

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

Original Application No. 360/2015

WITH

Original Application No. 366/2015

(M.A.No. 02/2019)

WITH

Original Application No. 368/2015

(M.A.No. 16/2019)

WITH

Original Application No. 173/2018

(Earlier O.A. No. 89/2017 (EZ)

(I.A. No. 76/2019)

WITH

Original Application No. 874/2018

WITH

Original Application No. 44/2016

WITH

Original Application No. 517/2015

WITH

Original Application No. 550/2015

WITH

Original Application No. 530/2016

WITH

Original Application No. 272/2016

WITH

Original Application No. 481/2016

WITH

Original Application No. 540/2015

WITH

Original Application No. 90/2016

WITH

Execution Application No. 40/2017

IN

O.A. No. 517/2015

National Green Tribunal Bar Association

Applicant(s)

Versus

Virender Singh (State of Gujarat)

Respondent(s)

WITH

National Green Tribunal Bar Association

Applicant(s)

Versus

Dr.SarvabhoomBagali (State of Karnataka)

Respondent(s)

WITH

National Green Tribunal Bar Association

Applicant(s)

Versus
Dr.Sarvabhoun Bagali (State of Maharashtra) Respondent(s)
WITH

Sudarsan Das Applicant(s)

Versus
State of West Bengal &Ors.
(State of West Bengal and Odisha) Respondent(s)
WITH

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

WITH
Mushtakeem Applicant(s)

Versus
MoEF& CC &Ors. Respondent(s)

WITH
Sandeep Kumar Applicant(s)

Versus
Ministry of Environment, Forests and
Climate Change &Ors. Respondent(s)

WITH
Virender Kumar Applicant(s)

Versus
Ministry of Environment, Forests and
Climate Change &Ors. Respondent(s)

WITH
Sandeep Kumar Applicant(s)

Versus
Ministry of Environment, Forests and
Climate Change &Ors. Respondent(s)

WITH
M/s Ganga Yamuna Mining Co. Applicant(s)

Versus
State of Haryana&Ors. Respondent(s)

WITH
Joginder Singh Applicant(s)

Versus
Ministry of Environment, Forests &Ors. Respondent(s)

WITH
Ved Pal Singh Applicant(s)

Versus
Ministry of Environment, Forests &Ors. Respondent(s)

Chander Mohan Uppal WITH Applicant(s)
Versus State of U.P. &Ors. Respondent(s)
Sandeep Kumar WITH Applicant(s)
Versus Ministry of Environment, Forests and
Climate Change &Ors. Respondent(s)

Date of hearing: 05.04.2019

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

For Applicant(s):

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ORDER

1. The common question for consideration in this group of matters is the steps required to be taken for environment protection from unregulated sand mining in the States of Gujarat, Karnataka, Maharashtra, West Bengal, Odisha, Punjab, Haryana and Uttar Pradesh. The issue is common even with regard to States who are not party to these proceedings.

Background

2. The Hon'ble Supreme Court, vide judgment in *Deepak Kumar Vs State of Haryana &Ors. (2012) 4 SCC 629*, directed that leases of minor minerals, including their renewal, even for an area of less than 5 hectares (ha) be granted only after environmental clearance from the Ministry of Environment and Forest and Climate Change (MoEF & CC). This direction was held to be necessary in view of degradation of environment on account of illegal and unrestricted upstream, in-stream and flood plain sand mining activities. Under the existing guidelines, no environmental clearance was required for minor leases of less than 5 hectare area. The result was that there was no regulation of such mining which resulted in environmental degradation. Even bigger cluster was split up in less than 5 ha units to avoid law.
3. The Hon'ble Supreme Court observed that absence of regulation of such mining was not justified as it was 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.
4. The Hon'ble Supreme Court observed that such mining 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.

5. The Hon'ble Supreme Court 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.

6. The grievance before the Tribunal is that the river bed mining was taking place at several locations in violation of judgment of the Hon'ble Supreme Court either without any valid lease or under leases

given without following the strict regulatory regime in terms of judgment of the Hon'ble Supreme Court or in violation of lease conditions.

Proceedings before NGT

7. This Tribunal passed several orders in the present matter since 05.08.2013¹ to check illegal sand mining from the riverbeds without environmental clearance or in violation of terms of environmental clearance. The State of Uttar Pradesh was directed to frame a policy to check illegal sand mining. MoEF&CC was also directed to prepare comprehensive guideline on the subject. The Tribunal considered regulatory regime applicable in some of the States in the light of the judgment of the Hon'ble Supreme Court in *Deepak Kumar* (supra), including in the States of Uttar Pradesh, Haryana, Madhya Pradesh, Maharashtra, Karnataka, Gujarat, West Bengal and Odisha. The MoEF&CC issued Sustainable Sand Mining Guidelines 2016, vide notification dated 15.01.2016. Thereafter, further directions were issued by the Tribunal in the light of report of the High-powered Committee².
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.³ In Uttarakhand, a 115 years old bridge collapsed due to overloaded sand trucks. In Maharashtra,

¹ In O.A. No 38/2015

² Order dated 08.08.2018 in Gurpreet Singh Bagga Vs. Ministry of Environment, Forest and Climate Change, E.A. No. 17/2016

³ <http://www.legalserviceindia.com/legal/article-73-why-is-illegal-sand-mining-harmful-.html>

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.⁴ The issue of illegal sand mining is also rampant in the states of Goa⁵, Bihar⁶, Tamil Nadu⁷, Uttarakhand⁸, Telangana⁹, Jammu and Kashmir¹⁰ amidst others.

9. Natural resources are 'public goods' and the Doctrine of Equality must guide the State in determining the actual mechanism for distribution of natural resources. It takes into account the rights and obligations of the State vis-a-vis its people and the demands that the people be granted equitable access to natural resources and they are adequately compensated for the transfer of these resources for public domain and regulation of rights and obligations of the State vis-à-vis private parties seeking to acquire the resources which demands that the procedure adopted and distribution is just and transparent.
10. Public Trust Doctrine primarily rests on the principle that certain resources like air, sea, water and forest have great importance to public as a whole and it is wholly unjustified to make them a subject of private ownership. The public trust doctrine enjoins upon the Governments to protect the resources for enjoyment of general public

⁴ <https://sandrp.in/2019/03/01/sand-mining-2018-is-it-a-national-menace/>

⁵ <https://timesofindia.indiatimes.com/city/goa/govt-is-ignoring-illegal-sand-mining/articleshow/67908428.cms>

⁶ <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>

⁷ https://en.wikipedia.org/wiki/Sand_mining_in_Tamil_Nadu

⁸ <https://sandrp.in/tag/uttarakhand-sand-mining/>

⁹ <https://sandrp.in/2019/02/26/sand-mining-2018-telangana-and-andhra-pradesh/>

¹⁰ https://greaterkashmir.com/article/news.aspx?story_id=309365&catid=2&mid=53&AspxAutoDetectCookieSupport=1

rather than to permit the use for private ownership of commercial purposes.¹¹

11. When the State holds a resource that is freely available for the use of public, it provides for a high degree of judicial scrutiny on any action of the State in dealing with the subject in a prudent manner. It is the duty of the State to provide complete protection to the natural resources as a trustee of the public at large. Moreover, a policy to give free sand must be justified as a welfare measure but even this consideration cannot justify unregulated and unscientific mining unmindful of impact on environment. If in the course of mining, damage is caused, cost of the same must be recovered from such violators. In any case, the authorities cannot avoid their duty under the environmental law to prevent and restore the damage which is an inalienable duty of the State.

