

Item Nos. 02 to 20

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 360/2015

(With report dated 15.01.2021)

National Green Tribunal Bar Association Applicant

Versus

Virender Singh (State of Gujarat) Respondent

**With**

Original Application No. 366/2015

National Green Tribunal Bar Association Applicant

Versus

Dr. Sarvabhoom Bagali (State of Karnataka) Respondent

**With**

Original Application No. 368/2015

National Green Tribunal Bar Association Applicant

Versus

Dr. Sarvabhoom Bagali (State of Karnataka) Respondent

**With**

Original Application No. 173/2018  
(Earlier O.A. No. 89/2017 (EZ))

Sudarsan Das Applicant

Versus

State of West Bengal & Ors. Respondent(s)

**With**

Original Application No. 874/2018

In Re: News item published in "The Tribune " Authored by Arun Sharma  
Titled "Mounds of sand on Sutlej banks, mining mafia digs in"

**With**

Original Application No. 44/2016

Mushtakeem Applicant

Versus

MoEF & CC & Ors.

Respondent(s)

**With**

Original Application No. 517/2015

Sandeep Kumar

Applicant

Versus

Ministry of Environment, Forests and  
Climate Change & Ors.

Respondent(s)

**With**

Original Application No. 550/2015

Virender Kumar

Applicant

Versus

Ministry of Environment, Forests and  
Climate Change & Ors.

Respondent(s)

**With**

Original Application No. 530/2016

Sandeep Kumar

Applicant

Versus

Ministry of Environment, Forests and  
Climate Change & Ors.

Respondent(s)

**With**

Original Application No. 272/2016

M/s Ganga Yamuna Mining Co.

Applicant

Versus

State of Haryana & Ors.

Respondent(s)

**With**

Original Application No. 481/2016

Joginder Singh

Applicant

Versus

Ministry of Environment & Forest

Respondent

**With**

Original Application No. 540/2015

Ved Pal Singh

Applicant

	Versus	
Ministry of Environment and Forests & Ors.		Respondent(s)
<b>With</b>		
	Original Application No. 90/2016	
Chander Mohan Uppal		Applicant
	Versus	
State of U.P. & Ors.		Respondent(s)
<b>With</b>		
	Execution Application No. 40/2017 IN O.A. No. 517/2015	
Sandeep Kumar		Applicant
	Versus	
Ministry of Environment, Forests and Climate Change & Ors.		Respondent(s)
<b>With</b>		
	Original Application No. 671/2017 (Earlier O.A.No.123/2014)	
Himmat Singh Shekhawat		Applicant
	Versus	
State of Rajasthan & Ors.		Respondent(s)
<b>With</b>		
	Original Application No. 726/2018	
Rupesh Pethe		Applicant
	Versus	
State of M.P. & Ors.		Respondent(s)
<b>With</b>		
	Original Application No. 456/2018 (Earlier O.A. No. 146/2014 (CZ))	
Nityanand Mishra		Applicant
	Versus	
State of M.P. & Ors.		Respondent(s)
<b>With</b>		
	Original Application No. 1086/2018 (Earlier O.A.No.140/2014)	
Nanga Ram Dangi		Applicant
	Versus	

Secretary, Department of Environment &  
Forests & Ors.

Respondent(s)

**With**

Original Application No. 575/2019

Yaduraj Singh Jat

Applicant

Versus

State of Rajasthan

Respondent

Date of hearing: 26.02.2021

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

Applicant: Ms. Katyayni, Advocate in OA 1086/2018

Amicus Curiae: Mr. Raj Panjwani, Senior Advocate with Mr. Aagney Sail, Advocate

Respondent(s): Mr. Divya Prakash Pande, Advocate. for CPCB & MoEF & CC  
Mr. Raj Kumar, Advocate for CPCB in OA 726/2018  
Ms. Soni Singh, Advocate for CPCB in OA 456/2018  
Mr. Attin Shankar Rastogi, Mr. Balendu Shekhar & Mr. Shlok  
Chandra, Advocates for MoEF & CC  
Mr. Ankit Verma, Advocate for State of UP  
Mr. Rahul Khurana, Advocate for State of Haryana  
Mr. Darpan KM, Advocate for State of Karnataka  
Ms. Madhumita Bhattacharjee, Advocate. for State of West Bengal  
Mr. Vikas Mahajan, AAG for State of HP  
Mr. Maulik Nanavati, Advocate for State of Gujarat  
Ms. Soumya Priyadarshinee, Advocate for State of MP  
Ms. Sakshi Popli, Advocate for DPCC

**ORDER**

1. The issue for consideration in this group of matters relates to updation of enforcement and monitoring mechanism to control and regulate illegal sand mining (including riverbed sand mining) in the light of directions in the judgments of the Hon'ble Supreme Court, including in *Deepak Kumar v. State of Haryana & Ors.: (2012) 4 SCC 629* and *Goa Foundation v. Union of India & Ors. (2014) 6 SCC 590* and orders of this Tribunal.

2. Some of the matters have been pending for about seven years while others have been tagged to the pending matters later, from time to time, in view of common question. We need not refer to the individual facts and all the earlier order. It will suffice to refer to some of the significant orders passed from time to time given in a tabular form as follows:

<b>Sl. No.</b>	<b>Party name</b>	<b>Date of orders</b>	<b>Particulars</b>
1.	OA No. 173/2018 Sudarsan Das v. State of West Bengal & Ors.	04.09.2018	Inter alia directing revision of monitoring mechanism by the MoEF&CC.
2.	OA No. 44/2016 Mushtakeem v. MoEF&CC & Ors.	05.09.2018	
3.	OA No. 186 of 2016 Satendra Pandey Vs. Ministry of Environment, Forest & Climate Change & Anr	13.09.2018	Inter alia disapproving dispensing with requirement of public hearing and requiring evaluation by DEIAA.
4.	OA 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016	16.01.2019	Requiring the Chief Secretaries to monitor the subject of unregulated and unscientific sand mining
5.	O.A. No. 360/2015, National Green Tribunal Bar Association v. Virender Singh (State of Gujarat)	05.04.2019	Inter alia consideration of scale of compensation and revised monitoring mechanism
6.	OA No. 44/2016 Mushtakeem v. MoEF&CC & Ors.	19.02.2020	Inter alia modifying the mechanism for release of vehicles
7.	OA No. 360/2015 National Green Tribunal Bar Association v. Virender Singh (State of Gujarat)	17.08.2020	Inter alia considering the scale of compensation proposed by the CPCB
8.	O.A. No. 40/2020, Pawan Kumar v. State of Bihar & Ors.	14.10.2020	Inter alia engagement of experts from NABT/QCCI for preparation of DSR/ replenishment study
9.	O.A. No. 726 of 2018 Rupesh Pethe v. State of M.P. & Ors.,	04.11.2020	

3. We may now refer to the developments which have taken place during pendency of the matters and then proceed to decide the surviving issues, as further discussed in para 24:

- a. enforcement of SSMG-2016 and EMGSM-2020,**
- b. compensation regime,**
- c. procedure for seizure and release of vehicles,**

- d. periodic interaction among the stakeholders as discussed in later part of the judgment,**
- e. designing and reviewing monitoring mechanism from time to time including grievance redressal.**

**‘Sustainable Sand Mining and Management Guidelines, 2016’ (SSMG-2016) and “Enforcement and Monitoring Guidelines for Sand Mining, 2020” (EMGSM-2020)**

