environmental Clearance of Sand Mining including cluster situation

Area of Lease (Hectare)	Category of Project	Require-ment of EIA / EMP	Require-ment of Public Hearing	Require-ment of EC	Who can prepare EIA/ EMP	Who will apply for EC	Authority to appraise/ grant EC	Authority to monitor EC compliance
EC Proposal of Sand Mining on the basis of individual mine lease								
0 - 5ha	**'B2'**	Form - 1M, PFR and Approved Mine Plan	No	Yes	Project Proponent	Project Proponent	DEAC/ DEIAA	DEIAA SEIAA SPCB CPCB MoEFCC Agency nominated by MoEFCC

> 5 ha and < 25 ha	**'B2'**	Form-I, PFR and Approved Mine Plan and EMP	No	Yes	Project Proponent	Project Proponent	SEAC / SEIAA	DEIAA SEIAA SPCB CPCB MoEFCC Agency nominated by MoEFCC
≥ 25ha and < 50ha	**'B1'**	Yes	Yes	Yes	Project Proponent	Project Proponent	SEAC / SEIAA	
≥ 50 ha	**'A'**	Yes	Yes	Yes	Project Proponent	Project Proponent	SEAC / SEIAA	
EC Proposal of Sand Mining in cluster situation								
Cluster area of mine leases up to 5 ha	**'B2'**	Form - 1M, PFR and Approved Mine Plan	No	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	DEAC/ DEIAA/	DEIAA SEIAA SPCB CPCB MoEFCC Agency nominated by MoEFCC
Cluster area of Mine leases > 5 ha and < 25 ha with no individual lease > 5 ha	**'B2'**	Form -I, PFR and Approved Mine Plan and one EMP for all leases in the Cluster	No	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	DEAC/ DEIAA/	

Cluster of mine leases of area ≥ 25 hectares with individual lease size < 50ha	**'B1'**	Yes	Yes	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	SEAC/ SEIAA	
Cluster of any size with any of the individual lease ≥ 50ha	**'A'**	Yes	Yes	Yes	State, State Agency, Group of Project Proponents, Project Proponent	Project Proponent	EAC/ MoEFCC	

General Conditions will not apply on account of inter- state boundaries for river sand mining leases.

EXEMPTION OF CERTAIN CASES FROM BEING CONSIDERED AS MINING FOR THE PURPOSE OF REQUIREMNT OF ENVIRONMENTAL CLEARANCE

Keeping in view the purpose, maintenance of infrastructure, abatement of disasters, customary easement and property rights, it is felt that following cases may not be treated as mining for the purpose of requirement of environmental clearance. The following cases shall not require prior environmental clearance, namely:-

1. Extraction of ordinary clay or sand, manually, by the Kumhars (Potter) to prepare earthen pots, lamp, toys, etc. as per their customs.
2. Extraction of ordinary clay or sand, manually, by earthen tile makers who prepare earthen tiles.
3. Removal of sand deposits on agricultural field after flood by farmers.
4. Customary extraction of sand and ordinary earth from sources situated in Gram Panchayat for personal use or community work in village.
5. Community works like de-silting of village ponds or tanks, construction of village roads, ponds, bunds undertaken in Mahatama Gandhi National Rural Employment and Guarantee Schemes, other Government sponsored schemes, and community efforts.
6. Dredging and de-silting of dams, reservoirs, weirs, barrages, river, and canals for the purpose of their maintenance, upkeep and disaster management.
7. Traditional occupational work of sand by Vanjara and Oads in Gujarat vide notification number GU/90(16)/MCR-2189(68)/5-CHH, dated the 14th February, 1990 of the Government of Gujarat.
8. Digging of well for irrigation or drinking water.
9. Digging of foundation for buildings not requiring prior environmental clearance.
10. Excavation of ordinary earth or clay for plugging of any breach caused in canal, nala, drain, water body, etc., to deal with any disaster or flood like situation upon orders of District Collector or District Magistrate.
11. Activities declared by State Government under legislations or rules as non- mining activity with concurrence of the Ministry of Environment, Forest and Climate Change, Government of India.

STANDARD ENVIRONMENTAL CONDITIONS FOR SAND MINING

Impact Category	S.No.	Environmental Conditions
Stakeholder Engagement	1	In the case of private land not owned by the lease holder an affidavit should be obtained regarding consent of the concerned land owner (s) for carrying out the mining operation.
	2	Stakeholder awareness and ability to raise concerns and getting it to be addressed.
	3	Implementation of Action Plan on the issues raised during the Public Hearing. The Proponent shall complete all the tasks as per the Action Plan submitted with the budgetary provisions during the Public Hearing.
	4	Having valid lease and all the permits is very much needed.
	5	To establish a Monitoring Committee including Local Panchayat, to check on traffic due to transportation and submit an annual report on the same.
	6	The directions given by the Hon'ble Supreme Court of India vide order dated 27.02.2012 in Deepak Kumar case [SLP(C) Nos. 19628-19629 of 2009] and order dated 05.08.2013 of the Hon'ble National Green Tribunal in application No. 171/2013 may be strictly followed.
	7	All the provisions made and restrictions imposed as covered in the Minor Mineral Rule, shall be complied with, particularly regarding Environment Management Practices and its fund management and Payment of compensation to the land owners.
Sustainable Mining Practices	8	District level Survey Report should be prepared and area suitable for mining and area prohibited for mining be identified.
	9	The depth of mining in Riverbed shall not exceed one meter or water level whichever is less, provided that where the Joint Inspection Committee certifies about excessive deposit or over accumulation of mineral in certain reaches requiring channelization, it can go up to 3 meters on defined reaches of the River.
	10	No River sand mining be allowed in rainy season.
	11	To submit annual replenishment report certified by an authorized agency. In case the replenishment is lower than the approved rate of production,

		then the mining activity / production levels shall be decreased / stopped accordingly till the replenishment is completed.
	12	Ultimate working depth shall be up to 3.0 m from Riverbed level and not less than one meter from the water level of the River channel whichever is reached earlier. In hilly terrain this depth be preferably restricted to one meter.
	13	In River flood plain mining a buffer of 3 meter to be left from the River bank for mining.
	14	In mining from agricultural field a buffer of 3 meter to be left from the adjacent field.
	15	Mining shall be done in layers of 1 meter depth to avoid ponding effect and after first layer is excavated, the process will be repeated for the next layers.
	16	To maintain safety and stability of Riverbanks i.e. 3 meter or 10% of the width of the River whichever is more will be left intact as no mining zone.
	17	No stream should be diverted for the purpose of sand mining. No natural water course and/ or water resources are obstructed due to mining operations.
	18	No blasting shall be resorted to in River mining and without permission at any other place.
	19	Depending upon the location, thickness of sand, deposition, agricultural land/Riverbed, the method of mining may be manual, semi-mechanized or mechanized; however, manual method of mining shall be preferred over any other method.
Identification and Preparation of Mining Site	20	Mining should be done only in area / stretch identified in the District Level Survey Report suitable for mining and so certified by the Sub-Divisional Level Committee after site visit.
	21	Mining should begin only after pucca pillar marking the boundary of lease area is erected at the cost of the lease holder after certification by the mining official and its geo coordinates are made available to the District Level Committee.
	22	The top soil in case of surface land mining shall be stored temporarily in an earmarked site and concurrently used for land reclamation.

Monitoring the Mining of Mineral and its Transportation	23	The EC holder shall keep a correct account of quantity of mineral mined out, dispatched from the mine, mode of transport, registration number of vehicle, person in-charge of vehicle and mine plan. This should be produced before officers of Central Government and State for inspection.
	24	For each mining lease site the access should be controlled in a way that vehicles carrying mineral from that area are tracked and accounted for.
	25	The State / District Level Environment Committee should use technology like Bar Coding, Information and Communications Technology (ICT), Web based and ICT enabled services, mobile SMS App etc. to account for weight of mineral being taken out of the lease area and the number of trucks moving out with the mineral.
	26	There should be regular monitoring of the mining activities in the State to ensure effective compliance of stipulated EC conditions and of the provisions under the Minor Mineral Concessions Rules framed by the State Government.
Noise Management	27	Noise arising out of mining and processing shall be abated and controlled at source to keep within permissible limit.
	28	Restricted working hours. Sand mining operation has to be carried out between 6 am to 7 pm.
Air Pollution and Dust Management	29	The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly.
	30	Air Pollution due to dust, exhaust emission or fumes during mining and processing phase should be controlled and kept in permissible limits specified under environmental laws.
	31	The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Wheel washing facility should be installed and used.
Management of Visual Impact	32	The mining operations are to be done in a systematic manner so that the operations shall create a major visual impact on the site.
Bio-Diversity Protection	33	Restoration of flora affected by mining should be done immediately. Twice the number of trees destroyed by mining to be planted preferably of indigenous species. Each EC holder should plant and maintain for lease period at least 5 trees per hectare in area near lease.
	34	No mining lease shall be granted in the forest area without forest clearance in accordance with the provisions of the Forest Conservation Act, 1980 and the rules made thereunder.

	35	Protection of turtle and bird habitats shall be ensured.
	36	No felling of tree near quarry is allowed. For mining lease within 10km of the National Park / Sanctuary or in Eco-Sensitive Zone of the Protected Area, recommendation of Standing Committee of National Board of Wild Life (NBWL) have to be obtained as per the Hon'ble Supreme Court order in I.A. No. 460 of 2004.
	37	Spring sources should not be affected due to mining activities. Necessary Protection measures are to be incorporated.
Management of Instability and Erosion	38	Removal, stacking and utilization of top soil in mining are should be ensured. Where top soil cannot be used concurrently, it shall be stored separately for future use keeping in view that the bacterial organism should not die and should be spread nearby area.
	39	The EC should stipulate conditions for adequate steps to check soil erosion and control debris flow etc. by constructing engineering structures
	40	Use of oversize material to control erosion and movement of sediments
	41	No overhangs shall be allowed to be formed due to mining and mining shall not be allowed in area where subsidence of rocks is likely to occur due to steep angle of slope.
	42	No extraction of stone / boulder / sand in landslide prone areas.
	43	Controlled clearance of riparian vegetation to be undertaken
Waste Management	44	Site clearance and tidiness is very much needed to have less visual impact of mining.
	45	Dumping of waste shall be done in earmarked places as approved in Mining Plan.
	46	Rubbish burial shall not be done in the Rivers.
Pollution Prevention	47	The EC holder shall take all possible precautions for the protection of environment and control of pollution.
	48	Effluent discharge should be kept to the minimum and it should meet the standards prescribed.
Protection of Infrastructure	49	Mining shall not be undertaken in a mining lease located in 200-500 meter of bridge, 200 meter upstream and downstream of water supply / irrigation scheme, 100 meters from the edge of National Highway and railway line, 50 meters from a reservoir, canal or building, 25 meter from the edge of State Highway and 10 meters from the edge of other

		roads except on special exemption by the Sub-Divisional level Joint Inspection Committee.
	50	For carrying out mining in proximity to any bridge or embankment, appropriate safety zone (not less than 200 meters) should be worked out on case to case basis, taking into account the structural parameters, location aspects and flow rate, and no mining should be carried out in the safety zone so worked out.
	51	Mining activities shall not be done for mine lease where mining can cause danger to site of flood protection works, places of cultural, religious, historical, and archeological importance.
Enhancement Road Safety	52	Vehicles used for transportation of sand are to be permitted only with **of** fitness and PUC Certificates.
	53	Junction at takeoff point of approach road with main road be properly developed with proper width and geometry required for safe movement of traffic by concession holder at his own cost.
	54	Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guideliness with respect to complying with traffic congestion and density.
	55	No stacking allowed on road side along National Highways.
Closure and Reclamation of Mined Out Area	56	The Project Proponent shall undertake phased restoration, reclamation and rehabilitation of land affected by mining and completes this work before abandonment of mine.
	57	Restoration, reclamation and rehabilitation in cluster should be done systematically and jointly by each EC holder in that cluster. This should be appropriately reflected as EC condition in each EC in cluster.
	58	Site specific plan with eco-restoration should be in place and implemented.
Health and Safety	59	Health and safety of workers should be taken care of.
	60	Transport of mineral will not be done through villages / habitations.
	61	The Project Proponent shall make arrangement for drinking water, first aid facility (along with species specific anti-venom provisioning) in case of emergency for the workers.

	62	Project Proponent shall implement the Disaster Management Plan if the mine lease area is located in Seismic Zone-IV. Project Proponent shall appoint a Committee to have a check over any disaster to warn workers well before for the safety of the workers. Emergency helpline number will be displayed at all levels.
	63	Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers would also be adopted.
Monitoring the Impact of Mining	64	The Project Proponent shall report monitoring data on replenishment, traffic management, levels of production, River Bank erosion and maintenance of Road etc.
Mineral Conservation	65	Use of alternate material such as M-sand in place of natural River sand shall be encouraged in order to reduce stress on natural eco-system.

APPENDIX: TABLE - 1

REVENUE FROM SAND MINING IN STATES / UTs

(Rs. in crores)

Sl.No.	STATE / U.T	2012 - 2013	2013 - 2014	2014 - 2015
01	Andaman & Nicobar	0.073	0	0
02	Arunachal Pradesh	7	8	5
03	National Capital Territory of Delhi	0	0	
04	Himachal Pradesh	0.70	0.35	0.07
05	Jharkhand	4.25	3.04	0.07
06	Karnataka	23.74	15.33	25.99
07	Madhya Pradesh	184.93	179.41	172.53
08	Meghalaya	14.50	15.88	15.50 (as forest royalty from govt. contractors)
09	Mizoram	0.018	0.0475	0.0861
10	Puducherry	0.80	0.20	0.03
11	Rajasthan	173.36	252.06	134
12	Tamil Nadu	188.50	117.73	109.10
13	Uttar Pradesh	97.27	166.45	168.38

* States/UTs not mentioned have not provided the data.

APPENDIX: TABLE - 2

NUMBER OF MINING LEASES IN STATE

Sl.No.	STATE / U.T	In stream	Flood Plain	Sea Shore	Agricul-tural field	River	Total
01	Andaman & Nicobar						Nil
02	Andhra Pradesh						Nil
03	Haryana	5	12		7		31
04	Jammu & Kashmir					650	650
05	Jharkhand	10				387	397
06	Lakshadweep					1090	1090
07	Manipur						NIL
08	Meghalaya						NIL
09	Odisha						NIL
10	Punjab	2 + 80 Temporary Working Permit				73	155
11	Sikkim		85				85
12	Tripura	21	244		5		270

* States/UTs not mentioned have not provided the data.

APPENDIX: TABLE - 3

AVERAGE SIZE OF SAND MINING LEASES IN STATE / UT: 2014-15

(In Hectare)

Sl.No.	STATE / U.T	AVERAGE SIZE	SMALLEST MINING LEASE AREA	LARGEST MINING LEASE AREA
01	Andaman & Nicobar	NOT APPLICABLE		
02	Arunachal Pradesh	ONLY MINING PERMITS		
03	Himachal Pradesh	1.20	0.25	4.09
04	Jharkhand	0.25	0.13	87.38
05	Karnataka	5	5	19.42
06	Madhya Pradesh	8.52	0.30	306.98
07	Meghalaya	Mostly < 1.5 ha.		
08	Mizoram	NA		
09	Puducherry	NA		
10	Rajasthan	2 5 in Bikaner	24.82 2 in Bikaner	1901.89 5 in Bikaner
11	Tamil Nadu	29 leases < 10 ha.	14 leases of 10 - 15 ha.	42 leases > 15 ha.
12	Uttar Pradesh	25	5	200

* States/UTs not mentioned have not provided the data.

APPENDIX: TABLE - 4

AVERAGE PERIOD OF SAND MINING LEASES IN STATE / UT

(In Hectare)

Sl.No.	STATE / U.T	AVERAGE MINING LEASE PERIOD (YEARS)
01	Andaman & Nicobar	Not Applicable
02	Arunachal Pradesh	Only mining permit is given
03	Himachal Pradesh	5
04	Jharkhand	3
05	Karnataka	2
06	Madhya Pradesh	5 to 10
07	Meghalaya	No lease in operation currently
08	Mizoram	No mining lease in operation currently
09	Puducherry	One year permit
10	Rajasthan	5 20-30 years in Bikaner
11	Tamil Nadu	3
12	Uttar Pradesh	3

* States/UTs not mentioned have not provided the data.

APPENDIX: TABLE - 5

COMMON METHOD AND PRACTICE OF SAND MINING IN STATE / UT

Sl.No.	STATE / U.T	COMMON METHOD AND PRACTICE OF SAND MINING
01	Andaman & Nicobar	1. The Apex Court in its order dated 7.5.2002 in I.A. No. 502 in WP (C) No. 202 of 1995, had directed that extraction of sand be phased out @ minimum 20% per year on reducing balance basis to bring the sand mining to a level of 33% of the present level of mining within a maximum period of five years. 2. Since the level of extraction of sand in the territory in the year 2001-02 i.e. the base year, was 68909 cubic meter, the quantity of extractable sand is fixed at 22581 cubic meter. 3. The quantity of sea sand so allowed by MoEF is extracted from the identified and approved sites having such deposits on the sea beaches (identified accreting area) with adequate environmental safeguards so as to prevent any damage to the sensitive coastal eco-system including corals, turtle/ bird nesting sites and the protected areas. 4. The allotment of sea sand is made to the individuals by the Sand Allotment Committee constituted by the Lieutenant Governor under the Chairmanship of Chief Secretary who also heads the A&N CZMA. The quantum of sea sand allotted is fixed by the Committee on the basis of availability of sea sand and the number of applicants (local) applied for their bonafide use.
02	Arunachal Pradesh	1. Mining of sand restricted to foothills only that too for a very short period. Grant of mining lease is kept in abeyance, short term mining permits are issued to various Central and State agencies for carrying out developmental works under the strict supervision of the departmental officers.

* States/UTs not mentioned have not provided the data.

Sl.No.	STATE / U.T	COMMON METHOD AND PRACTICE OF SAND MINING
03	Himachal Pradesh	Manual. The mining lease areas are sanctioned on the river bed if the area is approved in survey document. The mining activities are allowed strictly in accordance with the approved working cum Environment Management Plan and after the environment clearance.
04	Jharkhand	Manual
05	Karnataka	Manual
06	Madhya Pradesh	Manual
07	Meghalaya	Hill quarrying in private areas
08	Mizoram	Extraction of sand limited mainly for domestic purpose in the state. The produce extracted illegally is seized as per the Mizoram Forest Act, 1955. Mining is only limited to river banks and riverbeds with improvised equipments like spade, shovel, small canoes, etc.
09	Puducherry	Manual
10	Rajasthan	In Rajasthan sand is available in seasonal streams and rivers except Chambal which is perennial but mining is banned because of Chambal Crocodile Sanctuary. Mining is done up to 3 meters and is open cast. It is filled in trucks either manually or semi mechanized method. In Bikaner no river exists and mining for sand is being done from palaeo-channel. In this palaeo-channel the sand deposit occurs at the depth of 5 meter to 20 meter below ground level with an over burden of 5 to 20 meters. The mining here is done open cast benching method, where overlying blown sand, gravel, pebble etc. is removed, the sand is further sieved, graded and washed upto 12 to 18 mesh size.
11	Tamil Nadu	Manual mining is carried out in certain quarries. In most of the sand quarries two poclains are used by the PWD.
12	Uttar Pradesh	Manual and Semi-mechanised

* States/UTs not mentioned have not provided the data.

APPENDIX: TABLE - 6

SUGGESTIONS / RECOMMENDATIONS FROM STATES / UTs FOR ENVIRONMENTALLY SUSTAINABLE SAND MINING

Sl.No.	STATE / U.T	SUGGESTIONS / RECOMMENDATIONS FOR ENVIRONMENTALLY SUSTAINABLE SAND MINING
01	Andaman & Nicobar	The quantum of extractable sand fixed at 22581 cubic meter should be enhanced. This limit has been fixed by the orders of Hon'ble Supreme Court subject to study by National Institute of Oceanography.
02	Arunachal Pradesh	1. For environmentally sustainable sand mining a strict and comprehensive sand mining policy need to be framed.
		2. River sand is becoming a scarce commodity and hence exploring alternative to it has become imminent. Manufactured sand is a good alternative both for fine as well as coarse sand used in concrete.
		3. Sand mining should be restricted to surface collection only without the use of heavy machinery.
		4. Due to turbulent and inaccessible nature of rivers flowing in the hilly terrains of the state, deposition of the sand in the river bed is very negligible and except for few quarries in the foothills and plains, most of the notified quarries are boulders and mining of sand is very negligible.
		5. In view of environment related issues the grant of mining lease for river bed minor mineral viz. sand, gravel, shingle, aggregate, boulder are kept in abeyance and extraction of these minerals is regulated only by grant of mining permits, that too not exceeding 3000 cubic meter in one permit.
		6. For scientific mining of sand and other minor minerals Guideliness has been prepared and accordingly Geo-Technical Committee has been constituted under the chairmanship of ADC/SDO in the district level to determine the quantity of quarriable mineral that can be safely removed and also to give technical clearance for notification of quarries of smaller size, preferably within one hectare.
03	Chhattisgarh	1. While attempting to prepare a model Guidelines / policy for the country, the differences that exist in different states may be taken into account. It may be tried to take all stakeholders along.

* States/UTs not mentioned have not provided the data.

Sl.No.	STATE / U.T	SUGGESTIONS / RECOMMENDATIONS FOR ENVIRONMENTALLY SUSTAINABLE SAND MINING
		2. To ease the process of EC granting, SEIAA may have benches across the State with each bench having a SEAC under it. Time bound clearance with ease of access and grant.
		3. Sand mining with use of machinery should be allowed.
		4. Road construction material like murram should be exempted from EC considering their local / pocket occurrences and impossibility of obtaining EC.
		5. Considering the traffic issue at urban areas and to reduce intermediaries like storage point dealers, night mining with adequate lighting should be allowed.
		6. To make the availability of sand from local rivulet / streams the river bank to in-stream mine area distance should be reduced from 10 meter to 3 meters.
04	NCT of Delhi	1. Location of sand mining should be identified by a committee comprising of revenue deptt., Irrigation Deptt., CGWB, SPCB, Forest Department and mining department. Mining area should distinctly be marked at site, before allowing mining.
		2. Depth of mining should be restricted to 3 mtrs or water level, whichever is less and that to from aggradation areas. The side slope of excavation should be less than 3:1.
		3. Requirement of sand and gravel should be reduced by utilization of construction and demolition waste. It requires not only legislative support but also awareness campaign among the society.
		4. Guidelines should be distinctly clear and easy to understand covring do's and don't during mining operation.
		5. Sufficient safe distance should be left between mining site and adjoining engineering structures like embankment, spurs, bed bars, bridges, reservoir and regulator etc.
		6. Security amount should be sufficient enough to compel the agency to carry out rehabilitation, corrective measures and to ensure strict compliance of conditions of lease. S.D. should be released after inspection of committee and recording of certificate that agency complied with the lease conditions.
		7. Mining may be carried out by state agency instead of private agaencies.

* States/UTs not mentioned have not provided the data.

Sl.No.	STATE / U.T	SUGGESTIONS / RECOMMENDATIONS FOR ENVIRONMENTALLY SUSTAINABLE SAND MINING
05	Himachal Pradesh	1. Working cum Environment Management Plan has been made mandatory. The mining activities are allowed after submission of environment clearance.
		2. In compliance of order of Hon'ble Supreme Court dated 27.02.2012 in Deepak Kumar case, the Himachal Pradesh has repealed its rules called the Himachal Pradesh Minor Mineral (Concession) and Mineral (Prevention of illegal mining, transportation and Storage) Rule, 2015 in accordance to the recommendation of the Ministry of Environment & Forest and rules circulated by the Ministry of Mines. Hence the State of Himachal Pradesh has complied with the above directions of the Hon'ble Apex Court,
		3. Therefore the condition of applicability of Environment Clearance on the area less than 5 hectare shall be exempted.
		4. Further keeping in view, the peculiar topography, geography and socio-economic fabric of the State, the condition for the minimum size of the lease should be exempted as the rivers are in youth stage forming different land forms, land holdings are less, population is thin and scattered and the demand of minor mineral is limited, which could be met out locally by exploiting local resources on the small scale.
06	Jammu & Kashmir	1. Uniform Guidelines be framed for sand mining and river bed mining as they cannot be segregated.
		2. Identification of sand belts be made in consultation with CGWB and while framing Guideliness CGWB may be taken on board.
		3. Sand mining leases less than 5 hectare be exempted from EC and comprehensive policy may be made for hilly states for easing the process of grant of lease.
07	Jharkhand	1. Machine should not be used in sand mining. Only manual mining should be done.
		2. The depth of mining shall be restricted to 3 meter / water level whichever is less.
		3. No mining should be carried out in proximity of any bridge / embankment.
		4. In-stream mining should not be allowed.
		5. Mining should be done in accordance with an approved mining plan.

* States/UTs not mentioned have not provided the data.

Sl.No.	STATE / U.T	SUGGESTIONS / RECOMMENDATIONS FOR ENVIRONMENTALLY SUSTAINABLE SAND MINING
		6. EC should be valid for settlement period subject to ceiling of five years.
08	Karnataka	1. Undertaking sand mining activity through a Government agency to be governed by District Level Sand Monitoring Committee headed by Deputy Commissioner.
		2. The area should be properly surveyed and mapped with the help of GPS to assign geo coordinates and accordingly erect boundary pillars so as to avoid illegal and unscientific mining.
		3. Depth of sand available may be indicated in a contour map using suitable drilled holes to ensure sand mining do not exceed one meter depth.
		4. Once thickness is established sand mining may be permitted to one meter depth where the thickness of sand is more than three meter deep. If the thickness of sand is less than three meter, sand mining shall not be permitted.
		5. Sufficient spacing shall be ensured from one block to another block and sufficient time gap shall be provided for replenishment before undertaking mining activity in the same block.
		6. Mining activity shall be restricted to only non-monsoon season and in the area that is exposed.
		7. No in-stream mining shall be permitted.
		8. No stream should be diverted for the purpose of sand mining. No natural water course and/ or water resources are obstructed due to mining operations.
		9. Site specific plan with eco-restoration should be in place.
		10. Sand mining shall be undertaken only by manual method without use of earth moving equipment such as JCB etc. Use of mechanized boats for sucking sand from in-stream area shall be strictly prohibited.
		11. Appropriate safety zones shall be maintained in proximity to any bridge / and / or embankment and other permanent structures. No sand mining shall be undertaken in such safety / buffer zones. Guideliness issued by the Ministry of Mines in this regard shall also be adhered to.
		12. The quarrying activity shall not intersect subterranean water level and ground water table.

* States/UTs not mentioned have not provided the data.

Sl.No.	STATE / U.T	SUGGESTIONS / RECOMMENDATIONS FOR ENVIRONMENTALLY SUSTAINABLE SAND MINING
		13. The top soil in case of surface land mining shall be stored temporarily in an earmarked site and concurrently used for land reclamation.
		14. Use of alternate material such as M-sand in place of natural river sand shall be encouraged in order to reduce stress on natural eco-system.
09	Madhya Pradesh	1. Geographical location of the state should be taken care of.
		2. Keep provision for extraction of sand from forest areas.
		3. Expedite the EC process.
		4. In inter-state boundary leases sand mining EC be giver by the SEIAA.
		5. Clear Guidelines for B-1, B2 be issued.
		6. Simplify cluster cases.
		7. Exempt mining leases of less than 5 hectare from EC.
10	Meghalaya	1. No sand mining within 3 kilometer from Protected area and Reserved Forest area.
		2. Advance royalty etc for entire quantity of mineral be realized in full.
		3. Only loose boulder and sand are allowed to be removed from the mid river stream leaving 15 meter on either side untouched.
		4. No collection of sand is allowed on 15 meter of either side of structures like bridge, culvert etc.
		5. No blasting allowed.
		6. No extraction of stone / boulder / sand in landslide prone areas.
		7. No stacking allowed on road side along national highways.
		8. No felling of tree near quarry is allowed.
		9. No transportation of forest produce (sand from forest area) is allowed after sunset.
		10. Export fee realized if sand is sent outside the state.
		11. Stone crusher cannot be installed without permission of DFO.
		12. Tree should be planted at quarry after completion of mining.
		13. Violation of above conditions will result in cancellation of permit and forfeiture of advance royalty already paid.
11	Mizoram	1. Extraction of sand from the forest may be permitted strictly as per mining plan approved by the Competent Authority and after getting necessary clearance under various acts related to the forest and environment.

* States/UTs not mentioned have not provided the data.

Sl.No.	STATE / U.T	SUGGESTIONS / RECOMMENDATIONS FOR ENVIRONMENTALLY SUSTAINABLE SAND MINING
12	Odisha	1. EC may be exempted for leases less than 5 hectare.
		2. EC should not be required for earth mining.
		3. Minor minerals even close to inter-state borders should be allowed to be cleared by the SEIAA.
		4. In case a river is forming boundary of states and mechanized mining of sand is causing tension in states it should be resolved at the national level.
13	Puducherry	1. Environment Clearance is issued by SEIAA, Puducherry strictly under the provisions of the EIA Notification, 2006 and subsequent amendments.
14	Rajasthan	1. The bajari mined out from river bed is filled back by the river itself during the next rainy season. So, nature itself reclaims the mined out area every year. The formation of bajari is a natural process in the river and it is also essential to remove bajari from the river bed to avoid silting. If the sand deposited in the river bed is not removed, it may cause change of river course and may also results in flood plains will be developed.
		2. Price control system adopted in Rajasthan. Sand is a essential commodity.
		3. The depth of mining should be restricted to 3 meters or above water table.
		4. Machinery having boom height more than 3 meter shall not be allowed in extraction of bajari.
		5. Size of mining leases be allowed below 5 hectare.
		6. In streams with low deposit of sand and if use is mostly local no mechanized mining should be allowed and EC should not be required.
		7. In larger deposits there should be semi-mechanised mining with EC.
		8. The sand (river and stream) in different categories, with their availability, use and size of the deposit. **Category A:** Small deposits in river and stream where thickness of sand bed is very less and sand is used locally in villages and towns only and no mechanical mining is done, in such areas restriction of obtaining Environment Clearance can be relaxed for manual mining.