Sudarsan Das v. State of West Bengal

Vide order dated 04.09.2018 in O.A No. 173/2018, *Sudarsan Das v. State of West Bengal & Ors*, the Tribunal considered the issue of unchecked mechanised sand mining on the banks of river Subarnarekha by use of suction pumps, earth movers and netting in an area falling under Jaleswar Tehsil, Balasore District, Odisha on the Odisha – West Bengal Boarder area and neighbouring district of West Medinapur in the State of West Bengal. The mining was being done by a method whereby ground water is allowed to seep into excavation of 40 to 50 feet beneath the river and collected in sumps and pumped away for disposal. No environmental clearance had been

¹¹Natural Resources Allocation in RE: Special Reference No. 1/2012, (2012)10 SCC1, para 77-78,89-92

taken nor consent taken from the Pollution Control Board. This was impacting the ecology of the river including its channel geometry, bed elevation, substratum composition and stability, instream roughness of the bed, flow velocity, discharge capacity, sediment transpiration capacity, turbidity, temperature, etc. Such indiscriminate mining was the cause of the river Subarnarekha changing its course every year and made susceptible to flooding during every monsoon, threatening the safety of the villages situated along the river bank due to the banks being severely eroded in villages Rajnagar, Mankia, Kanrpur, Totapada, Beherasahi and Praharajpur. The authorities confirmed that illegal mining was taking place at large scale without any Environmental Clearance under the Environment (Protection) Act, 1986 or Consent under the Water (Prevention and Control of Pollution) Act, 1974 or the Air (Prevention and Control of Pollution) Act, 1981. Sustainable Sand Mining and Management Guidelines, 2016 were also not being followed. There was adverse impact on the ecology. No Management Plan was prepared for replenishment of preventive steps. Safeguards suggested in the report of High-powered Committee in September, 2016¹² were also not been adopted.

¹² The report suggest follows:

- i) Project Proponent must ensure that the security features of Transport Permission viz. (a) Printed on Indian Bank Association (IBA) approved 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 the CCTV camera, Personal Computer (PC), 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) Project Proponent must ensure the Scanning of Transport Permit or Receipt and uploading on Server.
- iv) The State Mines and Geology Department should print the Transport Permits/Receipt with security features enumerated at Paragraph (i) 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,

the 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.

- v) 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.
- vi) 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/call centre.
- vii) The route of vehicle from source to destination should be tracked through the system using check points, Radio-frequency identification (RFID) Tags, and Global Positioning System (GPS) tracking.
- viii) The system shall enable the Authorities to develop 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 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.”

Considerations required to be kept in mind for sustainable sand mining are:

- 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 riverbed 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.”

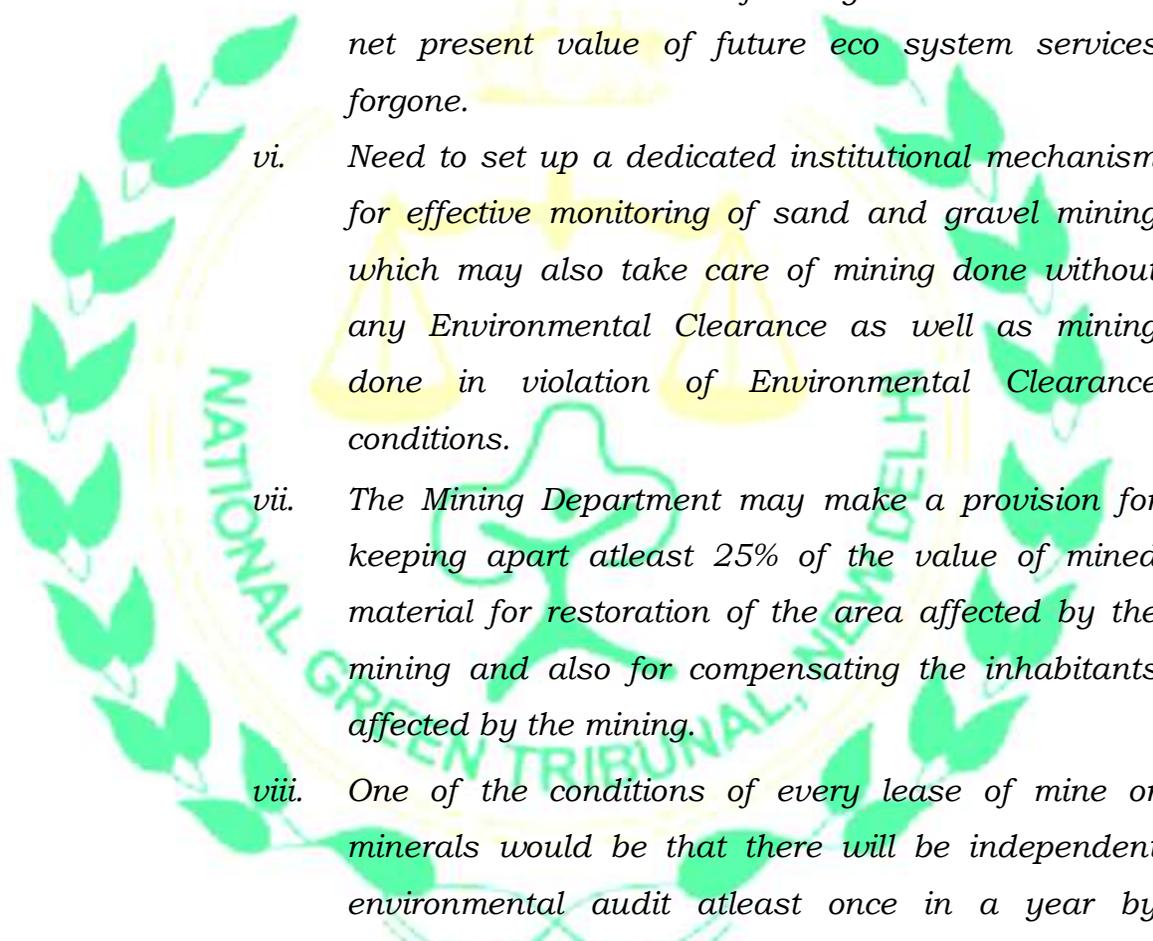
12. The Management Plan as per the guidelines is to require system of replenishment as well as preventive steps during the sand mining. Replenishment and reclamation of riverine sand are the integral part. Guidelines also deal with the issue of depth of mining and strict regulatory regime. The management of mining clusters should have a separate approach. Management of sand deposited after the floods should be treated as separate for mining. Monitoring system proposed includes safeguards during transport as well as checking of condition of mining.