4. In the course of proceedings, the Ministry of Environment, Forest and Climate Change (MoEF&CC) issued ‘Sustainable Sand Mining and Management Guidelines, 2016’ (SSMG-2016) under the provisions of the Environment (Protection) Act, 1986 (EP Act, 1986) on 15.01.2016. Further, in the light of the September 2016 report of the High-Powered Committee (constituted by the Tribunal), headed by the Secretary, MoEF&CC and suggestions as noted in order dated 04.09.2018 in OA 173/2018, *Sudarsan Das v. State of West Bengal & Ors.*, the Tribunal directed revision of the guidelines.<sup>1</sup> Accordingly, the MoEF&CC has issued “Enforcement

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<sup>1</sup> Para 25 of the said order is as follows:

“25. In view of above discussion, we are of the view that since the subject of mining is also required to be regulated for protection of environment and it is to take care of this requirement, 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:

- i. Mining Surveillance System discussed in para 23 above be finalized in consultation with ISRO Hyderabad.
- ii. Safeguards suggested in Sustainable Sand Mining Guidelines published by the MoEF&CC in the year 2016.
- iii. Suggestions in the High Power Committee Report.
- iv. Requirement of demarcation of boundaries being published in respect of different leases in public domain.
- v. 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 cost of mining material as well as cost of ecological restoration and net present value of future eco system services forgone.
- vi. 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.
- vii. The Mining Department may make a provision for keeping apart atleast 25% of the value of mined material for restoration of the area affected by the mining and also for compensating the inhabitants affected by the mining.
- viii. One of the conditions of every lease of mine or minerals would be that there will be independent environmental audit atleast once in a year by reputed third party entity and report of such audit be placed in public domain.
- ix. In the course of such environmental audit, a three-member committee of the local inhabitants will also be associated. Composition of three members committee may

and Monitoring Guidelines for Sand Mining, 2020” (EMGSM 2020), uploaded on the website on 27.01.2020 and communicated to all the States. Salient features thereof will be noted later.

**Issue of EC procedure being handled by SEIAA instead of DEIAA, after public hearing and other necessary steps, procedure for revision of DSR preparation and enforcement mechanism in States, including compensation regime and seizure and release of vehicles**

5. Vide order dated 13.09.2018 in *O.A. No. 186/2016, Satyender Pandey Vs. MoEF*, further direction was issued against dispensing with the requirement of public hearing and evaluation by SEIAA in terms of the judgment of the Hon’ble Supreme Court in *Deepak Kumar, supra* thereby the guidelines/notification dated 15.01.2016 dispensing with such requirement was held to be hit by the judgment of the Hon’ble Supreme Court in *Deepak Kumar, supra* and thus not enforceable.

6. On 05.04.2019, the Tribunal conducted comprehensive review of the matter and noted following issues required consideration. Directions were issued with reference to the said issues:

- “(a) Revision of Sustainable Sand Mining Guidelines, 2016 by the MoEF&CC in the light of directions of this Tribunal vide order dated 04.09.2018 in Sudarsan Das (supra).**
- (b) Compliance of Sustainable Sand Mining Guidelines, 2016 as may be revised by MoEF&CC as above.**
- (c) Effective monitoring mechanism for preventive and remedial measures as directed in orders of this Tribunal, including surveillance system and recovery of compensation.**
- (d) Directions in individual cases listed today.**
- (e) Scale of compensation.”**

7. Considering the extent of illegality in the process, apart from directing revision of the Guidelines as above, the Tribunal directed the

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preferably include ex-servicemen, former teacher and former civil servant. The Committee will be nominated by the District Magistrate.”

States<sup>2</sup> to review their monitoring mechanism in the light of observations of this Tribunal in earlier orders, including orders dated 04.09.2018 in *Sudarsan Das v. State of West Bengal & Ors*, 05.09.2018 in *Mushtakeem v. MoEF&CC & Ors*. and 16.01.2019 in OA 606/2018, *Compliance of Municipal Solid Waste Management Rules, 2016*. **Though direction was issued to the States who were parties before the Tribunal, the directions are of general nature applicable to sand mining in all the State /UTs.** The Tribunal also considered compliance reports from different States after finding that the response of the State was not satisfactory.

#### **Seizure and Release of vehicles involved in illegal mining**

8. Another issue bearing on the enforcement mechanism is the action against the vehicles used in illegal sand mining. Seizure of such vehicles is required and release of seized vehicles lightly defeats the purpose of the coercive measures. Since the vehicles are in a way weapon of offence, the same cannot be dealt with in the manner disputed property is dealt with under section 451 Cr.PC. by releasing the same in favour of the ostensible owner by taking an entrustment/indemnity bond/*sapurdginama*. In *Sujit Kumar Rana*, (2004) 4 SCC 129 and order dated 26.03.2019 in Cr. A. 524/2019, *State of Madhya Pradesh v. Uday Singh*, it was held that special procedure for seizure and release of such vehicles prevails over the procedure under Section 451 Cr.P.C. This Tribunal earlier directed, in the case of illegal mining in Meghalaya that such vehicles should be released only on the payment of 50% of the showroom value. The same was affirmed by the Hon'ble Supreme Court in *2019 (8) SCC 177*. Similar order was passed by the Tribunal on 10.01.2019 in O.A. No. 670/2018, *Atul*

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<sup>2</sup>The States of West Bengal, Gujarat, Karnataka, Maharashtra, Punjab, Uttar Pradesh, Haryana, Madhya Pradesh, Andhra Pradesh, Bihar, Uttarakhand, Jammu and Kashmir, Goa, Kerala, Telangana and Tamil Nadu and Himachal Pradesh



*Chouhan v. State of U.P.*, which stands affirmed by the Hon'ble Supreme Court vide order dated 07.05.2019 in C.A. No. 1590/2019. **Thus, the procedure under Cr.P.C. for release of vehicles on *superdari* without stringent conditions would not apply in respect of action taken for enforcement of Sustainable Guidelines issued under the Environment (Protection) Act, 1986 (EP Act) and for enforcement of orders of this Tribunal under Section 15 of the National Green Tribunal Act, 2010 (NGT Act).** However, having regard to the difficulty expressed by the State that requirement to pay 50% of the showroom value of the vehicle was resulting in vehicles not being released at all, the earlier order was modified on 19.02.2020 to the effect that following scale of amount be recovered for release of the seized vehicles:-

<b>Sr. No.</b>	<b>Category of Vehicle</b>	<b>Penalty Amount</b>
1	<i>Vehicles/Equipments/Excavators with showroom value more than Rs. 25 lacs and less than 5 years old.</i>	Rs. 4 lacs
2	<i>Vehicles/Equipments/Excavators with showroom value more than Rs. 25 lacs and more than 5 years but less than 10 years old.</i>	Rs. 3 lacs
3	<i>For the remaining Vehicles older than 10 years/Equipments/ Excavators which are otherwise legally permissible to be operated and not covered by Serial No. 1 and 2.</i>	Rs. 2 lacs
<p><b>Note – I:</b> <i>On repetition of the offence by the same vehicle/ equipment, Order dated 05.04.2019 will be applicable.</i></p> <p><b>Note – II:</b> <i>The option of release may be available for a period of one month from the date of seizure and thereafter, the vehicles may be confiscated and auctioned.</i></p>		

9. Following further directions were issued :-

**“6. The State may issue an appropriate Office Order/Rule to the above effect and publish the same. Needless to say that any private contract between a financier and a debtor cannot affect the States’ sovereign power to protect the environment and take incidental coercive measure for enforcement of rule of law. Lien of the State will override any private interest. The above compensation regime will be over and above any existing Rules or provisions. The amount collected may be**

**remitted to the State PCBs/PCCs for being utilized for restoration of the environment.**

7. *The above course of action will be permissible to all the States at their option.*”