* States/UTs not mentioned have not provided the data.

Sl.No.	STATE / U.T	SUGGESTIONS / RECOMMENDATIONS FOR ENVIRONMENTALLY SUSTAINABLE SAND MINING
		Category B: Large deposits, where in rivers and streams having thickness of sand bed is medium to large, sand mining, shall be allowed with semi mechanized manner after obtaining Environment Clearance. **Bikaner District:** Bikaner district is a desert terrain where ground water table is very deep. Bajari is excavated above water table and it does not affect the water table. In addition to this boulder, gravel and waste generated due to bajari mining is used in reclamation of pits. Hence environment is not adversely affected due to bajari mining.
15	Sikkim	1. Forest department is the nodal department for sand and stone extraction from the riverbed.
		2. Use of machines is prohibited.
		3. Quarrying sites are allotted to village youth cooperatives.
		4. For bigger companies quarry sites in forest area are allotted after FC.
		5. State Government has considerations for allotment of quarries for Border Road Organization and MoD.
		6. GoI can monitor mining in states through GIS.
16	Tamil Nadu	1. Excess sand deposits identified in the flood plains and in-stream areas only to be mined in order to safeguard and maintain ground water table.
		2. Sand mining operation has to be carried out between 6 am to 7 pm.
		3. Mining operation should be carried out in a systematic manner without affecting environment and ecology of the area.
17	Uttar Pradesh	1. Depth of mining cannot be more than 3 meter or water table whichever is less.
		2. Mining can be done in slices forming benches where bench height cannot be more than 1 meter and bench width cannot be less than 10 meter.
		3. A width of not less than 50 meter or 10% width of river can be restricted for mining activities from river bank. A condition can be imposed that mining will be done from river activities from river bank.
		4. SEIAA should be decentralized to expedite EC process. It can be decentralized to district or zonal level.

* States/UTs not mentioned have not provided the data.

Sl.No.	STATE / U.T	SUGGESTIONS / RECOMMENDATIONS FOR ENVIRONMENTALLY SUSTAINABLE SAND MINING
		5. Make EC conditions practical.
		6. Requirement of mining plan in river bed mining be done away with.
		7. There should not be requirement of EC for short term permit.
		8. The quantity of sand should not be fixed in EC as it leads to loss in revenue and illegal mining.
		9. Semi-mechanised form of sand mining be allowed.
		10. Sand mining to be exempted from EC as it takes 6-8 months and environment department do not have requisite work force to enforce EC conditions. A Guidelines for environmentally sustainable sand mining be framed and it can be complied by imposing it in the lease condition.
18	Uttarakhand	1. Area less than 5 hectare be exempted from EC.
		2. Use of machine be allowed for scientific mining and reducing the cost of production.
		3. RBM deposition in the lease should not be fixed for the entire lease period. RBM in lease area be assessed after rains every year.
		4. 70% of leases in state not operating for want of EC and these vacant lots are source of illegal mining.

* States/UTs not mentioned have not provided the data.

APPENDIX: TABLE - 7

BEST PRACTICE OF SAND MINING ADOPTED IN DISTRICT / STATE / UT

Sl.No.	STATE / U.T	DESCRIPTION OF BEST PRACTICES
01	Andaman & Nicobar	Institute of Ocean Management has been entrusted the task of identification of sand accreting sites.
02	Arunachal Pradesh	Mining of sand is restricted to foothills only that too for a very short period.
03	National Capital Territory of Delhi	In Delhi sand mining lease is granted by Revenue department. NOC from I&FC Deptt. Were issued with condition of limitation of depth, area of mining, operation timing limitation and limited period of NOC. Compliance of laid down conditions and monitoring is ensured by collector.
04	Himachal Pradesh	1. The mining activities on river beds are allowed strictly as per the provisions of river / stream bed mining policy as under.
		2. No river / stream bed mining shall be allowed without the recommendation of the Sub Divisional Level Committee constituted under the Chairmanship of Sub Divisional Magistrate having XEN PWD, Irrigation and Public Health, SPCB, DFO and Mining Officer as its member.
		3. Nor river / stream bed mining shall be allowed within 75 meter from the periphery of soil conservation works, nursery plantations, check dams or within the distance as recommended by the Sub-Divisional Committee whichever is more.
		4. No river / stream bed mining shall be allowed within 1/10th of its span or 5 meters from the banks or as specified by the Sub-Divisional Level Committee, whichever is more.
		5. Nor river / stream bed mining shall be allowed within 200 meters upstream and downstream of water supply scheme or as specified by the Committee whichever is more.
		6. Nor river / stream bed mining shall be allowed within 200 meters upstream and 200 to 500 meters downstream of bridges depending upon the site specific conditions.

* States/UTs not mentioned have not provided the data.

Sl.No.	STATE / U.T	DESCRIPTION OF BEST PRACTICES
		7. No approach road from PWD road shall be allowed to lease area unless lessee / contractor obtains written permission from XEN, PWD for making road leading to all intake places from the PWD road. 8. No boulders/ cobbles/ hand broken road ballast shall be allowed to be transported outside the State from river/stream beds. 9. No digging for more than 3 feet shall be allowed in river/ stream beds. 10. No blasting shall be allowed in river/stream beds.
05	Madhya Pradesh	1. In some districts the Cooperative Societies of Labour are doing the sand collection, loading and unloading work.
06	Tamil Nadu	Permission has been granted in favour of PWD for quarrying sand in the river Poramboke lands in 16 districts in the state of Tamil Nadu. Sand mining is being carried out by the PWD in the entire State.
07	Uttar Pradesh	U.P. Minor Mineral Concession Rules, 1963.

* States/UTs not mentioned have not provided the data.

APPENDIX: TABLE - 8

STATUS OF PROMULGATION OF RULE ON SAND MINING IN THE STATE / UT

Sl.No.	STATE / U.T	NAME OF RULE WITH YEAR OF PROMULGATION
01	Andaman & Nicobar	Indian Forest Act, 1927 as sand has been included as forest produce.
02	Arunachal Pradesh	APMMCR 2002 and made effective from 1.01.2003
03	Himachal Pradesh	1. River/Stream bed Mining Policy-2004.
		2. Himachal Pradesh Minor Mineral Policy-2013.
		3. Himachal Pradesh Minor Mineral (Concession) and Mineral (Prevention of illegal mining, transportation and storage) Rule, 2015.
04	Jharkhand	Rule 12 of Jharkhand Minor Mineral Concession (Amendment) Rule 2014.
05	Karnataka	Karnataka Sand Policy was brought out in the year 2011 and as such amendment to the Karnataka Minor Mineral Concession Rule 1994 were made in the year 2011 and a separate chapter IV B for sand mining was introduced under Rule 31-R. Further, as per the Hon'ble Supreme Court orders sated 27.02.2012 in SLP No. 19628-19629 between Deepak Kumar and State of Haryana and others and as per the model Guideliness issued by the Government of India for Environmental Management of Mining of Minor Minerals, amendment to the Karnataka Minor Mineral Concessions Rule 1994 were brought out on 16.12.2013 incorporating a new chapter II A applicable to all minor minerals on Systematic, Scientific Mining and Protection of Environment, wherein Quarrying Plan, Environmental Management Plan and Environment Clearance was made mandatory. Amendments to Rule 31- R were also made wherein the Government, PWD Department was entrusted with sand mining, storage and transportation, under the District Sand Monitoring Committee and Taluk Sand Monitoring Committee.
06	Madhya Pradesh	Rules have been framed as per the orders of Hon'ble Supreme Court for sand mining under M.P. Minor Mineral Rules 1996 and Sand Mining Policy 2015 is also formulated in the State.

* States/UTs not mentioned have not provided the data.

Sl.No.	STATE / U.T	NAME OF RULE WITH YEAR OF PROMULGATION
07	Meghalaya	No rules notified by the state on sand mining
08	Mizoram	Mizoram Forest Act, 1955, which came into force on 1.01.1956.
09	Puducherry	Puducherry Minor Minerals (Concession) Rules, 1977.
10	Rajasthan	RMMCR, 1986 Notification dated 2.11.2012: 1. First proviso of Rule 8(2) and first proviso of 17 (1) - Renewal of Bajari Mining Leases is not allowed. 2. Rule 16 (3) - Mining Leases of Bajari to be granted for 5 years. 3. Rule 18 (18) - Part surrender of lease area of Bajari not allowed. Notification dated 3.4.2013 - (First proviso Rule 7 (1)- Mining leases of Bajari to be granted only by way of tender or auction. Notification dated 12.07.2013 - (First proviso Rule 11 (2)) - Maximum area limit of 10 sq. km. not applicable for Bajari Mining Leases. Bikaner District: Chapter II of RMMCR, 1986 (last amended 12.07.2013).
11	Sikkim	Sikkim Forest (Allotment of Areas for Quarrying of Sand and Stone), 2006.
12	Tamil Nadu	1. As per G.O. Ms. No. 95 Industries (MMCI) Department dated 1.10.2003, a new Rule 38 A has been introduced in the Tamil Nadu Minor Mineral Concession Rules, 1959. Accordingly quarrying and sale of sand is being carried out by PWD in the state of Tamil Nadu since October 2003. 2. As per G.O. Ms. No. 158 Industries (MMIC) Department dated 25.08.2008, a new Rule 38 B has been introduced in the Tamil Nadu Minor Mineral Concession Rules, 1959. Accordingly transportation of sand outside the state not to be made. To regulate storage and transportation of sand a new Rule 38 C B has been introduced in the Tamil Nadu Minor Mineral Concession Rules, 1959 vide G.O. No. 32 Industries (MMIC) Department dated 11.02.2011.

* States/UTs not mentioned have not provided the data.

APPENDIX: TABLE -9

NORMAL DATES OF ONSET AND WITHDRAWAL OF SOUTH-WEST MONSOON

The India Meteorological Department, Nagpur, vide letter No. NAGPUR RMC /CS-312, dated 18th January,2016 has provided the period of Rainy Season viz. Normal dates of Onset and Withdrawal of Southwest Monsoon over India as state-wise and union territory- wise which are as below:-

States	Normal date of Onset of SW-Monsoon	Normal date of Withdrawal of SW-Monsoon
Andhra Pradesh	1st June	15th October
Arunachal Pradesh	5th June	15th October
Assam	5th June	15th October
Bihar	10th June	15th October
Chhattisgarh	10th June	15th October
Goa	5th June	15th October
Gujarat	15th June	15th September
Haryana	1st July	15th September
Himachal Pradesh	1st July	15th September
Jammu & Kashmir	1st July	15th September
Jharkhand	10th June	15th October
Karnataka	5th June	15th October
Kerala	1st June	15th October
Madhya Pradesh	15th June	1st October
Maharashtra	10th June	1st October
Manipur	1st June	15th October
Meghalaya	1st June	15th October
Mizoram	1st June	15th October
Nagaland	5th June	15th October
Odisha (Orissa)	5th June	15th October
Punjab	1st July	15th September
Rajasthan	1st July	1st September
Sikkim	5th June	15th October
Tamil Nadu	1st June	15th October
Telangana	5th June	15th October
Tripura	1st June	15th October

States	Normal date of Onset of SW-Monsoon	Normal date of Withdrawal of SW-Monsoon
Uttar Pradesh	15th June	1st October
Uttarakhand	15th June	1st October
West Bengal	10th June	15th October
Union territory	**Normal date of Onset of SW-Monsoon**	**Normal date of Withdrawal of SW-Monsoon**
Andaman and Nicobar Islands	20th May	15th October
Dadra and Nagar Haveli	10th June	1st October
Daman and Diu	10th June	1st October
Lakshadweep	1st June	15th October
Delhi	1st July	15th September
Puducherry	1st June	15th October

Note: The District Environment Impact Assessment Authority (DEIAA) in consultation with District Expert Appraisal Committee (DEAC) can make necessary changes as per local meteorological variations in this period of rainy season with respect to prohibition of River Sand Mining in the District.

ENSURING SUSTAINABLE SAND MINING FOR SUSTAINABLE DEVELOPMENT

A Major Initiative of Ministry of Environment, Forest and Climate Change for ensuring Environmentally Sustainable Sand Mining and Prevention of illegal Sand Mining.

{Notification No: SO No. 141 (E) dated 15.01.2016 and S.O. No. 190 (E) dated 20.01.2016 available at www.envfor.nic.in}

- Use of Satellite imagery to decide the site suitable for mining and quantity of sand which can be mined.
- Transit permit with tamper proof security features and tracking of mined out mineral.
- Monitoring of mined out mineral to prevent mining in excess of environmental clearance capacity.

- Delegation of power to grant environmental clearance for sand mining to an authority headed by District Magistrate.

- Intergration of power with District Authorities to grant environmental clearance and prevent illegal mining.



Note : Any information of mining without environmental clearance or against the norms prescribed in these notifications be reported at e-mail id: sandmining-moef@gov.in

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2017 SCC OnLine NGT 979

National Green Tribunal
Principal Bench, New Delhi

(BEFORE SWATANTER KUMAR, CHAIRPERSON, JAWAD RAHIM, JUDICIAL MEMBER AND BIKRAM SINGH SAJWAN, EXPERT MEMBER)

In the Matter of:

Anjani Kumar S/o Shivdeo Prasad Singh R/o 23/24 Rohtas Enclave Ravindra Palli Faizabad Road Lucknow-226016 ... Applicant;

Versus

1. State of Uttar Pradesh Through Additional Chief Secretary Department of Geology & Mining Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
2. State of Uttar Pradesh Through Additional Chief Secretary Department of Environment & Forest UP Secretariat Lucknow-226001 (UP)
3. Department of Environment, U. P Through its Principal Secretary Government of Uttar Pradesh Lucknow (UP)
4. Department of Mining & Geology, UP Through its Principal Secretary Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
5. Directorate of Geology & Mining, UP Through its Director Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
6. Ministry of Environment, Forest & Climate Change Through its Secretary Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003
7. The District Collector (Mining Section), Collectorate District Jhansi (U.P.) 284135
8. The District Collector (Mining Section), Collectorate District Jaloun (U.P.)
9. The District Collector (Mining Section), Collectorate District Unnao (U.P.)
10. The District Collector (Mining Section), Collectorate District Hamirpur (U.P.)
11. The District Collector (Mining Section), Collectorate District Sonbhadra (U.P.)
12. The District Collector (Mining Section), Collectorate District Fatehpur (U.P.)
13. The District Collector (Mining Section), Collectorate District Kanpur Dehat (U.P.)
14. The District Collector (Mining Section), Collectorate District Gonda (U.P.) ... Respondents.

And

Ram Pal Singh S/o Kishun Prasad R/o 297, Chikasi, Hamirpur-210430 Uttar pradesh ... Applicant;

Versus

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1. Ministry of Environment, Forest & Climate Change Through its Secretary Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003
2. Govt. of Uttar Pradesh Through Prinicpal Secretary, Environment Room NO. 601, Bapu Bhawan, Secretariat, Vidhan Sabha Marg, Lucknow-226001 Uttar Pradesh
3. Department of Mining & Geology, State of U.P. Through its Additional Chief Secretary Civil Secretariat Lucknow-226001 Uttar Pradesh
4. The District Collector (Mining Section), Collectorate District Hamirpur-127001 Uttar Pradesh
5. Directorate of Geology & Mining, State of Uttar Pradesh Through its Director Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP) ... Respondents.

And

Devendra Singh Parmar S/o Shri Birendra Singh Parmar, R/o Indrapuri Colony District Panna, Madhya Pradesh ... Applicant;

Versus

1. State of Uttar Pradesh Through Additional Chief Secretary Department of Geology & Mining Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
2. State of Uttar Pradesh Through Additional Chief Secretary Department of Environment & Forest UP Secretariat Lucknow-226001 (UP)
3. Department of Environment, U. P Through its Principal Secretary Government of Uttar Pradesh Lucknow (UP)
4. Department of Mining & Geology, UP Through its Principal Secretary Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
5. Directorate of Geology & Mining, UP Through its Director Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
6. Ministry of Environment, Forest & Climate Change Through its Secretary Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003
7. The District Collector (Mining Section), Collectorate District Banda (U.P.) 284135
8. The District Collector (Mining Section), Collectorate District Kanpur Dehat (U.P.) ... Respondents.

And

Pawan Kumar Mishra, Aged about 48 years S/o Sri Krishna Gopal Mishra, R/o Moh. Naya Patel Nagar, Post & Pargana Orai, Dsitrict Orai ... Applicant;

Versus

1. State of Uttar Pradesh Through Additional Chief Secretary Department of Geology & Mining Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
2. State of Uttar Pradesh Through Additional Chief Secretary Department of Environment & Forest UP Secretariat Lucknow-226001 (UP)

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3. Department of Environment, U. P Through its Principal Secretary Government of Uttar Pradesh Lucknow (UP)
4. Department of Mining & Geology, UP Through its Principal Secretary Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
5. Directorate of Geology & Mining, UP Through its Director Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
6. Ministry of Environment, Forest & Climate Change Through its Secretary Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003
7. District Magistrate Banda. (U.P.) 21001
8. District Magistrate Kanpur Dehat, U.P. 208001 ... Respondents.

And

Rakesh Aged about 46 years S/o Bheem, R/o Panchayara, Mandola Ghaziabad, Uttar Prades-201102 ... Applicant;

Versus

1. Union of India Through its Secretary Ministry of Environment, Forest & Climate Change Indira Paryavaran Bhawan, New Delhi-110001
2. State of Uttar Pradesh Through the Chief Secretary 5th Floor, Secretariat, Lucknow (UP)-226001
3. Directorate of Geology and Mining U.P. Khanji Bhawan, Lucknow -226001
4. District Magistrate Ghaziabad District Uttar Pradesh-226001
5. District Magistrate Baghpat District Uttar Pradesh-250609
6. District Magistrate Gautam Budh Nagar District, Uttar Pradesh-203201 ... Respondents.

And

Gram Panchayat, Imaliya Through the Sarpanch Shrimati Ram Devi, Gram Parricha, Tehsil-Moth, Jhansi-284306 ... Applicant;

Versus

1. Ministry of Environment, Forest & Climate Change Through its Secretary Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003
2. State of Uttar Pradesh Through Additional Chief Secretary Department of Mining & Geology Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
3. State of Uttar Pradesh Through Additional Chief Secretary Department of Environment & Forest UP Secretariat Lucknow-226001 (UP)
4. Department of Environment, U. P Through its Principal Secretary Government of Uttar Pradesh Lucknow (UP)
5. Department of Mining & Geology, UP Through its Principal Secretary Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
6. Directorate of Geology & Mining, UP Through its Director Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
7. The District Collector (Mining Section), Collectorate District

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Jhansi (U.P.)

8. The District Collector (Mining Section), Collectorate District jaloun (U.P.)
9. The District Collector (Mining Section), Collectorate District Unnao (U.P.)-212601
10. The District Collector (Mining Section), Collectorate District Hamirpur (U.P.)
11. The District Collector (Mining Section), Collectorate District Sonbhadra (U.P.)
12. The District Collector (Mining Section), Collectorate District Fatehpur (U.P.)
13. The District Collector (Mining Section), Collectorate District Kanpur Dehat (U.P.)
14. The District Collector (Mining Section), Collectorate District Gonda (U.P.)
15. The District Collector (Mining Section), Collectorate District Sitapur (U.P.)
16. The District Collector (Mining Section), Collectorate District Pratapgarh (U.P.)
17. The District Collector (Mining Section), Collectorate District Bahraich (U.P.)
18. The District Collector (Mining Section), Collectorate District Etawah (U.P.)
19. The District Collector (Mining Section), Collectorate District Agra (U.P.)
20. The District Collector (Mining Section), Collectorate District Kaushambi (U.P.)
21. The District Collector (Mining Section), Collectorate District Auraiya (U.P.)
22. The District Collector (Mining Section), Collectorate District Allahabad(U.P.)
23. The District Collector (Mining Section), Collectorate District Gaziabad (U.P.)
24. The District Collector (Mining Section), Collectorate District Gazipur(U.P.)
25. The District Collector (Mining Section), Collectorate District Ambedkarnagar (U.P.)
26. The District Collector (Mining Section), Collectorate District Moradabad (U.P.)
27. The District Collector (Mining Section), Collectorate District Hardoi (U.P.)
28. The District Collector (Mining Section), Collectorate District Gautam Budh Nagar (U.P.)
29. The District Collector (Mining Section), Collectorate District Shamli (U.P.)
30. The District Collector (Mining Section), Collectorate District Shahjahanapur (U.P.)
31. The District Collector (Mining Section), Collectorate District

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Sultanpur (U.P.)

32. The District Collector (Mining Section), Collectorate District Raibareli(U.P.)

33. The District Collector (Mining Section), Collectorate District Chitrakoot (U.P.) ... Respondents.

And

Prem Chandra Agrahari S/o Gopi Chandra, 124, Nagar Plika Parishad Ashok Nagar, Fatehpur District Fatehpur, U.P. 212601 ... Applicant;

Versus

1. State of Uttar Pradesh Through Additional Chief Secretary Department of Mining & Geology Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)

2. State of Uttar Pradesh Through Additional Chief Secretary Department of Environment & Forest UP Secretariat Lucknow-226001 (UP)

3. Department of Environment, U. P Through its Principal Secretary Government of Uttar Pradesh Lucknow (UP)

4. Department of Mining & Geology, UP Through its Principal Secretary Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)

5. Directorate of Geology & Mining, UP Through its Director Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)

6. Ministry of Environment, Forest & Climate Change Through its Secretary Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003

7. The District Collector (Mining Section), Collectorate District Kaushambi (U.P.) 212207

8. The District Collector (Mining Section), Collectorate District Banda (U.P.)-210001

9. The District Collector (Mining Section), Collectorate District Fatehpur (U.P.)-212601 ... Respondents.

And

Brajbhushan Singh Yadav S/o Hargovinda Singh Yadav, R/o Sanjay Nagar, Gangehi Talah, Badausa Road, Atarra District-Banda, U.P. 210201 ... Applicant;

Versus

1. Ministry of Environment, Forest & Climate Change Through its Secretary Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003

2. State of Uttar Pradesh Through Additional Chief Secretary Department of Geology & Mining Civil Secretariat, Lucknow-226001 (UP)

3. Director, Directorate of Geology and Mining Kandji Bhawan, Lucknow-226001 (UP)

4. The District Magistrate/District officer District Banda (U.P.) 210007

5. Mines Officer District Banda (U.P.)-210001

6. District level Environment Impact Assessment Authority

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Through its Secretary, Collectorate Compound District Banda (U.P.)-212601

7. Shailendra Yadav, Son of Neapl Yadav, Resident of 56A Damuwa, Naintal, Uttarakhand-263001
8. Vir Singh, Son of Gajraj Singh, Resident of 171/72, Civil Lines, Tehsil and District, Banda-210001
9. Parth Constrcution and Supplier Through it Proprietor Basant Chaturvedi, Son of Shri Manohar Lal Chatruvedi, Resident of 11, Shastri Marg, Civil Lines, Jhansi-284001
10. M/s. Digiyana Industries Private Limited, Indore Through its proprietor Tejinder Pal Singh Ghumma, Son of Late Suchcha Singh Ghumman, Resident of 233, Vishnupuri Annex, District Indore, Madhya Pradesh-452001
11. Vishwas Parmani, S/o H. Parmani, R/o Associated Commerce Piparia, District Hoshangabad, Madhya Pradesh-461001 ... Respondents.

And

Sanjay Pratap Singh S/o Shri Han Singh R/o Village-Balipur, Tehsil -Kunda District-Pratapgarh-210430 ... Applicant;

Versus

1. State of Uttar Pradesh Through Additional Chief Secretary Department of Geology & Mining Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
2. State of Uttar Pradesh Through Additional Chief Secretary Department of Environment & Forest UP Secretariat Lucknow-226001 (UP)
3. Department of Environment, U. P Through its Principal Secretary Government of Uttar Pradesh Lucknow (UP)
4. Department of Mining & Geology, UP Through its Principal Secretary Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
5. Directorate of Geology & Mining, UP Through its Director Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
6. The District Collector (Mining Section), Collectorate District-pratapgarh (U.P) ... Respondents.

And

Anil kumar S/o Jabar Singh Aged 40 years R/o Village-Khindiya, Basera, District-Mujafar Nagar-U.P. ... Applicant;

Versus

1. State of Uttar Pradesh Through Additional Chief Secretary Department of Geology & Mining Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
2. State of Uttar Pradesh Through Additional Chief Secretary Department of Environment & Forest UP Secretariat Lucknow-226001 (UP)
3. Department of Environment, U. P Through its Principal Secretary Government of Uttar Pradesh Lucknow (UP)
4. Department of Mining & Geology, UP Through its Principal Secretary Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg

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Lucknow-226001 (UP)

5. Directorate of Geology & Mining, UP Through its Director Khanij Bhawan, 27/8 Raja Ram Mohan Rai Marg Lucknow-226001 (UP)
6. Ministry of Environment, Forest & Climate Change Through its Secretary Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003
7. The District Collector (Mining Section), Collectorate District-Shamali (U.P) ... Respondents.

And

Pragati Kumar, Aged about 32 years S/o Sri Ramsanehi R/o House No. 2028, New Rajender Nagar Oral, District-Jalaun-U.P. ... Applicant;

Versus

1. Ministry of Environment, Forest & Climate Change Through its Secretary Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003
2. State of Uttar Pradesh Through its Principal Secretary Department of Geology & Mining Civil Secretariat, Lucknow-226001 (UP)
3. Director, Directorate of Geology and Mining, Khanij Bhawan, Lucknow-226001 (UP)
4. District Magistrate/District Officer Banda, Uttar Prapesh
5. Mines Officer, Banda, Uttar Pradesh-210201
6. District Level Environment Impact Assessmen Authority Through its Secretary, Collectorate Compound, District Banda, Uttar Pradesh-210201 ... Respondents.

And

Pravesh, S/o Janeshvar, R/o House No. 290, Hasanpur Bhalsava, Tehsil Behat District-Saharanpur-U.P.-247001 ... Applicant;

Versus

1. Ministry of Environment, Forest & Climate Change Through its Secretary Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003
2. State of Uttar Pradesh Through its Principal Secretary Department of Geology & Mining Civil Secretariat, Lucknow-226001 (UP)
3. Director, Directorate of Geology and Mining, Khanij Bhawan, Lucknow-226001 (UP)
4. District Magistrate/District Officer Shamli, Uttar Prapesh-210201
5. Mines Officer, Shamli, Uttar Pradesh-210201
6. District Level Environment Impact Assessmen Authority Through its Secretary, Collectorate Compound, District Banda, Uttar Pradesh-210201 ... Respondents.

And

Pravin Kumar Singh, Aged about 34 years R/o House No. 120, Maghuwan P.S., Gosaiganj Tehsil Mohanlal Ganj Lucknow Uttar Pradesh-226501 ... Applicant;

Versus

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1. Union of India Through its Secretary Ministry of Environment, Forest & Climate Change Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003
2. State of Uttar Pradesh Through its Chief Secretary 5th Floor, Secretariat Lucknow-226001 (UP)
3. Directorate of Geology and Mining, U.P. Khanij Bhawan, Lucknow-226001 (UP) ... Respondents.

Original Application No. 557/2017 (M.A. No. 1120/2017 & M.A. No. 1188/2017), Original Application No. 615 of 2017 (M.A. No. 1199/2017), Original Application No. 616 of 2017 (M.A. No. 1197/2017), Original Application No. 624/2017 (M.A. No. 1205/2017), Original Application No. 631 of 2017 (M.A. No. 1210/2017), Original Application No. 633 of 2017, Original Application No. 625/2017, Original Application No. 634 of 2017 (M.A. No. 1217 of 2017 & 1218 of 2017), Original Application No. 636/2017 (M.A. No. 1229/2017 & M.A. No. 1230/2017), Original Application No. 639 of 2017, Original Application No. 647 of 2017 (M.A. No. 1258 of 2017 & M.A. No. 1259 of 2017), Original Application No. 648 of 2017 (M.A. No. 1260 of 2017 and M.A. No. 1261 of 2017) and Original Application No. 326 of 2017 (M.A. No. 584 of 2017)

Decided on December 8, 2017 [Reserved on: 13th November, 2017]

Counsel for Applicants: Mr. Mayank Prasad, Adv.

Mr. Arjun Pant, Adv

Mr. Rahul Choudhary & Ms. Meera Gopal, Advs.

Mr. Ankur Mittal, Adv.

Mr. Mayank Pandey, Adv.

Mr. Mukesh Kumar Sharma, Adv.

Mr. Suraj Prakash Singh, Adv.

Mr. Mana K. Rajvanshi and Mr. Amit Upadhyay, Mr. Anurag Kashayap and Tajaswina Sagar Advs.

Mr. Pinaki Mishra, Mr. Anand Varma and Ms. Shubhangni Jain, Advs.

Mr. Arjun Pant, Advocates for applicants.

Counsel for Respondents: Mr. Kailash Yadav, Sr. Adv.

Dr. Sandeep Singh, Adv. and Mr. Vinay Pal Adv. for State of UP

Mr. Anil Grover, AAG, Haryana

Mr. Attin Shankar Rastogi, Mr. Prateek Yadav. Adv.

Mr. Rajesh K. Singh & Ms. Ashita Chhibber, Adv.