13. The Tribunal noted that Ministry of Mines and Indian Bureau of Mines (IBM) had developed Mines Surveillance System (MSS), with assistance from Bhaskaracharya Institute for space applications and Geoinformatics (BISAG), Gandhinagar and Ministry of Electronics and Information Technology (MEITY). The Mining Surveillance System (MSS) is a satellite-based monitoring system which aims to establish a regime of responsive mineral administration by curbing instances of illegal mining activity through automatic remote sensing detection technology.

14. In view of above, the Tribunal directed¹³ the MoEF&CC to revise its guidelines as in-spite of the guidelines already issued, the monitoring mechanism was not working effectively. The directions of this Tribunal are:

“i. Mining Surveillance System discussed in para 23 above be finalized in consultation with ISRO Hyderabad.

¹³ Vide order dated 04.09.2018 in Original Application No. 173 of 2018 (Earlier O.A. No. 89/2017) (EZ) in the matter of Sudarsan Das Vs. State of West Bengal & Ors.

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- ii *Safeguards suggested in Sustainable Sand Mining Guidelines published by the MoEF&CC in the year 2016.*
 - iii *Suggestions in the High-Powered 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 preferably include ex-servicemen, former teacher and former civil servant. The Committee will be nominated by the District Magistrate.”*

15. Such steps were to be worked out within two months and circulated to all States. The mechanism is to provide for a report of implementation from the concerned States every quarter. The matter needs to be reviewed after every six months by the MoEF & CC. The direction with regard to 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 as directed in para (vi) is for an All-Encompassing Body to monitor the conditions of Environmental Clearance with respect to all development projects. Report of the steps taken by MOEF&CC was to be furnished to this Tribunal by email at filing.ngt@gmail.com on or before 31.12.2018.

16. The Tribunal also issued directions to the State of West Bengal and Odisha to take steps as follows:

- “*
- i. The State of West Bengal and Odisha may demarcate the boundaries for regulating grant of sand mining lease within three months from today. No mining lease of minor minerals may be given in the area in question till demarcation is complete. All existing mining operations in those areas shall remain suspended till demarcation work is completed and attains finality. To carry out the demarcation, the Chief Secretaries of the two States may constitute a team of three suitable officers each within two weeks. The said teams may hold their first meeting within one month.*
 - ii. The States of West Bengal and Odisha must ensure that mining in all sand mining blocks is undertaken strictly in accordance with the provisions of EIA Notification, 2006, MoEF*

Notification dated 15th January, 2016 and the Sustainable Sand Mining Management Guidelines, 2016. They must also ensure that no sand mining is permitted without due compliance of 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. The District Administration must be held accountable for any failure.

- iii. District Magistrates and Superintendents of Police, Balasore district in Odisha and Paschim Medinapur, West Bengal, respectively, shall seize all sump pumps, other machinery, tools, vehicles, etc. used for carrying out illegal sand mining.*
- iv. Apart from instituting appropriate criminal proceedings against those carrying out illegal mining, exemplary penalty shall be imposed against them by the concerned District Magistrates within three months from today to cover the cost of restoration of environment and to compensate the victims.*
- v. The Chief Secretaries of the two States shall also get prepared jointly a detailed restoration plan for river Subarnarekha and its riverbeds for which a Committee of experts shall be constituted from independent institutions, i.e., the CPCB, Indian School of Mines, Dhanbad and the respective State Pollution Control Boards as members. Such constitution may take place within one month.*
- vi. The Expert Committee shall carry out detailed study and submit the restoration plan, as far as may be practicable, within three months after its constitution.*

- vii. *The Committee shall also get the assessment done through Indian Council of Forestry Research and Education, Dehradun of the ecological damage on account of illegal mining by incorporating the following components: a) Cost of riverbed material. b) Cost of ecological restoration. c) Net present value of the future ecosystem services foregone.*
- viii. *The above steps may be facilitated by the Regional Office of the CPCB as nodal officer, by coordinating with the Chief Secretaries of the two States.*
- ix. *The damage suffered by the inhabitants caused by the illegal mining may also be assessed by the above Committee, which shall form a separate component of the Restoration Plan for river Subarnarekha as per direction No. (v) above. Cost of restoration plan shall be recovered as environmental compensation from the illegal miners, to be identified by the District Magistrate. The component of the compensation in respect of damages suffered by the inhabitants may be credited with District Legal Services Authority. The District Legal Services Authority may disburse the same to the victims of illegal mining, after proper identification.”*

17. An oversight Committee was formed headed by Justice R.K. Merathia, former Judge of Jharkhand High Court to oversee the execution of above directions which was to function for six months.

Consideration in Today's Proceedings

Sand Mining in the State of West Bengal and Odisha

18. The matter has been listed today to consider the report from the MoEF & CC which was to be furnished by 31.12.2018 in terms of

para 28 in *Sudarshan Das* (supra) and report of the oversight Committee which was to be furnished within three months in respect of steps taken by the State of West Bengal and Odisha in terms of direction of this Tribunal.

19. We may note that vide order dated 16.01.2019 in O.A. No. 606/2018, titled *Compliance of Municipal Solid Waste Management Rules, 2016*, the Tribunal flagged the issue of sand mining as one of the issues required to be monitored by the Chief Secretaries of the concerned States and to be reported to the Tribunal on personal appearance of Chief Secretaries before the Tribunal.

20. In pursuance of the said direction, Chief Secretaries of Odisha and West Bengal furnished their respective reports on 26.03.2019 and 02.04.2019. Learned counsels for the State of West Bengal and Odisha have relied upon the said reports during the hearing of present cases. The reports were not found to be satisfactory as per orders of the Tribunal dated 26.03.2019 and 02.04.2019 respectively and further directions were issued.

21. Question for consideration is further directions in the matter. We will consider this aspect after noticing developments in connected cases.