**Scale of compensation for violations on polluter pays principle**

10. Vide order dated 17.08.2020, the Tribunal considered the CPCB report dated 30.01.2020, in pursuance of earlier orders on scale of compensation to be recovered for violation of norms for mining on polluter pays principle and the matter was deferred for further consideration of such scale and further orders in the light of the EMGSM 2020. **On the issue of scale of compensation for violations, the Tribunal held that the same has to be calculated having regard to the polluter pays principle and not mere loss of royalty. This requires taking into account value of the illegally mined material and cost of restoration of the environment.** CPCB did the exercise by constituting an expert Committee. The Tribunal considered the report as follows:-

- “8. *The Committee considered two approaches:*
- (I) Approach 1: Direct Compensation based on the market value of extraction, adjusted for ecological damages.**
  - (II) Approach 2: Computing a Simplified NPV for ecological damages.**
9. *In the first approach, the criteria adopted is:*
- *Exceedance Factor (EF).*
  - *Risk Factor (RF).*
  - *Deterrence Factor (DF).*

10. *Approach 1 is demonstrated by Table 1 as follows:*

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<b>Table No. 01: Approach 1</b>				
<b>Permitted Quantity (in MT or m<sup>3</sup>)</b>	<b>Total Extraction (in MT or m<sup>3</sup>)</b>	<b>Excess Extraction (in MT or m<sup>3</sup>)</b>	<b>Exceedance in Extraction:</b>	<b>Compensation Charge (in Rs.)</b>
X	Y	Z = Y-X	Z/ X	D * (1+RF + DF) Where D = Z x Market Value-of-the-material-per-MT-or-m <sup>3</sup>

				<i>DF = 0.3 if Z/X = 0.11 to 0.40 DF = 0.6 if Z/X = 0.41 to 0.70 DF = 1 if Z/X &gt;= 0.71</i>
				<i>RF = 0.25, 0.50, 0.75, 1.00 (as per table 2)</i>

11. Approach 2 is demonstrated by following formula:

*“Till such time as data and information for a comprehensive NPV is worked out in a site specific manner to account for all (or atleast the major) ecological damages, a simplified NPV, proxied on the market value of the illegally extracted amount may be computed. In this case the NPV approach would imply that **the total benefits from the activity of sand mining (as represented by the market value of the extracted amount) be deducted from the total ecological costs** imposed by the activity. In the absence of data on benefits and costs separately, we recommend a modification of the formula as shown below:*

*Total Benefits(B) = Market Value of illegal extraction : D (refer Table 1)*

*Total Ecological Costs = Market Value Adjusted for risk factor: D \* RF (refer Table1).*

*For present purposes, it is assumed that the Benefits would accrue only in the first year (in which the extraction of the illegally mined material takes place), while the ecological costs would continue to be felt over a period of time. NPV is to be calculated for a period of 5 years on the net value,  $\Sigma (C-B)$ , at a discount rate ranging from 8%-5%, varying in inverse with the risk factor. Thus, where the highest risk factor (say 1) is applicable, the discount rate applicable would be the lowest (say 5% in this case).”*

12. Final recommendation is as follows:

*“Thus, it is recommended that the annual net present value (NPV) of the amount arrived at after taking the difference between the costs and the benefits through the use of the above approach, maybe calculated for a period of 5 years at a discount rate of 5% for mining which is in a severe ecological damage risk zone. The rationale for levying this NPV is based on expert opinion that reversal and/or restoration of the ecological damages is usually not possible within a short period of time and rarely is it feasible to achieve 100% restoration, even if the sand deposition in the river basin is restored through flooding in subsequent years. The negative externalities of the mining activity are therefore to be accounted for in this manner. Ideally, the worth of all such damages, including costs of those which can be restored should be charged. **However, till data on site-specific assessments becomes available, this approach may be***

**adopted in the interim.** In situations where the risk categorization charged. However, till data on site-specific assessments becomes available, this approach may be adopted in the interim. In situations where the risk categorisation is unavailable or pending calculation, the following Discount Rates may be considered:

<b>Severity</b>	<i>Mild</i>	<i>Moderate</i>	<i>Significant</i>	<i>Severe</i>
<b>Risk Level</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Risk Factor</b>	0.25	0.50	0.75	1.0
<b>Discount</b>	8%	7%	6%	5%

11. Annexure-A appended to the report gives the calculation as follows:

**“Compensation Charge (Scenario II - explicit accounting of NPV)**

Market Value of Illegally Mined Material (D)                      5000\*400 = 2000000/-

Annual Value of Foregone Ecological Values                      D\*RF = 2000000/-

- **Present Value of Foregone Ecological Values (@ 5% discount rate and over 5 years)**

$$PV = \sum_{t=1}^5 \frac{(D+RT)}{(1+r)^t}$$

$$= \frac{(2000000)}{(1+0.05)^1} + \frac{(2000000)}{(1+0.05)^2} + \frac{(2000000)}{(1+0.05)^3} + \frac{(2000000)}{(1+0.05)^4} + \frac{2000000}{(1+0.05)^5}$$

$$= \text{Rs. } 86,58,953/-$$

- *Net Present Value (after netting out market value of illegally mined material) - i.e., Total Compensation to be levied*

$$= NPV = PV - D$$

$$= \text{Rs. } 66,58,953/-$$

Compensation Charge in above case:

<b>Approach 1 (no explicit accounting of NPV)</b>	<b>Approach 2 (explicit accounting of NPV)</b>
<b>D*(1+RF+DF)</b>	<b>@ 5% discount rate and over 5 years</b>
Rs. 46,00,000/-	Rs. 66,58,953/-

12. The Tribunal directed undertaking of scenario analysis, as suggested on behalf of the applicant and to furnish a further report accordingly. Further report dated 12.10.2020 has been filed by the CPCB reiterating its earlier report. **We propose to approve approach-2 in the report.** Apart from the above, a report dated 15.01.2021 has been filed by

the Oversight Committee for the State of UP<sup>3</sup> to which reference will be made later.

### **Procedure for DSR/EC**

13. Vide order dated 14.10.2020 in O.A. No. 40/2020, *Pawan Kumar v. State of Bihar & Ors.*, the issue of preparation of District Survey Report (DSR) by Experts was considered. Vide Notification dated 25.07.2018 issued by the MoEF&CC, under Section 3(2)(v) of the EP Act, 1986 amending EIA Notification dated 14.09.2006, procedure for preparation of DSR for sand mining/riverbed mining was laid down. **The DSR is crucial as it contains Environment Management plan, including the replenishment study and other safeguards and is the basis to consider the environment impact of mining based on which decision to grant the Environmental Clearance is taken.** The Tribunal held that for such crucial exercise, the **Experts should be out of those accredited by the National Accreditation Board of Education and Training/ Quality Control Council of India (NABT/QCCI) in terms of O.M. of MoEF&CC dated 16.03.2010.** Verification by the District Magistrate and evaluation by the SEAC was also necessary. Accordingly, following directions were issued in relation to a matter arising from the State of Bihar:-

*“(ii) As the DEIAA is not functioning as a consequence of the decision of the Tribunal in Satendra Pandey (supra), **the DSR shall be prepared through a consultant(s) accredited by the National Accreditation Board of Education and Training/ Quality Control Council of India in terms of O.M. of MoEF&CC dated 16.03.2010.***

*“(iii) **The DSR so prepared shall be submitted to the District Magistrate who shall verify the DSR only in respect of the relevant facts pertaining to the physical and geographical features of the district which shall be distinct from the scientific findings based on the parameters prescribed in the SSMMG-2016. After such verification, the District Magistrate shall forward the DSR for examination and evaluation by the State Expert Appraisal Committee (SEAC) having regarding to the fact***

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<sup>3</sup> constituted by this Tribunal to oversee compliance of environmental issues, on suggestions of the State Government.