Mr. Krishna Kumar Singh, Adv. and Mr. Anurag Kumar, Adv. for MoEF

Mr. V.K. Shukla Advs for respondent no. 8

Mr. Pradeep Mishra and Mr. Daleep Dhyani, Adv. for UPPCB

Mr. Ankit Verma Adv. for State of Uttar Pradesh

Mr. Om Prakash, Adv.

Mr. Deep Shikha Bharati, Adv.

JUDGMENT

JAWAD RAHIM, JUDICIAL MEMBER:— By this Judgment we are considering and disposing of the following applications Original Application No. 557/2017, Original Application No. 615 of 2017, Original Application No. 616 of 2017, Original Application No. 624/2017, Original Application No. 631 of 2017, Original Application No. 633 of 2017, Original Application No. 625/2017, Original Application No. 634 of 2017, Original Application No. 636/2017, Original Application No. 639 of 2017, Original Application No. 647 of 2017, Original Application No. 648 of 2017 and Original

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Application No. 326 of 2017 as the factual matrix, grounds and the reliefs sought are same. Hence, to avoid repetition and bulking the records we shall refer to the pleadings in the lead case filed i.e. O.A. 557 of 2017: *Anjali Kumar* v. *State of U.P* filed by Ms. Anjali Kumar and the defense of the respondents which is common.

2. The genesis of this action under Section 14 of the National Green Tribunal Act, 2010 initiated by Ms. Anjali Kumar is the framing of the "Sand Mining Policy dated 14th August, 2017 (Sand Mining Policy) by the State of UP and issuance of notice for invitation of E-tender-cum-E-Auction in respect of various districts like Jhansi, Unnao, Jalaun, Sonbhadra, Fatehpur, Kanpur, Bihar, Gonda for grand of mining lease for excavation of sand and gravel from various rivers passing through the aforesaid districts, issued by the State of UP.

3. The applicant has assailed the aforesaid Sand Mining Policy, 2017 and the notice for invitation of E-Tender-cum-E-Auction on several grounds inter-alia contending that the Sand Mining Policy, 2017 and the notice for e-tender cum e-auction issued in utter violation of provisions of Environment (Protection) Act, 1986, Environment (Protection) Rules, 1986 and Notification dated 14th September, 2016 made by the Central Government under Section 3 of the Environment Protection Act, 1986 read with Rule 5 of the Environment Rules, 1986 and the "Sustainable Sand Mining Management Guidelines, 2016 issued by the Ministry of Environment Forest and Climate Change. Several grounds legal and factual are raised but we will refer only to substance of it which is relevant to be taken into consideration for decision, it is as follows:

i. The river sand and gravel mining is an important process which has serious and far reaching adverse impact upon the ecological balance and biological diversity of the flora and fauna existing on the river bank in view of principle of sustainable development. The river sand and gravel mining is permitted to be carried out but with certain checks and balances for the protection and safeguard of the environment. Such safeguards and checks are provided in Environment (Protection) Act, 1986 and the rules made thereunder in terms of the Notification dated 14th September, 2006 issued by Central Government under Section 3 of the Environment (Protection) Act read with Rule 5 of the Environment (Protection) Rules, 1986 and the Sustainable Sand Mining Management Guidelines, 2016 of the MoEF.

ii. The mandate in the decision of the Hon'ble Supreme Court in the case of *Deepak Kumar* v. *State of Haryana*, (2012) 4 SCC 629 while acknowledging the adverse impact of illegal river/sand mining going on in the state of Uttar Pradesh and Rajasthan, contains several guidelines for sand mining and requires all states to follow and adopt the same by framing appropriate rules in this regard. Despite the emphasis laid by the Hon'ble Supreme Court that it is highly necessary to have effective framework of mining plan which will take care of all environmental issues and also evolve a long term rational and sustainable use of resources, the State has acted to the contrary. The mandate to all the states to give due regard and implement the recommendations made by the MoEF has been flouted.

iii. That the MoEF in continuance of its recommendations in the Year 2010 formulated Sustainable Sand Mining Management Guidelines, 2016 after extensive consultation with the States and other stakeholders and therefore, is binding in nature upon all the States requiring it to frame Sand Mining Policy whenever it intends to grant mining lease. It is alleged, State of UP has frustrated the said legal compulsion and framed the Sand Mining Policy, 2017 in utter violation thereto. The objective of the guidelines has been flouted. The objective of the guidelines prescribed by 'Sustainable Sand and Gravel Mining Guidelines' to provide detailed procedure and safeguards for sustainable sand mining but the same has been deleted while framing the Sand Mining Policy

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2017 by the State of UP.

iv. It is contended that "Sustainable Sand Mining Guidelines, 2016"issued by MoEF requires preparation of DISTRICT SURVEY REPORT as an important initial step before formulating a mining policy. The guidelines emphasize detailed procedure to be followed for the purpose of identification of areas of aggradation/deposition where mining can be allowed and identification of areas of erosion and proximity to infrastructural structures and installation where mining should be prohibited. Calculation of annual rate of replenishment and allowing time for replenishment after mining area was to be recorded identification of ways of scientific and systematic mining; identifying measures for protection of environment and ecology and determining measures for protection of bank erosion Where a bench mark (BM) with respect to mean Sea Level (MSL) should be made essential to inmining channel reaches (MCR) below which no mining shall be allowed. Identifying steps for conservation of mineral. The permanent gauging facilities for discharge and sediment both should be made compulsory. The river/stream/other sources of sand and aggregate are to be studied on following parameters like geomorphological studies, place of origin, catchment area, general profile of rive stream, annual deposition factor etc.

4. It is further case of the applicant that though the Government of India acknowledging importance of the District Survey Report to ensure formulation of safe sustainable mining plan incorporated that Sustainable Sand Mining Management Guidelines, 2016 in 2006 Notification vide amendment dated 15th January, 2016. In particular it recognised the importance of District Survey Report. He has quoted the amendment of the said notification dated 15th January, 2016 by which para 7 was added which reads as follows:

Para 7(iii) Preparation of District Survey Report for Sand Mining or River Mining and Mining of other Minor Minerals.

5. Thus, it is contended that the amendment of para 7(iii) requiring preparation of DSR had to be given due importance and credence. The procedure for preparation of District Survey Report has been detailed in Appendix-X which reiterates the solemn objective of preparation of District Survey Report i.e. identification of the areas of aggradations or depositions where mining can be allowed and identification of the area of erosion and proximity to the infrastructural structures and installations where mining should be prohibited. Appendix-X provides that the survey shall be carried out by the District Level Environment Impact Assessment Authority (DEIAA) with the assistance of Geology Department or Irrigation Department or Forest Department or Public Works Department or Ground Water Boards or Remote sensing Department or Mining Department in the district. Appendix-X specifies that the District Survey Report shall be prepared for each minor mineral in the district separately and its draft shall be placed in the public domain by keeping its copy in Collectorate and posting it on district's website for 21 days. The comments received shall be considered and if found fit, shall be incorporated in the final report to be finalised within six months by the DEIAA.

6. The applicant has relied on the letter dated 28th June, 2017 issued by respondent no. 5 apprising all the District Collectors of State of UP of the 2016 amendment in the 2006 Notification of Union of India and directed them that the District Survey Report of the minor minerals, as required under the amendment of 2016 shall be prepared and kept in the public domain of collectorate, posting on the website of each district for 21 days. The said letter also records that e-tender of the minor-mineral is proposed to be done in near future.

7. Therefore, "District Survey Report" shall be prepared and posted on website mandatorily, as the "District Survey Report" is to remain effective for 5 years. Placing

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reliance on the aforesaid process of amended 2006 notification of the MoEF and the Sustainable Sand Mining Guidelines, 2016 the applicant has impugned the "Sand Mining Policy, 2017"of the State of Up and the notice inviting tender issued thereunder to seek such relief he contends that the impugned sand mining policy, 2017 annexure A-5 is not in the spirit of para 7(iii) in Appendix-x which is of the amended 2006 Notification.

THE STAND OF STATE OF UP BY WAY OF REPLY TO THE GROUNDS IN THE APPLICANT:—

8. The application challenging the Mining Policy of 14.08.2017 issued vides order No. 1875/86-2017 57(sa) 2017 T is not maintainable. Such a challenge falls outside the jurisdictions set out on the NGT Act. It is stated that the said policy has been framed by the state in the economic/commercial interests and in the interest of protecting the environment and ecology. The said policy relates to the 42nd & 43rd Amendments to the U.P. Minor Mineral Concessions Rules. It is stated that the said Policy which protects both - commercial interests and the ecology has been framed by the first respondent in exercise of its Constitutional prerogatives and powers after taking into consideration relevant factors and material including the law laid down by the Hon'ble Supreme Court of India and the directions of this Hon'ble Tribunal for protection the environment. The applicant's challenge to such a policy based on legislation and relevant considerations of public interest is not maintainable. It is now settled law that Courts would not interfere with matters dealing with economic policy/function of the State, or sit in judgement over such policies. The present application merits dismissal on this ground alone.

9. That the applicant assails the Government order of 14.08.2017 and notice for E-Auction/E-Tender issued by the respondent State in matters pertaining to the grant/concessions/leases under the U.P. Minor Mineral Concessions Rules 1963 as amended in 2017. It is stated that the said notices have been issued in accordance with the Rules which have been framed in exercise of legislative powers available to the first respondent. The order of 14.08.2017 is not open to challenge under the NGT Act or otherwise. The notice inviting E-Tender are in conformity with the Rules/Orders are not matters falling within the scope of challenge under the NGT Act.

10. It is denied that the policy on the Government order have been issued in violation and disregard of various orders and judgments of the Hon'ble Supreme Court or of this Hon'ble Tribunal. It is stated that the said Policy and legislative actions of the answering respondent are not the public interest.

11. That the contents of paragraph No. 4.18 & 4.19 are denied. The Applicant has wrongly termed the Government Order dated 14.08.2017 as a Mining Policy. The said Government order has been only been issued in compliance to the amendment made in the Uttar Pradesh Minor mineral (Concession) Rules-1963. The Government order dated 14.08.2017 and UPMMCR 1963 contain all provisions to ensure environmental safeguards. It has been stated in the para 18(7) of the Government order dated 14.08.2017 that prior Environmental Clearance certificate is necessary before granting of a Mining lease. There are provisions in Rule-34 and 41(h) of the UPMMCR-1963 regarding environment issues and safe mining. It is stated that the applicant is raising issues contrary to the Rules and the Policy.

12. It is stated that the DSR is required for the issuance of the Environment Clearance and not at the time of invitation of bids under E-Tender Cum E-Auction. The Government order dated 14.08.2017 sets out that a Committee constituted by the District Magistrate comprising Additional District Magistrate/Sub Divisional Magistrate/Tehsildar and Senior Mines officer/Mines officer/Mines Inspector of the concern District which to assess the quality and quantity of the Minerals in notified area. This is accordance with the MoEF Notification of Supra. All participants in the E-

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Tender Cum E-Auction are obliged to visit the area and verify the quality and quantity of the mineral, so that they can prepare their bid/tender.

STAND OF RESPONDENT NO. 5-MOEF&CC

13. The MoEF has filed a reply to the application but as we could see only following defense has been taken which is in the nature of furnishing factual information and has not seriously questioned the action initiated by the Applicant. Following are the relevant portions of their statement:—

14. That the applicant has challenged the Sand Mining Policy dated 14th August 2017 issued by the State of Uttar Pradesh as it does not incorporate the District Survey Report provided in the Sustainable Sand Mining Management Guidelines 2016 issued by the respondent Ministry.

15. That it is further submitted that respondent Ministry issued EIA Notification dated 14th September 2006 (hereinafter referred to as "EIA Notification 2006") which superseded the old EIA Notification dated 27th January, 1994.

16. That it is further submitted that the EIA Notification 2006 requires certain projects to obtain prior Environmental Clearance ("EC") before any construction work in case of new projects or expansion and modernization of existing projects or activities. The Schedule to the Notification details the categories or projects or activities which require poor environmental clearance.

17. That it is further submitted that all projects or activities included as Category 'A' in the Schedule, including expansion and modernization of existing projects or activities and change in product mix, shall require prior environmental clearance from the Central Government in the Ministry of Environment, Forest and Climate (MoEF &CC) on the recommendations of an Expert Appraisal Committee (EAC) to be constituted by the Central Government for the purposes of this notification.

18. That it is further submitted that all projects or activities included as Category 'B' in the Schedule, including expansion and modernization of existing projects or activities as specified in sub paragraph (ii) of paragraph 2, but excluding those which fulfill the General Conditions (CG) stipulated in the Schedule, will require prior environmental clearance from the State/Union territory Environment Impact Assessment Authority (SEIAA). The SEIAA shall base its decision on the recommendations of a State or Union territory Level Expert Appraisal Committee (SEAC) as to be constituted for in this notification. In the absence of a duly constituted SEIAA or SEAC, a Category 'B' project shall be treated as a Category 'A' project.

19. That the Respondent Ministry further issued Notification No. S.O. 141(E) dated 15th January, 2016 under which the procedure has been prescribed to prepare District Survey Report. The relevant portion of the Notification is reproduced as under:

> *"7 (iii) preparation of District Survey Report for Sand Mining or River Bed Mining and Mining of other Minor Minerals:*
>
> *a) The prescribed procedure for preparation of District Survey Report for sand mining or river bed mining and mining of other minor minerals is given in appendix.*
>
> *b) The prescribed procedure for environmental clearance for mining of minor minerals including cluster situation is given in appendix XI."*

20. That the respondent Ministry has issued Sustainable Sand Mining Management Guidelines, 2016 to ensure *inter-alia* that sand and gravel mining is done in environmentally sustainable and socially responsible manner, ensure conservation of the river equilibrium and its natural environment by protection and restoration of the ecological system, to ensure that rivers are protected from bank and bed erosion beyond its stable profile. The above mentioned Guidelines were issued with one of the

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objectives being that each lease holder should be given the opportunity to self-regulate to the extent that it can demonstrate compliance with legislation and regulations. That where self-regulation fails to deliver compliance with legislation and regulations, increased formal enforcement and monitoring should be implemented with punitive measures applied in line with the legal framework.

21. We have heard the Learned Counsel for the applicants and the respondents and perused the records in supplementation thereto. The Following points are formulated for consideration:

i) Whether the Sand Mining Policy, 2017 framed by the State of UP is inconsonance and in fulfillment of the directions of the Hon'ble Supreme Court in the case of *Deepak Kumar* v. *State of Haryana* the Sustainable Sand Mining Management Guidelines, 2016 issued by the MoEF.

ii) Whether the said Sand Mining Policy requires to be quashed.

iii) Whether this Tribunal has jurisdiction to decide issue relating to Sand Mining Policy, 2017 applying the doctrine of segregation and severability.

22. Our finding in the above issues are as under.

23. What emerges from the submissions and the Learned Counsel on behalf of the applicants and the State of Uttar Pradesh is a serious challenge posed by the applicants to the act of the State Government in issuing Sand Mining Policy dated 14.08.2017 captioned ("Sand Mining Policy") and simultaneous issue of notice inviting for tender e-auction for grant of mining lease to mine the sand and gravel from the various rivers in the State of UP.

24. The applicants have impugned the notice for invitation of E-Tender-cum-E-Auction dated 28.08.2017 for district Jhansi, notice for invitation of E-Tender-cum-E-Auction dated 30.08.2017 for district Unnao, notice for invitation of E-Tender-cum-E-Auction dated 31.08.2017 for district Jalaun, notice for invitation of E-Tender-cum-E-Auction dated 01.09.2017 for the district Hamirpur, notice for invitation of E-Tender-cum-E-Auction no. 911/Mineral/Khanij/E-Tender/2017 dated 01.09.2017 for district Sonbhadra, notice for invitation of E-Tender-cum-E-Auction dated 05.09.2017 for district Fatehpur, notice for invitation of E-Tender-cum-E-Auction no. 332/Khanij-Lipik -E-Notice and E-Auction/2017 dated 06.09.2017 for district Kanpur Dehat and notice for invitation of E-Tender-cum-E-Auction no. 06/Mining Department/Advertisement Notice/Balu/Mauram 17 dated 11.09.2017 for district Gonda herein referred to collectively as "Notices for Invitation of E-Tender-cum-E-Auction" issued by the State Government of the Uttar Pradesh said to be in pursuant to the Sand Mining Policy.

25. The first ground of challenge is that Sand Mining Policy, 2017 and the notices for invitation of E-Tender-cum-E-Auction are in conflict and violation of the provisions of the Environment (Protection) Act, 1986, Environment (Protection) Rules, 1986, Notification dated 14.09.2006 issued by the Central Government under Section 3 of the Environment (Protection) Act, 1986 r/w Rule 5 of the Environment (Protection) Rules, 1986 and Sustainable Sand Mining Management Guidelines, 2016 issued by the Ministry of Environment, Forest and Climate Change.

26. In support thereof the applicants have averred that the river and sand gravel mining is an important process which is serious and has far reaching adverse impact upon the ecological balance and biological diversity of the flora and fauna existing on the river banks. Mining of sand and gravel is legally permissible in view of 'principle of sustainable development' from the river but it has to be with several checks balances and for protection and safeguard primarily the environment. The checks and safeguards are enumerated in Environment (Protection) Act, 1986 and Environment (Protection) Rules, 1986 made thereunder as also the Notification dated 14.09.2006 issued by the Central Government under Section 3 of the Environment (Protection) Act, 1986 r/w Rule 5 of the Environment (Protection) Rules, 1986 made thereunder

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and Sustainable Sand Mining Management Guidelines, 2016 issued by Ministry of Environment, Forest and Climate Change.

27. Emphasis is also laid on decision of the Hon'ble Apex Court and directions issued thereunder in the case of *Deepak Kumar* v. *State of Haryana*, (2012) 4 SCC 629. The Hon'ble Supreme Court of India noticing the adverse impact of illegal river/sand mining rampantly indulged into the interest for economic benefits in the State of Uttar Pradesh and Rajasthan, issued guidelines spelling out the stringent conditions for sand mining and required all the States to follow and adopt the Guidelines issued by the Central Government by framing appropriate rules in this regard.

28. It is appropriate that the directions issued by the Hon'ble Supreme Court of India in the aforesaid decision are incorporated herein as a ready reference and for clarity. The following paragraphs of the Judgment are extracted from the decision in the case of *Deepak Kumar* v. *State of Haryana*, (2012) 4 SCC 629:

> *"25. Quarrying of river sand, it is true, is an important economic activity in the country with river sand forming a crucial raw material for the infrastructural development and for the construction industry but excessive in-stream sand and gravel mining causes the degradation of rivers. In-stream mining lowers the stream bottom of rivers which may lead to bank erosion. Depletion of sand in the streambed and along coastal areas causes the deepening of rivers which may result in destruction of aquatic and riparian habitats as well. Extraction of alluvial material as already mentioned from within or near a streambed has a direct impact on the stream's physical habitat characteristics.*
>
> *26. We are of the considered view that it is highly necessary to have an effective framework of mining plan which will take care of all environmental issues and also evolve a long term rational and sustainable use of natural resource base and also the bio-assessment protocol. Sand mining, it may be noted, may have an adverse effect on bio-diversity as loss of habitat caused by sand mining will effect various species, flora and fauna and it may also destabilize the soil structure of river banks and often leaves isolated islands. We find that, taking note of those technical, scientific and environmental matters, MoEF, Government of India, issued various recommendations in March 2010 followed by the Model Rules, 2010 framed by the Ministry of Mines which have to be given effect to, inculcating the spirit of Article 48A, Article 51A(g) read with Article 21 of the Constitution.*
>
> *The State of Haryana and various other States have not so far implemented the above recommendations of MoEF or the guidelines issued by the Ministry of Mines before issuing auction notices granting short-term permits by way of auction of minor minerals boulders, gravel, sand, etc. in the riverbeds and elsewhere of less than 5 ha. We, therefore, direct all the States, Union Territories, MoEF and the Ministry of Mines to give effect to the recommendations made by MoEF in its Report of March 2010 and the model guidelines framed by the Ministry of Mines, within a period of six months from today and submit their compliance reports."*

29. It is not disputed before us and it is pertinent to notice the Hon'ble Supreme Court of India had emphasized that it is absolutely necessary and imperative for the State to formulate an effective framework of mining plan which will take care of all environmental issues and also evolve the long term rational and workable protective scheme to protect natural resources applying with principal law sustainable development. It is evident from the dictum of the Hon'ble Apex Court that the State was required to evolve a long term workable scheme for practical and sustainable views for use of natural resources while keeping in mind the protection of rivers and oceans which contain his natural wealth. Consequent to such directions of the Hon'ble Supreme Court, all the States had to give regard and implement the recommendations

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made by the Ministry of Environment, Forest and Climate Change in its Sustainable Sand Mining Management Guidelines, 2016 and to frame guidelines in terms thereof of the extensive consultation and dispassionate but serious approach to the issue in question to protect the natural resources. It is not in dispute that the Central Government-Ministry of Environment, Forest and Climate Change had, after thorough and extensive consultation, the State Governments had issued the aforesaid Guidelines and no stakeholder could take a plea different from this factual aspect. For the purpose of decision in this case, it is appropriate that we refer to certain excerpt from the guidelines which are relevant and we may take into consideration. However, to avoid bulking this judgment by extracting the said Rules we may choose to refer to only such of it which will be most appropriate and applicable. Thus, following is extracted from the Sustainable Sand Mining Management Guidelines, 2016 which forms part of Annexure AI:

"The process under the guidelines:

(a) Identification of areas of aggradations/deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited. Use of satellite imagery for identifying areas of sand deposit and quantity be done.

(b) Calculation of annual rate of replenishment and allowing time for replenishment after mining in area.

(c) Identifying ways of scientific and systematic mining.

(d) Identifying measures for protection of environment and ecology.

(e) Determining measures for protection of bank erosion.

(f) A bench mark (BM) with respect to mean seal level (MSL) should be made essential to in mining channel reaches (MCR). Below which no mining shall be allowed.

(g) Identifying steps for conservation of mineral.

(h) Permanent gauging facilities (for discharge and sediment both) should be made compulsory for the sites having excessive mining in consultation with Central Water Commission or any competent State Agency.

(i) Implementing safeguards for checking illegal and indiscrete mining."

The broad principle on which any sustainable sand mining Guidelines/policy can be based is that river/natural resources must be utilized for the benefit of the present and future generation, so river resources should be prudently managed and developed. The preparation of District Survey Report is an important initial step.

30. Thus, it could be seen the greater emphasis is on preparation of District Survey Report which shall be the harbinger for further action.

The guidelines prescribe the following processes:

"(a) Identification of areas of aggradations/deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited. Use of satellite imagery for identifying areas of sand deposit and quantity be done.

(b) Calculation of annual rate of replenishment and allowing time for replenishment after mining in area.

(c) Identifying ways of scientific and systematic mining.

(d) Identifying measures for protection of environment and ecology.

(e) Determining measures for protection of bank erosion.

(f) A bench mark (BM) with respect to mean seal level (MSL) should be made essential to in mining channel reaches (MCR). Below which no mining shall be allowed.

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(g) Identifying steps for conservation of mineral.

(h) Permanent gauging facilities (for discharge and sediment both) should be made compulsory for the sites having excessive mining in consultation with Central Water Commission or any competent State Agency.

(i) Implementing safeguards for checking illegal and indiscrete mining.

Following the above processes, to begin with it is important to prepare a survey document mapping the status of sand sources in a district. This survey should be conducted and report be prepared for each district. Though it is an acceptable fact that rivers cut across districts and States and every river is an ecosystem in itself. But, keeping in view the fact that the district is the most established unit of administration at which this kind of survey, planning and monitoring can be ensured effectively, it is proposed that every district will this document taking the river stretch in that district as an ecological unit and inventorying other sources of sand in the district.

Besides, the production of aggregate in a particular area is a function of availability of natural resources, the size of the population, the economy of the area and various developmental and infrastructural works being undertaken in the area."

31. From the extracted portion, it could well be understood that to begin with the process prescribed for preparing of survey document mapping the status of the sand sources in a District is an integral but an essential part. The Survey has to be conducted and report be prepared for each District. It must also be noticed that while taking into consideration the fact that rivers cut across districts and States and every river is an ecosystem in itself but keeping in mind the fact that district is a most established unit of administration conduct of survey, planning and monitoring can be ensured effectively, the scheme proposed that every district will prepare this document (District Survey Report) taking river stretch in that district as an ecological and inventorising other sources of sand in the district. Besides the object of insisting upon preparation of District Survey Report as a first important initial step is to take into account the production of aggregate in a particular area of sand and gravel is relatable to availability of natural resources, the size of population, the economy of the area and various developmental and infrastructural works being undertaken in that area. There is a clear mandate that the natural resources must be utilized in environment friendly manner "in scientific and systematic way and with the objective of sustainable development the policy on the subject should have provisions for protection of environment and ecology". It had to be accounted for in a most efficient manner at a district level itself.

32. The sustainable mining plan must be dynamic and for this purpose, survey should be carried out by the District Environment Impact Assessment Authority (DEIAA) with the assistance of Geology Department, Irrigation Department, Forest Department, Public Works Department, Ground Water Boards, Remote Sensing Department and Mining Department etc. in the district at regular intervals.

33. The State Government was required to incorporate in the Survey Report:

a) District wise detail of the river or stream and other sand source.

b) District wise availability of sand or gravel or aggregate resources.

c) District wise detail of existing mining leases of sand and aggregates.

34. Based on the Survey Report relating in collection of the data, from the above points the survey document has to be prepared which must be the basis for action plan and divide the river/stream/other sources of the District into 2 categories namely—

a) River/Stream beds sections/other sources suitable for extraction of sand and aggregates.

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b) River/Stream beds sections/other sources prohibited for extraction of sand and aggregates.

35. There is a clear requirement that the geomorphological study must also form the integral part of this exercise regarding place of origin, catchment area, general profile of the river stream, annual deposition factor, replenishment and total potential of minor mineral in the river bed. Geological study should contain lithology of catchment area and tectonics and structural behavior of rocks and climate factors like rainfall, climate zone and temperature variation.

36. The river/stream for mining be considered/selected following parameters in the said Guidelines which are as under:

i). A stable river is able to constantly transport the flow of sediments produced by watershed such that it's dimensions (width and depth) pattern and vertical profile are maintained without aggrading (building up) or degrading (scouring down).

ii). The amount of boulders, cobbles, pebbles, and sand deposited in river bed equals to the amount delivered to the river from catchment area and from bank erosion minus amount transported downstream each year.

iii). It is compulsive nature of river to meander in their beds and therefore, they will have to be provided with adequate corridor for meandering without hindrance. Any attempt to diminish the width of the corridor (flood way) and curb the freedom to meander would prove counterproductive.

iv). Erosion and deposition is law of nature. The river stream has to complete its geomorphological cycles from youth, mature to old age.

v). River capturing is unavoidable.

vi). Fundamentally the lowest point of any stream is fixed by sea level.

This survey document should be prepared in the district based on direct and indirect benefits of mining and identification of the potential threats to the river/stream beds in the district.

Besides, calculating the carrying capacity of the river/stream beds/other sources to find out maximum quantity available to be allowed for removal each year from the sources, it should also provide various measures to regulate sand and aggregate mining in a systemic way.

It has to provide for environmentally safe depth of mining and safeguards of banks by prescribing safe distance from banks. IT is required that there should be a Sub-Divisional Committee which should visit each site and make recommendation. The Committee should comprise of Sub-Divisional Magistrate, Officers from Irrigation department. State pollution Control Board or Committee, Forest department, Geology or mining officer shall visit each site for which environmental clearance has been applied for and make recommendation on suitability of site for mining or prohibition thereof.

37. Among other information, the District Survey Report has to record details of the protection of sand or bajiri or minor minerals in the last 3 years, process of deposition of sediments in the rivers of District, general profile of the District. Whether the river is stable and able to constantly transport the flow of sediments produced by watershed such that its dimensions-width and depth pattern and vertical profile are maintained without aggrading-building up or degrading-scouring down?

38. What should be the content of District Survey Report is spelled out and a method to be adopted for calculating the mineral potential is also prescribed?

39. Applying the Sustainable Sand Mining Management Guidelines, 2016, the State Government having selected the area for removal of mineral from the river or stream must also restrict the mining activity considering all factors on a different percentage.

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It can be 50% or 60% of the area of particular river for example in Himachal Pradesh, the mineral constituents like boulders, river born bajari, sand up to a depth of one meter as a source of mineral. Other constituents like clay and silt are excluded as waste while calculating the mineral potential of a particular river. The State can permit mining volume based on measured annual replenishment.

40. Therefore, it is a material replenishment activity which is relevant factor before deciding the grant of sand mining leases.

41. This issue relating to jurisdiction of this Tribunal is no longer *Res-integrata*. By the detailed judgment in the case of *Wilfred J.* O.A. No. 74 of 2014 and S.P. Muthuraman-O.A. No. 37 of 2014 it has been well settled.

42. We have perused the said guidelines issued by the State of U.P. and letter from Mr. Raj Pratap Singh, Additional Chief Secretary, Government of U.P. to all the District Magistrates, Geology and Mining Section dated 14th August, 2017 informing them that in compliance of the order dated 01.05.2017 passed by the Hon'ble High Court of Judicature at Allahabad in Writ Petition No. 1498/2015 *Gulab Chandra Mishra* v. *State of U.P* by omitting Rule 9A of the Uttar Pradesh Minor Minerals (Concession) Rules, 1963, and by making amendment in Chapter-IV through 43rd Amendment in Rules it is provided to grant the areas on concession through E-Tender/E-Auction/E-Tender-Cum-E-Auction. In this regard the Additional Chief Secretary has conveyed to all the District Magistrates that for the purpose of granting mining lease on the vacant areas of sand, morrum, bajri available in the river bed of the State of UP through E-Tender Cum E-Auction under Chapter-IV of the Uttar Pradesh Minor Minerals (Concession) Rules, 1963 as amended from time to time and the prescribed procedure as indicated thereunder shall be followed.