Sand Mining in the State of Gujarat

22. Following the above order in *Sudarsan Das* (supra), the issue of illegal sand mining in the State of Gujarat was dealt with in O.A. No. 360/2015, *National Green Tribunal Bar Association v. Virender Singh (State of Gujarat)*. The Tribunal passed several orders from time to time since 28.11.2016 and finally considered the report of the State

of Gujarat vide order dated 13.07.2018 to the effect that persons engaged in illegal mining were identified and proceeded against. The Tribunal directed the State of Gujarat to take further preventive and remedial steps and observed that compounding fee to be recovered should be fixed having regard not only to the cost of mined material but also the cost of restoration of the environment and cost of ecological services lost forever and should be separately accounted for, for restoration of the environment. Again, vide order dated 17.09.2018, the Tribunal considered the policy of the State of Gujarat but found that preventive and remedial steps proposed were not sufficient. Damage caused to the environment was not fully taken into account. It was required to include Net Present Value (NPV) of future ecosystem services foregone forever. It was also observed that the preventive steps should also include demarcation and publication of boundaries in different leases and the same may be placed in the public domain. The Tribunal also referred to other orders on the subject being orders dated 05.09.2018, 10.09.2018 and 13.09.2018 in *Original Application No. 44/2016- Mushtakeem Vs. MoEF & CC & Ors.*, *Original Application No. 304/2015- Jai singh & Anr. Vs. Union of India & Ors.* and *Original Application No. 186/2016 - Satendra Pandey Vs. Ministry of Environment, Forest & Climate Change & Anr.* The application was disposed of but the action taken report was required to be furnished. Accordingly, the matters have been put up today for consideration of the action taken report.

23. We may also note that vide order dated 04.01.2019 in *Original Application No. 110(THC)/2012, Threat to life arising out of coal mining in south Garo Hills district v. State of Meghalaya & and Ors.*, the

issue of compensation and seizure of vehicles in the context of illegal rat hole mining in the State of Meghalaya was considered. On the subject of compensation to be recovered for damage to the environment, it was observed:

“31. Paying capacity and the amount which may act as deterrent to prevent further damage is also well recognised. Net Present Value of the ecological services foregone and cost of damage to environment and pristine ecology, the cost of illegal mined material, and the cost of mitigation and restoration are also relevant factors. The Committee may go into these aspects to determine the final figure.

32. We are satisfied that having regard to the totality of factual situation emerging from the record, damages required to be recovered are not, prima facie, less than Rs. 100 Crores. Accordingly, by way of an interim measure, we require the State of Meghalaya to deposit Rs. 100 crores within two months with the CPCB in this regard.”

On the subject of vehicles, it was observed:

“ 36. The Committee may also consider the following:-

Any cranes and trucks found to be involved in illegal mining or transportation which have not yet been seized may also be seized. The seized vehicles or equipments be released by the concerned District Magistrates only after recovering damages to the extent of 50% of the showroom 17 price of the vehicles or equipments. The said amount may also be credited to the restoration fund.”

24. We have perused the report filed by the State of Gujarat vide email dated 17.12.2018 to the effect that environment compensation scale has been enhanced which now can be between 21% to 41% value of the illegally mined material and if such value is found to be less than the cost of the damage to the environment, the matter is to be referred to the State Pollution Control Board. The above

compensation is in addition to the penalties under the Rules. However, the scale of penalty has not been specified.

25. Accordingly, further directions are required which may apply not only to the State of Gujarat but also other States. We may consider this aspect after taking note of developments in other States.

Sand Mining in the State of Karnataka

26. O.A. No. 366/2015 (M.A. No. 02/2019), *National Green Tribunal Bar Association v. Dr. Sarvabhoun Bagali (State of Karnataka)* and O.A. No. 368/2015 (M.A. No. 16/2019), *National Green Tribunal Bar Association v. Dr. Sarvabhoun Bagali (State of Maharashtra)* relate to the issue of sand mining in the State of Karnataka and Maharashtra. Vide order dated 25.09.2018, the matter was considered in the light of observations in O.A No. 173/2018 (Earlier O.A. No. 89/2017 (EZ) (I.A. No. 76/2019), *Sudarsan Das Vs. State of West Bengal & Ors* and Original Application No. 186/2016, *Satendra Pandey v. Ministry of Environment, Forest & Climate Change & Anr.* The States of Karnataka and Maharashtra were required to take steps as per the directions in the above matters, to the extent applicable and file an affidavit.

27. Accordingly, an affidavit has been filed on 06.03.2019 by the state of Karnataka stating that there was no sand *mafia* in the State of Karnataka and only there are exceptional instances. It is further submitted:

“I submit that all necessary steps are taken by Government of Karnataka and compliance report is submitted in this case, separately. If this Hon’ble Tribunal opines to establish any “Monitoring

Mechanism”, we welcome it. However, any suggestions or directions may kindly be issued to Government of Karnataka to (1) evaluate loss to the ecology (2) to recover cost of restoration from illegal miners (3) to monitor mining (4) to make provision for restoration (5) for compensation to the inhabitants and (6) for audit etc., the Government of Karnataka will obey the directions of this Hon’ble Court.”

28. Our attention has been drawn to a news article published in Bangalore Mirror dated 24.12.2018 appearing under the title “Karnataka: Sand mafia under scanner after lorry runs over official”¹⁴ and an article published in Decan Herald dated 17.09.2018 under the title “Karnataka is a leading State that witnesses the devastating effects of sand mining”¹⁵ to the effect that fourteen million metric tonnes of sand unaccounted for the State of Karnataka is as follows:

“The state government is receiving approximately Rs 150 crore as royalty from legitimate sand mining blocks every year. As per estimates, the state government is losing around Rs 200 crore per year due to illegal sand mining. Here is a ballpark estimation to find out the consumption of sand in the state. According to cement manufacturing companies’ data, around 18 million metric tonnes of cement is sold in the state every year. The cement-sand mix ratio is either 1:4 or 1:6 (four or six bags of sand per cement bag). Even if 1:4 ratio is taken, a whopping 70 million metric tonnes of sand is approximately used in the state every year. The official data from the Department

¹⁴<https://bangaloremirror.indiatimes.com/bangalore/others/karnataka-sand-mafia-under-scanner-after-lorry-runs-over-official/articleshow/67221261.cms>

¹⁵<https://www.deccanherald.com/exclusives/illegal-sand-mining-wrecking.html>

of Mines and Geology shows that from the blocks permitted by it, a total quantity of 30 million metric tonnes of sand (from all types of blocks - river sand, patta land, blocks allocated to government departments, and manufactured sand) is produced in the state. As per this, there is a difference of around 40 million metric tonnes of sand in comparison to the cement sold in the state.”