**that the SEIAA comprises of technical/scientific experts. The SEAC after appraisal of the report shall forward it to the SEIAA for consideration and approval if it meets all scientific/technical requirements.**

**(iv) While preparing the DSR, the MoEF&CC Accredited Agency/Consultant shall scrupulously follow the procedure and the parameters laid down under the SSMMG-2016 and EMGSM-2020 read in sync with each other.”**

14. Considering the above, vide order dated 04.11.2020 in O.A. No. 726 of 2018, *Rupesh Pethe v. State of M.P. & Ors.*, the Tribunal directed that the above direction ought to be followed pan India, as follows:-

**“5. The above direction may be followed by the State of MP also for the sake of uniformity.** Further information required to be furnished is about the extent of illegal mining, extent of action taken, including the compensation recovered, vehicles seized and other coercive measures and impact of such action. The State of M.P. may compile relevant directions on the subject including the binding order of any Courts or Tribunal. This exercise may be undertaken jointly by the Secretary Geology and Mining, Member Secretary State PCB and Member Secretary SEIAA. In light of above, the State may further revise its policy and exercise. Let further compliance status be furnished before the next date by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.

**6. We are of the view that the above directions need to be followed by all other States where the issue of mining is relevant.**

**7. A copy of this order be forwarded to the Chief Secretaries of all the States and UTs by e-mail for compliance.”**

### **Adverse impact of unscientific/unregulated Sand Mining**

15. It is undisputed that there is huge degradation of environment on account of unregulated sand mining remains which is otherwise lucrative activity. It poses threat to bio-diversity, could destroy riverine vegetation, cause erosion, pollute water sources, badly affecting riparian ecology, damaging ecosystem of rivers, safety of bridges, weakening of riverbeds, destruction of natural habitats of organisms living on the riverbeds, affects fish breeding and migration, spell disaster for the conservation bird

species, increase saline water in the rivers. It has direct impact on the physical habitat characteristics of the rivers such as bed elevation, substrate composition and stability, in-stream roughness elements, depth, velocity, turbidity, sediment transport, stream discharge and temperature. Increase in demand of sand has placed immense pressure in the supply of sand resource and mining activities were going on illegally as well as legally without requisite restrictions. Lack of proper planning and sand management disturbs marine ecosystem and upset the ability of natural marine processes to replenish the sand. The Hon'ble Supreme Court (in Deepak Kumar, supra) noted that core group was constituted by the MoEF&CC to examine the impact of minor minerals on riverbeds and ground waters. A draft report was prepared recommending mandatory preparation of mining plan on the pattern of mining plans for major minerals. Further recommendations are reclamation and rehabilitation of abandoned mines, proportion of hydro geo-logical balance for minerals below ground water table limiting depth of mining to 3 meter and identification on locations where mining should be permitted was required. There is need for identifying safety zones in the proximity of intendments. Thus, strict regulatory parameters were required for regulating mining of minor minerals. It was noted that in-stream mining lowers the stream bottom of rivers which may lead to bank erosion. Depletion of sand in the stream bed causes deepening of rivers which may result in destruction of aquatic and riparian habitats. It has impact on stream's physical habitat characteristics.

16. *In State (NCT of Delhi) v. Sanjay*, (2014) 9 SCC 772, at page 790, it was observed :

**“32.** *The policy and object of the Mines and Minerals Act and Rules have a long history and are the result of an increasing awareness of*

*the compelling need to restore the serious ecological imbalance and to stop the damages being caused to the nature. The Court cannot lose sight of the fact that **adverse and destructive environmental impact of sand mining has been discussed in the UNEP Global Environmental Alert Service Report. As per the contents of the Report, lack of proper scientific methodology for river sand mining has led to indiscriminate sand mining, while weak governance and corruption have led to widespread illegal mining. While referring to the proposition in India, it was stated that sand trading is a lucrative business, and there is evidence of illegal trading such as the case of the influential mafias in our country.***

**33. The mining of aggregates in rivers has led to severe damage to rivers, including pollution and changes in levels of pH. Removing sediment from rivers causes the river to cut its channel through the bed of the valley floor, or channel incision, both upstream and downstream of the extraction site. This leads to coarsening of bed material and lateral channel instability. It can change the riverbed itself. The removal of more than 12 million tonnes of sand a year from Vembanad Lake catchment in India has led to the lowering of the riverbed by 7 to 15 cm a year. Incision can also cause the alluvial aquifer to drain to a lower level, resulting in a loss of aquifer storage. It can also increase flood frequency and intensity by reducing flood regulation capacity. However, lowering the water table is most threatening to water supply exacerbating drought occurrence and severity as tributaries of major rivers dry up when sand mining reaches certain thresholds. Illegal sand mining also causes erosion. Damming and mining have reduced sediment delivery from rivers to many coastal areas, leading to accelerated beach erosion.**

*34. The Report also dealt with the astonishing impact of sand mining on the economy. It states that tourism may be affected through beach erosion. Fishing, both traditional and commercial, can be affected through destruction of benthic fauna. Agriculture could be affected through loss of agricultural land from river erosion and the lowering of the water table. The insurance sector is affected through exacerbation of the impact of extreme events such as floods, droughts and storm surges through decreased protection of beach fronts. The erosion of coastal areas and beaches affects houses and infrastructure. A decrease in bed load or channel shortening can cause downstream erosion including bank erosion and the undercutting or undermining of engineering structures such as bridges, side protection walls and structures for water supply.*

*35. Sand is often removed from beaches to build hotels, roads and other tourism-related infrastructure. In some locations, continued construction is likely to lead to an unsustainable situation and destruction of the main natural attraction for visitors—beaches themselves. Mining from, within or near a riverbed has a direct impact on the stream's physical characteristics, such as channel geometry, bed elevation, substratum composition and stability, instream roughness of the bed, flow velocity, discharge capacity, sediment transportation 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 instream biota and riparian habitats. This disturbance may also cause changes in channel configuration and flow paths*

*.....Today, demand for sand and gravel continues to increase. Mining operators, instead of working in conjunction with cognizant resource agencies to ensure that sand mining is conducted in a responsible manner, are engaged in full-time profiteering. Excessive in-stream sand and gravel mining from riverbeds and like resources causes the degradation of rivers. In-stream mining lowers the stream bottom, which leads to bank erosion. Depletion of sand in the stream-bed and along coastal areas causes the deepening of rivers and estuaries and enlargement of river mouths and coastal inlets. It also leads to saline water intrusion from the nearby sea. The effect of mining is compounded by the effect of sea level rise. Any volume of sand exported from stream-beds and coastal areas is a loss to the system. Excessive in-stream sand mining is a threat to bridges, river banks and nearby structures. Sand mining also affects the adjoining groundwater system and the uses that local people make of the river. Further, according to researches, in-stream sand mining results in the destruction of aquatic and riparian habitat through wholesale changes in the channel morphology. The ill effects include bed degradation, bed coarsening, lowered water tables near the stream-bed and channel instability. These physical impacts cause degradation of riparian and aquatic biota and may lead to the undermining of bridges and other structures. Continued extraction of sand from riverbeds may also cause the entire stream-bed to degrade to the depth of excavation.”*

**Need for regulation under the Water, Air and EP Acts by PCBs, apart from the Mining authorities under the Mining law**

17. Again, in Goa Foundation, supra (prs 74-76) it was observed that **mining was required to be regulated not only by the Mining department but also by the PCBs under the Water and Air Act and by the MoEF under the EP Act. It is made clear that the environment laws override other laws and any provision to the contrary in the Mines Act will not stay in the way of enforcing the environment norms. In this regard reference may also be made to report of the Ministry of Mines entitled “Sand Mining Framework” which will not stand in the way of modified mechanism in accordance with this order.**