43. Learned Sr. Counsel Shri Vasudev appearing for State of UP referring to said details in the letter of the additional chief Secretary dated 14.08.2017 submitted that it has to be construed as subordinate legislature prescribed by the Government of State of UP for the purpose of granting mining leases for mining sand, morram and bagri following the procedure detailed therein. This according to him, is exercise of state sovereign power to prescribe such procedure and guidelines in exercise of powers conferred by and under Uttar Pradesh Minor Minerals (Concession) Rules, 1963 and is thus comes in the category of subordinate legislation for which this Tribunal has no jurisdiction to adjudicate upon.

44. Similar question was posed in a proceeding before this Tribunal in O.A. No 74 of 2014 filed by One Mr. Wilfred & Ors. questioning the correctness or legality of the guidelines and rules made by the State of Kerala, similar challenge was posed by the State questioning the jurisdiction of this Tribunal. But after a serious contest and thorough examination of legal and factual aspects a view has been taken by this Tribunal that it enjoys the benefit of Judicial Review on administrative decision of the Government which may tend to be in the nature of subordinate legislature as long as such impugned rules, regulations, guidelines raise issue relating to environment. In short it is held that this Tribunal has unbridle power and wide jurisdiction to decide issue relating to environment, if the provision contained in such guidelines, memorandums or rules directly impact or tend to impact the Environment by its implementation.

45. Similar issues were raised in the two decision that we have stated above.

46. Mr. S.P. Muthuraman had questioned this Tribunal the validity and legality of two office memorandums dated 16th November, 2010 and 12th December, 2012 issued by MoEF, superseded Office Memorandum dated 6th November, 2010 to grant concession so such of the project proponent who had proceeded with project without obtaining prior Environment Clearance as mandated under the provision of Environmental Clearance Regulation 2006 and in contravention of Environment

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Protection 1986

47. It was urged by him that by virtue of Notification dated 14th November 2006 titled as Environmental Clearance Regulation 2006 issued by Union of India obtaining of prior Environmental Clearance for project activity in respect of project falling under Category 'A' of the schedule and also project falling under category 'B' of the Schedule required prior permission from the State Environmental Impact Assessment Authority. Whereas, by virtue of these subsequent two office memorandums such of the violators who have not obtained prior Environmental Clearances were given benefit. The office memorandum dated 16th November, 2010 for consideration of proposals involving violation of the Environmental Protection Act, 1986 and the Environmental Clearance Regulation of 2006. Again on 12th December, 2012 the Ministry of Environment, Forests and Climate Change issued another office Memorandum and superseded the office memorandum dated 6th November, 2010, In this office memorandum as soon as any case of violation with respect to the Notification of 2006 is brought to the notice of the MoEF, it will proceed to verify the veracity of the compliant through the regional offices and upon such verification the explanation of project proponent will be asked. If the ministry is satisfied that it is a case of violation, then before proceeding any further, the authorities would require the Project Proponent to submit its environment related policy, plan of action and a written commitment to ensure that the violation will not be repeated within 60 days in terms of the Office Memorandum dated 12th December, 2012 and would delist the project in the meanwhile, other detailed consequences were also provided in the office memorandum dated 12th December, 2012 which was further amended by the office memorandum dated 27th June, 2013. Besides two more office memorandum were issued on 12th December, 2012 and 27th June, 2013.

48. This Tribunal accepted contentions and discounted all objections questioning jurisdiction of this Tribunal to test the legality of the said office memorandums quashed it.

49. Following is the relevant information in the *S.P. Muthuraman's case*:—

> 90. Except the intervener Applicants namely M/s SPR and RG Constructions and M/s Dugar, none of the Respondents have raised any objection to the jurisdiction of the Tribunal and competence of the Tribunal to deal with impugned Office Memoranda in accordance with law. According to these Project Proponents, this Tribunal has no power or jurisdiction to quash the Office Memoranda; they having been issued in exercise of the Executive Power of the Union and forming a part of a policy decision. In support of their contention, they relied upon the judgment of the Supreme Court in the case of *Madras Bar Association* v. *Union of India*, (2014) 10 SCC 1 and *Union of India (UOI)* v. *R. Gandhi, President, Madras Bar Association*, (2010) 11 SCC 1. On the other hand, the Applicants have primarily contended in the main application that the impugned Office Memoranda are administrative orders and would be subject to merit review by the Tribunal and such a situation would not alter even if it was in exercise of Executive Power of the Union/State. This Tribunal has been vested with Original, Appellate and Special jurisdiction in regard to directing payment of compensation for damage to and for restitution and restoration of the environment. The legislature in its wisdom worded the provisions relating to the jurisdiction of the Tribunal (Sections 14 to 17 of the Act of 2010) very widely, and with a clear intent to provide this Tribunal with jurisdiction of a very wide magnitude. Upon reading the various provisions of the Act of 112 2010 cumulatively and in light of the underlying scheme of the Act of 2010, including the definition of 'environment' in terms of Section 2(c) of the Act of 2010, it is quite clear that this Tribunal is having all the trappings of a Court and is conferred with the twin powers of judicial as well as merit review. There is no provision in the Act of 2010 which curtails the jurisdiction of the Tribunal to examine the validity and

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correctness of a delegated legislation and/or administrative or executive order passed by the Government including any of its instrumentalities or authorities. The fundamental principle for invoking the jurisdiction of this Tribunal is that, the question raised should be a substantial question relating to environment and should arise out of the implementation of the enactments specified in Schedule I of the Act of 2010. It could even relate to enforcement of any legal right relating to environment with regard to these enactments. Delegated or subordinate legislation, executive orders and/or administrative orders in so far as they relate to the implementation of the Scheduled Acts would be open to challenge before the Tribunal and hardly any argument can be raised that the documents like Office Memoranda would not be subject to judicial scrutiny before the Tribunal.

In fact, such an argument that this Tribunal would not have jurisdiction to examine legality and correctness of such Office Memorandum is without substance and in fact should not detain us any further, in view of the judgment of the five Member Bench of this Tribunal in the case of *Wilfred J.* v. *Ministry of Environment & Forests*, 2014 ALL (I) NGT REPORTER (2) 113 (DELHI) 137, where this Tribunal was concerned with a question whether this Tribunal being a creation of a statute is not vested with the powers of judicial review, so as to examine the constitutional validity/vires of such instruments as it would be tantamount to enlarging the jurisdiction of this Tribunal. We may notice that the Tribunal deliberated on the issue at some length and also did a comparative study of the various Acts like Central Administrative Tribunal (CAT), TELECOM DISPUTES SETTLEMENT & APPELLATE TRIBUNAL (TDSAT), Armed Forces Tribunal on the one hand and Act of 2010 on other hand. After referring to various judgments on the subject, Tribunal following the principles laid down by the Constitutional Bench of the Supreme Court in *L. Chandra Kumar* v. *Union of India*, (1997) 3 SCC 261 held as under:

> "85. The Courts and Tribunals that are engaged in judicial functions dispensing justice to the public at large are expected to have powers which are necessary to perform its basic functions. As already noticed, unless there is a specific exclusion, such normal powers stated to be inherent in its functioning. The Supreme Court in the case of *Grindlays Bank Ltd.* v. *Central Government Industrial Tribunal*, AIR 1981 SC 606 while dealing with the powers of the Tribunal in relation to setting aside ex parte award in absence of any such power and the award which has become enforceable as a result of its being published rejecting the contention that the Tribunal had become functus officio, Court held as under:
>
> > "We are of the opinion that the Tribunal had the power to pass the impugned order if it thought fit in the interest of justice. It is true that there is no express provision in the Act or the rules framed thereunder giving the Tribunal jurisdiction to do so. But it is a well-known rule of statutory construction that a Tribunal or body should be considered to be endowed with such ancillary or incidental powers as are necessary to discharge its functions effectively for the purpose of doing justice 114 between the parties. In a case of this nature, we are of the view that the Tribunal should be considered as invested with such incidental or ancillary powers unless there is any indication in the statute to the contrary. We do not find any such statutory prohibition. On the other hand, there are indications to the contrary."
>
> 86. From the above, it is clear that ancillary or incidentally powers which are necessary to discharge its functions effectively for the purpose of doing justice between the parties should be considered to be endowed. If the power of judicial review in its limited scope is not expected to be endowed upon the Tribunal then majority of the cases wherein Orders, Circulars, Notifications issued in exercise of

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subordinate legislation are challenged could not be fully and completely decided by the Tribunal, though they exclusively fall in the domain of the Tribunal.

87. Another very important aspect that cannot be overlooked by the Tribunal is that Article 226 of the Constitution of India is a discretionary jurisdiction to be exercised by the High Courts. It does not give an absolute right to a person. For variety of reasons, the High Court may decline to entertain a petition in exercise of its powers under Article 226 of the Constitution, while the NGT Act gives a statutory right to an Applicant, aggrieved person or any person to approach the Tribunal in all matters relating to Acts specified in Schedule I of the NGT Act. It is not a discretionary jurisdiction like under Article 226 of the Constitution of India.

88. On a comparative analysis of various provisions of the different Acts afore-stated, it is evident that power, jurisdiction, judicial independence, exclusion of jurisdiction and other determinative factors prescribed under the NGT Act are of wide connotation and are free of restrictions. Sections 14, 15 and 16 read co-jointly give three different jurisdictions to the Tribunal over all disputes and appeals relating to various fields of environment. The jurisdiction is exercisable in relation to the matters arising from any or all of the Scheduled Acts. Examined objectively, the provisions of the NGT Act are more akin to the provisions of the CAT Act, in contradistinction to the provisions of the TDSAT. The various features and aspects of the NGT Act that we have discussed above would bring the case before the Tribunal within the ambit of *L. Chandra Kumar case* (supra), as opposed to the case being covered by *BSNL case* (supra). We have already dealt above, in some 115 elaboration, the aspect as to how the cases relied upon by the Respondents do not apply to the facts of the present case, keeping in view the provisions and the legislative scheme of the referred Acts and various judicial pronouncements. At the cost of repetition, we may record here that the language of the various provisions of the NGT Act by necessary implication gives power of judicial review to the Tribunal. There is no specific or even by necessary implication exclusion of such power indicated in any of the provisions. Furthermore, in the scheme of various environmental acts and if the object and purpose of such acts are to be achieved then the power of judicial review would have to be read into the provisions of the NGT Act. If the notifications issued under any of the Scheduled Acts, by virtue of the powers vested by subordinate or delegated legislation, are ultra vires the Act itself or are unconstitutional as they violate Articles 14 or 19 of the Constitution of India, then it has to be construed that the Tribunal is vested with the power of examining such notifications so as to completely and comprehensively decide the disputes, applications, appeals before it. Of course, the powers of the High Courts and the Supreme Court under Articles 226 and 32 of the Constitution of India have not been excluded under the provisions of the NGT Act, thus ensuring that the Tribunal performs supplemental functions and does not supplant the Higher Courts.

89. The Supreme Court in the case of *K.S. Venkatraman and Co.* v. *State of Madras*, (1966) 2 SCR 229, has stated the proposition that an authority or Tribunal constituted under an Act cannot, unless expressly so authorised, question the validity of the Act or any provisions thereof under which it is constituted. This is a sound principle and has been followed consistently. To put it in other words, a Tribunal or an authority constituted under an Act can even examine the validity of the provisions of the Act which created it, provided it is so expressly authorized by the Act itself. This Tribunal is not travelling into that realm of law, but is concerned with the validity of the notifications issued under the Acts other than the Act that created the National Green Tribunal. For this

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proposition, we have referred to various judgments above.

95. Reverting to the present case the CRZ Notification dated 19th February, 1991, which has been amended on 3rd of October, 2001, was issued in exercise of the powers conferred under Section 3(1) and Section (2)(v) of the Act of 1986 and Rule 5(3)(d) of the Rules of 1986, in declaring coastal stretches as coastal 116 regulation zone and for regulating activities in the coastal regulation zone. The legislature has delegated legislative power to the Central Government to take all measures as it deems necessary or expedient for the purposes of protecting and improving quality of the environment and preventing controlling and abating environmental pollution. This is a very wide power, which has been vested in the Central Government by delegated legislation under these provisions. In the exercise of its powers and with the object of satisfying the stated purpose, the Notification of 2011 has been issued under the power of delegated/subordinate legislation. Thus, there cannot be any doubt that the Notification of 2011 in the case before us, is a piece of delegated legislation and its legality, correctness or otherwise can be questioned only on the limited grounds afore-stated.

96. To bring out this distinction illustratively and more clearly, we may refer to the power of the MoEF (Central Government) to issue Environmental Clearance in terms of the provisions of the Act of 1986 read with the Regulations of 2006. The order granting or refusing Environmental Clearance to a Project Proponent, is not an act of subordinate or delegated legislation but clearly is an executive act. The Central Government in exercise of its executive powers, passes an order whether or not a given project should be granted Environmental Clearance for commencing its operation. In passing such orders, the Central Government does not act in furtherance to the powers vested in it by virtue of delegated legislation. It is merely an executive act relatable to the statutory powers vested in the Central Government. The CRZ Notification issued by the Central Government is therefore an act of delegated legislation while passing of an order of Environmental Clearance is an executive order. This view finds support from the judgment of the Delhi High Court in the case of *Utkarsh Mandal* v. *Union of India*, Writ Petition (civil) no. 9340/2009 which held that "grant of environmental clearance is an executive order which involves application of mind by the executive."

92. We may also refer to another larger Bench Judgment of the Tribunal in the case of Himmat Singh Shekhawat *v.* State of Rajasthan *(supra), where the Tribunal was dealing with a case challenging the validity of the Office Memoranda dated 9th September, 2013 and 24th December, 2013 issued by MoEF and other similar Office Memoranda issued the State of Rajasthan as well as other states as being violative of the provisions of the Act of 1986 and being in teeth of the Judgment of the Supreme Court in the case of* Deepak Kumar *v.* State of Haryana, *(2012) 4 SCC 629. As stated above, the Tribunal had quashed the Notifications which were in violation to the Notification of 2006 and in teeth of the Judgment of the Supreme Court. It was held that the Notification of 2006 being a statutory law cannot be diluted, varied and frustrated in the name of supplying of gaps and/or framing the policy in interest of a group of people. 118 The Notification or orders whether issued by the principle or delegated authority, the principle that delegated legislation cannot be beyond the principle legislation equally applies to both. As discussed above, the body to whom the power is delegated is required to act strictly within the framework of such delegated powers. It is incidental to the exercise of all powers in as much as it is necessary to delegate for the proper discharge of all the public duties. It is because the body constituted should act in the manner indicated in law and should exercise its discretion by following the procedure therein itself, it*

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has to be ensured by the delegate authority that it exercises such power for carrying out the purpose and object of the Act and does not interferes with or offends the substantive provisions of the Act. The discipline and protocol prescribed in a statutory instrument ought not to be altered much less defeated.

94. Before the Tribunal, no contention of this dimension has been raised. As already stated, the Tribunal has been created by a statute with all requisite safeguards and has been vested with complete adjudicatory powers as required under the mainstream justice delivery system in our country. The impugned Office Memoranda have been issued in exercise of administrative power which is presumably exercised in furtherance to the powers vested in the Ministry under the Act of 1986 and/or Notification of 2006. These Office Memoranda have been issued for the purposes of 'implementation of Acts mentioned in the Schedule' (emphasis supplied). Thus, we see no reason for accepting the contention that this Tribunal has no jurisdiction to examine the legality or correctness of these Office Memoranda. Furthermore, except these two Respondents, none of the other parties to the lis has even touched upon this objection.

50. The above two decision of the Tribunal rendered in the case of *Wilfred and S.P. Muthuraman* were assailed before the Hon'ble Supreme Court but the Hon'ble Supreme Court declined to set aside the decision of this Tribunal except that on other issues the case of *Wilfred* was referred back to this Tribunal and in the case of *S.P. Muthuraman* the stay has been granted only in respect of few of the parties staying the imposition of compensation by this Tribunal as could be seen from the orders of the Hon'ble Supreme Court.

51. For the aforesaid reasons we could examine the validity of the Sand mining Policy, 2017 and the E-Notice, inviting E-Tender for E-Biding for grant of mining lease which are impugned in this case issued by the State of UP, on the anvil of settled legal principles referred to above and decisions of the Hon'ble Supreme Court but we refrain.

52. It could safely be observed that even if, we technically hold that this Tribunal does not enjoy the writ jurisdiction conferred upon the constitutional courts to quash rules, regulation and guidelines but we would emphasis that the jurisdiction of this Tribunal to examine all administrative and executive action of the Government and Statutory Authorities, which if implemented in its nakedness, is likely to effect and impact adversely on the environment or even remotely are of the nature that it will in future catalyze into destructive action leading to destruction of environment affecting air and water then the Tribunal would be justified in restraining enforcement of such directive administrative and executive actions and may be justified in supplying the deficit applying doctrine segregation and severability to ensure protection of the environment in furtherance to the constitutional mandate to ensure that right to life granted by Article 21 is not frustrated. In the instant case the applicant have brought in question the E-Notice inviting E-Tender for grant of mining lease to mine sand, gravels and bagri from various rivers in the State of UP in respect of each district which we have already referred to above.

53. The impugned E-Notices inviting E-Tender detailed in the applications are purporting to have been issued by the State of Up by virtue of the following procedure it has prescribed under the rules captioned as "sand mining guidelines 2017".

54. We have perused the provisions of the Uttar Pradesh Miner Mineral (Concession) 43rd Amendment Rules, 2017. The Rule 23 has been amended with new rule which reads as follows:—

55. This amended rule prescribes procedure for grant of mining lease only through E-Tender cum E-Auction and sub clause 4 of Rule 23 is relevant which was not in the repeal rule it reads as under:

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23(4). The district officer shall get the area or area declare under sub-rule 1 evaluated for quality and quantity of mineral for fixing minimum bid or offer by the Director, Geology & Mining, UP or by an officer authorised by him before the date fixed for E-Tender Cum E-Auction.

56. According to the applicant this rule mandates prior survey of the Rivers of the areas declared under sub-rule 1 for grant of mining lease evaluated for "quality" & "quantity" of the minerals for fixing the mining bid or offer by the Director, Geology & Mining, UP. They contended that prior to issuing E-Notice for E-Tender for grant of Lease the exercise of conducting district of survey for evaluating quality and quantity of the mineral is essential and should be treated as a pre-condition.

57. The State of UP has seriously refuted this contention on the plea that evaluation for quality and quantity of mineral for fixing minimum bid is part of the entire procedure for grant of lease and is not a condition precedent or prior condition for issuing E-Notice for E-Tender. In other words they contend that the states sovereign domain saves its right to frame its rules under the provision of Section 3 of the MMRD, Act and the present rule is made in exercise of that power. It has framed under UP Miner Mineral (Concession) 43rd Amendment Rules, 2017. Conducting of survey for evaluating quality and quantity of the minerals in the river for issuing E-Notice for E-Tender is not prior but that will be taken care of before allowing the lease operation.

58. It is further contended that Rule 27 of the said amended rules prescribes a detailed procedure. After following the detailed procedure as prescribed therein, Rule 34 of the amended rule would apply. The selected applicant, before execution of the mining lease under the provision of the chapter 2, 4 & 9 or issuing mining permit under chapter 6 of those rules shall get prepared a mining plan by a person recognized and registered by the Director having the qualification and experience as detailed in the said rules.

59. It is further urged that the lessee on fulfilling all the conditions stated in Rule 34(1), 34(2) & 34(4) shall start the mining operation only after obtaining environment clearance if required under the provisions of Environment Impact Assessment Notification dated 14th September, 2006 issued by MoEF which is in force. Besides, the mining lease will be executed only after approval of the mining plan by the director after which the lessee shall commence mining operation within the 6 months from the date of execution of lease deed and shall thereafter conduct such operation without deliberate intermissions in the skillful.

60. Responding to such contention Learned Sr. Counsel Sh. Pinaki Misra has drawn our attention to several other documents to bring home the point that preparation of district survey report as prescribed in the sustainable guidelines for mining 2016 is a prior action and not either simultaneous or post issuance of E-Tender notice.

61. We have perused the letter dated 28.06.2017 to which our attention is drawn. It is issued by the Director, Geology & Mining, State of UP to all collectors in the State regarding preparation of survey report regarding minerals. We prefer to extract the entire text of the letter as ready reckoner and clarity. It reads:—

From
Director
Geology & Mining Directorate, UP Lucknow
To All Collector
Letter No. M/21 (Prcha) 2011
Sub: Regarding preparing Survey report regarding minerals
Sir,

This is to inform on the above subject that Minsitry of Environment Forest & Climate Change, has issued notification No. 125 dated 15th January, 2016 that

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survey report of the sub minerals available in each of the District should be prepare and put a copy thereof in the public domain and post for the website of the district for 21 days. Considering on the received remarks, in case same found appropriate then same should be include in the final report being given by the D.I.A.A. within the period of six months. Preparing of District Survey Report, environmental no objection report and for evaluation of the projects, shall be the basis of application. Report shall be updated in each five years. In para 7(iii) of the above notification and schedule 10, procedure has been mentioned in detailed. (copy enclosed).

In order to above you are informed that in the near future the minerals present in the river level in the State, is proposed to be sanction on remission through e-tender/e-auction/e-bidding. Prior to sanction of remission mine survey report of the district should be prepare and necessary to upload in the website of the district.

It is therefore requested that pursuant to the notification issued by Govt. on 15th January, 2016 mineral survey report of the district be prepare and also made available to the Directorate.

Yours
(Dr. Balkar singh)
Director

62. By letter in question, dated 28.06.2017 which is in the nature of direction to all the District Collector on behalf of the Government addressed by the Director. It is seen from the letter that was referring to MoEF Notification No. 125 dated 15th January, 2016 requiring a survey report of the sub-minerals available in each of the districts should be prepared put copy thereof in the public domain and post on the website of the District for 21 days inviting objection or response of the public. It also contains statement that on receipt of remarks and objection in case same is found appropriate then it should included in the final to be given by D.I.A.A. within a period of six months. It is material to note that there is clear direction to the following effect:—

"Preparing of District Survey Report, Environmental or No Objection Report & evaluation of the project shall be basis of the Application" The report shall be updated in each five years.

63. Quoting paragraph 7(iii) of the said notification and schedule 10 attention of all district collectors have been invited to follow the procedure to have been detailed therein.

64. Ultimately, from the extracted portion of the text it could also be seen that all the District Collectors have been informed that the State is proposing to sanction through E-Tender by E-Auction by E-biding the mining lease from the river and prior to sanction of remission mine survey report of the district shall be prepared and necessarily be uploaded in the website of the District.

65. Thus there is merit in the contention of the applicant that the District Survey Report is not only important act but it should be conducted prior sanctioning of the permission/concession.

66. Further it would be appropriate to note that the purpose of preparing District Survey Report is itself highlighted in the Mining Rules, 2017 which is in furtherance to Rule 23(4), Rule 27 and Rule 34, According to the submission of the State of UP E-Notice for E-Tender and E-Biding is issued after declaring the area under Rule 23(1) and for such issuance for E-Notice or E-Tender a tentative evaluation is all that is required for approximates and based on that the State Government would proceed. This evaluation is to be done by the District Officer and not by DEIAA. We have examined this issue.

67. The District Survey Report being referred to by the applicant is a report to be prepared by a committee called District Environment Impact Assessment Authority

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DEIAA established by the District Magistrate Consisting of Upper District Magistrate/Sub Divisional Magistrate/Tehsildar and Senior Mining Officer/mining Officer/Food Inspector posted in the District. We have perused paragraph 6 of the said mining policy of 2017 which speaks of potential of mining by sub-minerals in the specified blocks which according to these provisions is to be determined by the committee referred to above.

68. Paragraph 6 also speaks of the fact that the District Survey Report shall contain distinct wise availability of the sand or gravels or aggregate resources and details of the mineral potential in a given area. As rightly contented the sand mining policy has left the said task to the committee to be constituted by the District Magistrate under the Sand Mining Policy. It is not disputed before us that on the date of filing of these applications before this Tribunal the District Committee was neither constituted nor a survey report was prepared for relevant area in respect of which the E-Notice for E-Tender have been issued by the State Government.

69. It also apparent from the provisions of the sand mining policy that the bidder has to satisfy himself of the quantity of minor mineral by personally inspecting the site. No objection could be accepted at a later stage. As per the 2006 Notification of MoEF mineral potential is to be determined by DEIAA in the District Survey Report.

70. The another consequence highlighted before is impugned E-Notices for inviting E-Tender have been issued during the rainy season and due to heavy rains in Uttar Pradesh all sand mines in Uttar Pradesh were submerged in water consequent to which no process required to be undertaken for preparation of the District Survey Report could be completed.

71. In other words it is evident that absence of the factual District Survey Report after due inspection grant of mining lease will be in conflict of the environmental laws as sand mining lease could be granted in an area only when aspect of replenishment of miner mineral especially in river sand is clearly established.

72. Therefore the information provided by the District Collector with regard to availability of quantity and quality of mineral for issuance of E-Notice for E-Tender is thus described as hypothetical and not based on the actual.

73. Our attention was also drawn to the information furnished for inviting E-Notices for E-Tender in respect of each sand quarry, in the impugned NITs for the previous years has also shown to us were it is seen that similar information is repeated thereby questioning the authenticity of such information. We have perused some of the survey numbers (Ghata numbers) the information is vague. Thereby, leading to presumption that it was not by physical inspection and proper evaluation but by hypothetical statements resulting in breach of the relevant rule which require proper evaluation by officers. In this backdrop we shall now consider whether the State Government has justified in proceeding with prescribed E-tender process. We have given serious consideration to ground so urged with both sides.

74. we are convinced when it comes to protection of environment and enforcement of other environmental laws relating to the protection of the environment we shall certainly examine by Judicial Review the consequence flowing from the Governmental actions though performed under the provision of MMRD Act and rules made thereunder. In other words we are not testing the virus and legality of the Uttar Pradesh Minor Mineral (Concession) Rules or the Minor Mineral Guidelines 2017 from the point of view of its legal sustainability but dispassionately we shall examine issue related to environment flowing therefrom.

75. Environment Protection Act, 1986 brings within its ambit all issues relating to environment and mandates its protection. Air and Water Act which contains supplemental provisions are in furtherance of object to protect environment.

76. Natural resources undoubtedly vest in the State. The public trust doctrine cast

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upon the state an onerous responsibility to be the trusty.

77. The international conservation concern regarding natural wealth is a universal demand. Article 51(a) sub-section (G) of the constitution requires ever citizen of India to protect and improve the natural environment including forest, lakes, rivers, wildlife and to have compassion for the living creature.

78. The Hon'ble Supreme Court in the case of *M.C. Mehta* v. *Kamal Nath*, (1997) 1 SCC 388 held that under Article of Indian Constitution incorporates the "Public Trust Doctrine" and as such extents to protection of all natural resources which includes protection of flora and fauna.

79. The Hon'ble Supreme Court in the case of *Vellore Citizens Welfare Forum* v. *Union of India* (1996) held that precautionary principle is part of the Environmental Law in India. It further stated that onus of proof is on the actor of the developer/industrialize to show that its actions are environmentally benign. The relevant extract of the aforesaid case reads hereunder.:—

> *"We are, however, of the view that "The precautionary Principle"and "The Polluter Pays Principle" are essential features of "Sustainable Development". The "Precautionary Principle"- in the context of the municipal law-means:*
>
> *(i) Environment measures-by the State Government and the statutory Authorities must anticipate, prevent and attack the causes of environmental degradation.*
>
> *(ii) Where there are threats of serious and irreversible damage lack of scientific certainly should not be used as the reason for postponing, measures to prevent environmental depredation.*
>
> *(iii) The "Onus of proof" is on the actor or the developer/industrial to show that his action is environmentally benign."*

80. Besides, NGT, Act mandates this Tribunal to apply principle of Sustainable development, Precautionary Principle and the Polluter Pays Principle by virtue of Section 20 of the NGT Act.

81. The Sand Mining Policy 2017 dated 14.08.2017 issued by the State of UP is therefore to be tested keeping in mind the provisions of "Sustainable Sand and Gravel Mining Guidelines 2006 issued by the Central Government (MoEF) in the provision of Uttar Pradesh Minor Minerals(Concession) 43rd Amendment Rules, 2017. From both the provisions contained in the aforesaid guidelines and rules it is clearly provided that District Survey shall be conducted by Committee at the District Level which is nomenclatured as D.E.I.A.A. has to prepare District Survey report in respect of each district and mode & manner of preparation is well prescribed. The whole object appears to be for ascertainment of the quality and quantity of the minor mineral, sand, gravel, maroon and bagri emphasis of its replenishment, such a District Survey Report is not important document but is required to be in a public domain for 21 days as per rules. This is a clear mandate which speaks volume that there should be meticulous examination and evaluation of quantity and quality of minor minerals and for which purpose physical inspection is must.

82. Before us was produced a set of DSRs in respect of few districts regarding which E-Notice or E-Tender has been issued. Shockingly we notice the fox-paux committed by the State in mentioning rivers so inspected which are in the State of Kerala and Karnataka where reports are filed pertaining to Uttar Pradesh. However, the State Government hastened in its action to withdraw all such DSR and is now said to be in process of conducting fresh DSRs. Further we may notice that the Hon'ble Supreme Court in the case of *Deepak Kumar* v. *State of Haryana*, (2012) 4 SCC 629 taking serious note of adverse impact of illegal river/sand mining going on in the State of UP and Rajasthan issued guidelines for sand mining and required the States to follow and adopt the same by framing appropriate rules in this regard. The Hon'ble

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Supreme Court observed thus is hereunder:—

25. Quarrying of river sand, it is true, is an important economic activity in the country with river sand forming a crucial raw material for the infrastructural development and for construction industry but excessive instream sand and gravel mining causes the degradation of rivers. Instream mining lowers the stream bottom of rivers which may lead to bank erosion. Depletion of sand in the streambed and along coastal areas causes the deepening of rivers which may result in destruction of aquatic and riparian habitats as well. Extraction of alluvial material as already mentioned from within or near a streambed has a direct impact on the stream's physical habitat characteristics.