29. We may consider further directions after noting facts of other states.

Sand Mining in the State of Maharashtra

30. In the case of Maharashtra, an affidavit has been filed by the State of Maharashtra on 20.2.2019 to the effect that the State Government is in the process of framing Sand Mining Policy for which a Committee has been constituted.

31. Our attention has also been drawn to an article published in The Hindustan Times dated 27.01.2019 under the title “Maharashtra registers most cases of illegal mining between 2013-17”¹⁶ inter alia stating as follows:

“Maharashtra recorded 1,39,706 illegal mining cases between 2013 and 2017, the highest number in the country, revealed data submitted by the Union environment ministry before the Rajya Sabha on January 3.

However, the state had one of the lowest number of prosecutions in such cases. The state filed 712 first information reports (FIR) and one court case, while seizing around 1,39,000 vehicles used in illegal

¹⁶ <https://www.hindustantimes.com/india-news/maharashtra-registers-most-cases-of-illegal-mining-between-2013-17/story-2j69aqmsygzCcTBBB8emtN.html>

mining operations and collecting Rs 267 crores as fines from offender.

India recorded 4,16,410 cases during the same time, which means Maharashtra accounts for 33.5% of all cases in the country. Uttar Pradesh recorded 36,054 illegal mining cases, Madhya Pradesh 46,193, Karnataka 33,390, and Goa had 3 cases. The information was submitted in response to a query on the environmental impact of illegal mining.”

32. In view of above, further directions are required to be considered for the State of Maharashtra.

Sand Mining in the State of Punjab

33. Vide order dated 13.11.2018 in O.A. No. 874/2018 News item published in "The Tribune " Authored by Arun Sharma Titled "Mounds of sand on Sutlej banks, mining mafia digs in", a report was sought on the allegation of large scale illegal mining on the bank of River Satluj in District Ropar in the light of directions vide order dated 04.09.2018 in Sudershan Das (supra) and other orders. Accordingly, a report has been received vide email dated 25.02.2019 confirming that illegal mining had taken place. The observations in the inspection report are as follows:

- “1. No mining operation was observed during visit of the Committee at the mining sites located in the riverbed.*
- 2. The mining of minor minerals in the riverbed has taken place more than permitted depth of 3 meters, as specified in point no. 4(i) of Form – L appended to the Punjab Minor Mineral Rules, 2013, which is a violation of sustainable mining practice.*

3. *The specified boundaries or demarcation of mine lease area was not demarcated as required for checking illegal mining, substantiates the fact of illegal or unauthorized excavation of minerals.*
4. *From the existing natural level adjoining to the mining site, it we noticed that mining has been carried out in an unscientifically manner as:*

- a) *The mining of minor mineral has been done beyond the permitted depth.*

- b) *No strip of 7.5 m width of the lease boundary as seen left as per provisions of the Metalliferous Mines Regulations, 1961 in compliance to condition imposed in the Mining Plan approved by the State Geologist, Punjab, a serious violation for safety of banks.*

- c) *The contractor has not maintained slope height not exceeding 45 degree from the horizontal width along the boundaries of mining site in compliance to condition no. 12 of the letter vide which mining plan was approved, negligence towards slope stability.*

- d) *The contractor was not providing bench along the boundary of the mining site having height not exceeding 1.5 m and its width should not be less than the height as per condition no. 13 of the letter vide which mining plan was approve.*

1. *From the conditions of the area along the riverbed in revenue estate of village Baihara and Swarha, it seems that the mining has been carried out at the different locations in an unscientific way.*
2. *During the inspection, the impressions of heavy vehicles movement were observed. Also, it was found that road for movement of vehicle were in very bad shape as these roads have not been*

stabilized or metalled with any of construction material and no plantation was observed along the roads.

- 3. The development of water sumps as well as erosion of banks due to unscientific mining within the riverbed are threat to river ecological system and make it prone to flooding conditions during full flow. Also, it may cause the course of river to change rapidly and meandering to a great extent.*
- 4. No check post was observed during the visit along the routes leading to mining lease area.*
- 5. As per stipulation of environmental clearance, the contractor is required to maintain safety and stability of river banks i.e. 3 m or 10% of the width of the river, whichever is more will be left intact as no mining zone. Since no embankment of the riverbed was noticed and there was no demarcation of the mining site, as such, compliance of the above stipulation of the Environmental Clearance could not be verified.*
- 6. The contractor has neither done any plantation along with the lease boundary of mining site in compliance to the condition imposed in the approval letter of the Mining plan.*
- 7. The stone crusher units nearby the riverbed were observed by the committee. The stone crusher units were observed to be non-operational during visit of the committee, but stock piling of crushed material is indicative of their operation. The heavy machineries like JCB, pokland machines, dumper etc. were observed around the river, which may have been use for illegal mining in the area. Hence, the possession of these types of machines and working of stone crusher units need to be regulated. This issue needs to be monitored by the State.”*

34. The Committee further observed.

“The suggestions of the joint committee visit on 20.12.2018 in the report filed in OA no. 767 of 2018 titled as Dinesh Kumar Chadha versus State of Punjab & Others were as follows :

- *The mining activity within the riverbed should not be permitted without the preparation of Comprehensive Mining plan/District Survey report as required in Sustainable Sand Mining Management Guidelines, 2016 issued by the MoEF by the State of Punjab with replenishment/scientific study by an institute of national importance and prior recommendations of MoEF & CC.*
- *The State of Punjab may be asked to develop mechanism to stop the illegal extraction and transportation of riverbed material. The mechanism must include the environmental compensation for violators and vehicles used for the purpose to be seized along with prosecution of owners of such vehicles. Including cancellation of registration certificate of such vehicles.*
- *The District Administration may consider establishing the check post barrier at suitable site to check vehicles carrying the riverbed material and to maintain strict vigil over overloading vehicles involved.*
- *The Detailed Survey of river eco system comprising of identification of river stretches affected by unscientific mining should be carried out for preservation and exclusion of stretches from any type of extraction process or mining activity. In addition the auction of identified stretches may not*

be considered without approved annual replenishment report.