## **Salient features of the EMGSM-2020**

18. We may note the salient features of the EMGSM-2020, which are supplemental to existing SSMG-2016 and seek to provide effective enforcement and monitoring from the stage of identification of source to its dispatch and end use which requires involvement of all stakeholders viz. Central Government, State Government, Leaseholders/Mine Owners, Distributors, Dealers, Transporters and Consumers (bulk & retail). EMGSM refer to the judgment of the Hon'ble Supreme Court in *Deepak Kumar Vs. State of Haryana & Ors. (2012) 4 SCC 629* making EC mandatory irrespective of the area of mining lease, followed by monitoring in terms of the Environment Management Plan, using IT and IT enabled services. **Monitoring has to be with reference to quantity of mined material, transportation with a view to promote environmental protection, limit negative physiological, hydrogeological and social impacts underpinning sustainable economic growth.** Observations in the order of this Tribunal dated 04.09.2018 in O.A. 173/2018 in *Sudarsan Das vs. State of West Bengal & Ors.* has also been referred to as follows:

*"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."*

Further reference has been made to the directions in the order dated 05.04.2019 requiring the 17 States, which were party before the Tribunal

viz. West Bengal, Gujarat, Karnataka, Maharashtra, Punjab, Uttar Pradesh, Haryana, Madhya Pradesh, Andhra Pradesh, Bihar, Uttarakhand, Jammu and Kashmir, Goa, Kerala, Telangana and Tamil Nadu and Himachal Pradesh, to follow the revised Guidelines and to review their respective monitoring mechanism. It is then stated that with the object of regulating the mining, the sources of sand and steps required are mentioned which provide for District Survey Report (DSR), Mining Plan, replenishment study, consideration of environment impact while granting EC, laying down conditions for EC, monitoring of transportation to the end user to ensure that only legally mined material is transported. There is need to balance between deposition and extraction of sand as per replenishment study, maintaining surveillance, using Unmanned Artificial Vehicles (UAVs)/Drone for reserves estimation, quantity estimation, land use monitoring. Details about all these aspects have been mentioned in the said Guidelines. With regard to post EC monitoring, there is a provision for environment audit, monitoring of sale and purchase by developing online portal and laying down the levels of monitoring i.e. Level 1- Reach/ Stockyard level monitoring, Level 2 - Transportation monitoring, Level 3 - End consumer monitoring/ bulk consumer, Level 4 - Indirect monitoring. Reference has then been made to the High-Powered Committee incorporating safeguards to be adopted by the project proponents. There is also provision for assessment of compensation for the ecological damage by the State/ PCB/ any other Authority. Inter District and Inter State boundaries are separately dealt with. The uniform monitoring mechanism stipulates:

“ 9.4. **Monitoring Mechanism**

xxx .....xxx.....xxx.....

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 ecosystem. 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 nonpayment 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.”

19. Several formats have been suggested in the Annexures, apart from salient provisions in the State of Tamil Nadu before execution of the mining lease and after execution of such lease including **judicious mined closure plan, reclamation, removal of sheds and maintaining of record for future reference.**

#### **Compliance Status in States – Context of UP**

20. We now refer to the Oversight Committee report dated 15.01.2021 for the State of UP with regard to status of compliance of Sustainable Guidelines as follows:-

<b>S. No.</b>	<b>Directions by Hon’ble NGT</b>	<b>Compliance Status (Yes/No)</b>	<b>Compliance Status</b>
<b>1.</b>	<i>Status of the progress in ensuring issues related to illegal sand mining in the State of Uttar Pradesh</i>	<b>Partially Complied</b>	<i>For effective control of illegal mining and transportation of minerals, a seven-member District level Task Force has been constituted under the chairmanship of District Magistrate vide Govt. Order no. 616/86-2018-371/2005 dated 20.03.2018. Under the Integrated Mines Surveillance System (IMSS), all the mine areas have been geo fenced. PTZ cameras at the mines have been installed. Weigh Bridges fitted with cameras have been installed at all mines and have been integrated with the Control Centre at Head Quarters. At present, there are 36000 registered vehicles and 310 Weigh Bridges have been established.</i>
<b>2.</b>	<i>Demarcation of boundaries for regulating grant of sand mining lease</i>	<b>Partially Complied</b>	<i>Rule-23 of the Uttar Pradesh Sub-Divisional (Avoidance) Rules, 1963 as amended, provides for the advertisement of an area with Geo-coordinates and Rule-17 mentions the Geo-coordinates of all boundaries of the area sanctioned. These are being followed by all the District Magistrates.</i>

<b>3.</b>	<i>Environmental Compensation imposed on leasing of minor minerals in any area to cover the restoration cost of environment and to compensate the victims</i>	<b>Partially Complied</b>	<i>There is provision for execution of mining lease deed only after demarcation under rule-17 of the Mining lease Approval Rules, 1963.</i>
<b>4.</b>	<i>Status of the constitution of a team to carry out demarcation by the Chief Secretary</i>	<b>Partially Complied</b>	<i>Under Rule-17 of the Uttar Pradesh Sub-Divisional (Avoidance) Rules, 1963, there is a provision for survey/demarcation of the area by an authorized officer/employee of the Directorate of Geology and Mining. A separate team is not justified at the level of Chief Secretary</i>
<b>5.</b>	<i>Mining in all blocks is undertaken as per provisions of EIA Notification, 2006; MOEF Notification dated 15.1.2016 and the Sustainable Sand Mining Management Guidelines, 2016</i>	<b>Partially Complied</b>	<i>i. Rule 34(4) of Rules-1963 contains the provision for obtaining Environmental Clearance before commencement of mining in the sequence of notification dated 14.09.2006 and the notification as amended from time to time. ii. According to the Sustainable Sand Mining Management Guidelines, 2016 issued by MOEF&amp;CC, mining work is restricted from the riverbed during the monsoon season. Thus, mining work is restricted in the month of July, August and September in the State.</i>
<b>6.</b>	<i>No sand mining is permitted without due compliance of the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 as well as regulations governing clearances by the Central Ground Water Authority</i>	<b>Partially Complied</b>	<i>Rule- 41(J)(1) of the 1963 Rules envisages that no mining operations in the leveled river bed shall be carried out beyond the depth of 3 meters or water level whichever is less/lower. The conditions mentioned in the Environmental Cleanliness Certificate issued by the State Level Environmental Impact Authority (SEIAA), are being followed.</i>
<b>7.</b>	<i>District authorities shall seize all sump pumps, other machinery, tools, vehicles, etc. used for carrying out illegal sand mining.</i>	<b>Partially Complied</b>	<i>Report awaited</i>
<b>8.</b>	<i>Any penalty imposed or not by concerned Department to cover the restoration cost of environment and to compensate the victims.</i>	<b>Partially Complied</b>	<i>The orders of Hon'ble NGT dated 18.02.2016 in OA No. 184/2013 Gurpreet Singh Baggha vs. MOEF, regarding recovery of penalty/ environmental damage from the concerned lease holders are being complied at district level.</i>
<b>9.</b>	<i>Status of a detailed restoration plan for the concerned river and its river beds</i>	<b>Partially Complied</b>	<i>Mining work is being done on the basis of approved mining scheme by including the restoration plan in the mining plan.</i>