26. We are of the considered view that it is highly necessary to have an effective framework of mining plan which will take care of all environmental issues and also evolve a long term rational and sustainable use of natural resource base and also the bio-assessment protocol. Sand mining, it may be noted, may have an adverse effect on bio-diversity as loss of habitat caused by sand mining will effect various species, flora and fauna and it may also destabilize the soil structure of river banks and often leaves isolated islands. We find that, taking note of those technical, scientific and environmental matters, MoEF, Government of India, issued various recommendations in March 2010 followed by the Model Rules, 2010 framed by the Ministry of Mines which have to be given effect to, inculcating the spirit of Article 48A, Article 51A(g) read with Article 21 of the Constitution.

The State of Haryana and various other States have not so far implemented the above recommendations of MoEF or the guidelines issued by the Ministry of Mines before issuing auction notices granting short-term permits by way of auction of minor minerals boulders, gravel, sand, etc. in the riverbeds and elsewhere of less than 5 ha. We, therefore, direct all the States, Union Territories, MoEf and the Ministry of Mines to give effect to the recommendations made by MoEF in its Report of March 2010 and the model guidelines framed by the Ministry of Mines, within a period of six months from today and submit their compliance reports."

83. It is evident that the Hon'ble Supreme Court emphasized the absolute necessity to have an effective framework of mining plan which will take care of environmental issues and also evolve a long term "rational and sustainable" use of sustainable use of natural resource base. In view of such clear mandate the State of UP was required to give due regard and implement the recommendations made by MoEF in continuation of its earlier recommendation issued in the year 2010. Consequently, the Sustainable Sand Mining Management Guidelines, 2016 of MoEF gain importance. We have referred to it which is at annexure A.

84. The main objective of the Guidelines is to ensure "sustainable sand mining and maintain the ecology of the river and other sand resource". The object would turn nugatory if due regard is not given. The Said Sand and Gravel Mining Guidelines provide a detailed procedure and safeguards for sustainable sand mining. It is material to note that great emphasis is laid in the guidelines for preparation of District Survey Report which is prescribed as an important initial step before formulating a mining policy. We have noticed that the State of UP is feeling comfortable for having issued Sand Mining Policy on 14.08.2017 prescribing certain guidelines and procedures even in those guidelines preparation of survey report documents, mapping, the status of sand resources in district is an integral and essential part.

85. The process involved in the preparation of District Survey Report is detailed as hereunder:—

District Survey Report

"The processes under the Guidelines:

(a) Identification of areas of aggradation/deposition where mining can be

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allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited. Use of satellite imagery for identifying areas of sand deposit and quantity be done.

(b) Calculation of annual rate of replenishment and allowing time for replenishment after mining in area.

(c) Identifying ways of scientific and systematic mining.

(d) Identifying measures for protection of environment and ecology.

(e) Determining measures for protection of bank erosion.

(f) A bench mark (BM) with respect to mean sea level (MSL) should be made essential to inmining channel reaches (MCR). Below which no mining shall be allowed.

(g) Identifying steps for conservation of mineral.

(h) Permanent gauging facilities (for discharge and sediment both) should be made compulsory for the sites having excessive mining in consultation with Central Water Commission or any competent State Agency.

(i) Implementing safeguards for checking illegal and indiscrete mining."

"The river/stream/other sources of sand and aggregate are studied on following parameters:

a) Geomorphological Studies.

i) Place of origin

ii) Catchment area

iii) General profile of river stream.

iv) Annual deposition factor.

v) Replenishment.

vi) Total potential of minor mineral in the river bed.

b) Geological studies

i) Lithology of catchment area.

ii) Tectonics and structural behaviour of rocks.

c) Climate Zone.

i) Intensity of rainfall

ii) Climate zone.

iii) Temperature variation."

86. It is important to note that above process shall be for preparing district report. We accept applicant's contention that it is so fundamental in nature that there must be in its place the DSR before formulation of any mining policy in order to ensure safe and suitable sand mining.

87. We are clear in our mind that the Sand Mining Policy will be will be basically flawed if it permits tenders auction if it is issued before the identification of river/stream beds section/other sources which should be prohibited zones for extraction of sand and aggregates. Likewise the policy will defeat in its objective before identifying the measures for protection of environment and ecology in relevant districts while sand mining is carried on and safeguards for checking illegal and indiscrete mining in an area is preventive.

88. We can notice that the Government of India acknowledging the relevance of District Survey Report in ensuring formulation of safe sustainable mining plan has incorporated and amended to sand mining management guidelines, 2006 in 2006 notification vide amendment dated 15.01.2016 for recognizing the importance of a District Survey Report by the said amendment in para 7(iii) incorporated which reads "Preparation of District Survey Report for Sand Mining or River Bed Mining and Mining of other Minor Minerals" in 2006 Notification besides other amendments. Relevant

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portion of the amendment is at annexure 2.

89. While giving the procedure for preparation of District Survey Report in appendix -X, Central Government in 2006 Notification has reiterated the laudable objective and essentiality of preparation of District Survey Report i.e. to identify areas of aggradations or depositions where mining could be allowed and identification of areas of erosion and proximity to infrastructural structure and installations where mining could be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining in that area.

90. Appendix-X is therefore relevant that requires survey report shall be carried out by the District Environment Impact Assessment Authority i.e. DEIAA with the assistance of Geology Department or Irrigation Department or Forest Department or Public Works Department or Ground Water Boards or Remote Sensing Department or Mining Department in the District. This bring to surface the un-doubtable importance of the District Survey Report and the onerous responsibility of DEIAA.

91. It is not in dispute, in the instance cases, the State of UP has not waited for the report of DEIAA while issuing E-Notice for E-Tender for E-Biding in respect of various rivers for grant of mining lease. It has proceeded on its own volition on the basis of so called survey reports given to it by District Magistrate regarding evaluation of quantity and quality of minerals said to have been done by the District Officer. In other words they have by their own mechanism collected the evaluation and used it as a prior material information for issuing E-Notice inviting E-Tender for E-Biding.

92. It is not in dispute that the said report was not in public domain for 21 days before issuing E-Tender/E-Notice because that is different report than the District Survey Report referred to in the aforesaid guidelines issued by MoEF and the mandate of amended rules framed by the State Government under the provisions of MMRD Act. Therefore we are satisfied that the issuance of E-Notice by E-Tender on an in-sufficient material information of vital importance relating to environment when the State Government issues E-Notice inviting E-Tender for E-Biding for grant of mining lease. We may observe without expressing opinion on the competence of the State Government to issue E-Tender inviting E-Notice for E-Biding which is under the provisions of Rule made under the provisions of MMRD Act which is not a schedule statute in the NGT Act we have examined its ultimate effect and the basis on which it is issued for ascertainment of its effect on the environment. In this regard the material on the basis on which such mining policy 2017 was framed for grant of mining lease needs a thorough judicial scrutiny.

93. The State of UP has not disputed as on the date of issuance of impugned E-Notices inviting E-Tender for E-Biding the District Survey Report was not in existence and same was not prepared by the DEIAA and that only material at had was survey report of evaluation submitted by District Officer that to be survey conducted during rainy season were there could not have been a realistic evaluation of quality and quantity of the minerals the importance of District Survey Report which we have held is of significance.

94. MoEF&CC vide notification dated 15th January, 2016 had amended the regulation/notification dated 14th September, 2006 in relation to carrying on of mining activities as stated above in terms of the Judgment of the Hon'ble Supreme Court in the case of *Deepak Kumar and Himmat Singh Sekhawat* judgment of this Tribunal and even in terms of the Notification of 2006 obtaining the prior Environmental Clearance to the carrying on of mining activity is held to be mandatory. Even the Notification of 15th January, 2006 does not change that status. In fact the Mining Rules framed by the State of UP in terms of U.P. Minor Mineral Concessions Rules 2017 it is mandatory to obtain environment Clearance prior to carrying on of any mining activity under the lease granted to minor-mineral by the State Government. In that sense we are

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examining the Mining Policy 2017 of the State of UP and the E-Notice issued only from the point of view of environmental protection. Rule 34 of the said Rules mandates that there should be sufficient safeguards provided for environmental protection and in that sense DSR is initial step. Stricto senso we are not concerned with the tenders invited by the State Government under its mining policy which does not fall within the scope of jurisdiction of this Tribunal. However, the State in terms of its constitutional obligations contained in Article 48(A) read with the Principle of Sustainable Sand Mining, the very foundation of the Sand Mining Policy, 2017 of the State and the Judgment of the Tribunal, is obliged to provide due protection and safeguards for the environment protection before it can generate revenue by utilization of its natural resources. The State Government holds these assets in public interest. The Doctrine of Public Trust requires the State Government to ensure that the natural resources including sand mining is not permitted to be wasted opposed to the Principle of intergenerational equity. The mining policy does have deficiencies and does not incorporate all the provisions of Environmental protection as contemplated in the minor mineral rules of the State of UP. We are not concerned whether the State ought or ought not have invited tenders on the basis of so called surveys conducted under the mining rules but we are certainly concerned with that no environmental degradation is permitted as a result of indiscrimate unregulated mining without compliance to the laws enforce. Obtaining prior Environmental Clearance is not optional therefore, all other laws in other fields than environment must tilt in favour of the environmental laws and non should be permitted to carry on the activity of extraction of minor minerals including sand unless the requirement of environmental laws are fully satisfied.

95. The E-tender cum E-Auction in terms of Rule 23(iv) does give the power to the District officer to get evaluated for quality and quantity of the minerals for fixing the minimum bid. This exercise squarely falls within the ambit of commercial policy of the State Government under the provisions of the Mining Policy and but cannot form an exception to compliance of the environmental laws as contemplated under the Mining Rules of 2017 as well as Appendix-x. Appendix-x while refereeing to Sustainable Sand Mining Guidelines also directs to ensure providing of the details as contemplated under the said Appendix. It states that the main object of preparation of District Survey Report is to ensure identification of areas of aggradation/deposition where mining can be allowed and identification of areas of erosion and proximity to infrastructural structures and installation where mining should be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining area. Thus, the environmental protection requires a strictly regulated mining in terms of area, quantity as well as most importantly replenishment thereof.

96. It is true that under the Mining Policy/Rules the State is empowered to conduct survey for the purpose of inviting bids opine. The preparation of DSR and obtaining of Environmental Clearance is also a condition precedent to carrying on mining activity. It is for the State Government to ensure that there is no conflict between the two and they are balanced so as to ensure that neither there is scope for illegal mining nor there should environmental degradation.

97. The information or data collected by the authorized officer of the State Government under Mining Act for inviting tenders would not be and cannot be the base for compliance of Appendix-x as it is not a substitute for the District Survey Report referred to which must be prepared by District Environment Impact Assessment Authority the body in terms of Appendix-x. In light of the above discussion we pass the following orders and directions:

1. we have already held that we are not concerned in deciding the merit or otherwise of the Mining Policy, 2017 framed by the State of UP and inviting of e-tender and e-auction as it falls beyond the jurisdiction of this Tribunal.

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2. The data collection and declared for preparation of DSR shall take precedent over other data and would form the foundation for providing mining lease in terms of Appendix-x to the Notification dated 15th January, 2016 must be prepared by the statutory authority stated therein i.e. DEIAA prior to awarding of permits for carrying on mining activity in any part of the State of UP.
3. Upon finalization of the DSR in the manner prescribed 21 days notice shall be provided and objections if any file shall be considered in accordance with law.
4. Obtaining of Environmental Clearance shall be a condition precedent to the carrying on of the mining activity/execution of the lease. This be so for the environmental laws afore-referred and even stipulated in the Rule 34(iv) of the Mining Rule, 2017
5. The State Government and all its agencies and instrumentalities would ensure that the protection and replenishment of natural resources including sand is duly provided for in the mining lease that would be granted by the State Government as required under Appendix-x to the notification dated 15th January, 2016.
6. The State Government and its instrumentalities shall also ensure that the terms and conditions of the Mining Lease would contain all the relevant clauses as stated in Appendix-x and Notification dated 15th January, 2016 for carrying out sustainable mining.

98. With the above directions, Original Application No. 557/2017 is deposed of along with connected Original Application No. 615 of 2017, Original Application No. 616 of 2017, Original Application No. 624/2017, Original Application No. 631 of 2017, Original Application No. 633 of 2017, Original Application No. 625/2017, Original Application No. 634 of 2017, Original Application No. 636/2017, Original Application No. 639 of 2017, Original Application No. 647 of 2017, Original Application No. 648 of 2017 and Original Application No. 326 of 2017 with no order as to costs.

99. In view of the above all the miscellaneous applications are disposed of as the main applications stands disposed of.

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MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 25th July, 2018

S.O. 3611(E).—Whereas by notification of the Government of India in the erstwhile Ministry of Environment and Forest issued *vide* number S.O. 1533(E), dated the 14th September, 2006 published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) (hereinafter referred to as the said notification) directions have been given regarding the prior environmental clearance;

And whereas, the Ministry of Environment, Forest and Climate Change has amended the said Notification *vide* S.O. 141 (E) dated 15th January, 2016 wherein the procedure for preparation of District Survey Report for minor mineral has been prescribed;

And whereas, the Hon'ble High Court of Jharkhand at Ranchi in its orders dated the 11th April, 2018 and 19th June, 2018 in W.P. (PIL) No. 1806 of 2015, in the matter of Court on its Own Motion Versus the State of Jharkhand & Others with W.P. (PIL) No. 290 of 2013, in the matter of Hemant Kumar Shilkarwar Versus the State of Jharkhand & Others, has *inter-alia* directed the preparation of District Survey Report for minor minerals other than Sand and Bajri or delegation of the powers for preparation of format of District Survey Report of minor minerals other than sand and bajri to the State Government and/or District Environment Impact Assessment Authority and District Expert Appraisal Committee;

And whereas, the Central Government hereby in the public interest dispense with the requirement of notice under clause (a) of sub-rule (3) of rule 5 of the Environment Protection Rules, 1986,

Now, therefore in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with sub-rule (4) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following further amendments to the notification of the Government of India, in the erstwhile Ministry of Environment and Forests *vide* number S.O. 1533(E), dated the 14th September, 2006, namely: –

In the said notification, for Appendix X, the following shall be substituted, namely: -

"APPENDIX - X

[See paragraph 7 (iii) (a)]

I. PROCEDURE FOR PREPARATION OF DISTRICT SURVEY REPORT FOR SAND MINING OR RIVER BED MINING

The main objective of the preparation of District Survey Report (as per the Sustainable Sand Mining Guideline) is to ensure the following: -

Identification of areas of aggradations or deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining in that area.

The report shall have the following structure:

(1) Introduction;

(2) overview of Mining Activity in the District;

(3) the List of Mining Leases in the District with location, area and period of validity;

(4) details of Royalty or Revenue received in last three years;

(5) detail of Production of Sand or Bajri or minor mineral in last three years;

(6) process of Deposition of Sediments in the rivers of the District;

(7) general Profile of the District;

(8) land Utilization Pattern in the district: Forest, Agriculture, Horticulture, Mining etc.;

(9) physiography of the District;

(10) rainfall: month-wise;

(11) geology and Mineral Wealth.

In addition to the above, the report shall contain the following:

(a) District wise detail of river or stream and other sand source;

(b) District wise availability of sand or gravel or aggregate resources;

(c) District wise detail of existing mining leases of sand and aggregates.

A survey shall be carried out by the District Environment Impact Assessment Authority with the assistance of Geology Department or Irrigation Department or Forest Department or Public Works Department or Ground Water Boards or Remote Sensing Department or Mining Department etc. in the district.

Drainage system with description of main rivers

S. No.	Name of the River	Area drained (Sq. Km)	% Area drained in the District
(1)			
(2)			

Salient Features of Important Rivers and Streams:

S. No.	Name of the River or Stream	Total Length in the District (in Km)	Place of origin	Altitude at Origin
(1)				
(2)				

Portion of the River or Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne) (60% of total mineral potential)

Mineral Potential

Boulder (MT)	Bajari (MT)	Sand (MT)	Total Mineable Mineral Potential (MT)

Annual Deposition

S. No.	River or Stream	Portion of the river or stream recommended for mineral concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne) (60% of total mineral potential)
(1)						
(2)						
Total for the District						

A Sub-Divisional Committee comprising of (i) Sub-Divisional Magistrate, (ii) Officers from (a) Irrigation department, (b) State Pollution Control Board or Committee, (c) Forest department, (d) Geology or mining officer shall visit each site for which environmental clearance has been applied for and make recommendation on suitability of site for mining or prohibition thereof.

Methodology adopted for calculation of Mineral Potential:

The mineral potential is calculated based on field investigation and geology of the catchment area of the river or streams. As per the site conditions and location, depth of minable mineral is defined. The area for removal of the mineral in a river or stream can be decided depending on geo-morphology and other factors, it can be 50 % to 60 % of the area of a particular river or stream. For Example, in some hill States mineral constituents like boulders, river born Bajri, sand up to a depth of one meter are considered as resource mineral. Other constituents like clay and silt are excluded as waste while calculating the mineral potential of particular river or stream.

The District Survey Report shall be prepared in the district and its draft shall be placed in the public domain by keeping its copy in Collectorate and posting it on the district's website for twenty-one days. The comments received shall be considered and if found correct, shall be incorporated in the final Report to be finalised within six months by the District Environment Impact Assessment Authority.

The District Survey Report shall form the basis for application for environmental clearance, preparation of reports and appraisal of projects. The Report shall be updated once every five years.

II. PROCEDURE FOR PREPARATION OF DISTRICT SURVEY REPORT OF MINOR MINERALS OTHER THAN SAND MINING OR RIVER BED MINING

The District Survey Report shall be prepared for each minor mineral in the district separately and its draft shall be placed in the public domain by keeping its copy in Collectorate and posting it on district's website for twenty-one days. The comments received shall be considered and if found fit, shall be incorporated in the final Report to be finalised within six months by the DEIAA.

The District Survey Report for minor minerals other than sand mining or River bed mining shall be as per structure mentioned below: -

FORMAT FOR PREPARATION OF DISTRICT SURVEY REPORT FOR MINOR MINERALS OTHER THAN SAND MINING OR RIVER BED MINING

(1) Introduction;

(2) overview of Mining Activity in the District;

(3) general Profile of the District;

(4) geology of the District;

(5) drainage of Irrigation pattern;

(6) land Utilisation Pattern in the District: Forest, Agricultural, Horticultural, Mining etc.;

(7) surface Water and Ground Water scenario of the district;

(8) rainfall of the district and climatic condition;

(9) details of the mining leases in the District as per the following format: -

Sl. No.	Name of the Mineral	Name of the Lessee	Address & Contact No. of Lessee	Mining lease Grant Order No. & date	Area of Mining lease (ha)	Period of Mining lease (Initial)		Period of Mining lease (1st/2nd…renewal)	
						From	To	Form	To
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Date of commencement of Mining Operation	Status (Working/Non-Working/Temp. Working for dispatch etc.)	Captive/ Non-Captive	Obtained Environmental Clearance (Yes/No), If Yes Letter No with date of grant of EC.	Location of the Mining lease (Latitude & Longitude)	Method of Mining (Opencast/Underground)
11	**12**	**13**	**14**	**15**	**16**

(10) details of Royalty or Revenue received in last three years;

(11) details of Production of Minor Mineral in last three years;

(12) mineral Map of the District;

(13) list of Letter of Intent (LOI) Holders in the District along with its validity as per the following format :-

(14) total Mineral Reserve available in the District;

Sl. No.	Name of the Mineral	Name of the Lessee	Address & Contact No. of Letter of Intent Holder	Letter of Intent Grant Order No. & date	Area of Mining lease to be allotted	Validity of LoI	Use (Captive/ Non-Captive)	Location of the Mining lease (Latitude & Longitude)
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

(15) quality /Grade of Mineral available in the District;

(16) use of Mineral;

(17) demand and Supply of the Mineral in the last three years;

(18) mining leases marked on the map of the district;

(19) details of the area of where there is a cluster of mining leases viz. number of mining leases, location (latitude and longitude);

(20) details of Eco-Sensitive Area, if any, in the District;

(21) impact on the Environment (Air, Water, Noise, Soil, Flora & Fauna, land use, agriculture, forest etc.) due to mining activity;

(22) remedial Measures to mitigate the impact of mining on the Environment;

(23) reclamation of Mined out area (best practice already implemented in the district, requirement as per rules and regulation, proposed reclamation plan);

(24) risk Assessment & Disaster Management Plan;

(25) details of the Occupational Health issues in the District. (Last five-year data of number of patients of Silicosis & Tuberculosis is also needs to be submitted);

(26) plantation and Green Belt development in respect of leases already granted in the District;

(27) any other information.

The District Environment Impact Assessment Authority (DEIAA) based on the nature and type of minor mineral in the District may include the additional parameters in the District Survey Report in consultation with the Department of Mines and Geology of the concerned State Government.

The District Survey Report shall form the basis for application for environmental clearance, preparation of reports and appraisal of projects. The Report shall be updated once every five years";

[F.No. L-11011/26/2018-IA-II (M)]

GYANESH BHARTI, Jt. Secy.

Note : The principal notification was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) *vide* number S.O. 1533 (E), dated the 14th September, 2006 and subsequently amended by :-

1. S.O. 1949 (E), dated the 13th November, 2006;
2. S.O. 1737 (E), dated the 11th October, 2007;
3. S.O. 3067 (E), dated the 1st December, 2009;
4. S.O. 695 (E), dated the 4th April, 2011;
5. S.O. 156 (E), dated the 25th January, 2012;
6. S.O. 2896 (E), dated the 13th December, 2012;
7. S.O. 674 (E), dated the 13th March, 2013;
8. S.O. 2204 (E), dated the 19th July 2013;
9. S.O. 2555 (E), dated the 21st August, 2013;
10. S.O. 2559 (E), dated the 22nd August, 2013;
11. S.O. 2731 (E), dated the 9th September, 2013;
12. S.O. 562 (E), dated the 26th February, 2014;
13. S.O. 637 (E), dated the 28th February, 2014;
14. S.O. 1599 (E), dated the 25th June, 2014;
15. S.O. 2601 (E), dated the 7th October, 2014;
16. S.O. 2600 (E), dated the 9th October, 2014;
17. S.O. 3252 (E), dated the 22nd December, 2014;
18. S.O. 382 (E), dated the 3rd February, 2015;
19. S.O. 811 (E), dated the 23rd March, 2015;
20. S.O. 996 (E), dated the 10th April, 2015;

21. S.O. 1142 (E), dated the 17th April, 2015;
22. S.O. 1141 (E), dated the 29th April, 2015;
23. S.O. 1834 (E), dated the 6th July, 2015;
24. S.O. 2571 (E), dated the 31st August, 2015;
25. S.O. 2572 (E), dated the 14th September, 2015;
26. S.O.141 (E), dated the 15th January, 2016;
27. S.O.648 (E), dated the 3rd March, 2016;
28. S.O. 2269 (E) dated the 1st July, 2016;
29. S.O. 2944 (E) dated the 14th September, 2016;
30. S.O. 3518 (E) dated the 23rd November 2016;
31. S.O. 3999 (E) dated the 9th December, 2016; and
32. S.O. 4241 (E) dated the 30th December, 2016.

Uploaded by Dte. of Printing at Government of India Press, Ring Road, Mayapuri, New Delhi-110064
and Published by the Controller of Publications, Delhi-110054.

ANNEXURE A-9

Enforcement & Monitoring Guidelines for Sand Mining

Ministry of Environment, Forest and Climate change

January, 2020

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1.0 INTRODUCTION

The Ministry of Environment Forest & Climate Change formulated the Sustainable Sand Management Guidelines 2016 which focuses on the Management of Sand Mining in the Country. But in the recent past, it has been observed that apart from management and systematic mining practices there is an urgent need to have a guideline for effective enforcement of regulatory provision and their monitoring.

Section 23 C of MMDR, Act 1957 empowered the State Government to make rules for preventing illegal mining, transportation and storage of minerals. But in the recent past, it has been observed that there was large number of illegal mining cases in the Country and in some cases, many of the officers lost their lives while executing their duties for curbing illegal mining incidence. The illegal and uncontrolled illegal mining leads to loss of revenue to the State and degradation of the environment.

India is developing at a faster pace and much technological advancement has already been taken place in the surveillance and remote monitoring in the field of mining. Thus, it is prudent to utilize the technological advancement for the effective monitoring of the mining activities particularly sand mining in the country.

Use of latest remote surveillance and IT services helps in effective monitoring of the sand mining activity in-country and also assist the government in controlling the illegal mining activity in the country. Thus, there is a need for an effective policy for monitoring of sand mining in the Country which can be enforced on the ground. These guidelines focus on the effective monitoring of the sand mining since from the identification of sand mineral sources to its dispatch and end-use by consumers and the general public. Further, the effective monitoring and enforcement require efforts from not only Government agencies but also by consumers and the general public.

It is the responsibility of every citizen of India to protect the environment and effective monitoring can only be possible when all the stakeholders viz. Central Government, State Government, Leaseholders/Mine Owners, Distributors, Dealers, Transporters and Consumers (bulk & retail) will contribute towards sustainable mining, and comply with all the statutory provisions. It is felt necessary to identify the minimum requirements across all geographical region to have a uniform protocol for monitoring and enforcement of regulatory provision prescribed for sustainable sand and gravel mining.

This document will serve as a guideline for collection of critical information for enforcement of the regulatory provision(s) and also highlights the essential infrastructural requirements necessary for effective monitoring for Sustainable Sand Mining.

The document is prepared in consideration of various orders/directions issued by Hon'ble NGT in matters pertaining to illegal sand mining and also based on the reports submitted by expert committees and investigation teams.

Further, this document is supplemental to the existing "Sustainable Sand Mining Management Guideline-2016" (SSMG-2016), and these two guidelines viz. "Enforcement & Monitoring Guidelines for Sand Mining" (EMGSM-2020) and SSMG-2016 shall be read and implemented in sync with each other. In case, any ambiguity or variation between the provision of both these document arises, the provision made in "Enforcement & Monitoring Guidelines for Sand Mining-2020 "shall prevail.

2.0 NEED FOR POLICY GUIDELINES

The Ministry of Environment, Forest & Climate Change (MoEF&CC) published Environmental Impact Assessment Notification 1994 which is only applicable for the Major Minerals more than 5 ha. In order to cover the minor minerals also into the preview of EIA, the MoEF&CC issued EIA Notification 2006 for Major & Minor Mineral more than 5 Ha. The Hon'ble Supreme Court in its Judgment dated the 27th February 2012 in I.A. No.12- 13 of 2011 in Special Leave Petition (C) No.19628-19629 of 2009, in the matter of Deepak Kumar etc. Vs. State of Haryana and Others etc. made prior environment clearance mandatory for mining of minor minerals irrespective of the area of mining lease. In order to comply with the judgment of Hon'ble Supreme Court, the Ministry issued S.O.141 (E) dated 15.01.2016. Further, MoEF&CC published Sustainable Sand Mining Management Guidelines 2016 for scientific and sustainable sand mining in the Country. The recommendations for the management of sustainable sand extraction are the key objective of the Guidelines. Special emphasis is given on monitoring of the mined out material, which is key to the success of the environmental management plan. Use of IT and IT-enabled services for effective monitoring of the quantity of mined out material and transportation along with process re-engineering has been made a part of the Guidelines. Guidelines support the fundamental concept, promote environmental protection, limit negative physiological, hydrogeological and social impacts underpinning sustainable economic growth.

The Hon'ble NGT in its order dated 04.09.2018 in O.A. 173/2018 in the matter of Sudarsan Das vs. State of West Bengal & Ors. Inter-alia observed that "***There can be no two views that an effective institutional monitoring mechanism is required not only at the stage when Environmental Clearance is granted but also at subsequent stages". "The guidelines focus on the preparation of District Survey Report and the Management Plan" … We are of the view that all the safeguards which are suggested***

in sustainable sand mining guidelines as well as notification dated 15.01.2016 ought to be scrupulously followed."...It is a known fact that in spite of the above-suggested guidelines being in existence, on the ground level, illegal mining is still going on. The existing mechanism has not been successful and effective in remedying the situation." ..." Since there is an utter failure in the current monitoring mechanism followed by the State Boards, SEIAAs and DEIAAs, it is required to be revised for effective monitoring of sand and gravel mining and a dedicated monitoring mechanism be set up."