- *The restoration plan of river ecosystem in mine lease area should be enforced for minimizing the impacts of unscientific mining and to improve the riparian habitat. The State of Punjab can be asked to execute the restoration plan within time bound manner.*
- *The demarcation of auctioned mine lease area should be done urgently with pillars/fencing along with geo-referencing to protect the river ecosystem and to avoid bed degradation.*
- *The raw material to be imported, processed, dispatched and balance stock shall be regulated strictly as per the policy guidelines for registration and working of stone crushers in the State of Punjab issued by the Department of Industries and Commerce vide notification dated 19.03.2015.*
- *As regards to initiating action against the erring officials, the Heads of the concerned Departments should identify the erring officials who allowed to take place illegal mining and initiate action against these officials, after conducting detailed investigations.*

The same physical conditions have been noticed during the recent visit on 20.2.2019 at the mining sites located in the revenue estate of village Baihara and Swarha, as such, the suggestions may be considered by the court alongwith the followings:

- *The District Survey Report for the mining site in the area in order to identify depositions / aggradations stretches of the riverbed material should be prepared.*
- *Declaration of safety zones around infrastructures like National Highway, Bridge, Railway line etc. must be ensured for protection as per provisions of the Punjab Minor Minerals Rules, 2013.*
- *Replenishment report including time of replenishment for the mining area to be undertaken by the concerned Authorities for permitting mining.*
- *Strict vigilance to be implemented to ensure no illegal mining / transportation in the bed of river.*

As regards to facts noted regarding mining beneath the bridge on Sri Anandpur Sahib-Garshankar road, besides above, it is suggested as under:

- (i) *The Deptt. of Mining is required to ensure the compliance of stipulations of para 4 of Form 'L' appended to the Punjab Mining Minerals Rules, 2013 as regards to no mining area within a distance of 500m upstream /downstream of any high level bridge and 250m upstream / downstream of other bridges.*
- (ii) *The Mining department jointly with Deptt. of Irrigation is required to rejuvenate the area near and beneath the above mentioned bridge so as to ensure safety of the same and these departments are required to take necessary safeguards for further safety of the said bridge.”*

35. In view of above, directions are called for to the State of Punjab to deal with the issue of sand mining.

Sand mining in the State of Uttar Pradesh and Haryana

36. O.A. No. 44/2016, Mushtakeem v. MoEF&CC & Ors., involved illegal mining in Uttar Pradesh and Haryana on riverbeds of Yamuna. The matter was disposed of vide order dated 05.09.2018, following directions dated 04.09.2018 in Sudershan Das (supra). In terms of order dated 05.09.2018, no report has been received from the State of Uttar Pradesh. Thus further directions are necessary. A report has been received from Additional Chief Secretary, Haryana vide email dated 05.04.2019 to the effect that the State of Haryana was following the guidelines and will implement revised Sustainable Sand Mining Guidelines issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC) in terms of the order dated 04.09.2018, in O.A No. 173/2018 (Earlier O.A. No. 89/2017 (EZ) (I.A. No. 76/2019), *Sudarsan Das Vs. State of West Bengal & Ors.*

37. In view of the above, further directions are called for to the State of Uttar Pradesh and Haryana to deal with the issue of sand mining.

Sand Mining in the State of Madhya Pradesh

38. Though no case of the State of Madhya Pradesh is listed today, we have taken note of the problem sand mining in the State in O.A. No. 456/2018 Nityanand Mishra v. State of M.P. & Ors., which is pending before this Tribunal and sought report from Committee vide order dated 31.07.2018. Accordingly, a report is submitted & the same is on record of the said case. Extract from the report is as follows:

“Sand mining is directly affecting basking and nesting

habitats of species in SGS. Mining of sand from the riverbed and river banks will negatively alter the river morphology, will increase sedimentation and turbidity and also disrupt the lateral connectivity within the river. Studies have already shown condition of Son River to be at a critical level with severely compromised river flows. Sand mining will only result in compounding what is an already sub-optimal riverine habitat. Any further degradation of this habitat will potentially make Son River uninhabitable for some of the most threatened fauna in the country. The data from offence registers of SGS as depicted in table 1 does indicate that there has been an increase in the number of cases with respect to the illegal sand mining in the sanctuary area. The information is about cases that were caught and processed by the Forest Department. **There are many cases that go unnoticed due to inadequate patrolling as everyone informs that one truck generates illegal revenue of Rs. 12,000 and per night 1000 trucks generate illegal revenue of Rs. 1,20,00,000.”**

39. In view of above, further directions are necessary for the State of Madhya Pradesh to deal with the issue of sand mining.

Sand Mining in the State of Andhra Pradesh

40. We may also note that in the case of *Anumolu Gandhi V. State of Andhra Pradesh in Original Application No. 935/2018*, illegal sand mining causing damage to Krishna river in Vijayawada, Godavari river and their tributaries in the State of Andhra Pradesh and absence of remedial steps was considered. The Tribunal vide order dated 04.04.2019 directed the Chief Secretary of the State of Andhra Pradesh to forthwith prohibit all unregulated sand mining without following the procedure prescribed under the law in the judgment of the Hon'ble Supreme Court in *Deepak Kumar v. State of Haryana*. The Tribunal further directed Chief Secretary of the State to evolve a mechanism to assess and recover the cost of sand mining already incurred in the last three years and initiate

steps to recover compensation to meet the cost of restoration of environment. The Tribunal constituted a Committee comprising CPCB, MoEF&CC, National Institute of Mines, Dhanbad, IIT Roorkee and Madras School of Economics to undertake environment damage assessment within three months and furnish a report to this Tribunal by e-mail at ngt.filing@gmail.com.

41. In this light, further directions are called for to the State of Rajasthan and Andhra Pradesh to deal with the issue of sand mining.

Sand Mining in the State of Rajasthan and Himachal Pradesh

42. The problem of illegal sand mining contrary to the directions of the Hon'ble Supreme Court in Deepak Kumar vs. State of Haryana (supra) in the States of Rajasthan, Himachal Pradesh, Karnataka, Madhya Pradesh and Punjab was also considered by this Tribunal in Himmat Singh Shekhawat vs. State of Rajasthan & Ors. (O.A. No. 797/2018) vide order dated 15.03.2019. the Tribunal founds the reports submitted by the States to be unsatisfactory and accordingly directed furnishing of fresh action taken reports. The matter was directed to be listed on 11.07.2019. The said matter may now be listed on 23.07.2019 along with the present batch of matters.

Sand Mining in Bihar

43. This Tribunal vide its order dated 24.08.2018 in Amarshakti v. State of Bihar & Ors. O.A. No. 596/2018 dealt with the issue of illegal sand mining during monsoon in the rivers Son and Ganga at Koelbar and Patna in Bihar. The Tribunal directed the

Secretary, mines and minerals, Bihar to constitute a team comprising of officers of Mines and Minerals Department and District Magistrate and S.P. Patna to look into the allegations and report compliance to the Tribunal. Report dated 12.10.2018 was received from the Government of Bihar stated that 122 prosecutions were initiated and 297 persons arrested. 32 boats and 287 trucks were seized in District Saran. Action was also taken in District Bhojpur at Ara and District Vaishali at Hajipur. The Tribunal directed the Secretary, Government of Bihar to monitor the matter from time to time and continue to enforce the law.