<b>10</b>	Status of the assessment done through Indian Council of Forestry Research and Education, Dehradun of the ecological damage on account of illegal mining by incorporating the given components: a) Cost of river bed material b) Cost of ecological restoration c) Net present value of the future ecosystem services.	<b>Partially Complied</b>	In OA No. 184/2013 Gurpreet Singh Bagga vs. MOEF, the action is being taken by conducting assessment of environmental damage in compliance with Indian Council of Forestry Research and Education, Dehradun.
<b>11</b>	Action against the polluters and the erring officers	<b>Not Complied</b>	Report awaited
<b>12</b>	Status of CCTV Cameras installation at mining points to verify the amount of sand extracted	<b>Partially Complied</b>	Rule-35(2) of Uttar Pradesh Minor Mineral Regulations, 1963 provides that the mining lease holder whose mining lease area is more than 5 hectares, shall constructs checkpost/gate and install 4 CCTV cameras capable of recording at 360° visibility at his own expense for monitoring. Under the supervision of the DMs.
<b>13</b>	Status of regular patrolling by the police to inspect the mining operations	<b>Partially Complied</b>	For effective control over illegal mining and transportation of minerals, a seven-member district level task force has been set up under the chairmanship of DM vide order no. 616/86-2018-371/2005 dated 20.03.2018. Deputy Superintendent of Police level officers of Police department are members of this task force. The mining areas are constantly monitored by this task force.
<b>14</b>	Status of daily reports regarding mining to be filed by SHO/ Mining officer to be sent to District Magistrate.	<b>Partially Complied</b>	According to the information received from the DM, Prayagraj in compliance of the order of Hon'ble NGT passed in OA No. 670/2018 in re: Atul Singh Chauhan vs. MOEF&CC and Ors., regular checking of illegal mining transportation is being done by the Task force constituted at the district level. The District Collector/ Senior Superintendent of Police, Prayagraj are regularly informed.
<b>15</b>	Status of vehicles confiscation	<b>Partially Complied</b>	In compliance of orders of Hon'ble NGT in OA No. 670/2018 in re: Atul Singh Chauhan vs. MOEF&CC and Ors., in district Prayagraj 06 chargesheets were filed in the financial year 2018- 19; 80 chargesheets filed in 2019-20 and in the year 2020-21 till the month of November, 2020, 150 FIRs and 214 cases have been filed in the competent Courts, including the order passed by Hon'ble NGT. Similar instructions have also been issued to the other districts regarding the above.

16	Status of EC imposed and realized by the CPCB till date in this regard	<b>Partially Complied</b>	<p>In compliance of Order dated 05.04.2019 of Hon'ble NGT, Principal Bench in O.A. 360 of 2015 (13 clubbed cases), CPCB in NGT on 06.01.2020 the "Recommendations on Scale of Compensation to deal with the cases of illegal sand mining" were made by the Committee of Experts constituted by Hon'ble NGT. The Committee of Expert recommended two approaches regarding the scale of compensation to deal with the cases of illegal sand mining:</p> <ol style="list-style-type: none"> <li>1. Direct Compensation based on the market value of extraction, adjusted for ecological damages</li> <li>2. Computing a Simplified NPV for ecological damages.</li> </ol> <p>The above referred recommendations were initially taken up by Hon'ble NGT during the hearing on 08.01.2020 wherein Hon'ble NGT expressed prima facie deficiencies in the recommendations and directed for rectification of the deficiencies before the next date. Accordingly, the Committee of Experts reviewed and revised its recommendations, and CPCB filed in NGT on 30.01.2020 the revised "Recommendations on Scale of Compensation to deal with the cases of illegal sand mining" of the Committee of Experts constituted by Hon'ble NGT. The scale of compensation was calculated by adopting two approaches. For details of approach, I &amp; II refer Appendix- VI. It was also suggested by the Hon'ble NGT vide its order dated 17/08/2020 to consider the suggestions of Shri Panjwani which were noted at point no 13 needs to be looked into by the same Committee and thereafter the Scale of Compensation finalized (Refer Appendix- VII).</p> <p>In compliance of the Hon'ble NGT direction, the matter was examined by the same expert Committee at CPCB, Delhi &amp; found that more or less the formula suggested by committee and the methodology suggested by Shri Panjwani is similar except some of the factors. The details of same are noted at point no. 3 of the affidavits is submitted before the Hon'ble NGT by CPCB on 12.10.2020. Copy of same is enclosed as Appendix-VIII.</p>
17	Status of EC imposed and realized by the UPPCB till date in this regard	<b>Partially Complied</b>	<p>In compliance of Order dated 08.01.2020 of Hon'ble NGT in O.A. 360 of 2015 are given at Appendix -IX of the report</p>

<b>18</b>	Status of setting up of dedicated institutional mechanism for monitoring of conditions of Environmental Clearance as granted under EIA Notification, 2006 in respect of sand and gravel mining.	<b>Partially Complied</b>	Under the supervision of the DMs in the districts, the conditions of the Environmental Clearance Certificate are complied with by the PCBs/ Departmental officers. A separate institutional mechanism has been established for the same.
<b>19</b>	Safeguards based on High Powered Committee report and observations into the Sustainable Sand Mining and Management Guidelines, 2016.	<b>Partially Complied</b>	MOEF& CC is following the Sustainable Sand Mining Management Guidelines, 2016. (Refer Appendix- X)
<b>20</b>	Necessary steps have been taken by District Administration for the effective monitoring mechanisms for preventive and remedial measures including surveillance system for recovery of compensation.	<b>Not Complied</b>	Action will be taken after necessary amendments in environmental regulations. As per information given by the Mr. A.K. Tiwari, UPPCB on 07.01.2021 that: Comments: In compliance of Hon'ble NGT order dated 17.08.2020 in OA No. 360/2015 and as per provision of 'Enforcement & Monitoring Guidelines for Sand Mining' Jan., 2020 issued by MOEF&CC, Govt. of India, action is to be taken by concerned District Administration. (Refer Appendix- XI)
<b>21</b>	Necessary steps have been taken by MOEF & CC to restore effective impact assessment and safeguards; any action taken against the erring officers	<b>Not Complied</b>	Report awaited
<b>22</b>	Status of Chief Secretary filed the report regarding recovery of compensation (i.e. damage to environment)	<b>Not Complied</b>	Report awaited

23	Whether there is any progress towards amendments of the Act/Rules so that the Courts can order for the fine as ordered by Hon'ble NGT.	<b>Not Complied</b>	<p>As per information given by the Mr. A.K. Tiwari, UPPCB on 07.01.2021 that: Comments: In compliance of Hon'ble Supreme Court Judgement dated the 27.02.2012 in I.A. No. 12-13 in Special Leave Petition (C) No. 19628-19629 of 2009, in the matter of Deepak Kumar etc. Vs. State of Haryana and Others and in compliance of Hon'ble NGT directions dated 04.09.2018 in O.A. No. 173/2018 in the matter of Sudarsan Das Vs. State of West Bengal, MOEF&amp;CC, Govt. of India has issued 'Enforcement &amp; Monitoring Guidelines for Sand Mining' Jan., 2020 which has the following provisions regarding illegal mining:</p> <p>"As per the provision of 23 (C) of MMDR Act, the State Government is empowered to make rules for preventing illegal mining, and transportation &amp; storage of illegal minerals. All such mining which qualifies under illegal shall be dealt with in the provision of MMDR Act the concern authorities".</p> <p>In the above circumstance the necessary amendments in Mining Regulation/ The Uttar Pradesh SubDivisional (Avoidance) Rules, 1963 is to be initiated by the Mines &amp; Geology Department, Govt. of U.P. (Refer Appendix- XI).</p>
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**Additional Information provided by Mines Department**