The Hon'ble NGT in its order dated 04.09.2018 in O.A. 173/2018 in the matter of Sudarsan Das vs. State of West Bengal & Ors. directed that ***MoEF&CC has issued directions from time to time under Section 3 and 5 of the Environment (Protection) Act, 1986. The MoEF&CC needs to revise its directions keeping in mind the following:***

- *Mining Surveillance System discussed in para 23 above be finalized in consultation with ISRO Hyderabad.*
- *Safeguards suggested in Sustainable Sand Mining Guidelines published by the MoEF&CC in the year 2016.*
- *Suggestions in the High Power Committee Report.*
- *The requirement of demarcation of boundaries being published in respect of different leases in the public domain.*
- *Need to issue SOP laying down mechanism to evaluate loss to the ecology and to recover the cost of restoration of such damage from the legal or illegal miners. Such evaluation must include the cost of mining material as well as the cost of ecological restoration and the net present value of future ecosystem services forgone.*
- *Need to set up a dedicated institutional mechanism for effective monitoring of sand and gravel mining which may also take care of mining done without any Environmental Clearance as well as mining done in violation of Environmental Clearance conditions.*

- *The Mining Department may make a provision for keeping apart at least 25% of the value of mined material for the restoration of the area affected by the mining and also for compensating the inhabitants affected by the mining.*

- *One of the conditions of every lease of mine or minerals would be that there will be independent environmental audit at least once in a year by reputed third party entity and report of such audit be placed in the public domain.*

- *In the course of such an environmental audit, a three-member committee of the local inhabitants will also be associated. Composition of three members committee may preferably include ex-servicemen, a former teacher and former civil servant. The Committee will be nominated by the District Magistrate.*

The Hon'ble NGT in its order dated 05.09.2018 in O.A. 44/2016 in the matter of Mushtakeem Vs. MoEF & CC & Ors. Inter-alia observed the following:

"Para 20. In Original Application No. 481/2016, the allegation is that there is the connivance of the District Administration with the miners and mining is going in violation of conditions of Environmental Clearance. According to the applicant, an effective mechanism is required to be evolved so that illegal mining does not place."

"Para 22. We proceed to consider the main question proposed for the consideration stated earlier hereinabove as to ***how to ensure the protection of the environment by checking illegal mining."***

"Para 23. We have dealt with the identical issue relating to the illegal sand mining in the border districts in the State of West Bengal and Odisha in the order dated 04th September 2018 in Sudarsan Das Vs. State of West Bengal & Ors., Original Application No. 173 of 2018. We have directed the MoEF&CC to revise the guidelines on the subject for an effective mechanism for sand mining, relevant portions of which are reproduced below: -..."

The Hon'ble NGT in its order dated 10.09.2018 in O.A. 304/2015 in the matter of Jai Singh & Anr.Vs. Union of India Ors. inter-alia observed the following:

"Para 6. After disposal of the above matters, a disturbing event widely reported in media which took place on 07th September 2018 has been brought to our notice. ***A Deputy Ranger who tried to stop illegal mining was killed by mining mafia at Morena in the State of M.P.***

"Para 7. The above disturbing event may also be kept in mind by the MoEF, while considering the issuance of revised guidelines in light of the judgment dated 05th September 2018 (Supra)."

The Hon'ble NGT in its order dated 05.04.2019 in O.A. 360/2015 in the matter of National Green Tribunal Bar Association & Anr.Vs. Union of India & Ors. inter-alia observed the following:

"*The 2016 Guidelines need revision in the light of the report of High Powered Committee in September 2016, failure of Monitoring mechanism followed by State Boards, SEIIAs, DEIAAs and MSS system developed by Ministry of Mines & IBM with the assistance of BISAG and MAITY and other observations quoted in paras 12 to 15 above.*

50. As noted earlier in paras 17, 23, 27, 31 and 35, States of West Bengal, Odisha, Gujarat, Karnataka, Maharashtra, Punjab, Haryana and Uttar

Pradesh are required to follow SSMG, 2016 as may be revised by MoEF&CC and even other States where illegal sand mining is taking place.

The States may review the monitoring mechanism in terms of several directions of the Tribunal and guidelines of MoEF&CC.

The international conservation concern regarding natural wealth is a universal demand. Article 51(a) subsection (G) of the constitution requires every citizen of India to protect and improve the natural environment including forest, lakes, rivers, wildlife and to have compassion for the living creature.

The Hon'ble Supreme Court in the case of M.C. Mehta Vs. Kamal Nath (1997) 1 SCC 388 held that under Article of Indian Constitution incorporates the "Public Trust Doctrine" and as such extents to the protection of all-natural resources which includes the protection of flora and fauna.

The Hon'ble Supreme Court in the case of Vellore Citizens Welfare Forum Vs. Union of India & Ors (1996) held that the precautionary principle is part of the Environmental Law in India. It further stated that onus of proof is on the actor of the developer/industrialize to show that its actions are environmentally benign."

3.0 OBJECTIVE OF GUIDLINES

- Identification and Quantification of Mineral Resource and its optimal utilization.
- To regulate the Sand & Gravel Mining in the Country since its identification to its final end-use by the consumers and the general public.
- Use of IT-enabled services & latest technologies for surveillance of the sand mining at each step.
- Reduction in demand & supply gaps.
- Setting up the procedure for replenishment study of Sand.
- Post Environmental Clearance Monitoring.
- Procedure for Environmental Audit.
- To control the instance of illegal mining.

4.0 REQUIREMENTS FOR MONITORING & ENFOCEMENT

Sustainable Sand Mining Management Guidelines (SSMMG) 2016 and past experience suggest that the source of sand in India are through

a) River (riverbed and flood plain),
b) Lakes and reservoirs,
c) Agricultural fields,
d) Coastal / marine sand,
e) Palaeo-channels and
f) Manufactured Sand (M-Sand).

The SSMMG-2016 highlights the identification of the sand mining sources, replenishment of the River Bed Material (Sand, Boulder, Gravel, Cobble etc.), preparation of Districts Survey Report, and Standard Environmental Conditions suitable for sand mining projects.

The necessary requirements to comply with the direction of Hon'ble NGT and to facilitate effective monitoring and enforcement of regulatory provision for sand mining in the country are as follows:

i) Identification of sand mining sources, its quantification and feasibility for mining considering various environmental (proximity of protected area, wetlands, creeks, forest etc.) and other factors such as important structures, places of archaeological importance, habitation, prohibited area etc.

ii) The mining lease auctioned by State government as per their Minor Mineral Concession Rules are granted of Letter of Intent (LoI), but it has been observed that many of the sites are not suitable w.r.t environmental aspects. In most of the cases, the unplanned grant of mining lease leads to formation of cluster and/or contiguous cluster

of small mining leases which sometimes is difficult to regulate and monitor. In order to address such issues, more emphasis is required on the preparation of District Survey Report and its format for reporting,

iii) Mining Plan is an important document to assist the mine owner to operate the mine in a scientific manner. States have their own format for preparation of mining plan and it is observed that recording of the initial level of mining lease at shorter interval say 25m X 25 m grid interval is not present.

iv) There is no practice for regular replenishment study to ascertain the rate of depositing, plan and section needs to be prepared based on the restrictions provided in letter of intent and provisions of Sustainable Sand Mining Management Guidelines 2016.

v) Environmental Clearance is a process wherein the regulatory authorities after considering the potential environment impact of mining clearance is granted with a set of specific & standard conditions to carry out mining operations, but often it is observed that letter of intent is granted for a location which has less potential for mining and not feasible for environment-friendly mining. This leads to an unnecessary financial burden on the mine owners and litigations. Thus, LoI should be preferably granted for those locations which have the least possibility of an impact on the environment and nearby habitation.

vi) It is the responsibility of the mine owner to obtain all the statutory clearance and comply with the conditions stipulated in the clearance letter. Mining should be carried out within the mining lease area as per

approved mining plan or mining plan concurred by other regulatory authorities.

vii) Mining operation also involves transportation of mineral from the mining area to end-user and its necessary that movement of the mineral needs to be monitored.

The State Government already have power under section 23c of MMDR, Act 1957 to make rules for preventing illegal mining, transportation and storage of minerals. However, there are instances of illegal mining which shows that there is a need for strengthening the system of mineral dispatch and its monitoring. This document provides good practices already under implementation by various states for regulating the mineral sale, dispatch, storage, transportation and use.

viii) The river reaches with sand provide the resource and thus it is necessary to ascertain the rate of replenishment of the mineral. Regular replenishment study needs to be carried out to keep a balance between deposition and extraction. This document provides the procedure to be followed for conducting replenishment study.

ix) Even after all the regulatory procedure and policy being in place, there are instances where illegal mining is taking place. There is a need for regular surveillance of the sand mining reaches. The monitoring agencies can monitor the sites remotely by using Unmanned Artificial Vehicles (UAVs)/Drone which is now a viable option. The drone can also be used for reserves estimation, quantity estimation, land use monitoring. This document highlights possible use of IT/Satellite/Drone technology for effective monitoring of sand mining.

4.1 Identification of possible sand mining sources and preparation of District Survey Report (DSR)

4.1.1 Preparation of District Survey Report.

"Sustainable Sand Mining Guidelines, 2016" issued by MoEF&CC requires preparation of District Survey Report (DSR), which is an important initial step before grant of mining lease/LoI. The guidelines emphasize detailed procedure to be followed for the purpose of identification of areas of aggradation/ deposition where mining can be allowed and identification of areas of erosion and proximity to infrastructural structures and installation where mining should be prohibited. Calculation of annual rate of replenishment, allowing time for replenishment after mining, identification of ways of scientific and systematic mining; identifying measures for protection of environment and ecology and determining measures for protection of bank erosion, benchmark (BM) with respect to mean Sea Level (MSL) should be made essential in mining channel reaches (MCR) below which no mining shall be allowed.

The Hon'ble NGT in its Judgment dated 08.12.2017 in the matter of Anjani Kumar vs State of Uttar Pradesh & Ors. inter-alia mentioned the following regarding sand mining in the Uttar Pradesh.

> *"It states that the main object of preparation of District Survey Report is to ensure identification of areas of aggradation/deposition where mining can be allowed and identification of areas of erosion and proximity to infrastructural structures and installation where mining should be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining area. Thus, the environmental protection requires a strictly regulated mining in terms of area, quantity as well as most importantly replenishment thereof."*

"The data collection and declared for preparation of DSR shall take precedence over other data and would form the foundation for providing mining lease in terms of Appendix- x to the Notification dated 15th January 2016 must be prepared by the statutory authority stated therein i.e. DEIAA prior to awarding of permits for carrying on mining activity in any part of the State of UP."

The Hon'ble High Court of Jharkhand at Ranchi in its orders dated the 11th April 2018 and 19th June 2018 in W.P. (PIL) No. 1806 of 2015, in the matter of Court on its Own Motion Versus the State of Jharkhand & Others with W.P. (PIL) No. 290 of 2013, in the matter of Hemant Kumar Shilkarwar Versus the State of Jharkhand & Others, has inter-alia directed the preparation of District Survey Report for minor minerals other than Sand and Bajri or delegation of the powers for preparation of format of District Survey Report of minor minerals other than sand and Bajri to the State Government and/or District Environment Impact Assessment Authority and District Expert Appraisal Committee. To comply with the direction of Hon'ble High Court the Ministry has issued S.O. 3611(E) dated 25.07.2018, wherein, the procedure of preparation of DSR is mentioned. But it is felt that still there is other information that needs to be reported in DSR to make it a comprehensive DSR.

Therefore, preparation of District Survey Report is a very important step and sustainable sand mining in any part of the country will depends on the quality of District Survey Report.

Considering the importance of district survey report, the Ministry of Environment Forest and climate change, after consultation with experts dealing with mining-related matters, formulated the following guidelines for the preparation of comprehensive District Survey Report for sand mining.

a) District Survey Report for sand mining shall be prepared before the auction/e-auction/grant of the mining lease/Letter of Intent (LoI) by Mining department or department dealing the mining activity in respective states.

b) The first step is to develop the inventory of the River Bed Material and Other sand sources in the District. In order to make the inventory of River Bed Material, a detailed survey of the district needs to be carried out, to identify the source of River Bed Material and alternative source of sand (M-Sand). The source will include rivers, de-siltation of reservoir/dams, Patta lands/Khatedari Land, M-sand etc.

The revenue department of Kerala already conducted river mapping and sand auditing of around 20 rivers of Kerala which is a good example wherein the profile of rivers was created at regular intervals and aggradation/deposition was identified along with water level. In the same study, benchmarks were also created at a prominent location at regular interval for future surveying. Such study helps the mining departments to identify the source of sand.

Thus, it is proposed that for preparation of district survey report, the auditing of rivers needs to be carried out. There is already a provision under MMDR Act 2015 for National Mineral Exploration Trust (MET) wherein a 2% of royalty amount to be deposited in the trust. This fund is used for mineral exploration in the country. The Sand Auditing is also a sort of identification of mineral and State Government may request Central Govt. for proving funds for river auditing. The Central Govt. (Ministry of Mines) may also explore the possibilities for providing the funds for river auditing. The other option is that State Govt. may conduct such studies by its own fund and the same may be recovered from the leaseholders to whom the mining lease will be allocated.

c) District Survey Report is to be prepared in such a way that it not only identifies the mineral-bearing area but also define the mining and no mining zones considering various environmental and social factors.

d) Identification of the source of Sand & M-Sand. The sources may be from Rivers, Lakes, Ponds, Dams, De-silting locations, Patta land/Khtedari lands. The details in case of Rivers such as [name, length of river, type (Perennial or Non-Perennial), Villages, Tehsil, District], in case of Lakes, Ponds, Dams, De-silting locations [Name, owned/maintained by (State Govt./PSU), area, Villages, Tehsil, District] in case of Patta land/Khtedari lands [Owner Name, Sy No, Area, Agricultural/Non-Agricultural, Villages, Tehsil, District], in case of M-Sand Plant [Owner Name, Sy No, Area, Quantity/Annum, Villages, Tehsil, District], needs to be recorded as per format given in **Annexure-I.**

e) Defining the sources of Sand/M-Sand in the district is the next step for identification of the potential area of deposition/aggradation wherein mining lease could be granted. Detailed survey needs to be carried out for quantification of minerals. The purpose of mining in the river bed is for channelization of rivers so as to avoid the possibility of flooding and to maintain the flow of the rivers. For this, the entire river stretch needs to be surveyed and original ground level (OGL) to be recorded and area of aggradation/deposition needs to be ascertained by comparing the level difference between the outside riverbed OGL and water level. Once the area of aggradation/deposition are identified, then the quantity of River Bed Material available needs to be calculated. The next step is channelization of the river bed and for this central ¾th part of the river, width needs to be identified on a map. Out of the ¾th part area, where there is a deposition/aggradation of the material needs to be identified. The remaining ¼th area needs to be kept as no mining zone for the

protection of banks. The specific gravity of the material also needs to be ascertained by analyzing the sample from a NABL accredited lab. Thus, the quantity of material available in metric ton needs to be calculated for mining and no mining zone.

Note: As physical survey with conventional method is time-consuming, use of unmanned aerial vehicle (UAV) may be explored to carry out the survey and finalizing the original ground level and for developing a 3D model of the area.

f) The permanent boundary pillars need to be erected after identification of an area of aggradation and deposition outside the bank of the river at a safe location for future surveying. The distance between boundary pillars on each side of the bank shall not be more than 100 meters.

g) Identifying the mining and no mining zone shall follow with defining the area of sensitivity by ascertaining the distance of the mining area from the protected area, forest, bridges, important structures, habitation etc. and based on the sensitivity the area needs to be defined in sensitive and non-sensitive area.

h) Demand and supply of the Riverbed Material through market survey needs to be carried out. In addition to this future demand for the next 5 years also needs to be considered.

i) It is suggested that as far as possible the sensitive areas should be avoided for mining, unless local safety condition arises. Such deviation shall be temporary & shall not be a permanent feature.

j) The final area selected for the mining should be then divided into mining lease as per the requirement of State Government. It is suggested the mining lease area should be so selected as to cover the entire deposition area. Dividing a large area of deposition/aggradation into smaller

mining leases should be avoided as it leads to loss of mineral and indirectly promote illegal mining.

k) Cluster situation shall be examined. A cluster is formed when one mining lease of homogenous mineral is within 500 meters of the other mining lease. In order to reduce the cluster formation mining lease size should be defined in such a way that distance between any two clusters preferably should not be less than 2.5 Km. Mining lease should be defined in such a way that the total area of the mining leases in a cluster should not be more than 10 Ha.

l) The number of a contiguous cluster needs to be ascertained. Contiguous cluster is formed when one cluster is at a distance of 2.5 Km from the other cluster.

m) The mining outside the riverbed on Patta land/Khatedari land be granted when there is possibility of replenishment of material. In case, there is no replenishment then mining lease shall only be granted when there is no riverbed mining possibility within 5 KM of the Patta land/Khatedari land. For government projects, mining could be allowed on Patta land/Khatedari land but the mining should only be done by the Government agency and material should not be used for sale in the open market. Cluster situation as mentioned in para k above is also applicable for the mining in Patta land/Khatedari land.

n) The State Government should define the transportation route from the mining lease considering the maximum production from the mines as at this stage the size of mining leases, their location, the quantity of mineral that can be mined safely etc. is available with the State Government. It is suggested that the transportation route should be selected in such a way that the movement of trucks/tippers/tractors from the villages having habitation should be avoided. The transportation route so

selected should be verified by the State Government for its carrying capacity.

o) Potential site for mining having its impact on the forest, protected area, habitation, bridges etc, shall be avoided. For this, a sub-divisional committee may be formed which after the site visit shall decide its suitability for mining. The list of mining lease after the recommendation of the Committee needs to be defined in the following format given in as **Annexure-II**. The Sub-Divisional Committee after the site visit shall make a recommendation on the site for its suitability of mining and also records the reason for selecting the mining lease in the Patta land. The details regarding cluster and contiguous cluster needs to be provided as in **Annexure-III**. The details of the transportation need to be provided as in **Annexure IV.**

p) **Public consultation-**The Comments of the various stakeholders may be sought on the list of mining lease to be auctioned. The State Government shall give an advertisement in the local and national newspaper for seeking comments of the general public on the list of mining lease included in the DSR. The DSR should be placed in the public domain for at least one month from the date of publication of the advertisement for obtaining comments of the general public. The comments so received shall be placed before the sub-divisional committee for active consideration. The final list of sand mining areas [leases to be granted on riverbed & Patta land/Khatedari land, de-siltation location (ponds/lakes/dams), M-Sand Plants (alternate source of sand)] after the public hearing needs to be defined in the final DSR in the format as per **Annexure-V.** The details regarding cluster and contiguous cluster needs to be provided in **Annexure-VI**. The details of the transportation need to be provided in **Annexure-VII.**

4.2 Grant of Letter of Intent to those mining leases which are falling in potential mining zone

The State Government shall issue letter of intent as per procedure laid down in their Minor Mineral Concession Rules with due consideration of final district survey report. The State Government shall ensure that all the letter of intent shall have complete details of the mining lease including geo-coordinate of the corner points, the involvement of forest land, distance from the forest land, distance from the protected area, distance from other sites of archaeological importance, details of the cluster situation etc. The demarcation of the boundaries of LoI/Lease area shall be placed in public domain along with LoI/lease deed details.

The LOI should not be granted for mining area falling on both riverbed and outside riverbed. Therefore, in the same lease, both types of area should not be included.

The authority responsible for grant of lease for sand mining shall ensure that annual audit of the sand mining process, production and compliance of the imposed conditions by regulatory authority (Environmental clearance or mine plan) shall be one of the essential condition of the lease agreement. The annual audit report shall be submitted to the district administration, which shall be put in public domain through the district website. Any deviation observed shall be appropriately and in-accordance with applicable law shall be dealt by the concerned authority and corrective measures shall also be taken to restoration of ecological/environmental damage, if observed.

4.3 Mining Plan

The preparation of Mining Plan is also very important. The mining plan should include the original ground level recorded at an interval not more than 10M x 10M along & across the length of the river. In addition to this-levels, outside the mining lease and bank of the river up to meters needs to be recorded. In the mining plan, there should be 3 plates for each year production & development planning (pre-monsoon, monsoon and post-monsoon). The time period of monsoon should be defined in the DSR. At the time of review of the mining plan, the details of the replenishment study conducted for all the years needs to be included in the mining plan. The Mining Plan should include the certificate from PCCF on forest land, distance from the protected area, past production details for mining leases seeking expansion.

Following considerations shall be kept in mind for sand/gravel mining while approving mining plan

a) Parts of the river reach that experience deposition or aggradation shall be identified. The Leaseholder/ Environmental Clearance holder may be allowed to extract the sand and gravel deposit in these locations to manage aggradation problem.

b) The distance between sites for sand and gravel mining shall depend on the replenishment rate of the river. Sediment rating curve for the potential sites shall be developed and checked against the extracted volumes of sand and gravel.

c) Sand and gravel may be extracted across the entire active channel during the dry season.

d) Abandoned stream channels on the terrace and inactive floodplains be preferred rather than active channels and their deltas and flood plains. The stream should not be diverted to form the inactive channel.

e) Layers of sand and gravel which could be removed from the river bed shall depend on the width of the river and replenishment rate of the river.

f) Sand and gravel shall not be allowed to be extracted where erosion may occur, such as at the concave bank.

g) Segments of the braided river system should be used preferably falling within the lateral migration area of the river regime that enhances the feasibility of sediment replenishment.

h) Sand and gravel shall not be extracted up to a distance of 1 kilometre (1 km) from major bridges and highways on both sides, or five times (5x) of the span (x) of a bridge/public civil structure (including water intake points) on up-stream side and ten times (10x) the span of such bridge on down-stream side, subjected to a minimum of 250 meters on the upstream side and 500 meters on the downstream side.

i) The sediment sampling should include the bed material and bed material load before, during and after the extraction period. Develop a sediment rating curve at the upstream end of the potential reach using the surveyed cross-section. Using the historical or gauged flow rating curve, determine the suitable period of high flow that can replenish the extracted volume. Calculate the extraction volume based on the sediment rating curve and high flow period after determining the allowable mining depth.

j) Sand and gravel could be extracted from the downstream of the sand bar at river bends. Retaining the upstream one to two-thirds of the bar and riparian vegetation is accepted as a method to promote channel stability.

k) The flood discharge capacity of the river could be maintained in areas where there is a significant flood hazard to existing structures or infrastructure. Sand and gravel mining may be allowed to maintain the natural flow capacity based on surveyed cross-section history. Alternatively, off-channel or floodplain extraction is recommended to allow rivers to replenish the quantity taken out during mining.

l) The Piedmont Zone (Bhabhar area) particularly in the Himalayan foothills, where riverbed material is mined, this sandy-gravelly track constitutes excellent conduits and holds the greater potential for groundwater recharge. Mining in such areas should be preferred in locations selected away from the channel bank stretches.

m) Mining depth should be restricted to 3 meters and distance from the bank should be ¼th or river width and should not be less than 7.5 meters.

n) The borrow area should preferably be located on the riverside of the proposed embankment because they get silted in the course of time. For low embankment, less than 6 m in height, borrow area should not be selected within 25 m from the toe/heel of the embankment. In the case of the higher embankment, the distance should not be less than 50 m. In order to obviate the development of flow parallels to the embankment, crossbars of width eight times the depth of borrow pits spaced 50 to 60 meter center-to-center should be left in the borrow pits.

o) Demarcation of mining area with pillars and geo-referencing should be done prior to the start of mining.

p) A buffer distance /un-mined block of 50 meters after every block of 1000 meters over which mining is undertaken or at such distance as may be the directed/prescribed by the regulatory authority shall be maintained.

q) A buffer distance /unmined block of 50 meters after every block of 1000 meters over which mining is undertaken or at such distance as may be the directed/prescribed by the regulatory authority shall be maintained.

r) River bed sand mining shall be restricted within the central 3/4th width of the river/rivulet or 7.5 meters (inward) from river banks but up to 10% of the width of the river, as the case may be and decided by regulatory authority while granting environmental clearance in consultation with irrigation department. Regulating authority while regulating the zone of river bed mining shall ensure that the objective to minimize the effects of riverbank erosion and consequential channel migration are achieved to the extent possible. In general, the area for removal of minerals shall not exceed 60% of the mine lease area, and any deviation or relaxation in this regard shall be adequately supported by the scientific report.

s) Mining Plan for the mining leases(non-government) on agricultural fields/Patta land shall only be approved if there is a possibility of replenishment of the mineral or when there is no riverbed mining possibility within 5 KM of the Patta land/Khatedari land. For government projects mining could be allowed on Patta land/Khatedari land but the mining should only be done by the Government agency and material should not be used for sale in the open market.

The minerals reserve for river bed area is calculated on the basis of maximum depth of 3 meters and margins, width and other dimensions as mentioned in para (s) above. The area multiplied by depth gives the volume and volume multiplied with bulk density gives the quantity in Metric Ton. In case of river bed, mineable material per hectare area available for actual mining shall not exceed the maximum quantity of 60,000 MT per annum.

4.4 Obtaining Environmental & Other Statutory Clearance

The LOI Holder/Lease Holder to obtain Environmental and Other Statutory Clearances from the concerned authorities as per provision of applicable laws.

4.5 Baseline date before Commencement of Mining Operations

Baseline data in respect of the initial level of mining lease in the interval not more than 25 X 25 meters shall be collected for record by leaseholder. The level of river bed upstream and downstream up to 100 meters also needs to be recorded. The area outside the mining lease/river bank (if lease boundary coincides with mining lease) up to 100 meters from both the banks/mining lease needs to surveyed for initial level.

4.6 Additional measures where project proponent is selected by a bidding

In those states where sand plots are auctioned to the highest bidder, the following is suggested:

It has been observed that bidders try to form a cartel and bids are received for certain plots where legal mining is done, and bids for certain other plots don't elicit any response. Sand from these un-

auctioned plots is then excavated using the same machinery deployed for the excavation of adjacent plot which might have been auctioned off. It is not easily possible for the field machinery to prevent such illegal activities. This may be prevented by having plot of larger size. plots are large in size as possible are identified for auction. Care may be taken to ensure that no continuous stretch of plot in the river bed is divided for auction. A continuous stretch of plot shall be preferred for auction, and the attempt may not be made to auction it off in pieces.

5.0 REPLENISHMENT STUDY

The need for replenishment study for river bed sand is required in order to nullify the adverse impacts arising due to excessing sand extraction. Mining within or near riverbed has a direct impact on the stream's physical characteristics, such as channel geometry, bed elevation, substratum composition and stability, in-stream roughness of the bed, flow velocity, discharge capacity, sediment transport capacity, turbidity, temperature etc. Alteration or modification of the above attributes may cause an impact on the ecological equilibrium of the riverine regime, disturbance in channel configuration and flow-paths. This may also cause an adverse impact on in-stream biota and riparian habitats. It is assumed that the riparian habitat disturbance is minimum if the replenishment is equal to excavation for a given stretch. Therefore, to minimize the adverse impact arising out of sand mining in a given river stretch, it is imperative to have a study of replenishment of material during the defined period.

5.1 Generic Structure of Replenishment Study

Initially replenishment study requires four surveys. The first survey needs to be carried out in the month of April for recording the level of mining lease before the monsoon. The second survey is at the time of closing of mines for monsoon season. This survey will provide the quantity of the material excavated before the offset of monsoon. The third survey needs to be carried out after the monsoon to know the quantum of material deposited/replenished in the mining lease. The fourth survey at the end of March to know the quantity of material excavated during the financial year. For the subsequent years, there will be a requirement of only three surveys. The results of year-wise surveys help the state government to establish the replenishment rate of the river. Based on the replenishment rate future auction may be planned.

The replenishment period may vary on nature of the channel and season of deposition arising due to variation in the flow. Such period and season may vary on the geographical and precipitation characteristic of the region and requires to be defined by the local agencies preferable with the help of the Central Water Commission and Indian Meteorological Department. The excavation will, therefore, be limited to estimated replenishment estimated with consideration of other regulatory provisions.

5.2 Methodology for Replenishment Study

The replenishment estimation is based on a theoretical empirical formula with the estimation of bedload transport comprising of analytical models to calculate the replenishment estimation. The iso-pluvial maps of IMD can be used for estimation of rainfall. Catchment yield is computed using different standard empirical formulas relevant to the geographical and channel attributes. eg. Strange's Monsoon runoff curves for runoff coefficient). Peak flood discharge for the study area can be calculated by using Dickens, Jarvis and Rational formula at 25, 50 and 100 years return period. The estimation of bed load transport using Ackers and White Equation or similar can be made. A simulation model is used with basic data generated from the field in the pre-study and post-study period (preferably pre-monsoon and post-monsoon) to estimate the volume of replenished material. The particle size distribution and bulk density of the deposited material are required to be assessed from a NABL recognized laboratory. Considering the bulk density and the volume, the estimation of replenishment in weight will be calculated after considering safeguards and stability of the slopes and riverine regime. Some of the common methods used for field data acquisition for replenishment study

5.2.1. Physical survey of the field by the conventional method

i. The conventional survey technical using DGPS and other survey tools are used to define the topography, contours and offsets of the lease area. The survey should clearly depict the important attributes of the stretch of the river and its nearby important civil and other feature of importance. Such information will provide the eligible spatial area for mining. The contour and the elevation benchmarks will provide the baseline data for assessing the pre and post-study period scenario.

ii. Physical benchmarks are to be fixed at appropriate intervals (preferable 1 in 30 m) and the Reduced Level (RL) shall be validated from a nearby standard RL. These RL should be engraved on a steel plate (Bench Plate) and shall be fixed and placed at locations which are free from any damages and are available in pre and post-study period. The bench plates shall be available for use during the mining period as reference for all mining activity. Reference pillar may also be used in place of Bench Plates with visible and readable demarcation on the ground as common reference points to control the topographic survey and mining activity.

iii Baseline data on elevation status for a grid of 10 m x 10 m is preferred to have accuracy in the assessment. It is expected that two consecutive cross-sections in longitudinal and lateral direction should not be more than 10-meter distance apart, however, the regulatory authority may fix these intervals depending on the geographical and site-specific conditions, only and after providing the scientific reason for such deviation.

iv The changes observed in the elevation in per and post scenario at each node should be depicted in graphical forms with an appropriate scale to estimate the area of deposition and erosion. These graphical

presentations should depict the active channel regime and the flow bed elevation with other important features required to be considered for estimation of the mining area. The area of deposition and erosion shall be calculated for each cross-section after giving due regard to the stability and safety of active channel banks, and other features of importance. The elevation level shall be in reference to the nearest bench-plates established for the purpose.

v The levels (MSL & RL) of the corner point of each grid should be identifiable and safety barriers (Non-Mining) demarcated as restricted in consensus with Mineral Concession Rules of respective State, and the provision mentioned in this Sustainable Sand Mining Management Guidelines.

vi A clear identification is required to be highlighted between grids under mineable and grids under the non-mineable area. These baseline data (pre and post) be subjected to stimulation with the help of data mine software to derive at the replenishment area and corresponding volume and estimated weight.

vii The database should be structured in a tabulated form clearly depicting the nomenclature of the section lines, latitude and longitude of the starting point, chain-age and respective levels of all the points taken on that section line.

viii Net area shall be derived after the summation of the area of deposition minus area of erosion for each cross-section. The volume will be estimated by multiplying the distance between two cross-sections with the average of net area of these two consecutive cross-sections.

ix One sample per 900 square meters (30 m x 30 m) shall be preferred sample density for assessment of bulk density for estimation of deposition rate. Care should be taken that the sample for assessment

of bulk density is taken from the deposition zone and not from erosion. However, depending on the site condition, river morphology and geographical condition, sample density may be adjusted. Reason for such deviation shall be appropriately highlighted in the report with supporting scientific data.