Sand Mining in Uttarakhand

44. The issue of illegal sand mining in the State of Uttarakhand was also considered by this Tribunal vide its order dated 27.11.2018 in Anand Gopal Singh Bist v. State of Uttarakhand O.A. No. 751/2018 wherein, this Tribunal directed the District Magistrate Nanital and Principal Chief Conservator of Forest, Dehradun to jointly look into the matter. The Tribunal vide its order dated 14.02.2019 directed that the monitoring may continue and the Collector may ensure that Revenue Department performs its duty in accordance with law.

Sand Mining in other States

45. Illegal sand mining in violation of Sustainable Sand Mining Guidelines, 2016 has also been reported widely in the States of

Jammu and Kashmir¹⁷, Goa¹⁸, Kerala¹⁹, Telangana²⁰ and Tamil Nadu²¹.

46. General directions may be necessary even for Bihar, Uttarakhand, Jammu and Kashmir, Goa, Kerala, Telangana and Tamil Nadu which may also apply to any other States facing the issue of illegal sand mining.

Issues

47. Main issues are:

- (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

48. We may now deal with the issues involved and directions required.

¹⁷https://greaterkashmir.com/article/news.aspx?story_id=309365&catid=2&mid=53&AspxAutoDetectCookieSupport=1

¹⁸ <https://timesofindia.indiatimes.com/city/goa/govt-is-ignoring-illegal-sand-mining/articleshow/67908428.cms>

¹⁹ Order dated 29.03.2019 in News Item Published In "Indian Express" Authored by Vishnu Verma in O.A. No. 76/2019

²⁰ <https://sandrp.in/2019/02/26/sand-mining-2018-telangana-and-andhra-pradesh/>

²¹ https://en.wikipedia.org/wiki/Sand_mining_in_Tamil_Nadu

Re (i): 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).

49. As noted in para 12 to 15 above, need for revision of Sustainable Sand Mining Guidelines, 2016 has been discussed by the Tribunal in order dated 04.09.2018. Further discussion is unnecessary. The 2016 Guidelines need revision in the light of report of High Powered Committee in September 2016, failure of Monitoring mechanism followed by State Boards, SEIAs, DEIAs and MSS system developed by Ministry of Mines & IBN with the assistance of BISAG and MAITY and other observations quoted in paras 12 to 15 above. Since no report has been received from MoEF&CC as per report dated 04.09.2018, the MoEF&CC may now take necessary steps in the matter in terms of order dated 04.09.2018 in *Sudarsan Das* (supra) latest by June 30, 2019 and file compliance report by 15.07.2019.

Re (ii): Compliance of Sustainable Sand Mining Guidelines, 2016 as may be revised by MoEF&CC as 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. All such States may take steps in terms of orders dated 04.09.2018 in *Sudarsan Das v. State of West Bengal & ors*, 05.09.2018 in *Mushtakeem v. MoEF&CC & Ors.*, 13.09.2018 in *Satendra Pandey v. MoEF&CC & Ors.* and 16.01.2019 titled Compliance of Municipal Solid Waste

Management Rules, 2016. The Chief Secretaries may monitor and furnish reports as earlier directed on the subject of sand mining.

Re (iii): Effective monitoring mechanism for preventive and remedial measures as directed in orders of this Tribunal, including surveillance system and recovery of compensation.

51. We have found in the discussion above, particularly in paras 8 to 11, 20, 21, 23, 29, 32, 33, 36, 39, 41 and 43 with regard to factual position in various States that monitoring mechanism-preventive and remedial measures is not effective and illegal sand mining is continuing. The same needs to be reviewed in the light of above discussion. The States may review monitoring mechanism in terms of several directions of the Tribunal and guidelines of MoEF&CC. As regards monetary compensation, the same has to be not only equal to cost of mined material and penalty to evade royalty but also to meet cost of restoration and NPV of eco services fore gone forever. Seizure of vehicles or other equipment may be dealt with as per rules and directions in *Threat to life arising out of coal mining in South Garo Hills district* (supra).

Re (iv): Directions in Individual Cases Listed Today. For the discussion and observation hereinabove, case is made out for issuing directions following discussion on the subject.

52. In *Sudarsan Das* (supra) one of the directions was that the Chief Secretaries of West Bengal and Odisha will prepare a restoration plan in consultation with the Central Pollution Control Board (CPCB), Indian School of Mines, Dhanbad and the Respective State Pollution Control Boards (SPCBs). We are informed that Indian School of Mines, Dhanbad declined to comply with the