1. **The Mines Department has established a Command Centre at the Directorate of Geology and Mines at Lucknow from where they operate the Integrated Mines Surveillance System for the entire State. They are using Artificial Intelligence based Software and taking the help of Drones and Cloud Services for monitoring mining activity in the State. Drone Videography has been done in sensitive districts- Fatehpur, Banda, Prayagraj and Saharanpur. Besides the CCTV Cameras, they are using RFID tags to monitor the movement of vehicles.**
2. They have made a provision in the Rules to blacklist a person for upto 2 years if found guilty of illegal mining/ illegal transportation. So far 125 persons/firms have been blacklisted.
3. They have amended the Rules to allow storage of minerals beyond 5Km radius from the riverbed. This has been done to prevent illegal mining from river bed under the alibi of storage.
4. **They have established a Vehicle Tracking System to check the misuse of Transport Pass and Overloading. To begin with, this system has been introduced in the most sensitive districts of Hamirpur, Banda, Fatehpur, Jalaun and Jhansi.**

5. *New areas have been identified based on survey conducted according to Sustainable Mining Guidelines and they are being included in the DSR.*
6. *Instead of the printed MM-11, online royalty payment has been introduced through E- MM- 11.*
7. *Security features have been introduced in E-MM 11 to check its misuse.*
8. *Transport of minerals even from stores is being regulated through electronic E- forms.*

**Observation of the Oversight Committee:** *The Committee felt that the compliance of the Mining Department needs to be verified by independent sources. CPCB and UPPCB are being directed by the Committee to jointly verify the compliance. The report would be submitted in three months time.*

## **VI. RECOMMENDATIONS**

1. *There have been a number of complaints regarding illegal mining specially in Districts of Hamirpur, Banda, Fatehpur, Jalaun, Prayagraj, Saharanpur and Jhansi. The Oversight Committee, while enclosing the newspaper cuttings has asked for a status report from the Directorate of Mining, which so far has not been received. **Illegal Mining is mining done without a Mining Plan in utter violation of environmental norms and is a grave threat to ecology and environment.** The State Government should have a zero tolerance on illegal mining and the Directorate of Mining and District Administration should immediately enquire into all such cases and if found correct take stringent legal action against the guilty.*
2. *Environmental Clearance takes into account all the environmental concerns. Mining plan is the instrument through which it is enforced. However, for mining activity going on illegally, there is neither any EC nor any mining plan. Illegal mining invariably leads to reckless damage to environment. Hence, utmost efforts are required in surveillance, patrolling and enforcement. **Electronic surveillance through UAVs/Remote Sensing is a good surveillance option especially in areas where sand mafias are active. Night vision drones could be used for checking mining activity at night. Sensitive spots need to be identified and police presence- both static presence and dynamic patrolling needs to be beefed up there. DMs / SSPs be made directly responsible for checking illegal mining.***
3. *DSRs need to be prepared very carefully. They should be based on Physical surveys and replenishment studies. **Since sand deposition is a dynamic issue, they need to be regularly updated. While awarding lease deeds, important environmental parameters like deposition and replenishment of sand, areas of erosion, distance from infrastructural structures need be considered.***



4. ***In the absence of replenishment studies and physical inspection before award, many times sites are awarded where there is no sand. The lease holder per force indulges in mining adjoining areas, some of which may be environmentally not very suitable. Before award of LOI, physical inspection should be mandatory.***
5. ***Areas where only few leases are operative and the rest are not settled/surrendered need to be carefully analyzed. There could be a chance of cartel formation and mining of sand illegally from other vacant mining plots under the garb of the operative lease. (In district Prayagraj, there is only one operative lease out of 51 leases).***
6. ***Storage Godowns should be at least 5 kms away from the river bank. Otherwise, illegal mining can be carried on under the garb of storage by the leaseholder himself.***
7. ***Geo-fencing of sites, their physical demarcation, allotment of geo-coordinates to all the pillars and their constant physical inspection and electronic surveillance is a must to ensure that the mining activity is as per the approved mining plan and no illegal mining, detrimental to environment, is going on.***
8. ***There has to be a mechanism to ensure that the actual mining activity conforms to the approved Mining Plan and the approved Environment Management Plan (EMP). Besides the statutory system of Departmental inspections, there has to be a system of annual mandatory Environmental Audit by experts. Environment Department can empanel some experts/expert institutions with standard TORs and Remuneration terms which could be utilized by the Mines Department on a regular basis. This way the District Administrations can access good technical experts with standard conditions in a transparent way without bothering about tedious time-consuming tender formalities.***
9. ***There has to be an effective mechanism for restoration of environment in case of its degradation due to mining. A portion of the royalty could be reserved for it as Environment Restoration Fund. The Environment Department can empanel some reputed institutions with standard terms for preparing environmental restoration plans which could be used directly by the Mining Department without the arduous formalities. These plans could be funded by the Environment Fund as mentioned above. Already a number of mineral rich districts like Sonbhadra have a sizeable District Mineral Fund at the disposal of the District Collector. However, since there is no mechanism available at the level of District Collector for preparation of Environment Restoration Plans, this fund is normally used for works other than environmental restoration.***

10. *All the mining activity should strictly comply with Provisions of EIA Notification 2006, Sustainable Sand Mining Guidelines, 2016; The Environmental Protection Act, 1986; The Water (Prevention and Control of Pollution) Act, 1974; The Air (Prevention and Control of Pollution) Act, 1981 and Regulations of Central Ground Water Authority.*
11. ***Direction may be issued to the Principal Secretary, Mining to take immediate steps for amendment of rules so that the Courts may order the fine as ordered by the Hon'ble NGT."***

#### **Stand of State of MP**

21. The State of MP has filed an affidavit on 13.01.2021 that necessary changes have been made in accordance with the directions of this Tribunal dated for procedure for granting EC in accordance with the directions of this Tribunal in the order dated 13.9.2018 in Satendra Pande, by constituting a Committee. Order dated 12.10.2020 was issued by the State of Madhya Pradesh on the subject. There is a proposal to amend the Minor Minerals Rules and also to introduce technology to prevent illegal mining using QR Code for transit passes, pool SMS facility to ascertain validity of electronic passes, google distance matrix to avoid multiple usage of single transit pass, web portal and mobile App to verify validity of electronic transit pass. It is not necessary to refer to the affidavits of other individual States in view of the fact that final and updated directions are now being issued in the light of which all the States/UTs are expected to take further steps in the matter.

#### **Stand of State of Rajasthan**

22. In the status report, filed by the State of Rajasthan on 16.10.2020, it is stated that the Chief Secretary Environment Cell has been established. It holds regular meetings with the District Magistrates. Meeting was also held with the Director General of Police (law and order), Secretary Home, Director Mines, all District Collectors, Dy. Conservators of Forest and other concerned officers. Directions have been issued for formation of SITs,

monitoring cases of illegal mining, setting up of special check posts on the routes used for illegal mining, ensuring CCTV surveillance, strict recovery of environmental compensation fee, etc. Directions have issued to District Magistrates to create awareness at Panchayat level. The Chief Secretary proposes proposed to issue comprehensive guidelines. Mining Department has also taken up a project for creating redressal portal and mobile app for reporting illegal mining.