5.2.2. Use of UAV/Drone and other image data processing techniques

With the development in image data processing tools and its accuracy acceptability, Drone/UAV fitted with the advance camera are used for survey purposes. Such technology has promising potential in the survey of sand mining zones due to its fast and reliable output deliveries. The survey is conducted using a set of instruments and compatible software to utilized the properly referenced data for depicting the topography of the study area. Instrument calibration and software compatibility and its validation with the ground data are an essential requirement for using this technique.

The details of the instruments their limitation and software used shall be demonstrated in the form of the accuracy assessment report, through a chapter in the replenishment study report. Other details to be incorporated in the report with regard to the study using such imaginary techniques shall highlight the followings:

a) **Flight Planning:** - The lease co-ordinates and the flight plan devised to capture the front and side overlap percentages for in each flight in reference to global coordinates (Kml or SHP file) system. The software used for the purpose and its details along with limitations with basic analytical assumptions.

b) **Block file generation:** - This operation concerns the selection of the sensor model and the definition of block properties, the addition of

imagery to the block file, marking of GCPs, generation of tie points and refining of the model.

c) **Interior orientation:** - The interior orientation of the stereo pair rational polynomial coefficients (RPC) used, which should be bundled with the scenes. RPCs are coefficient, which is used by photogrammetric software to represent the ground to-image viewing geometry.

d) **Exterior orientation:** For exterior orientation, ground control points shall be used, which are collected from the DGPS survey.

e) **Aero Triangulation:** - A critical phase in photogrammetric mapping is to rectify the satellite imagery at an appropriate tract on the surface of the earth. This is accomplished by collecting horizontal and vertical data [GCP's] to ascertain the spatial location of a number of features that are visible and measurable on the aerial images – this process is often called control bridging, which refers to passing horizontal and vertical information from one aerial image to the next.

f) **Ortho Generation:** - After running the above steps; the software shall automatically generate orthorectified imagery.

g) **DTM extraction:** For extraction of DTM, Generated point cloud data classified manually to extract bare earth.

5.2.3 Accuracy Assessment of Aerial Data:

To check the accuracy of DTM generated by Aerial data, few points are selected and compared with on-site by using DGPS instrument for the ground-truthing purpose. It is preferred to do ground-truthing at minimum 5 locations spread evenly across the lease area. The readings from the DGPS instrument are then compared with the Drone data for accuracy assessment

purpose. A comparative chart will be prepared in comparison of Data related to ground-truthing (by DGPS) and from Drone. Such accuracy assessment report shall a chapter of the replenishment study.

5.2.4 Replenishment study shall have the details of

- List of instruments
- List of software
- Establishment of Benchmark by putting No. of pillar points and various Ground Control Points (GCP) at the site.
- Ground Control Points (GCP) Collection: - Various GCPs were observed by using DGPS for Permanent Benchmarks and for control points.
- The summary of the elevation data from each section's profile based on the post-monsoon the survey should have mentioned in the table form.
- The detail of post-monsoon survey data in the tabular form shall be
- The detailed comparison of both pre-monsoon and post-monsoon elevation data shall be attached
- Cross-sectional depiction of deposition and erosion for each section in pre and post-deposition season shall be given supported by relevant field study data and plan.

6.0 ENFORCEMENT

6.1 Mining Operation:

The mining operations should be strictly carried out in accordance with the approved mining plan and after complying with all the conditions stipulated in Environmental & Other Statutory Clearance. Mine owner shall follow the operational procedure (for sale, dispatch, storage, reserve reconciliation and transportation) as may be defined by the concerned state government in its monitoring guidelines. Mine owner should comply with the recommendation and suggestion made by the High Power Committee as applicable.

6.2 Post Environment Clearnace Monitoring:

It's the responsibility of the EC Holder to comply with the Environmental Clearance conditions and upload the six-monthly EC compliance report on the website of the Ministry. For the category, 'A' mines (>100 Ha individual & cluster) Regional Office of the MoEF&CC are entrusted to carry out EC Monitoring and for the Category 'B' Mines by SEIAA. The monitoring shall be carried out as per the procedure/schedule suggested by MoEF&CC from time to time. MOEF&CC vide its notification S.O. 637(E) dated 28.02.2014 has delegated the power to State/Union Territory Environmental Impact Assessment Authority to issue show cause notice to project proponent in case of violation of Conditions of Environmental Clearance issued by the said authority and to issue direction for keeping the said EC in abeyance or withdrawing it. Thus, for category 'B' (0 to 100 Ha) projects SEIAAs are responsible for EC monitoring.

6.3 Environment Audit:

The Hon'ble NGT in its order dated 04.09.2018 in O.A. 173/2018 in the matter of Sudarsan Das vs. State of West Bengal & Ors. Inter-alia directed

that "*One of the conditions of every lease of mine or minerals would be that there will be independent environmental audit at least once in a year by reputed third party entity and report of such audit be placed in the public domain. In the course of such an environmental audit, a three-member committee of the local inhabitants will also be associated. Composition of three member's committee may preferably include ex-servicemen, a former teacher and former civil servant. The Committee will be nominated by the District Magistrate.*

The gazette notification on environmental audit has been issued by the Ministry of Environment and Forests on March 13, 1992 (amended vide notification GSR 386 (E) dated April 22, 1993). This notification applies to every person carrying on an industry, operation or process requiring consent to operate under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) or under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981), or both, or authorization under the Hazardous Waste (Management and Handling) Rules, 1989, issued under the Environment (Protection) Act, 1986 (29 of 1986). The notification requires that an Environmental Statement for the financial year ending the 31st March be submitted to the concerned State Pollution Control Board, on or before the 30th September of the same year.

It is suggested that NABET Accredited consultant may be engaged for Environment Audit and during the course of the audit, a three-member committee nominated by District Magistrate shall be associated.

6.4 Monitoring of Sale & Purchase of Sand:

6.4.1 In order to curb illegal mining it is very necessary that the general public is aware of the legal source of sand and RBM suppliers. The Ministry of Mines issued ***Sand Mining Framework 2018*** wherein it has proposed two mechanisms for the online sale of sand depending on whether there is a free market for sand in the State or the prices are regulated by the Government.

Para 1.2.12.2 Under the market model

In the case of the market model, all the lessees/ certified dealers in the State should register themselves on the online portal/ mobile app. For registering, the lessee/ certified dealer will have to enter the details of its concession/ stockyard, location, the quantity of sand expected on a weekly basis, as per the approved mining plan. Once registered, the online portal/ app will display the name of the reach/ stockyard and sand could be booked by the consumer from those leases/ stockyards and prices up to the delivery level. Further, the lessee/ certified dealer needs to regularly update the sand available in the reach/ stockyard, and they can decide the price at which they want to sell their sand. Anyone who wishes to purchase sand in the State will have the following options for buying:

1. *Mobile app*
2. *Online portal*
3. *Customer care/ telephone call*
4. *Licensed traders*

The consumer needs to register on the portal and log in using his/her credentials (Aadhar card based only). After logging in, the portal will display the entire list of reaches/ stockyards along with the quantity of sand available in those reaches/ stockyards and the quality and price of

sand. The consumer can filter/ sort the reaches/ stockyards based on such parameters as location, quality and price, and book from the lease/ stockyard he/she wishes to. The consumer should also have the option to purchase the sand by ordering at customer care. Also, stockyards should be made around all the major consumption hubs in the State based on their estimated demand.

Para 1.2.12.3 Controlled market prices

In case the prices are regulated by the State Government, the only difference from the previous model is that the price of sand at the river reach/ stockyard shall be uniform across the State/ district based on the quality and transportation lead. A consumer after logging in may choose the reach/ stockyard from which he/she wishes to purchase the sand. The payment for booking the sand in both the cases should be made on the portal/ app so that proper accounting of the sale of sand can be maintained by the Government. Also, stockyards should be made around all the major consumption hubs in the State based on their estimated demand.

It is suggested that the State Government should develop an online portal for sale and purchase of Sand & RBM. In addition to this State Government shall decide on the model viz. *Under market model or Controlled market prices or both* to be adopted for their respective States. The State Government shall accordingly modify their Minor Mineral Concession Rules within 6 months of publication of these guidelines. It is suggested that the controlled price model is more effective in controlling illegal sand mining. Because if the State Government is the only agency to provide the sand in the State, then price and supply of sand can be controlled more effectively. There will be no confusion in the consumers about legality of the purchase as the only source of sand provider is the State Government through its network of registered stockiest, retailers and transporters. The consumers

can fill the online request, pay the amount, select the transporter and give its feedback after the receipt of the sand. The transportation can also be controlled as the tippers used for transportation is registered tippers with GPS facility, the transportation route is well defined for easy monitoring, control over overloading of tippers, control over spillage of mineral etc. The State Govt. shall also make provision for penalizing the persons/agency buying the sand and RBM from the illegal sources.

6.4.2 The Ministry of Mines in its Sand Mining Framework also mentioned the following different level of monitoring:

Para 1.2.13.1 Level 1- Reach/ Stockyard level monitoring

For monitoring of the active reaches:

a. *Quantity of sand to be extracted from the reach should be based on the quantity of sand assessed in the reach by the Joint Inspection Team.*

b. *The lease boundary should be demarcated with geo-coordinates or geo-fenced to ensure that sand extraction is going on only within the permitted area.*

c. *De-casting from river beds should be monitored on a regular basis to keep a track of excavated quantity.*

d. *After every two years, a mandatory audit of the quantity extracted and quantity permitted along with the replenishment rate.*

e. *Mandatory e-pass/ e-permit should be made available at reach level for transportation of any sand by any GPS enabled vehicle with the provision of entering the vehicle number of the sand carrying vehicle and expected delivery address and customer name/ mobile number. Also, provision should be made available for stockyards/ stockiest of sand. In the case of*

nomination based (controlled pricing) business model, the margin of private stockist should be capped over a fixed percentage of notified prices.

f. *At the stockyard, the stock supervisor should verify the authenticity of online payment receipt before issuing the transit pass. The loading of sand should be monitored electronically and all transporting vehicles should pass through an electronically monitored weighbridge. g. Real-time data capture for transportation*

Para 1.2.13.2 Level 2 - Transportation monitoring

To make transportation monitoring effective and useful, all the sand carrying vehicles (tractors/ trucks) should be registered with the department and GPS equipment should be installed in all the sand carrying vehicles. Weighbridges with CCTV should be installed at all the stockyards, active reaches to ascertain the exact quantity of sand being transported in the vehicle. Check posts with CCTV cameras should be established near all major consumption centres to check if all the transporting vehicles are carrying a valid transport permit. The transport permit generated should contain the security features mentioned under section 5.11 so that one permit cannot be re-used by generating photocopies of the permit.

Para 1.2.13.3 Level 3 - End consumer monitoring/ bulk consumer

For end consumer monitoring, a customer grievance redressal center should be established to enquire about the grievances faced by the sand consumers. The telephone number of the call center should be advertised so that it reaches the general public through which anyone in the State can register his/her complain related to the sand, be it in terms of price or any other grievance. Additionally, profiles of customers should be analyzed such as the delivery of sand at the same address, usage pattern and its comparison with the estimated usage, as mentioned in purpose, etc. Further, surprise checking

should be conducted by the district level committee staff as per instructions of the monitoring agency.

Para 1.2.13.4 Level 4 - Indirect monitoring

Indirect monitoring can be done by determining sand consumption through the quantum of cement sales in the State, as the sale of cement is quite organized and data is easily available at the State level and district levels for the same. From district-wise cement consumption, the further trend of sand consumption can be derived. Any anomalies in the sand consumption/demand can be analyzed further.

Note: *The above monitoring mechanism is just a suggestion and the States may visit Andhra Pradesh and Telangana to study the monitoring mechanism in greater detail.*

It is suggested that State Government may consult with concern department of State of Telangana and Tamil Nadu to have better understanding on their experience and knowledge in adopting best sand mining enforcement provisions and monitoring practices and frame their own regulatory regime and monitoring framework. The framework of monitoring should essential include online sale & purchase of River Bed Material/ Auction of leases, Sand from rivers and other sources, online monitoring of excavation, storage and transportation of mineral for control of illegal mining.

The respective State Governments shall develop the online Sale & Purchase System after defining the model viz. Under market model or Controlled market prices model. The level of monitoring needs to be defined and guidelines need to be finalized by the respective State Governments as per their requirement with due consideration of suggestive guideline in this document. These all measure will help in curbing illegal mining.

7.0 Recommendations of High Power Committee:

A high power committee (HPC) was constituted by Hon'ble National Green Tribunal to assess the status of illegal mining the stretch of River Yamuna, under the chairmanship of Secretary, Ministry of Environment Forest & Climate Change. The committee after exhaustive field survey and interaction with stakeholders and having surprise visits submitted a comprehensive report on river sand mining along with certain recommendations on enforcement requirements and monitoring essentials. The same is provided in the following section for consideration of monitoring / regulatory authority to adopt applicable provisions in their monitoring framework and also to ensure that the infrastructural requirements recommended by the HPC are put in use at all locations including the lease area.

7.1 Recommendations of High Power Committee (HPC)

The following recommendation of the High Power Committee shall be considered while framing the monitoring mechanism by the State Government.

i. Project Proponent must ensure that following security features are included in the Transport Permission/Permits (TP) so that duplicate/fraudulent/forged TPs for transport, not accounted for in the IT-based system, is not possible.:

(a) Printed on Indian Bank Association (IBA) approved
(b) Magnetic Ink Character Recognition Code (MICR) paper;
(c) Unique Barcode;
(d) Unique Quick Response Code (QR);
(e) Fugitive Ink Background;
(f) Invisible Ink Mark;
(g) Void Pantograph;
(h) Watermark.

ii. Project Proponent must ensure that CCTV camera, Personal Computer (PC) or laptop, Internet Connection, Power Back up, access control of mine lease site; and arrangement for weight or approximation of weight of mined out mineral on basis of volume of the trailer of vehicle used at mine lease site are available.

iii. The PP has to enter the destination, distance between plot and destination, vehicle number etc in the system. After scanning, unique bar code number, invoice date time and validity date-time are generated by the software which gets printed individually on each TP Validity of TP is calculated based on the distance between plot and destination. After validity time is over the TP stands invalid.

iv. The officers involved in monitoring should be provided with mobile application and/or bar code scanners using which the TP can be checked anywhere on road. As soon as the bar or QR code on TP gets scanned through using the mobile application and/or scanner or vehicle number is entered into the application or sent by SMS to a predefined number, all details of TP such as plot details, vehicle details, validity time, etc. should be fetched from the server. This means if anything is re-written on TP and attempt is made to reuse the same, it can be traced immediately. Various reports can be generated using the system showing daily lifting reports and user performance report. This way the vehicles carrying sand can be tracked from source to destination.

v. The facility to fetch details using mobile app, website and SMS may be made available to the general public as well. However, they shall not be allowed to stop the vehicles to check the transportation. The only option that they should have is to check vehicle numbers of the passing vehicle in the mobile app or SMS for the validity of the pass. The only result that should be available to them should be if the vehicle carrying sand has a

valid permit at the relevant point of time or not. If the citizen finds that the vehicle doesn't have such a permit, as ascertained from mobile app or website or SMS, he should alert local authorities, who shall then take further action as per the law.

vi. In case, the vehicle break-down, the validity of Transport Permit or Receipt shall be extended by sending SMS by the driver in specific format to report the breakdown of the vehicle. The server will register this information and register the breakdown. The State can also establish a call center, which can register breakdowns of such vehicles and extend the validity period. The subsequent restart of the vehicle also should be similarly reported to the server/call center.

vii. The route of the vehicle from source to destination shall be tracked through the system using checkpoints, Radio-frequency identification (RFID) tags, and Global Positioning System (GPS) tracking.

viii. The system shall enable the Authorities to develop a periodic report on different parameters like daily lifting report, vehicle log/ history, lifting against allocation, and total lifting. The system can be used to generate auto mails/SMS. This will enable the District Collector / Magistrate and other authorities to get all the relevant details and will enable the authority to block the scanning facility of any site found to be indulged in irregularity. Whenever any authority intercepts any vehicle transporting illegal sand, it shall get registered on the server and shall be mandatory for the officer to fill in the report on action taken. Every intercepted vehicle should be tracked.

ix. It is necessary to prevent any truck/vehicle from transporting sand out of the identified plot bypassing the strong IT enabled system. Therefore, at each of the sand plot, the following additional measures should be taken.

(a) There shall be one entry and exit point provided for trucks/vehicles. The said entry point should have facilities as mentioned above. In case, it is necessary to have more than one entry/exit points, all such points shall have checkpoints with facilities as mentioned above. All other possible ways of entry/exit should be closed using barriers like compound, trench, etc. All provisions shall be made to not make it possible for any vehicle to enter or exit without entry into the computerized system.

(b) All such points should have 24X7 CCTV coverage, the footage of which should be made available online to the district administration. In cases, where sufficient internet bandwidth is not available, it may be deposited with the district administration on a weekly basis. If possible, the entry/exit points should have boom barriers which will record the vehicles entering and exiting the plot.

8.0 GENERAL APPROACH TO SUSTAINABLE SAND MINING

8.1 Pre-requisite for starting sand mining operation

i) All district to prepare a comprehensive mining plan for the district as per the provision of District Survey Report. These reports shall be put on the website of District Administration. No mining shall be allowed in the area which has not been identified in the comprehensive mining plan of the District.

ii) Replenishment study should be conducted on regular basis.

iii) All potential rivers mining zone/area shall be identified and put for auction with proper geo-tagged details by the auctioning authority concerned.

iv) The latitude and longitude of each mining lease shall be clearly mentioned in Letter of Intent issued to the potential mine lease. Such information shall be provided on the website of the district administration.

v) The provision of these guidelines shall be considered while identifying the potential stretches /locations and boundaries of the leases for the minable area.

vi) The LoI holder shall seek Environmental Clearance as per the provision of EIA Notification, and the regulatory authority shall ensure that the provision suggested in "Sustainable Sand Mining & Management 2016" and in this documents, as applicable are part of the clearance conditions.

vii) There shall be no river bed mining operation allowed in monsoon

period. The period as defined by IMD Nagpur for each state shall be adhered with.

viii) The monitoring infrastructures including weighbridge and adequate fencing of the lease area, CCTV, Transport permits, etc, as suggested in this document shall be ensured in order to reduce unrecorded dispatch.

ix) Regular monitoring of mined minerals and its transportation and storage shall be ensured and all information shall be captured at centralized database so that easy tracking of illegal material can be done.

x) Annual audit of each mining lease shall be carried out wherein three independent member of repute, nominated by District administration shall also participate.

8.2 Mining of Sand from Agricultural Fields

This practice is prevalent in Haryana; to ensure that mining from outside doesn't affect rivers, no mining is permitted in an area up to a width of 100 meters from the active edge of embankments or distance prescribed by Irrigation department whichever is critical. The top layer of soil varying between 1 and 2 meters is removed and stacked separately and thereafter the sand deposit which maybe 10-15 meter deep is mined. After removing the sand layer up to a maximum depth of 09 meters or the maximum mineable minerals, as permitted by competent authority. The topsoil stacked is spread out on the field and the same is brought under the cultivation. Though the level of this land (mined out area) is lowered to the depth of the excavation and in initial years of cultivation the productivity is low, but the productivity of the fields improves with continued cultivation and addition of organic manure in the field. In Haryana, some leases are of large area

(ranging from 1000 hectare to 2000 hectare) and agricultural fields and river bed both are included in the same lease for mining.

The following recommendations should be kept in mind for mining in such leases:

1. Mining of sand in such mine leases will require environment clearance.
2. The lease should be of sand mining either from the agricultural field or river. In the same lease, both types of area should not be included.
3. The sand mining from the agricultural field is being done in Haryana for a long time and it can be done in a more sustainable manner without adverse impact on agricultural productivity if proper environmental safeguards are taken.
4. The slope of mining area adjacent to agricultural fields should be proper (preferably 45 degree) and adequate gap (minimum 10 feet) be left from adjacent agricultural field to avoid erosion and scouring.

The provision for sand mining in agricultural field may be permitted, whenever replenishment of sand occurs due to natural phenomena.

Permission may also be granted by competent authority (District administration) for excavation of sand/Soil from agricultural fields, after due diligence of this prevailing condition in order to avoid any unacceptable impact on the environment and nearby livelihood from agriculture provided such objective of such excavation mining of Soil/Sand in limited increase the productivity of sand agricultural field.

9.0 MONITORING MECHANISM

9.1 Illegal Mining

The Hon'ble Supreme Court in its Judgment dated 2.08.2017 in W.P 114 of 2014 in the matter of Common Cause Vs Union of India & Ors, inter-alia passed the following:

Para 128. *The simple reason for not accepting this interpretation is that Rule 2(ii-a) of the MCR was inserted by a notification dated 26th July 2012 while we are concerned with an earlier period. That apart, as mentioned above, the holder of a mining lease is required to adhere to the terms of the mining scheme, the mining plan and the mining lease as well as the statutes such as the EPA, the FCA, the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981. If any mining operation is conducted in violation of any of these requirements, then that mining operation is illegal or unlawful. Any extraction of a mineral through an illegal or unlawful mining operation would become illegally or unlawfully extracted mineral."*

In view of above Judgement, any mining activities which are not governed under the provision of Environment (Protection) Act, 1985, The Water (Prevention & Control of Pollution Act, 1974, The Air (Prevention & Control of Pollution) Act, 1981, Forest Conservation Act-1980, Wildlife Protection Act - 1972, shall be considered as illegal mining within the provision of section 21(5) of Mines and Minerals (Development & Regulation) Act, 1957 (MMDR Act) and the concerned authority shall take necessary action within the provision of MMDR Act.

As per the provision of 23(C) of MMDR Act, the State Government is empowered to make rules for preventing illegal mining, and transportation

& storage of Illegal minerals. All such mining which qualifies under illegal, shall be dealt with in the provision of MMDR Act by the concern authorities.

State Pollution Control Board (SPCB) is the nodal authority in the State for dealing with cases related to pollution or environment management coming under the purview of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment Protection Act 1986. SPCB shall initiate appropriate action under the provision of these acts for non-compliance of violation of the provisions.

9.2 Environmental Damage due to illegal mining

The environmental damages incurred or resulting due to illegal mining shall be assessed by a committee constituted by District Administration having expertise from relevant fields, and also having independent representation of locals and State Pollution Control Board. Guidelines for assessment of ecological damages prescribed by the State Government or Concerned Pollution Control Boards or any other authority shall be applicable and compensation as fixed shall be paid by the project proponent, in light of Hon'ble National Green Tribunal orders.

9.3 Monitoring of Mining near Inter-district or inter-state boundary

There are situations where bifurcated river becomes district boundaries or state boundaries in such situation it is difficult to assess the mining potential, or to have close monitoring and enforcement of the regulatory provision. Such challenges have been identified and dealt with in SSMG-2016. However, in the absence of any standardized procedure, the monitoring has not been effectively practiced. This has been highlighted by the High Power Committee constituted by NGT in the matter pertaining to illegal mining.

The districts/state sharing the boundary shall constitute the combined task force for monitoring of mined materials, mining activity and also should actively participate in the preparation of DSR by providing appropriate inputs. In such cases, the draft DSR so prepared shall be put up for public consultation in both the districts through respective district administration website.

The task force shall meet every quarter to reconcile the data collected during the period and identify any gap/ lapses based on the outcome of such meeting. The respective district shall take action/ corrective measures. Effort shall be made for real-time data sharing between both the district.

The task –force shall include essentially the representative of respective districts from the mining department, transport department, regional office of SPCB concerned and a reputed citizen nominated by district administration. The Taskforce shall be headed by officer not less than ADM rank and quarterly outcome shall be submitted to District administration.

In addition to the above, there is a need for strict surveillance, particularly at night. The State of Gujarat has already initiated a program called '*Trinetra*' for night surveillance by using night-vision drones to control illegal mining incidents. This program is giving satisfactory results. Such type of system may also be developed by each State within a reasonable time.

A typical standard operating procedure for assessing illegal mining by the committee constituted shall, but not limited to, include the steps given in the following table. However, the process of assessing can be modified based on site-specific conditions and any deviation shall be recorded in the report with proper justification.

Suggestive standard Practice for assessing illegal mining

Step 1	The assessment team should collect the information and documents prescribed in the Pre-Requisite section.
Step 2	The assessment team should verify the applicability/validity of statutes under EPA-1986, Air and Water Act, MMDR 1957, State Mines and Mineral Rules, etc.
Step 3	Field visit should be conducted for identification of mining lease area (in hectare) and boundary pillar constructed to indicate the same.
Step 4	With the help of GPS instrument, the team should assess the area where any extraction or mining have been carried out on the day of visit and calculate the mined-out area in a hectare.
Step 5	If available, the team may avail the use of latest satellite images for calculating the total mined out area.
Step 6	The team should verify the Ground / Surface Level (in meter above MSL) of at least 04 highest points in or around the area where mining has been done. The Ground/surface level will then be computed based on averaging of 04 highest points verified by the team.
Step 7	With the help of Depth Measurement kit or any depth measuring instruments, the depth should be measured for at least 04 points in the mined-out area. For computing, the depth, averaging of the value obtained at 04 points should be done.
Step 8	Verification of compliance conditions of Environmental Clearance and Consent to operate, mining methodology under Mining Plan
Step 9	Identification of vulnerable impacts observed on the field and non-compliance of conditions of Environmental Clearance and Consent to Operate.

Step 10	Field Survey for identification, monitoring and verification of ecological species based on the information available and documents mentioned in the Pre-requisite section.
Step 11	Preparation of inventory of machinery used/observed on the field (optional)
Step 12	Preparation of inventory of hydraulic structures observed on the field (optional)
Step 13	Water sampling for assessment of water quality including physical and biological parameters. (optional)
Step 14	Reconciliation collation of data/information and compilation to maintain violation.
Step 15	Identification of restoration plan and computation of cost of the restoration plan.

9.4 Monitoring Mechanism

A uniform monitoring mechanism is required to assess the regulatory provision in quantitative terms, with robust institutional and legal framework. Based on past experience and suggestions available, the following requirements are suggested for defining a mechanism for monitoring of mining activities which will help in identification of mining which is operating either illegally or are violating the regulatory provisions. Some suggestion will facilitate direct or indirect information to help in such an assessment.

1. All precaution shall be taken to ensure that the water stream flows unhindered and process of Natural river meandering doesn't get affected due to mining activity.

2. River mining from outside shall not affect rivers, no mining shall be permitted in an area up to a width of 100 meters from the active edge of embankments or distance prescribed by the Irrigation department.

3. The mining from the area outside river bed shall be permitted subject to the condition that a safety margin of two meters (2 m) shall be maintained above the groundwater table while undertaking mining and no mining operation shall be permissible below this level unless specific permission is obtained from the Competent Authority. Further, the mining should not exceed nine-meter (9 m) at any point in time.

4. Survey shall be carried out for identifying the stretches having habitation of freshwater turtles or turtle nesting zones. Similarly, stretches shall be identified for other species of significant importance to the river eco-system. Such stretch with adequate buffer distance shall be declared as no-mining zone and no mining shall be permitted. The regulatory authority as defined for granting Environmental Clearance, while considering the application of issuance of ToR and/or EC for the adjacent block (to non-mining zone) of mining shall take due precaution and impose requisite conditions to safeguard the interest of such species of importance.

5. District administration shall provide detailed information on its website about the sand mines in its district for public information, with an objective to extend all information in public domain so that the citizens are aware of the mining activities and can also report to the district administration on any deviation observed. Appropriate feedback and its redressal mechanism shall also be made operational. The details shall include, but not limited to, lease area, geo-coordinates of lease area and mineable area, transport routes, permitted capacity, regulatory conditions for operation including mining, environmental and social commitments etc.

6. A website needs to be maintain to track the movement of centralised sand mining and a Centralised server system should be made to manage the data related to sand mining across India.

7. The mineral concession holders shall maintain electronic weighbridges at the appropriate location identified by the district mining officer, in order to ensure that all mined minerals from that particular mine are accounted for before the material is dispatched from the mine. The weighing bridge shall have the provision of CCTV camera and all dispatch from the mine shall be accounted for.

8. The mineral movement shall be monitored and controlled through the use of transit permit with security features like printing on IBA approved MICR papers, Unique bar/QR, fugitive ink background, invisible ink mark, void pantographs and watermarks papers or through use of RFID tagged transit permits and IT /IT-enabled services. Such monitoring system shall be created and made operationalised by State Mining department and district level mining officer shall be responsible for ensuring that all legal and operational mines are connected and providing the requisite information on the system. Regular check and associated report shall be submitted to DLTF and uploaded on the website.