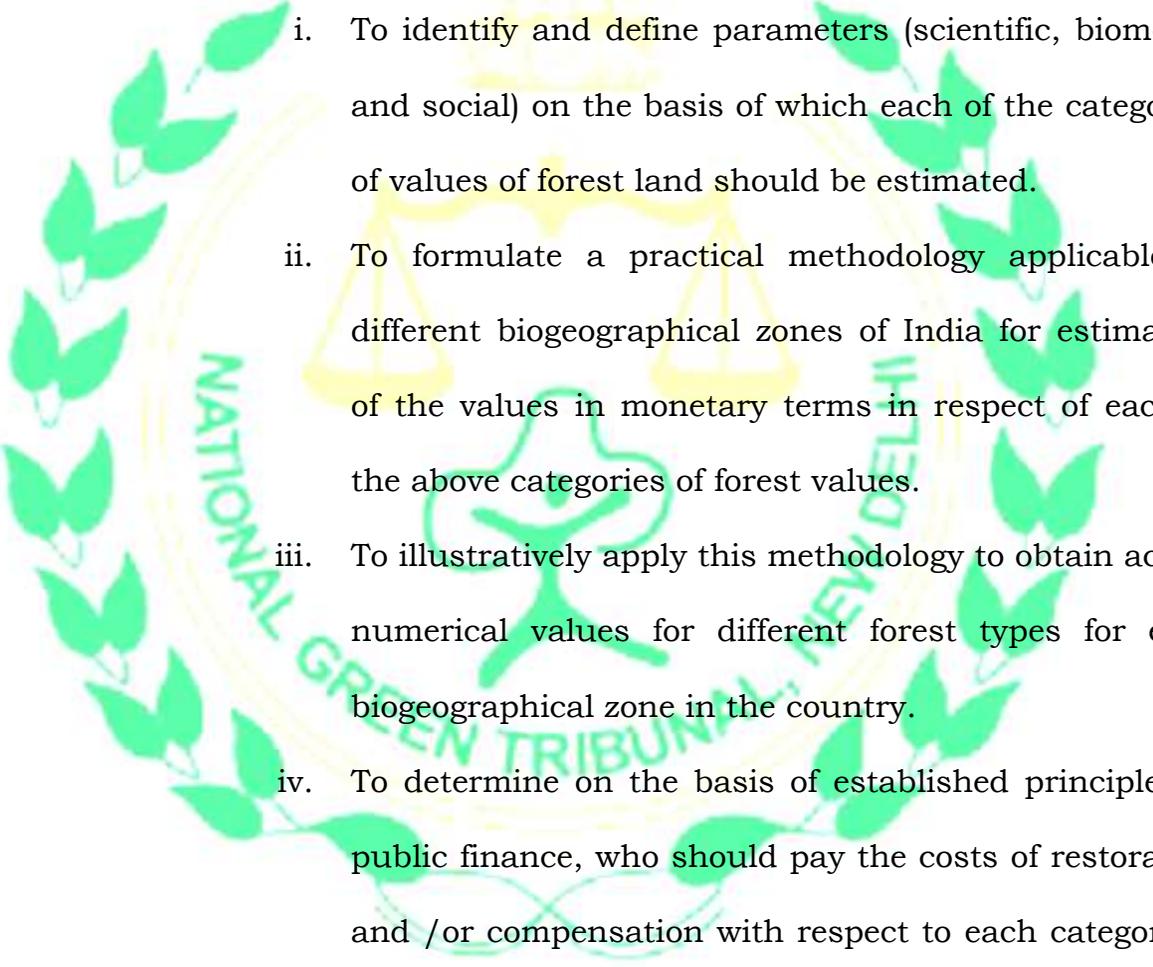
order. This may call for remedial action against defiance by the said institution. Order of this Tribunal is a decree of the Court and can be executed in the manner provided under Section 51 CPC by ordering civil imprisonment or adopting other norms. Violation of order of this Tribunal is also a criminal offence punishable by imprisonment and fine. The Head of the Department concerned is liable to be proceeded against. Thus, the Director Indian School of Mines, Dhanbad will have to be required to appear in person to explain why action be not taken for violation of order of this Tribunal. The State of West Bengal, Orissa, Punjab and Gujarat need to send further action taken reports by 30.06.2019.

53. The State of Uttar Pradesh has not complied with the order dated 05.09.2018. This must not be done by way of last opportunity till 30.06.2019, failing which coercive measures will be adopted. Responsibility for compliance will be of the Chief Secretary.

54. In O.A. No. 173/2018, in view of the fact that term of the oversight Committee headed by Justice Ramesh Kumar Merathia, former Judge, High Court of Jharkhand was six months which period is over, the said Committee may now conclude its proceedings and furnish its final report with findings and recommendations on or before April 30, 2019. Further directions in the matter may be considered on the next date.

Re (v): Scale of Compensation

55. We have held that the scale of compensation proposed by the State of Gujarat does not fully comply with the 'Polluter Pays' principle which envisages that polluter is required to pay for complete restoration of the environment. This principle has been articulated further by the Hon'ble Supreme Court of India in *T.N. Godavarman Thirumulpad vs Union Of India & Ors, (2006) 1 SCC 1* in the context of forests. In this matter, the Hon'ble Supreme Court appointed a committee of experts and following directions were given:

- 
- i. To identify and define parameters (scientific, biometric and social) on the basis of which each of the categories of values of forest land should be estimated.
 - ii. To formulate a practical methodology applicable to different biogeographical zones of India for estimation of the values in monetary terms in respect of each of the above categories of forest values.
 - iii. To illustratively apply this methodology to obtain actual numerical values for different forest types for each biogeographical zone in the country.
 - iv. To determine on the basis of established principles of public finance, who should pay the costs of restoration and /or compensation with respect to each category of values of forests.
 - v. Which projects deserve to be exempted from payment of NPV.

56. Similar criteria may have to be taken into account for arriving at an approximate scale of compensation. The compensation is to

include not only the full value of the illegally mined material but also cost of restoration of environment as well as cost of ecological services foregone forever. It should be deterrent so as not to render such illegal activity profitable. In *Sudarsan Das Vs. State of West Bengal & Ors.* (Supra), it was held that full value of the material, the cost of restoration and the NPV should form part of the compensation to be recovered. There has also to be action against the polluters and the erring officers. The vehicles or any other equipment used for illegal mining are required to be confiscated and to be released only on payment of atleast 50% of the showroom value as laid down in *Original Application No.110(THC)/2012, Threat to life arising out of coal mining in South Garo Hills District v. State of Meghalaya& Ors.* This scale can then apply for all States, as far as possible.

57. We consider it necessary to constitute a Committee comprising representatives of the MoEF&CC, Central Pollution Control Board (CPCB), Indian Institute of Forest Management, Bhopal, Institute of Economic Growth Delhi and Madras School of Economics to prepare a scale of compensation, after including the above components which can then be adopted in whole of the country. The report may be furnished within three months to the Tribunal by email at ngt.filing@gmail.com. The nodal agency for compliance and coordination will be CPCB. The Committee may also take professional service of an expert/ institution in the matter if it so desires.

Conclusions

58. We sum up our directions as follows:

- a) MoEF&CC may now take necessary steps in the matter in terms of order dated 04.09.2018 in *Sudersan Das* (supra) latest by June 30, 2019 and file compliance report by 15.07.2019, as already directed.
- b) 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 may take steps in terms of orders dated 04.09.2018 in *Sudarsan Das v. State of West Bengal & ors*, 05.09.2018 in, 13.9.2018 in *Mushtakeem v. MoEF&CC & Ors.* and 16.01.2019 in Compliance of Municipal Solid Waste Management Rules, 2016. The Chief Secretaries may monitor and furnish reports as earlier directed.
- (c) 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 may review monitoring mechanism in terms of directions of the Tribunal and guidelines of MoEF&CC.
- (d) The Director Indian School of Mines, Dhanbad may appear in person on 26.07.2019 to explain why action be not taken for violation of order of this Tribunal.
- (e) The State 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 may send further action taken reports by 30.06.2019.

(f) The Committee in terms of para 59 above may furnish its report within three months to the Tribunal by email at ngt.filing@gmail.com

59. A copy of this order be sent to MoEF&CC, Central Pollution Control Board (CPCB), Indian Institute of Forest Management, Bhopal, Institute of Economic Growth, Delhi and Madras School of Economics, Chennai by email.

List the matter for further consideration on 26.07.2019.

Adarsh Kumar Goel, CP

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

April 05, 2019
Original Application No. 360/2015
With other connected matters
AS