### **Today's Consideration**

23. The extent of challenge posed by illegal sand mining was noted by the Tribunal in the order dated 05.04.2019 in OA 360/2015 as follows:-

*“8. Despite this, the menace of illegal sand mining in India continues unabated. **As per reports, the sand business in India employs over 35 million people and is valued at well over \$126 billion per annum. In the year 2015-2016, there were over 19,000 cases of illegal minor minerals including sand in the country.**<sup>4</sup> In Uttarakhand, a 115 years old bridge collapsed due to overloaded sand trucks. In Maharashtra, 26,628 cases of illegal sand mining were recorded in the year 2017. The State of Maharashtra has the highest number of cases of non-compliance of Sustainable Sand Mining Management Guidelines, 2016. The State of Kerala suffered hugely in 2004 Tsunami and 2018 floods which several report explain were aggravated by illegal sand extraction.<sup>5</sup> The issue of illegal sand mining is also rampant in the states of Goa<sup>6</sup>, Bihar<sup>7</sup>, Tamil Nadu<sup>8</sup>, Uttarakhand<sup>9</sup>, Telangana<sup>10</sup>, Jammu and Kashmir<sup>11</sup> amidst others.”*

24. In view of resume of above orders and responses, the issue which survives for consideration is enforcement of the 2016 and 2020 guidelines, read with orders dated 19.2.2020, 14.10.2020, 4.11.2020 and observations herein, by evolving appropriate comprehensive monitoring

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<sup>4</sup><http://www.legalserviceindia.com/legal/article-73-why-is-illegal-sand-mining-harmful-.html>

<sup>5</sup><https://sandrp.in/2019/03/01/sand-mining-2018-is-it-a-national-menace/>

<sup>6</sup><https://timesofindia.indiatimes.com/city/goa/govt-is-ignoring-illegal-sand-mining/articleshow/67908428.cms>

<sup>7</sup><https://www.firstpost.com/india/illegal-sand-mining-part-3-bihar-govts-attempted-crackdown-has-sent-prices-soaring-officials-face-axe-as-rivers-in-ruin-6008351.html>

<sup>8</sup>[https://en.wikipedia.org/wiki/Sand\\_mining\\_in\\_Tamil\\_Nadu](https://en.wikipedia.org/wiki/Sand_mining_in_Tamil_Nadu)

<sup>9</sup><https://sandrp.in/tag/uttarakhand-sand-mining/>

<sup>10</sup><https://sandrp.in/2019/02/26/sand-mining-2018-telangana-and-andhra-pradesh/>

<sup>11</sup>[https://greaterkashmir.com/article/news.aspx?story\\_id=309365&catid=2&mid=53&AspxAutoDetectCookieSupport=1](https://greaterkashmir.com/article/news.aspx?story_id=309365&catid=2&mid=53&AspxAutoDetectCookieSupport=1)

mechanism, with designated accountable officers, grievance redressal mechanism, envisaging strict action against violators, including assessment and recovery of compensation for the violations, seizure of vehicles and review at higher levels in the State.

### **Compensation**

25. In the light of discussion in para 12 above, having regard to the totality of the situation, **we accept the report of the CPCB and direct that the scale of compensation calculated with reference to approach II be adopted by all the States/UTs.** Though compensation assessment for damage to the environment is a dynamic concept, depending on variables, floor level formula can be worked out to avoid arbitrariness inherent in unguided discretion. **The CPCB may issue an appropriate statutory direction for the facility of monitoring and compliance to the Environment Secretaries of all the States/UTs who may forthwith evolve an appropriate mechanism for assessment and recovery of compensation in all Districts of the State. The recovered compensation may be kept in a separate account and utilized for restoration of environment by preparing an appropriate action plan under the directions of the Environment Secretary with the assistance of such individual/ institutions as may be considered necessary.**

### **Interaction for Effective enforcement**

26. The above discussion shows that the problem has defied solution and unless tackled seriously, damage to the environment will continue. Clear road map is thus required with effective monitoring mechanism. Report of the Oversight Committee for UP and affidavit of the State of MP, the report from Rajasthan and some other States also show that effective

mechanism is lacking. For clarity on all issues, periodic interaction of stake holders, particularly the enforcement authorities is required. This will also facilitate engagement of accredited agencies/experts for preparing DSRs/replenishment studies. In the Central Government, the concerned authorities include Mining Ministry, Environment Ministry, Jalshakti Ministry and CPCB. In States, Departments of Mining, Environment, SEIAA, PCB and District Magistrates.

**Enforcement of Monitoring Mechanism and review by the Chief Secretary at State level and Secretary MoEF&CC at National level**

**27. We direct all the States/UTs to strictly follow the SSMG-2016 read with EMGSM-2020 reinforced by mechanism for preparation of DSRs (in terms of directions of this Tribunal dated 14.10.2020 in Pawan Kumar, supra and 04.11.2020 in Rupesh Pethe, supra), Environment Management Plans, replenishment studies, mine closure plans, grant of EC (in terms of direction dated 13.09.2018 in Satendra Pandey, supra), assessment and recovery of compensation (as per discussion in Para 25), seizure and release of vehicles involved in illegal mining (in terms of order dated 19.02.2020 in Mushtakeem, supra), other safeguards against violations, grievance redressal, accountability of the designated officers and periodical review at higher levels. As already noted, EMGSM-2020 contemplates extensive use of digital technology, including remote sensing.**

**28. We further direct that periodic inspection be conducted by a five-members Committee, headed and coordinated by the SEIAA and comprising CPCB (wherever it has regional office), State PCB and two expert members of SEAC dealing with the subject. Where CPCB regional office is not available, if MoEF&CC regional office is available, its Regional Officer will be included in the Committee.**

**Where neither CPCB nor MoEF&CC regional office exists, Chairman, SEIAA will tie up with the nearest institution of repute such as IIT to nominate an expert for being included in the Committee. Such inspection must be conducted at least thrice for each lease i.e. after expiry of 25% the lease period, then after 50% of the period and finally six months before expiry of the lease period for midway correction and assessment of damage, if any. The reports of such inspections be acted upon and placed on website of the SEIAA. Every lessee, undertaking mining, must have an environment professional to facilitate sustainable mining in terms of the mining plan and environmental norms. This be overseen by the SEIAA. Environment Departments may also develop an appropriate mobile App for receiving and redressing the grievances against the sand mining, including connivance of the authorities and also a mechanism to fix accountability of the concerned officers. Recommendations of the Oversight Committee for the State of UP quoted earlier may be duly taken into account.**

**The mechanism must provide for review at the level of the Chief Secretary at least once in every quarter, in a meeting with all concerned Departments in the State. The Chief Secretary UP may ensure further action in the light of the report of the Oversight Committee.**

**Similarly, at National level, such review needs to be conducted atleast once in a year by the Secretary, Environment in coordination with the Secretaries Mining and Jalshakti Ministries the CPCB.**

#### **Publication of Annual Reports**

**29. We further direct all the States/UTs to publish their annual reports on the subject and such annual reports may be furnished to**

**MoEF&CC by 30th April every year giving status till 31<sup>st</sup> March. First such report as on 31.03.2022 may be filed with the MoEF&CC by all the States/UTs on or before 30.04.2022. The report may also be simultaneously posted on the website of the Environment Department of the States/UTs. Based on such reports, MoEF&CC may consider supplementing its Guidelines from time to time. The MoEF&CC may prepare a consolidated report considering the reports from the States/UTs and publish its own report on the subject, preferably by 31<sup>st</sup> May every year.**

#### **Interaction at National Level**

**30. We direct the Secretary MoEF to convene a meeting in coordination with the CPCB and Mining and Jalshakti Ministries of Central Government and such other experts/individuals at National level and representatives of States within three months for interaction on the subject which may be followed by such meetings being convened by the Chief Secretaries in all States in next three months. Holding of such meetings will provide clarity on enforcement strategies and help protection of environment.**

All the applications are disposed of. Individual issues may be gone into in accordance with the mechanism to be involved as above.

A copy of this order be forwarded to the MoEF&CC, CPCB, Secretaries, Ministries of Jalshakti and Mining, GoI, Chief Secretaries, Environment Secretaries, SEIAA and State PCBs/PCCs and District Magistrates of all the States/UTs by e-mail for compliance.

Adarsh Kumar Goel, CP

S.K. Singh, JM

Dr. Nagin Nanda, EM

February 26, 2021  
Original Application No. 360/2015  
and other connected matters  
DV & A