9. State Government shall constitute a District Level Task Force (DLTF) under the Chairmanship of Deputy Commissioner/District Magistrate/Collector with Superintendents of Police and other related senior functionaries (District Forest Officer, District transport officer, Regional officer- SPCBs, Senior Officer of Irrigation Department, District Mining Officer) with one/two independent member nominated by the Commissioner concerned. The independent member shall be retired government officials/teacher or ex-serviceman or ex-judiciary member.

The DLTF shall keep regular watch over the mining activities and movement of minerals in the district. The DLTF shall have its regular meeting, preferably every month to reconcile the information from the mining activity, and other observations made during the month and take appropriate corrective and remedial action, which may include a recommendation for revoking mining lease or environmental clearance. The DLTF may constitute an independent committee of the expert to assess the environmental or ecological damage caused due to illegal mining and recommend recovery of environmental compensation from the miner's concern. The recommendation may also include action under the provision of E(P) Act, 1986.

10. The area not identified for mining due to restriction or otherwise are also to be monitored on a regular basis by the DLTF. Any observations of mining activity from the restricted area shall be reported and corrective measures shall be initiated on an urgent basis by the DLTF.

11. The dispatch routes shall be defined in the Environmental Clearance and shall be avoided through densely habituated area and the increase in the number of vehicle movement on the road shall be in agreement with the IRC guidelines / carrying capacity of the road. The alternate and dedicated route shall be explored and preferred for movement of mining to avoid inconvenience to the local habitat. The mining production capacity, by volume/weight, shall be governed by total permissible dispatch calculated based on the carrying capacity of dispatch link roads and accordingly, the production should be regulated.

12. The movement of minerals shall be reconciled with the data collected from the mines and various Naka/check posts. Other measures may also include a general survey of the potential mineable area in the district

which has not been leased/auctioned or permitted for mining due to regulatory or other reasons.

13. The location and number of check post requirement shall be reviewed by DLTF on a regular basis so that appropriate changes in location/number could be made as per the requirement. Such review shall be carried out on a regular basis for the district on inter-state boundary or district providing multiple passages between two districts of different states.

14. The district administration shall compile the information from their district of the permitted and legal mined out minerals and other details and share such information and intelligence with the officials of the adjoining district (Inter or/and Intra State) for reconciliation. The information shall include the area of operation, permissible quantity, mined out minerals (production) the permitted route etc., and other observations, especially where the mine lease boundary is congruent with the district boundary. Such coordination meeting shall be held on a quarterly basis, alternatively in two district headquarters or any other site in two districts decided mutually by the District Magistrate.

15. The mining department shall include submission of an annual environmental audit report as one of the conditions in the mining lease agreement. The annual audit for each river bed mining lease shall be carried out and the audit report shall be uploaded on the website of district administration. The audit shall be carried out by an independent team of 3 members nominated by District Collector/Magistrate/Commissioner comprising of Ex-Serviceman, Ex-Government officials of repute, Professor or Person having experience of mining/environment. The guidelines and method of the audit shall reflect adequately the monitor-able parameters and output and reflect

the compliance status with respect to the conditions imposed by the regulatory authorities including conditions of Environmental clearance.

16. The in-situ and ex-situ environmental mitigative measures stipulated as EMP, CER, CSR and other environmental and safety conditions in mines including the welfare of labours shall properly reflect in the audit report.

9.5 Suggestive additional requirements are

i. The requirement at the Mine Lease Site:

a. Small Size Plot (Up to 5 hectares): Android Based Smart Phone.
b. Large Size Plots (More than 5 hectares): CCTV camera, Personal Computer (PC), Internet Connection, Power Back up.
c. Access control of mine lease site.
d. Arrangement for weight or approximation of the weight of mined out mineral on the basis of the volume of the trailer of vehicle used.

ii. Scanning of Transport Permit or Receipt and Uploading on Server:

a. Website: Scanning of receipt on mining site can be done through barcode scanner and computer using the software;

b. Android Application: Scanning on mining site can be done using Android Application using a smartphone. It will require internet availability on SIM card;

c. SMS: Transport Permit or Receipt shall be uploaded on the server even by sending SMS through mobile. Once Transport Permit or Receipt get uploaded, a unique invoice code gets generated with its validity period.

iii. Proposed working of the system:

The State Mining Department should print the Transport Permit or Receipt with security features and issue them to the mining leaseholder through the District Collector. Once these Transport Permits or Receipts are issued, they would be uploaded on the server against that mine lease area. Each receipt should be preferable with pre-fixed quantity, so the total quantity gets determined for the receipts issued. When the

Transport Permit or Receipt barcode gets scanned and invoice is generated, that particular barcode gets used and its validity time is recorded on the server. So all the details of transporting of mined out material can be captured on the server and the Transport Permit or Receipt cannot be reused.

iv. Checking On Route:

The staff deployed for the purpose of checking of vehicles carrying mined mineral should be in a position to check the validity of Transport Permit or Receipt by scanning them using the website, Android Application and SMS.

v. Breakdown of Vehicle:

In case the vehicle break-down, the validity of Transport Permit or Receipt shall be extended by sending SMS by the driver in specific format to report the breakdown of the vehicle. The server will register this information and register the breakdown. The State can also establish a call center, which can register breakdowns of such vehicles and extend the validity period. The subsequent restart of the vehicle also should be similarly reported to the server or call center.

vi. Tracking of Vehicles:

The route of the vehicle from source to destination can be tracked through the system using checkpoints, RFID Tags, and GPS tracking.

vii. Alerts or Report Generation and Action Review:

The system will enable the authorities to develop a periodic report on different parameters like daily lifting report, vehicle log or history, lifting against allocation, and total lifting. The system can be used to generate auto mails or SMS. This will enable the District Collector or District Magistrate to get all the relevant details and shall enable the authority to block the scanning facility of any site found to be indulged in irregularity. Whenever any authority intercepts any vehicle transporting illegal sand, it shall get registered on the server and shall be mandatory for the officer to fill in the report on action taken. Every intercepted vehicle shall be tracked.

The monitoring of mined out mineral, environmental clearance conditions and enforcement of Environment Management Plan will be ensured by the regulatory authority and the State Pollution Control Board or Committee. The monitoring arrangements envisaged above shall be put in place. The monitoring of enforcement of environmental clearance conditions shall be done by the Central Pollution Control Board, Ministry of Environment, Forest and Climate Change and the agency nominated by the Ministry for the purpose.

Some of the State has followed the SSMMG-2016 and has also improvised or customized on the provisions given therein, and are successfully in operation. Salient provision adopted at different stages of sand mining in the state of Tamil Nadu is given as **Annexure VIII.**

9.6 Actions against illegal excavation and transport

Solapur district administration in Maharashtra had adopted a multi-pronged strategy to penalize the persons involved in illegal excavation and transport which resulted in a significant increase in revenue earned by the state. Following rules and procedures as mentioned in these guidelines will add to the costs of PP. Those involved in illegal activities are not required to bear these costs and this will make their supply in the market cheaper (though illegal). This will put the players running their business by following rules and procedures laid down by the government to disadvantage as far as the selling price is considered. Therefore, it is necessary to come down heavily on those involved in illegal excavation/transport, so that there is no incentive for players to abide by the rules.

The following action may be taken to achieve this deterrence against illegal business:

1. The action should be taken under all legal options available simultaneously. Thus, after identifying the case of illegal excavation, storage and/or transport of minor minerals (including sand), fine should be levied as per the land revenue laws/code(s) of the state. In addition, FIR should be lodged in the police station under relevant sections of law including sec 379 IPC. In addition, action under the Motor Vehicle Act, 1989 and relevant rules should initiate to cancel/suspend the driving license of the driver and permit of the vehicle. Further, action should be initiated under provisions in the Income Tax Act, 1961 for unaccounted income and under the Central Goods and Services Act, 2017 for non-payment of GST. (Earlier this was done under the state act pertaining to Value Added Tax/Sales Tax). Habitual offenders should also be taken up under local state laws for externment and/or preventive action. It is clarified that as per law, it is possible to take all actions under various laws

simultaneously for one offence. What is prohibited in law is an action under the same law for the same act more than once.

2. The action should be taken against all persons responsible. Often, there is a tendency to penalize only the drivers of the vehicles. The mafia of illegal mining and transport is much bigger and drivers are only one part of the system. It is necessary to identify all those involved in the offence. It is usually not possible to reach the place of excavation without creating a motorable pathway up to the same through land which may be private land. Such role of such landowners needs to be looked into for each offence and proceeded against simultaneously. Further, the role of vehicle owners needs to be probed. Role of the person who allowed his land to be used for illegal excavation and storage should also be examined. Lastly, the person who purchases such sand should also be probed. The legal proceedings stated above needs to be initiated against all of these together. An attempt should be made to fix the financial responsibility in joint and several ways so that recovery is easier.

3. There may be discretion available in law about the extent of the penalty to be levied. If such discretion is very wide, then it is advisable that guidelines may be laid down to reduce such discretion in law for levying penalties. For example, in Maharashtra, Land Revenue Code, fine of any amount of penalty up to thrice the value of the sand can be levied. Solapur district administration had instructed Tahsildars and SDMs not to use discretion and levy the fine of three times the value. Availability of discretion makes junior level functionaries susceptible to pressures and it may also lead to corrupt practices.

4. It is emphasized that actions, as stated above, are most important to ensure that the IT-based system works. If these exemplary actions are not taken against everyone, it shall create a strong disincentive to those

involved in legal excavation and transportation. For IT-based (or any other) legal system to work, it is necessary to ensure that illegal system stops working altogether.

Details of Sand/M-Sand Sources

a) Rivers:

River Name/M-Sand Plant	Total Stretch of River (in KM)	Type of River (Perennial or Non-Perennial)

b) De-Siltation Location: (Lakes/Ponds/Dams etc.)

Name of Reservoir/Dams	Maintain/Controlled by State Govt./PSU etc.	Location	District	Tehsil	Village	Size(Ha)

c) Patta Lands/Khatedari Land:

Owner	Sy. No	Area (Ha)	District	Tehsil	Village	Agricultural Land (Yes/No)

d) M-Sand Plants:

Plant Name	Owner	District	Tehsil	Village	Geo-location	Quantity Tonnes/Annum

Note: For inclusion of M-Sand Plant/Patta Land in DSR the plant/landowners need to submit the request to the Mining Department with complete details. Inclusion in DSR does not give them the right to operate the M-Sand Plant/Sand Mining lease.

List of Potential Mining Leases (existing & proposed)

Rivers

River Details	Lease Details	Area (in Ha)	Distance (in KM) from PA/BR/WC/	Distance from Forest Area (in KM)	Mining leases within 500 meters (if yes cluster area)	Total excavation in Tonnes /Annum considering digging depth max as 3 meters	Mineral to be mined (Sand/ Bajri/ RBM etc.)	Existing / Proposed

Patta Lands/Khatedari Land: (existing & proposed)

Owner	Sy. No	Area	District	Tehsil	Village	Total Reserve (MT)	Total Mineral to be mined (MT)	Existing /Proposed

De-Siltation Location: (Lakes/Ponds/Dams etc.) (Existing & proposed)

Name of Reservoir /Dams	Maintain /Controlled by State Govt./PSU etc.	Location	District	Tehsil	Village	Size (Ha)	Quantity MT / Year	Existing /Proposed

M-Sand Plants :(existing & proposed)

Plant Name	Owner	District	Tehsil	Village	Geo-location	Quantity Tonnes/Annum	Existing/Proposed

Cluster & Contiguous Cluster details

Clusters:

River Name	Cluster No.	Lease No	Location (Riverbed / Patta Land)	Village	Area (in Ha)	Total Excavation (Ton)	Total Mineral Excavation (Ton)

Contiguous Clusters:

River Name	Contiguous Cluster No.	Cluster No	Number of leases in the cluster	Location (Riverbed / Patta Land)	Distance between clusters	Village	Area of Cluster (Ha)	Total Mineral Excavation (Ton)

Transportation Routes for individual leases and leases in Cluster

Lease No	Transportation Route No	Number of tippers /day of lease	Number of tippers /day of all the lease on route	Length of Route in KM	Type of Road (Black Topped/ unpaved)	Recommendation for road (Black Topped/ unpaved)	The road will be Constructed by Govt/ Lease Owner	Route Map & Location

Cluster No	Transportation Route No	Number of tippers /day of cluster	Number of tippers /day of all the clusters on route	Length of Route in KM	Type of Road (Black Topped/ unpaved)	Recommendation for road(Black Topped/ unpaved)	The road will be Constructed by Govt/Lease Owner	Route Map & Location

Final List of Potential Mining Leases (existing & proposed)

Rivers

River Details	Lease Details	Area (in Ha)	Distance (in KM) from PA/BR/WC/	Distance from Forest Area (in KM)	Mining leases within 500 meters (if yes cluster area)	Total excavation in (MT/Yr) (Mine depth max as 3 m)	Mineral to be mined (Sand/Bajri/RBM etc.)	Existing /Proposed

Patta Lands/Khatedari Land: (existing & proposed)

Owner	Sy. No	Area	District	Tehsil	Village	Total Reserve (MT)	Total Mineral to be mined (MT)	Existing /Proposed

De-Siltation Location: (Lakes/Ponds/Dams etc.) (Existing & proposed)

Name of Reservoir/ Dams	Maintain/ Controlled by State Govt./PSU etc.	Location	Distt.	Tehsil	Village	Size(Ha)	Quantity MT/Year	Existing/ Proposed

M-Sand Plants :(existing & proposed)

Plant Name	Owner	District	Tehsil	Village	Geo-location	Quantity MT/Annum	Existing/Proposed

Final List of Cluster & Contiguous Cluster

Clusters:

River Name	Cluster No.	Lease No	Location (Riverbed / Patta Land)	Village	Area (in Ha)	Total Excavation (Ton)	Total Mineral Excavation (Ton)

Contiguous Clusters:

River Name	Contiguous Cluster No.	Cluster No	Number of leases in the cluster	Location (Riverbed /Patta Land)	Distance between clusters	Village	Area of Cluster (in Ha)	Total Mineral Excavation (Ton)

Final Transportation Routes for individual leases and leases in Cluster

Lease No	Transportation Route No	Number of tippers /day of lease	Number of tippers /day of all the lease on route	Length of Route in KM	Type of Road (Black Topped/ unpaved)	Recommendation for road(Black Topped/ unpaved)	The road will be Constructed by Govt/Lease Owner	Route Map & Location

Cluster No	Transportation Route No	Number of tippers /day of cluster	Number of tippers /day of all the clusters on route	Length of Route in KM	Type of Road (Black Topped/ unpaved)	Recommendation for road(Black Topped/ unpaved)	The road will be Constructed by Govt/Lease Owner	Route Map & Location

Salient provision for sand mining in the state of Tamil Nadu

STEPS TO BE FOLLOWED BEFORE EXECUTION:

- The state as a policy should endeavor to have single authority/agency responsible for all river sand mining in the state with an objective to ease the gap in demand and supply and accordingly, take necessary measures including planning, monitoring of mined material and its transport, and to curb illegal mining and sale of materials.

- The prospective site for sand quarry may be identified based on the availability of adequate sand deposits along the river beds, which hinders the free flow of water and results in flooding during monsoon seasons. Emphasis may be given to such quarry sites which is more viable for replenishment.

- A detailed study may be conducted by engaging expert from reputed Institutions to identify prospective sand reaches, assessment of the impact of sand quarrying on the Ground Water Table and water availability, conduct bore log details and study the social and environmental aspects. The generic requirement for replenishment study is to be followed.

- Once the site is identified for prospective sand quarry site based on the detailed replenishment study, the concerned department shall submit the proposal with the geo-tagged boundary of the proposed mining Precise Area Proposal to the District Collector for approval.

- A joint inspection may be carried out by the RDO/Sub-Collector, Assistant/Deputy Director,

- Executive Engineer, TWAD Board and the PWD officials to consider the various factors before giving consent to the proposal.

- The RDO concerned along with Revenue officials may verify the revenue records of the proposed sand quarrying area and give the NOC.

- The AD/DD Mines may verify the presence of permanent structures such as tower line, bridge, monuments if any, in the vicinity of the proposed mining site as per Tamil Nadu Minor Mineral Concession Rules,1959 (As per Rule 36 " there shall be no quarrying of sand in any river bed or adjoining area or any other area which is located within 500 meter radial distance from the location of any bridge, water supply system, infiltration well or pumping installation of any of the local bodies or Central or State Government Department or the Tamil Nadu Water Supply and Drainage Board head works or any area identified for locating water supply schemes by any of the above mentioned Government Department or other bodies" and " The distance of 50 meter shall be measured in the case of railway, reservoir or canal horizontally from the outer toe of the bank or the outer edge of the cutting, as the case may be …. "). Also, the availability of minerals may be cross verified with the available DSR.

- The TWAD officials may verify the drinking water schemes located nearby the proposed quarry site and the minimum distance required as per statutory norms.

- Based on the feasibility report of the joint inspection by the Revenue, Tamil Nadu Water Supply and Drainage Board and Mining officials/experts, the District Collector may give consent for the Precise Area proposal.

- After getting Precise Area approval, a detailed Mining Plan and sketch shall be prepared by the Executive Engineer, PWD using the services of a NABET accredited consultant who holds the pivotal role in the preparation of mining plan. Due responsibility will be expected on the concerned consultant in the mining plan preparation taking care of adhering to all mining rules, existing as on date. The mining plan shall contain the details of quantity to be excavated, the period of mining, method of excavation, deployment of required machinery, Environment Management Plan (EMP), proposed number of laborers to be deployed and Conceptual Mining Plan, as per Rule 41 of TNMMC Rules 1959. It is also the duty of the consultant to give the safe distance of 50 m or twice the bank height from the toe of the riverbank, whichever is higher and fixing the Geo coordinates for boundaries using DGPS instruments.

- The concerned Executive Engineer, PWD shall submit the Mining Plan prepared by the NABET accredited consultant to the concerned Assistant/Deputy Director, Department of Geology and Mines for approval, as per Rule 42 of TNMMC 1959. After scrutiny, the Assistant/Deputy Director, Department of Geology will present the Mining plan before the State Level Environment Impact Assessment Authority (SEIAA) for granting Environmental Clearance.

- The Executive Engineer, PWD shall prepare Form I and Pre-feasibility report with the help of the consultant and submit to SEIAA for an area less than 50 Ha. or to the Ministry of Environment and Forest and Climate Change (MoEF&CC) for the area more than 50 Ha.

- The State Expert Appraisal Committee (SEAC) under SEIAA, consisting of experts from renowned fields such as Mines, Environment, Sociology etc. shall conduct a site inspection of the proposed sand quarry site and after intense scrutiny, may recommend the proposal to SEIAA for approval.

- SEIAA shall grant Environmental Clearance for the sand quarry proposal after analyzing all the statutory provisions and based on the recommendation of the SEAC.

- The Environmental Clearance shall be informed to the public with basic details through advertisement in at least two widely circulated local newspapers with at least one in the vernacular language of the locality, within 7 days of the receipt of the clearance.

- On receipt of the Environmental Clearance, the Executive Engineer, PWD shall apply for Consent to Establish (CTE), from the Tamil Nadu Pollution Control Board as per the Air and Water Act, to enter upon the sand quarry site and commence the preliminary works such as construction of temporary sheds, bio-toilets, formation of biodegradable road using sugar cane leaves etc., drilling of bore wells etc. as per the statutory requirements. After all the preliminary works are completed, the Executive Engineer, PWD shall apply for the Consent to Operate (CTO) from the Tamil Nadu Pollution Control Board. Earmarking boundary of the identified land site through the concrete posts along with red flags need to be established.

- On receipt of the CTO, the Executive Engineer, PWD shall request the consent of the District Collector to commence the quarries. The District Collector shall request the Taluk Level Task Force comprising of Tahsildar, Inspector of Police, Officials from the Departments of Geology and Mining, Transport and Forest, Assistant Engineer, PWD and the Village Administrative Officer concerned, to verify the compliance of all preconditions mentioned in the Environmental Clearance and grant necessary permission to start the functioning of new sand quarries.

II. STEPS TO BE FOLLOWED DURING EXECUTION:

- Before the commencement of mining operations, the depth of sand quarrying needs to be measured accurately using Advanced technology and new gadgets like Total Stations, Global Positioning System (GPS) instruments etc. The Total Station and GPS instruments also need to be calibrated before measurement. Both the traditional and modern techniques may be infused in the right blend to get an accurate measure of the depth. A clear contour map (0.25m interval) of the levels within 2Km (one Km U/s and one Km D/s) needs to be prepared and submitted to both the Project Director, Sand Quarrying Operations and all the Monitoring Committee members. The depth of sand quarrying shall be restricted to 1 m from the theoretical/design bed level.

- The mining area must be demarcated at a minimum distance of at least 50 m away from the river embankment on either side. The boundaries of the quarries may be fixed with reference to the existing survey marks from the survey fields adjacent to the river. Sand quarrying lease area shall be demarcated on the ground with pucca stone or concrete pillars to show the present natural bed level and the depth of mining allowed.

- Modern techniques such as drone survey may be adopted to assess the depth and quantity of the mined area. Boundary pillars shall be erected at an interval of 50 m each on all four sides of the sand quarry site with red flags on every pillar and also in site pillars. The levels of shoal height, river bed height and depth to be excavated up to one meter downwards shall be marked in the pillars to avoid any deviation from the approved depth of excavation.

- It shall be ensured that no sand quarrying of any type is undertaken with 50m of the distance mentioned in the proposal (whichever is higher)

from both the banks of the river to control and avoid erosion of river banks.

- Temporary access roads or Katcha roads shall be formed between the banks of the river and the mining area with locally available bio-degradable materials such as sugarcane waste (bagasse), hay, etc.

- Proper entry and exit point for the movement of loading vehicles in and out of the sand quarry site shall be carefully located taking into consideration the habitations/settlements in the area.

- To monitor the groundwater level during sand quarrying operations, a network of existing wells may be established around the sand quarrying area and new piezometers must be installed at all sand quarry sites. Monitoring of Ground Water Quality in the vicinity (one Km radius from the sand quarrying site) shall be carried out once in two months.

- Periodic Monitoring (at least four times in a year – pre-monsoon, Monsoon, Post monsoon and winter) once in each season shall be carried out by PWD and the data thus collected may be sent regularly to SEIAA/TNPCB. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out, which includes immediate stopping of mining.

- Similar to the Baseline studies for data on water, soil and air etc., that is being done before the sand quarrying operations, the air and water quality may be checked periodically by Tamil Nadu Pollution Control Board to ensure that no pollution is caused due to Sand Quarrying Operations. 10. Safety gadgets such as earplugs, goggles, respiratory

devices, luminescent vests etc. may be provided to the workers at the sand quarry site.

- First aid kit with all essentials shall be kept ready at all quarry/depot site, in case of any emergency.

- To prevent air pollution due to the dust during sand quarrying operations and safeguard the persons in the sand quarry and depot site, constant water sprinkling on the pathways and dust prone areas may be done. The sand loaded vehicles are to be covered with a tarpaulin before moving out of the quarries/depots.

- Suitable depots shall be located in the vicinity of the sand quarry site to facilitate the sale of sand. While selecting the site for depots, it must be ensured that the site is within 25 km from the sand quarry site and has an area of around 10-15 Acres with parking facilities and proper entry and exit for smooth movement of the vehicles. The depot site shall preferably be a Government poramboke land, foreshore area of tank bund etc., near an NH/SH/MDR/ODR. In the absence of any Government land in the vicinity, private Patta land may be leased out and rent fixed as per the approved Government rates applicable therein.

- Permission must be obtained from the Electricity Board for power supply to operate the CCTV cameras at sand quarry site and depots.

- Minimum of two CCTV cameras, one each at the entry and exit point and one PTZ camera may be installed at all quarries/depots to monitor illegality if any taking place in the sand quarry/depot.

- To ensure uninterrupted seamless live streaming of videos from the surveillance cameras, a high-speed Internet Lease Line connection may

be made available at all quarries/depots. Arrangements may also be made for online monitoring of the sand quarrying, Centre for Assessing Real-Time Sand Mining (CARS) that could be located at the office of the Project Director in Chennai.

- The live streaming of the videos shall be monitored at a Centralised control room and the data shall be stored in the Server for future references. A robust Customer Care may also be functional 24 x 7 at the Control Room, to redress the grievance of the public.

- Drop gates shall be installed at the entry and exit points of all quarries/depots.

- Display boards shall be erected in local vernacular language at sand quarry/depot site, in the nearest village by which sand transportation will be carried and at the entrance of the village road from the main road.

- The concerned authority of PWD shall call for e-tender to select the contractors for loading/raising of sand at the quarry site, transporting contractors to transport sand from the quarry site to depots and loading/maintenance contractors at depots.

- Sand shall be loaded in the quarries in the PWD tendered GPS fitted vehicles and online transmit permit shall be issued by the competent authorities in PWD to the transporting vehicles to transport sand from the quarry to depots.

- On the arrival of the sand shunting vehicles from quarry to the depot, an online authentication shall be done to confirm the arrival of the

appropriate quantity of sand mentioned in the transport permit into the depot.

- The loading of sand from the depots shall be carried out by booking through the online portal "www.tnsand.in" as done presently. Online transit passes will also be issued to the loaded vehicles which could be verified by using an Android app "TNsand Investigator".

- During operation of the quarries, the PWD officers shall ensure that at no point in time, the depth of quarry exceeds 1 m depth from the river bed level and quarrying is done in a uniform manner over the entire mining area to avoid overexploitation and formation of pits at fixed places.

- Proper registers may be maintained at the entry and exit points of the sand quarry/depot sites and a Loading Register may be made available during inspection. An Inspection Register and a Complaint Register may be made available at the sand quarry/depot site.

- The functioning time of quarries/depots shall be from 7.00 AM to 6.00 PM. No sand transporting vehicles to be parked inside the quarry/depot site during night time.

- A copy of the approved mining plan may be kept at the quarry site for ready reference.

- Photographs and sketch showing the pit dimensions, depth etc. may be recorded every week and maintained in the sand quarry. The Executive Engineer, PWD may inspect each sand quarry on a weekly basis and ensure that mining activities are taking place within the approved boundaries/depth.

- The sand quarrying activity shall be stopped if the entire quantity is quarried even before the expiry of the sand quarry lease period and the same shall be mentioned by the PWD authorities.

- The Taluk Level Taskforce shall inspect the quarries every fortnight, as per G.O. (Ms) No. 135 of Industries Department, dated 13.11.2009 and record the status of the compliance in the registers maintained at the sand quarry site.

- The Taluk Level Task Force has to submit its inspection report to the District Level Task Force chaired by the District Collector. The District Level Task Force has to be convened every month to discuss cases of illegal quarrying. An Environmentalist from reputed State / Central Institution and a legal expert on environmental matters may be part of the District Level Task Force. The District Level Task Force shall also dispose of the petitions on illegal sand quarrying after due enquiry and scrutiny, and pass orders within a period of two months from the date of receipt of the complaint. If any person is aggrieved with the orders passed by the District Level Task Force, an appeal may be preferred before the Appellate Forum.

- The District Collector shall take necessary steps to strengthen the existing District and Taluk Level Committees and act on the complaints received, if any, on illegal sand quarrying and take strict remedial measures to rectify the same in a time-bound manner. The District Level Task Force may send its monthly report to the Appellate Forum formed as per G.O. (Ms) No. 27 of Industries Dept. dated 17.02.2015.

- The Appellate Forum shall hear the appeals filed against the orders passed by the District Level Task Force. The Appellate Forum comprises

of the Secretaries to Government from Industries Department, Public Works Department, Revenue Department, Environment and Forests Department, Commissioner of Geology and Mining and an Expert from a reputed Government Institution.

- The Appellate Forum may convene once in 2 months to deliberate on the reports from the District Level Task Force and shall dispose of the appeals made by the petitioners aggrieved with the orders passed by the District Level Task Force.

- Periodical Capacity building and sensitization of PWD officials on the environmental and legal aspects of sand quarrying may be made mandatory. Continuous training and awareness programs shall be scheduled and conducted by IIT/Anna University for the PWD staff to keep themselves aware of the best practices in this field. It may be ensured that the enforcement officials from the Departments of Revenue, Police, Geology and Mining and Transport in the districts where quarries are situated are given adequate training and capacity building on their duties and responsibilities with respect to inspection of sand quarries and sand transporting vehicles at specified time intervals.

- No blasting shall be carried out any point in time.

- It is the obligation of the Public Works Department to run the quarry in an environmentally friendly and ecologically sustainable manner.

- The Hon'ble High Court-appointed Monitoring Committee shall inspect the sand quarries periodically and submit a report to the Hon'ble High Court.

- The PWD should explore/take necessary steps to introduce Mining Surveillance System (MSS) in line with MSS evolved by the Indian Bureau of Mines and Bhaskaracharya Institute for Space Applications and Geo-informatics (BISAG).

III. STEPS TO BE FOLLOWED AFTER EXECUTION:

- A Judicious mine closure plan may be formulated once the quarry is closed after exhaustion of the quantity of sand.

- Reclamation works may be factored into the contract agreement and strict monitoring by the PWD officials may be initiated to scrupulously follow up the mine closure plan.

- It may be ensured that the total quantity of sand permitted in the EC shall not be exceeded in any case.

- After the exhaustion of the quantity of sand, the sheds constructed at the quarry site may be removed. All the roads and pathways may be levelled so that there is no obstruction for the normal flow in the river.

- All the records/registers may be carefully maintained by the PWD for future reference.